THE ARCHITECTS' JOURNAL

standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur

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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 49 Cadogan Square, S.W.1.	Sloane 1601/3158
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2450
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	Museum 1783
I of Arb	Institute of Arbitrators. 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197/5176
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
IWA	Inland Waterways Association. 14, Great James' Street, W.C.2.	Chancery 7718
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	Modern Architectural Research Group (English Branch of CIAM) Secretary: Gontran Goulden, Building Centre, 26, Store Street, W.C.1.	Museum 5400
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers, 10, Princes Street, S.W.1.	Abbey5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington	Molesey 1380
NSA	National Sawmilling Association. 14, New Bridge Street, E.C.4.	City 1476
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Langham 1984
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4.	City 5051
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

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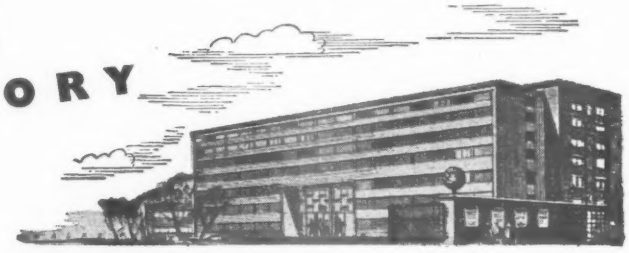

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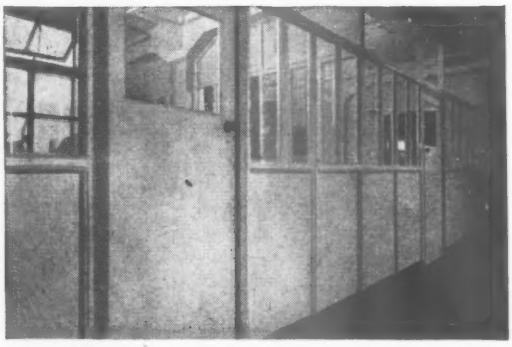

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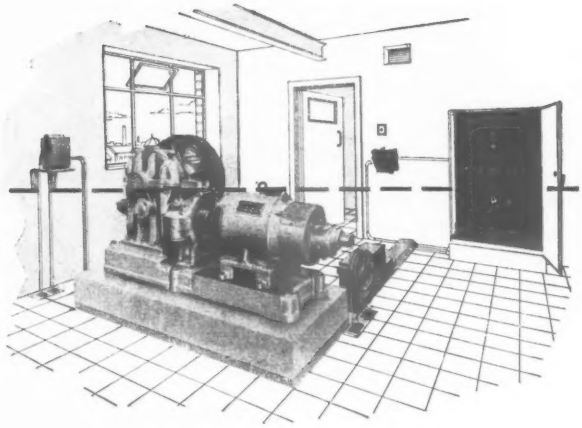

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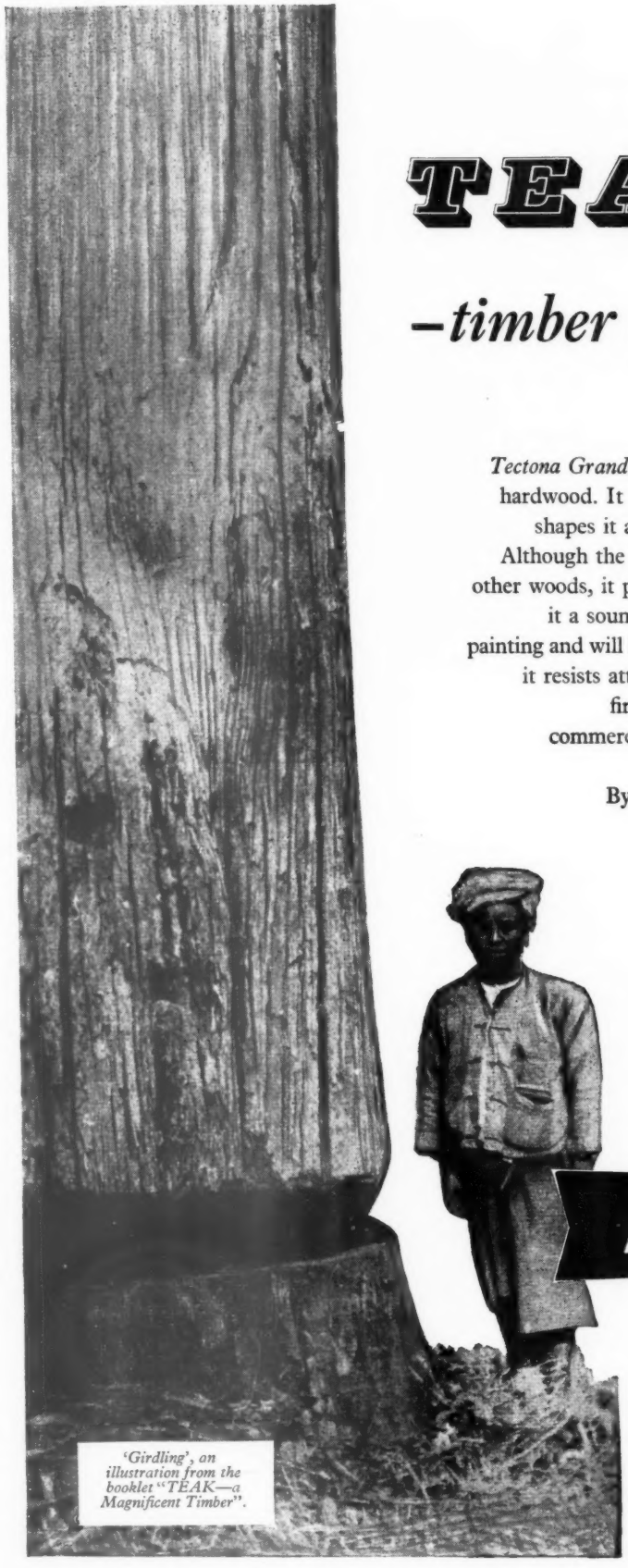

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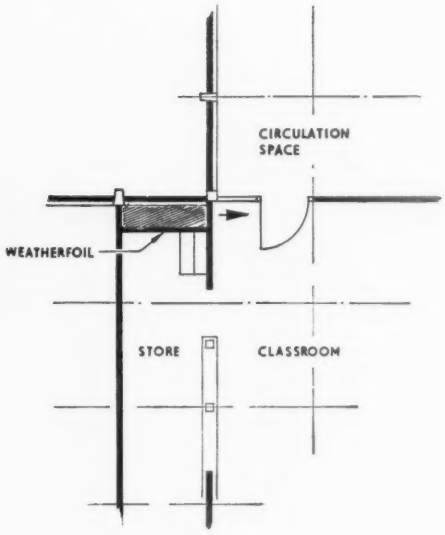

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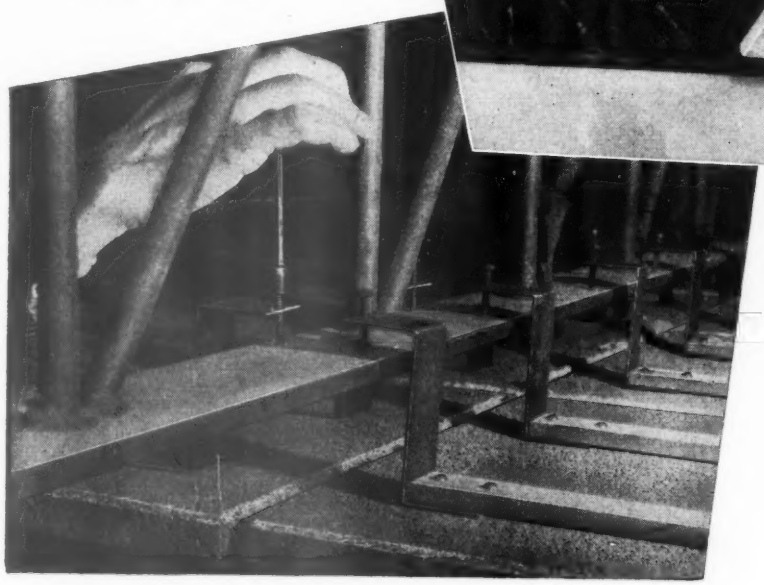

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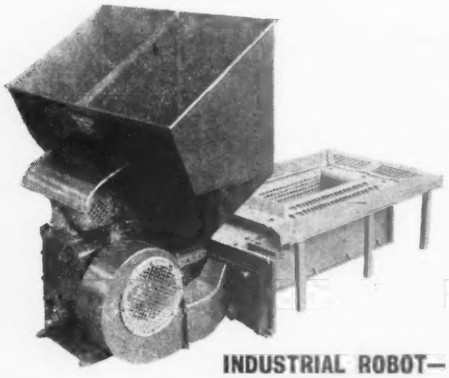

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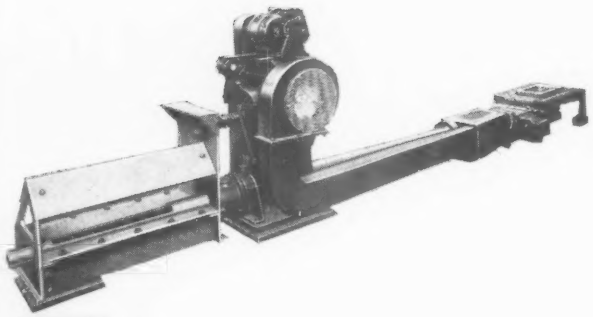

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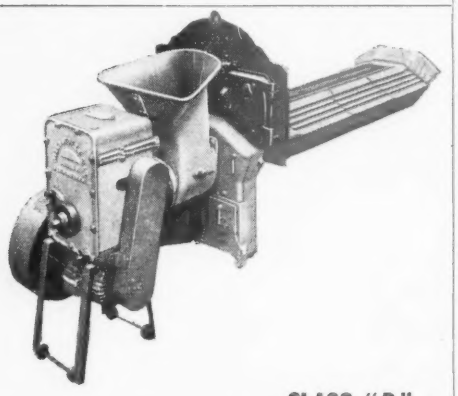

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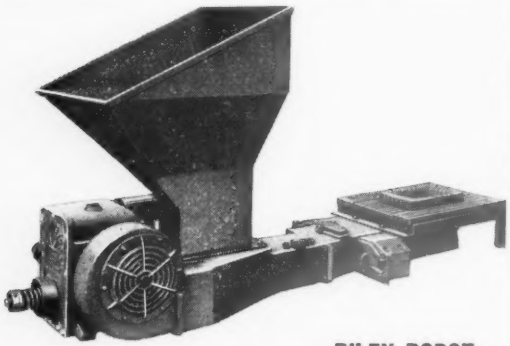

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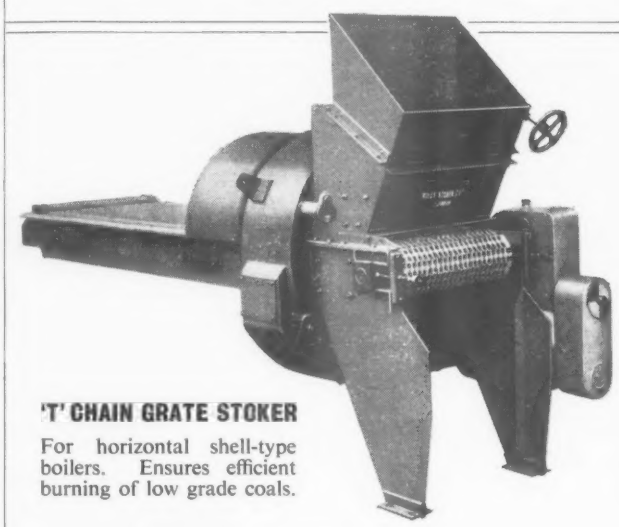

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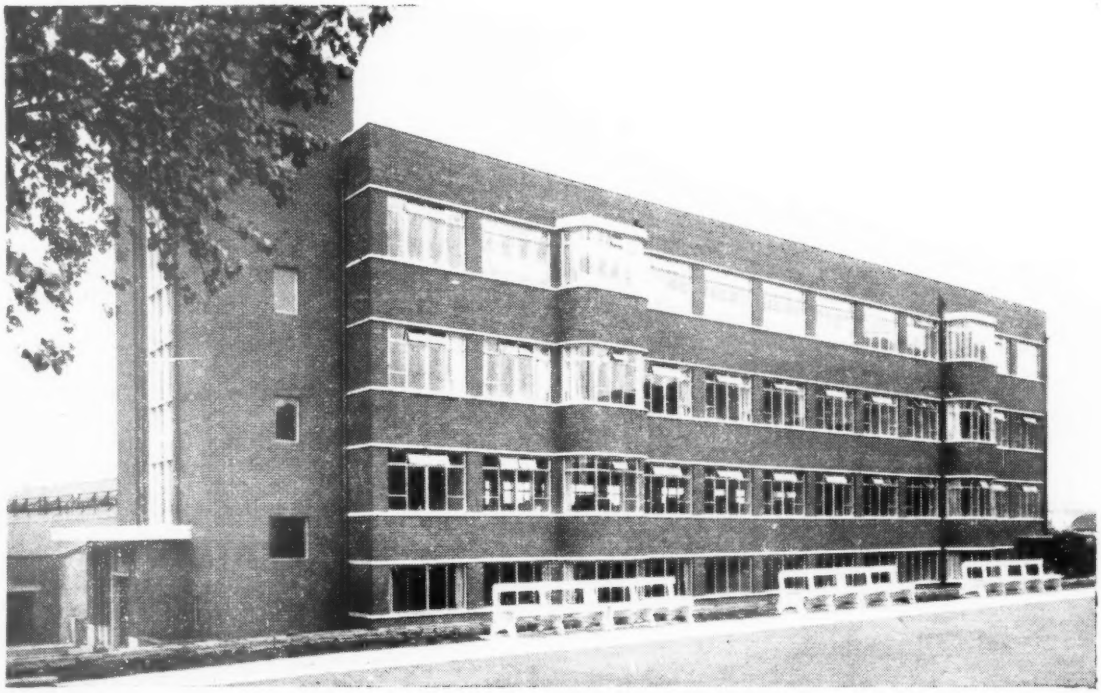

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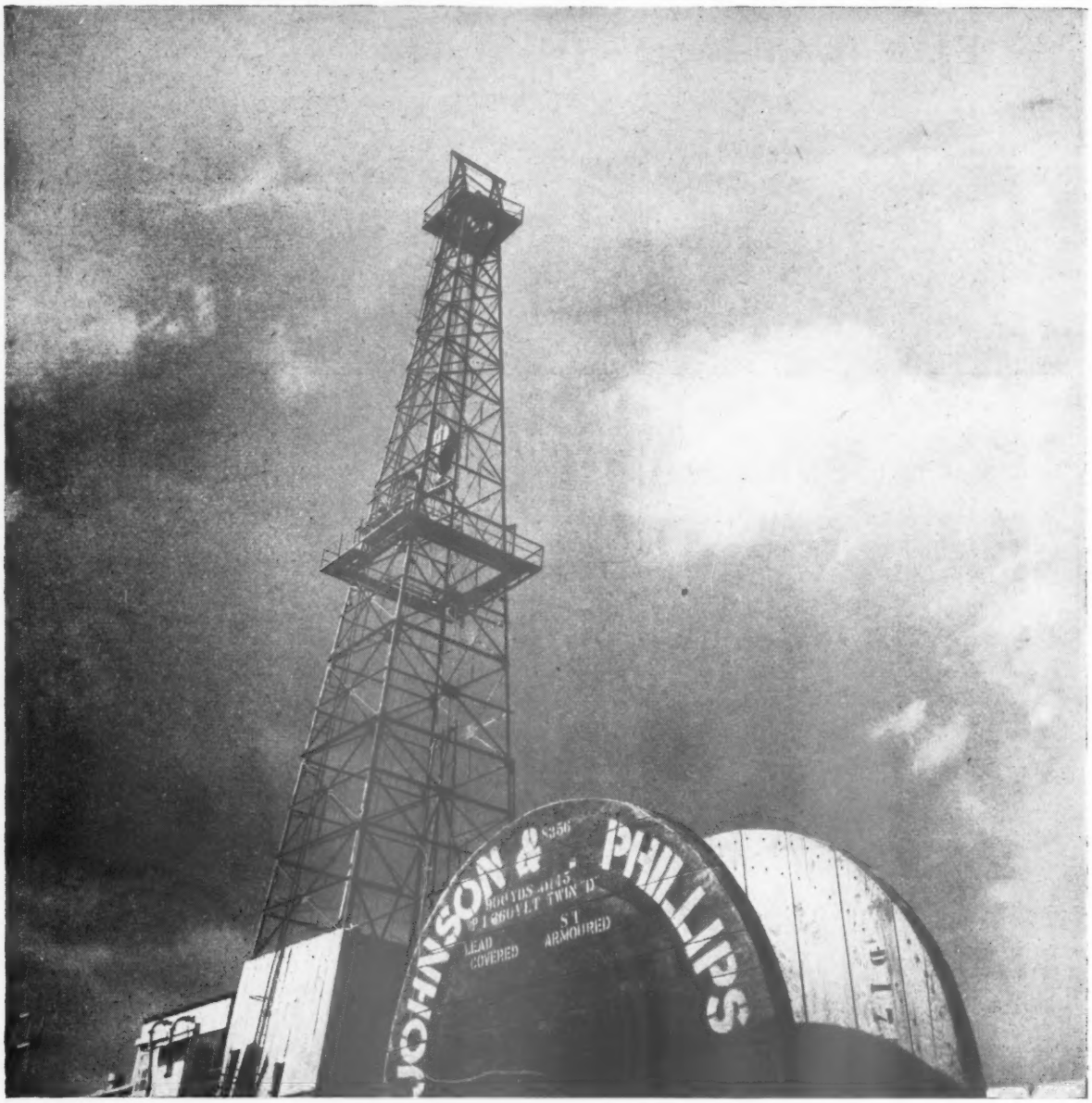

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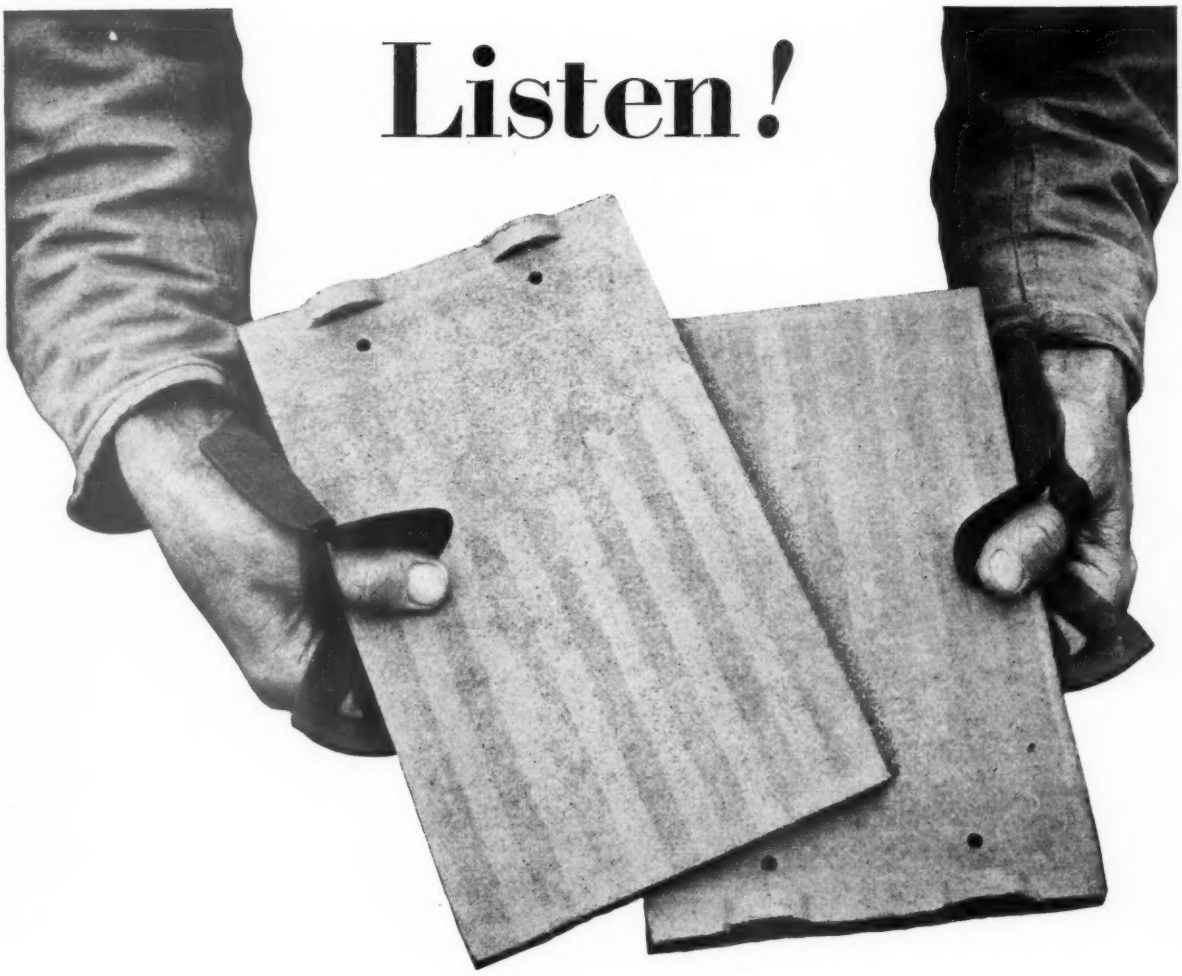

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H. J. W. Stirling, A.R.I.B.A.
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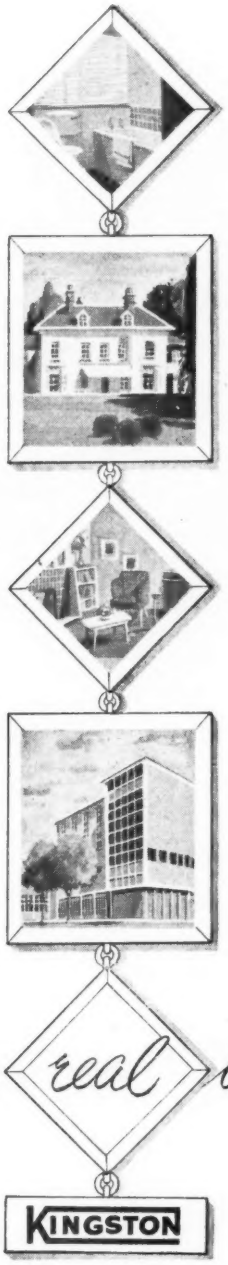

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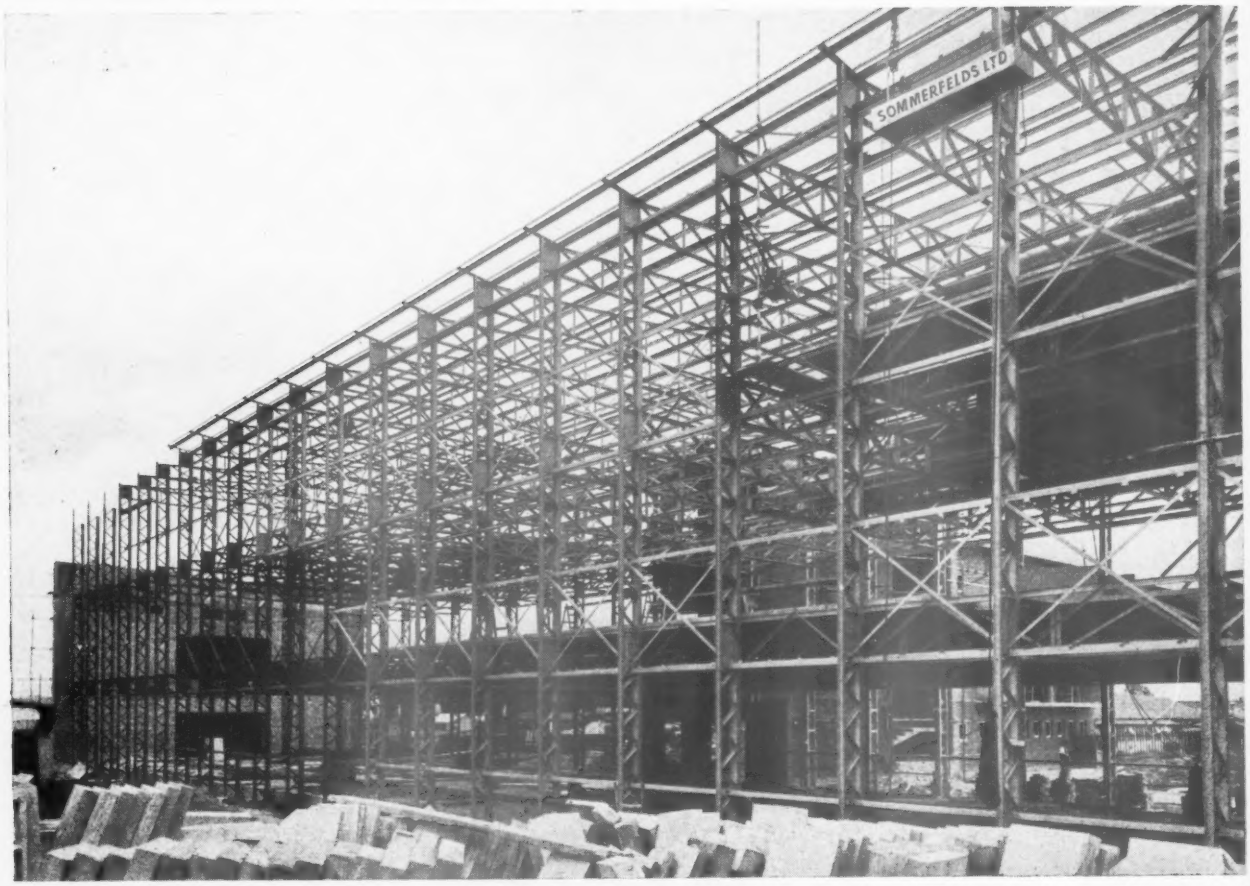

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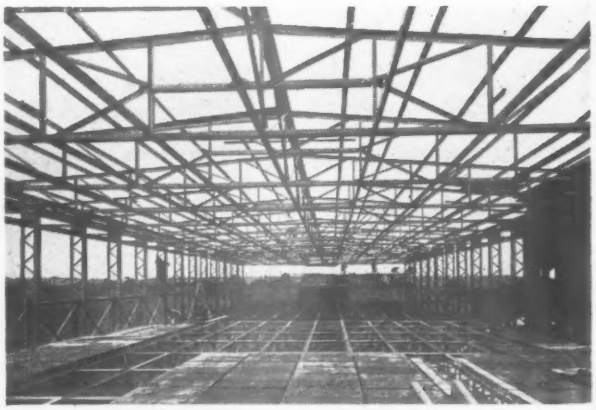

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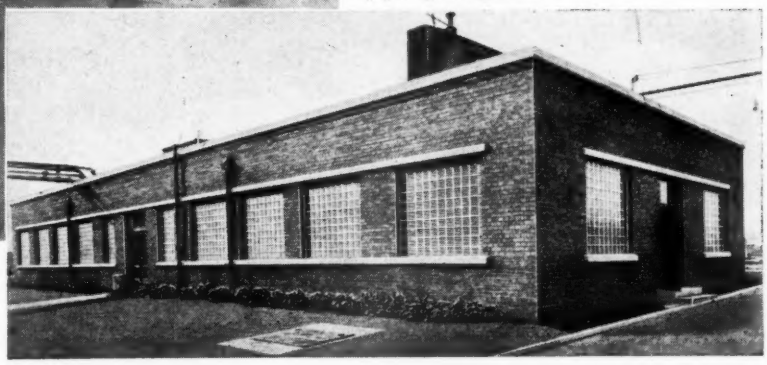

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THE ARCHITECTS' JOURNAL

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COSTS STILL RISING

Next month the building operatives will have another penny an hour under the sliding scale agreement, and the claim for a further general increase of 9d. an hour has still to be considered. The President of the NFBTE says that the 9d. will add £90 to the cost of the average 3-bedroom house, and according to my arithmetic this assumes an average of 2,400 man-hours per house, a figure which can certainly be reduced, for I seem to remember that the last BRS survey gave a *minimum* figure of about 1,600 man-hours, though the worst was 4,600, or thereabouts. The President's other revealing comment is that "our clients are already paying more than they can afford for our work." This, as we know, is all too true, yet people still want houses and seem prepared to pay for them. Steadily rising labour costs can only mean more sheet and slab materials, less skilled labour with more power tools, and more self-building. These things may be all to the good, but on the debit side there will almost certainly be an increasing demand for the shorter-lived and cheaper materials which the building owner will have to use to cut first cost, accepting the increased maintenance so long as he can carry it out himself.

