

ARTS DEPT.

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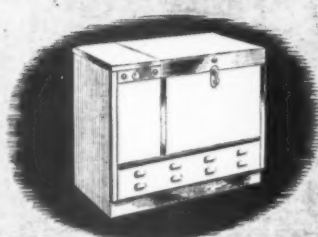
★A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to I one week, I g to Z the next. In all cases where the town is not mentioned the word LONDON is implicit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

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	Sloane 3158/1601
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1. Euston 2450	Museum 1783
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	
I of Arb.	Institute of Arbitrators, 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2. Temple Bar 4071	Museum 7197/5176
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 6851
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. 11, Gower Street, W.C.1.	Museum 9200
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	MARS Group (English Branch of CIAM). Secretary: Gontran Goulden, Building Centre, 9, Conduit Street, W.1.	Mayfair 8641
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. Whitehall, S.W.1.	Whitehall 4300
MOLGP	Ministry of Local Government and Planning. 23, Saville Row, W.1.	Regent 8411
MOLNS	Ministry of Labour and National Service, 8, St. James's 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 Asphalt 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.	Abbey 5111
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.	Molesley 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.	Whitehall 9936
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. 14, Moorgate, London, E.C.2.	Central 4444
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. 75, Cannon Street, E.C.4.	City 4771
TGC	The Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
TPI	Town Planning Institute. 18, Ashlev Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 69, Cannon Street, E.C.4.	City 4444
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	Mayfair 8866
WEDA	Welfare Equipment Development Association. 74, Victoria Street, S.W.1.	Victoria 5783
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

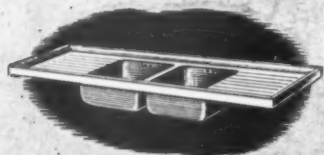
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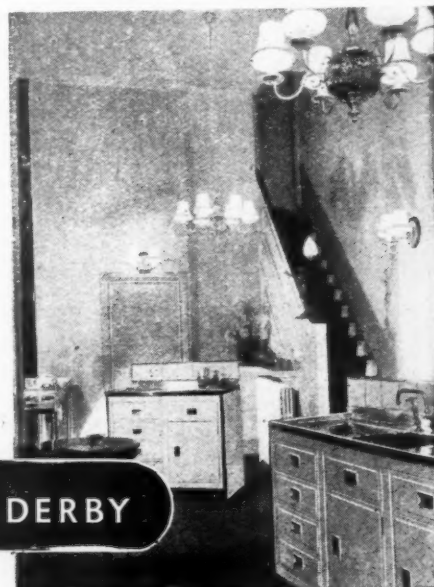
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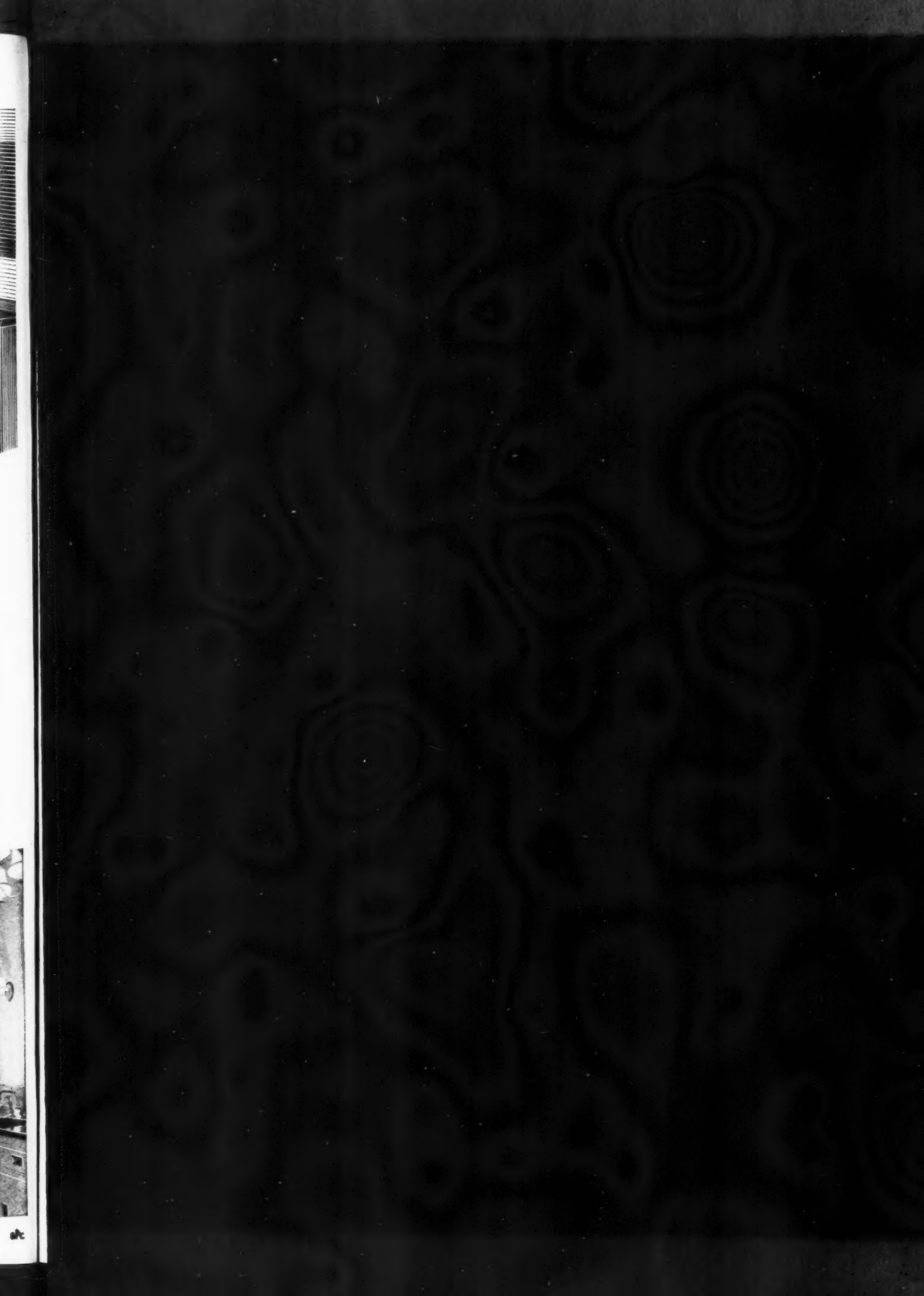
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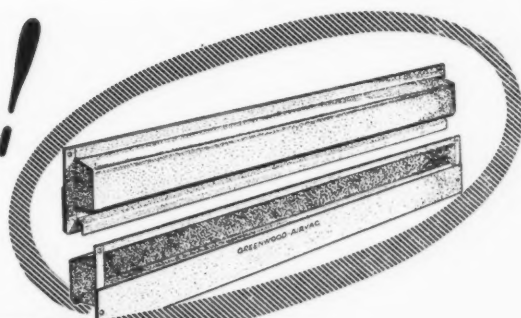
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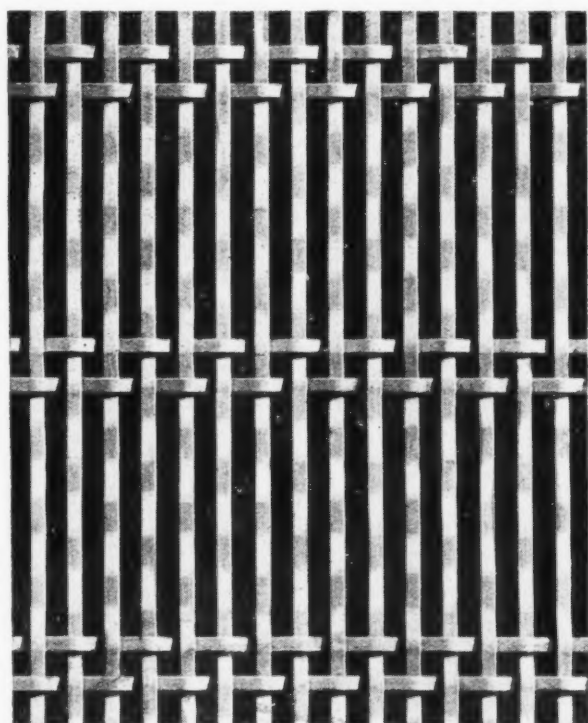
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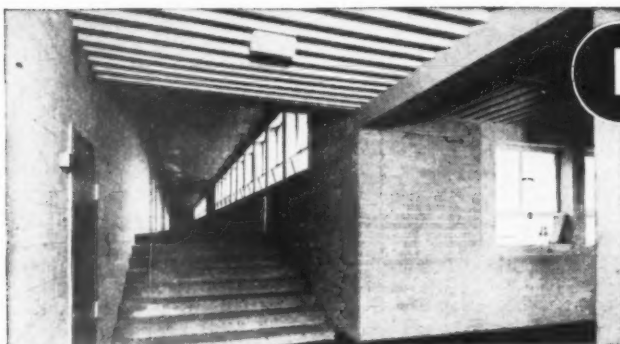
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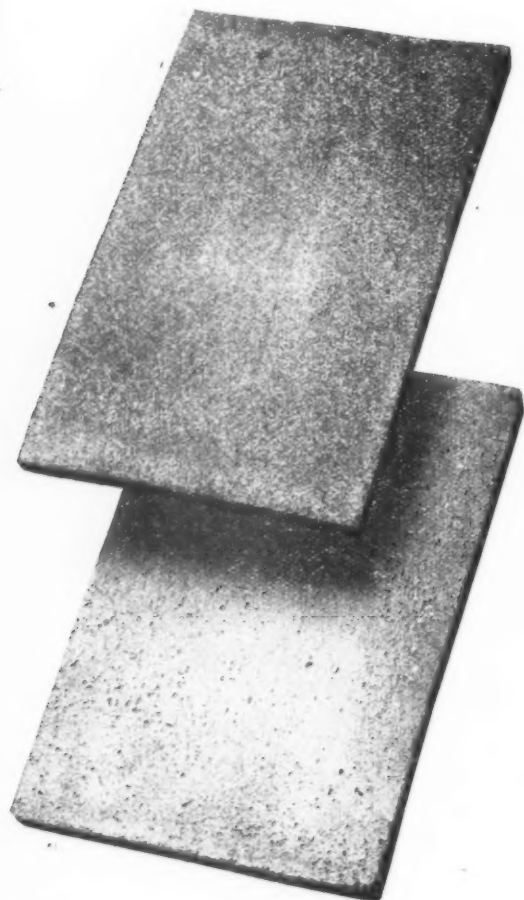
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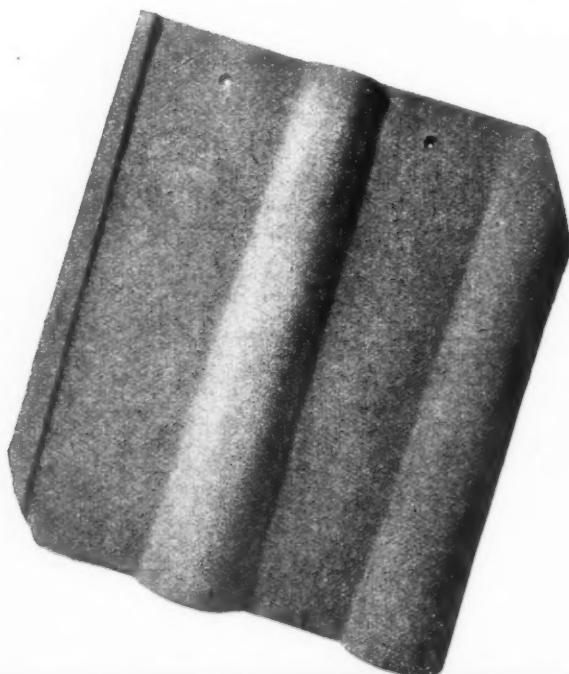
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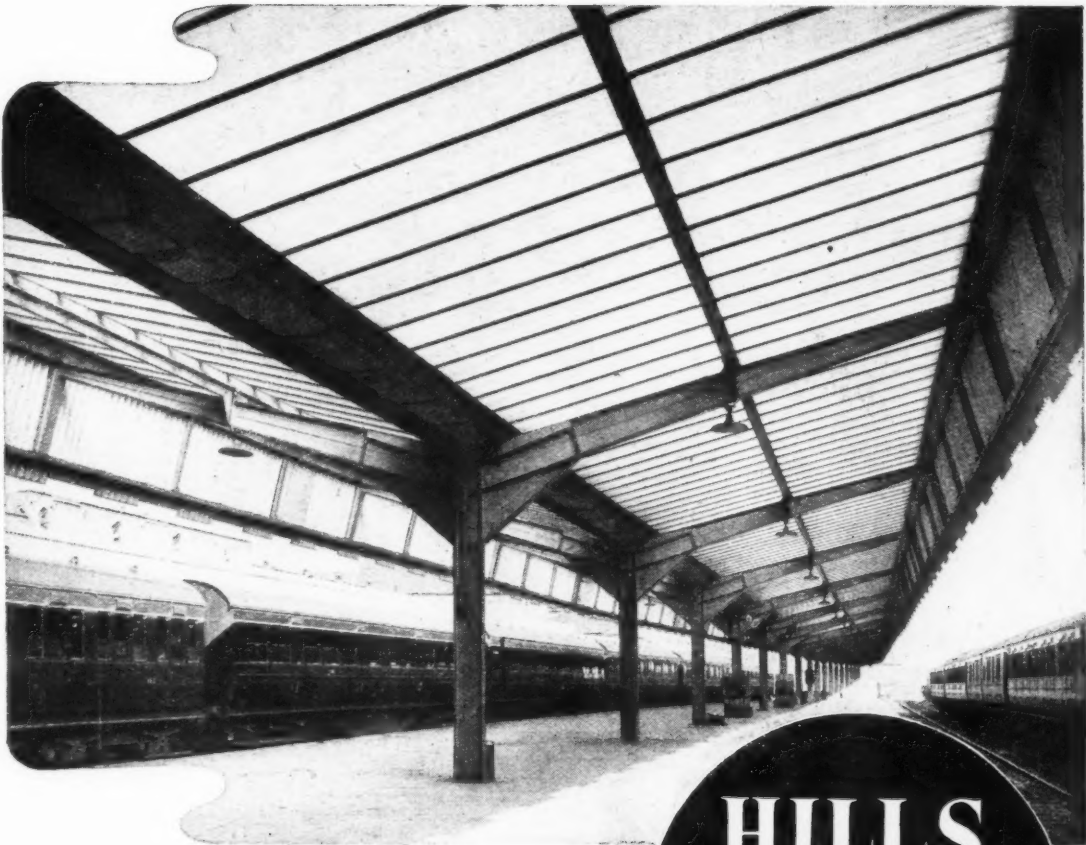
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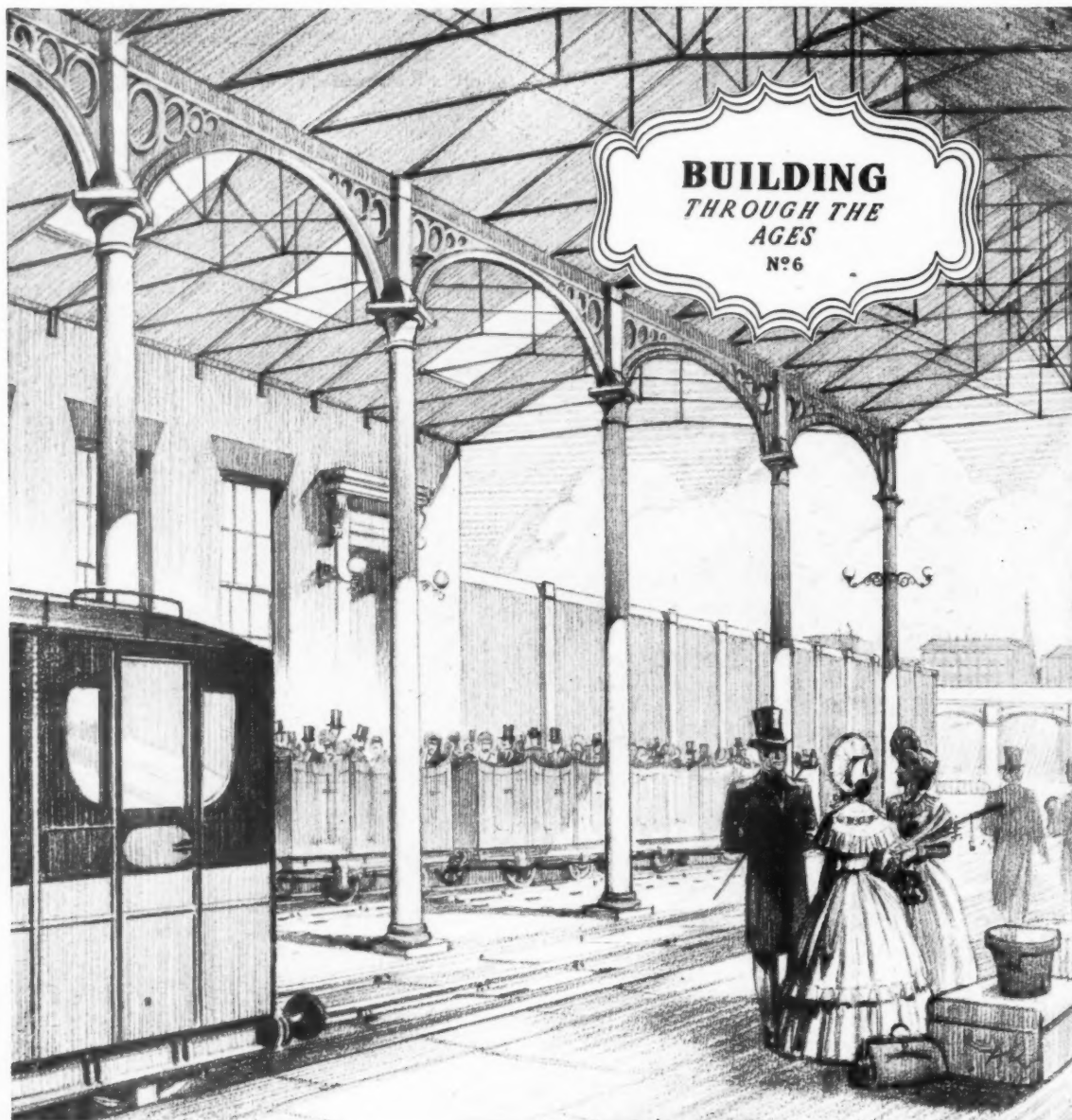
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Euston Station, London. Built 1838

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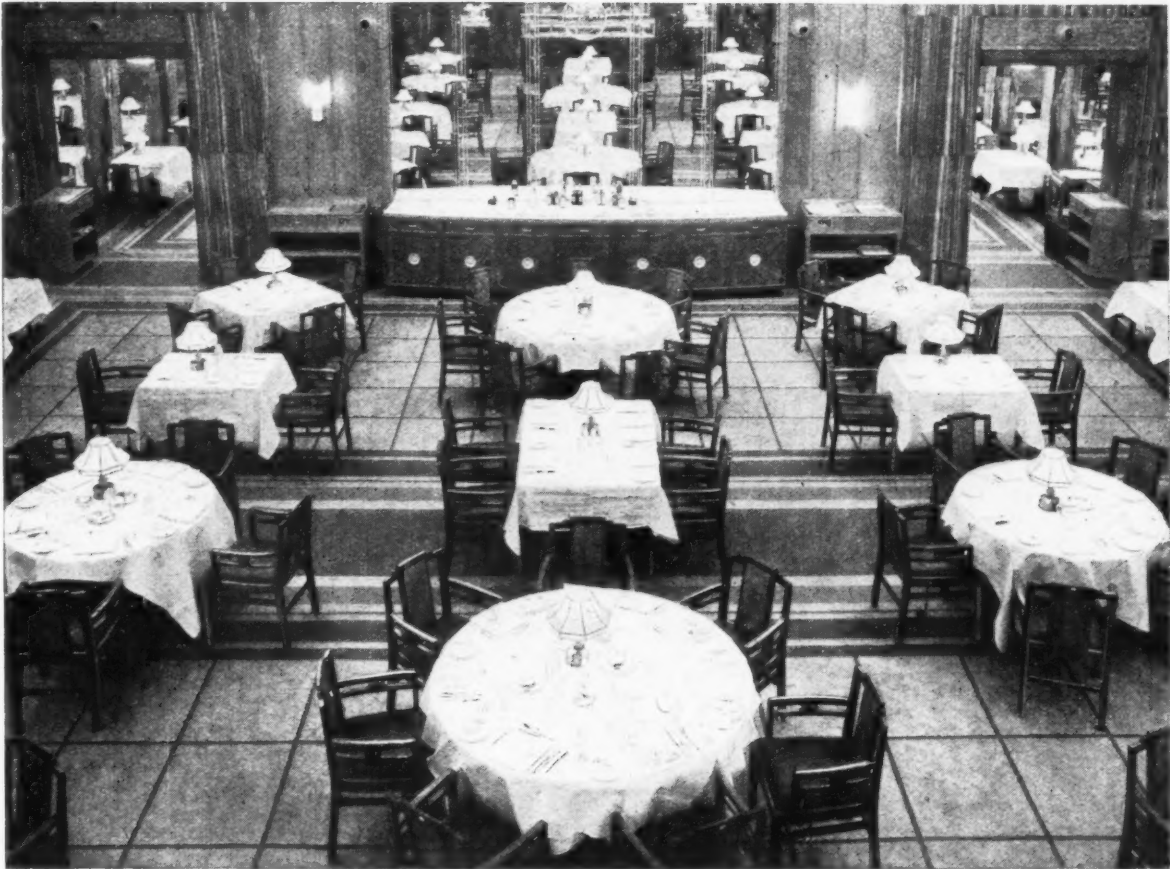
Unfortunately, though this was a period rich in technical advancement, the æsthetic properties of many of its great achievements were striking examples of how *not* to do it.

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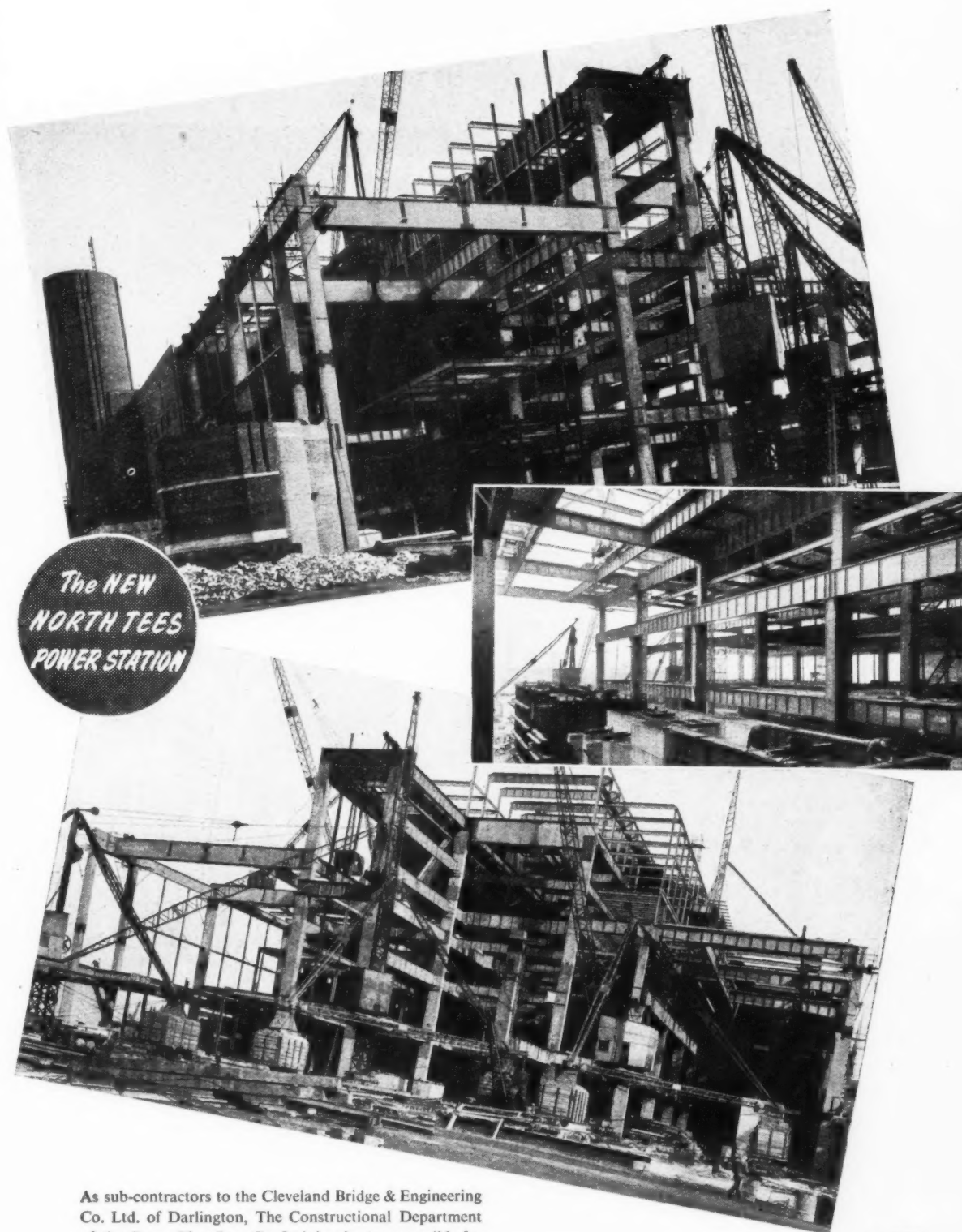


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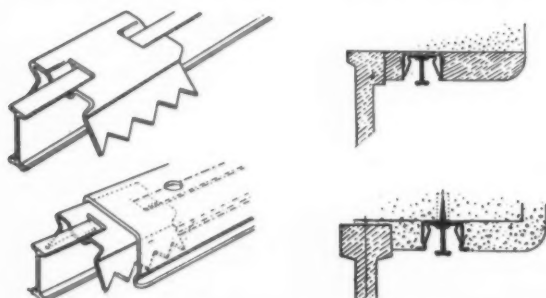