KENSINGTON GARDENS

Mr. Arthur Bryant's letter to *The Times* asking Sir David Eccles to reconsider his decision to fell every noble elm in the Broadwalk avenue, was a melancholy comment upon the "before and after" photographs in the same issue showing the tragic devastation. The elm is the most graceful of the larger trees but its life is short—usually about 150 years. Broadwalk, in the interest of public safety, has had to go the same way as the avenue at Trinity, Cambridge. Perhaps it was asking too much of the Minister—as Mr. Bryant seemed to do—that he should calculate the infinitesimal chances of a diseased bough falling upon a pram or someone's head. That is the sort of risk that can be calculated only by those who do not have to take it.

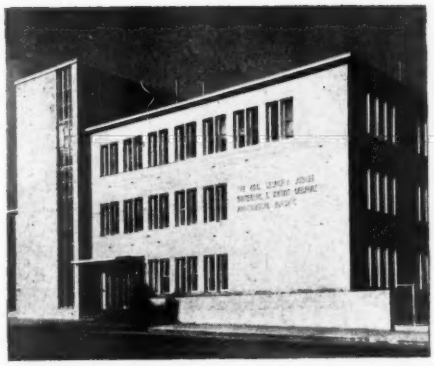
*

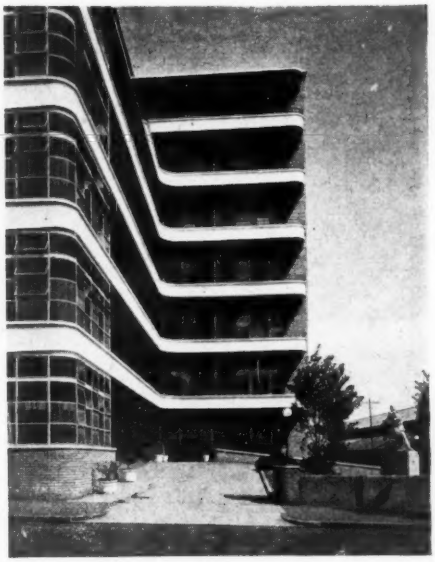
Our great-grandchildren could enjoy another avenue, but whether the new one—"with an inner line of scarlet oak and an outer line of common beach with light shaded copper beach at the ends of the rows and at breaks in the lines"—will ever be an adequate substitute for what has gone is something ASTRAGAL doubts. Why not more elms? With modern devices elms of a fair size could be planted now; Baron Hausmann managed it very well even without modern devices. Kensington Gardens is an 18th century park; its planting should be noble and simple—not pretty.

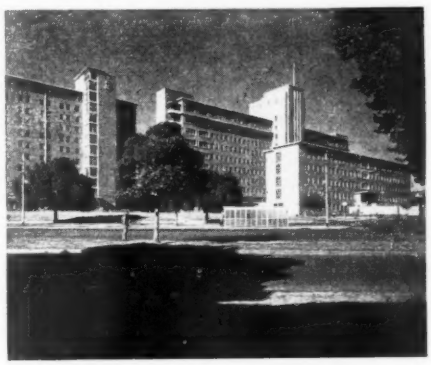
HOLLAND HOUSE

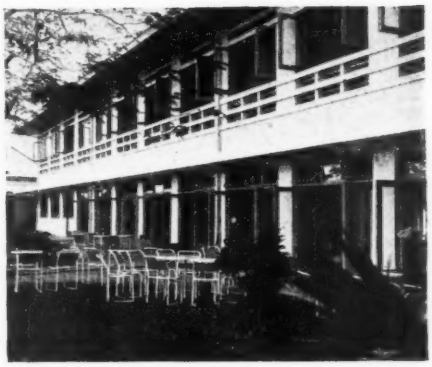
Meanwhile Kensington—in the grounds of Holland House—is acquiring a new park and one which might—like Ken Wood for example—have had an architectural focal point in the ruins of Holland House. But the LCC have apparently decided otherwise. The ground floor arcading on the south façade is to be preserved, some £15,000 spent on tidying up, planting and making good and the rest of the house is to go—even the east wing, which, despite it's mixed architectural ancestry, is full of character and, as some say who have inspected it, good for many years of life yet. Nobody underestimates the difficulties of keeping ruins in these days of hooliganism and dangerous structures. All credit is due to the LCC for its efforts to preserve the garden, ballroom and loggias and for its general landscaping and gardening work in the grounds. But one wonders whether, in fact, a building of the size of the east wing is any more expensive to maintain than a very elaborately planted garden. The comparable figures—if the rival departments could be persuaded to disclose them, should be interesting. The "maintenance" cost argument seems therefore possibly a little rocky . . . but not half so rocky as the argument that "no use could be found for it . . ." a basis for pulling down every abbey in Yorkshire as well as Stonehenge.

ASTRAGAL *comments below on the award of the RIBA's Royal Gold Medal for* 1954 *to Australian Arthur George Stephenson. Some buildings by the firm of Stephenson & Turner are shown here (photographs from the* Architectural Review's *special number on Australia, July* 1948). *Top right, the George V Maternal and Infant Welfare Building, Melbourne, of steel frame and concrete construction with brick infilling. Top, extreme right, another steel frame and concrete building, the King George V Memorial Hospital, Sydney. Centre, right, the* 113*th Australian General Hospital, Concord West, Sydney. It has* 600 *beds, and staff quarters for* 290. *Bottom, right, the* 700*-bed Royal Melbourne Hospital Bottom, extreme right, the first modern hotel to be built in the Northern Territory, at Darwin.*









A fragment of Holland House, with the owl-inhabited woods around, would have made a most romantic sight, as well as being a most symbolic monument to the corpse of English Whiggery. But no—even as ASTRAGAL writes the bricks are falling . . . and none heavier than those unspeakably dreadful rustic seats imported to the grounds, a sad contrast to the charming and elegant little litter baskets. More departmental differences at work here ?

GOLD MEDAL

Everyone takes an interest in the award of the Royal Gold Medal, if only as an indication of how Portland Place is feeling about the art of architecture. Last year there was delight as well as amusement—the French Government having made Corb' respectable—that the RIBA felt able to do likewise. This year the award to A. G. Stephenson of Melbourne, being outside ASTRAGAL'S range, sent him to his files to discover that Messrs. Stephenson & Turner's efficient buildings were on a large scale as well as reputable. (See photographs above.)

*

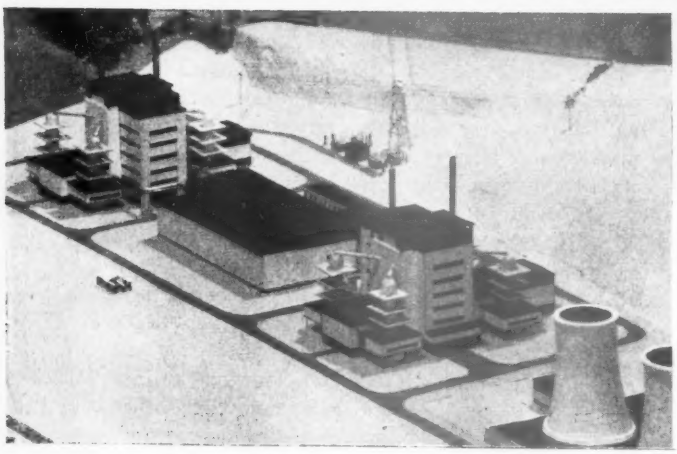
ASTRAGAL must admit that he would like to see the medal go abroad more often. Statistically it seems unlikely that two-thirds of the world's architectural merit is within the Commonwealth. Could not the three-year rule be reconsidered—it is, after all, a custom rather than a rule. To make matters easier could not a Royal Tour be arranged to, say, Brazil, or even to Cambridge, Mass. The " runner-up " of one year should surely not have to wait three years before he is considered a second time.

FLEMISH ART

It was a classic *mot* of J. M. Richards that architects and painters start from different premises and, if he might say so, arrive at different premises, but there is no reason at all why they should not all arrive at Burlington House and enjoy the exhibition of Flemish Painting which is now there. It is easy to get into the habit of thinking of Flemish painting as a crush of quaint Gothic altars with a top dressing of van Eyck, but this show will remind you that the great days of Flemish art ran down to the early seventeen-hundreds and included, on the way, such men as Breughel, Rubens and van Dyck. There is something here for every taste, and although ASTRAGAL in a pot-bellied and rather Rabelaisian post-Christmas frame of mind, could have done with more, larger and rowdier Rubenses, he is not complaining.

*

Speaking of pictures though, had you noticed that the general import of Parliamentary discussion on the new regime in our great national collections is, among other things, that when a picture is sold by one of them the proceeds should go, not to the Treasury as heretofore, but into the coffers of the Gallery. An intriguing prospect arises of dissident back-benchers complaining of the poor trading figures of the Tate or the National, and of enraged art lovers hurling themselves into wheel-chairs,



Architecture for Atomic Energy

An invention which causes the development in a building of an external form which is unfamiliar to the eye is still sufficiently rare for all men—and especially architects—to study for a moment the shapes the brainchild has had moulded over it. The larger photograph above, is of the plutonium producing factory at Sellafield, Cumberland, and the other is of a model of an experimental power station now under construction at Calder Hall, Cumberland. Both designs were by the Chief Architect's Division, MOW. In the centre of the power station is the turbine house, and on each side are two reactors, in which heat is generated in graphite-moderated uranium piles. It promises to be a less monumental building than the massive "twentieth-century cathedrals" of the old coal-burning plants.

(*Photographs : Crown Copyright Reserved.*)

taxis and motor scooters in order to see something at Trafalgar Square, quick, before it goes to an American dealer. Seriously though, may not the result be that the galleries will sell off the unfashionable contents of their cellars at bargain prices, and buy them back again twenty years later at top market rates because they are unique examples of this or that, and no gallery could afford to be without them ?

THE IMPORTANCE OF BEING MACKINTOSH

Charles Rennie Mackintosh died a quarter of a century ago. If he had lived he would have been an exact contemporary of Frank Lloyd Wright. In the early careers of these two men there is much in common—a similar spectacular *fin de siècle* draughtsmanship (Wright still adopts it); the same interest in linear and elongated forms, upright angular chairs and protocubist patterns. There is an even curiously similar theatrical appearance. Yet whereas Wright's position today is assured among the immortals, Mackintosh's is still in doubt.

*

ASTRAGAL has long been an admirer of Mackintosh. Indeed he feels sometimes that, with the great exception of Dr. Howarth, he is the only non-Scottish Nationalist or non-curator of the Museum of Modern Art who has seen nearly all Mackintosh's surviving work. Yet, of latter years, he has also sometimes had an unworthy suspicion that Mackintosh, as a great architect, was perhaps a figment of Dr. Howarth's imagination.

*

Having visited the small but superb Mackintosh exhibition organised by Dr. Thomas Howarth, recently at the RIBA, he extends his apologies to both. Looking again at these astounding designs he can only wonder what Mackintosh might have become had he survived. One must always remember that Frank Lloyd Wright also had his bad period during the 1920's and was written off by many as "a dead" architect. Looking again at Hill House, Helensburgh (may it be preserved), at the Cranston Tea Room in Sauchiehall Street and for the first time at the model for the Glasgow International Exhibition Hall of 1901 and other projects, one can only feel that his importance has not been underestimated.

ASTRAGAL

POINTS FROM THIS ISSUE

The Editors

THE JOURNAL AND THE ABT

The Chief Organization Officer of NALGO points out, in his letter published overleaf, that our editorial in the JOURNAL of December 17 was wrong in saying that the ABT " is the only organization recognized by the ARCUK, the RIBA, the TUC and the government as qualified to act as a trade union for salaried architects." We should have included, no doubt, the IPCS as well as NALGO in this definition. However, it remains that the ABT is uniquely placed, at any rate in one respect, in that it has the advantage of a seat on the RIBA Council.

We are also attacked for "McCarthyism" and for introducing the " red herring " of " un-Americanism." The political beliefs of members of the ABT are not our concern, except in so far as those beliefs may be so unpopular and so widely expressed that architects are put off joining the Association. May we repeat our point? A trade union to be effective must have as full a membership as possible. Every step should be taken to find out what is preventing more salaried architects from joining the ABT. The cause of the indifference felt by many salaried architects towards the ABT must be removed, or overcome, if the Association is to take its place as the major negotiating body for salaried architects in the building team.

PUBLIC RELATIONS AND ALLIED SOCIETIES

The report of the Committee on Private Architectural Practice by Unqualified Persons, published in the RIBA *Journal* stresses that a " wide field exists for increased endeavour in public relations work, by enlisting the aid of the Press, by exhibitions and by contacts with those in positions to influence the employment of architects on both public and private work." It points out that the RIBA does a great deal at a national level, in regard to the national Press and broadcasting and that it is in constant touch with the departments of State concerned with building, but that the RIBA cannot deal effectively with local authorities and private bodies concerned with building. " The latter action," the report states, " must be taken by allied Societies, Branches and Chapters."

As reported in the JOURNAL's special article on the rebuilding of Southampton (April 16, 1953), some provincial architects have been discussing action very much on these lines. It is

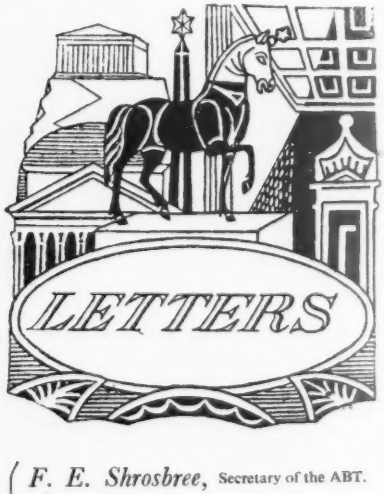
unfortunately true that not all architects are active members of, or even join, their local architectural societies.

The real strength of the profession lies not in 66, Portland Place, but in the ill-unorganized mass of public and private architects of the provinces. Local societies today often only exist because of the extreme self-sacrificing sense of duty of two or three local architects in each area—usually elderly architects, at that.

The report suggests that allied Societies, Branches and Chapters should appoint public relations officers. The result of a society achieving good public relations, will, we hope, be that architects who do not now pull their weight in local society affairs will start to do a share of the work, if only, to put it at its lowest level, to see what can be got out of an efficient go ahead society in terms of more buildings.

FOCUS ON YOU

The JOURNAL'S *Guest Editor, Professor Bowen is, unfortunately, indisposed. The concluding articles in his series, which would have appeared in this and next week's issues will now form a major portion of the* JOURNAL *for January 28.*



F. E. Shrosbree, Secretary of the ABT.

Ruth Glass

"Quite Surprised"

E. H. Miller

J. E. N. Davis, Chief Organization Officer, NALGO

H. Courtenay Constantine & Edward Weaver, F./F.R.I.B.A.

The Case Against the ABT

SIR,—At the open meeting on "Architect's Salaries" you said, from the chair, that the AJ might smear the ABT, but you would give the ABT space to rub it off again. I can only hope that that promise is to be kept as, having allowed time for your leading article to be digested in the atmosphere of peace and goodwill with which even trade unionists associate Christmas, I still regard it as a thoughtless, misguided and, I hope, unintentional example of McCarthyism of the worst kind. At least McCarthy accuses somebody of something. Your article uses the familiar technique of the gossip by saying that somebody said something about somebody else. "You know, my dear, there is never smoke without fire." How disappointing to find such journalism in the AJ.

Of course we have communists in the ABT, and conservatives, liberals and labourites, as well as Christians, agnostics and members of most other sects and creeds found in a free society. The simple fact is that all these groups are in the community and will be found in any independent organization. Are we expected to exclude any of them? Can we do so without the organization losing its political and religious independence? Of course not.

The ABT is a corporate body and as such is vulnerable to the malicious gossip exemplified in your leading article. How can it defend itself? By stating categorically once again that it is non-political, that it has no political objects in its rules, that it has no open or hidden political funds and subscribes to no political organization? Because if that is the answer, we have stated it time and time again and repeat it once more, and if there is still any doubt the Registrar of Friendly Societies can confirm it. Or does a corporate body find its defence in its policies? Because if that provides the answer we have nothing to fear—the provision of Health Centres, the maintenance of building standards, better facilities for Higher Education, improved living conditions for aged people, opposition to cuts at the BRS—these, apart from our purely trade union activities, are the social and economic questions that we have been campaigning for during the past three or four years. Are these policies which conservatives concede to communists, or socialists to liberals? Of course not. They are social questions which affect the contribution the architect makes to the community. Has he not a duty to express an independent opinion on them?

However, the McCarthys throughout the world know that facts such as these will not answer the smear. They are not concerned with truths; the only answer is for decent folk everywhere (and thank goodness they are still in the majority) to deal with the McCarthys as they dealt with defeatists during the war.

Any association which is active in defence of its members is liable to attacks and insinuations emanating from those who have been on the losing side of a dispute and who bear malice because of it.

Nobody regrets more than I do the need to devote so much space to dealing with the political note introduced into your article as, in contrast, your other points are legitimate ones which deserve a serious answer. Firstly, as regards the NFBTO, let me make it clear that the ABT has not joined hands with the operatives against the building trade employers. I thought it was common knowledge that there are better relations between the NFBTO and NFBTE than between employers and workers in any other major industry in this country. In any case, the ABT is not a party to the National Joint Council for the Building Industry and has nothing whatsoever to do with the regulation of wages and conditions of building operatives.

As regards your statement that if an architect joins a union it implies "that he has decided, to himself, that he'll never be self-employed, but an assistant for life." This is utter nonsense. Many of our former members have set up in practice and have parted from us on the best of terms. So much so, indeed, that we have created a special class of subscribers to enable them to continue their interest in the Association.

In his speech at the meeting, Mr. Moncrieff dealt with the reasons why we believe architects must join hands with engineers and surveyors in order to make their representation effective. It is a pity that that part of the proceedings was not reported more fully. Employers consider architects, surveyors and engineers together when fixing salaries or negotiating about them. The futures of all three professions are very definitely linked and the best salary scales for architects in existence are those that were negotiated where all three groups had equal standing and acted jointly—National Coal Board, National Health Service and Civil Service. That has been our experience, but the ABT is prepared to meet and discuss this and any other practical issue with any responsible organization or group of people who, like ourselves, are seeking the most effective method of representing the salaried members of the architectural profession, provided they come to such discussions with an open mind. We are trying to do an effective job for our largest category of members, salaried architects and assistants. Out of our experience we have evolved the ABT as it is at present. It is not necessarily tied to its present form for all time. We believe it can and will continue to develop to meet the needs of its members and the architectural profession generally.

F. E. SHROSBREE.

London.

"Un-Americanism"

SIR,—The red herring which you introduced in stating your case against the ABT is a particularly unpalatable one. It is a sad day when an editorial in the ARCHITECTS' JOURNAL raises the issue of "Un-Americanism" in a British trade union. You say that the ABT has in recent years acquired "a reputation for being Red" and that you "shall be pleased to hear that this reputation is unfounded." You may well find that you have cause to be pleased. But be that

as it may, surely to you at least the point should be irrelevant in judging a trade union. I for one would not care if there were truth in such allegations: trade union members are entitled to freedom of thought. So far in this country, thought control has been permissible only when it could be demonstrated that particular political beliefs injure the interests of a group or of the whole community. And especially today it is surely far more important—for architects as for all other people—to preserve this principle meticulously than to chase a few "Reds" out of odd corners.

Moreover, if architects do not wish to join the ABT because—as you say—as professional men they are reluctant to join a trade union and see "little reason for making a common cause with surveyors, engineers and clerks of works," does this really suggest that the ABT's weakness is entirely its own fault? In this as in other matters it is essential to keep an open mind and to ask whether the architects themselves are not also to blame. Can they really do their job well if they retreat into a professional ivory tower and insist on a caste system?

RUTH GLASS.

London.

"Red Bogey"

SIR,—On receiving my JOURNAL for December 17, 1953, I was ashamed to see it following in the footsteps of the majority of national newspapers, and using the "red bogey" to discredit a union—in this case the Association of Building Technicians.

No doubt this organization does include a left wing element—as do most other organizations of its nature; but it is noticeable that every time a trade union in this country begins to make moves towards bettering the wages and conditions of its members, we are told that it is communist dominated and should therefore be treated with the contempt it deserves.

Surely it is apparent to most that this argument is used to cause a rift, with all its attendant disasters. And now, at a time when salaries paid to architects and architectural assistants in public (and even more so in private) offices are at an extremely low level, and when the ABT is the only organization attempting to combat this in a forthright manner, the old, old story is resurrected—and by the JOURNAL. The central issue to my mind is one on which all of us agree—that higher salaries are required—and if the next man is with me on this I am not much worried whether he is red, white or blue—or all three.

Regarding your further criticisms, I feel that the one which goes nearer the truth in accounting for the reluctance of architects to become members of a union is that which suggests that it is because he is a "professional" man and therefore above "all this sort of thing." It is ironical that this "professional" man will, after some five years or more study, accept a salary in many cases considerably less than that earned by professional men in other fields, and what is more, considerably less than that earned by the non-professional man he so often likes to class himself above.

We all have faith in the RIBA's integrity in handling the affairs of the profession—but study, discuss and propose as it may—are not its hands a little tied regarding salaries? Your remaining points, even if justified, can be relegated to an organizational level, and, therefore, I feel do not provide any real obstacles.

"QUITE SURPRISED."

Portsmouth.

Unity Discouraged

SIR,—Any rise in status of salaried professional architects, engineers or surveyors can only occur if unity between them is achieved. Statements like that in your editorial of December 17 do not encourage this unity:—"little reason for making common cause with surveyors, engineers and clerks of works, three professions of a relatively subsidiary nature to architecture."

As a member of the Association of Local Government Engineers and Surveyors, I agree with Mr. Harry Moncrieff that the Association is ineffective through its negotiations being carried out through NALGO, but it has the advantage, unlike the ABT, in that its membership is limited to those belonging to a Chartered Professional Institution. As a practical step I suggest that the Engineer's Guild, the Association of Local Government Engineers and Surveyors, be approached by the Salaried and Official Architects Committee of the RIBA with a view to combining, to achieve effective representation of professional staff.

E. H. MILLER.

Bromley.

NALGO v. ABT

SIR,—I have read with interest the report of the propaganda meeting held by the Association of Building Technicians at Central Hall, S.W.1, on November 16, and your leading article on this matter. As NALGO is freely mentioned in the report, I hope that in fairness you will print corrections and comment.

You refer to Mr. Moncrieff's case as quite a good one and state that ABT is "the only organization recognized by . . . the government as qualified to act as a trade union for salaried architects." I do not understand this. NALGO has in membership a large number of salaried architects, including chief architects, whose salaries and conditions of service are regulated by the National Joint Council for Local Authorites' Administrative, Professional, Technical and Clerical Services or the Joint Negotiating Committee for Chief Officers of Local Authorities, and NALGO is represented on both. ABT is not represented on either. Further, NALGO has in the past year or so represented chief architects at six arbitrations under the Industrial Disputes Order, 1951. The provisions of that order lay down conditions as to the representative character of a trade union, and a report will not be accepted by the Ministry of Labour and National Service unless these are met: NALGO in fact made these reports. The ABT could not report a single one of them.

The report of the discussion at the meeting includes some strange statements.

It is claimed that ABT "not only wants to negotiate for architects, it does," but no evidence is given in support of this, save a reference to the scales applicable in the National Coal Board and the National Health Service. And there is a becoming modesty about its share in the negotiations as to the latter. The facts about that are that the scales for professional and technical staffs in the architectural, engineering and surveying departments of regional hospital boards were negotiated in a committee of Progessional and Technical Council B of the Whitley Council for the Health Services (Great Britain). The committee comprises 15 members—seven appointed by NALGO (including the Chairman and Secretary), two by the Institute of Hospital Engineers, and one each by six other organizations including ABT. NALGO therefore has seven members on the committee and ABT one. Further, NALGO is represented on the Whitley Council; ABT is not.

So many inaccurate statements were made that it is virtually impossible to deal with all of them. Samples must suffice. One was that at local levels NALGO has no sympathy with, or interest in, professional staff. This is just untrue. Then "Only the ABT could force local authorities to employ architects on their correct grades." This again is untrue. NALGO helped to secure the grades and NALGO can take action in the appropriate National Joint Council or under the Industrial Disputes Order, 1951. ABT cannot do either.

Mr. Shrosbree quoted some strange "examples of trade union work already done by ABT." He agreed that there is a National Joint Council for local authority staffs, which had fixed scales, and claimed "From there the negotiations took place with the individual local authority" and added "At that point ABT could and did negotiate for local government staffs." Where and when? There are over 1,500 local authorites in England and Wales and NALGO negotiates either through joint councils or direct with the lot. I have no evidence of ABT's activities at all. What in fact could ABT do? If there is a difference between a local authority and its staff, or indeed a single officer, NALGO can report a difference under the constitution of the provincial council which covers such staffs. ABT cannot, for it is not represented on any provincial council. If the difference was not settled NALGO could take action under the Industrial Disputes Order, 1951. ABT cannot, because it is not a trade union represented on the negotiating machinery.

Mr. Shrosbree is correct when he states that the majority of the seats on the National Joint Council are filled by NALGO. NALGO fills 23 out of 30. But when he states that at the end of August 725,000 people were employed in local government and that if ABT included all architects, engineers and surveyors they might total 50,000, he misleads. The people employed include manual and other workers who are not within the purview of the National Joint Council; the numbers covered are nearer 150,000, while there are nothing like 50,000 architects, etc., employed in local government.

The facts in brief are that the salaries and conditions of service of architects and engineers and surveyors employed in local government, the electricity supply industry, the gas industry, and the national health service, are fixed by machinery of joint negotiation upon which NALGO is well represented and upon which ABT has not a single representative. This enables NALGO to enforce agreements up to arbitration in the Industrial Disputes Tribunal, while ABT can do nothing.

Architects and engineers and surveyors in these services will advance their interests best by unity with their colleagues in the services, and not by forming small and uninfluential groups outside the recognized negotiating machines.

J. E. N. DAVIS.

Taking Work from Architects

SIR,—We are sorry to note the prominence given to the "extendible house" in your report on the Building Exhibition (A.J. December 3).

The production of such ready-designed houses is bound to take work from the architect in private practice who would otherwise in many cases be employed. We do not feel it likely that many persons purchasing such houses would, as you suggest, ask for professional advice.

The layman may be tempted by the apparent saving in architects' fees which is dangled before his nose, and it is questionable whether a similar house could not be erected in traditional materials for a sum well below £2 4s. per sq. ft. including foundations, drains, and architects' fees.

We feel that ready-designed house firms should realize that they are directly reducing the amount of domestic work for architects in private practice and, as stated above, it is questionable whether the client, in fact, gets a house so much more cheaply than one designed and superintended for him by a private architect.

H. COURTENAY CONSTANTINE,
EDWARD WEAVER.

Bucks.

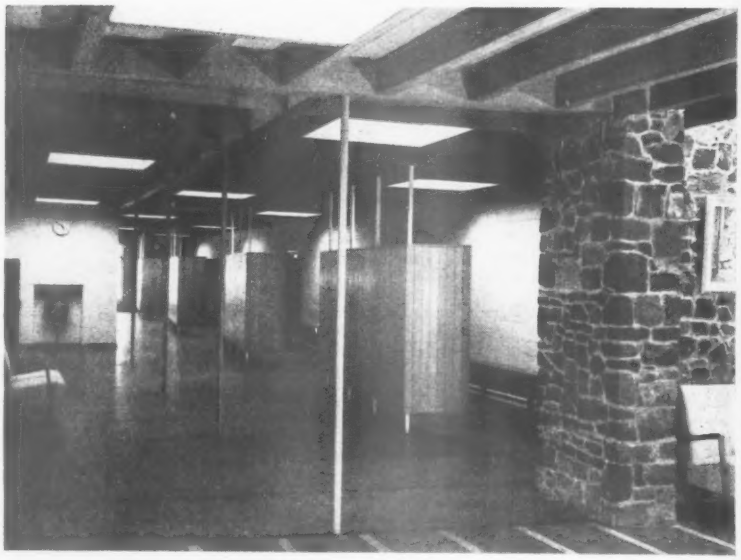
BUILDINGS IN THE NEWS

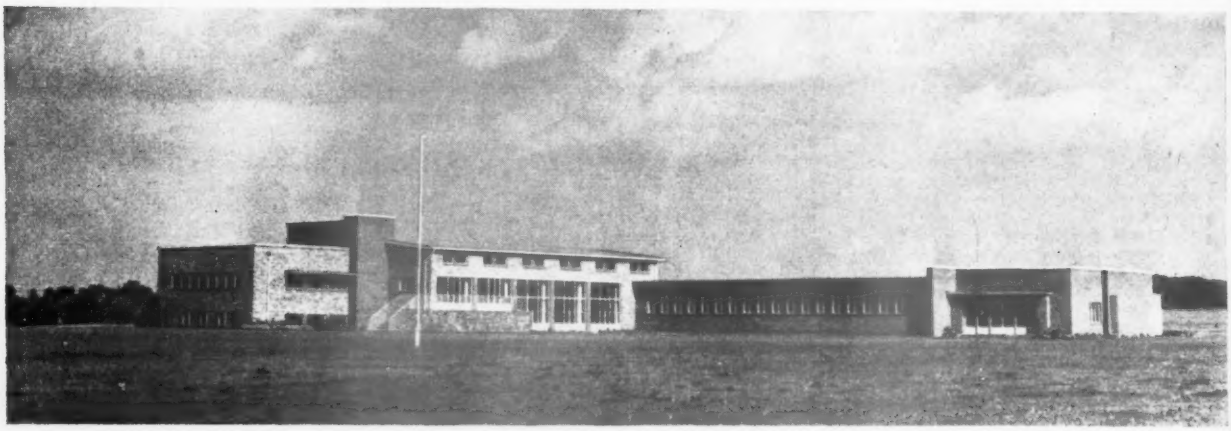
Hospital at Londonderry

The model above shows the £2m. hospital at Londonderry, Northern Ireland, now under construction. Designed by F. R. S. Yorke, E. Rosenberg and C. S. Mardall, the North West Hospital, as it will be called, is a general hospital. There will ultimately be 500 beds.

County Primary School for Leighton Buzzard

This primary school (general view below) for the Bedfordshire County Council accommodates 320 pupils and was designed by the Peter Dunham Group (Peter Dunham, F. M. Widdup, G. G. Burgess, M. C. Harrison) and S. V. Goodman, the county architect. Right, a top-lit corridor with individual cloak screens to each classroom.





EWS

NEW YEAR HONOURS

Knighthood for Edward Maufe

Amongst the knighthoods awarded in the New Years Honours list are Edward Maufe, for services to the Imperial War Graves Commission; Herbert J. B. Manzoni, the Birmingham city engineer and surveyor; and G. F. Earle, chairman of the Associated Portland Cement Manufacturers Ltd. Other awards for those connected with the arts and the building industry are as follows:—

CB—J. H. Forshaw, chief architect and housing consultant, Ministry of Housing and Ministry of Health; A. E. Popham, Keeper of Prints and Drawings, British Museum.

KBE—Sir Thomas Penberthy Bennett, chairman, Crawley Development Corporation; Jacob Epstein, sculptor.

CBE—C. K. Adams, director, keeper and secretary, National Portrait Gallery; J. T. A. Brooks, chief quantity surveyor, Ministry of Works; J. A. Burnett, divisional road engineer, Scotland, Ministry of Transport; R. V. Darwin, principal, RCA; G. Trenchard Cox, director, Birmingham Museum and Art Gallery; S. W. Wooldridge, professor of Geography, London University; for services to Ministry of Housing. H. W. Coales, departmental chief engineer, Ministry of Housing; R. D. Gwyther, senior partner, Coode and Partners, consulting civil engineers; F. Gibberd, architect and town planning consultant.

OBE—K. S. Dodd, departmental chief, housing and planning inspectorate, Ministry of Housing; A. W. Graham, senior architect and surveyor, Department of Agriculture for Scotland; W. Johnstone, principal, LCC Central School of Arts and Crafts; I. M. Leslie, editor, *Builder;* A. C. Manuel, assistant chief architect, Ministry of Works; A. Marsh, director, National Smoke Abatement Society. W. W. Sapcote, managing director, Wm. Sapcote & Sons, Ltd., regional leader, works and buildings emergency organizer, Birmingham.

MBE—B. S. Billingham, resident engineer, Tunis, Imperial War Graves Commission; H. J. Clark, senior technical officer, Ministry of Works; F. B. Dryburgh, city surveyor, Zetland; J. R. Edwards, for architectural services in south west England; R. W. Gardner, senior assessor, Central Land Board and War Damage Commission; R. V. Hayman, architect, for services to Glamorganshire Police Authority; William Robert Ingram, lately superintendent of works, Ministry of Works.

BEM—C. F. Flintoft, chargehand, Ancient Monuments Branch, Ministry of Works.

CMG (Ceylon)—T. N. Wynne-Jones, chief architect, Public Works Department. *OBE* (Ceylon)—G. B. King, Surveyor-General. *MBE* (Ceylon)—E. C. Wijeyesekera, chief engineer, Way and Works, Ceylon. *OBE* (Australia)—S. H. Stevenson, lately architect-in-chief, South Australia. *CBE* (Colonial Office)—J. L. Brown, director of public works, Cyprus. *OBE* (Colonial Office)—N. G. Ferguson, Colonial Engineering Service, state engineer, Kelantan, Federation of Malaya; E. H. Greet, senior engineer, Civil Engineering Department, Office of Crown Agents for Colonies; E. V. Williams, director of public works, British Honduras. *MBE* (Colonial Office)—E. R. Burrowes, for services to art in British Guiana.

RIBA

John Betjeman on "Honour Your Forbears"

The following brief extracts are from a talk given last Tuesday by John Betjeman at the RIBA under the title "Honour Your Forbears."

Proportion is the first thing in architecture. I don't think there are defined rules about it, applicable everywhere and to any style. I think it is a gift, like an ear for music, and I think it requires humility, humour and a constant looking at buildings for anyone to understand it. . . .

There is no such thing as an international style. Salvation lies in regionalism. Just as the efficiency, beauty and character of our railways has been killed by centralization, so our varying county characteristics have been killed by standardization of materials. We have put money first and proportion, texture and outline—so essential to our architecture—second.

Regionalism is very much connected with texture. Travelling about with dear old Frederick Etchells, himself the translator of Corbusier, and with John Piper, the artist, I have had constantly pointed out to me the varying domestic and ecclesiastical styles of our island, which change from county to county so that even Beds differs from Hunts, while we all know how different are the styles of, say, Devon from East Anglia in churches, houses and public buildings. . . .

I will conclude with some remarks on some whom I regard as enemies of the appreciation of architecture. First, but by no means the most formidable, is the thesis writer who is a glutton for dates and facts and bibliographies, whose pages are an unreadable Germanic display of foot-and-note disease, who looks at photographs of buildings rather than buildings themselves, who bothers about architectural style but not about people—this type of man is the robot of the new robot world of expertism and the comfortable little university chairs and stools on which it sits. How easy it is to bewilder students with a display of facts, but how hard it is, without looking at a building itself and without entering into the spirit of the time in which it was built and the personalities of its architects, to keep true appreciation alive.

Next comes the map mentality. This is the point of view which sees everything from the air and does not realize that where we live is for most of us where we are on our feet and walk about. "Ah!" says the map man. "There is a green space in that town, let's fill it with houses." Or, "There is a congested area, let's pull it down and build it up as flats." Or, "there is a congested area, let's pull it down and turn it into an amenity." An amenity is to the map mentality the same thing as it is to the Borough Engineer and the Parks Superintendent—a rockery with some flowering trees, none of them higher than the Park Superintendent himself.

Then there is the committee mentality. Many a promising young architect has been crushed and turned into a toady by having to toe the line of committees.

Dear architects and dear architects-to-be, you are not PRO's, nor professional men, nor mammon worshippers. You are artists.

DIARY

Library Group Meeting. Identification of unknown drawings. At the RIBA, 66, Portland Place, W.1. 6 p.m.

JANUARY 11

Studies in Interior Lighting. J. M. Waldram. At the Lighting Service Bureau, 2, Savoy Hill, W.C.2. 6 p.m.

JANUARY 12

Planning Control—Some Industrial Experiences. P. D. H. Stock. At the Royal Institution of Chartered Surveyors, 12, Great George Street, S.W.1. 5.30 p.m.

JANUARY 12

Slums—Clearance and Improvement. G. S. Freeman will open a discussion at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. 2.30 p.m.

JANUARY 13

Different Kinds of Nursery Schools. Exhibition at 1, Park Crescent, W.1. (Sponsor: The Nursery School Association of Great Britain and Northern Ireland.) Weekdays, 10.30 a.m. to 4.30 p.m.

UNTIL JANUARY 16

Engineer M. W. Leonard recently gave a talk on "Soil Mechanics in the Building Industry" to the Birmingham and Five Counties Architectural Association.

BIRMINGHAM

M. W. Leonard on Soil Mechanics.

RECENTLY the Birmingham and Five Counties Architectural Association met in a Gallery of the Royal Birmingham Society of Artists. The occasion was a talk by M. W. Leonard on "Soil Mechanics in the Building Industry." The President, Cecil Fillmore, opened the proceedings by asking the secretary to read the minutes. . . They were very much the same as all minutes . . . "Tea was served at 5.30 p.m. Your President, Mr. Fillmore, was in the chair and 130 members were present. Apologies were received from. . . New members were invited to come forward and to meet the President. The President asks for more entrants for a sketching competition, open to all members, . . . etc."

Against a background of water colours, the President got up to welcome the principal officers of the Birmingham Association of Building Trade Employers. He then introduced Mr. Leonard, saying that the highest tribute that he could pay was that three people there had already heard Mr. Leonard's talk, and wanted to hear it again. Mr. Leonard started by saying that he had no intention of attempting to blind the audience with science, but he expected that architects did not want to see another Tower of Pisa in this country. It was important then to pay some attention to soil mechanics. Slides then showed the effect on a silo, a railway siding and on houses, of neglecting properly to inspect the subsoil. The remainder of the talk was very fully illustrated and therefore can only be briefly reported. The first action on inspecting a site, Mr. Leonard went on, is to dig trial holes and to make an exact record of what is found. He showed examples of various types of augers for

taking soil samples. Another technique was by using sound, which meant measuring the echo through the soil. The relationship of load to the time it takes a building to settle is most important. The testing load should be left sufficiently long to detect if settlement is likely to arise. Mr. Leonard drew attention to the fact that trees will affect foundations either directly by the roots breaking up the concrete foundations or indirectly by absorbing water from the soil and causing the soil to crack. The use of hand augers and short bore piles, he maintained, was cheaper than strip footings in clay soil. Mr. Leonard showed in some detail the tests made to show the bearing capacity of different soils and the types of equipment available for extracting samples of the soil in such a manner that they are little disturbed in the process. In the questions that followed he was asked what organizations were available for architects to consult, and Mr. Leonard answered that apart from BRS there were several commercial firms available to advise architects, but he pointed out that if asked to advise, they preferred to handle the whole operation from start to finish and not just to be called in when things go wrong. Asked for the price of piling tests, he replied that these were very expensive, approximately £3/4 per ton. Asked the time during which settlement could be expected to take place he replied that in gravelly soil the settlement would be very quick, but clay soils could take anything from seven to twenty years. Asked if you could calculate the amount which raft foundations would settle, Mr. Leonard replied that as yet they could not, with any real accuracy, but would expect something in the range of 5/10 inches. The subject at this stage, he pointed out, was equivalent to the state of physics when Newton was hit by an apple.

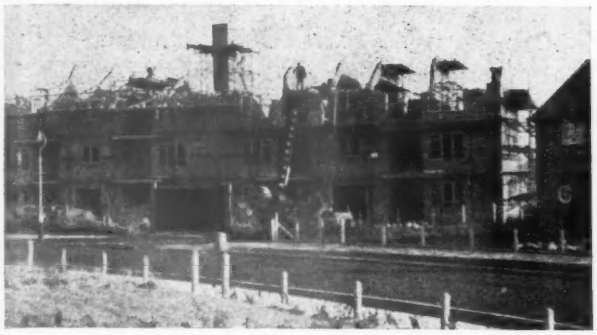
Edward Holman proposed a vote of thanks. He was one of the three architects who had heard this lecture before, he said. He supposed that architects spent most of their time solving problems and he felt that some of the most troublesome of them all were the problems of foundations. He had quite a spate of these in his own office. "Even foundations," he went on, "are not as good as they used to be. I don't know if it enters into the curriculum of the school of architecture, but it certainly should. When people talked about foundation troubles in my youth, I used to cough discreetly and say how unfortunate, but I have had experience of them since—I nearly said 'painful' experience. It gives me very great pleasure to propose a vote of thanks."

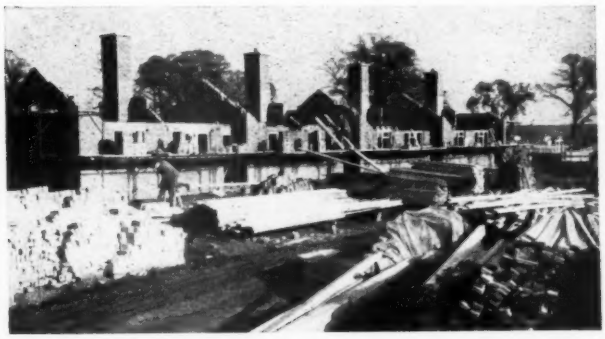
The seventy-odd audience at the recent general meeting of the Birmingham and Five Counties Architectural Association when engineer M. W. Leonard lectured on "Soil Mechanics in the Building Industry." Front row, left to right, H. Lawley Harrod, H. N. Peto and H. L. Hare. Second row, Geoffrey Cox, Maurice Green, junior vice-president, Birmingham Association of Building Trades Employers: E. H. Cochran, senior Vice-President, BABTE: and G. S. Kelly, assistant hon. secretary B & FCAA.

Stanbury Madeley, seconding the vote of thanks, said: "When I came in I knew nothing about soil mechanics, except for an hour's study at BRS. Since then, I have learned quite a lot. The most important part of the building is its foundations, and I have often run into troubles." Mr. Madeley recalled how once when building a cinema, he had a stanchion in the centre which was going to carry about 40 tons. He asked the foreman whether he had reached a good bottom. The foreman said it was and instructed a workman to try his pick on it. On the first blow, he went clean through the bottom of the foundation trench as it happened to be over a disused brick vault. He had pleasure in seconding a vote of thanks.

After the talk the President and the Council took their guests to dinner at the Conservative Club. One of the topics mentioned at the dinner table was the "live" design programmes which have been recently introduced for the Birmingham Architectural School students. This has caused considerable controversy in the past, one of the reasons being that it was feared by some that such responsibilities put upon a student's shoulders would interfere unduly in his normal studies. The fear had also been expressed that such schemes might take work away from private architectural firms. The

For half an hour before each general meeting tea is served. Below left, Miss M. Mackie, the permanent secretary of the B & FCAA, offers sugar to J. F. N. Collins, extreme right. Behind Mr. Collins is J. S. Scott. Behind Miss Mackie, Mrs. E. M. Whitehouse is talking to J. D. Hurd, past president, BABTE, and on her left Maurice Green is talking to G. B. Cox, the immediate past president, B & FCAA. Below right, the president, Cecil E. M. Fillmore, calls on the Hon. Secretary, E. Holman, right, to read the minutes of the last meeting. On the left is the lecturer, M. W. Leonard.





Students at the Birmingham School of Architecture are fortunate in having "live" design programmes. Buildings have not only to be designed but also built, the student therefore being able to relate paper designing with actual site work. One such scheme under construction is shown above. Left, a three-storey block of thirty-six flats, and right, a group of four old people's homes on a site at Garrett's Green, Birmingham. Not shown are two houses which bring the total number of dwellings on a two and a quarter acre site to forty-two. The scheme is sufficiently large to provide some variety of building types and thus gives plenty of scope for the third and fifth year students concerned. Design responsibility is as follows: site layout, Peter Troy: houses, Geoffrey Marks: bungalows, S. Brown and K. Boardman: flats, G. Gibson, S. Bell and P. Morgan. The remaining students in the year whose designs were not chosen helped in the production of working drawings. This is one of three live projects in which the School is engaged. The others are: three-storey flats in Coventry and an ex-servicemen's club and caretaker's flat at Duddeston.

JOURNAL'S representative was glad to learn that the difficulties had now been largely resolved, the Director of the school, A. Douglas Jones, having offered to limit the size of the schemes and to discuss proposals in advance with the president of the association. A typical student's practical programme is shown above.

A symposium discussed "Philistine and Aesthete." at a recent meeting of the Guildford chapter of the South Eastern Society of Architects.

GUILDFORD

A Symposium on "Philistine and Aesthete."

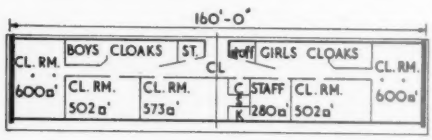
THE Guildford Chapter of the South Eastern Society of Architects recently held a meeting at the Lion Hotel, Guildford. The purpose of the meeting was the discussion of the subject "Philistine and Aesthete" by a symposium consisting of J. Pennycate, the assistant editor and art editor of the *Surrey Advertiser;* R. Brill, principal of the Kingston School of Art; R. W. Paine, president of the South Eastern Society of Architects and principal of the Canterbury School of Architecture (who acted as chairman); W. Gemmer, a visiting art teacher at the Guildford Grammar School from the Art Department of the University of California; and H. C. Budden, chairman of the Guildford Society. The invitations had gone to chapter members reinforced with the plea: "Please make a special effort to come to this meeting and to bring your friends to hear a lively and interesting exchange of views."

The chairman of the Chapter, N. D. Quick, introduced the speakers and suggested that either Mr. Paine or Mr. Brill as the two head masters should open the discussion. Mr. Paine briefly referred to the subject to be discussed and asked Mr. Brill to say a few words. Mr. Brill commenced by saying that he had made no preparation for the evening whatsoever, apart from having a very good dinner. About Philistines he did not know very much, except for his very best pun, when in Ireland a woman had expressed a very great contempt for art—he called her a Philistine and then learned afterwards that her name was Phyllis. He did not think the general public had the slightest interest in architecture. People would visit Guildford to see the Guildhall and the Lion Hotel, but that was not an interest in architecture, but an interest in history. What do we know, he asked, about the architecture which influences our environment? Environment subtly influences us. He suggested that a dining room painted in Prussian blue would in three months have had a definite influence on those who used it. One would expect the public to criticise buildings, both the finishes and the construction, but in the daily press there is nothing except murders and things of temporary interest. His paintings, he pointed out, could be criticised in *The Times*, in libellous terms, but architecture could not be. Building today was not architecture at all, it was merely a question of getting a building up as quickly and as cheaply as one could. Architects were feeble fellows thinking only of future jobs and let down the artists. Architects were nice, normal clubable people with reasonable bank accounts. I am tempted to say that the architect today is the Philistine, but perhaps I must not say that. The new client, a public authority, is extremely keen but terribly ignorant. It seems to me that the professional man will have to be a very much stronger man than he was in the past if he is to avoid the compromise due to working for the committees of public authorities.

Mr. Budden pointed out that nobody really wanted to talk about aesthetes. The aesthete wants to turn *himself* into a work of art. The difficulty for the architect is that his building has to be functional. Artists don't have to consider function. If you ask the artist what the hell his painting is about, you won't get an answer. The architect cannot put up a building without a patron and he has to educate his patron as he goes along. We should have a fund for architects which would enable them to design without the client. How does the architect get on today with present materials? It is like writing music without any phrasing at all. All was level and monotonous, but Mr. Budden was glad to

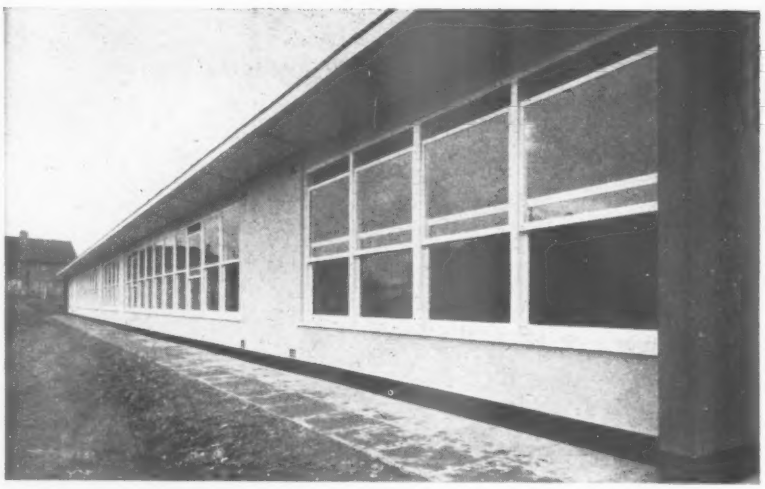
Above, four of the five members of the symposium arranged by the Guildford Chapter of the South Eastern Society of Architects to discuss "Philistine and Aesthete." Left to right, R. Brill, Principal of the Kingston School of Art: R. W. Paine, president of the S.E.S.A. and Principal of the Canterbury School of Architecture: W. Gemmer, a visitor from the Art Department of the University of California, now teaching at the Guildford Grammar School: and H. C. Budden, chairman of the Guildford Society.

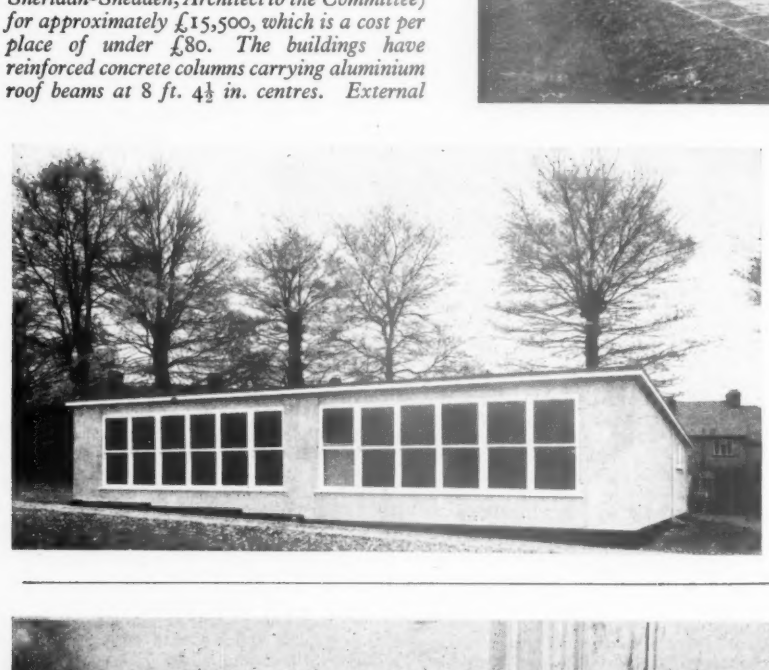
PRIMARY SCHOOL CLASSROOM UNITS

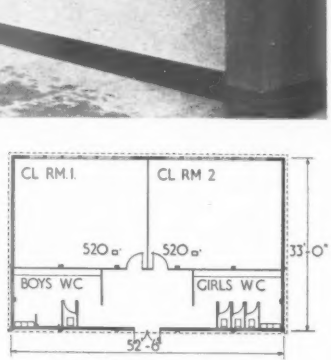


Plan of five-classroom block [Scale : $\frac{1}{32}$" = 1' 0"]

Illustrated on this page are "Ascos" primary school classroom units designed to provide permanent accommodation, quick to erect and at a low cost. The block of 5 classrooms with staffroom, seen right, is for 200 pupils and was erected at West Bromwich for the Birmingham Education Committee (J. R. Sheridan-Shedden, Architect to the Committee) for approximately £15,500, which is a cost per place of under £80. The buildings have reinforced concrete columns carrying aluminium roof beams at 8 ft. 4½ in. centres. External







Plan of double-classroom unit
[Scale : $\frac{1}{16}$" = 1' 0"]

walls are of hollow clay or foam slag blocks, 6 in. thick. Left is a double classroom unit erected at Cheam, for Surrey C.C. at a cost of under £4,500 ; (per place, £55). The designers and constructors are the Anglo-Scottish Construction Co., Ltd.

Part of the Guildford Chapter audience. In the foreground, left to right, are: N. D. Quick, chairman of the Guildford Chapter of the S.E.S.A. : W. S. Mercer, vice-chairman, and L. R. Stedman, hon. secretary and hon. treasurer.

hear that architects don't mind. In our early days, art used to make a great impression on us. The impact today is not so great. Picasso's work Mr. Budden described as glorified doodling, or so at first he thought, but perhaps it was meant to be. "If you have a high level expectation of art, then you miss it in everyday things, in cooking and in speaking. I have a strong suspicion that the reason why people like me are out of touch with modern art is that we expect the wrong thing from it." Finally, he added, we were not prepared, like the Georgians, to scrap the recent past and break with tradition.

Mr. Gemmer stated that the basic aims of architects and artists are so different that we can hardly compare them. The artist of 400 years ago had little freedom and the architect was in much the same position. But he created the type of building which was still popular with architects and artists today. We no longer gave works of art the importance which they once received. During the Renaissance a newly completed painting would be fêted and carried through the streets in a procession. That was the kind of art which the whole populace of a town could understand. It raises the question, however: is it desirable that the appreciation of art be a universal thing?

Mr. Pennycate: "The architects are amongst the most favoured of those in the applied arts today. Poets and authors have to write what will sell. Artists have to paint what will sell, but architects work for an individual client in a far more

favourable atmosphere than other artists." Superficially the architect has to please his client, but in fact, asked Mr. Pennycate, does he? No. He pleases his fellow architects. However, architects are themselves divided and not educated to form a real standard, and therefore how can the public assess what is good in architectural design? The architect can fortunately pick his clients and choose his competition design. He is also largely patronised by enlightened public. It is about time that the public was allowed to exercise its own mind. The statement made that the public was not interested in architecture was very wide of the mark. That section of the public concerned with public issues was particularly interested.

Mr. Brill replied that the architects' answer to the challenge caused by the post-war shortage of building was the mouldering pre-fab horrors we know today. Mr. Brill realised that we could not go on living in the way we did, in mansions, and very occasionally the architect puts forward ideas such as High Paddington. "It seems to me a great pity that so many architects sit back and wait for the rich client." A student today had no vocabulary of design. In a programme he saw in which students were asked to design a house for a Hollywood actress, they could only produce little pre-fab tin huts. Limitations, he thought, were a test of inspiration. If inspiration comes through the limitations it comes through as a work of art.

Mr. Paine pointed out that richness of materials and opportunity did not harm design, it is lack of ability and perception on the part of the architect which is the fault.

Mr. Gemmer: "The increase in the speed of change of things today means that no one has time really to learn the possibilities of a medium."

Mr. Brill: "Nothing worth while can be achieved without an understanding body of supporters and helpers. The vast twentieth century educational effort has not yet found its feet—the rude words on my door which were once at 5 ft. 6 in. are now scribbled 2 ft. lower down." As a practical measure Mr. Brill suggested that the proposed flats at Dover should be dynamited, and that "that stronghold of Philistines in Portland Place" should be done away with.

Mr. Paine suggested that one must be opinionated before one can be called a Philistine. Mr. Pennycate replied that those who were indifferent were the true Philistines.

Mr. Gemmer pointed out that no one had mentioned taste.

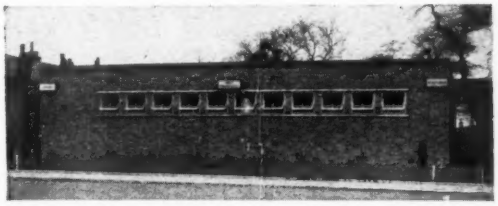
Mr. Brill: "We have never mentioned it in England in the last 20 years. There are no standards of taste whatsoever. It's absolute tripe. If you like a thing, while you are liking it you like it." The public is always wrong, he continued. There is nothing permanent about taste at all. But you cannot live without some manifestation of art. The trouble with the Philistine is that he is sentimental about his art. A real Philistine wants opulence as well. Those who design motor cars know they look terrible, they want the cars to look opulent. Cars today are the same at both ends and worse at the middle.

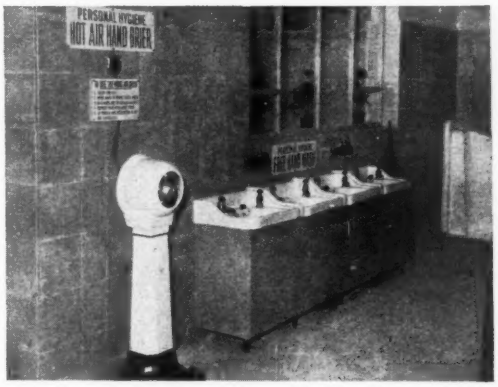
Mr. Paine said that Mr. Brill called architects the chief Philistines of the age. He didn't agree. The architect takes into account what the client wants and usually makes something which works and is also a work of art. He agreed that limitation in art (rather than complete freedom of expression) is desirable, and therefore the architect is best placed to produce works of art. Richness, in itself, had never done any harm to art.