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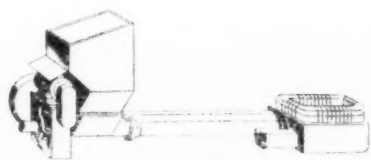
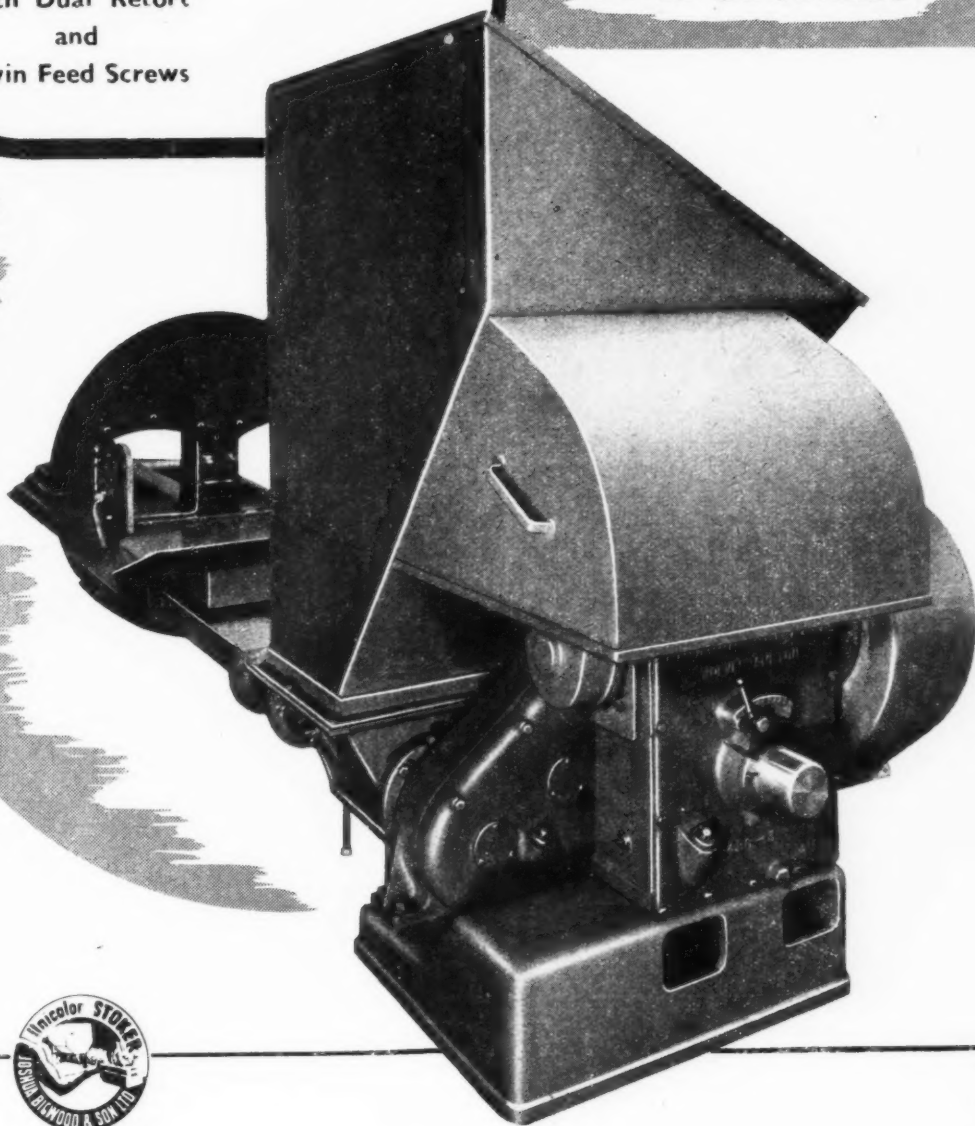
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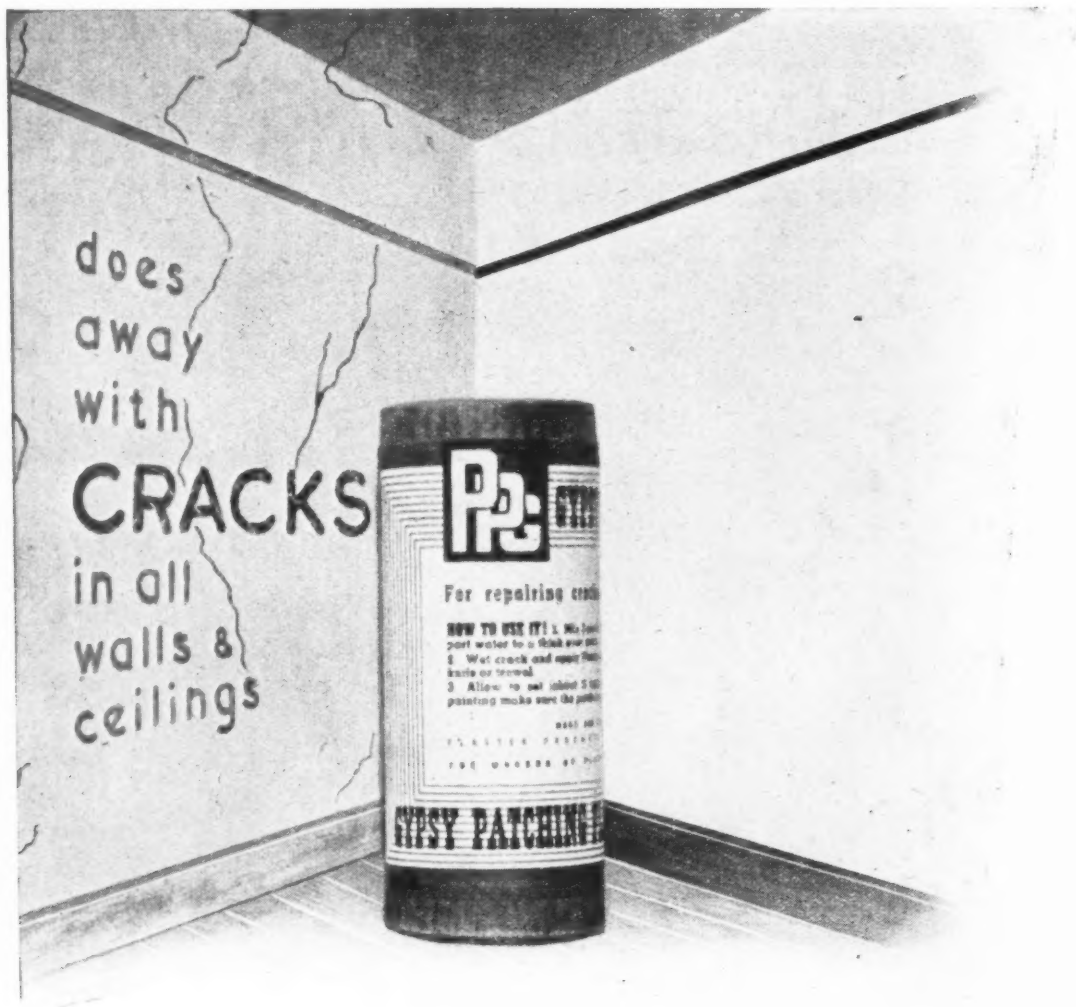


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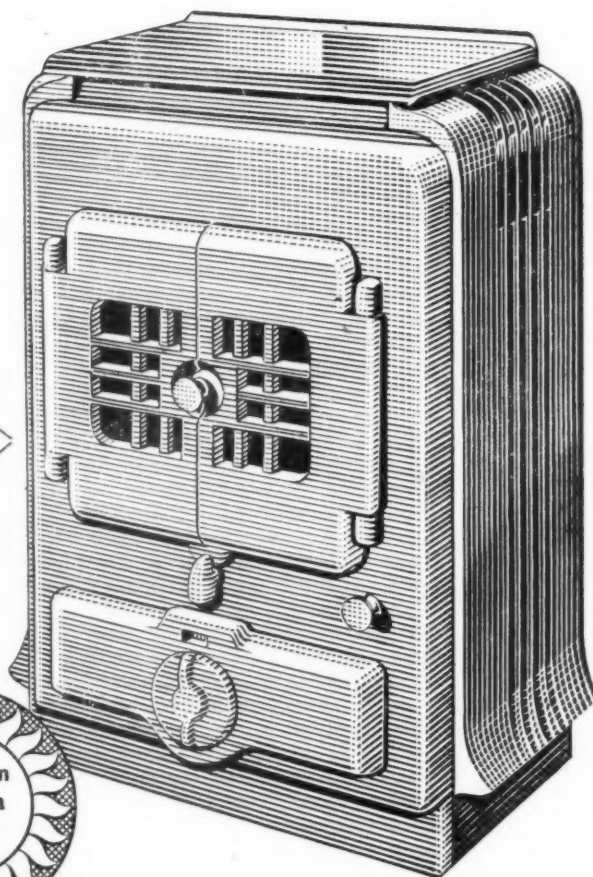
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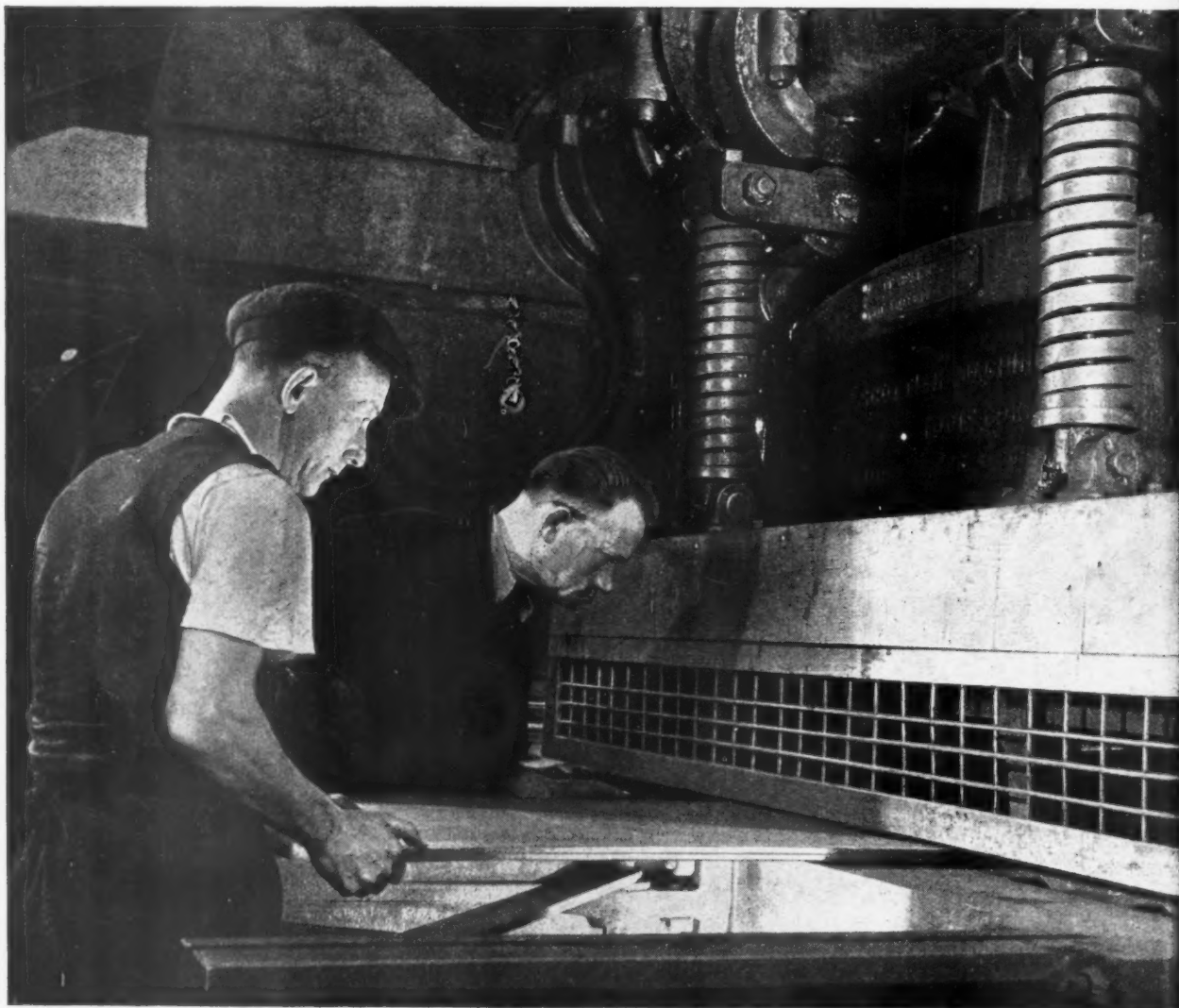
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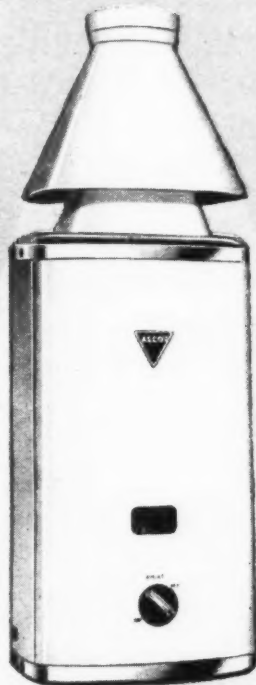
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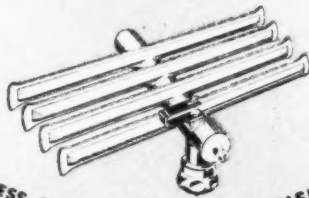
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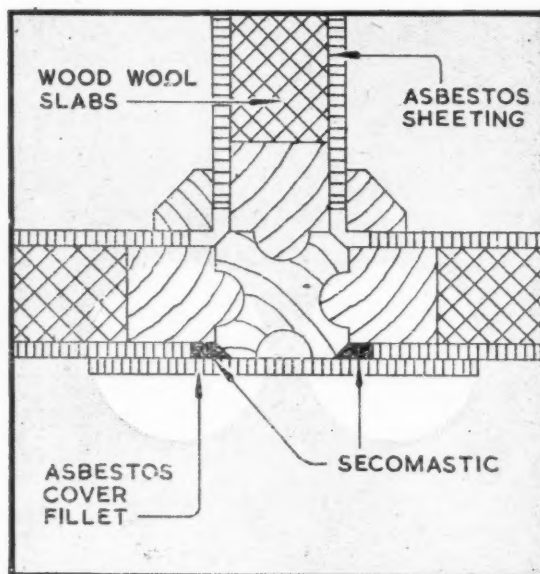
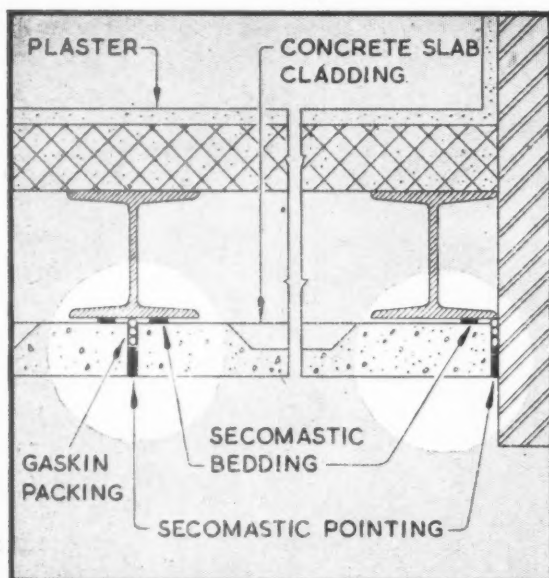
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SOLVED BY

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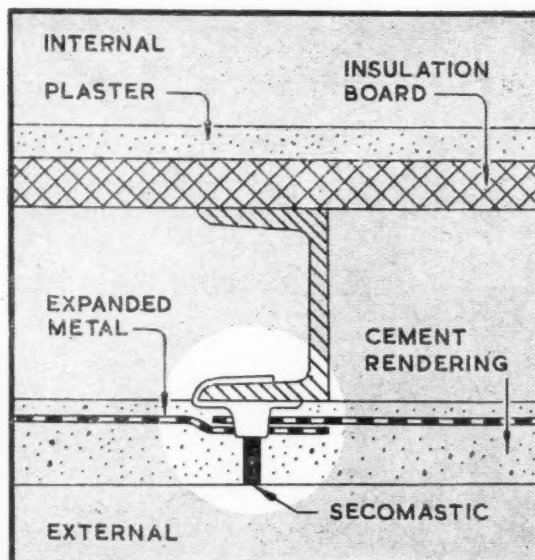
The illustrations show typical examples of the use of SECOMASTIC for expansion joints. In each case the problem was to provide a weatherproof seal whilst at the same time allowing for the normal contraction and expansion of the joint.

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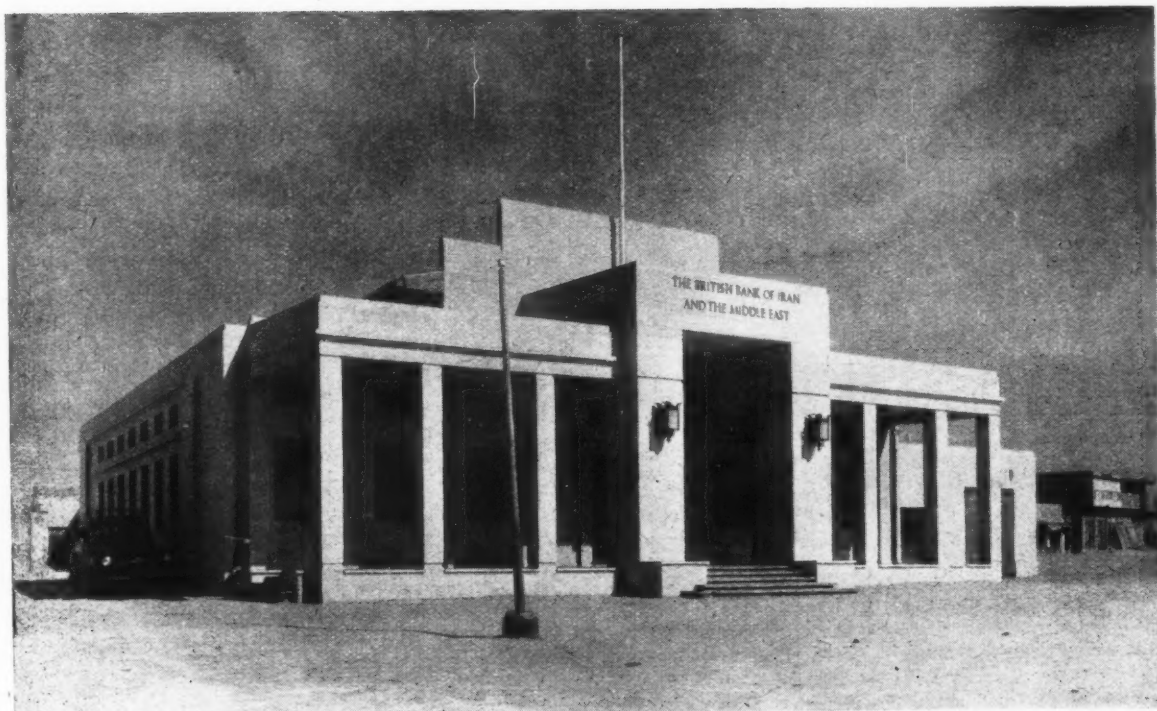
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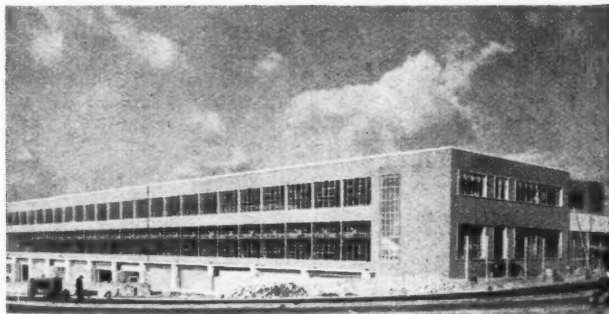




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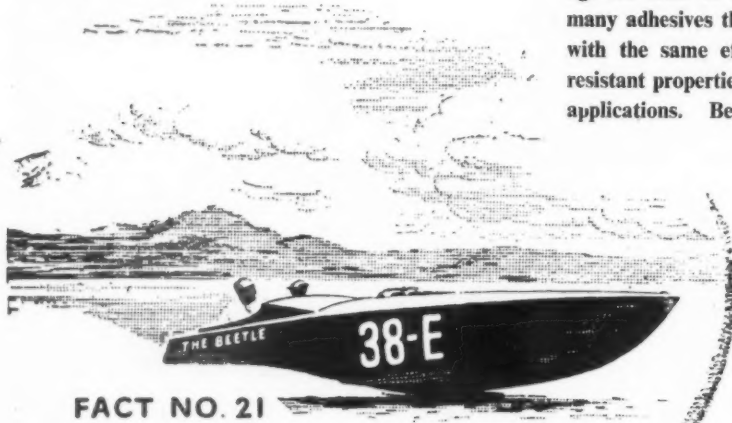
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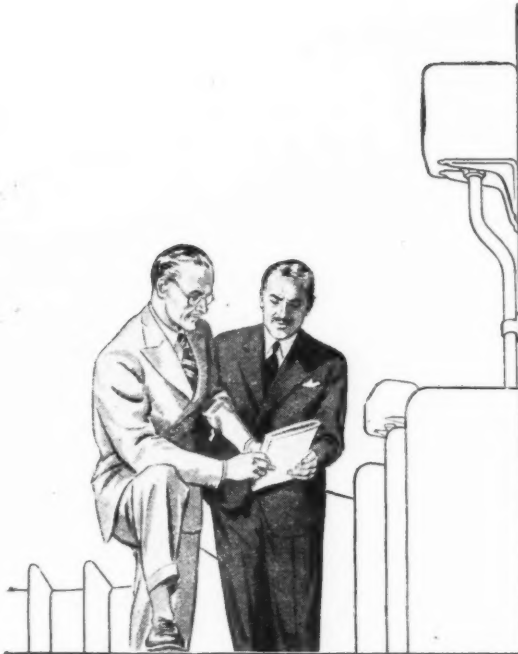


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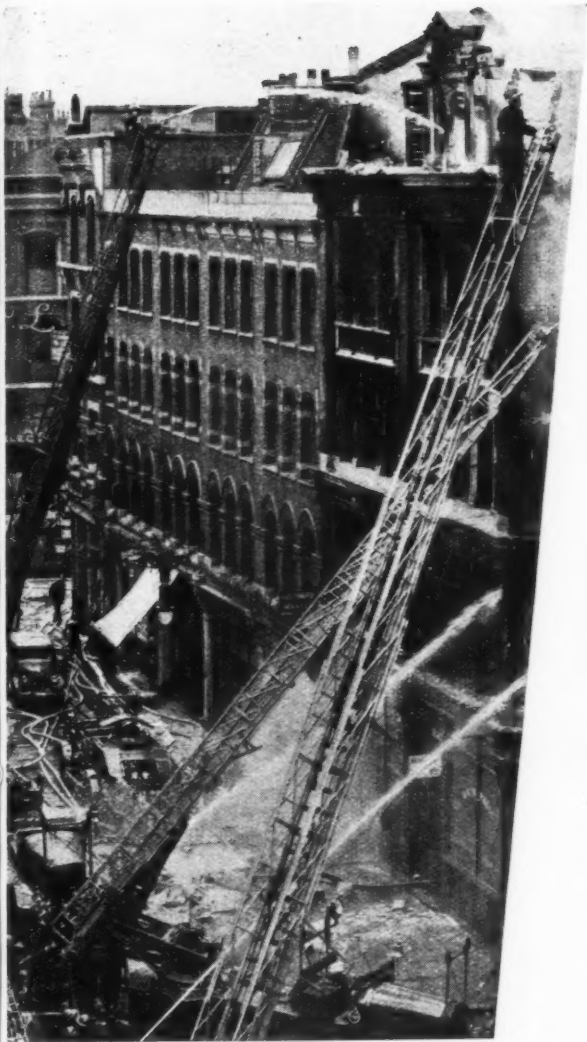
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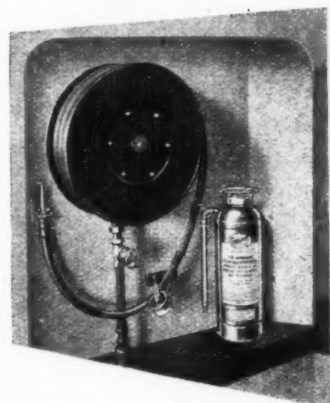
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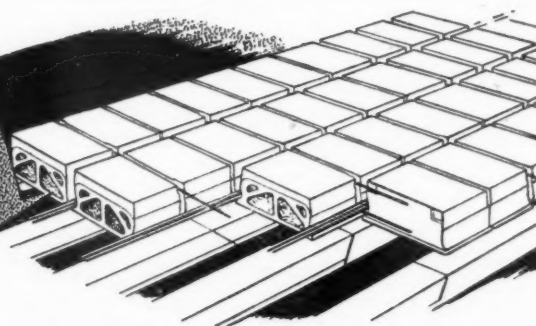
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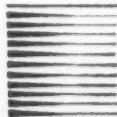
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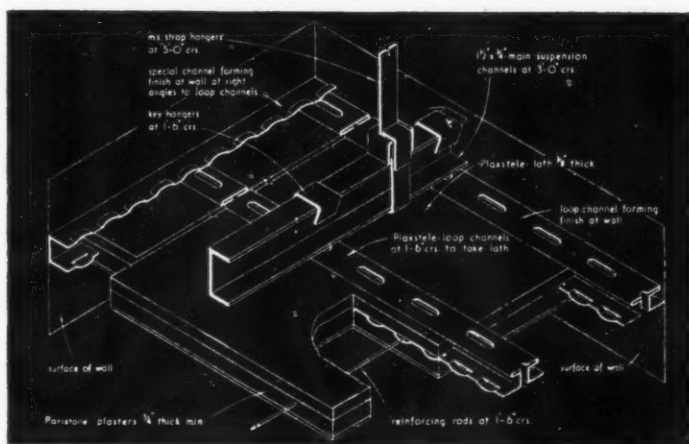
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Fig. 1. - Rig and Gear for applying impact tests.

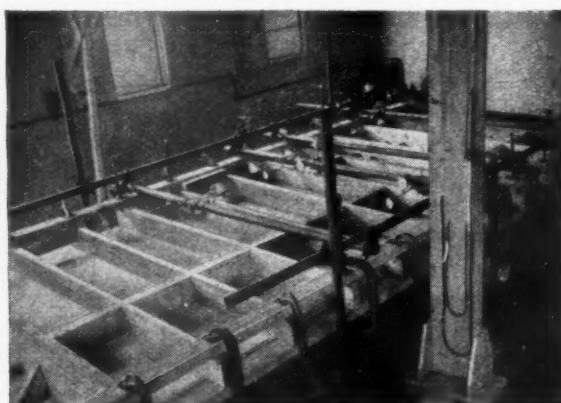


Fig. 2. - Rig for static loading tests. (Floor section is inverted, with captive airbag beneath for loading.)