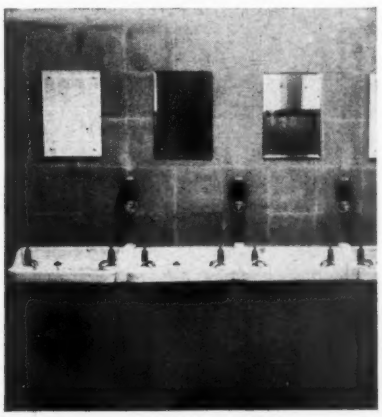
Robert Duncan Scott, proposing a vote of thanks at the conclusion of the meeting, said that the discussion was the most delectable rot that he had heard for many a long day.

PUBLIC LAVATORY AT LEIGH, LANCS.

In 1950 the Director of Public Cleansing of the Borough of Leigh, Walker T. Bone, produced a scheme for local public lavatories. The entire scheme is to cost about £10,000. The top photograph shows the exterior of the lavatories, which are 70 ft. by 28 ft., and constructed of rustic bricks. Below this is a view of wash-hand basins and hot air hand drier. Right, a corner of the room designed for use exclusively by children. Below, hand basins in one of the private washrooms, where services can be obtained on payment of 3d. Below, right, the room reserved for the attendant, where mothers can, again for a fee of 3d., change baby's clothes and have the use of a towel, hot water, cotton wool, soap and baby powder. The duties of the lavatory attendants are clearly defined to ensure regular cleansing and there are also daily inspections.







RESEARCH LABORATORIES

in BLACK FAN LANE, WELWYN GARDEN CITY, HERTS

designed by E. D. JEFFERISS MATHEWS (J. DOUGLASS MATHEWS and PARTNERS)

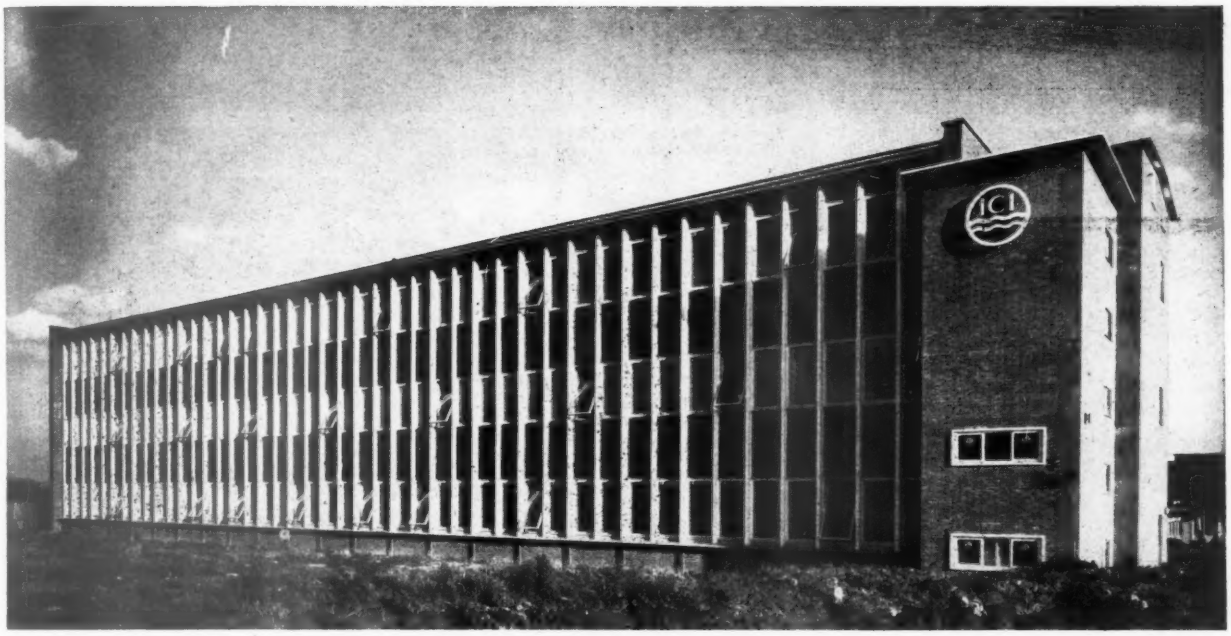
chief assistant, J. POOLE; ICI members of design and building team:

R. H. DIBB, engineering director, J. W. MAYHEW and J. MORRISON, engineering department, T. E. SYMES, laboratories administrator; consulting engineer, F. J. SAMUELY, quantity surveyor, R. E. N. LOWE

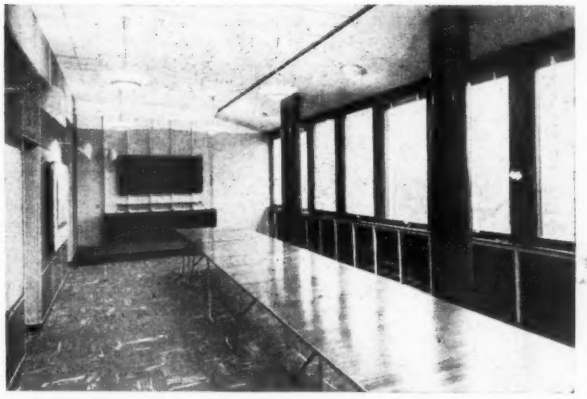
Service distribution building.

This three-storey laboratory and administration building has been built for ICI, Plastics Division, as the first stage of a development which may eventually comprise four similar blocks, as seen on the site plan, opposite. The rapid development of research calls for constantly changing room sizes and arrangement of equipment and in consequence the laboratory consists of little more than an uninterrupted enclosure of space into which the detailed requirements of planning are fitted.

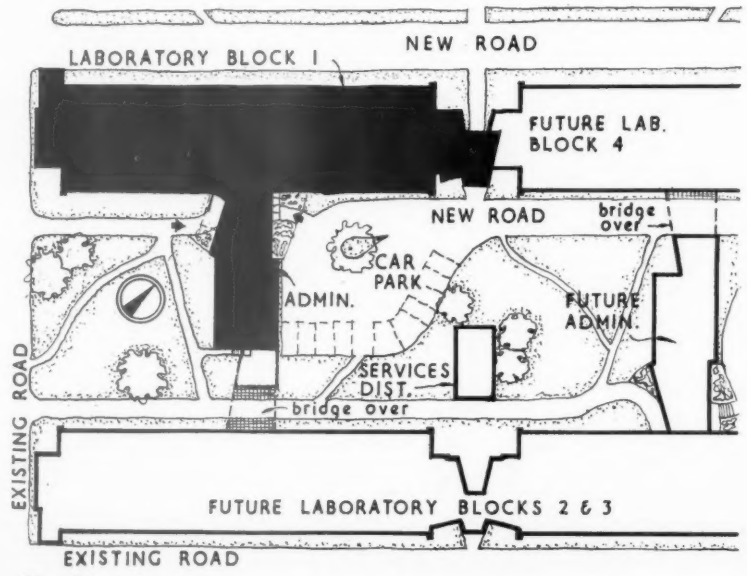
From the south-west, offices on the right.



Above, the laboratory block from the west. Right, the conference room on the first floor of the administrative block. The sloping false ceiling above the windows, which conceals air extracts, will be illustrated as a Working Detail in a later issue of the JOURNAL.



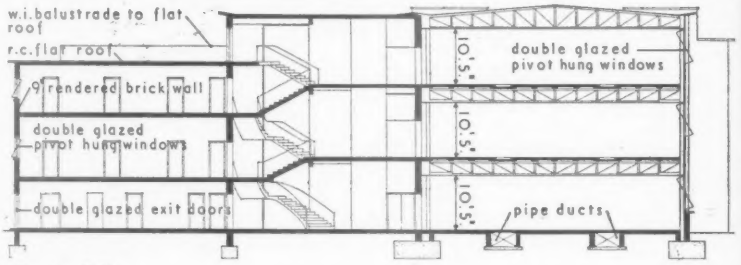
GENERAL.—In 1948 the Plastics Division began to investigate the design of laboratory services and equipment in order to establish a standardised arrangement which would provide the greatest opportunity for freedom in planning layout and would enable changes to be made with the minimum of disturbance to the users of the laboratories. In common with other types of industrial research, experience has shown that rapid change and development in the nature of the research requires, sooner or later, changes either in bench arrangement, size of laboratories or the introduction of additional equipment. Any lack of flexibility would mean comparatively high costs in making alterations and increased disturbance of work. The Division, in collaboration with the technical staff of a firm manufacturing a type of cellular, laminated plastic sheeting, designed and constructed, in a temporary hut, a prototype laboratory in which the essential units to meet the above requirements would be tried out over a period, before the permanent building was erected. The principles of design were based on three fundamental factors: (*a*) standardised demountable partitions related in size to standardised benches, so that movement of the former could be related to the shape and size of rooms; (*b*) standardised design for such services as water, gas, compressed air, electricity and drainage so that alterations merely require the addition or subtraction of stan-



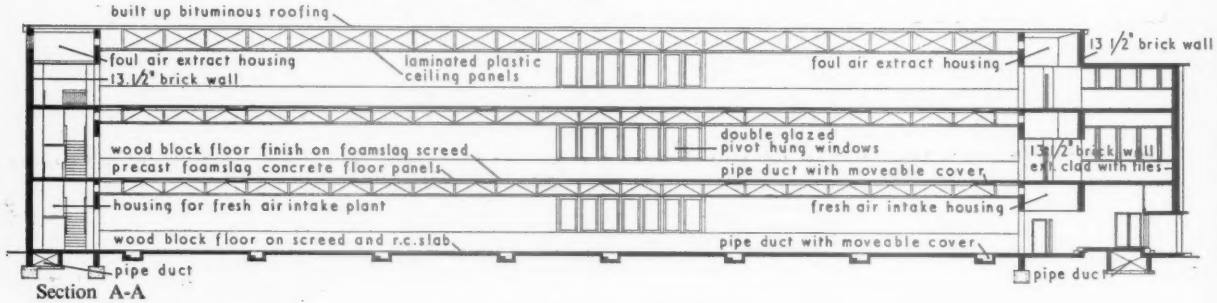
Site plan

dard parts; (c) standardised bench units, including bench tops, cupboards, drawer and sink units and fume hoods. The prototype proved to be generally satisfactory, although it showed where improvement could be made in points of detail, particularly in the design of service connections and in the components of the benching.

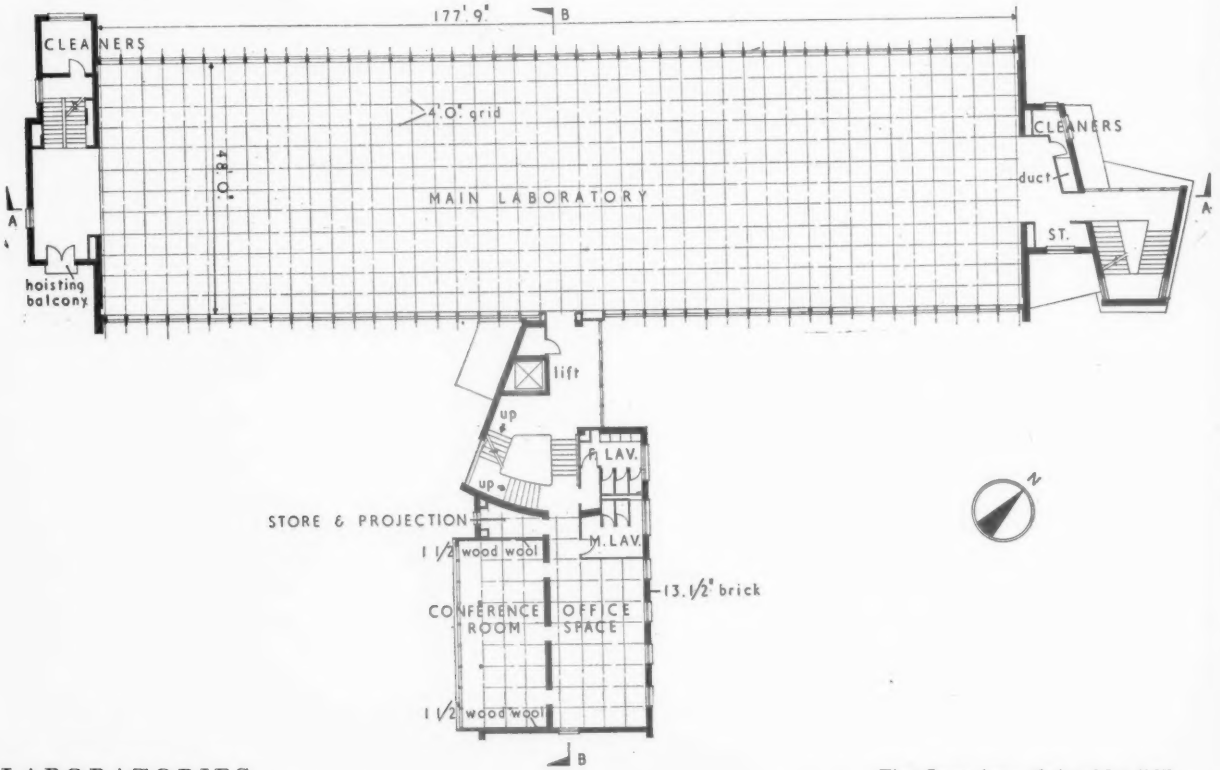
PLAN.—In March, 1951, the architect was asked to prepare designs for a scheme of four three-storey laboratories, each to have an area on each floor of 8,500 to 9,000 sq. ft. Of the four blocks planned, that at the west corner of the site has now been completed. As a result of information gained from the prototype laboratory it was possible for the clients to give very concise instructions for the new building. The 4-ft. module of the prototype was chosen to be used and the flexibility required was that as far as possible within any 4 ft. by 4 ft. floor space water, compressed air, gas, electricity and telephones must be available and that wastes from sinks and fume extraction must also be available from each 4-ft. square space. The scheme, when fully completed, will consist of two H blocks, each pair of laboratories being joined by an administrative wing which contains a conference room, offices, lavatories and a central access to laboratories. The services distribution building is sited in the centre of the scheme to serve ultimately all four blocks and



Section B-B



Section A-A



LABORATORIES

at WELWYN GARDEN CITY, HERTS
designed by E. D. JEFFERISS MATHEWS

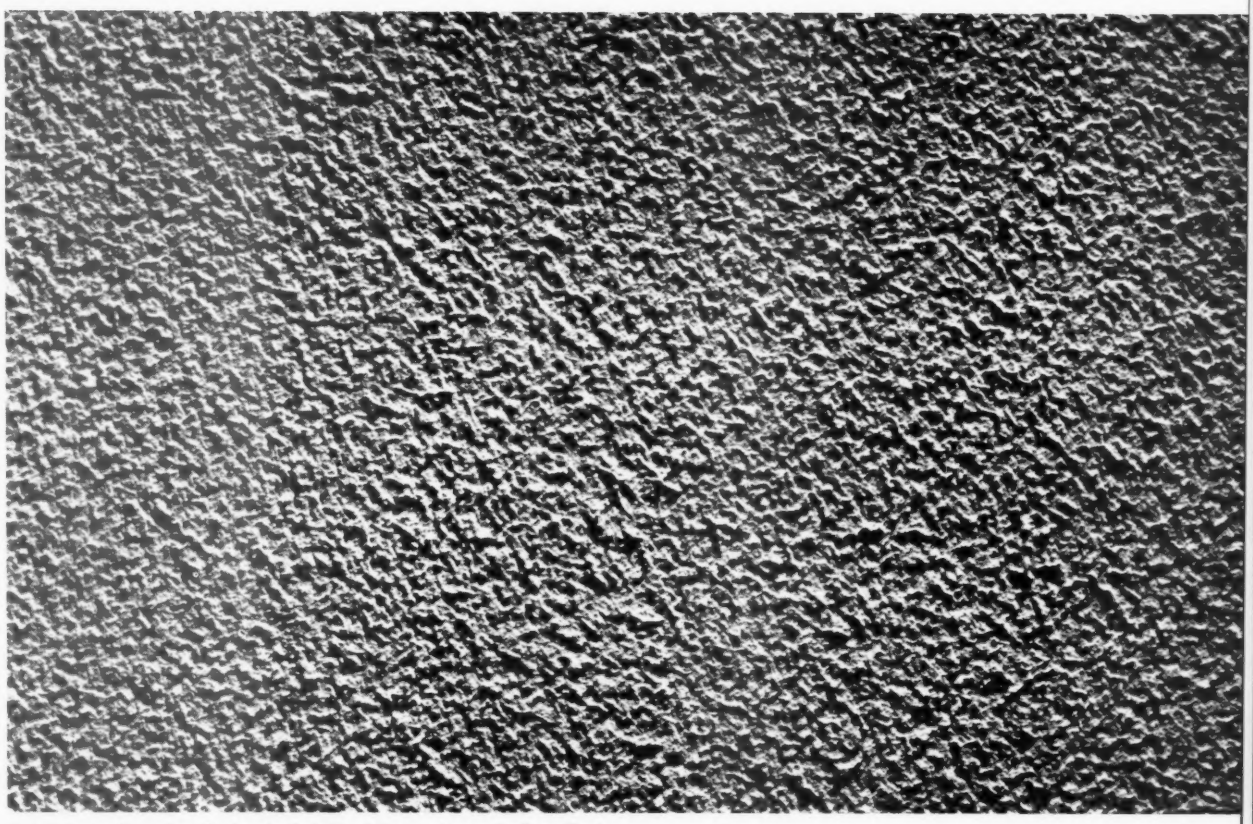
First floor plan [Scale: 1/8" = 1'0"]

(Floor plans are almost similar, except for arrangement of demountable internal partitions.)

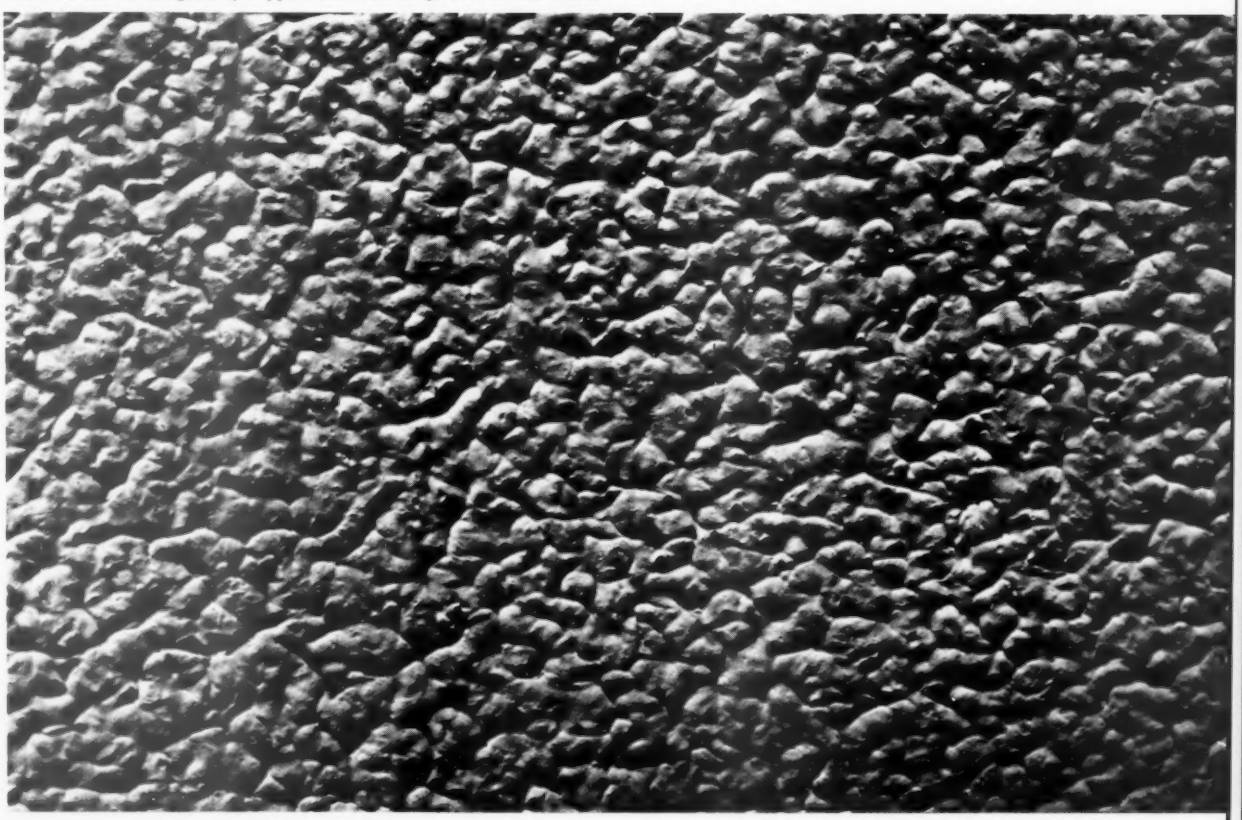
ick wall

ANTI-WATER-PENETRATION TREATMENTS | STONE PAINTS

The Architects' Journal Library of Information Sheets 449. Editor: Cotterell Butler, A.R.I.B.A.



Stic B Stone Covering, finely stippled (Semi-Stone gives a similar effect)



Stic B Stone Covering, coarsely stippled

Photographs actual size

40.C1 STIC B STONE PAINTS

This Sheet describes Stic B Stone Covering and Semi-Stone Covering, their qualities and their applications, and gives instructions for their use.

General

Stic B Stone and Semi-Stone Coverings are at once decorative and protective damp-proofing materials. Designed particularly for exterior use, they have qualities which make them especially favourable for covering green concrete, new cement rendering, asbestos, plaster and exterior facings.

These two coverings share the same qualities, though the Stone Covering, which has a heavier texture, possesses them in a more marked degree than Semi-Stone. Stone Covering lends itself more readily for use in a heavy stipple and is best used where the water-proofing qualities of the product are of paramount importance. Semi-Stone Covering, being thinner than the Stone Covering, will naturally produce a finer stipple. It can be used without stippling, where required. Bearing in mind that Semi-Stone has a higher covering capacity, its use for any given area represents an approximate saving of 15 per cent. in cost over Stone Covering. Semi-Stone is more advantageous than Stone Covering for surfaces like roughcast or pebble dash which require a thinner material for ease of application.

Material and properties

When Stic B Stone Covering and Primer were tested by the Building Research Station, they were described as consisting of " Aqueous emulsions of drying oil, metallic soaps, fatty matter and varnish gums, together with incombustible matter containing titanium dioxide, barium sulphate, zinc oxide and calcium carbonate." The report added that the Stone Covering contained particles of sand and that the Primer contained 23 per cent. of incombustible matter, and the Stone Covering itself 61 per cent.

Tests were carried out to ascertain the waterproofing qualities of the materials and their durability, and it was concluded that they were " likely to resist the penetration of rain under any conditions normally experienced in this country." The Durability Test further established that Stic B does not lose either its colour or its water-resistance more quickly under the action of ultra-violet light, which is a frequent cause of failure in bituminous emulsions.

The Crystallization Test established that the Stic B coating does not prevent the escape of moisture in the background treated, but that evaporation can take place slowly through the film. It is this attribute which makes it possible for the coating to be applied to " green " Portland cement, though it is recommended that a few weeks' drying time be allowed before the application is made.

Tests have also established that Stic B is non-inflammable and fire-resisting for all practical purposes.

Application

Stic B should be applied liberally and should not be brushed out like an oil paint. It is recommended that the final coat be stippled. In the best class of work both coats should be stippled, though it is often preferable not to stipple the first coat on concrete, since the brush finish enables the operator to fill in small air holes. Stic B Stone Paints can also be sprayed, the usual pressure for Stone Covering being 50 to 55 lb. per sq. inch.

Stic B products are supplied ready for use, but on excessively porous surfaces it may sometimes be necessary to thin and in this event only Stic B Transparent Damp-proofing liquid should be used.

Specifications

Material	Full specification	Minimum specification
Stone covering	One coat Stic B Primer. Two coats Stone Covering. Both coats can be stippled for the finest texture but usually stippling the final coat is sufficient. If stippling is not required the material can be brushed on evenly.	One Coat Stone Covering thinned with approximately 20 per cent. of Stic B Transparent Damp-proofer brushed on. One coat Stone Covering, stippled.
Semi-stone covering	One coat Stic B Primer. Two coats Semi-Stone Covering. Both coats can be stippled for the finest texture but usually stippling the final coat is sufficient. If stippling is not required the material can be brushed on evenly.	One coat Semi-Stone Covering thinned with approximately 20 per cent. of Stic B Transparent Damp-proofer, brushed on. One coat Semi-Stone Covering, stippled.
Transparent damp-proofing liquid	One or two coats as required.	—

Covering Capacity

Note: The figures shown are for smooth surfaces. A generous allowance must be made for rough or porous surfaces, and for coarse stipple finish.

Product	Approximate Covering Capacity for one coat.
Stone Covering	150 to 160 sq. yd. per cwt.
Semi-Stone Covering ..	170 to 180 sq. yd. per cwt.
Stic B Primer	40 to 50 sq. yd. per gal.
Transparent Damp-proofing Liquid	40 sq. yd. per gal.

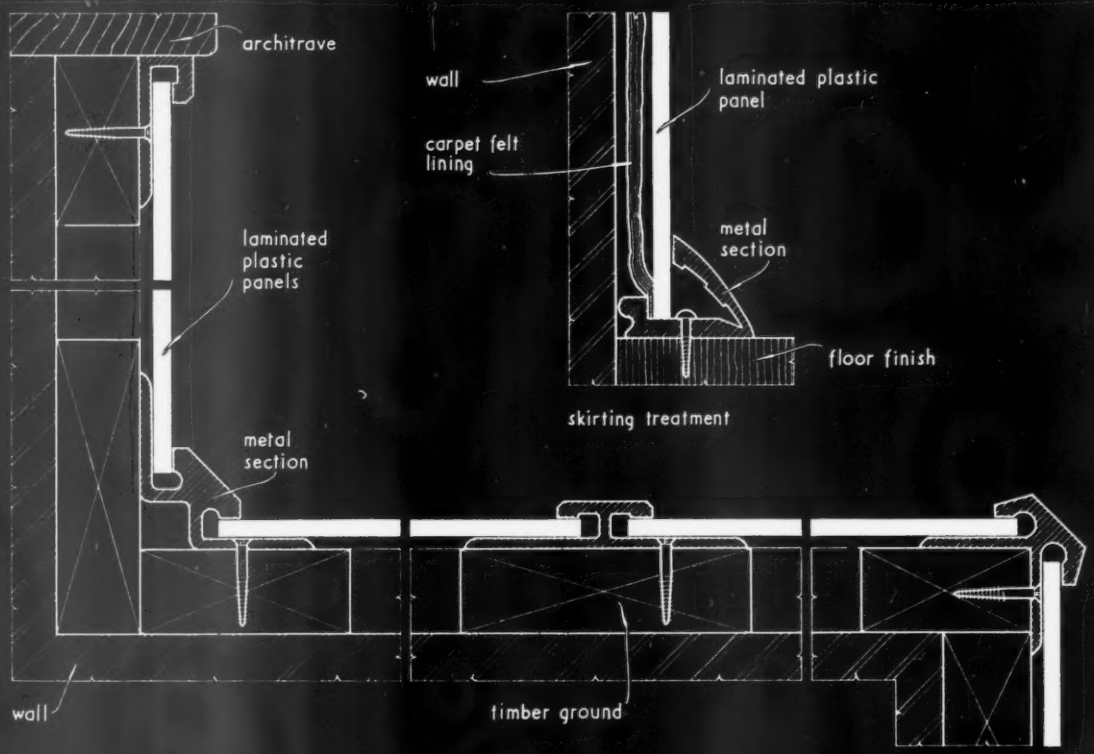
Further Information

The manufacturer maintains a technical advisory department which is available to answer questions and advise on problems relating to this subject generally.

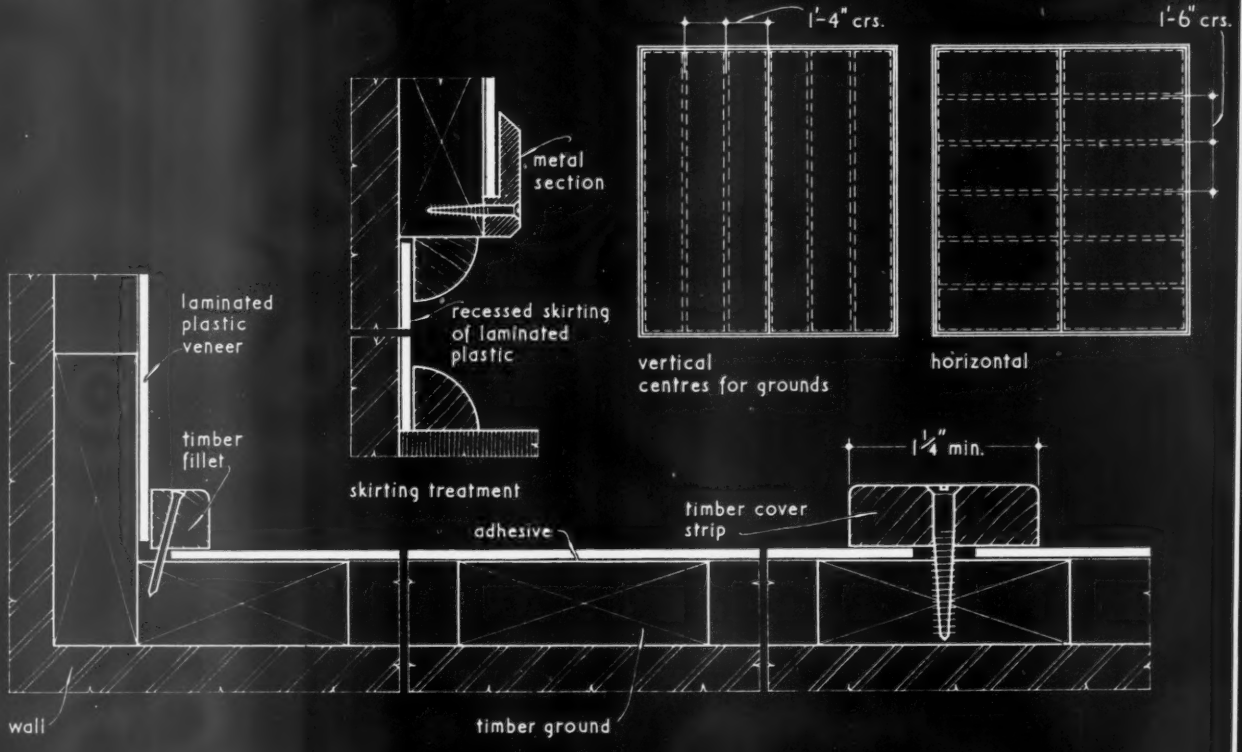
Compiled from information supplied by:

Stic B Paint Sales Ltd.
Address : 47, Whitehall, London, S.W.1.
Telephone : Whitehall 9958.

The Architects' Journal Library of Information Sheets 450. Editor: Cotterell Butler, A.R.I.B.A.



● TYPICAL FIXING OF PANELS IN METAL SECTIONS.



1/16" VENEER USED FOR LIGHT-DUTY PANELLING.

·FORMICA· LAMINATED PLASTICS: PANELS.

15.T8 'FORMICA' LAMINATED PLASTICS: PANELS

This Sheet is one of a series dealing with Formica laminated plastics. It describes the fixing of Formica panels, and also how veneers may be satisfactorily used for light-duty panelling. Sheet 15.S6 gives a general description of Formica and the forms in which it is available.

General

The use of Formica panels is an application of the material which makes precision cutting and edge-dressing unnecessary. The panels are held by metal sections or timber cover-strips fixed to suitable studding. Where the wall surface is good and level it is often practical to screw the fixing sections directly into wall plugs. Where a Formica surface is required that will not be subjected to heavy wear, the $\frac{1}{16}$ in. veneers may be used effectively in place of panels. In this case studding must be provided spaced as shown in the diagrams on the face of the Sheet, the ends of veneers being held captured but not fixed as for panels and with intermediate support provided by daubs of mastic adhesive on the studs about the panel centre.

Design

Where designing panelling in this type of Formica, it should be noted that vertical joints are less likely to harbour dust than horizontal ones and that the standard sheets may be economically cut with this end in view. The simple device of filling in the spaces between doors and windows so that their lines are continued by the joints in the sheets, may be improved upon æsthetically if the full width of the sheets is used in most cases and the required shapes for openings cut from them.

Fixing

The timber grounds must be well secured to the wall and irregularities evened up. Panels may be roughly cut, as all edges are masked. They should be completely free to move in the fixing sections: if rigid fixing is necessary under certain conditions, it should be along one edge of the panel only. The fixing sections may be of metal or in the form of cover-strips and beadings of timber or plastic. The edges of the metal sections can be lightly hammered, after fixing, to grip the panel edges.

Where panels are wider than 30 in. the centre of the panel should be supported by a packing-piece and mastic adhesive. It is possible to use the $\frac{1}{16}$ in. veneer for the type of panelling described, but where this is done, the sheet must always be supported at the centre, as it is less rigid than the panel material, being finished on one surface only.

The drawing on the face of the Sheet shows a typical panel assembly using metal sections. The skirting detail shows a lining of carpet felt behind the panels. It is tacked to the grounds, if desired, to prevent the panels from rattling and it also assists sound and thermal insulation. The moulding at floor level is screwed to the floor finish and tapped closed.

Veneers: Grounds must be provided, as shown in the diagrams. The edges of the $\frac{1}{16}$ in. veneers may be secured either by timber cover-strips or by small metal sections and intermediate support provided by mastic adhesive. The recessed skirting treatment shown ensures that the light-duty panelling is clear of damage from furniture and the like.

Formica veneers are not absolutely flat but slightly concave on the finished side. This helps the contact of the sheet with the adhesive and can be artificially induced, where it is not sufficiently pronounced, by wetting the reverse side and shaping. The veneers should be dried out completely before fixing.

As with panels, the veneers must not be rigidly fixed but left free to move in the sections or cover-strips. The cover-strip for the lower edge should be fixed first, the daubs of adhesive then being applied to the grounds near the centre of the sheet. The veneer is inserted and pressed firmly against the adhesive and the other cover-strips then applied. The cover-strips may be mitred or butt-jointed at intersections and may be screwed or pinned to the grounds. Nailing is not very satisfactory with light sections.

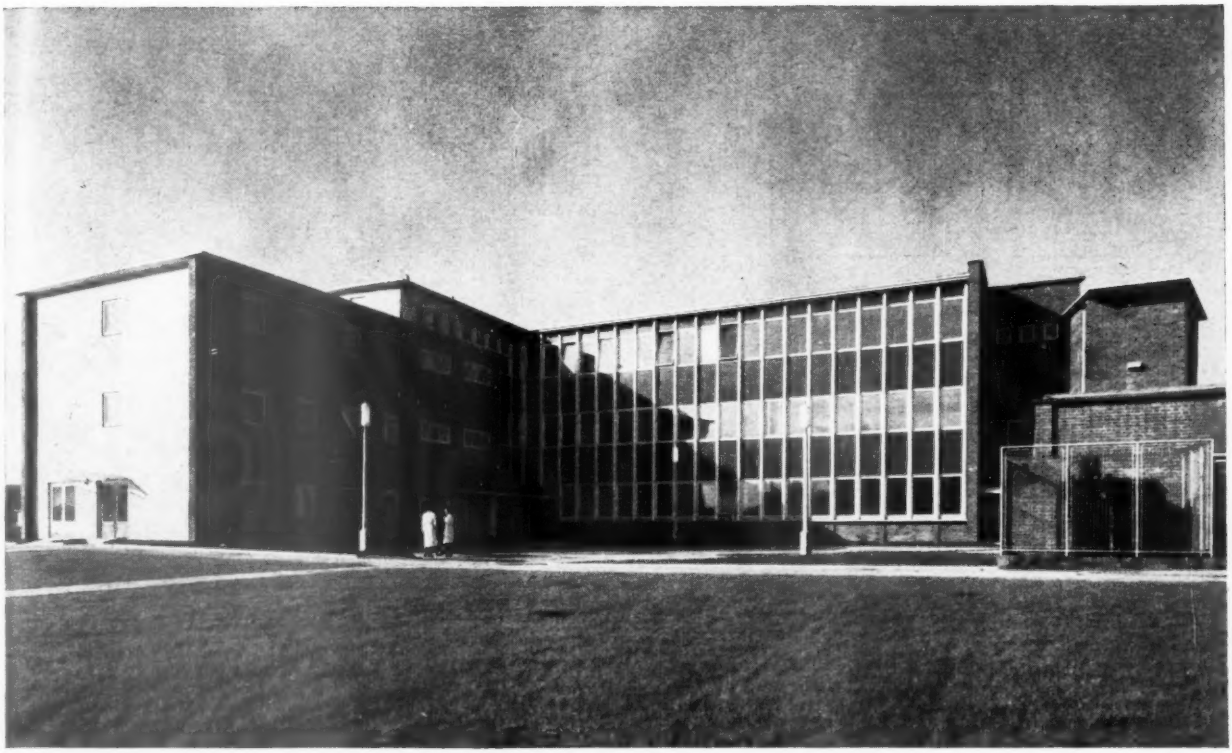
The adhesives recommended are Evo-stik SH12, Titebond, and Boscoprene (with Boscatex Primer 5R). These are all of the spirit-solvent type and should be allowed to become very tacky, almost dry, before the joint is made. They are also sensitive to heat and where a temperature of over 148 deg. F. is anticipated, should be augmented by a screw at the panel centre.

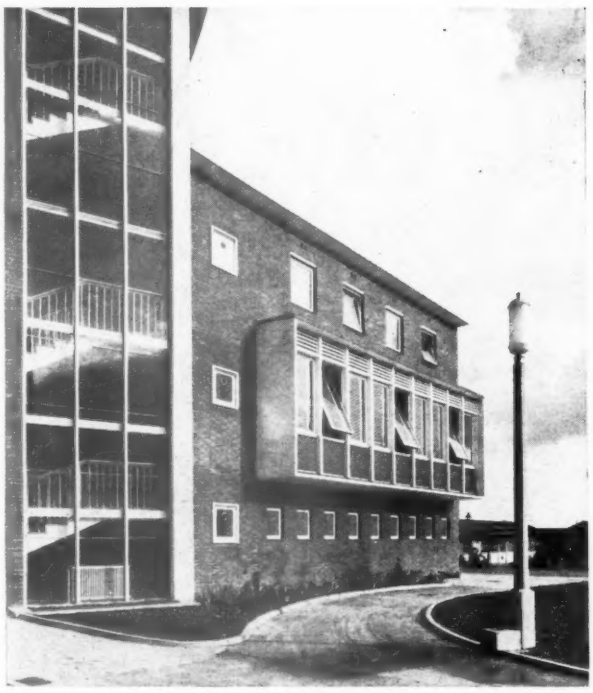
Further Information

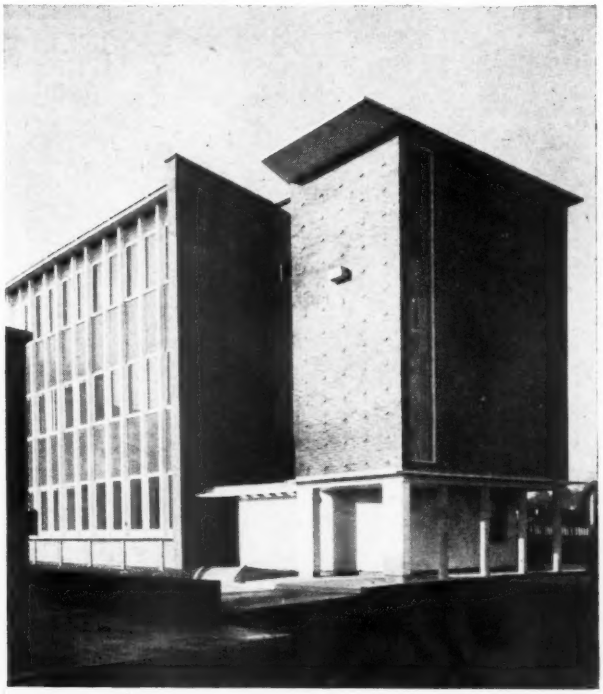
The manufacturer maintains a technical advisory department which is available to answer questions and advise on problems relating to this subject generally.

Compiled from information supplied by:

Thomas de la Rue & Co., Ltd.
Address: Plastics Division, Imperial House, 84/86. Regent Street, London W.1.
Telephone: Regent 2901.
Telegrams: Delinsul, Piccy, London.







Top, general view from the south-east. Above, the administration wing from the west. On the left, the windows to the south-east staircase and on the right is the projecting window to the conference room. Above right, the north-east entrance and staircase block, from the east.

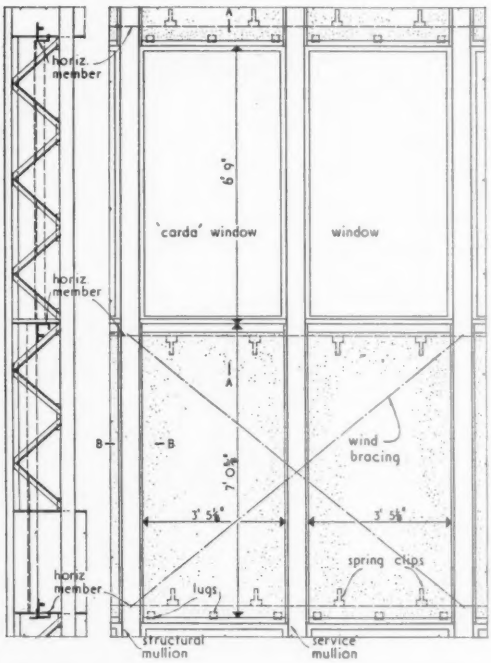
break down services to the needs of each block.

CONSTRUCTION.—The requirements of complete flexibility in the laboratory space necessitated a clear unsupported span, between perimeter walls, which is 48 ft. across by 176 ft. long on each floor, without obstruction. The lattice steel framework, including the roof trusses, used 196 tons of steel, compared with 350 tons, which would have been

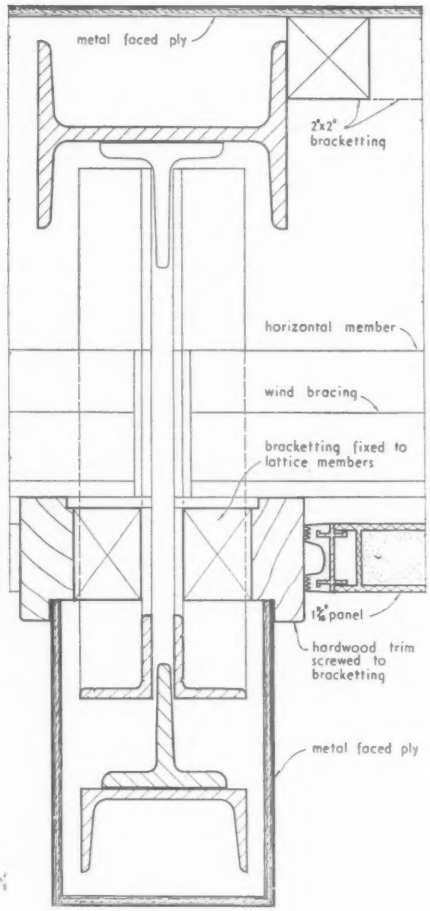
LABORATORIES

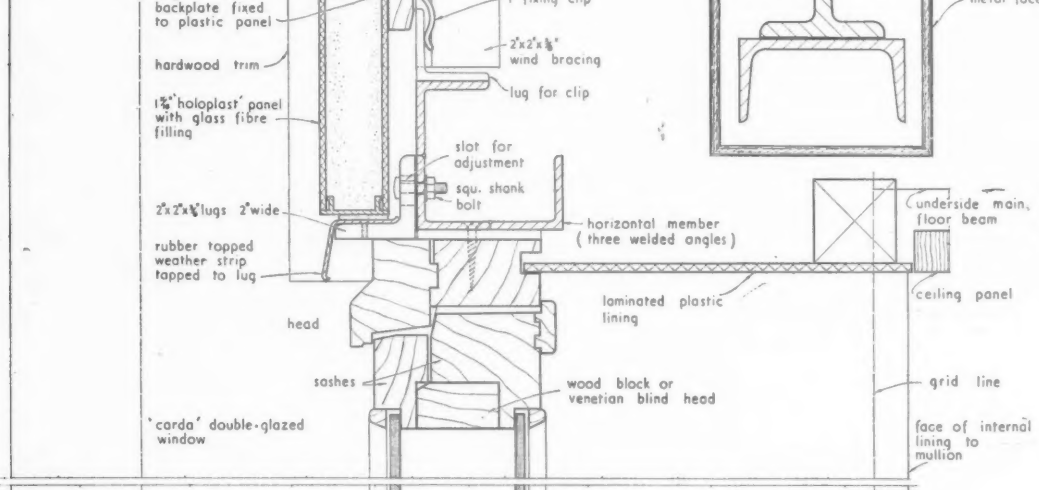
at WELWYN GARDEN CITY, HERTS

designed by E. D. JEFFERISS MATHEWS

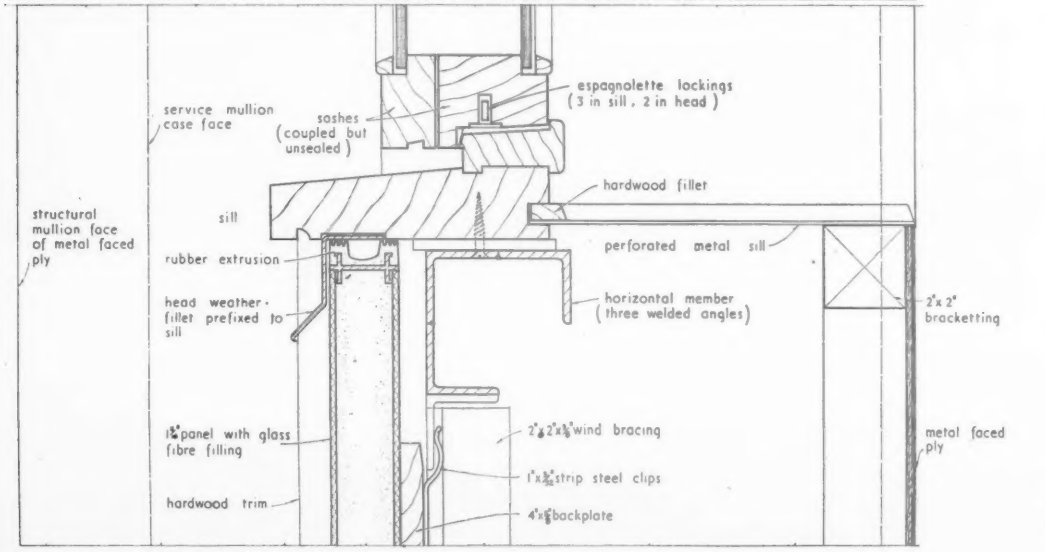


Section of structural mullion and elevation of external cladding
[Scale: ½" = 1' 0"]



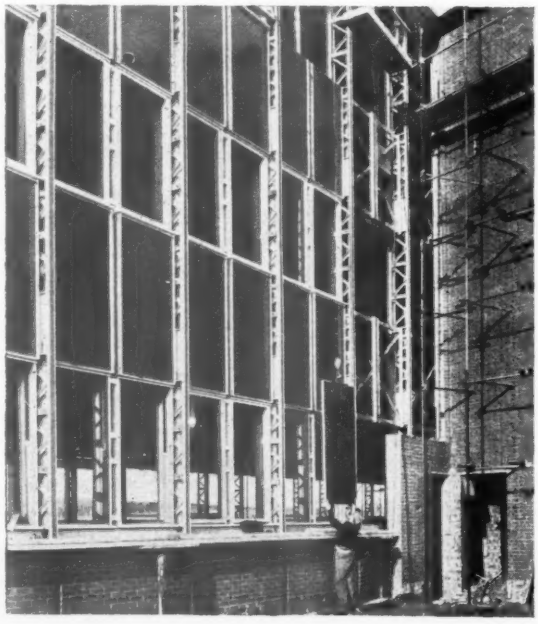


Above, plan of structural mullion and stanchion at level B-B
[Scale: 3" = 1' 0"]



Section A-A of external cladding and glazing
[Scale: 3" = 1' 0"]

Right, part of the south-east facade of the laboratory block, showing cladding of panels of laminated plastic sheeting between double-glazed, centre-hung casement windows. Below, a plastic panel being lifted into position. The structural mullions, on alternate 4-ft. grid lines, are seen unclad. Later, they are covered by a casing of metal-faced ply. Between each structural mullion is a service mullion, also cased in, which acts as a vertical service duct.



LABORATORIES

at WELWYN GARDEN CITY, HERTS

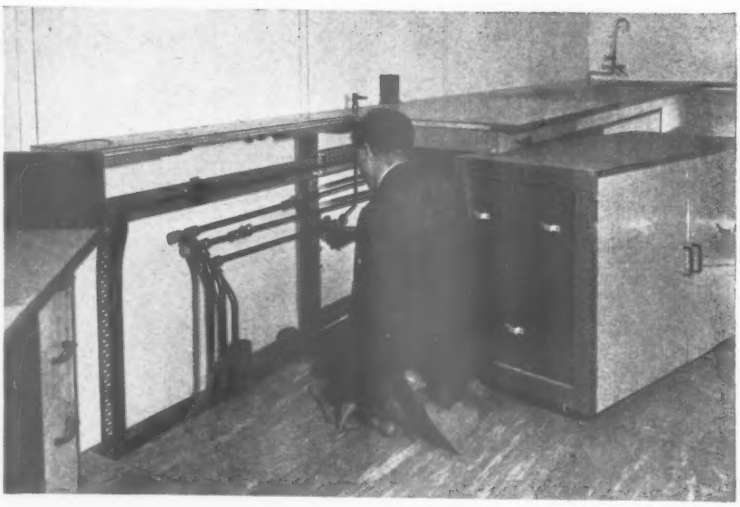
designed by E. D. JEFFERISS MATHEWS

required for an ordinary post and beam rolled-steel framework for the same floor area and height. The steelwork is designed to be independent of the structural brick walls at each end of the laboratory block, which are associated with the end staircase blocks rather than with the main framework. Site erection, carried out in the summer, took 8 weeks. Floors are constructed of pre-cast foam slag panels, 2 ft. wide and spanning 4 ft. across the module of the framework. These panels rest unfixed on the steelwork, with a bitumen felt strip under the bearings as insulation and to take up the inevitable irregularities in the casting of the panels. The roof is low pitched and the trusses follow the pattern of the beams and are placed at 8 ft. centres. Between the trusses 6 in. by 3 in. steel channel purlins carry

Left, the main analytical laboratory on the first floor. A portable fume cupboard, a row of which are seen in the background of this picture, will be illustrated as a Working Detail in a later issue of the JOURNAL. *Below, glass-blowing laboratory on the second floor. The tables are set at an angle to enable long tubes to be used. Bottom, a typical perimeter wall pipe gallery, which allows easy access to services.*

LABORATORIES

at WELWYN GARDEN CITY, HERTS
designed by E. D. JEFFERISS MATHEWS



the roof covering. The whole of the steelwork was required at a time of national shortage, making it necessary to utilise existing stocks and use sections which could be rolled from steel railway track. As much fabrication as possible was carried out in the shops. The stanchions and structural mullions were shop welded and fabricated in one length 40 ft. 3½ in. long. To each stanchion 4 ft. lengths of floor beams and roof truss were welded in the shops. Floor beams and roof trusses, less these 4 ft. panels at each end, were shop welded. This amount of fabrication provided the largest units possible for road transport from Shropshire to the site. Site erection and welding was therefore confined to coupling beams and trusses to the stub ends on the stanchions and the assembly and fixing of bracings and subsidiary members. The lattice stanchions are built up with 4 in. by 2 in. rolled steel channels on their outer face and 6 in. by 4 in. r.s.j.'s on their inner face, with 1¾ in. by 1¾ in. steel angles as bracing between. This gives an overall size from front to back of 1 ft. 8 in. by 6 in. wide. The main beams are 2 ft. 6 in. deep formed with a pair of 3 in. by 4 in. angles welded together to form a T at the top and bottom of the beam, with 2½ in. by 2½ in. angles as tension bracing, with pairs of 2½-in. by 2½-in. angles as vertical members at 4 ft. centres. Although the lattice beams provided

adequate space for services, it was found necessary to replace tension bracing by welded "box" construction in three of the 4-ft. panels of most of the beams to allow for air and fume ducts. The ground floor is a r.c. slab in panels broken by main and subsidiary pipe ducts. There are two main ducts running longitudinally down the length of the block, each 5 ft. 1 in. wide by 3 ft. deep, two subsidiary longitudinal ducts along each perimeter wall and ducts across the block at 24 ft. centres.

FINISHES.—Partition walls are formed with cellular plastic panels 4 ft. wide, being the maximum manufacturing width. Benching was based on a 4 ft. module in length and a working depth of 2 ft. 3 in. The underbench furniture is constructed of plastic panels supporting bench tops of plastic panels with a hardwood veneer. The laboratory block has a plinth wall of 11-in. cavity brickwork carrying a continuous artificial stone sill. Above this cladding, panels are of cellular plastic units, 7 ft. high by 3 ft. 5 in. wide, filled with glass fibre for thermal insulation and hung to the wind bracing of the structural steel frame by adjustable hooks. Windows are centre pivot double-glazed hardwood Carda type fixed to timber framing secured to the structural steelwork. Some of the windows are fitted with venetian blinds hung between the glazing. The general contractors were Holland & Hannen and Cubitts Ltd. For sub-contractors see page 30.

Above, the south-east staircase, which lies to the south-east of the centre of the laboratory block. Right, the main entrance hall, looking towards the car park. In the foreground, the north-point motif is of aluminium set in a pebble surround.

SHOWROOMS

1. in CONDUIT STREET, LONDON W.1

designed by B. KATZ and R. VAUGHAN and

2. in PICCADILLY, LONDON W.1

designed by ROLF HELLBERG and MAURICE H. HARRIS

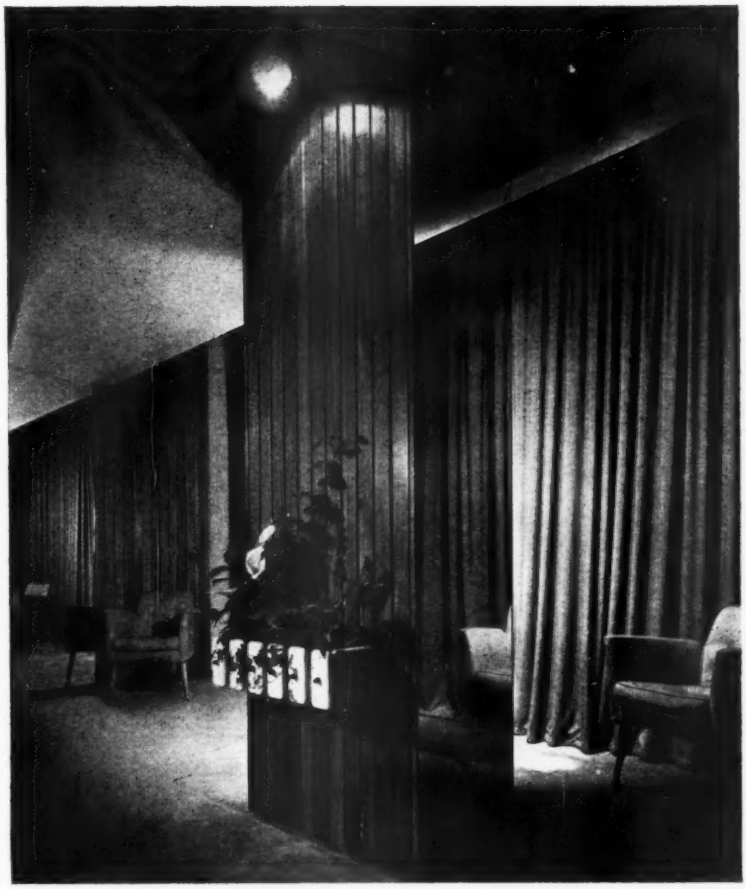
in collaboration with GABY SCHREIBER and ASSOCIATES

assistant architects, R. THOMSON and J. J. GILL

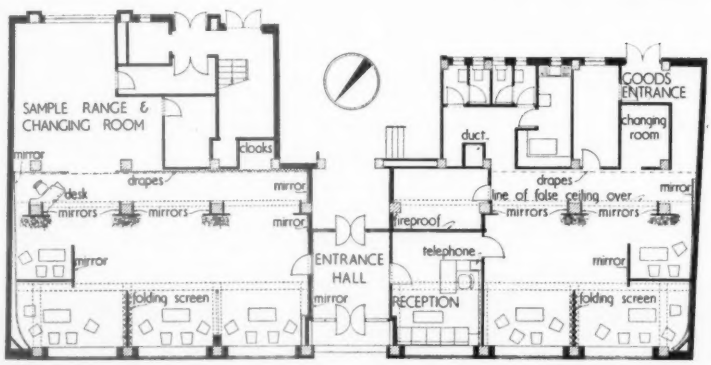
The showroom illustrated on this page and opposite is at 56-60, Conduit Street and was designed for manufacturers of women's coats and suits. The premises, which are on the ground floor of a new office block on the south side of the street, are used as a West End showroom for buyers from retail stores. As several buyers from different retail stores may be selecting their goods at the same time, a flexible sub-division of the showroom was required. This is achieved by a number of sliding-folding screens, which form separate bays. One of these screens is seen on the right in the photograph below.