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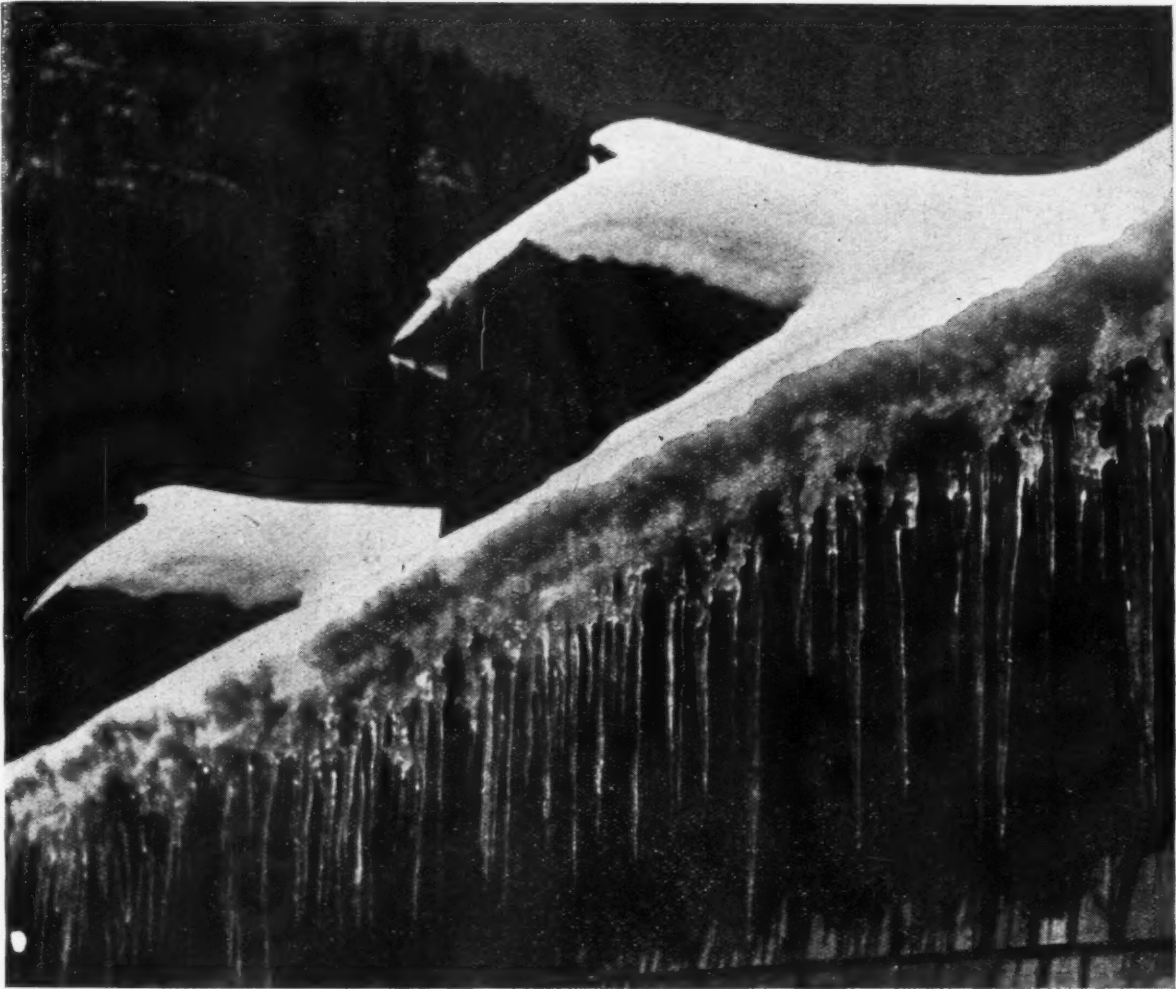
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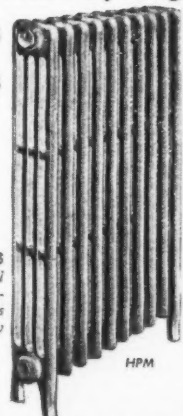
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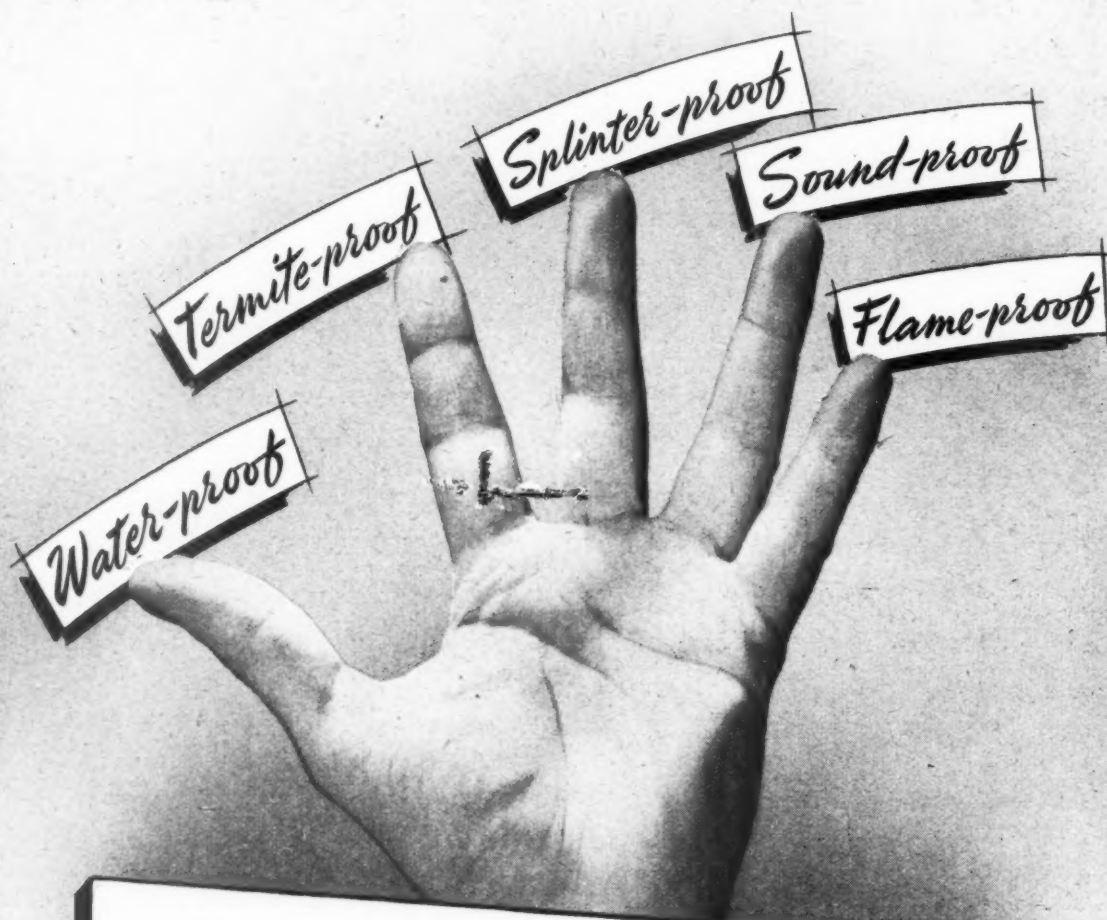
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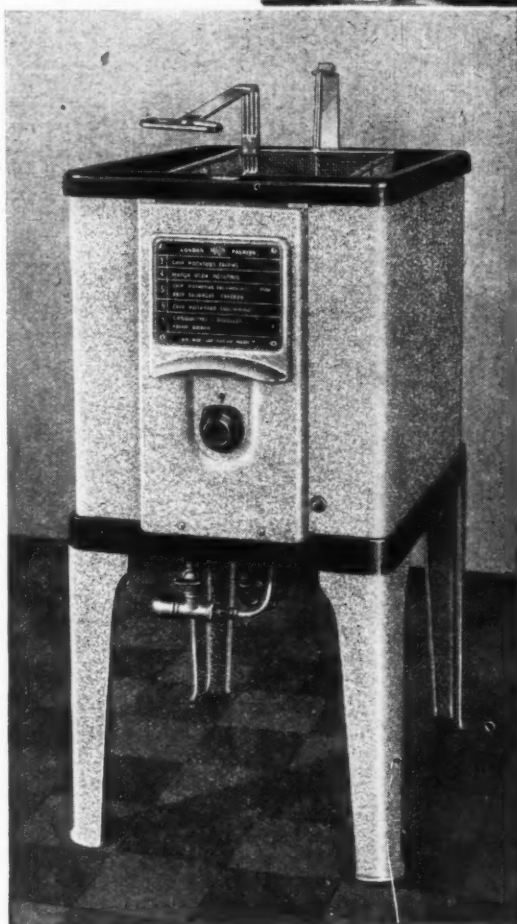
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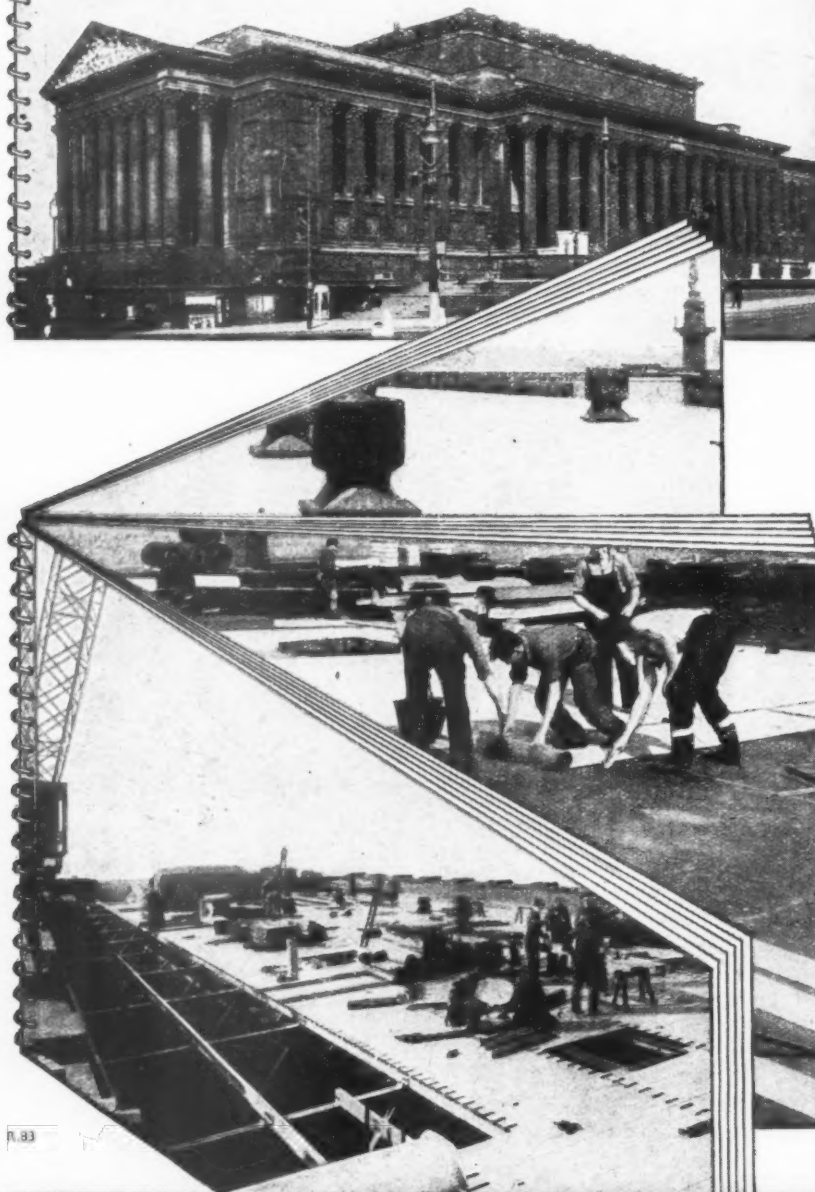


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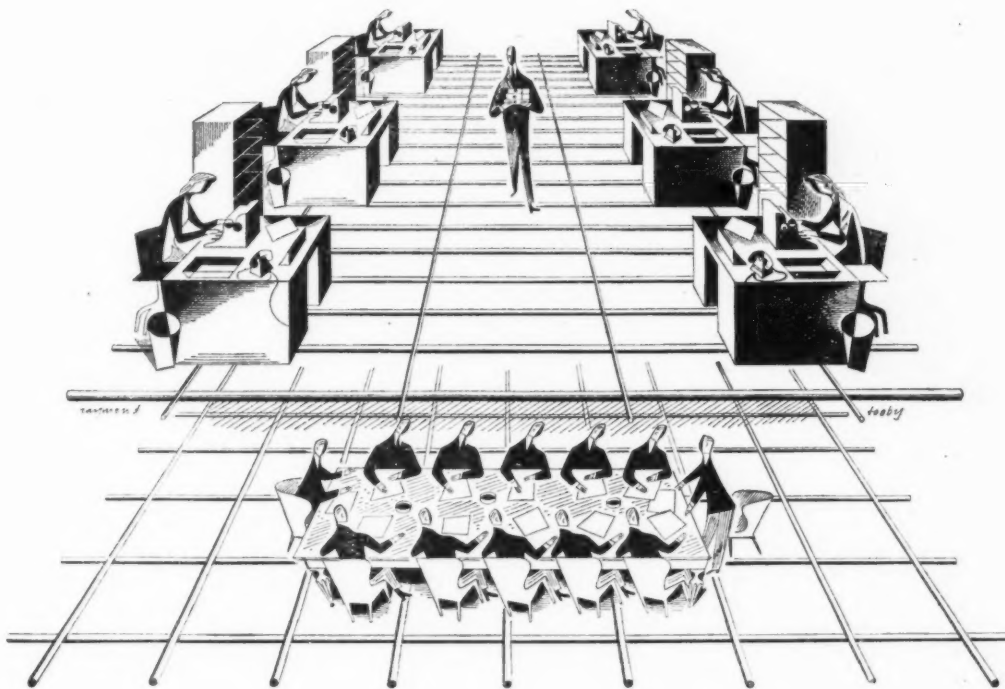
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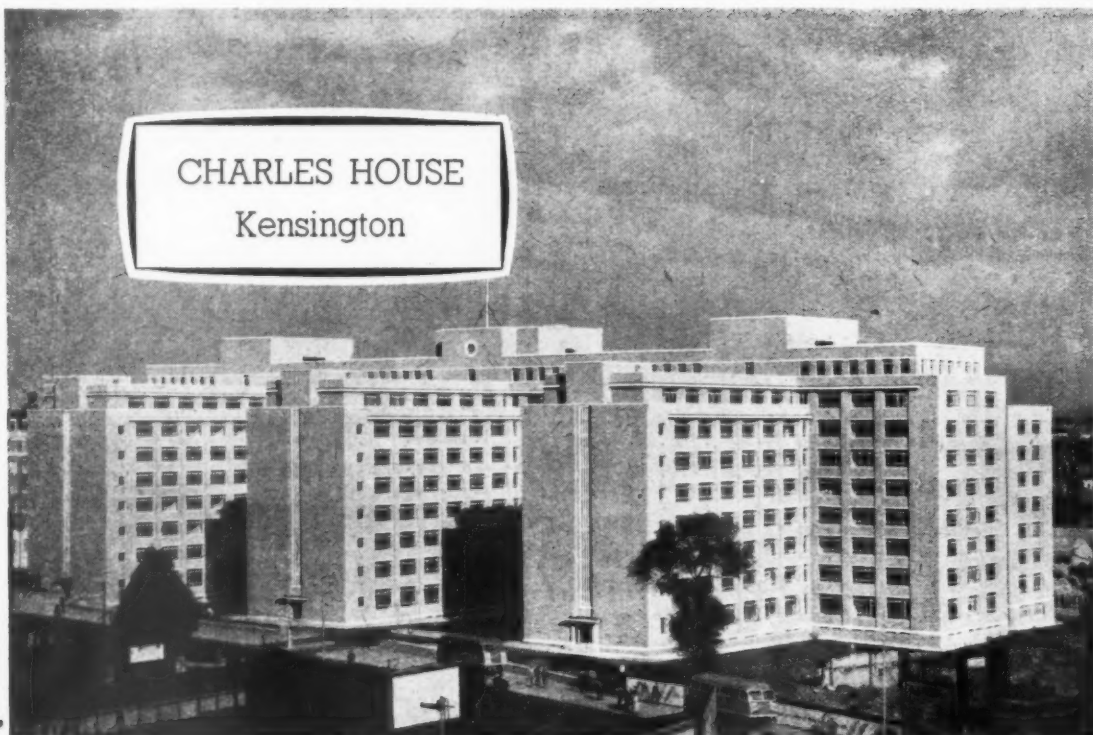


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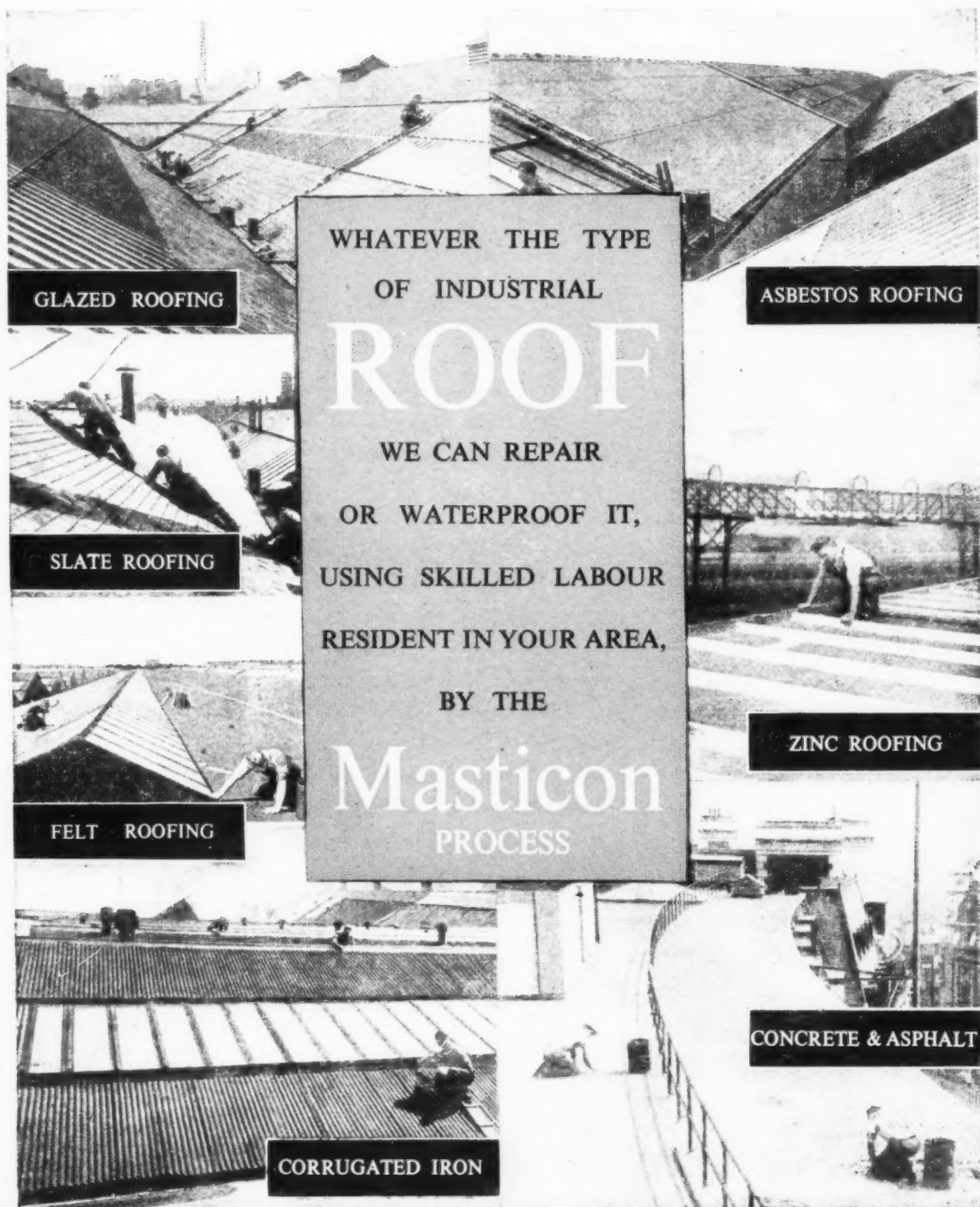
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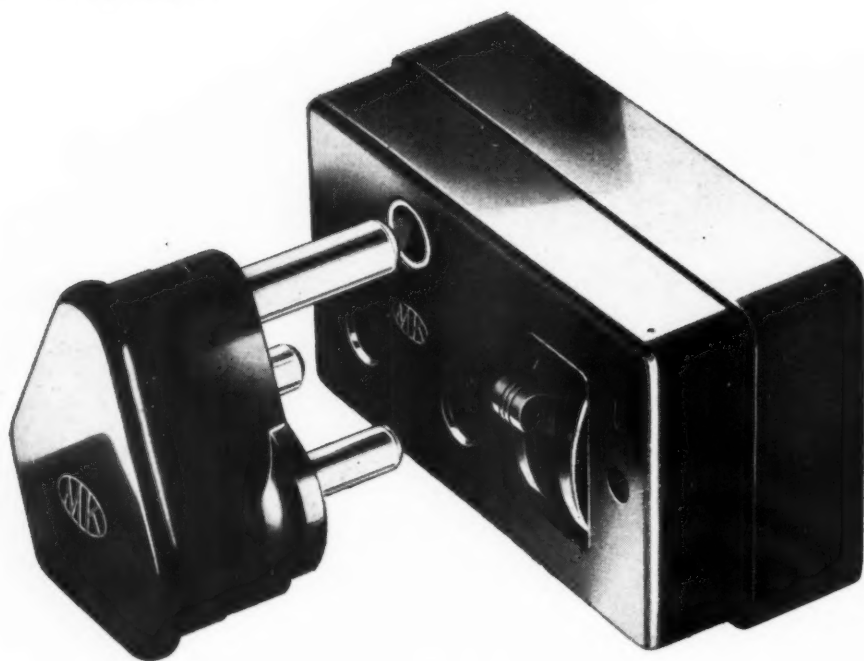
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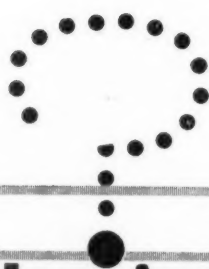


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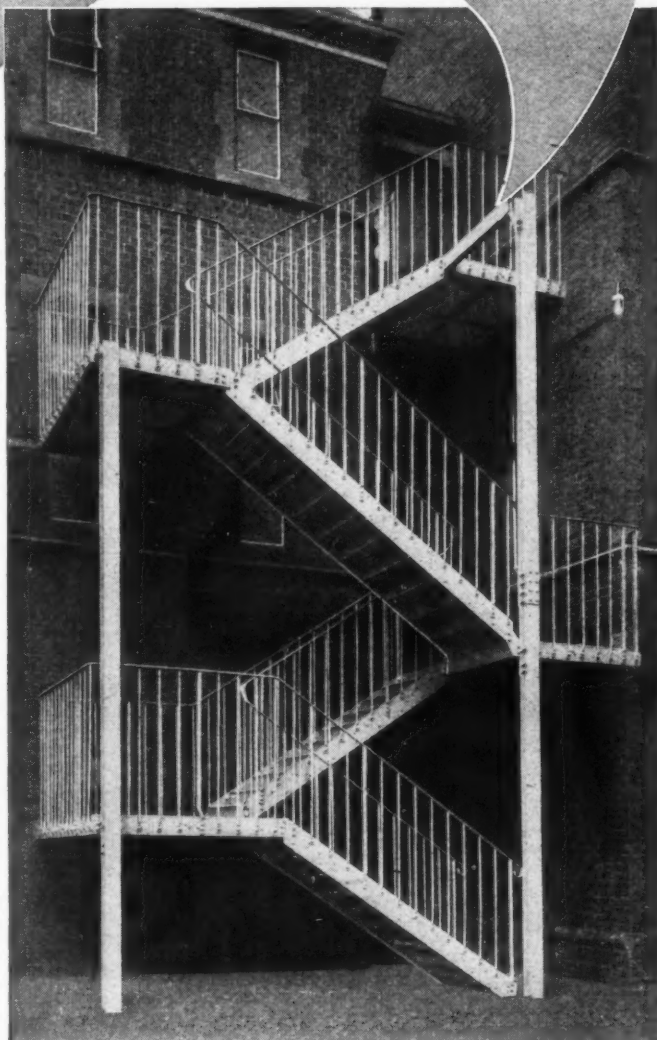
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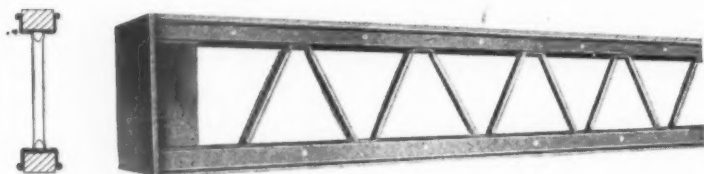
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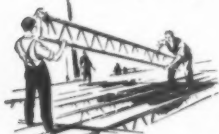
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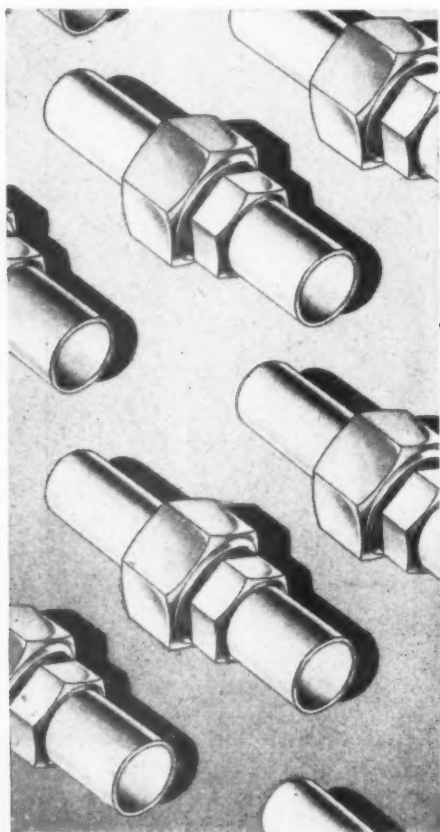


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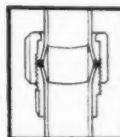
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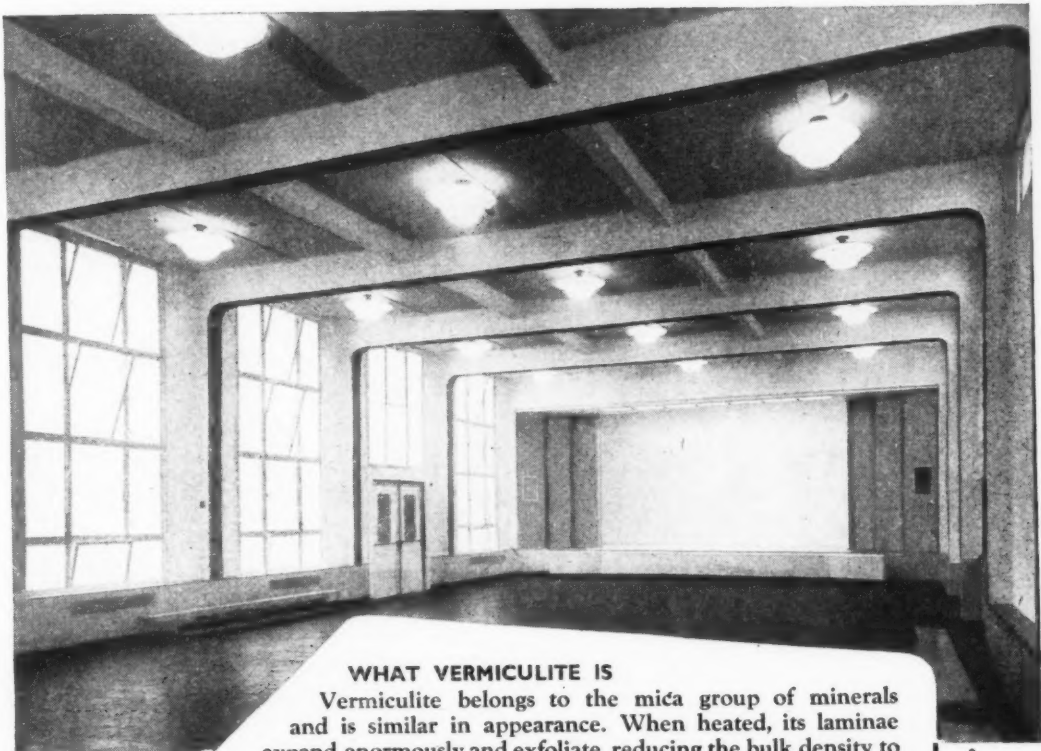
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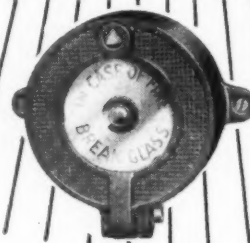
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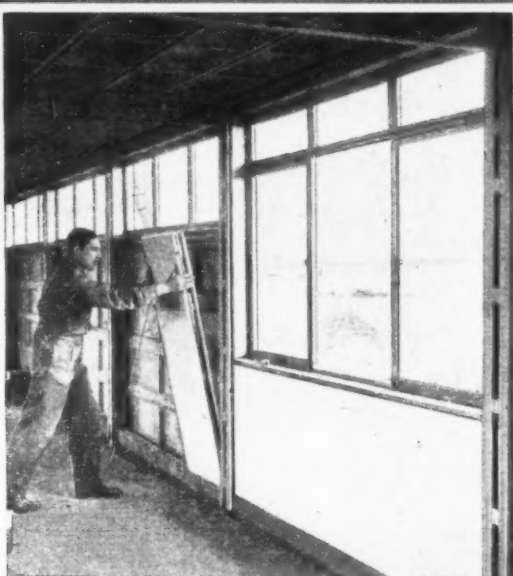
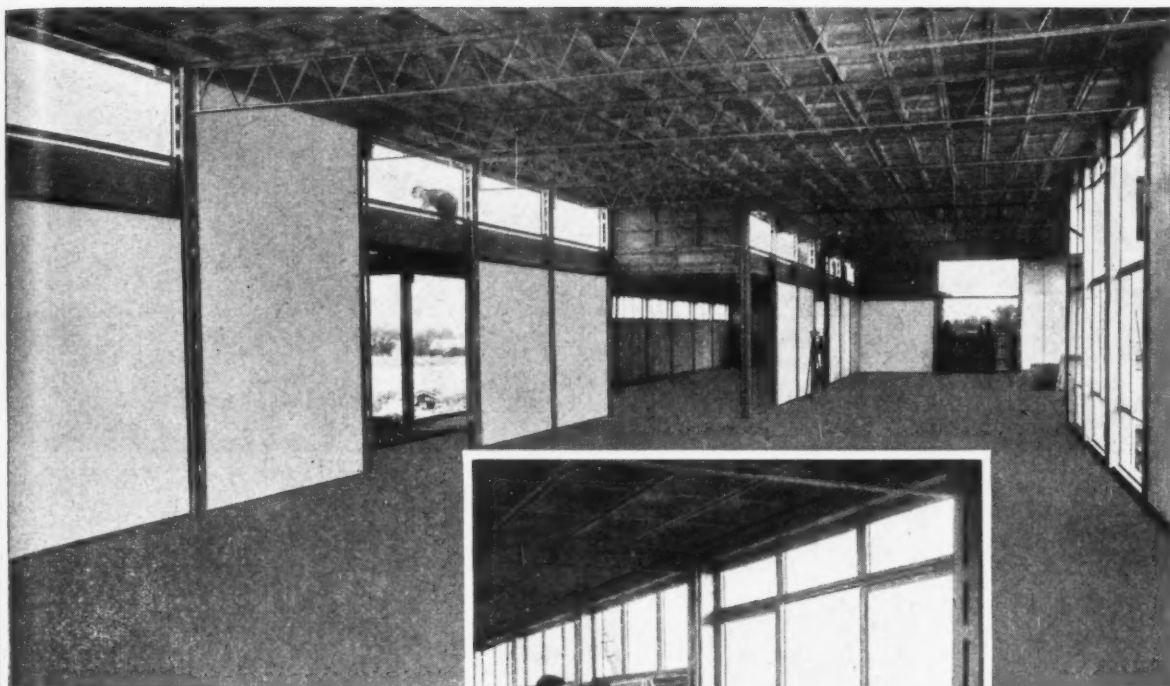
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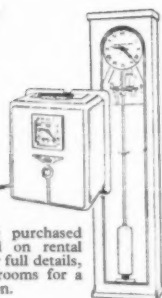