View in the easterly showroom.

Above, desk in the reception office, to the west of the entrance hall. Above right, the show windows facing Conduit Street. Right, one of the main columns in the showroom area, concealed behind mirror glass and hardwood slats.



FINISHES.—The floor in the entrance lobby and reception area is of black terrazzo, in the showroom area close carpeting, in the stockroom greenish-grey composition flooring divided into squares by 1-in. wide white lines in the same material, and in the basement are tiles laid in alternate grey and black stripes. The suspended ceilings in the showrooms are of fibrous plaster and contain recessed spotlights and indirect fluorescent lighting. The wood used for all the joinery is waxed mahogany. The general contractors were Westminster Joinery, Ltd. For sub-contractors, see page 30.



Plan [Scale : $\frac{1}{16}$" = 1' 0"]

SHOWROOM

in CONDUIT STREET, LONDON, W.1

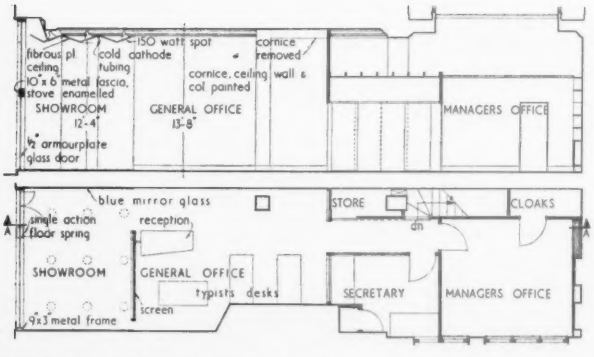
designed by B. KATZ and R. VAUGHAN

Above, the showroom seen from Piccadilly. Top right, mirror-faced wall of the outer showroom. Above right, typists' desks in the general office seen in one of the mirror walls of the showroom.

SHOWROOM

in PICCADILLY, LONDON, W.1
designed by ROLF HELLBERG and MAURICE H. HARRIS

GENERAL.—The showroom illustrated on this page has been remodelled at 163a, Piccadilly, for the display of a single fork lift truck, fire pump or, on occasions, a scale model of the Lady Godiva statue, which is the centrepiece of Broadgate, Coventry. The problem was to increase the sense of space within the narrow frontage of 12 ft. 10½ in. Mirrors are used on both side walls of the reception area to give apparent continuity, and, due to the ink blue colour of the glass, increases the sense of depth. The suspended ceiling over the display area consists of a series of folds fitted with white neon tubes in their crests and spotlights in the rear face of each fold. This ceiling is clear of the side walls so that curtains can pass over the mirror. These side curtains are an ink blue weave with a rectangular spot pattern in yellow and a blue interwoven metal thread. The colours of the interior were chosen to set off the product being displayed, which is either the strong yellow and battleship grey of the fork lift truck or the fire engine red of the pump. The false ceiling is white and the flat ceiling above is flame red. In the general office one wall is painted Sung yellow and the other Quaker grey. The exterior wall of the showroom is glazed for its full height, set in a narrow black frame and with a flat surround of aluminium painted yellow and cut into the existing pilasters of the adjacent fronts. The only decoration is the birds mouth section at door head level which carries the firm's name in black plastic, enlarged from the handwriting of the founder. The shop fitters were E. Pollard & Co., Ltd. For sub-contractors see page 30.



Section A-A and plan [Scale: ½" = 1' 0"]

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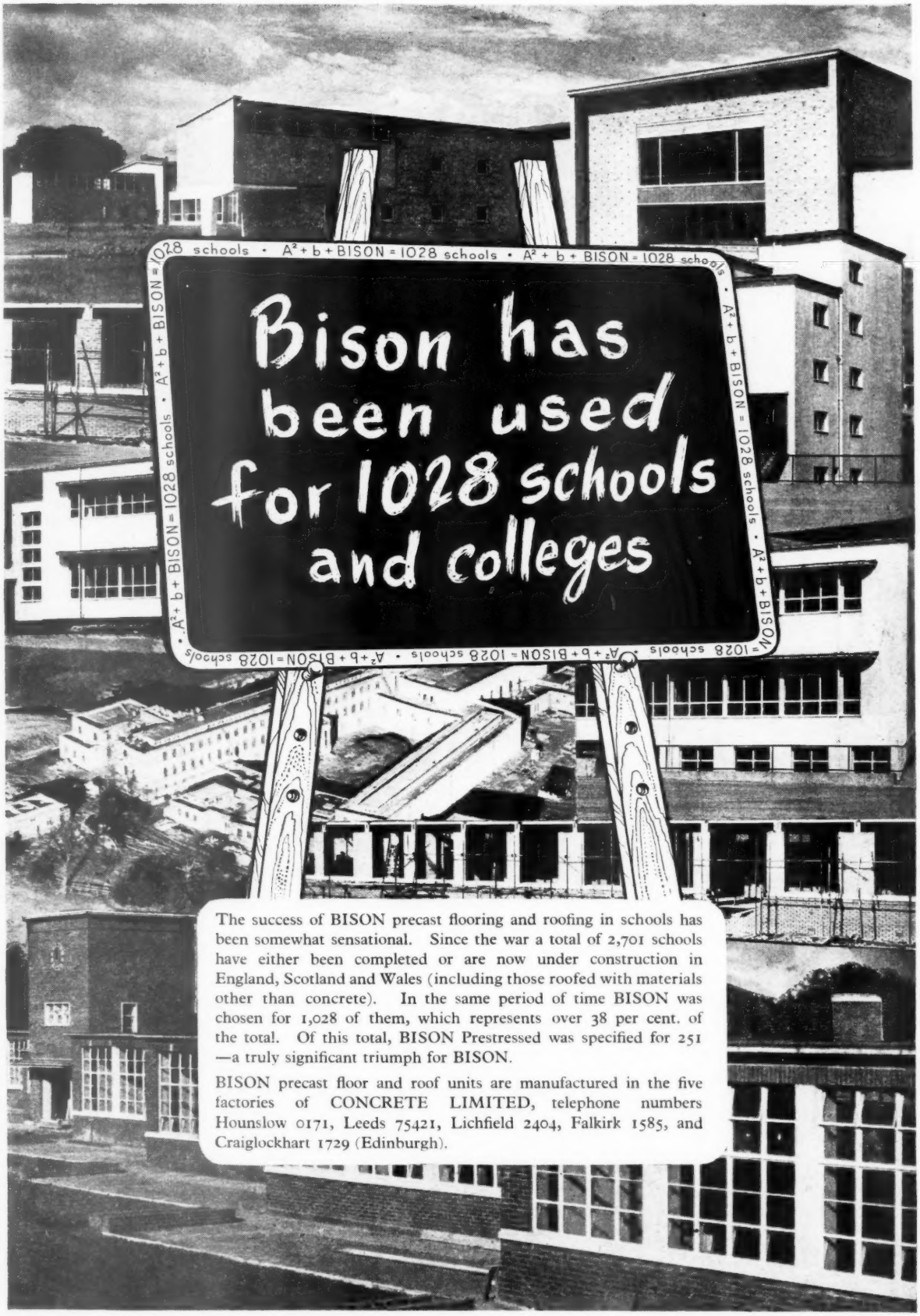

The success of BISON precast flooring and roofing in schools has been somewhat sensational. Since the war a total of 2,701 schools have either been completed or are now under construction in England, Scotland and Wales (including those roofed with materials other than concrete). In the same period of time BISON was chosen for 1,028 of them, which represents over 38 per cent. of the total. Of this total, BISON Prestressed was specified for 251 —a truly significant triumph for BISON.

BISON precast floor and roof units are manufactured in the five factories of CONCRETE LIMITED, telephone numbers Hounslow 0171, Leeds 75421, Lichfield 2404, Falkirk 1585, and Craiglockhart 1729 (Edinburgh).

TECHNICAL SECTION

In 1947 the RIBA agreed that a surcharge of 15 per cent. (on the first £1,000) should be added to architects' fees when the fees did not exceed a total of £1,150. This measure was introduced largely to combat a post-war rise in the cost of living. This meant that on the smaller buildings (costing up to £16,000 approximately) which tend to be less economically profitable for the architect to design, he could, if he wished, ask his client to fork out more money in fees. The RIBA Journal this month, publishes a revised scale of professional charges titled "Conditions of Engagement and Scale of Professional Charges." The two most notable changes are, firstly, that the surcharge is dropped, and, secondly, that the higher percentage fee chargeable to the client for work to existing buildings must be fixed by *prior written agreement* between the client and the architect. The surcharge was never a very satisfactory arrangement, largely because it was not universally adopted by all architects, and it is particularly irritating to clients to find some architects adding a surcharge and not others. It is also an obviously wise precaution, if good relationships between client and architect are to continue, to insist that whenever there is a variation on the normal scale of charges, that the agreement should be settled in advance, and in writing. Subject to comments and criticisms—which must be submitted in January—the Council's revised scale will be confirmed by the Council at their next meeting on February 2.

This week's special article

22 SOUND INSULATION & ACOUSTICS
musical tone and acoustical design—part 3

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

H. Creighton concludes this week his series of articles on musical tone and acoustical design. Mr. Creighton shows in detail, with sketch plans and sections, how the design of the concert platform can influence the acoustics of the auditorium.

In a previous article I have tried to show that, in considering musical tone, it is useful to distinguish between direct and reverberant sound, and that, so far as the acoustics of a room are concerned, each is governed by different elements in the design. Reverberation is determined by the shape, size and absorption of the room as a whole, while direct sound is influenced almost entirely by the design of the platform and its immediate surroundings. Since what we have called direct sound is composed of those waves which travel from the neighbourhood of the players towards the audience, only one feature of the seating area—the rake of the seats—can have any influence on how it is heard. The platform is therefore an important element in acoustical

design, and since the most severe problems concern the disposition of large bodies of performers, orchestras and choirs, it is with these that we shall deal. If the number of performers is few, difficulties scarcely arise, but the same principles still apply.

There is a tradition in this country, fostered by the popularity of choral singing, in favour of large numbers of performers. Though the choirs gathered for Handel Festivals in the Crystal Palace are never likely again to be equalled, in some towns they can be 500-600 strong, and orchestras may consist of 120 players, with a piano or two, an organ, and five or six vocal soloists. We shall see that the first objective in design should be to keep the area of the platform as small as possible, so that it is better to plan for the normal maximum numbers and to leave exceptional demands to be met by temporary expedients. The normal maximum for a large hall at the present time may be taken as: Orchestra 95-100, plus two pianos and four vocal soloists. Choir 300-350. For all except the most important halls these figures could be reduced to 85 and 200 respectively.

PLAN

The important dimensions for planning are:—

1. A seated player of a violin and of most wind instruments needs an area 3 ft. × 2ft.—horns and bassoons rather more.
2. A tier 3 ft. 6 in. deep is sufficient for all string and wind players, including cellos and double basses; players, however, prefer at least 4 ft.
3. Tympani and percussion need a tier 6 ft. deep.
4. Risers to tiers should not exceed 1 ft. 6 in. because of the difficulty of carrying heavy instruments up them.
5. A piano (concert grand) measures 9 ft. × 5 ft. 2 in. on plan.

On the basis of these figures a reasonable allowance of space for the platform of a large hall would be:— Orchestra: 1,000 sq. ft. Choir: 1,500 sq. ft. Total: 2,500 sq. ft.

The dimensions of the platform could therefore easily be as great as 50-60 ft. deep or 80-90 ft. wide, and the sound paths from the more remote performers to some listeners could exceed those from the nearer by these distances, which correspond to delays in time of 1/25-1/12 second. Reflections from walls surrounding the platform might be delayed by as much as twice these intervals. The result would be apparently ragged ensemble and poor definition even when all the performers were playing strictly on the conductor's beat. Not only this, but the delays would affect performers also, so that their more distant colleagues would seem to be off the beat, and sensitive combination and accurate intonation would be more difficult to achieve.

There is reason to believe that, for ideal musical conditions, sound paths should not differ by more than 25-30 ft. Clearly a concert platform must exceed 30 ft. in one or both dimensions, but the fact that ideal conditions are not in any case possible emphasizes the desirability of the most compact arrangement possible.

But platform dimensions affect tone in another way also. Blend depends in part upon the apparent size of the orchestra to a listener—that is to say the angle within which his view of it is contained; if this angle is too wide, sound comes to him from widely divergent directions and blend is destroyed. This would seem to suggest that a narrow platform is better than a wide one; but if it is narrow it is also deep, so that path differences are at a maximum for all parts of the auditorium.

These points are illustrated diagrammatically in Fig. 1 for various possible shapes of platform and for listeners in centre and extreme side seats at the front and 40 ft. back. At this distance the inevitable defects of front seats should have disappeared. Path differences from the whole platform are figured at the various seating positions, but it is from the orchestra alone that they are most important; choirs cannot in any case achieve the precision and speed of instruments, so that they can tolerate longer delays. Taking a maximum path difference of 35 ft. from the orchestra alone as a reasonable aim, the shading shows those parts of the auditorium where this figure is exceeded. For blend an angle of 60° is a useful, though very imprecise, indication of the nearest seat from which it is likely to be regarded as satisfactory.

On the basis of these tentative criteria the shallow, wide platform (*A*) gives really bad path differences in front side seats; they improve rapidly towards the rear and centre, where they are the shortest possible. Blend is, however, still bad 40 ft. back. The deep platform (*B*) gives good blend, but path differences affect all seats and are excessive both for the whole platform and for orchestra alone. (*C*) is a compromise; the variation from side to centre is evened out somewhat as compared with (*A*), while the uniformly excessive path differences of (*B*) are avoided; the conditions assumed to be satisfactory for blend are achieved at 40 ft. from the platform. Something like this represents the best arrangement for a platform of the size we are considering; it is planned within a rectangle 60 ft. × 45 ft. The depth of 45 ft. should be taken as an absolute maximum and if the width of 60 ft. is exceeded it should be only by those choir seats which are least frequently occupied. But for smaller platforms it is more advantageous to tone to reduce the width than the depth.

In the Royal Festival Hall full account was taken of path differences from back to front of the platform, but perhaps not of the dangers of excessive width. The width is necessarily great because of the large opening required for the organ, but it affects orchestra as well as choir. Also the orchestral area has in fact proved larger than is needed by present day orchestras, while accommodation for choirs could with advantage be increased; this is perhaps not so serious, as the barrier between the two is movable. Fig. 2, overleaf, shows an alternative layout within the main dimensions of the hall which would in these respects be an improvement.

SECTION

There is no doubt that a steep rake for the whole audience seating, rather than a flat floor, is the best section for a concert hall; on a flat floor sound can be absorbed or screened from

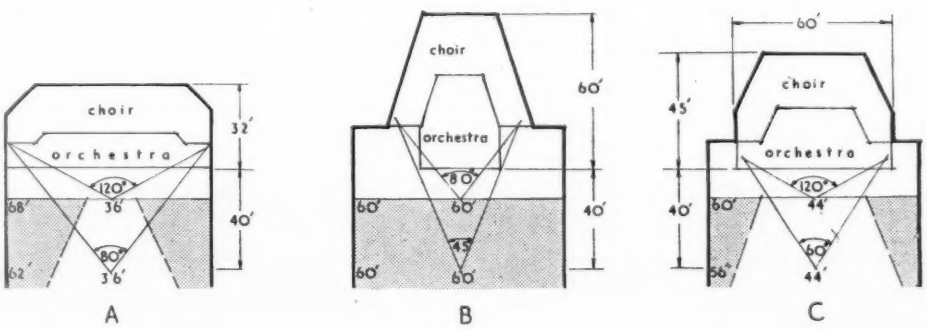

Fig. 1, three diagrammatic platform layouts. The wide shallow platform, A, gives really bad sound path differences in the front side seats, but they improve rapidly towards the rear and centre, where they are the shortest possible. Blend is still bad, however, 40 ft. back from the orchestra. The deep platform, B, gives good blend, but the path differences affect all seats and are excessive, both for the whole platform and the orchestra above. C is a compromise solution.

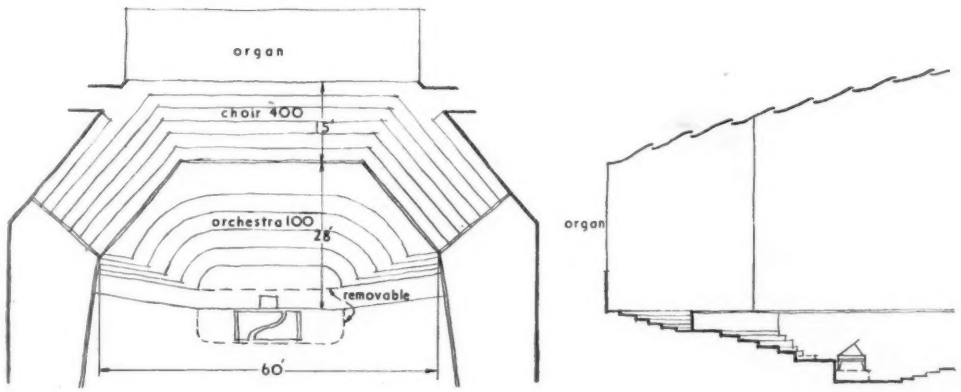

Fig. 2. In the Royal Festival Hall, writes Mr. Creighton, full account was taken of path differences from back to front of the platform, but perhaps not of the dangers of excessive width. The width is necessarily great because of the large opening required for the organ, but it affects orchestra as well as choir. Also the orchestral area has proved larger than is needed by present-day orchestras, while choir accommodation could be increased. This diagram shows, with plan and section (extreme right), an alternative layout within the main dimensions of the hall which would be an improvement.

listeners by members of the audience in front. High frequencies are more easily reduced in this way than low, so that treble instruments which are also directional (that is to say, in particular, violins) are most adversely affected, but the high frequency components of all instruments (that is to say harmonics) also suffer. This point therefore concerns balance and quality of tone.

Figs. 3 and 4 show that with raked seating the audience is covered by a wider ray of sound, meaning a larger share for each member and more uniformity from front to back. In gallery seats, however, the position is to some extent reversed because the gallery must be higher over a raked ground floor.

The implication of this argument is that, for their tone to be heard to best advantage, all instruments should be clearly visible to all members of the audience, and a logical extension of it would be to advocate also an "exposed" and steeply raked platform to minimise obstruction of sound paths on the platform. For the sake of quality this conclusion would seem to be justified, but it is open to some argument as regards balance and blend.

Orchestral balance is most usually destroyed when strings and woodwind are overpowered by brass and percussion. Composers and performers are, of course, partly responsible for this and it may indeed sometimes be the effect which they intend. But assuming that it is not—an assumption which is supported by the example of the orchestra pit in the Festspielhaus at Bayreuth, deliberately designed by Wagner to reduce the power of his own heavy brass scoring—we must note that on a steep platform it is precisely the brass and drums which occupy the most commanding position at the highest level. On a flat platform, however, front strings and soloists have some advantage of exposure, while brass are relatively hidden and screened; but so also are other instruments which need exposure—woodwind, violas, and cellos.

Fig. 3 shows that from a flat platform sound paths towards the audience from all instruments behind the front desks are to some extent obstructed even if the audience seating is raked; direct sound must therefore be reinforced by reflections and an overhead canopy is shown for this purpose. Under these conditions the sound is to a certain extent "mixed up" before it reaches the audience and blend is likely to be good, but quality and definition poor. This type of platform therefore favours certain kinds of musical effect at the expense of others; it is most appropriate to large orchestras and heavy scoring—the works, for example, of such composers as Wagner, Tchaikovsky, Elgar.

Flat platforms are sometimes found in "multi-purpose" halls in conjunction with flat floors and perhaps a proscenium as well. These are really bad conditions for music.

Fig. 5 is a sketch for a flat platform. The orchestral area is 60 ft. × 24 ft. and there is a large overhead reflector. The choir seating is raised 5 ft. and being thus exposed a comparatively small choir (200) would be well heard through a large orchestra. In order that the back wall may also be a good reflector the organ is divided and placed on either side of the platform; in this position it would be good for its chief function, the support of the choir, but unsatisfactory for solo work. The console is intended to be movable and would be placed near the conductor when in use.

From a stepped platform (Fig. 4) there is only negligible obstruction of sound paths from any instrument, and with such good exposure an overhead

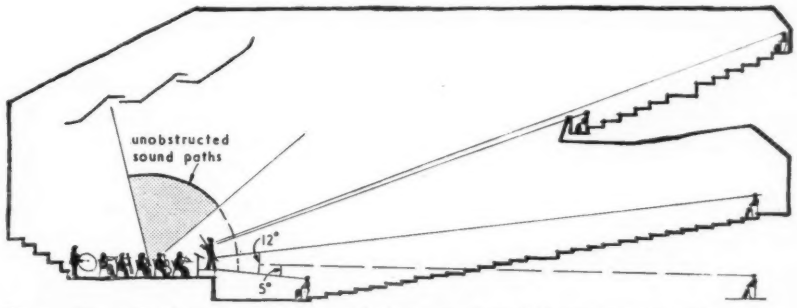

Fig. 3. From a flat platform sound paths towards the audience from all instruments behind the front desks are to some extent obstructed even if the audience seating is raked. Direct sound must therefore be reinforced by reflections, and an overhead canopy is shown for this purpose.

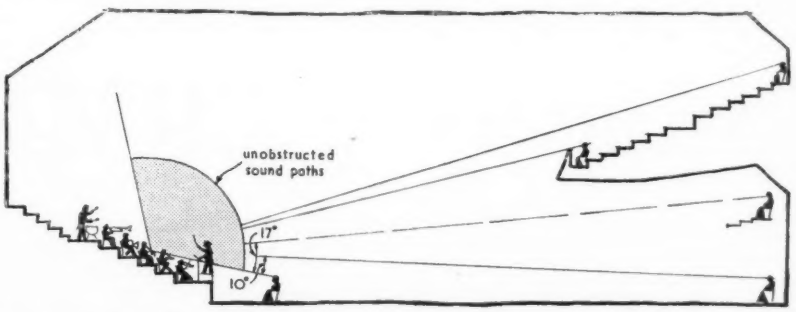

Fig. 4. This sectional diagram shows the larger area of unobstructed sound obtained by raking the orchestra platform.

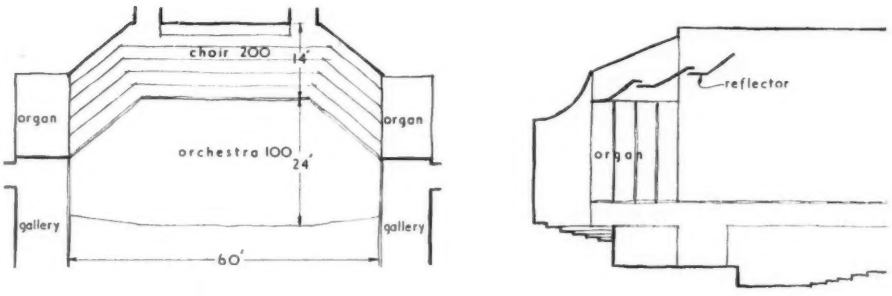

Fig. 5. A plan and section (extreme right) for a flat platform. There is a large overhead reflector, the choir seating is raised five feet, and in order that the back wall may also be a good reflector the organ is divided and placed on either side of the platform. In this position the organ would be good for supporting choirs but bad for solo work.

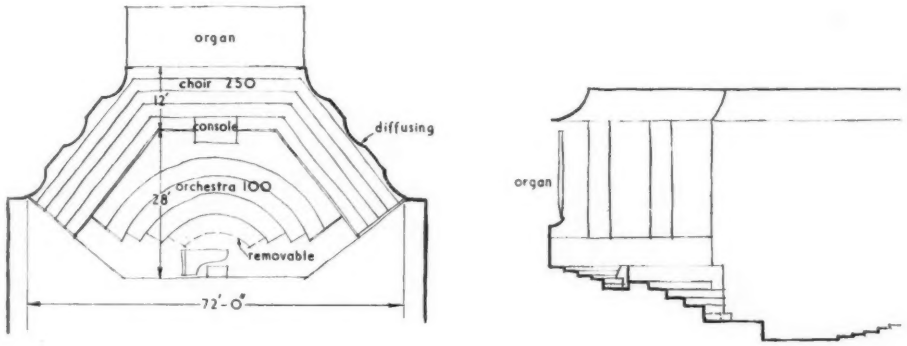

Fig. 6. These diagrams, with Fig. 2, illustrate stepped platforms. In this layout the conductor is in not such close contact with soloists and orchestra when performing a piano concerto than in the layout shown in Fig. 2.

reflector should only be necessary in very large buildings. Balance is wholly in the hands of the conductor, but at least he knows that those instruments which are normally weakest are given the greatest advantage possible. High frequencies are not absorbed so that quality is faithful. This arrangement should be the most favourable for definition and make delicacy and good ensemble possible at very rapid speeds—the sort of playing that is required for a Mozart or Haydn symphony. Most of the arguments are therefore in favour of a platform of this type, but it is worth observing that in the Royal Festival Hall, where it has been used, it does not seem to have helped to solve the problems of balance and blend.

Figs. 2 and 6 illustrate stepped platforms and bring out some points of design. The highest convenient riser is desirable for orchestra tiers, but for choir need be no more than 7 in. or 8 in.; if the total rise is too great and an opening for an organ is required at the back the ceiling may become too high above the main floor level. There is no other advantage than this in omitting the usual step of 3 ft. to 4 ft. between the main floor and the front of the platform (as was done in the Royal Festival Hall) and the conventional arrangement gives soloists a better sense of "command" of their audience. In the two examples some of the front tiers are removable in order to give a larger flat area for pianos when required; the arrangement in Fig. 2 has several advantages, in particular that piano lids are less obstructive and that the conductor is in closer contact with both soloists and orchestra when performing a piano concerto in this position than in that shown in Fig. 6.

The demands of pianos have probably perpetuated what is the most frequent, but acoustically the most unsatisfactory, kind of platform—that which has a large flat in front and a few tiers at the back. In this case only those instruments which do not need it—brass and percussion—have the advantage of exposure, while the majority of strings and woodwind screen one another's sound on the flat. It is important that the musical defects of this type should be well understood, because it has all the advantages of convenience and flexibility. If tiers are used at all as many players as possible should be on them and the permanent flat in front should be no wider than to accommodate soloists, a single row of players, and perhaps the conductor. Conductors, however, often prefer a rostrum that is off the platform altogether so that it ought to be capable of adjustment.

DIFFUSION

An important argument in favour of an exposed arrangement of the orchestra is that if it is used the direct sound from instruments, without re-inforcing reflections, should be strong enough for good definition, except in the most distant seats of a very large building. Now the chief difficulty in modern halls with large audiences is to get a reverberation time as long as is needed for fullness of tone; in all new halls reverberation time has turned out shorter than was intended or desired. Reverberation theory assumes a completely random and diffuse sound field, a condition which is in any case disturbed by the situation of the major absorbing area—the audience—on a single surface—the floor; it is still further disturbed by the use of directional reflectors round the source. The greater the proportion of the total output of sound which is directed after one reflection on to the audience, and there absorbed, the less there is available for building up reverberation. The value of the exposed arrangement is that those waves which would be lost altogether by inter-reflection and absorption on the platform have a free path to the audience, while those which travel upwards need not be used to re-inforce the direct sound component by reflection but are diffused and help reverberation.

In this case the surroundings of the platform should be designed deliberately to break up or spread out the reflections, as is indicated in Fig. 6. But for efficient diffusion projections having a depth of at least 1 ft.-2 ft. are necessary and an alternative would be the very large scale concave surfaces, on plan and section, such as were found in the old Queen's Hall. Diffusion round the platform also ensures that some sound is returned to the players, so that they can hear their own instruments better, and if directional reflectors are necessary parts of them should be flat for the same purpose.

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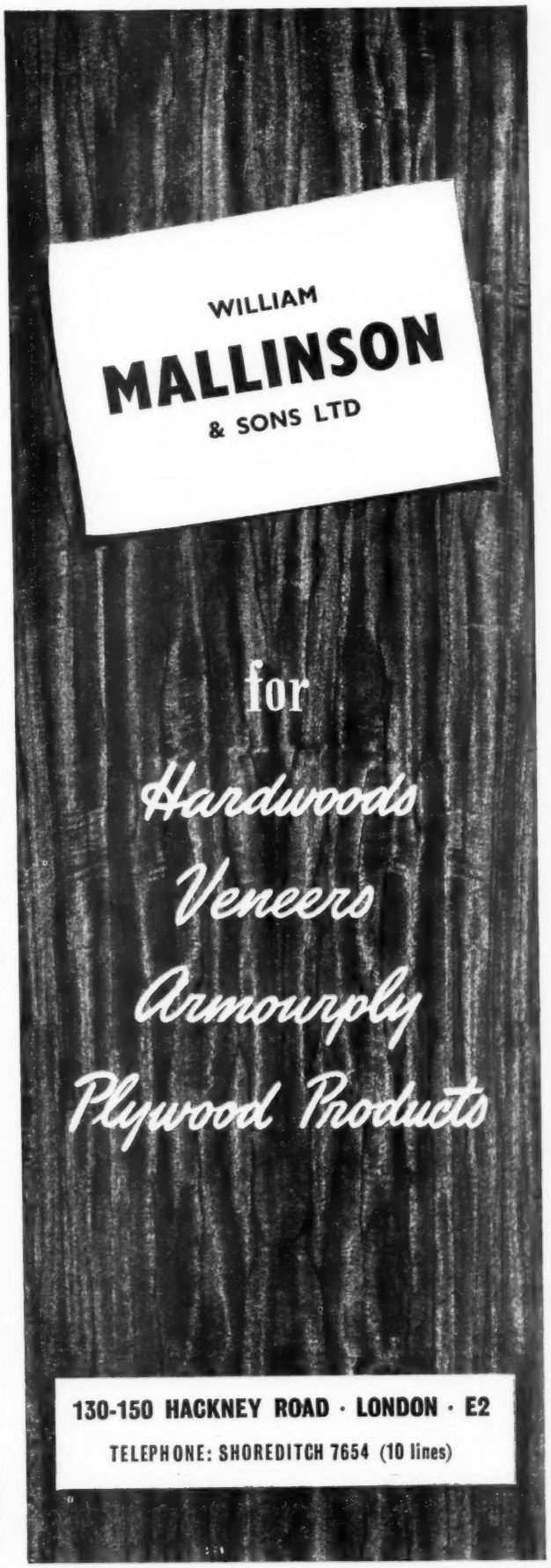
7.1.54

Buildings Illustrated

Research Laboratories, Black Fan Lane, Welwyn Garden City, Herts., for ICI Plastics Division. (Pages 14-21.) Architects: E. D. Jefferiss Mathews, O.B.E., F.R.I.B.A., of J. Douglass Mathews & Partners. Chief Assistant: R. S. Poole, A.R.I.B.A. ICI Members of Design and Building Team: R. H. Dibb, M.SC., M.I.MECH.E., Plastics Division, Engineering Director; J. W. Mayhew, L.R.I.B.A., J. Morrison, B.ENG., Engineering Department; T. E. Symes, M.SC., A.R.I.C., Laboratories Administrator. Quantity Surveyor: R. E. N. Lowe, F.R.I.C.S. Consulting Engineer: F. J. Samuely, B.SC., A.M.I.C.E. Clerk of Works: J. Gloyn, ICI Plastics Division, Engineering Department. General Contractors: Holland & Hannen and Cubitts Ltd. (General Foreman, W. Brown). Sub-contractors and suppliers: designers, fabricators and erectors of steel frame: Sommerfelds Ltd. (Consulting Engineer, A. C. Aston, B.SC.(ENG.), A.C.G.I., D.I.C.); Terrazzo paving and staircase treads, Art Pavements and Decorations Ltd.; pre-cast concrete floor panels, artificial stone cills, pre-cast concrete copings and marginal window frames and artificial stone mullions to main entrance, Atlas Stone Co. Ltd.; Venetian sun blinds, J. Avery & Co. Ltd.; PVC floor tile laying, Ballastic Trading Co. Ltd.; metal balustrades and handrails, ceiling and partition fixing brackets, trade mark, E. Coules & Son Ltd.; acoustic ceiling tiles, Horace W. Cullum & Co. Ltd.; PVC floor tiles, De La Rue Ltd.; internal and external metal plywood stanchion and mullion cases, floor duct covers, Edmonton Panel Co. Ltd.; WC partitions and doors. Flexo Plywood Industries Ltd.; ironmongery, James Gibbons Ltd.; heating, ventilating, fume extraction and mechanical services, Matthew Hall Ltd.; internal metal window cills, G. A. Harvey & Co. Ltd.; furniture, Hillé Ltd.; Carda windows, Holcon Ltd.; external wall cladding panels, demountable partitions, Holoplast Ltd.; vynide fabric, ICI Leathercloths Division; paints, distempers and plastic emulsions, ICI Paints Division; electrical installation, electric light fittings, "Perspex," ICI Plastics Division; lift, London Lift Co. Ltd.; ceiling panels, Wm. Mallinson & Sons (Mftg.) Ltd.; laboratory benching, furniture, Norbury Joinery Co. Ltd.; sanitary fittings, ironmongery, Pryke & Palmer Ltd.; drinking fountains, Shanks Ltd.; structural steel, Sommerfeld Ltd.; roof covering, Standard Flat Roofing Co. Ltd.; name panels, Stylo Plastic Engraving Co. Ltd.; electric light fittings, Troughton & Young Ltd.

Showrooms at 56-60, *Conduit Street, London, W.1, for Steinberg & Sons Ltd.* (Pages 22-23.) Architects: B. Katz and R. Vaughan. General contractor: Westminster Joinery Ltd. Sub-contractors: stone, Empire Stone Co. Ltd.; woodblock flooring Vigers Bros. Ltd.; central heating, boilers, electric heating, ventilation, Norris Warming Co. Ltd.; electric wiring, light fixtures, Fluorel Ltd., Thorn Electrical Industries Ltd., and Smith Electric Ltd.; door furniture, Comyn Ching & Co. (London) Ltd.; sunblinds, J. Avery & Co.; plaster, C. E. Pinn & Co. Ltd.; furniture, Horace Holme Ltd., and S. Hille & Co. Ltd.; plants, Westend Flower House; joinery, shop fittings, Westminster Joinery Ltd.; clocks, Baume & Co. Ltd.

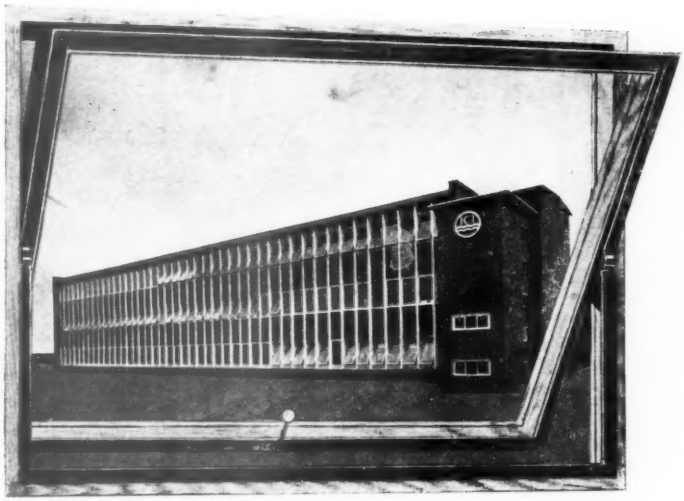
Showroom at 163A, *Piccadilly, London, W.1, for Coventry Climax Engines Ltd.* (Page 24.) Architects: Rolf Hellberg and Maurice H. Harris, F./A.R.I.B.A., in collaboration with Gaby Schreiber & Associates. Assistant architects: R. Thomson, A.R.I.B.A., and J. J. Gill, A.R.I.B.A. Sub-contractors: shopfitters, E. Pollard & Co. Ltd.; mirrors, Glass (Coventry) Ltd.; fabric, Tibor Ltd.; distempers and paints, The Leyland Paint & Varnish Co. Ltd.



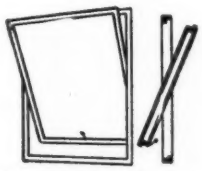
Carda WINDOW

REGD. TRADE MARK

for double or single glazing

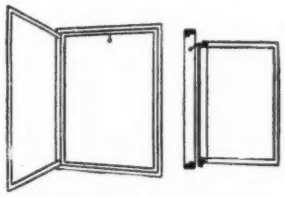


CARDA WINDOWS IN THE NEW LABORATORIES, IMPERIAL CHEMICAL INDUSTRIES LIMITED, PLASTICS DIVISION, WELWYN GARDEN CITY, HERTS.
Architects: E. D. Jefferiss Mathews, O.B.E., F.R.I.B.A., A.R.I.C.S., J. Douglass Mathews & Partners, London.

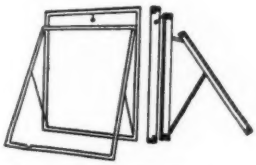


Window open for normal ventilation.

Window inverted for cleaning.



Double glazed window inverted and sashes separated for cleaning. (Outer sash side hung.)



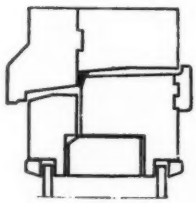
Double glazed window inverted and sashes separated for cleaning. (Outer sash stay hung for wide windows.) Note wide access to the interspace provided by special stays.

ADVANTAGES OF CARDA WINDOWS

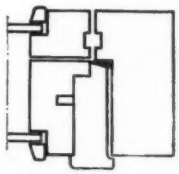
EXCELLENT APPEARANCE • UNBROKEN VISION • DRAUGHT FREE VENTILATION • DRAUGHT-PROOF WHEN CLOSED • THERMAL INSULATION, U = 0.6 • HIGH SOUND INSULATION, ATTENUATION 50 DECIBELS • POSITIVE LOCKING ON FIVE POINTS BY ONE HANDLE • ALL SURFACES EASILY AND SAFELY CLEANED FROM INSIDE.

CARDA WINDOWS are made to standard sizes in any combination of the following: widths 4′ 0¼″, 5′ 11¼″; heights 3′ 6¾″, 4′ 0¾″, 4′ 6¾″, 5′ 0¾″.

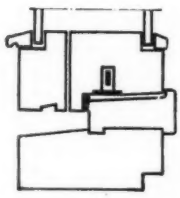
Due to its construction the Carda window can be made to very large dimensions, thus affording Architects complete freedom of design and providing them with the solution to most lighting problems. Carda windows are manufactured to any size within the following limits: Max. area 40 square feet, max. width 8′ 0″, max. height 7′ 6″. If areas greater than 40 square feet are required, two or more windows can be combined. Carda units can also be combined with wing lights and hopper lights for double glazing. Carda windows can be manufactured in Hard or Softwood as desired. We recommend that fixing, glazing and finishing be carried out by our specialists.



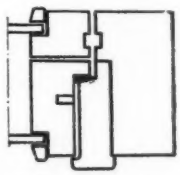
Section through head.



Section through jamb above the pivots.



Section through cill.



Section through jamb below the pivots.

SOME RECENT CARDA CONTRACTS :—

Queen's University of Belfast Faculty of Medicine, Clinical Buildings, Belfast, N. Ireland.
Architects: Easton & Robertson, F./F.R.I.B.A., London.

Offices at Charles Street, Leicester, for Sir Robert McAlpine & Sons Ltd.
Architects: Sir Robert McAlpine & Sons Ltd., London.

London Airport Central Buildings, Hounslow, Middlesex.
Architect: Frederick Gibberd, F.R.I.B.A., M.T.P.I.

London Bridge House, 28-42, London Bridge Street, S.E.1.
Architect: John Lacey, A.R.I.B.A., A.M.T.P.I., London.

Leesons Hill County Primary School, St. Paul's Cray, Kent.
Architects: Henry Braddock & D. F. Martin-Smith A./F.R.I.B.A., London, in collaboration with S. H. Loweth, Esq., F.S.A., F.R.I.B.A., M.I.Struct.E., County Architect of Kent.

CARDA WINDOWS HAVE ALSO BEEN SPECIFIED BY E. D. JEFFERISS MATHEWS FOR THE NEW OFFICE BLOCK FOR I.C.I. LTD., IN WELWYN GARDEN CITY

HOLCON LIMITED, 4 DRAPERS GDNS., THROGMORTON AVE., LONDON, E.C.2

Telephone: MONarch 4688 *Telegrams:* CARDAWINDO, STOCK, LONDON

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POWER STATIONS, HOSPITALS, SCHOOLS,
KITCHENS, LABORATORIES,
BOILER HOUSES, ETC.

★ Technical Staff are available to visit site to check final details and offer advice on layouts. Liaison is also maintained during installation. Full details submitted on application.

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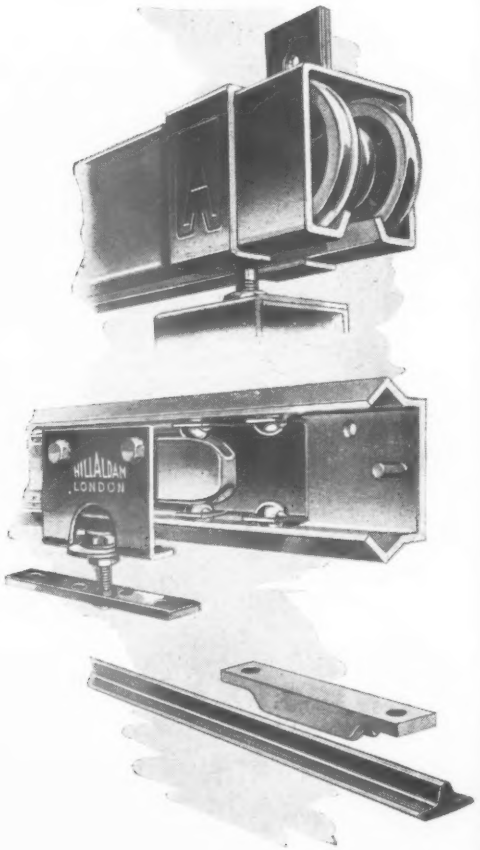
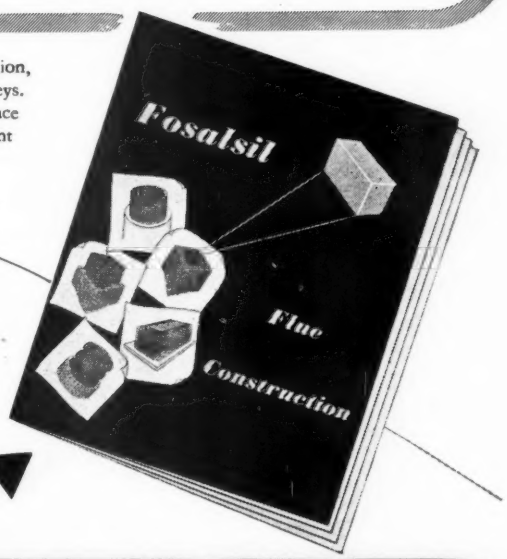
SLIDES



E. HILL ALDAM & CO. LTD., BRITANNIC WORKS, EARLSFIELD, LONDON, S.W.18.

Facts about 'FOSALSIL' flue construction

"Fosalsil" Flue bricks are designed either for the entire construction, or for the internal lining, of central heating boiler flues and chimneys. They do more than merely replace the old firebrick lining and air space construction—they eliminate altogether the need for an independent lining and, therefore, an air space.



The key to this achievement in solid flue wall design lies in the exceptional physical properties of "Fosalsil" e.g. a co-efficient of expansion less than one third that of firebrick and heat insulating values. . . . . *Well! why not write for a copy of our latest brochure and obtain full technical information on this important subject, plus suggested designs to meet standard types of flues and chimneys.*

SOLE MANUFACTURERS OF 'FOSALSIL' FLUE BRICKS

MOLER PRODUCTS LTD. HYTHE WORKS · COLCHESTER

TEL: COLchester 3191 (3 lines) GRAMS: FURMOL Colchester.

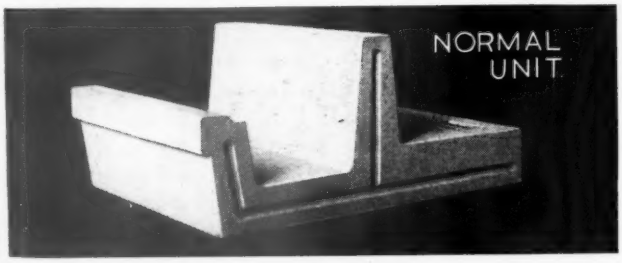
EAVES GUTTERS

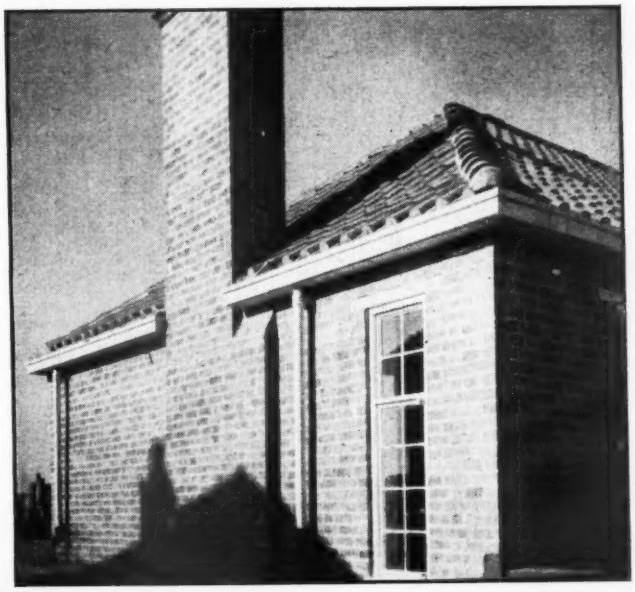
The "M-M" Precast Concrete Eaves Unit. (*Patent No. 576004.*)

For flat or pitched roofs and for brick, stone and steel structures. No props or formwork are required, the units sit firmly when placed and are fixed in one operation . . . Projection—9 inches. Economical in labour and timber. Permanent, practical and of good architectural appearance.

Standard Units	Overall sizes	Weight each
Normal Units	1′ 1½″ by 1′ 8″	84 lbs.
Outlets (for 3in. R.W.P.'S.)	1′ 1½″ by 1′ 8″	82 lbs.
External Angles	1′ 8″ by 1′ 8″	150 lbs.
Internal Angles	2′ 0″ by 2′ 0″	165 lbs.
Butt Ends	1′ 8″ by 1′ 8″	125 lbs.
Return Stop Ends (for pitched roofs)	1′ 8″ by 1′ 8″	154 lbs.
Closers from 7in. to 1ft. 1in.	—	—

When fixed, six normal units scale 7ft. 0in. A fixing detail is sent to the site before the units are delivered. Prices and full particulars are sent upon application . . . Manufactured under licence.





TARMAC LIMITED
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ETTINGSHALL. WOLVERHAMPTON
Telephone: Bilston 41101-11 (11 lines).
LONDON OFFICE: 50, PARK ST., W.1. (GROSVENOR 1422-5)

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

25s. *per inch; each additional line,* 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 *inclusive or a woman aged* 18-59 *inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order,* 1952.

ASHBY-DE-LA-ZOUCH RURAL DISTRICT COUNCIL.
APPOINTMENT OF CHIEF ARCHITECTURAL ASSISTANT.

Applications are invited for the post of Chief Architectural Assistant, to work under the direction of the Council's Surveyor.

The person appointed will be required to prepare Estate layout plans, specifications, house designs, and working drawings for the Council's various Housing Capital Schemes, and to supervise the completion of Contracts in connection therewith. Preference will be given to holders of Examination qualifications of the Royal Institute of British Architects.

The salary will be according to A.P. & T. Division, Grade VI (£670-£735), commencement to be within this Grade according to qualifications and experience. The successful applicant will be required to provide a car, for which an appropriate Travelling Allowance will be paid.

The appointment will be for the duration of the Council's Housing programme, with a guaranteed minimum of 5 years, subject to satisfactory service, with prospects of further employment, depending upon continuation of the Housing Capital Programme, and will be subject to (*a*) the National Joint Council Scheme of Conditions of Service; (*b*) the Local Government Superannuation Acts; (*c*) passing a medical examination, and (*d*) termination by one month's notice on either side.

The Council will assist in the provision of housing accommodation if required.

Applications, stating age, qualifications and experience, and giving names of three Referees, should be delivered to the undersigned not later than Monday, 18th January, 1954.

Canvassing, either directly or indirectly, will be a disqualification.

J. E. R. WILKINSON,
Clerk of the Council.

Council Offices, South Street,
Ashby-de-la-Zouch.
19th December, 1953. 1294

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Vacancies for TECHNICAL ASSISTANTS (up to £721) in Structural Engineering Division. Work includes steelwork and reinforced concrete design and detailing for Council's building, and checking structural designs and calculations under London Building Acts.

Application forms from Architect (AR/EK/SE/5), County Hall S.E.1. (1270) 1057

WEST SUSSEX COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the appointment of a SENIOR ASSISTANT ARCHITECT, at a salary in accordance with Grade VIII A.P.T. Division (£760 to £835), of the National Scales of Salaries.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom detailed applications must be submitted not later than 14th January, 1954.

T. C. HAYWARD.
Clerk of the County Council.

County Hall, Chichester.
15th December, 1953. 1284

COUNTY BOROUGH OF SOUTHPORT.

An ASSISTANT ARCHITECT is required in the Borough Architect's Department. Salary: A.P.T., Grade V (£595-£645 per annum). Candidates should be Registered Architects and/or Associates R.I.B.A.

Application forms may be obtained from the Department at Pavilion Buildings, Lord Street, Southport.

R. EDGAR PERRINS.
Town Clerk.
1311

LONDON ELECTRICITY BOARD.
ARCHITECTURAL DRAUGHTSMAN.

Applications are invited for the above position in the Chief Engineer's Department in Central London. Applicants should be neat draughtsmen, and preferably have had several years' experience in an Architect's office.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 6—£458 to £595 7s. per annum, inclusive of London allowance.

Application forms obtainable from Secretary, 46, New Broad Street, E.C.2, to be returned completed within 10 days of the publication of this advertisement. Please enclose addressed foolscap envelope and quote ref. V/1683/A. on envelope and all correspondence. 1331

CITY COUNCIL OF NAIROBI.
APPOINTMENT
OF TOWN PLANNING AND BUILDING INSPECTION STAFF.
IN THE CITY ENGINEER'S DEPARTMENT (TOWN PLANNING SECTION).

Applications are invited from suitably qualified persons for the following appointments:—

(*a*) ASSISTANT CITY PLANNING OFFICER, at a salary of £1,070×£40 to £1,150 per annum, plus cost-of-living allowance.

(*b*) TOWN PLANNING ASSISTANT, at a salary of £690×£35 to £830×£40 to £910 per annum, plus cost-of-living allowance.

(*c*) BUILDING SURVEYOR, at a salary of £790×£40 to £1,070.

Commencing salary to be determined in accordance with qualifications and experience of the successful candidate.

The cost-of-living allowance at the present time is 35 per cent. of the basic salary, subject to a maximum of £350.

Applicants for appointment (*a*) will be required, as occasion arises, to deputise for the City Planning Officer, and must be Members or Associate Members of the Town Planning Institute, and hold an additional qualification in architecture, engineering, or surveying, and should have had experience in the office of a Local Planning Authority, particularly in the preparation of a development plan.

Applicants for appointment (*b*) will be required to advise developers on the design and finishes of buildings, and must be Associate Members of the R.I.B.A. or have completed three years at a recognised school of architecture. Experience in the office of a Local Planning Authority will be an advantage.

Applicants for appointment (*c*) will be required to take charge of the Building Inspectors' Office under the City Planning Officer, and must be Associate Members of the Royal Institute of Chartered Surveyors (Sub-division III—Buildings), or hold similar qualifications, and should have up-to-date experience in the work of a Building Inspection Office of a Local Authority, together with a comprehensive knowledge of all forms of building construction, drainage and ventilation.

The appointments are established posts and are subject to a probationary period of six months. The successful candidates will be required to contribute 7½ per cent. of their salaries to the Staff Superannuation Fund. Employees on the established staff are entitled to six months' overseas leave, inclusive of voyage, on full pay after completion of each full tour of service, with a passage allowance up to a maximum of three adult passages and also twenty-one day's local leave per annum; staff are also entitled to certain medical benefits.

Applications, stating age, qualifications and experience, accompanied by a medical certificate of fitness, a photograph and certified copies of testimonials, should be addressed to the Town Clerk, P.O. Box 651, Nairobi, Kenya Colony, so as to reach him not later than the 15th February, 1954.

JOHN RISEBOROUGH,
Town Clerk.

Town Hall, Nairobi.
18th December, 1953. 1355

SURREY COUNTY COUNCIL.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, Grade IV, commencing salary £555×£15 to £600 p.a., plus London weighting.

Applicants must be of good general training, and give full details in their applications. Preference will be given to those who have passed the Intermediate Examination of the R.I.B.A.

The appointment is subject to the provisions of the Local Government Act, 1937, and to a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, County Hall Kingston-on-Thames, not later than the 16th January, 1954. 1354

BOROUGH OF NEWCASTLE-UNDER-LYME requires an ASSISTANT QUANTITY SURVEYOR in the Borough Surveyor's Department. Salary: Grade VI (£670-£735).

Applicants must have had experience in taking off quantities for Housing Work. Housing accommodation will be provided if necessary. Application forms and Conditions of Appointment may be obtained from the Borough Engineer and Surveyor, Lancaster Building, High Street, Newcastle, Staffordshire, and applications should be returned to him by Friday, 22nd January, 1954.

C. J. MORTON,
Town Clerk.

District Bank House, Newcastle, Staffs. 1356

CIVIL SERVICE.

QUANTITY SURVEYORS and ASSISTANT QUANTITY SURVEYORS required throughout the United Kingdom by Admiralty, Air Ministry, War Office, and Ministry of Works, occasionally overseas by War Office. Although unestablished, these posts have long term possibilities. In London, salaries for those suitably qualified and experienced over 26 years of age, range from £650 to £1,320 per annum. Slightly lower in the provinces. Vacancies also exist for QUANTITY SURVEYING ASSISTANTS and others, having some experience of quantity surveying at salaries ranging from £350 per annum upwards (plus pay addition).

Write, quoting reference J.Q.S., to room 403, M.L.N.S., Technical and Scientific Register, 26, King Street, London, S.W.1. 1371

BRITISH ELECTRICITY AUTHORITY.
EAST MIDLANDS DIVISION.

Applications are invited for the following positions within the Division:—

CIVIL ENGINEERING DRAUGHTSMEN, Construction Department. (Vacancy No. 22/53.)

Candidates should have experience in design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., for general building construction drainage and sanitation schemes, associated with official and administrative buildings.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

ENGINEERING DRAUGHTSMEN (MECHANICAL), Construction Department. (Vacancy No. 44/53.)

Senior Draughtsmen are required in the Mechanical Section of the Construction Department at North Wilford Power Station. Candidates should have experience in one or more of the following:—

(i) Design and layout of Power Station equipment, including turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries.
(ii) H.P. and L.P. steam and feed pipework. Condensing plant and feed heating systems.
(iii) Conveyor plant, coal handling systems, and material handling of station auxiliary equipment.

Salary and conditions of service will be in accordance with the National Joint Board Agreement, Grade 5 (£567-£671 per annum) and Grade 6 (£433-£567 per annum) of Schedule D, according to experience.

ENGINEERING DRAUGHTSMEN (ELECTRICAL), Construction Department. (Vacancy No. 61/53.)

Candidates should have experience in the preparation of layouts and diagrams for the installation of E.H.T. and L.T. Switchgear, transformers, E.H.T. and L.T. cables; knowledge of protective gear systems would be an advantage.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

The above positions will be pensionable within the provision of the British Electricity Authority and Area Board Superannuation Scheme.

Applications should be submitted on the official form, which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, and should be returned to the undersigned. Please quote Vacancy Number.

L. F. JEFFREY,
Divisional Controller.
1326

CITY AND COUNTY OF BRISTOL.
CITY ARCHITECT'S DEPARTMENT.

Applications invited for following permanent staff appointments in Quantity Surveying Section:—

(*a*) SENIOR QUANTITY SURVEYORS. A.P.T., VII (£710-£785 p.a.).
(*b*) SENIOR QUANTITY SURVEYOR. A.P.T., VI (£670-£735 p.a.).
(*c*) SENIOR QUANTITY SURVEYOR. A.P.T., V (£595-£645 p.a.).
(*d*) ASSISTANT QUANTITY SURVEYORS. A.P.T., IV (£555-£600 p.a.).
(*e*) ASSISTANT QUANTITY SURVEYOR. A.P.T., III (£525-£570 p.a.).
(*f*) ASSISTANT QUANTITY SURVEYOR. A.P.T., I (£455-£510 p.a.).
(*g*) QUANTITY SURVEYORS' ASSISTANTS. General Division (M) (£160-£450 p.a.).

Further particulars and application form from undersigned. Applicants must state post for which they apply. Completed forms must be received by 25th January.