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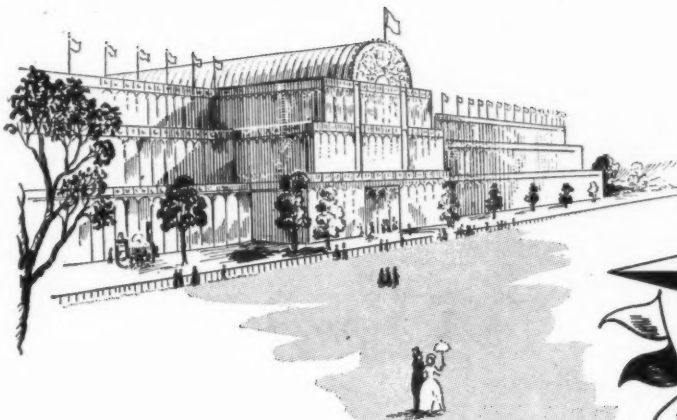
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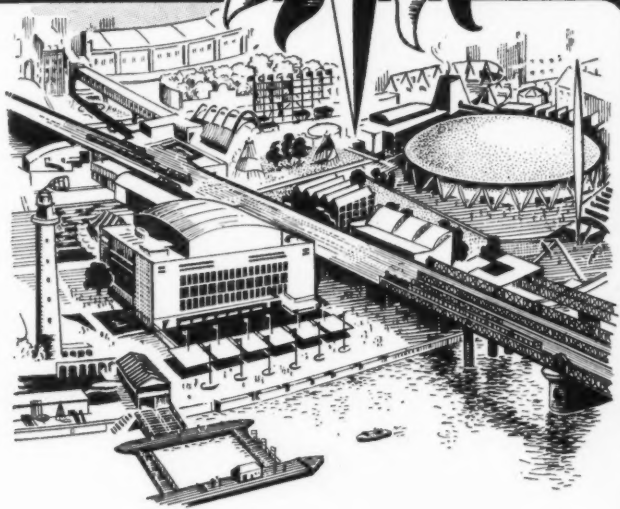


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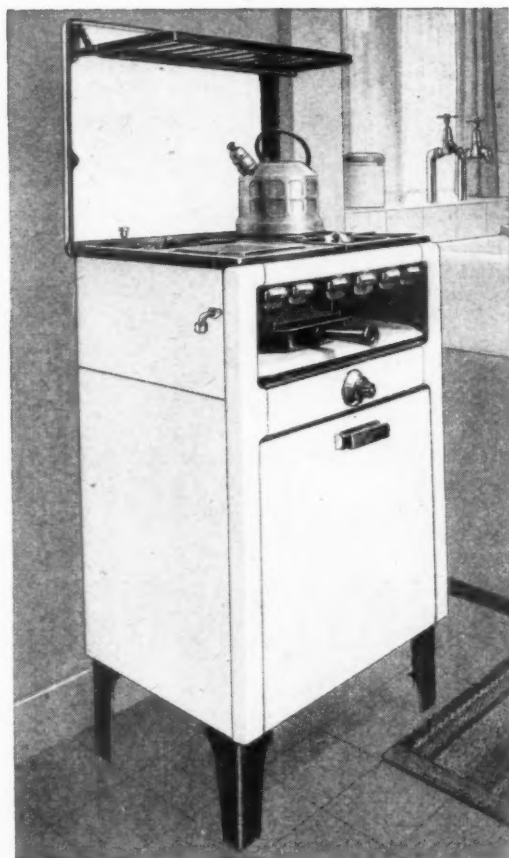
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THE ARCHITECTS' JOURNAL

No 2923 8 MARCH 1951 VOL 113

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SHARP FOCUS

On other pages the editors have welcomed Thomas Sharp to the JOURNAL's editorial board. Let me join them in this. And let me also give a welcome to the new edition of Thomas Sharp's *English Panorama*. It has been out of print for ten years, but now the Architectural Press has republished it at 12s. 6d. with revisions and new illustrations. This short, clear work is a classic of its kind, mainly on account of its brilliant analysis and evaluation of the English scene in town and country as it has changed through the centuries. Being written in clear simple English, without jargon, it should have a wide appeal and find its way to every public library and every school.

Although much has happened since the book was first written over fourteen years ago it still remains, on the whole, remarkably fresh in text and most of the illustrations are new. Yet does it not begin to date just a little in its view of the future in seeming so cheerfully sure that present circumstances can allow planners to give us a neat but picturesque environment? After all, beautiful towns are not really produced by architects and planners but by the right conditions of education, finance, philosophy and faith which allow them to put their ideas into practice.

Take the idea of the Neighbourhood Unit, for instance, of which Dr. Sharp has been the chief exponent in this country and which he continues to propagate in this book. The idea may be desirable. But is it not too tidy, too intellectual, too artificial an idea under present conditions? The electric railway, the internal combustion engine, the dispersal of cultural and economic groups, the lack of local economic autonomy, the centring of leisure activities more and more in the home—all these now work against the natural growth of compact, self-conscious neighbourhoods.

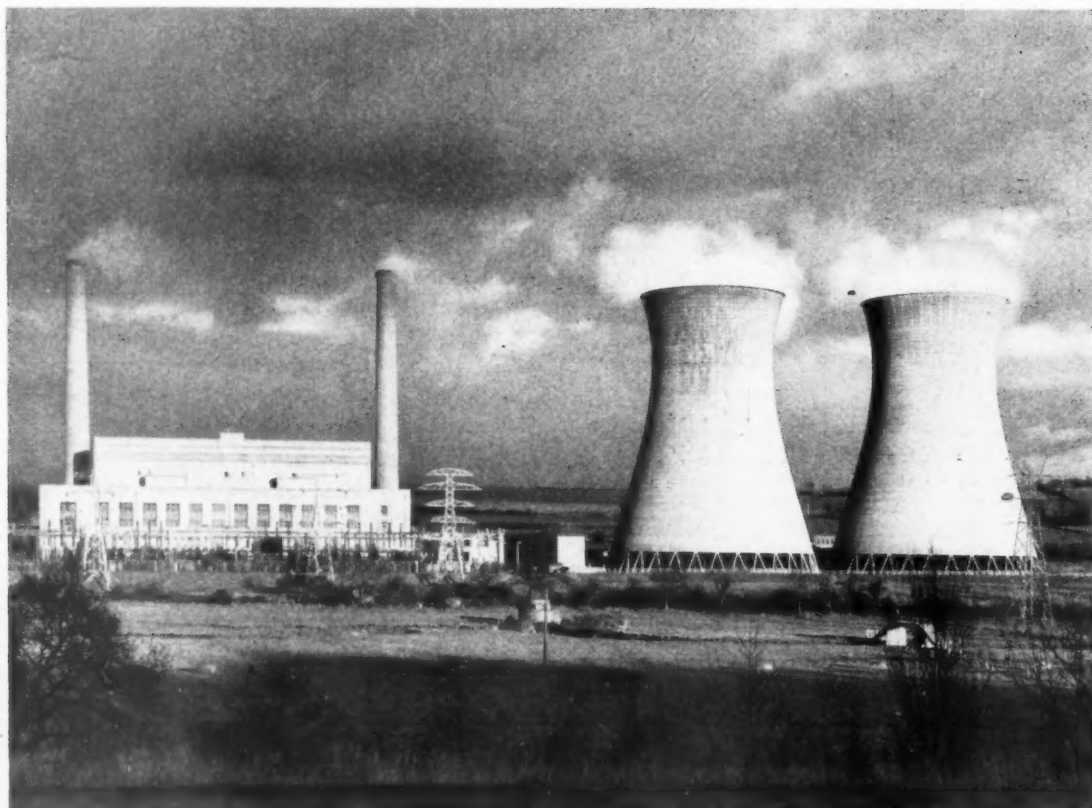
But if we are not yet clear as to objectives, we do at least know where we do not want to go. We can all share Dr. Sharp's loathing of the "aesthetic void," the "social wilderness" of spreading suburbia. That loathing has produced a number of societies for the preservation of the countryside. But where, asks Dr. Sharp aptly, is the society for the preservation of the town?

TIMBER COSTS

For some weeks the timber trade has been buzzing with contradictory rumours about the future of price control. When it was announced late last year that importers could buy on their own account in Scandinavia and sell after April 1, it seemed almost inevitable that price control would have to come off, otherwise there would almost certainly have had to be two prices, one for bulk and another for privately bought timber. Since the first of this month, all price control has come off, and at the end of last week no timber merchant seemed to know much about prices. By the time this appears merchants will, no doubt, have thought up an answer of some sort, but I should guess that the prices jump by not less than £40 a standard and I cannot see house costs going up by less than £60-£70. There are, however, some minor compensations; it should be easier for builders to get timber in the scantlings they need, and timber licences should be slightly easier.

EAGER YOUTH DENIED

Many people must have been disappointed when they received the answers to questions concerning the conditions of the Coventry Cathedral competition. It appears that either the assessors or the promoters are unwilling for students to take part except as paid assistants of senior colleagues. Students can have their names published as joint authors of a design only if they are members of registered firms. This restriction seems quite incomprehensible. Have those responsible forgotten (or are they remembering too well) that Sir Giles himself was but 23 when he won the Liverpool Competition? Can we be sure that there are no worthy successors among our contemporary students?



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It may be wise to insist that students should submit designs only if collaborating with registered architects for, after all, the aim of the competition is to discover an architect capable of carrying out this great project. But the rejection as a collaborator of the imaginative youth who has not yet achieved registration compares ill with the great encouragement given to such people by assessors on other occasions, particularly as the safeguards are so simple and obvious. Cannot this decision be changed in time for students to be able to collaborate with qualified architects in the competition?

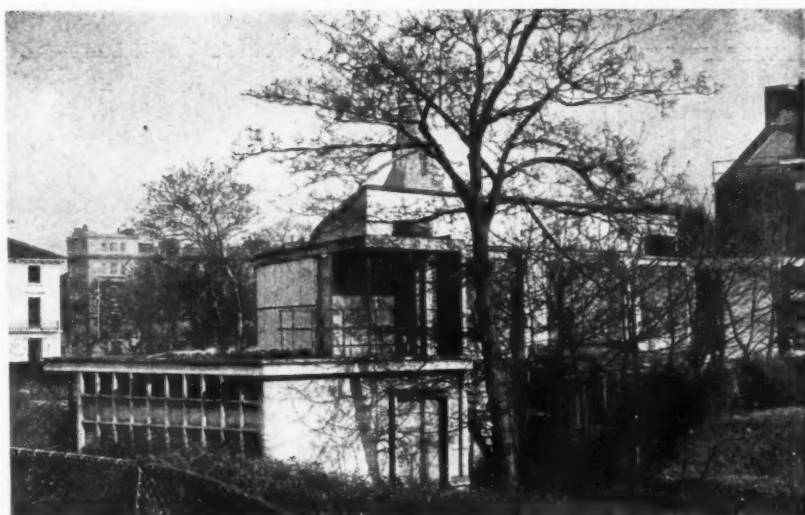
CULTURE OFF THE RAILS

Does anyone ever bother to look at the pictures in railway carriages? I sometimes doubt it and I suspect that when the LMS (sorry, BR, London Midland Region) put up their latest efforts, these will arouse slightly greater indifference than the present lot. I have been sent some samples of the latest range which deal with railway architecture—reproductions of coloured perspectives, such things as the Concourse at Leeds, the Britannia Bridge, and one or two tunnel entrances which, as the Press Officer says, “travellers by rail are often never able to see properly from the train.” He also says that: “The cost of producing these new colour pictures is less than half of the photographs they replace.” I am all for economy but I would be even happier, having noted their aesthetic content, if the money spent on replacing photographs could be spent on removing some of the grime from the carriages. After the admirable architectural proposals of BR(W) I can only suggest that BR(LM) should have several committee meetings with their own architectural section.

INN SIGNS

I have just been reading a revised and modernised version of “History of Signboards”* which Jacob Larwood and John Camden Hotten wrote in the 1860's. Gerald Millar has added a chapter on the Modern Inn Sign.

It is described as “an essential work of reference for the collector and the



A few weeks ago Astragal deplored London Zoo's proposal to adapt Tecton's penguin pool for the use of seals, without consulting the architects. Since then one of his spies has been into the Zoo with a camera and returned with these photographs, which show shameful neglect of two other Tecton buildings; the studio (top) and the elephant house (above), which was formerly the gorilla house.

historian.” True enough, but I am neither. And I find I select my pubs by the brewer's name rather than the inn sign. Yet I read with interest, for example, that “the charm of the horse-shoe lies in it being forked and presenting two points,” and that, in fact, “any forked object, therefore, has the power to drive witches away. Even two fore-fingers held out apart are thought sufficient to avert the evil eye, or prevent the designs of the devil and his crew.” (That's what our late Prime Minister was up to, is it?) So you see it is worth a place on most bookshelves.

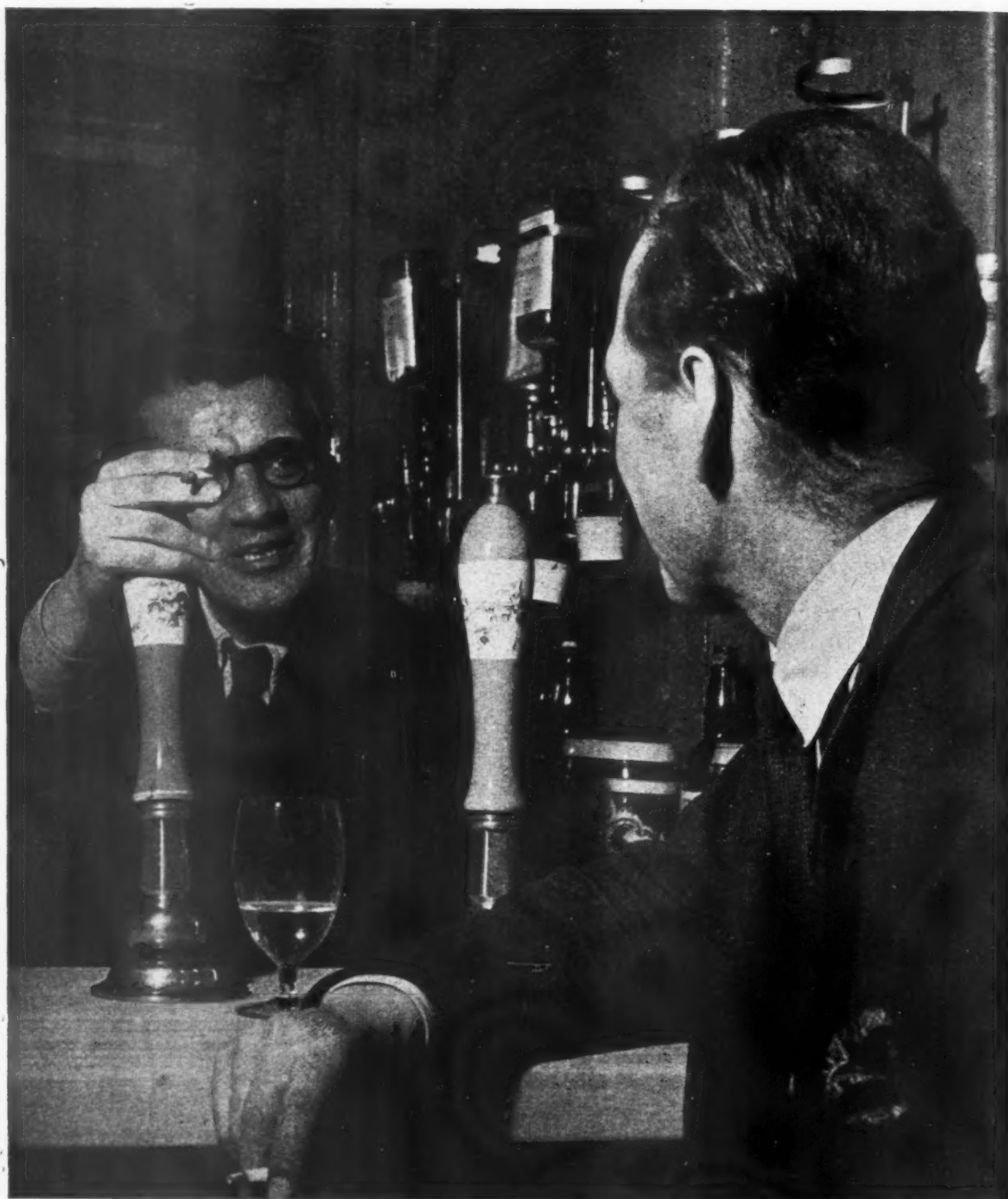
I don't feel very happy about the modern inn signs. No matter how earthly erudite, heroically heraldic or mawkishly sentimental the signs are,

they lack the spontaneous touch of the local blacksmith or the meticulous care of the coach-painter (“artists unknown”) plus the illiteracy which made “The Falcon” (on glove) become the dear old “Bird in the Hand.” I would hate to see inn signs die out but it needs more than the careful attention of a school-trained artist to make them an integral part of the pubs which I like to visit.

AA DEBATE

Last week's debate at the AA was conducted with Parliamentary procedure and Commons Chamber layout. The motion discussed by members and students was that they themselves were “apathetic and defunct and have yet to justify their existence.” It

* “English Inn Signs,” Chatto & Windus.



Thomas Sharp Joins the Journal

Dr. Thomas Sharp, the distinguished town-planner, who has joined the JOURNAL's editorial board, as announced on the opposite page, is here seen in the "Bride of Denmark," the private pub belonging to the Architectural Press, talking to Raymond Philp, manager of the book department. They are discussing the new edition of Sharp's *English Panorama* which has just come out (see ASTRAGAL's note). It was through *English Panorama* (first published in 1936) that Sharp first became widely known as the advocate of compact planning and of a real

urban character in town building, in opposition to the low-density garden-city type of planning then fashionable. He is the author of a number of other books, notably those which present his analysis of, and his plans for, Durham, Exeter, Oxford, Salisbury and other famous towns to which he has been planning consultant. These have had a wide influence, not only because of the planning skill they show, but because Sharp's plans are always three-dimensional and he has been a pioneer in the revival of the previously almost forgotten art of townscape.

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was heavily defeated. The Treasury Bench, however—in the honourable and gallant member for the Building Centre and his brilliant PPS from Studio 4—had the best oratorical cards in the pack. The style was that of Burke rather than of Bevan (more or less).

The climax, as so often in Parliament, was Winston (Con. Chiltern Hundreds) Walker, whose views had already been given at the AA and in the pages of *The Builder*. His speech caused a mass migration across the gangway—leaving him as lonely as Willy Gallacher. The Speaker wielded his gavel with dignity and such unparliamentary lapses as calls of "traitor," "drunkard" and "waffle" were immediately withdrawn.

If a recent controversy formed a rather acid background to an uproarious evening, the debate itself was of course, the answer to the motion. A Victorian president thought the AA should be wound up, but—as Gontran Gouldeu remarked—if it were it wouldn't go.

SORRY TO BOTHER YOU, BUT . . .

. . . on page 317 you will find an application form that may interest you. If you fill it in and post it you will receive the annual index to the JOURNAL'S Information Centre. But you have only 24 hours in which to do it. This may seem unreasonable, but I have been assured that the form has appeared in the Technical Section each week for the last five weeks.

The index, which gives a list and cross-references of nearly three hundred "abstracts" that appeared in the JOURNAL in 1950, is issued free of charge. And I understand that a new system of indexing has been used which should make the index even more useful than its predecessors.

I believe that, unlike the organizers of football pools, the Technical Section staff is most magnanimous and does not disqualify applications which arrive late. So if, like me, you are rather lax in matters of correspondence, you need not worry. But don't let me encourage you to be late.

ASTRAGAL

The Editors

THE AJ'S NEW TOWN PLANNING EDITOR

IN this issue we welcome to the editorial board of the JOURNAL Dr. Thomas Sharp, the eminent town planner. He becomes an editor at an extremely opportune moment, for it is during this coming summer that all the local planning authorities are submitting their development plans to the MOLGP. These are the plans, resulting from the 1947 Act, which will provide the basis on which the development and rebuilding of Great Britain, during the next twenty years, will take place. The following twelve months may well prove the most critical in the whole history of town planning, for, by the efficiency with which it is carried out, the town and country planning mechanism will be judged. If public opinion should come to feel that town planning means restriction and negative control, and not planned and beautiful creation, then it is possible that public opinion will react strongly against it.

Therefore, in what is a comparatively young and inexperienced profession, it is mainly to such experienced and knowledgeable town planners as Dr. Sharp that people will look for the powers of appreciation and criticism which will enable forecasts to be made, in time, of the dangers and difficulties ahead.

In particular, Dr. Sharp, whose portrait appears on the opposite page, has made for himself a reputation as a planner who, in addition to having an acute awareness of the social errors inherent in much of the town planning of the past twenty years, has a more than usual sensitiveness to the essential three-dimensional quality of townscape. It is this aspect of town planning which tends to be most neglected by professional planners today, and which is the most closely related to the art of architecture and therefore of such primary importance to the readers of the JOURNAL.

For these reasons, then, the JOURNAL'S editors are most pleased to be able to have Dr. Sharp's advice and guidance, and to be able to place his views before their readers.

No. 5: Technical Editor

MODULAR CO-ORDINATION

The advantages to be gained from modular planning, known now, for some reason, as modular co-ordination, have been stressed by some architects for many years. The first report of the BSI committee, which was set up to study this problem, was issued last week. It sums up the advantages as: Simplification of the planning of buildings in the drawing office and a saving of drafting time; easier substitution of alternative materials and changes in specifications; simplification of the preparation of "quantities"; simplification of estimating and tendering; easier and more economical erection, with a reduction in the amount of cutting, waste and fitting on site; and a reduction of the number of stock sizes of materials and components and the size of stocks held against demand.

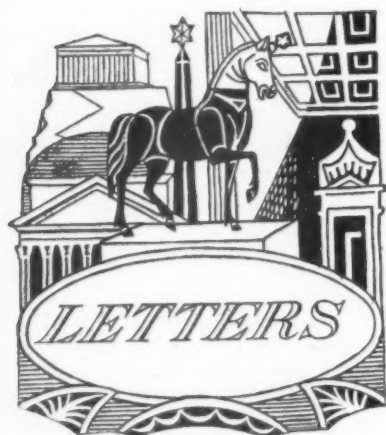
Architects, in their enthusiasm, often tend to overlook the practical difficulties, whilst, in the past, manufacturers have frequently overestimated them. It is, therefore, encouraging to find that the committee, which is composed largely of representatives of manufacturers and building materials producers, adopted a resolution claiming that "there is a case for the application of a general modular unit."

An architect member of the committee reports that many manufacturers have an open mind on the subject and that, provided they could be convinced that "the number of stock sizes of materials and components would be reduced," they would be willing to invest the capital for such re-equipment as would be required.

However, although the idea appeals to students, and to architects engaged in the design of schools and hospitals, where modular co-ordination could have immediate applications, many private architects cannot yet see how it can help them in their day-to-day work.

We hope, therefore, to publish soon an article by an authority on this subject, who will not only explain the advantages of modular co-ordination but will discuss its practical applications to the planning and constructional design of buildings at the drawing board stage.

In the meantime, we are pleased to note that the committee is studying the use of a planning module of 40 in. instead of juggling with a small "dimensional" module of 3 to 4 in., as similar committees are doing in some other countries. [The 40-in. module has been recommended by the MOE and is already being used by several architects.] And we should like to congratulate the BSI on the broad interpretation of its role which the very existence of this committee exemplifies.



The Case of an Organ

SIR,—With reference to the letter headed "The Case of an Organ" in the JOURNAL for December 14, 1950, I wonder if some additional information may be of interest to you in support of Mr. Casson's reply that some of the displayed organ pipes are "often both fake and mute."

I was re-designing a church plan last summer, and looked forward to the oppor-

tunity of arranging "functionally" the organ pipes, as probably many architects would be inclined to do in a similar design. To understand the organ I got in touch with organ builders, who very kindly took me round their factory and let me see how the organ is built up and also gave some explanations. Thus I learnt the following:—

The type of organ for the average church (400 to 600 persons) is built in a fairly compact block, and all the pipes displayed in front of it are "dummies." In fact, they

showed me some large dummy pipes from a war-damaged cathedral taken down for repair. Some speaking pipes may be displayed in front, but the organ builders prefer not to do this. In front of the organ block there is a louvre-type shutter, which serves to increase or reduce the volume of sound at the organ player's will. The organ builders suggest the provision of a decorative screen, i.e., "casework," the function of which is to let through the sound unhindered and, at the same time, to prevent people seeing the frequent opening and closing of the shutters.

Apart from this, some of the speaking pipes have to be so long that in order to fit into the otherwise fairly large block they have to be bent or coiled, while others are extremely short. The variations between the short and long pipes are such, and their number is so great, that a "functional expression" of the organ is—apart from shortage of space—hardly practicable.

On losing my illusion of the possibilities of "functional expression" of organs (and recollecting by association the number of funnels on some ships where often one is sufficient) I chose to make a screen to conceal the shutters, as requested by the organ builders and, in addition, made it long enough to emphasize the choir and high enough to dispense with dummy pipes, which, incidentally, are expensive in comparison with a decorative screen.

The organ builders give the dimensions of the organ chamber for my purpose as 14 ft. x 5 ft. with a silent blower within the organ, or 12 ft. x 7 ft. if the blower is located elsewhere, but the sizes can be modified to suit the space available.

ALEXANDER K. ADAM.

[See feature on opposite page.—Ed.]

"The Builder" Competition Winners : Some Criticisms

SIR,—I have visited the County Hall and I was rather surprised by most of the assessors' awards. This competition should have encouraged a new approach to planning and building, and there were, in fact, a number of original schemes.

More recognition should have been given to techniques which have taken the present timber shortage into consideration.

An open grate space-heating stove would appear to be the indicated answer to the heating problem of today.

I was impressed by two schemes, one by Barbara Auld and another by T. Alexander and J. Ham, neither of which received recognition but which, to my mind, were a definite contribution to low cost housing. Both schemes were of the open plan, space-heated type and the latter had almost eliminated internal doors by skilful planning. Also it seems an obvious economy to plan a combined kitchen and front entrance when low cost is a primary consideration.

London.

A. M. BREDESEN.

SIR,—Whatever the merits of the first three winning designs *per se* (illustrated in the JOURNAL for February 22) one point common to all three is immediately evident. None of the three winning designs is capable of being applied to both north and south aspect sites at will. The difficulty of finding a plan which is equally suitable for both aspects, whether without any alteration or with only a simple interchange of plan element, is always a problem for the architect engaged on housing. The assessors seem to have ignored this point completely, and gone for plans which may satisfy them for one-way siting, but surely in a competition of this sort, in which cost was the principle condition, a freely adaptable plan for a north

or south capable

One of the assessors' produce for a far have ho for design and cost space. lack the raced ho which b have be deficient amenitie

Finally winners of a co that the sponsore ably pai of these their pl another privately bear the out of

SIR,—three de Februar

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SIR,—80 per country have no

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or south aspect site should be the only one capable of winning?

One other point is also evident from an examination of the three plans, which is that the assessors have gone for plans that would produce houses unreasonably small in size for a family of five persons. One might have hoped, in a competition of this sort, for designs showing an economy of materials and construction without the sacrifice of floor space. All three winners' plans seem to lack the straightforward simplicity of terraced housing of say a hundred years ago, which being highly speculative must surely have been built to a cut price, even if deficient in some of the necessary present day amenities.

Finally, the fact that the two first prize winners are an architect and deputy architect of a county borough can surely mean only that the entry of these two competitors was sponsored by that borough, which presumably paid all expenses, including the salaries of these officials when they were executing their plans. This would seem to be just another nail in the lid of the coffin of the privately practising architect, who has to bear the brunt of the competition expenses out of his own pocket.

"COMPETITOR."

SIR,—It is not difficult to criticize the three designs published in the JOURNAL for February 22.

No. 1 is far the best of the three but fails to solve the fuel problem. Fuel must be carried through the kitchen and, as the storage shown will only take 5 cwt, and we all have to buy at least 15 cwt, in summer ready for winter use, this means that coal must be carried right through the house to a dump in the garden.

Plan No. 2 is just fantastic. I can assure both the authors and the assessors that in normal homes this house would be both unsaleable and unlettable except at a nominal rental. I doubt if it is possible to design a worse shaped living room. And the kitchen recess idea is only tolerable if cooking is reduced to the boiling of a kettle and if no washing is done at home. All right for a bachelor flat but no use for a family. Just think of the steam on washing day!

As one of the architects to a local authority with a waiting list of over 1,500, I have found that even now a house with "open planning" is not easy to let; tenants nearly always want to wait a few weeks longer for something more to their liking.

JOHN C. TICKLE.

Letchworth.

Town Planning : New Exam System Wanted

SIR,—I should think that at present about 80 per cent. of all Town Planners in this country are unqualified. That is, they have not passed town planning examinations.

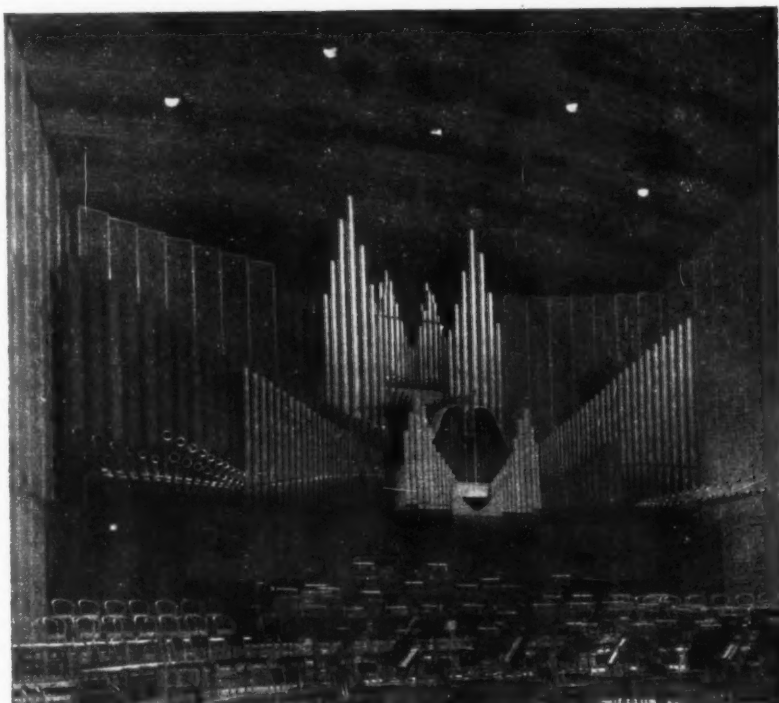
This would compare very unfavourably with the allied professions of architecture, engineering and surveying, where all senior posts are invariably filled by qualified men, and it cannot make for public confidence in planners or planning.

The position has of course arisen from the sudden impetus town planning received from the 1947 Act, followed by a stiffening of the TPI examinations.

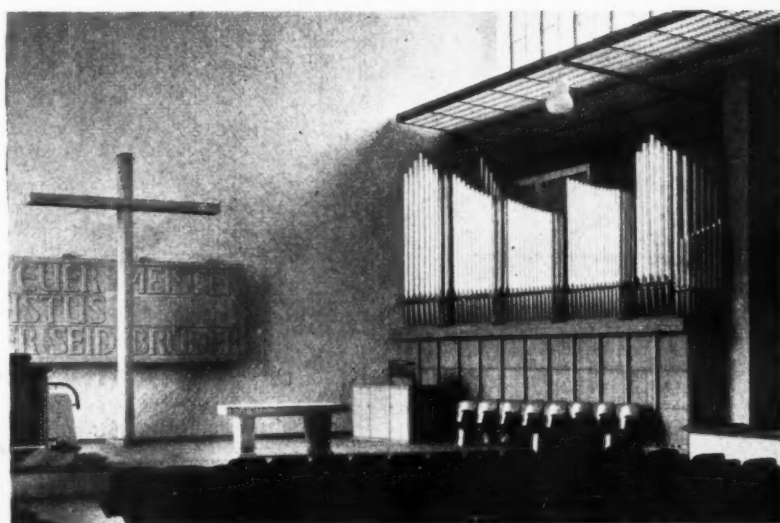
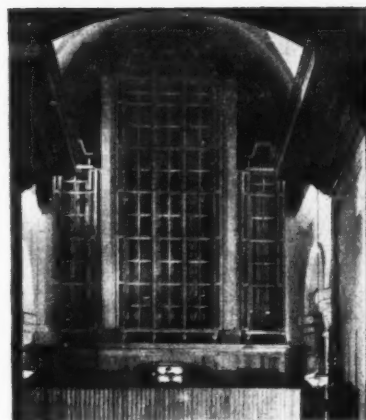
We thus have a peculiar position where the bulk of the chief planning officers have arrived at their position by virtue of passing what was a comparatively easy examination, and the majority of their staff either struggling to pass a very much harder and more academic examination, or too old to try, and the TPI becoming more selective each year.

The students at schools of planning are

FUNCTIONAL EXPRESSION OF ORGAN PIPES



Can organ pipes be displayed attractively, or should they be concealed behind dummy pipes as suggested in our correspondence column? Right, Hugh Casson's screened pipes at the Royal Military Academy Chapel which started the discussion (A J, Nov. 30 and Dec. 14). Above, concert hall in Copenhagen Broadcasting Building, architect: Vilhelm Lauritzen; below, Protestant Church at Zurich, architect: Werner Moser; two examples of the designed display of real pipes.



of course quite happy. Few fail their own school examinations, and the attitude of the TPI means that room at the top is being reserved for them.

In fact, the only unhappy people are those who can see years of frustration at external examinations ahead, (and with the present examination times, methods and syllabus that is what it is for 75 per cent. of candidates) and those with years of experience, doing the job, but too busy and too old to start cramming.

It would seem therefore that a solution might be the setting up of a new professional association to gather into its ranks, planners who are competent enough to pass a straightforward examination based on design, law and planning practice, and excluding months of work preparing testimonies of study, historic research, sociology, geology and field days.

These more academic studies could come later and after passing the necessary examinations perhaps qualify one as a "master planner." In the meantime the practising planners could achieve a measure of qualification.

It would be interesting to know the reaction by the profession generally to these points.

"ICONOCLAST."

Wealdstone.



RIBA

Proposed Revision of Bye-laws

Members of the RIBA who are guilty of indictable offences will no longer cease to be made members *ipso facto* if one of the proposed revisions of the Institutes Bye-laws is put into practice. The amendment in question is also designed to bring Students RIBA within the disciplinary provisions. Since the Bye-laws were introduced, the number of indictable offences has been greatly extended through the body of administrative law and some members, who have been convicted of minor offences which are technically indictable, have automatically lost their membership.

One of the other amendments, though of no great importance, is of some interest. In the past it has been laid down that if less than thirty subscribing members of the Institute are present at a special general meeting half an hour after the time appointed for it, then no meeting will take place. (The RIBA has 13,098 members.) The revision

allows the meeting to proceed if as many as twenty members are present.

The revisions were considered at a special general meeting of the RIBA, at 66, Portland Place, W.1, on Tuesday last.

Items from the Council's Minutes

The following news was taken from the minutes of a recent RIBA council meeting:—

C. S. White has been appointed as representative on the Advisory Committee on Model Building Bye-laws, Ministry of Local Government.

C. H. Perkins has been re-appointed as representative on the Registration Board of the National Register of Electrical Installation Contractors.

R. H. Heaven has been appointed as representative, in addition to R. M. Betham, on the BSI Committee HIB/22: Copper Expansion Joint Strips for Concrete.

The council has appointed Anthony M. Chitty and Godfrey Samuel as the British delegates to the second annual congress of the International Union of Architects, which is to be held this year in Morocco.

BRACKNELL

New Vice-Chairman for New Town

Sir Royden Dash, formerly chief valuer to the Board of Inland Revenue, has been appointed vice-chairman of Bracknell Development Corporation by Hugh Dalton, Minister of Local Government and Planning. Sir Royden Dash succeeds H. W. Wells, who was recently appointed chairman of Hemel Hempstead Development Corporation.

PUNJAB

Architects Appointed for New Capital

Maxwell Fry and Jane Drew have, with Pierre Jeanneret, been appointed joint architects for the building of the new capital city of the Punjab for the Government of the Punjab, India. Le Corbusier has been appointed consultant to the Punjab Government for the scheme, as previously announced.

Maxwell Fry has left for India. Miss Drew will remain in the United Kingdom for the present to deal with outstanding work of the practice in England and West Africa.

Later on the firms of Messrs. Drake and Lasdun of 29, Sackville Street, W.1, and Messrs. Fry, Drew, and Partners will be joined under the title of Fry, Drew, Drake, Lasdun and Partners to carry out the joint practices from 63, Gloucester Place, London, W.1.

BOT

Change in Timber Prices from this Month

The BOT announces that statutory restrictions on the prices of imported softwood have been removed. As was foreshadowed when partial reversion to private trading was announced last October, with a number of purchases being made by separate firms, prices must depend in great measure on the

cost of a particular consignment instead of being arranged after a survey of the whole field. Traders will be able to sell both softwoods imported privately and softwoods purchased from Timber Control at prices based on those which they are paying.

The BOT points out that world prices have been rising since last April, when the Control's selling prices were altered, and it has been possible to hold prices at the level fixed at that time only by a substantial drawing on the Control's trading reserves. An increase was therefore inevitable. However, the timber trade have assured the president of the BOT that softwood will be sold at prices which will allow no more profit than is reasonable, and they have agreed to the president's suggestion that a committee shall be set up, which will include consumers' representatives, to deal with price and distribution problems.

The BOT states that its president will continue to watch the timber price position closely and will take further measures if he considers them necessary in the interests of consumers.

ST. ALBANS

Modified Scheme for Gas Works Extension

Hugh Dalton, Minister of Local Government and Planning and P. J. Noel Baker, Minister of Fuel and Power, have told the Eastern Gas Board that they propose to approve a reduced scheme for the extension of the St. Albans Gas Works to meet the Gas Board's immediate needs. They are not prepared to allow the full-scale extension of the works originally proposed by the Gas Board, and have asked that every effort should be made to site the additional plant, which will ultimately be needed, elsewhere than at St. Albans.

The decision follows the holding of an inquiry at St. Albans in August of last year, when objections to the proposals were made by the St. Albans City Council, the St. Albans Citizens' Gas Works Petition Committee, and the Hertfordshire Preservation Society. The Hertfordshire county council, which is the local planning authority, expressed readiness to give permission for the proposed extension subject to a number of conditions. These conditions are substantially the same as the ones which will be attached to the permission now to be granted.

BRISTOL

City Architect Defended Against Critics

J. Nelson Meredith, Bristol's city architect, was defended before Bristol city council recently by the chairman of the architectural committee, C. Marcus Hartnell, when the council approved a recommendation that estimates for schemes of more than £500 requested by any committee from the city architect should not be supplied until they had first been considered by the architectural committee.

Mr. Hartnell, explaining the need for this measure, said: "Your committee are very concerned at the criticisms from time to time levelled against the accuracy of estimates supplied by the city architect for building schemes of various kinds. They are even more concerned with the inaccuracies themselves. In some cases, errors of judgment have occurred unnecessarily but, in the main, the errors have been aggravated by the impossible shortness of time allowed to provide an accurate estimate."

Mr. Hartnell pointed out that some committees had fallen into the practice of requiring the city architect to supply estimates for building works at short notice—in some cases, 24 hours' notice. It was obviously impossible in that time for him to follow the correct procedure before giving the estimates.

In private practice, continued Mr. Hartnell, no prudent professional man would commit himself to an opinion with only the sketchiest of information, but the city architect was only too conscious of being the servant of all, and he had done his best to oblige.

LMBA

President Appeals for 20,000 Apprentices a Year

The country needs 20,000 building apprentices a year, said Dudley F. Cox, the LMBA's president, when he spoke at a luncheon of the association's north-west area at Harrow. Of this total, he said, London's quota should be about 4,000. At present it was only about 1,000.

Apprenticeship, he said, was largely a local problem, a problem for the individual employer who knew local circumstances. Those at the LMBA headquarters could help by education and propaganda—education to show that for a young man to take a job as an unskilled labourer instead of becoming a craft apprentice was a very shortsighted point of view. But getting apprentices and training them was a matter for each employer to solve.

Some people might say that the circumstances and conditions of today were bringing us towards some radical change in the system of craft structure. Others might take the view that a shorter term of apprenticeship would go a long way towards meeting some of the difficulties of the times. The fact remained that today the building industry was committed to the present system and must support it and work for it. The industry depended upon a solid foundation of high craftsmanship in all trades and whatever happened employers must not allow this fact to be undermined.

OXFORD

Summer School for Architectural Students

From July 21 to August 4 students of architecture will have an opportunity to study and measure many examples of historic English architecture in the University City of Oxford and to live in college at Magdalen.

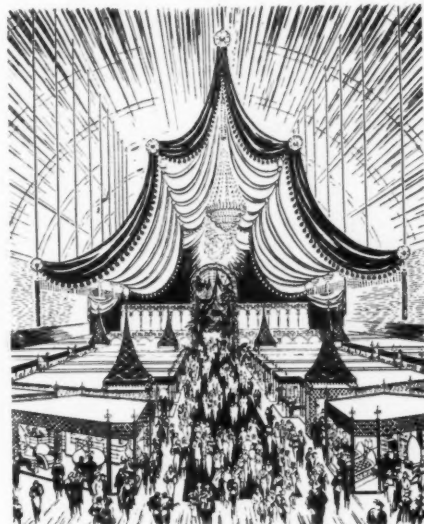
Arrangements have been made for students who, instead of studying one particular work, may wish to study form and construction, entailing the preparation of measured sketches, and of some finished drawings, of such features as doorways, wrought iron work, and fittings in college halls and chapels. During the course distinguished architects and specialists will lecture on specific aspects of Oxford buildings and there will be tours to the Cotswolds and to Blenheim Palace.

As the course forms part of the official Festival of Britain programme of Oxford, a number of places will be reserved for members and students of the architectural profession from overseas.

Further details and application forms can be obtained from the Joint Honorary Secretaries of the Organizing Committee: E. Lasseter, Hon. Secretary of the Berks, Bucks and Oxon Architectural Association, Somerset House, Reading, and J. Brosnall, Secretary, Southern Regional Council for Further Education, Shire Hall, Reading.

FEATURES AT THE IDEAL HOME EXHIBITION

The main vista in the Grand Hall for this year's Ideal Home Exhibition, at Olympia, is designed by James Gardner. In the words of the Press hand-out: "gaily Victorian" it recreates in modern materials and spirit the atmosphere of sumptuous cosiness that belonged to a century ago. The chandeliers, gay and gorgeous, are just like—and yet unlike—any the Victorians knew." Below, is the house designed by Lionel Brett and built by John Laing, "which has grown out of the ideas put forward over many years by members of the Women's Institutes."



NEWS IN BRIEF

Architects' changes of address, etc.

Messrs. Emden, Egan & Co. have removed their offices to 3, Raymond Buildings, Gray's Inn, W.C.1. (Tel: CHANCERY 4578.)

Mr. N. Gunn Robinson, DIP.ARCH.(LIV.), A.R.I.B.A., has opened an office at 88, Argyle Street, Birkenhead, and would be pleased to receive trade catalogues, etc.

C. Mackechnie Jarvis & Partners, consulting engineers, Arithmos House, 8, Craven Road, London, W.2, have moved to 26, Victoria Street, Westminster, S.W.1 (Tel.: ABBEY 4841).

Mr. Cyril Adler, A.R.I.B.A., has moved from 31, King's Road to 11, King's Road, Chelsea, S.W.3.

Mr. R. Forbes Hutchison has resigned his appointment as chief architect of the South Eastern Regional Hospital Board (Scotland), and has acquired the private practice of the late Mr. Walter Alison. The name of the firm is Walter Alison & Hutchison, A.R.I.B.A., chartered architects, with offices at 38, York Place, Edinburgh, 1, and 27, Kirk Wynd, Kirkcaldy, Fife. Trade catalogues will be welcomed at both offices.

DIARY

The Architecture of Transport. Exhibition at the RIBA, 66, Portland Place, W.1, showing projects in this country and a selection of material from abroad. Weekdays 10 a.m. to 7 p.m. Saturdays 10 a.m. to 5 p.m.

UNTIL MARCH 22

The Ideal Home Exhibition. At Olympia. (Sponsor, Daily Mail.) Daily 9.30 a.m. to 9.30 p.m. (Sundays and Good Friday excepted).

UNTIL MARCH 31

Special Treatment for Portland Cement Concrete. C. L. a'Court, At 11, Upper Belgrave Street, S.W.1. (Sponsor, ISE.) 6 p.m.

MARCH 8

The Engineer and the Public. Discussion opened by H. Nimmo. At Caxton Hall, Caxton Street, S.W.1. (Sponsor, The Engineers Guild.) 6 p.m.

MARCH 8

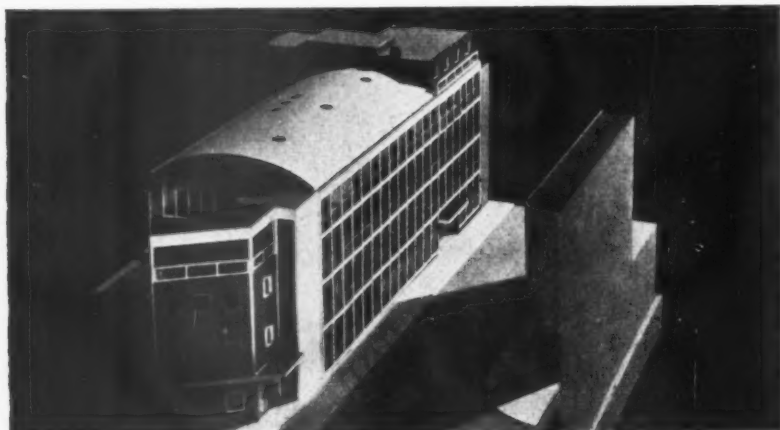
Recent Research in Daylighting. W. A. Allen and R. G. Hopkinson. At 66, Portland Place, W.1. (Sponsor, ASB and IES.) 6 p.m.

MARCH 13

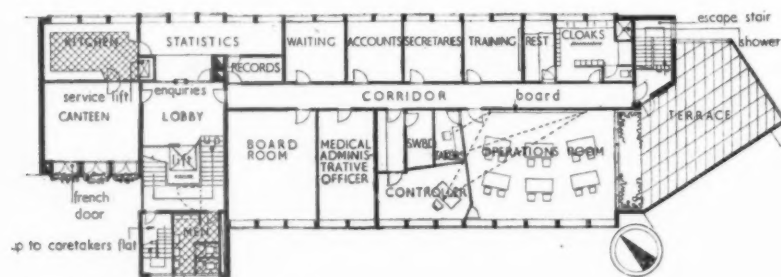
1851-1951: A Century of British Design. Paul Reilly. At Royal Society of Arts, John Adam Street, Adelphi, W.C.2. (Sponsor, RSA.) 2.30 p.m.

MARCH 14

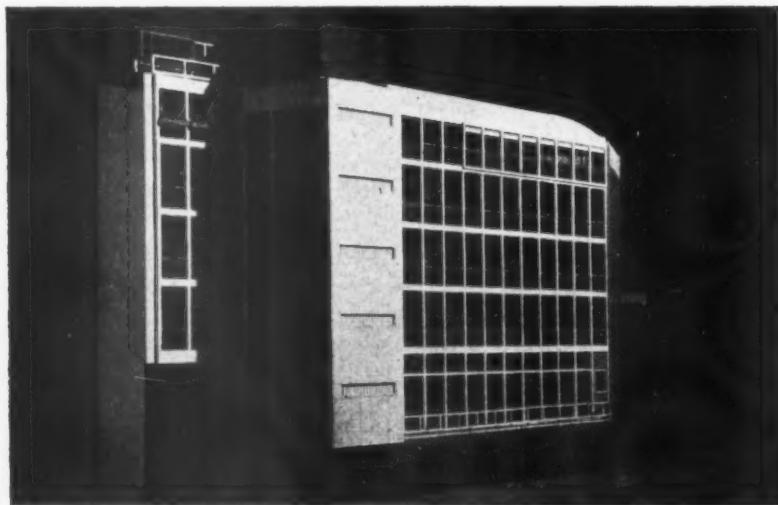
OFFICES AT LONDON BRIDGE, S.E.1.



New headquarters for the London Emergency Bed Service, designed by John Lacey, with F. J. Samuely as consulting engineer, are to be built on the south side of London Bridge Street, adjoining the station and overlooking Guy's Hospital. The site is on two levels, the main entrance on the north-east being 25 ft. above the service approach from a mews running into Joiner Street. The model is seen in the photograph above from the east and below from the west. The lower floors will be let as office space with accommodation for the Emergency Bed Service on the top floor for quietness and lightness. The operations room, which was required to face south-west, provides a complete visual record of the availability of hospital beds in the London area for twenty-four hours a day, and must direct urgent cases of accident and illness quickly to appropriate hospitals.



Plan of third floor [Scale: 1/4" = 1'0"]



In the following article, Frank Russon, the well-known building contractor and the JOURNAL's guest editor for 1951, recalls an important feature of the latter stages of the great house-building programme of the 1930's—the formation of the National House Builders' -Registration Council. The Council which was formed with a view to suppressing "jerry-building" was once thought in some quarters to be a hindrance to the architect. Mr. Russon shows that it is of real value and deplors the present restrictions on private building which are limiting its work.

FRANK RUSSON

The Registration of House Builders

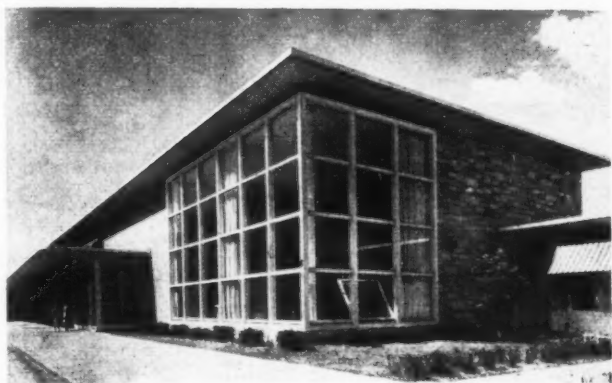
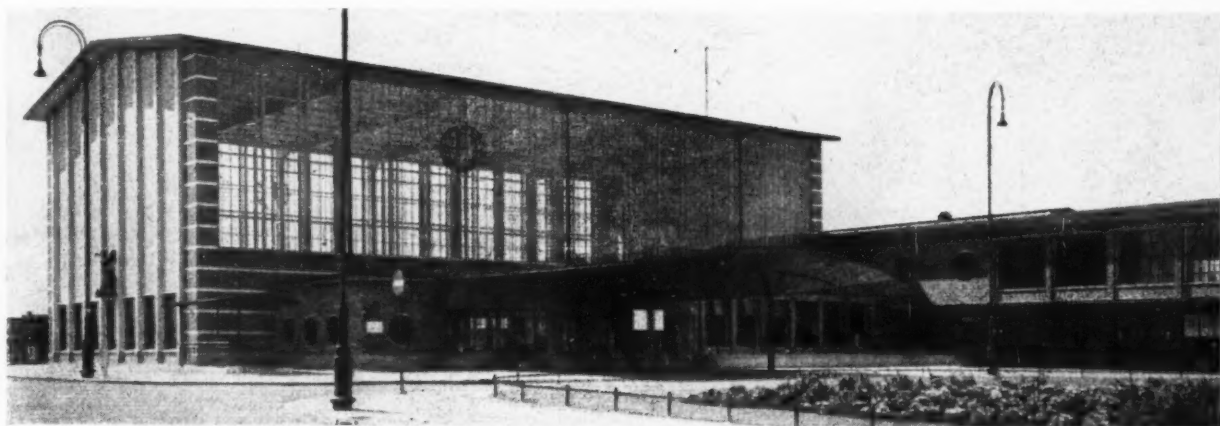
Early in 1934 leading house-builders urged that a means should be found of preventing "jerry-building." Few firms were guilty of this irresponsible practice, but their activities were exposing the whole industry to unfair criticism. A way had to be found of placing a hallmark upon sound construction. If the public were given authoritative guidance about the quality of houses offered for sale it would be protected from exploitation by "jerry-builders" and would regain its confidence in the house-building industry.