J. NELSON MEREDITH, F.R.I.B.A.,
City Architect.

Council House, College Green, Bristol, 1. 1370

PERTH AND KINROSS JOINT COUNTY COUNCIL require: (*a*) TWO SENIOR ASSISTANT ARCHITECTS, salary £550-£650 (A.P.T., IV/V), and (*b*) ONE JUNIOR ASSISTANT ARCHITECT, salary £520-£565 (A.P.T., III), both for work on new School Building Programme. Placing on scales according to experience, etc. Particulars and application forms from County Clerk, County Offices, York Place, Perth. State whether for post (*a*) or (*b*). Applications to be lodged by 18*th January*, 1954. 1332

METROPOLITAN BOROUGH OF FULHAM.
SENIOR ASSISTANT ARCHITECT.

Housing and Public Buildings Department. Salary: A.P.T., VI, £670-£735, plus London weighting £30 p.a. over 26 years. Applicants must be registered Architects. Experience in planning and designing schemes of multi-storey flats, handling jobs in progress, and in dealing with contracts essential. Application forms from me. Closing date: 19th January.

CYRIL F. THATCHER.
Town Clerk.

Town Hall, Fulham, S.W.6. 1333

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

(*a*) PLANNING OFFICERS, Grade III (up to £862 10s.).
(*b*) PLANNING ASSISTANTS (up to £721).
Professional qualifications: A.R.I.B.A., A.R.I.C.S. and/or A.M.T.P.I. required. Application forms and particulars from Architect (AR/EK/P/4), County Hall, S.E.1. (1322) 1330

HAMPSHIRE.

Applications are invited for the appointment of a TECHNICAL ASSISTANT in the County Planning Department at Basingstoke from the 1st April, 1954, on A.P.T., Grade III (£525-£570), of the National Salary Scales.

Applicants should have passed the Intermediate Examination of the Town Planning Institute and/or of the Royal Institute of British Architects, and have had an architectural training. Previous experience in a Local Government office would be an advantage. In the event of an applicant being appointed who does not hold the requisite qualification, the appointment will be made at a suitable point in Grade I-II of the National Scales, pending the passing of the requisite examination.

The appointment is pensionable and will be subject to a satisfactory medical report. Officers using their own cars when travelling on County Council duties will receive travelling allowances on the County scale for the time being in force. In approved cases the County Council are prepared to assist newly appointed staff to meet removal expenses.

Applications, stating age, education qualifications and experience, together with a copy of one testimonial and the names and addresses of two persons to whom reference may be made, should be sent to the County Planning Officer, Litton Lodge, Clifton Road, Winchester, not later than the 16th January. 1360

ROYAL BURGH OF INVERNESS.
BURGH ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of PERMANENT CHIEF ASSISTANT ARCHITECT, Grade A.P.T., IV (£550×£15×£15×£15—£595). The appointment is subject to the N.J.C. conditions of service, and the terms of the Local Government Superannuation Act, 1937.

Applicants should be Registered Architects, and have had considerable experience in the design and construction of Municipal Housing and usual Local Authority building undertakings.

The successful applicant will be required to pass a medical examination, and his housing position will be given consideration. Applications, giving age, qualifications, present and past appointments with salaries, together with the names and addresses of three referees, to be sent to the undersigned within ten days of this publication.

J. BLACKBURN, F.R.I.B.A. (DIP.), T.P., A.M.T.P.I., M.R.San.I.
Burgh Architect.

11, High Street, Inverness.
21st December, 1953. 1318

COUNTY BOROUGH OF WALLASEY.

Appointment of:—
(*a*) SENIOR ARCHITECTURAL ASSISTANT, Grade A.P.T., VII.
(*b*) ASSISTANT QUANTITY SURVEYOR, Grade A.P.T., IV.

Applications are invited for the above-mentioned appointments. Further particulars and Forms of Application may be obtained from the Borough Architect, Town Hall, Wallasey to whom they should be returned by the 19th January, 1954.

A. G. HARRISON,
Town Clerk.
1372

BANFF COUNTY COUNCIL require (1) ASSISTANT ARCHITECT—A.P.T., Grade VI; (2) TWO QUANTITY SURVEYORS—A.P.T., Grades VII-VIII; and (3) PLANNING ASSISTANT—A.P.T., Grades VII-VIII. All fully qualified and holding one or more of A.R.I.B.A., A.R.I.C.S., A.M.T.P.I. Travelling allowance on scale for own car. Appointment superannuable, subject to medical examination. Apply within 14 days to County Clerk, Banff, stating age, whether married, with full particulars and chronological list of past appointments, together with copies of three recent testimonials. 1361

COUNTY BOROUGH OF HUDDERSFIELD.

Applications are invited for the following appointments in the Borough Architect and Planning Officer's Department:—
(*a*) QUANTITY SURVEYOR, Grade VI. Salary: £670-£735.
(*b*) QUANTITY SURVEYOR, Grade IV. Salary: £555-£600.

Housing accommodation will be provided for the successful applicants, if required.

Posts superannuable, subject to medical examination.

Applications, suitably endorsed, together with the names of two referees, should reach the Borough Architect and Planning Officer, High Street Buildings, Huddersfield, not later than the 11th January, 1954.

HARRY BANN,
Town Clerk.
Town Hall, Huddersfield. 1317

SOUTH-EASTERN ELECTRICITY BOARD.
ARCHITECTURAL ASSISTANT—Surveyor's Dept. Headquarters.

Salary: £580-£640 under Grade 4 of the N.J.C. Agreement. Applicants should be competent draughtsmen, able to prepare specifications and drawings for all types of buildings, and to carry out site surveys.

Applications, giving age, qualifications, and particulars of present and previous appointments, accompanied by copies of two recent testimonials, should reach the Surveyor, S.E.E. Board, Queen's Gardens, Hove, by 11th January, 1954.

A. L. BURNELL,
Secretary.
1310

COUNTY BOROUGH OF WEST HARTLEPOOL.
BOROUGH ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ASSISTANT ARCHITECT, GRADE A.P.T., IV.

Applications are invited for the position of Assistant Architect, Grade A.P.T., IV (£555×£15—£600), in the Borough Architect's Department.

The appointment is subject to the Scheme of Conditions of Service on the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, with the exception of paragraph 39 thereof. The post will be superannuable, and the successful candidate will be required to pass a medical examination.

Applications, stating age, experience and qualifications, together with copies of not more than three testimonials, should be delivered to the office of the Borough Architect, Municipal Buildings, West Hartlepool, not later than Friday, 22nd January, 1954.

ERIC J. WAGGOTT,
Town Clerk.
Town Clerk's Office, Municipal Buildings, West Hartlepool.
16th December, 1953. 1312

BOROUGH OF MAIDSTONE.
SENIOR ARCHITECTURAL ASSISTANT (GRADE VI).

Applications are invited for the appointment of First Architectural Assistant in the Architectural Section of the Borough Surveyor's Department.

The successful applicant, who should be an Associate of the Royal Institute of British Architects or other Architectural Association, and will rank next to the Chief Assistant, should have had considerable experience in general Municipal building work, particularly in regard to housing development, of which the Borough has an extensive programme. The applicant should also have had experience in handling jobs in progress, dealing with contracts and attendance at Committees of the Council.

The salary will be within Grade VI of the National Scale, i.e., £670 to £735 per annum. The appointment will be subject to the National Scheme of Conditions of Service and the provisions of the Local Government Superannuation Act, 1937.

The successful candidate will be required to pass a medical examination.

The Council is unable to assist in the provision of housing accommodation.

Application forms may be obtained from the Borough Surveyor, Palace Avenue, Maidstone, to whom they should be returned together with the names of three referees by 10 a.m. on Friday, 15th January, 1954.

S. F. DIXON,
Borough Surveyor.
Borough Surveyor's Department, Palace Avenue, Maidstone.
31st December, 1953. 1321

BOROUGH OF RICHMOND (SURREY).

Applications are invited for the appointment of an ARCHITECT on the staff of the Borough Engineer and Surveyor, at a salary in accordance with A.P.T. Division, Grade VIII, i.e., £760-£835, together with appropriate London area weighting, according to age.

The appointment is subject to the provisions of the National Scheme of Conditions of Service and the Local Government Superannuation Act.

Applicants should be registered Architects and have had considerable architectural experience.

Applications, stating age, qualifications and experience, with particulars of present and previous appointments should be delivered, together with the names of two referees, to the undersigned not later than 25th January, 1954.

Canvassing will disqualify. Candidates shall when making application disclose in writing whether to their knowledge they are related to any member of the Council or senior officer.

The Council is unable to assist in the provision of housing accommodation.

CLIFFORD HEYWORTH,
Town Clerk.
Town Hall, Richmond, Surrey. 1320

COUNTY BOROUGH OF DUDLEY.
ASSISTANT QUANTITY SURVEYOR.

Applications are invited from suitably qualified persons for the above appointment in the Borough Architect's Department. Salary: A.P.T., IV (£555-£600).

Forms of application, which may be obtained from me, should be returned completed not later than Tuesday, the 19th January 1954.

P. D. WADSWORTH,
Town Clerk.
The Council House, Dudley.
22nd December, 1953. 1319

BUCKS COUNTY COUNCIL.

Applications are invited from Architects to fill the following permanent posts on the staff of the County Architect, and to work on a large and interesting building programme, including traditional and new building techniques:—

TWO ASSISTANT ARCHITECTS, A.P.T., Grade IX (£815-£935 p.a.).

Applicants should have outstanding design ability.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications on forms, giving further particulars of the appointments are obtainable from Mr. F. B. Pooley, County Architect, County Offices, Aylesbury, and returnable by 30th January, 1954. 1329

THURROCK URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF JUNIOR PLANNING ASSISTANT.

Applications are invited for the appointment of a Junior Planning Assistant, at a salary in accordance with Grade II of the A.P.T. Division of the National Scale of Salaries.

Candidates should be neat draughtsmen, have experience in surveying and levelling, and possess some knowledge of development control.

The appointment will be subject to the Local Government Superannuation Act of 1937, and the successful applicant will be required to pass a medical examination.

Applications, endorsed "Planning Assistant," together with names and addresses of three referees, should reach the undersigned not later than 20th January, 1954.

Canvassing will disqualify, and applicants must disclose in writing any relationship to any member or senior officer of the Council.

A. E. POOLE,
Clerk of the Council.
Council Offices, Whitehall Lane, Grays, Essex. 1347

COUNTY COUNCIL OF NORTHUMBERLAND.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the post of ASSISTANT ARCHITECT, A.P.T., Grade VI (salary: £670 per annum, rising to £735 per annum), on the permanent staff of the Department.

The appointment will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination.

Applicants should have had at least 2 years' experience in an Architect's office.

Applications, stating age, qualifications and previous experience, accompanied by recent testimonials, should be forwarded to the County Architect, County Hall, Newcastle-upon-Tyne, within 10 days of this advertisement appearing. 1344

NATIONAL COAL BOARD—WEST MIDLANDS DIVISION.
ARCHITECT, GRADE II.

Applications are invited for an Architect, Grade II, £600×£25—£650×£30 to £900 (male) and £575×£20 to £775 (female) in the Divisional Architect's Department of the Board. Headquarters for this appointment will be at Fenton, Stoke-on-Trent.

Applicants must have passed the Final Examination of the Royal Institute of British Architects, and have had at least one year's subsequent practical experience, and should be able to prepare sketch plans, working drawings and specifications. The post will be eligible for the Board's Superannuation Scheme.

Applications should be sent to the Divisional Establishment Officer, National Coal Board, West Midlands Division, Himley Hall, Dudley, Worcs. Closing date: 18th January, 1954. 1359

BOROUGH OF WEYMOUTH AND MELCOMBE REGIS.
APPOINTMENT OF SENIOR ASSISTANT QUANTITY SURVEYOR.

Applications are invited for the appointment of a Senior Assistant Quantity Surveyor, in the Department of the Borough Engineer and Surveyor, at a salary in accordance with Grade V of the A.P.T. Division of the National Scales (£595-£645).

Applicants should be fully experienced in all duties of a Quantity Surveyor, and preference will be given to a candidate who holds a recognised qualification.

The appointment will be in accordance with the National Joint Council Scheme of Conditions of Service, will be subject to the Local Government Superannuation Act, 1937, to the successful candidate passing a medical examination and to termination by one month's notice on either side.

Applications, stating age, qualifications, training and experience, together with the names and addresses of three persons to whom reference may be made, to be forwarded in plain sealed envelopes endorsed "Senior Assistant Quantity Surveyor," to the undersigned before Friday, 22nd January, 1954.

PERCY SMALLMAN,
Town Clerk.
Municipal Offices, Weymouth.
January, 1954. 1358

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE.
OFFICE OF THE COUNTY ARCHITECT.

Applications are invited for the appointments of ASSISTANT ARCHITECTS, in Grades A.P.T., V, Va, VI and VII. Salary ranging from £595 p.a. to £795 p.a., according to grade.

Candidates should be Registered Architects and be Associate Members of the Royal Institute of British Architects.

The appointments will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937, as amended by the West Riding County Council (General Powers) Act, 1948, and the Conditions of Service at present in operation by the County Council. The successful candidates will be required to pass a medical examination.

Application forms, obtainable from this office, should be delivered not later than the first post on Monday, 25th January, 1954.

HUBERT BENNETT, F.R.I.B.A.,
County Architect.
"Bishopgarth," Westfield Road, Wakefield. 1343

CHESTERFIELD RURAL DISTRICT COUNCIL invite applications for the appointment of ASSISTANT QUANTITY SURVEYOR. Salary: A.P.T., I-III (£465 to £570). The Council will assist with housing accommodation. Application forms from the Engineer, Rural Council House, Saltergate, Chesterfield, should be returned to the Clerk of the Council by 28th January, 1954. 1346

HACKNEY BOROUGH COUNCIL require two ARCHITECTURAL ASSISTANTS. Salary for each appointment within A.P.T., Division, Grades III-IV (£525-£600 per annum). London weighting allowance also payable.

Candidates must have had a good architectural training and must have passed the R.I.B.A. Intermediate or equivalent examination.

Apply to Town Clerk, Town Hall, Hackney, E.8, for application form, returnable, duly endorsed by first post on 25th January, 1954. 1378

NORTH RIDING COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited from Registered Architects for the appointment on the permanent staff of a SENIOR ASSISTANT ARCHITECT, A.P.T., Grade VII (£710-£785).

Appointment superannuable, and subject to medical examination.

Forms of application are not being issued, but applications should state age, qualifications and experience, together with particulars of present and previous appointments, and the names and addresses of three referees, to be delivered to the undersigned not later than 25th January, 1954.

Canvassing, directly or indirectly, will disqualify and candidates should state whether they are related to any member of, or senior officer under, the Council.

H. G. THORNLEY,
Clerk of the County Council.

County Hall, Northallerton.
31st December, 1953. 1379

FIFE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for appointments as ARCHITECTURAL DRAUGHTSMEN in the above Department of the Council situated at Cupar. Salary scale: £435, rising by annual increments of £20 to a maximum of £535 per annum. Consideration may be given to meeting the housing needs of the successful candidates. Applicants should be quick and accurate draughtsmen, preferably having had experience in an Architectural Drawing Office. Successful candidates, if under 45 years of age and subject to their passing a medical examination, will be admitted to the Council's Superannuation Scheme. Applications, stating age, experience and qualifications, accompanied by copies of recent testimonials, to be lodged with the undersigned not later than 16th January, 1954.

MATTHEW POLLOCK,
County Clerk.

County Buildings, Cupar-Fife.
29th December, 1953. 1373

COUNTY BOROUGH OF BURNLEY.

Applications are invited for the appointment of a QUANTITY SURVEYING ASSISTANT in the Borough Engineer's Department. The salary grade will be fixed in accordance with experience and qualifications, but the maximum salary offered is Grade III of the National Scale (£525, rising to £570 per annum).

Applicants should have a sound knowledge of Building Construction and experience in the preparation of Bills of Quantities and Measurement of Works is essential.

Preference will be given to candidates holding appropriate qualifications.

Forms of application and conditions of appointment may be obtained from the Borough Engineer 22/24, Nicholas Street, Burnley, to whom applications should be returned not later than 9 a.m. Saturday, 23rd January, 1954.

C. V. THORNLEY,
Town Clerk.
1380

SKEGNESS URBAN DISTRICT COUNCIL.
AMENDED ADVERTISEMENT.
ARCHITECTURAL ASSISTANT, GRADE V and Va (£595-£685).

Applications are invited from suitably qualified persons for the appointment of Architectural Assistant, in the Engineer and Surveyor's Department, the commencing salary to be fixed according to the qualifications and experience of the person appointed.

The appointment will be subject to the National Scheme of Conditions of Service, the provisions of the Local Government Superannuation Acts, and the passing of a medical examination.

Applicants should have had experience in the preparation of plans, designs, details and specifications for the architectural work normally undertaken by an Urban Authority, including the preparation of quantities.

Applications, suitably endorsed, together with copies of two recent testimonials, to be delivered to the undersigned not later than 23rd January, 1954.

IVOR M. CULE,
Clerk to the Council.

Town Hall, Skegness.
29th December, 1953. 1345

EAST BARNET URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments to the Permanent Staff of the above Department:—

(*a*) SENIOR ASSISTANT ENGINEER—GRADE A.P.T., VI (£670 to £735, plus London weighting, per annum).

(*b*) SENIOR ASSISTANT ARCHITECT—GRADE A.P.T., VI (£670 to £735, plus London weighting, per annum).

(*c*) ARCHITECTURAL ASSISTANT—GRADE A.P.T., IV (£555 to £600, plus London weighting, per annum).

Housing accommodation will be provided, if necessary, for one of the two Grade VI appointments referred to in (*a*) and (*b*) above.

Forms of Application and Conditions of Appointments may be obtained from the undersigned, to whom completed application forms should be returned by Monday, 25th January, 1954.

C. M. BARNES, O.B.E., M.I.Mun.E.,
F.R.San.I., A.M.T.P.I.,
Engineer and Surveyor.

Town Hall, Station Road, New Barnet, Herts.
December, 1953. 1357

CITY OF BRADFORD.
APPOINTMENT OF TOWN PLANNING ASSISTANTS.

Applications are invited for the following posts in the City Engineer and Surveyor's office, on the grades indicated:—

(*a*) JUNIOR TOWN PLANNING ASSISTANT. Post No. 57. Grades A.P.T., I, II, III or IV (£465-£510, £495-£540, £525-£570, or £555-£600), according to qualifications.

(*b*) SENIOR TOWN PLANNING ASSISTANT. Post No. 8. Grade A.P.T., VII (£710-£785).

Applicants for post (*a*) should preferably hold an Engineering Degree or have passed the Intermediate Examination of the Institution of Civil or Municipal Engineers. Experience in surveying and in layout and design of Housing Estate Roads and Sewers will be an advantage.

Candidates for post (*b*) should preferably hold an Architectural qualification and have experience in the layout of large housing estates and neighbourhood units, and in the design of houses, flats and shops.

All applicants should have completed their National Service.

The appointments are superannuable. Applications on the prescribed form to be obtained from the City Engineer and Surveyor, Town Hall, Bradford, 1, together with three testimonials, must be received by the undersigned not later than Monday, 25th January, 1954. No housing accommodation will be provided by the Corporation.

W. H. LEATHEM,
Town Clerk.

Town Hall, Bradford, 1. 1381

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she is, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

ASSISTANT required for large general Architectural Practice with offices in Maidenhead. Some experience in specification writing essential. Salary £300 to £500, according to experience. Box 8933.

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9829.

VACANCY arises for Articled Pupil (Architectural or Building Surveying) in City firm. Box 9468.

ARCHITECTURAL ASSISTANTS, with experience, required for general practice. Reply, stating experience and salary required, to Thomas Worthington & Sons, 178, Oxford Road, Manchester, 13. 1255

SENIOR ARCHITECTURAL ASSISTANT required in Worcester office. Experience in drawing office and supervision of works. Five-day week. Write, giving particulars of age, qualifications, experience, salary required, if car driver, and if housing is required, to Box 1278.

ARCHITECT'S ASSISTANT required in London office. Interesting and varied practice, including housing, licensed premises, hospital, factory and laboratory works. Passed R.I.B.A. Intermediate essential. Five-day week, staff profit sharing scheme. Salary £494 per annum. Applications by letter only, giving particulars of training and experience, to Stewart & Hendry, FF.R.I.B.A., A.M.T.P.I., 90, Fenchurch Street, London, E.C.3. 1362

ASSISTANT required for contemporary work, with minimum 5 years' experience, of Inter. standard. Prepared to take on responsibility. Apply, quoting previous employments, giving three references and present salary, to Louis Erdi, 27, Knightrider Street, London, E.C.4. 1363

ARCHITECTS, Plymouth, require male ASSISTANT, quick draughtsman, good office experience, capable handling small jobs under supervision. Salary: £350 to £450, according to experience. Details to Box 1364.

ARCHITECTURAL ASSISTANTS and DRAUGHTSMEN required immediately in Darlington and Newcastle upon Tyne for varied practice. Reply, stating experience and commencing salary required, to J. R. Wetherell & Lamb, Chartered Architects, at 42, Victoria Road, Darlington, or Picton Place, Newcastle upon Tyne, 1. 1365

ARCHITECTURAL ASSISTANT, Intermediate standard, with experience of Housing and Estate work, urgently wanted for country office, North-East Scotland. Salary: £400-£450 per annum. 3-apartment flat available if required. Box 1366.

REQUIRED for Architects' office, Central London area, young qualified ASSISTANTS for varied contracts. Salary: £500-£750 p.a., according to age and experience. Apply Box 1367.

EXPERIENCED ARCHITECTURAL ASSISTANT required immediately by London Architects. Salary: £600 to £700, according to suitability. Reply, stating age, qualifications and experience, to Box 1377.

ASSISTANT required; R.I.B.A. Inter. standard. Full details and salary desired to Architects' Department, Rawlence & Squarey, Chartered Surveyors, 13, Commercial Road, Southampton. 1325

ARCHITECTURAL DRAUGHTSMAN required for the Buildings and Services Division of The Metal Box Co., Ltd. Applicants must have sound knowledge of building construction and experience of detailing for industrial buildings. Good draughtsmanship essential. Apply in writing, stating age and salary required, to ref. BS/16, Staff Division, The Metal Box Co., Ltd., The Langham, Portland Place, London, W.1. 1334

RONALD WARD & PARTNERS require several ARCHITECTURAL ASSISTANTS, Senior and Intermediate standard (male, British). Seniors to apply in writing, stating fully experience and salary required. Apply 17, Lowndes Street, S.W.1. Sloane 8291. 1336

A LARGE Company in the East Midlands requires an ASSISTANT in their Real Estate Department. Applicants should have wide general knowledge and experience of building construction, maintenance surveying, and be capable of preparing condition surveys, specifications, simple constructional drawings, and preferably have some knowledge of quantities and estimating. Reply, giving full particulars of age, experience, qualifications and salary required. Box 1337.

SENIOR ARCHITECTURAL ASSISTANT required in Central London office. Experience of shops and shopfitting an asset. Please write to Box 1338, stating age, experience, and salary required.

ASSISTANT required in Architect's office, Welwyn Garden City. Not less than Inter. standard. Write full particulars and salary required. Box 1339.

ESSO PETROLEUM CO., LTD., require for their London office ARCHITECTURAL ASSISTANT. Applicant must be qualified, have designing ability, a sound knowledge of construction and preparation of specifications. The work involved covers a varied field, and the successful candidate will be required to carry through the complete jobs from planning to construction. The position is pensionable, and successful candidate will be appointed to the Company's Regular Staff. Applicants should apply in writing, giving full details of career to date, together with salary required, to the Personnel Manager, Employee Relations Department, 101, Piccadilly, London, W.1. 1340

ARCHITECT'S ASSISTANT required, aged about 20. West End office. Salary: £250 to £300, according to experience. Apply E.H.D., Box 1348.

ASSISTANT ARCHITECT required. Salary: £400 p.a. or thereabouts, according to experience. Apply, giving full particulars, to Frederick Gibberd, 8, Percy Street, W.1. 1349

INTERMEDIATE Standard ASSISTANT required for small Architectural practice in Gloucester. Write, stating age, experience, and salary required, to Box 1351.

CHIEF ASSISTANT required immediately for general private practice. Thorough experience of design, specifications, site supervision, negotiations, accounts, maintenance, work, etc., essential. Salary: £600-£800, according to experience and ability. Apply: George E. Clay & Partners, AA.R.I.B.A., 198, Parrock Street, Gravesend, Kent. 1350

ARCHITECTURAL ASSISTANT, up to Final standard, required in small City office. Apply in writing, giving details of qualifications, age, experience, and salary required, to Box 1315.

SENIOR ARCHITECTURAL ASSISTANT required for busy practice. Write, giving full particulars of qualifications, experience, and salary required, to Johns and Slater, F./A.R.I.B.A., 32, Foundation Street, Ipswich. 1314

ARCHITECTURAL DRAUGHTSMAN required for general practice, chiefly domestic and agricultural work. Intermediate R.I.B.A. standard desirable. Applications from more senior men and women would be considered. Salary by arrangement. Smith-Woolley & Partners, Collingham, Newark, Notts. 1382

ARCHITECTURAL ASSISTANT required for busy City practice. Must be quick and accurate. Salary according to age and experience. Apply to Westmore & Sanders, 121, Cheapside, E.C.2. MONarch 3337/9. 1316

ARCHITECTURAL ASSISTANT required for small but busy private practice branch office in Chelmsford, with wide variety of work on hand. Previous office experience and good draughtsmanship essential. Please reply with full particulars to Box 1322.

DESIGN RESEARCH UNIT require ARCHITECTURAL ASSISTANTS interested in the design of shops and interiors. Salary from £400 to £550 p.a., according to experience. Apply in writing to 37, Park Street, London, W.1. 1323

ASSISTANT ARCHITECT or SURVEYOR required by London Firm of Contractors. Experienced in surveying and levelling, setting out and supervision of construction of roads. State age, experience, qualifications, salary required, date services available. Box 1376.

Architectural Appointments Wanted

A R.I.B.A., Dip.Arch. (36) seeks senior position in contemporary London office where there is scope for technical and constructional knowledge. Box 9809.

EXPERIENCED ARCHITECT, BUILDING and LAND SURVEYOR (40), now holding responsible administrative post, seeks full- or part-time appointment, Devon Coast area. Box 1234.

LONDON.—Young office trained ASSISTANT, nearing Final, 5 years' experience, seeks position in small "well mannered" office. One principal preferred. Box 1328.

B. ARCH., A.R.I.B.A. (28), with 4½ years' post-graduate experience of local authorities and private practice (including schools, town planning, airfield planning, and teaching), seeks London appointment. Particularly interested in sociological and journalistic aspects of architecture. Salary by arrangement. Box 829.

FEMALE ASSISTANT, Final standard, typing, shorthand, etc., wanting experience with small busy contemporary office. London preferred. Box 831.

EXPERIENCED Senior ARCHITECTURAL ASSISTANT (31), school and office trained, varied general experience, contemporary outlook, clean draughtsman, and able to manage contracts, had practice on own account, seeks responsible progressive position with prospects in London or South Country. Salary in the region of £750 per annum. Box 830.

CONTEMPORARY-MINDED Student R.I.B.A. (Final), 26, with two years' general professional experience following full-time course at leading school of architecture, seeks responsible post at home or abroad, where his flare for domestic design can find a stimulating and worthwhile outlet. Box 833.

SENIOR ASSISTANT, R.I.B.A. Final standard, part school training, able to take charge, 6 years' varied experience most building types, specifications, surveys, etc., seeks responsible position showing prospects for advancement. Box 834.

A R.I.B.A., public school and university education, 3 years' experience, requires interesting and responsible position. S.W. London or Surrey. Box 1375.

BORED and frustrated, 27-year-old ARCHITECTURAL ASSISTANT, employed in mundane office, with 6 years' experience, mainly in house and flat construction, and one subject short of Intermediate R.I.B.A., desires to return to private practice, preferably in South London. Box 832.

26-YEAR-OLD ARCHITECTURAL ASSISTANT, with 7 years' experience in Architects' office, Inter. R.I.C.S., preparing R.I.B.A., requires position in Croydon, with good prospects, for keen and enthusiastic worker. Box 835.

Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

SENIOR STRUCTURAL ENGINEERING ASSISTANT. Excellent position available for man of personality and ability. Thorough knowledge building construction, structural design and calculations absolutely essential. Knowledge of timber design desirable but not essential. Work entails preparation drawings incorporating Trofdek Structural Systems and consultation with Architect clients. Reply in writing to Trofdek Director, H. Newsum, Sons & Co., Ltd., Lincoln. 1300

YOUNG man, preferably with some previous experience and completed National Service, required by John Lewis Partnership, to train as SHOP FITTING DRAUGHTSMAN. Pay from £250. Apply Dept. of Personnel, 32, Cavendish Sq., W.1. 1374

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