How could this guidance be given? In January, 1937, a number of representatives of organizations concerned with architecture, planning, preservation, local government and social welfare combined to form the National House Builders' Registration Council, a non-profit-making body which has the official approval of the MOH and was constituted under licence of the BOT. Observers from the MOH and the MOW sit with the Council and assist its Committees. The Council, which is a completely autonomous body, received statutory recognition in 1946 by an Order made by the Minister of Health, with the consent of the Treasury, under the Building Societies Act, 1939.

THE CERTIFICATION SCHEME

How does the Council guide the public? It issues certificates of sound construction and maintains a national register of house-builders. Firms admitted to the register undertake to build only houses which conform to the standard prescribed by the model specification adopted by the Council. They permit inspectors acting on behalf of the Council to inspect their houses at all stages of construction. Each house is inspected at least five times. And then, if the inspectors report that it has been satisfactorily constructed, the Council issues to the builder (for transfer to the purchaser) a certificate to that effect. During the short time in which the scheme was operated before house-building was suspended during the period of the war, the public was beginning to appreciate the advantage of dealing with

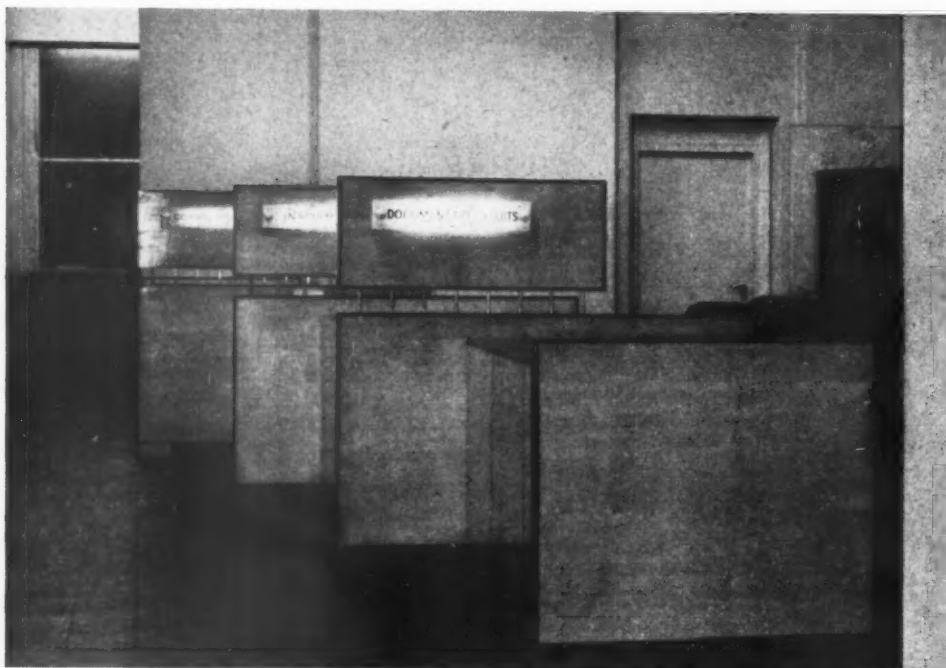
RAILWAY ARCHITECTURE AT THE RIBA EXHIBITION



These examples of railway architecture are on view at the RIBA "Architecture of Transport" exhibition at 66, Portland Place, W.1. Top, Amstel Station at Amsterdam; architect, H. G. J. Schelling. Above, Burlington Station, Iowa, USA; architects, Holobird, Root and Burgee; right, signal box, Netherlands Railways; architect, H. G. J. Schelling. Below, new terminal station, Rome; architects, V. Fadigati, M. Castellazzi, A. Vitellozzi, A. Pintonello, L. Calini and Montuori. The exhibition remains open until March 22.

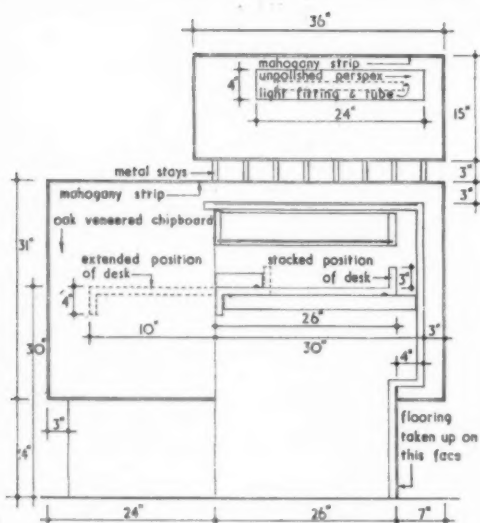


ALTERATIONS TO THE BANCO DE BILBAO, NEW

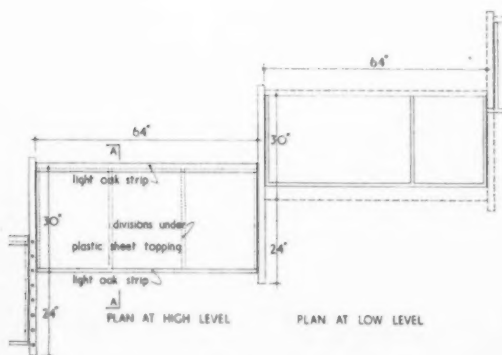


Alterations and redecoration in part of the bank have been completed to the designs of Halfhide and Partners. Additional public space and improved office accommodation was required to the rear of the ground floor, with a new "connecting bridge" across the area between two different parts of the building. The front section is to be re-designed as a banking hall, while the central portion, seen left, is devoted to general business transaction and the rear area is

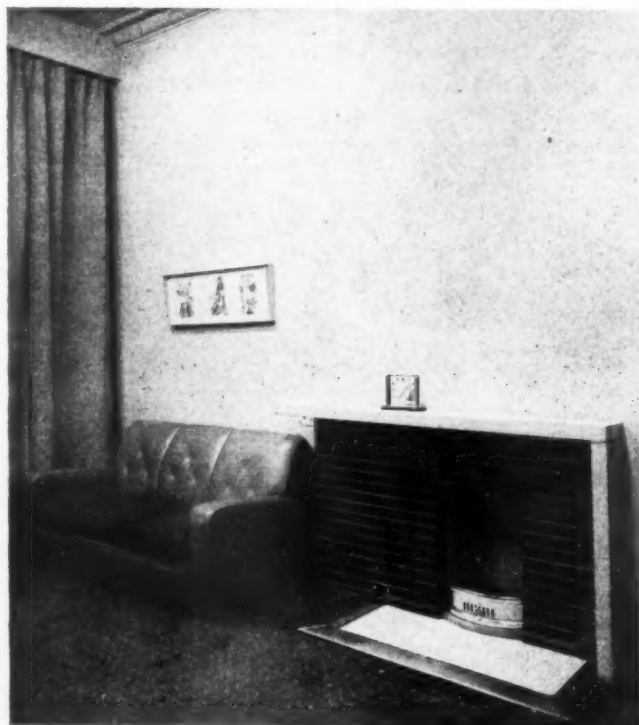
occupied by the manager's office, seen below, and other executive offices. The "connecting bridge" (below, on opposite page) is steel framed and has a concrete slab roof. One wall is of glass bricks and the other is decorated with three hardwood panels of vertical slats and flower boxes painted azure with egg-shell finish. The manager's room has two walls glazed above door height with reeded glass panels, elsewhere the finish is azure distemper. The ceiling is pale cream and the close-car-



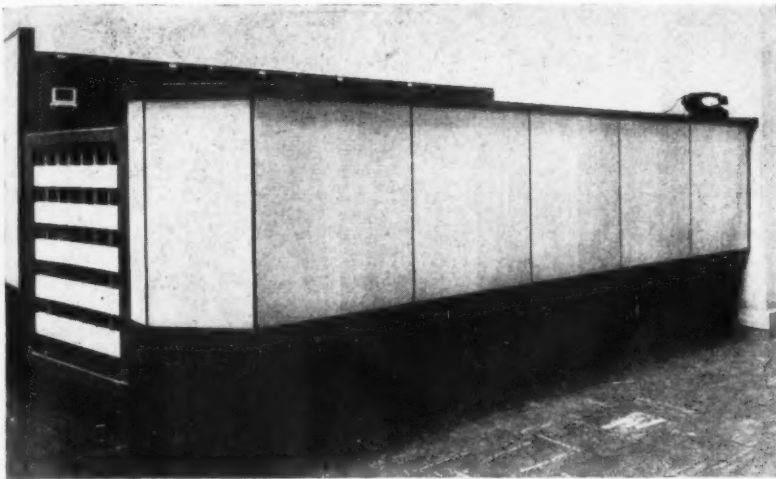
Section A-A [Scale: 1/4" = 1' 0"]



Plan of counter [Scale: 1/4" = 1' 0"]

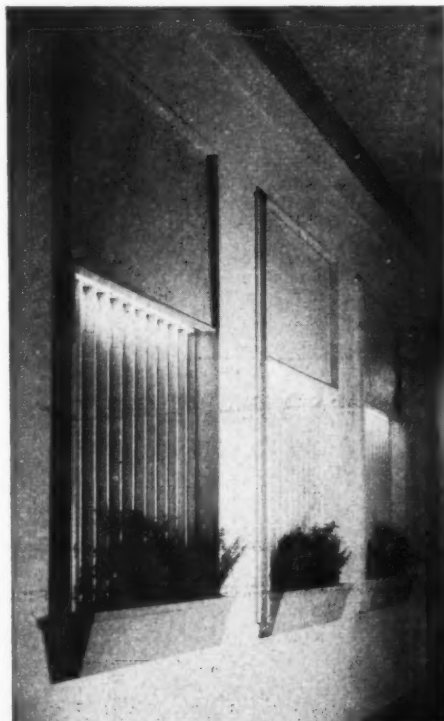
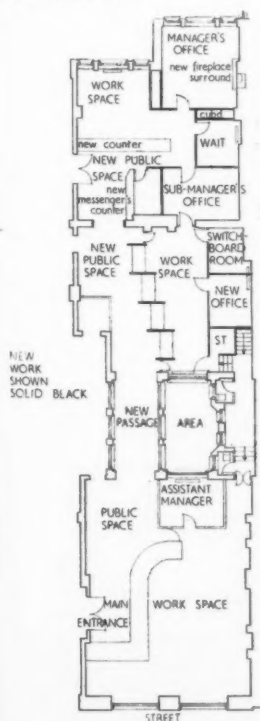


BROAD STREET, LONDON, E.C.2.



peting rust coloured with gray and beige spots. The specially designed fireplace surround is of 2-in. blue bricks (with horizontal joints emphasized) and a stone mantel. There are built-in cupboards, bookshelves and filing cabinets in oak. The most interesting feature of the scheme is the counter, seen above on the opposite page, designed in echelon and constructed of sycamore and walnut. The counter is divided according to different types of business, indicated by lettering on a plastic panel, lit from behind. Elsewhere counters (as seen above) are of the same materials with a skirting of brown mastic tiles as used for a floor covering, except in the manager's office. Partition walls are of wood wool slabs. All lighting is by fluorescent tubes with concealed conduits. The contract price was £4,786. The general contractor was William Verrey, Ltd. For list of sub-contractors, see page 320.

Ground floor plan
[Scale: 1/4" = 1'0"]



builders who were in a position to produce these certificates. Since the war the scope of the Council's activities has, of course, been limited by the restricted programme of private enterprise housing.

The Council's model specification has been carefully drawn up and is under continual review by an expert standing committee which includes a number of house-builders. A minimum standard of sound construction is laid down. Consequently, observance of the provisions of the specification cannot substantially increase the production costs of any builder who normally does good work.

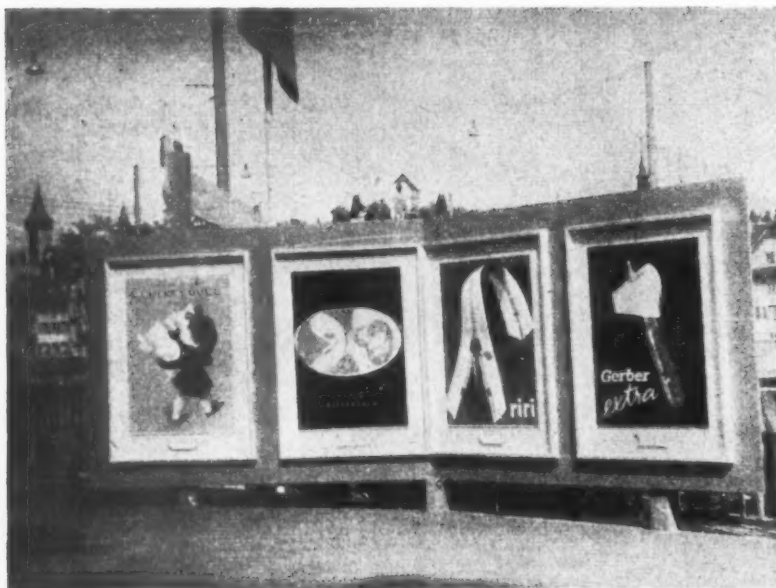
The value of the Council's certificate to the builder offsets the small charges made for registration and certification. The charges are as follows:—*Registration of building firms and companies.* First year, 3 guineas per firm; renewal, 1 guinea per annum. *Certification of houses built.* Houses below £1,000 selling price (including land), 2½ guineas per house; houses of £1,000 and over selling price (including land), 3 guineas per house.

The scheme now has the support of organized employers. In 1939, the Federation of Registered House-Builders made qualitative registration an important feature of policy and adopted a constitution making registration with the National House Builders' Registration Council a condition of membership. That Federation is now affiliated to the major employers' organization, the National Federation of Building Trades Employers, which has also made it a rule that members who build houses for direct sale or letting shall apply to have their names entered upon the Register.

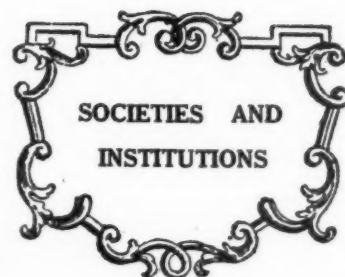
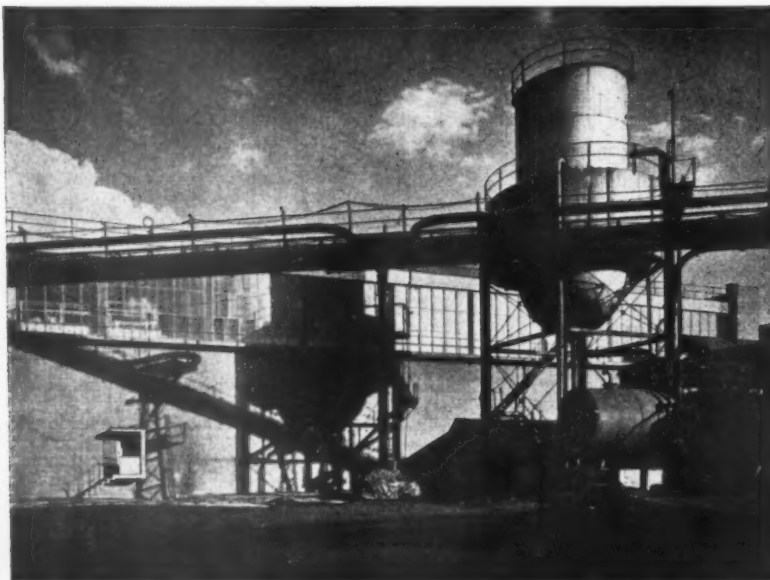
EARLY MISUNDERSTANDINGS

In the early stages of the Registration Council's activity, difficulties were encountered which arose, mainly, from misunderstanding of the true objects of the scheme. While professional bodies gave their support to the scheme, some people were afraid that it might have an adverse effect on architects in private practice, and that it would not be favoured by rural architects, who normally derive an income from the "vetting" of houses for sale. But after its years of efficient activity the true value of the Registration Council's work should be apparent to all. It may be of interest to recall, however, that these points were dealt with in a resolution passed by the Registration Council as far back as December, 1938, and, since the terms are a clear statement of a case which still holds good today, they are quoted here:—"That the National House Builders' Registration Council, being a body established with a view to securing improvement in the standard of construction of houses built for sale as a speculation and in order to protect the interests of purchasers of this class of property, to which alone its activities extend, desires to emphasize that no measures taken by it in pursuance of the above objects do or are intended to constitute anything in the nature of an encroachment upon the proper sphere of employment of the architect in private practice, for which reason work done under contract for *bona fide* building owners is specifically exempted from the provisions of the Scheme operated by the Council, and that moreover it is the consistent policy of the National House Builders' Registration Council to give the fullest support to all endeavours directed towards the improvement of the standards of planning and design observed in housing schemes undertaken by private enterprise, and in particular where those endeavours are directed to encouraging house-builders and estate developers to make ample and increasing use of the services of the architectural profession in order that this end may be achieved."

It will be seen that the work of the Registration Council, far from being a hindrance to the architect, is in his best interests.



In his recent talk to members of the TPI (illustrated with slides), which is reported on these pages, Frederick Gibberd said, of advertising, that what is so often an eyesore could be turned into great decorative gain. An illustration he used as an example of good advertising is shown here (top). Mr. Gibberd also spoke of architectural details which can become the focal point of a scene. Above left, is an illustration he used to emphasise this statement; the staircase in this cinema attracts too much attention. Above right, an example of unnecessarily complex iron railings. And below, a picture of steel rolling mills at Scunthorpe, designed by Mr. Gibberd, showing how small details, such as the porch in the building, can "bring the scene down to a human scale."



Speeches and lectures delivered before societies, as well as reports of their activities are dealt with under this title, which includes professional societies, trade associations and government departments. To save space they are represented by their initials—see front cover. Lectures cannot usually be reported in full, but the extracts given are in the speaker's own words.

TPI

Frederick Gibberd

March 1. DETAIL IN CIVIC DESIGN. Paper read at Town Planning Institute, 18, Ashley Place, S.W.1. 6 p.m.

Frederick Gibberd When we first enter an urban scene we have a general impression of the complete scene. We get a sense of its spatial quality, and an overall impression of the design of the buildings and the other objects.

If the scene is cluttered up with innumerable badly designed objects we get a general impression of untidiness and squalor. On the other hand, if the details are well designed they give a sense both of quality and richness to the total scene, and a set of pictures in a minor key to the main composition.

When the scene is familiar we seldom look at it as a whole but rather on those scenes that are our particular concern; or we notice those scenes that thrust themselves on us, like a hoarding or a tree in flower. Our eyes become focused on the detail design to the exclusion of the scene as a whole. We have then to think of details as secondary elements in a broad picture, and as major design problems in their own right.

We have to consider details in three ways: firstly, the design of the object itself—is the lamp post well designed? Secondly, the design the object makes in relationship to other objects—is the lamp post well related to the kerb and pavings? Thirdly, we must consider the design of the object in relationship to the space in which it stands—is the lamp post so related to the street or square that it appears an inevitable part of the spatial composition?

Many of these objects are badly designed in themselves, and some are not designed at all. Few of the objects are designed to bear a relationship to other objects, and few are

placed in the scene as part of the composition of the space itself. They are ugly in themselves, they conflict with each other, and they confuse the spatial quality of our streets, squares, and other urban spaces.

STREET FURNITURE

I would now like to consider details of spatial relationship in five categories. The first is: three dimensional objects standing in space. The majority of these objects are commonly called street furniture. Godfrey Samuel, the Secretary of the Royal Fine Arts Commission, has grouped them as follows: street lighting equipment; traffic control equipment; transport operating equipment; postal, telegraph and telephone equipment; road maintenance and refuse disposal equipment; and directional signs and nameplates.

I would exclude nameplates because their problem is mainly one of typography. I would add a further group: structures for rest or shelter—seats, wind and rain shelters, kiosks, and the like. Although a few of these latter objects stand at the side of a road, like a bus shelter, most of them are associated with a static urban composition. For example, seats and shelters are necessary in public squares so that the townsman may come to rest and enjoy his surroundings. Perhaps they are better called "space furniture" than "street furniture."

The design of street and space furniture in this country is today deplorable. We have some pleasant objects like Sir Giles Gilbert Scott's telephone kiosks, but, on the whole, the design could scarcely be worse.

If you are not prepared to take this statement from me, and if you are not prepared to use your eyes—and I don't blame you if you won't use your eyes, because the urban scene is now so squalid one has to erect a visual defence mechanism to bear it—then listen to the experts. Lord Crawford, the Chairman of the Royal Fine Arts Commission, has said, "The lighting standards now being erected throughout the country have caused the Commission much concern. Of the many designs submitted to them few have met with approval." Gordon Russell, the Director of the Council of Industrial Design, said in connection with a booklet they are producing on street furniture, that they have had great difficulty in finding British examples, and have had to look abroad for many examples.

The standard of design is low because people with a trained aesthetic sensibility are neither employed to design the objects nor to select them. What usually happens at the designing end is that a purely functional solution is first arrived at, and it is then messed about to try and make it look pleasant. Notice how crude the shape of some traffic signs are, and notice their futile decorations which, if anything, makes them look even worse.

The proper approach is, of course, to evolve the form from the function, and from the materials used in design. For example, the decorative quality of a lamp standard can be evolved from the shape of the mast and the arm supporting the lamp, without contorting it into extraordinary shapes. And the type of post evolved for reinforced concrete will be different from that evolved from steel.

HOW TO IMPROVE OUR DESIGN STANDARDS

A great deal has been said and written about the design of street furniture. But there has been little improvement in design, and there will continue to be little improvement until a very simple solution is adopted. That solution is, to commission industrial designers to design the objects, just as architects are commissioned to design buildings. There is now a body of really skilled industrial designers in this country, people like Misha Black, Wells Coates, Milner Gray and R. D. Russell: there is a recognized pro-

fessional body, the Society of Industrial Artists, a body that will advise on professional fees, and find the right person to do the job.

No body, no commission, no committee, be it the Royal Fine Arts Commission or the Council of Industrial Design, is the proper vehicle for designing. Their job is to criticize and to advise. The designers are there, and the cost of employing them, compared with the cost of talking about the problem—committees and so on—or the cost of the article itself, is infinitesimal.

I mentioned the difficulty at the receiving end of this problem, namely, that the choice of object is so often left to people with no developed aesthetic sensibility. I had perhaps better not develop this argument because, being an architect, I have had an initial five years' training in aesthetics, and am therefore prejudiced. However, it is significant that where a trained artist is in a key position, the design of the street furniture tends to be high: for example, the recent work at Coventry, where Donald Gibson, city architect and planner, is consulted, and the work at Stockholm, in charge of Holger Blom, the landscape architect.

THE "FAMILY RELATIONSHIP"

When we consider the relationship of these objects to each other and to the space in which they stand, the first point we should note is that they may be a relationship between the character of the objects themselves, what Godfrey Samuel has called the "family relationship"—the sort of general character which results from a series of objects being designed under one direction. The classic example is the London Passenger Transport Board's excellent range of furnishings.

As a general rule, it is obviously not easy for different manufacturers of, say, seats, lamp posts and bollards, to consult with each other, to obtain the overall imprint of one style. But I do not think it is really necessary that they should do so. It is true that design is now so bad that objects do fight with each other, but if qualified people were commissioned to design the objects, they would automatically have affinity. It would not be so close as, say, the work coming under the direction of one body, but, as I have suggested, I see no reason why it should be. Whilst we do not want the urban scene to be chaotic, we do need sufficient contrast between the forms to give variety, and prevent the scene from becoming over-refined and effete.

When we come to placing the objects in relationship to the space, it is obvious that the positions of certain of them are determined functionally, in particular those in connection with traffic control. The number of these increases daily, and there is, in consequence, a scramble for the key positions. The average traffic island near a road intersection becomes more and more loaded with equipment.

Different authorities erect their objects without regard to other objects. Quite obviously, appearance would be less chaotic if there was greater collaboration; and, quite obviously, the scene would appear less cluttered-up if different articles were combined together.

With many of the other objects, like seats and kiosks, there is a wide choice in placing them in the urban scene. In deciding the position of an object we have to think of its position in relationship to the general circulation in the space—the planning problem. We have to consider whether its form will be seen in silhouette—small objects should not, as a rule, be placed in the openings of a large space because, being silhouetted, it becomes too important. We have to consider its form in relationship to the background of buildings—for example, a kiosk placed on the major axis of a building will mask the central feature of that building. And we have to consider its position in the space itself—for example, a coffee stall placed in

the dead centre of a space will seldom look right, because too small an element is made the pivot of the design.

It is abundantly clear that the placing of these objects is a significant part of the design of the urban space as a whole. In consequence, one individual, the town designer, must be held responsible for studying the qualities of the space and relating the objects to it. We cannot hope to have satisfactory urban scenes whilst anyone is allowed to erect anything, irrespective of the design of the total environment.

SIGNS AND SYMBOLS

The various directional signs for showing the way about the town, like signposts, street names and names on buildings, are, compared with the previous group, reasonably well designed.

The prime problem here is typographical: letters well designed and well spaced—both in relationship to each other and to their background.

Many traffic notices have a clear type, to a British Standard Specification, and the general type used for many signs is a simple legible variety like Gill Sans. However, good that these simple types are, there is now a move towards more robust and more decorative types—we are, I am sure, all looking forward to seeing how the interesting types chosen for the Festival of Britain will work out in practice. This move is all to the good, for a vigorous type will certainly help to give the urban scene a lively appearance without making it chaotic.

One of the chief points of criticism with street name plates is the method of mounting. The problem is in the hands of very practical people like engineers, and they make certain that the plates are mounted where no one can miss them. It is, of course, infuriating to search for the name of a street amongst the architectural embellishments of a building. But I do suggest that it is not always necessary to mount a simple thing like a street name plate on a reinforced concrete beam supported on two reinforced columns some five feet high.

One of the most encouraging things about lettering in relationship to buildings is that architects are now tending to design it as an integral part of the design—not just as good lettering on a background of building but as an element in design.

DANGERS OF ADVERTISING CONTROL

So much has been said about the evils of advertising on buildings that there is little I need say about the subject. The new Control of Advertisements Order will enable local authorities to keep advertising under control. But while the use of buildings wholly for advertising is thoroughly objectionable, it is highly dangerous to place too strong a control on advertising. The problem is one of the character of the space. In a shopping street, for example, I would allow the shopkeeper to do just what he likes below the line of the top of the fascia. His job is to sell goods by an attractive display, and the more individual this display and its setting is, the more lively will the scene be and the better will the public like it. Almost every attempt at imposing standard shopfronts, lettering or fascias, on a shopping street, has resulted in a dull and dreary scene.

With an entertainment space like a cinema or theatre square, the advertising may extend on to the façade of the building, provided its mounting is designed as an integral part of the façade. A more than life size poster of Miss Betty Grable looks magnificent when set in an architectural framework; but she must not be just spread over the façade, irrespective of the architecture, as she will most certainly devitalize the forms invented by the architect.

If restrictions are placed on buildings as sites for advertising, then one would expect sites to be provided elsewhere. I believe

we are nothing like enterprising enough in the provision of specially designed facilities for advertising. They have in Europe all kinds of interesting advertising posts and screens which lend great gaiety to the scene. I believe, too, that many of the objects in the town centre, like kiosks, lavatories, and screen walls, could be specially designed to take posters.

With advertising designed as an integral part of the scene, rather than plastered over buildings, what is so often an eyesore could be turned into great decorative gain.

WALLS, RAILINGS AND FENCES

The aesthetic value of the miles of walls, fences, railings and rails that clutter up the urban scene rests on their qualities of form, colour and texture; on the extent to which they control the view; and on the extent to which they form a visual link between one form and another.

As a race, we have a passion for erecting barriers, with the consequence that the urban scene is cluttered up with an excess of materials, and in particular the spatial quality of our urban spaces is disrupted.

The first problem with the detailed design is to see how many of these barriers can be swept away. Thus, we could eliminate fences which do no more than mark a change in property ownership; we could eliminate those that owe their existence to the Victorian passion for wrought and cast iron as a decorative feature. And we could eliminate those barriers that owe their existence to a desire to regiment the townsman.

The removal of railings during the war, for scrap, showed how tremendously the urban scene was improved, through the floor space being able to extend to the walls without interruption. What a pity it is that wood, brick and stone have not much scrap value.

Unfortunately, many of the railings are now being replaced by massive concrete and chain-link fences, hideous in the extreme. Some fences had to go back, as the destruction to property was too great—but a low barrier would generally be sufficient. Many of the new fences would have been quite unnecessary if the freed space had been readjusted in design to take the new paths of circulation. For example, some of the London squares were spoilt by people taking short cuts across them, but the answer was not to shut them up again but to lay new paths on the obvious line of circulation.

PHYSICAL AND VISUAL BARRIERS

The two extreme types of barrier are the tall wall, and the rail or chain. The wall because it gives obstruction to the view—it is a complete visual barrier. The rail or chain because it offers the least visual obstruction, and further because it may not even be a real physical barrier. Nevertheless, they do provide protection by acting as a visual deterrent.

A wall has the formal qualities of mass, and the surface qualities of colour and texture, but the value of a fence or a rail rests almost entirely on line, it having no qualities of mass and little of texture. Its lines are seen in space and form a silhouetted pattern.

Between these two extremes are all kinds of walls and rails, used either singly or in combination, and performing the same function of providing visual protection, and of acting visually as either barriers or links. The wall that gives complete obstruction to the view can be used to define space just as do the walls of a building and, since this is a basic rather than a detailed design problem, I shall make no further mention of them, save only to emphasize how tremendously important they are in the visual scene. Innumerable post-war housing schemes have been visually ruined because in place of screen walls linking one façade to another, there are wide open gaps, with the consequence that the space spills out and there is no sense of enclosure. Heartiest congratulations to

those architects who ignored a Government order prohibiting the use of brickwork for screen walls.

When it comes to the choice of a rail or fence, the first question to be asked is: "Is it needed at all?" Far too many fences are erected simply to mark the change of ownership or through an over-developed sense of property ownership. If the barriers in front of the English houses were swept away, the floor plan could flow up to the buildings and give the whole scene greater repose and cohesion.

If a fence is really needed, then the right solution is the simplest possible design. There are countless instances where a simple rail supported on posts is sufficient to give a visual and tactual barrier.

There are many excellent standard types of wrought iron or mild steel fences made up from flat, round or square sections, but there has been a sad decline from Regency days in the more decorative types, commonly known as "architectural metalwork." Most decorative ironwork is today of rather commonplace modernistic designs, although architects are at last beginning to try and recapture the grace and interest of the traditional patterns in, of course, a contemporary manner. One of the many questions that confounded me when I sat for the final examination of the Institute was: "What is the architectural function of a railing?" Its use is to give protection, and as protection it can be used in association with architecture. But to erect it simply as applied decoration seems to me to be just nonsense.

Although the lineal pattern of railings may form a splendid contrast to the planes of architecture, care must be taken that they do not confuse the basic forms. Bridges are a case in point. Many Victorian and modern designs have balustrades with ponderous metal infillings, which conflict with the structural shape of the bridge itself.

VISUAL VARIETY

Objects like entrance porches and bay windows cannot exist in isolation, but have, nevertheless, a life of their own in that they are complete compositions. Most details of this kind are aspects of architectural design which is outside my subject, but I must make four points.

The first is that details in architecture are not just architectural features, but any object or surface which acts as a focus in the picture. The second is that they are of great importance in the composition, as they give a richness and a visual variety. Details of this type are very important today as the development of the frame structure and the skin wall tends to produce rather flat and diagrammatic architecture. A projecting porch, a bay window, or some other feature, apart from its decorative value, has a three-dimensional quality, which contrasts with the two-dimensional quality of the façade.

The third point is that they tend to bring the scene down to a human scale. However large the building may be, the details like the entrance doors will be in scale with the people using them.

The fourth point is that the architect in placing his details should think beyond the composition of his building, and consider its effect on the composition of the space. For instance, the canopy over a theatre does not just belong to the theatre itself. It belongs to the milling theatre crowd and the motor-cars drawn up underneath it. It is part of a lively and dynamic street scene, which may take little account of the building at all.

QUALITY OF SURFACE

The texture, pattern and colour of the walls, floors and furnishings of urban spaces act in much the same way as the other details. They can provide variety by a sudden contrast—say as a patch of bright primary

colour on a building; they can reduce the scale—as when a broad expanse of flooring is formed from small blocks; and they provide a field of visual interest in a minor key to the main composition. But they have an additional value of great importance, namely, that they can weld a scene into a harmonious whole—as when the floor of a space is designed with a strong overall pattern, or when the walls of a space—the buildings—are painted the same colour.

To save time I will limit myself to the floorings of spaces, for of all the surfaces these are the most neglected. Floorings are usually thought of as the pavements but since all the surfaces of a town should give pleasure to look at, the meaning of the word should be extended to include all the horizontal surfaces, whether they are for walking on or not.

The floors may be divided into two basic types: continuous and jointed. Continuous are those laid with an unbroken surface, like tar macadam and grass, and jointed those that are formed by assembling small units.

The continuous are generally associated with the wider urban areas like the main roads and stretches of landscape: the jointed with the more intimate areas like pedestrian precincts. This is as it should be, because the jointed materials have a quality which the others have not: pattern.

The more intimate areas are those that we examine in the greatest detail, and are those that are closest to buildings. In both cases the pattern formed by the joints is very important, because it gives the floor an affinity with the walls, and helps to reduce the scale.

Thomas Sharpe demonstrated in *Oxford Re-planned* how important to the visual scene is the relationship in scale between the flooring and wall materials, and one of the greatest losses to the character of towns is the ruthless way patches of old pavings have been torn up and replaced by the ubiquitous concrete and tar macadam. So much so that the floors of our towns are now little more than dreary wastes of concrete and tar macadam.

However, now that wheeled traffic is being taken out of the town's squares, or canalized in comparatively narrow lanes, large areas of flooring can be designed to take the comparatively light load and wear of the pedestrian. This will give a much wider choice of materials, and, of course, patterns; and we shall expect, and indeed there is every indication, that there will be a revival of the aesthetic expression of the floor plane.

It will once again be possible to obtain an intimacy in design between the floor and wall planes. It will once again be possible for the pattern of the space floor to reflect the structural pattern of the buildings; and the floor itself will once again be an interesting surface to walk over.

The choice of continuous surfaces is simply a matter of obtaining the appropriate colour and texture, but with the jointed materials all kinds of combinations are possible, thanks to the wide variety of materials available for the individual blocks, and the innumerable ways they may be assembled.

As a general principle, it can be said that floors cannot, as a rule, be designed to the same degrees of intricacy as wall patterns, because one cannot stand away from them and see them head on as a flat plane, and further, because they are disturbed by people walking over them, or by objects like telephone kiosks standing on them. Therefore, in designing patterns on the drawing board, one must always keep at the back of one's mind that the design is seen obliquely, and that it will be confused by other forms.

Since there is so much choice with floor patterns, it is very sad that in this country we seem to have standardized our pavings to a pattern formed by three-by-two and two-by-two concrete slabs. I know this is a serviceable job, but couldn't we try something else just for the sake of appearance?

HALL OF RESIDENCE

at WYE AGRICULTURAL COLLEGE, KENT

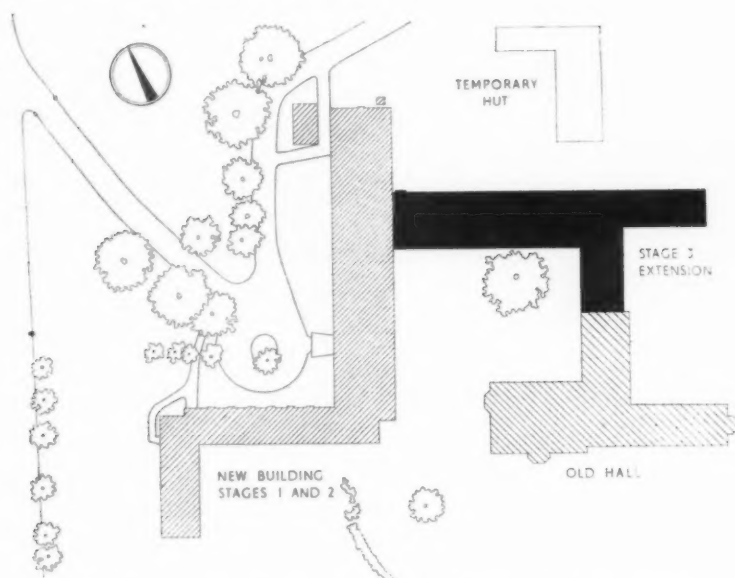
designed by RICHARD SHEPPARD and PARTNERS

assistant architect MALCOLM MITCHELL

The conversion and additions to Withersdane Hall to form a hostel for students at the Wye Agricultural College have been carried out in three stages. The first two stages were illustrated in our issue for February 2, 1950. The third stage includes a further fifteen study bedrooms, domestic staff quarters, caretaker's flat, a large recreation room and a covered way linking the main entrance of the new building with the old hall closing the south-west side of the quadrangle.

New extension adjoining the old hall on the left.



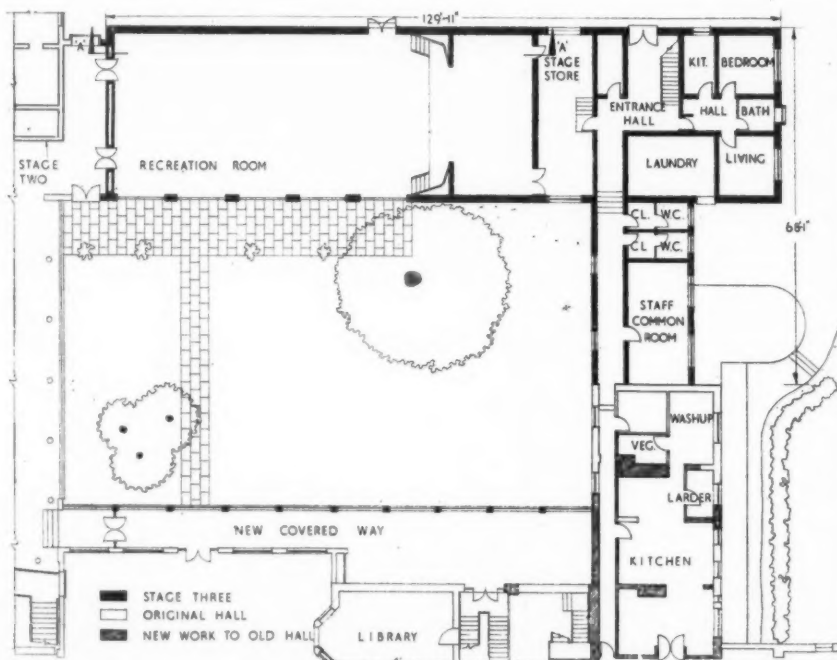


Site plan (a covered way, as shown below, closes the south side of the courtyard)

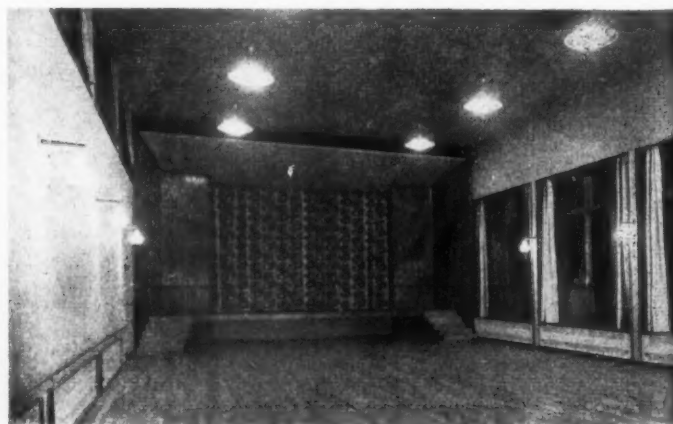
HALL OF RESIDENCE

at WYE AGRICULTURAL
COLLEGE, KENT
designed by RICHARD
SHEPPARD and PARTNERS

Below, courtyard with stage 3 wing on the right. Below right, the recreation room looking towards the stage.



Ground floor plan [Scale: $\frac{1}{4}$ " = 1'-0"]



PLAN.—In the first two stages about seventy study bedrooms were provided, together with students' kitchens, laundry, ironing rooms, stores for working clothes and cycles, and small common rooms. Alterations inside the old hall have now been made to make the existing requirements suitable for present requirements. The planning of the last stage of the work was somewhat restricted due to the fact that a dining room and kitchen were originally intended on the ground floor of stage three, but catering arrangements were altered to allow for the provision of a recreation room. This room is now used for various social functions and for lectures of general interest.

CONSTRUCTION.—There are precast concrete floors supported on concrete block cross walls, thus allowing external walls to be an enclosing skin only.

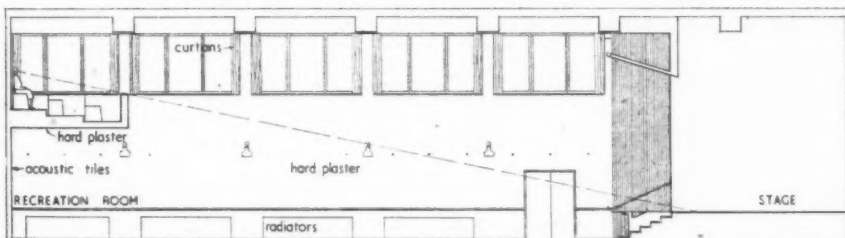
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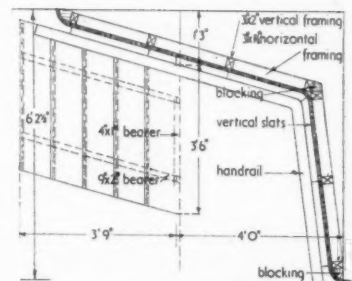
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Recreation room, looking from the stage towards the gallery.



Section A-A [Scale: $\frac{1}{8}'' = 1'0''$]

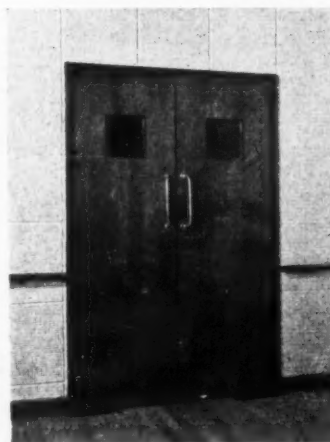


Part plan of forestage and stairs
[Scale: $\frac{1}{4}'' = 1'0''$]

Below right, view through recreation room entrance towards the stage. Below, entrance door at the west end of recreation room.

The inner skin of the 11-in. cavity walls is of foamed slag blocks for thermal insulation. The floor over the recreation room is supported on concrete columns and beams. The roofs are of foamed slag blocks supported by precast concrete purlins bearing on the concrete cross walls.

FINISHES.—The roof blocks are screeded over and covered with sheet copper. Hardwood has been used for windows, doors and frames, as well as for the new stair in the old house. Walls and ceilings generally are covered with $\frac{1}{2}$ -in. plaster. In the recreation room the rear wall is covered with acoustic tiles; the ceiling with lime plaster wood float finish;

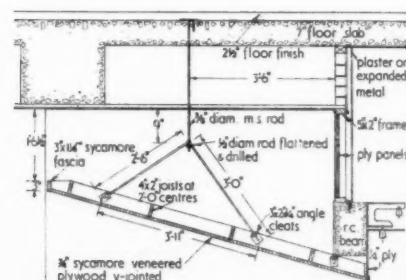




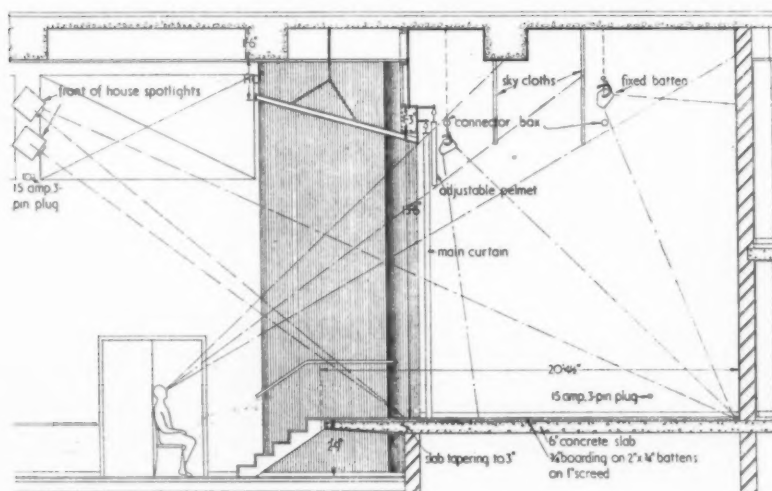
the sides of the proscenium opening with vertical strips of African mahogany; the floor with oak strips and the sounding board over the proscenium opening is of sycamore veneered plywood. Discs have been let into the walls at eye level so that pictures from travelling exhibitions can be hung. A hardwood rail has been fixed at about 3-ft. height to prevent damage to the walls by chairs.

SERVICES.—Heating in the recreation room is by convector units and there is a combination of wall and ceiling lighting which will give about 5 foot candles at desk level, so that the hall can be used for examinations.

The general contractors were C. E. Wallis & Sons, Ltd. For list of sub-contractors, see page 320.



Section through sounding board [Scale: 1" = 1' 0"]

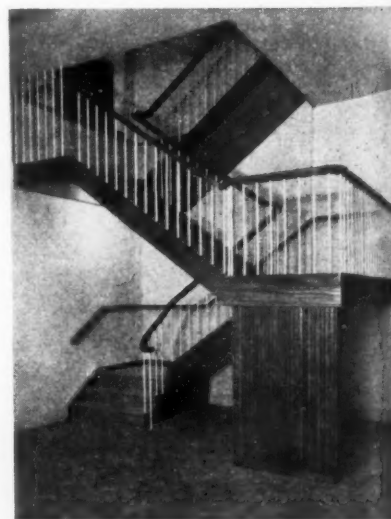


Section through stage [Scale 1/2" = 1' 0"]

HALL OF RESIDENCE

at WYE AGRICULTURAL COLLEGE, KENT
designed by RICHARD SHEPPARD and PARTNERS

Above left, the recreation room stage showing stairs and fixed sounding board. Right, new stairs from ground floor in the old hall.



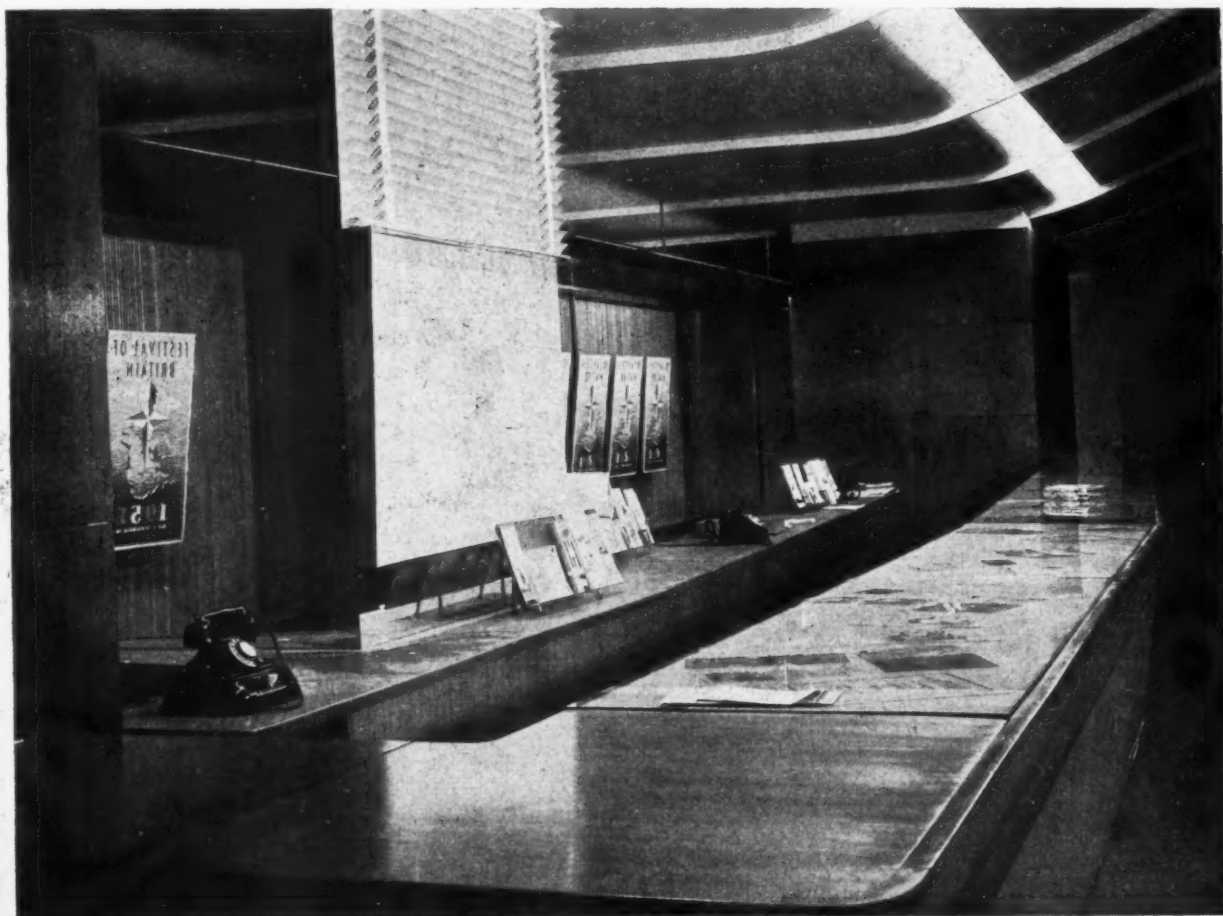
FESTIVAL OF BRITAIN

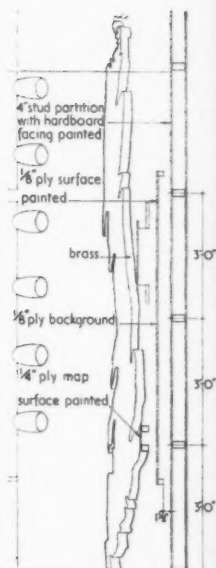
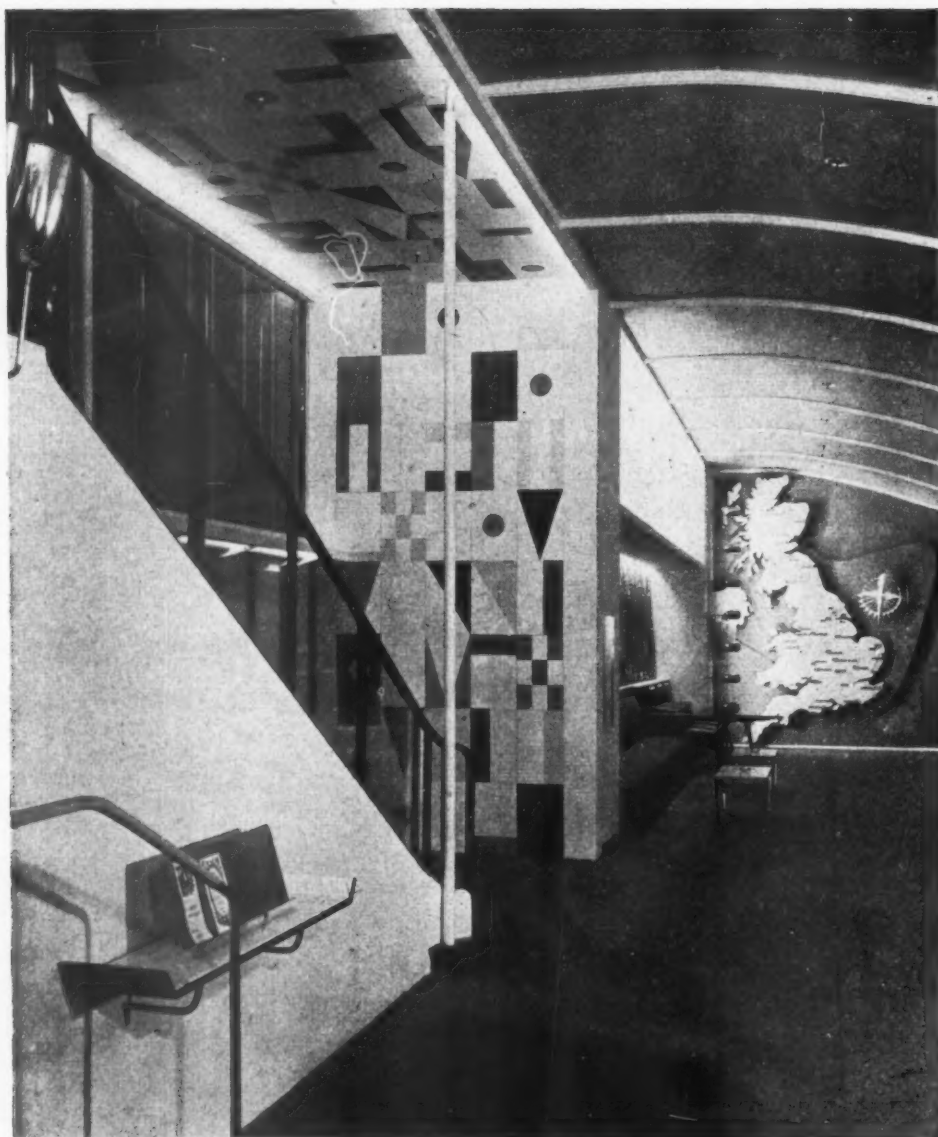
INFORMATION CENTRE, PICCADILLY CIRCUS, W.I.

designed by JACQUES GROAG

The Festival Office have taken over from Messrs. Swan & Edgar an area of approximately 4,000 sq. ft. at the north-east corner of their lower ground floor, as an Information Centre for all types of visitor who wish to make arrangements to see the Festival and to obtain information about it. It is expected that a maximum of 12 persons, working in shifts, will be employed at the Centre.

The main inquiry centre.





Section through raised map (Scale: $\frac{1}{4}$ " = 1'0")

Left, stairs to ground floor exit to Piccadilly on the left and raised map in the background. Below, feature inside the entrance from the underground, hiding the soffit of the stairs.

FESTIVAL OF BRITAIN

INFORMATION CENTRE, PICCADILLY CIRCUS W.1
designed by JACQUES GROAG

PLAN.—Provision has had to be made for access through the normal shop entrance from Piccadilly Circus, from the shop itself and from the Underground concourse, which approach remains open after the shop closes at 5.30 p.m. The designer was faced with an irregular shape for the main inquiry area, due to the existing piers on north side following the curve of Regent Street. In order to make this space rectangular, a false pier, containing two telephone boxes, has been built at the west end and an existing pier near the centre of the long counter has been cleverly camouflaged. A general office for correspondence has been provided on the north

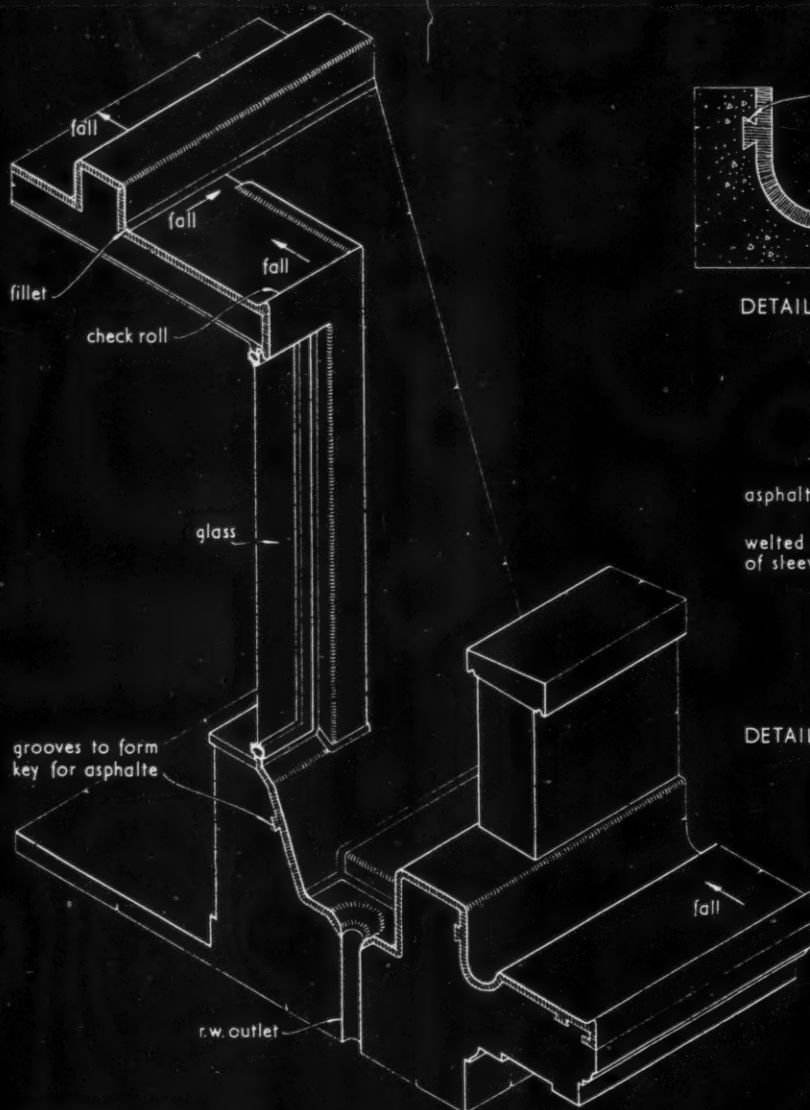


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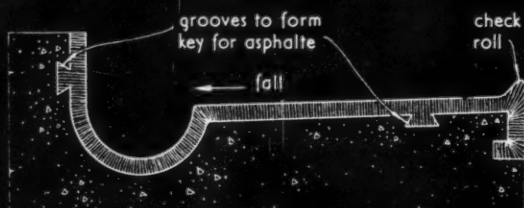
ASPHALT APPLICATIONS ROOFING

12.F1

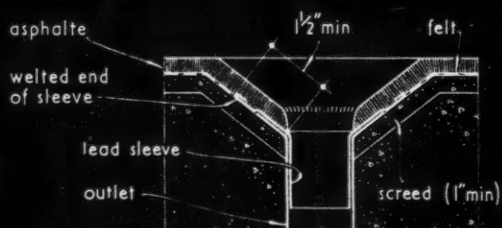
The Architects' Journal Library of Information Sheets 299. Editor: Cotterell Butler, A.R.I.B.A.



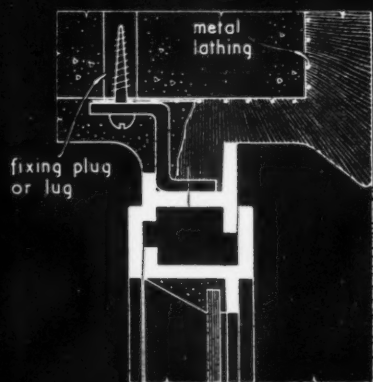
ISOMETRIC VIEW.



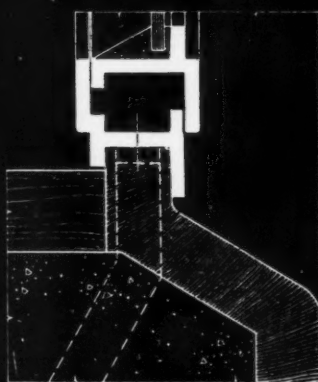
DETAIL AT CORNICE.



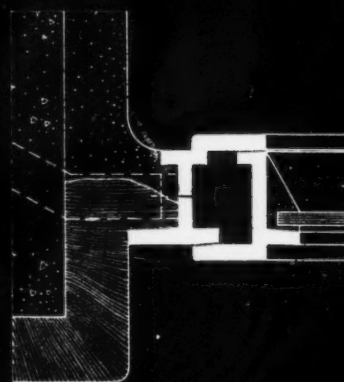
DETAIL AT OUTLET.



HEAD.



SILL.



JAMB.

DETAILS AT HEAD, SILL AND JAMB OF DORMER WINDOW.

ASPHALT COVERING TO MANSARD ROOF, DORMER WINDOW, GUTTER AND CORNICE.

Manufactured by The Val de Tennes Asphalt Co. Ltd., 10, St. James's Street, London, W.1.

12.F1 ASPHALTE : APPLICATIONS : ROOFING

This Sheet deals with the application of asphalt mastic to roofs. The drawings show an asphalt covering to a mansard roof, dormer window, gutter and cornice.

Specification Notes

To ensure that materials of standard quality and manufacture are used, it is recommended that the following clause be embodied in specifications and bills of quantities:—

All asphalt used on this contract is to be manufactured according to British Standard 1162 : 1944, for natural rock asphalt (alternatively to British Standard 988 : 1941 for mastic (limestone aggregate) asphalt), and all asphalt blocks used are to be branded with the mark of the manufacturing company and the relevant British Standard number and mark of that institution.

Laying

Horizontal concrete surfaces: The asphalt should be applied in two coats, breaking joint at least 6 in., to a total thickness of not less than $\frac{3}{4}$ in., and laid to falls (minimum $1\frac{1}{2}$ in. in 10 ft.) previously prepared in the concrete. It is recommended that black sheathing felt should be used as an isolating membrane. This should be laid loose with lapped joints. The thickness of asphalt may be increased according to circumstances and type of traffic.

Vertical concrete surfaces: On vertical concrete surfaces or slopes of more than 1 in 10 (other than skirtings, risers, etc.), it is recommended that asphalt be applied in three coats, breaking joint at least 6 in., to a finished thickness of not less than $\frac{3}{4}$ in., such surfaces having previously been prepared to receive the asphalt by adequate grooving or hacking.

Horizontal wood surfaces: Asphalt should be applied to horizontal wood surfaces in the same manner as described for horizontal concrete surfaces (including felt underlay).

Vertical wood surfaces: On vertical or sloping wood surfaces of a rise of more than 1 in 10 an underlay of felt should be applied laid with lapped joints and nailed to the wood. A key for the asphalt should be provided in the form of expanded metal lathing secured with staples through the felt and into the wood. Application and thickness as for concrete.

Angle fillets: Solid asphalt angle fillets must be provided at all internal angles to give added strength at those points.

Marking on Blocks

Every block of asphalt should bear, in addition to the manufacturer's trade mark, a distinguishing number to denote the class of material manufactured, and the "kite" mark of the British Standards Institution.

1162 indicates natural rock roofing asphalt.

988 indicates mastic (limestone aggregate) roofing asphalt.

Compiled from information supplied by :

The Val de Travers Asphalt Paving Co. Ltd.

Head Office : Val de Travers House, 21-22, Old Bailey, London, E.C.4.

Telephone : City 7001 (10 lines).

Works : Sun Wharf, Creekside, Deptford, S.E.8.

Telephone : Tideway 2611.

Branches : Birmingham, Canterbury, Exeter, Glasgow, Lincoln, Liverpool, Manchester.

NOTE.—Throughout the Library the word asphalt is spelt without a terminating e conforming to practices adopted by B.R.S., B.S.I. etc. On this Sheet, however, the spelling asphalt has been adopted to comply with this manufacturer's usage.

RUST RESISTING TREATMENTS | METAL SPRAYING

40.B2

The Architects' Journal Library of Information Sheets 300. Editor: Cotterell Butler, A.R.I.B.A.

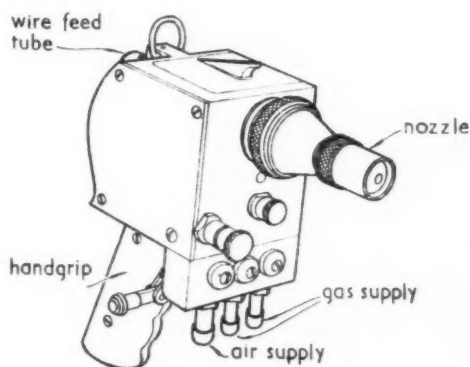
THE BRITISH WIRE PROCESS OF METAL SPRAYING

This Sheet describes a process of metal spraying which is suitable for coating articles of almost any material. The coating may be of any metal or alloy which can be drawn into wire and which is capable of being melted in a blow-pipe flame. When necessary metal spraying can be carried out by means of portable apparatus specially designed for the treatment of materials and plant which cannot be transported.

Process

Metal spraying consists of bombarding the surface to be metallised with minute particles of molten metal in the form of a spray. The spray is formed and carried by a stream of compressed air which atomises a small globule of molten metal forming continuously at the end of a wire.

This process is accomplished by the hand machine (the pistol) illustrated below. It weighs approximately 3½ lb. The wire is automatically fed through



the pistol into the hot zone of a blow-pipe flame which is surrounded by a cone of compressed air. As quickly as the metal becomes molten it is atomised by the air and the particles are driven forward on to the surface to be coated. Owing to the cooling action of the air stream and the finely divided state of the molten metal, there is very little heat effect at the surface being metallised (it is possible to spray the film side of a photographic negative without blistering it) and if the hand is held in the spray of such metals as iron or nickel no discomfort is felt. Wood, paper, textiles, etc., can be metallised satisfactorily, but it is essential that the surface should not be glazed as this inhibits adhesion. Surfaces must have an open texture and in the case of metals this is obtained by blasting with angular chilled iron grit or other suitable abrasive. In the case of wood surfaces blasting can sometimes be avoided and other surface preparations, such as glasspapering, used, but the wood should be dry and well seasoned otherwise cracking will occur.

Characteristics

Structure of coating: Sprayed metal has a structure consisting of tiny saucer-shaped particles which

coalesce by momentary plasticity on impact.

In transverse section under the microscope the structure is seen as a wave-like formation, the section cutting through the small saucer-shaped bodies. In horizontal section the coating is found to be a mass of interlocking irregular-shaped particles about 1/100th mm. diameter. Coatings sprayed from wire are uniform throughout, have a very low oxide content and the minimum degree of porosity.

Adhesion of coating: This is not fully understood, but it is probably due to a mechanical interlocking of the particles of the coating with the interstices of the rough base, the interlocking of course being on a microscopic scale. Whatever the nature of the adhesion, the fact remains that it is sufficient for all practical purposes. Metal-sprayed coatings of steel or other hard metals are even used for the repair of worn mechanical parts.

Efficiency of coating: As there is no limit to the size of article which can be treated, spraying can be carried out after all manufacturing operations have been completed which ensures that every part can receive an adequate coating.

Thickness of coating: Sprayed coatings can be applied to any thickness from 0.001 in. upwards. The thickness of the coating depends mainly on the duration of the spraying.

Freedom from distortion: Since little or no heat is introduced to the surface being treated, no distortion of the article occurs.

Corrosion Resistance

This is the principal object of the process. High purity wires are employed, the coatings are uniform in thickness and of equal composition throughout so that the maximum degree of protection is obtained.

Automatic Spraying

For large scale treatment of structural and similar sections fully automatic metal spraying plant has now been developed. Such plant cleans the sections and sprays them at high speed by means of spraying nozzles, the whole operation being carried out as a continuous process.

Applications

A list of the coatings regularly applied by metal spraying is given below, together with details of the main purposes for which each coating is employed.

Zinc: A coating 0.002 in. thick forms an excellent rustproof base for painting, providing a matt surface which can be painted immediately without weathering or etching. This coating is used extensively for rust-proofing steel window frames and other building components of light construction. In a thickness of 0.004 in. the coating offers protection equivalent to the best hot-dip galvanising. It is recommended for structural work in non-industrial atmospheres, water tanks, laundry machinery, and certain types of chemical plant.

40.B2 THE BRITISH WIRE PROCESS OF METAL SPRAYING

Aluminium: Sprayed coatings of this metal have proved very satisfactory for the protection of constructional steelwork, particularly in industrial atmospheres where acid gases attack zinc coatings. There is little difference in cost as compared with zinc, whereas the coatings are equally suitable for subsequent painting where this is considered necessary. The deposits are normally 0.004 in. or 0.006 in. thick for this class of work. Aluminium coatings are also applied extensively to aircraft components, hospital beds, tanks for soft water, and many other varieties of goods. The coatings are unaffected at temperatures up to 500 deg. C. and offer satisfactory protection against combustion products from coal and other fuels.

Aluminising: This is a development of aluminium spraying which involves heat treatment after application of the coating. The iron-aluminium alloy which forms on the surface resists high temperature oxidation up to 950 deg. C.

Lead: Sprayed lead provides a coating resistant to acid gases, certain acids in liquid form and many other chemical compounds. The thicknesses of coatings usually employed are from 0.010 in. to 0.030 in.

Tin: Coatings of this metal are mainly employed on plant and vessels used in the production of food-stuffs. The extreme purity of the metal employed, and the fact that the coating is not contaminated by alloying with the base metal, are points which should be taken into consideration when comparing this method of tin coating with the older dipping and wiping systems. The thickness sprayed is usually 0.006 in., 0.010 in. or 0.015 in.

Steel: This metal can be sprayed, the deposits being used mainly for the repair of worn machine parts. The deposits can be finished by grinding or machining to fine limits.

Other coatings: Copper, brass, bronze, nickel and many other metals and alloys are employed for specific purposes, including decorative effects on architectural ironwork and ornamental castings.

Finish

The coatings as applied are matt, but can, where desired, be provided with a satin finish by scratch-brushing. A high polish can also be obtained where the size and construction of the article permits and provided the thickness of the deposit is adequate (about 0.015 in.).

Further Information

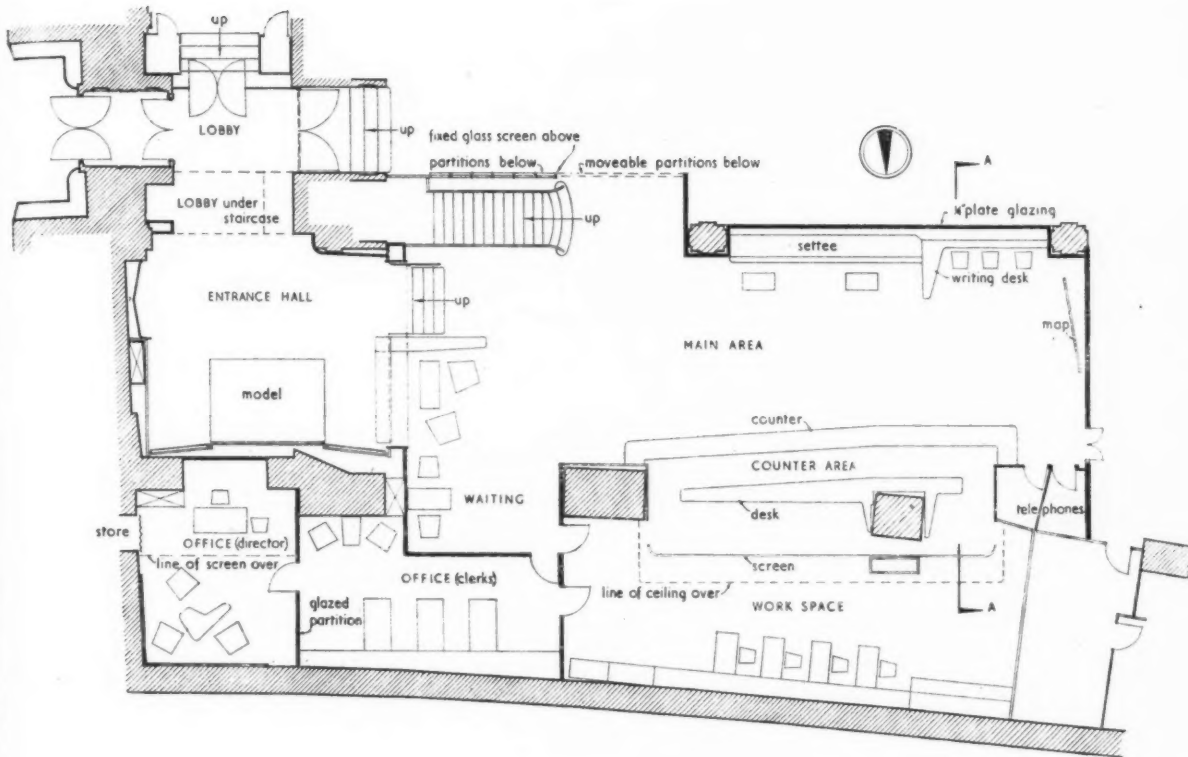
The Association of Metal Sprayers maintains a Technical Advisory Service which is available to answer questions and advise on technical problems dealing with this subject generally.

Compiled from information supplied by:

The Association of Metal Sprayers

Address: Barclays Bank Chambers, Dudley,
Worcs.

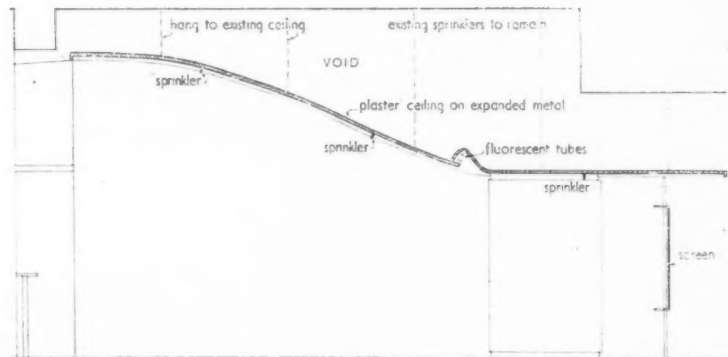
Telephone: Dudley 4045.



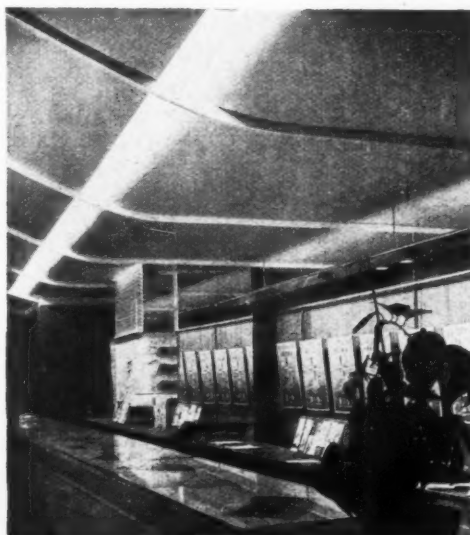
Plan [Scale: $\frac{1}{8}'' = 1'-0''$]

side and a private office for the director. It was necessary to have visual connection between the shop and the centre in order to attract people in, and give a feeling of space. The area where the Festival model is on view has been raised to be at the same level as the entrance from the Underground.

FINISHES.—Partition walls are of wooden studs and plaster board or painted fireproof hardboard. The suspended ceiling, which was constructed to



Section A-A [Scale: $\frac{1}{8}'' = 1'-0''$]



Extreme left, the entrance hall seen through a framed opening from the main inquiry area. Left, the main inquiry counter showing camouflaged pier behind mirror glass.

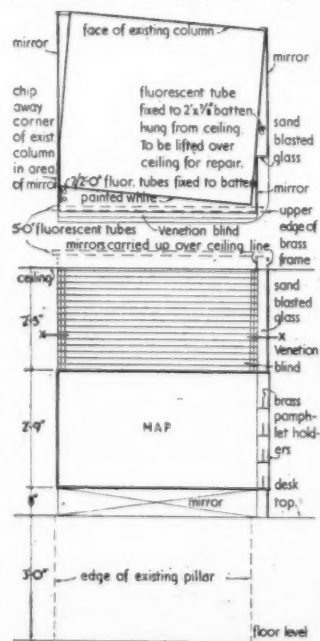


FESTIVAL OF BRITAIN

INFORMATION CENTRE
PICCADILLY CIRCUS, W.1
designed by JACQUES GROAG

conceal a break down from south to north in the existing ceiling, is of fibrous plaster between wood trusses hung to the existing ceiling. Sprinklers are incorporated as a decorative feature. Other ceilings are of fibreboard on fireproof joists. The central pier, which remains just behind the long counter, has mirrors on either side, and in front is fixed a frame containing a map of greater London, above which are louvres. By these means the solid pier has been entirely hidden from view. The colour scheme chosen is intended to give a festive and friendly atmosphere with bright unbroken colours carefully balanced. The ceiling is pale green; the back wall, behind the raised map, vermilion. On the wall dividing the centre from the shop, there is a long curtain with a yellow green background designed by Jacqueline Groag; the waiting recess

Plan at level X-X (Scale: 1"=1'0")

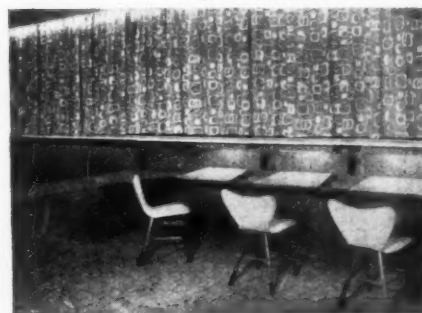


Elevation of mirrored pier

has yellow walls and a white ceiling. The entrance hall has a dark blue wall as background to the model. The waiting space has yellow walls, white ceiling, a vermilion carpet and light fittings specially designed by Jacques Groag. The main inquiry area has a grey carpet. The wood used is mostly mahogany and metal furniture legs and supports are brass plated or anodised aluminium.

The general contractors were Cooke's (Finsbury) Ltd.

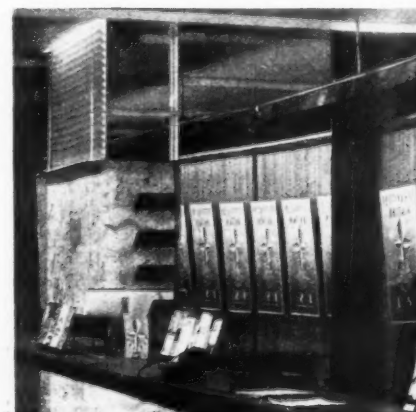
For list of sub-contractors see page 320.



Left, desk in the directors' private office. Above, writing desk in the main inquiry area.



Above, chairs designed by Robin Day and table designed by Jacques Groag. Below, existing pier concealed behind mirror glass and louvres.



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out items for filing and paste
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INFORMATION CENTRE

2.113 planning: general PLANNING TEXTBOOK

Town and Country Planning Textbook. Edited by Association for Planning and Regional Reconstruction. (The Architectural Press, 1950. 42s.)

First students' textbook on planning to be published in UK—complementary to Myles Wright's notebook; also a useful source of reference to the practitioner. 613 pp. 80 illustrations, bibliography and good index.

The origins of this work go back to the demand for a comprehensive book which arose as the result of the correspondence course run so successfully by the APRR during the war. The original lecture material has been assembled, edited and radically revised several times to form the body of the contents but some quite new material has also been added, so that the completed work is in accordance with the new syllabus for theoretical information required by the TPI.

Professor Holford contributes a characteristically lucid foreword on the nature of planning; then follows the collective efforts of about thirty authors, one of whom acts as editor for each of the main sections: geography (Arthur Smailes), planning survey (Cecil Stewart), social survey (Jacqueline Tyrwhitt), transport (R. B. Hounsfield), industry and power (P. M. Ewen), law and economics (Ernest Watkins) and the realization of the development plan (Jack Whittle and J. M. Hirsh). In the preface Jacqueline Tyrwhitt points out that equal attention has not been given to all subjects, more emphasis having been given to those subjects, which are inadequately treated elsewhere, than to those which are already covered by standard works.

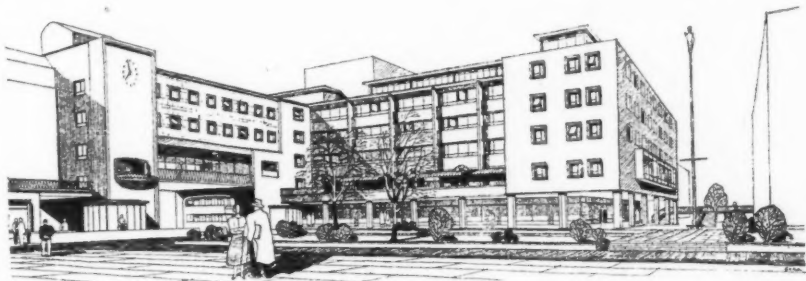
As will be seen from the foregoing summary, this is not so much a book about the art and science of planning, as a book about those subjects of which the planner must have some knowledge before he can form realistic judgments about proposals by others or form proposals himself. In one of the few sections on the subject of planning, Jack Whittle and J. M. Hirsh contribute a note on programming; this treats the arithmetical side of plotting time and labour values for different classes of projects and is excellent as far as it goes. Perhaps it is a tribute to the quality of the individual sections to say that the reader constantly wishes each subject could be taken further. As it is, the APRR must be congratulated for its enterprise in having produced a book which deserves a very useful life.

5.41 planning: public utilities SHOPS

Shops: Their Place in New and Redevelopment Areas. Donald Gibson (Town and Country Planning, Dec. 1950. pp. 495-500.)

Shops in central and suburban areas. Space requirements, layout and design. First rate article based upon author's experience in Coventry.

Two methods of shop layout are being developed in Coventry: a shopping precinct and a suburban shopping centre. One of the most interesting features of the plan for the shopping precinct is the provision of a second "storey" of small shops approached by a terrace at first floor level. Access to the terrace is by means of staircases or lifts. By thus increasing shop density, the time and energy of shoppers can be saved. The City Council have also adopted the principle that all shops should be protected against rain. To achieve this, the upper part of the building is carried on columns, and the shop windows are set back about nine feet; in a few cases a projecting canopy over the fascia will be used. A 20-ft. grid has been decided upon for the frontages. Apart from large stores, the depths of the shops vary from about 110 ft. in the shopping precinct, to between 80 ft. and 60 ft. in the secondary shopping streets.



A sketch of part of the new shopping precinct in Coventry, now under construction. See 5.41.

7.31 practice HOUSE PURCHASE

Buying and Selling a House. M. Basil Evans. (Stevens & Sons Ltd. 1950. 6s. 6d.)

Intended for the layman. Section on structural condition and repair; contains many points of detail which are open to question.

8.21 surveying and specification CURRENT PRICES: BOOK

Laxton's Builder's Price Book. Edited by P. T. Walters. (Kelly's Directories Ltd. 124th Edition, 1950, 30s.)

Book of some 900 pages giving particulars of labour rates, prices of materials and plant and prices for builders' work of all descriptions, supplemented by tables and memoranda.

After an interval of 10 years, this book has been brought thoroughly up-to-date and

in accordance with the latest edition of the Standard Method of Measurement of Building Works. The prices, therefore, reflect present day costs.

Apart from this, the book follows very much the same pattern and serves the same purposes as did the previous editions. The prices for materials and building work are set out under a sensible arrangement of trade headings, in each case, following the sections on labour rates and daywork schedules.

Indexes and lists have always been a feature of "Laxton's." Apart from the list of contents there is, in this edition, a general index of 12 pages, an alphabetical index to the names of advertisers, a classified index to advertisements, a section devoted to tables and memoranda and nearly 250 pages of trade names with the firms' addresses and telephone numbers.

After such an interval of time, a revised edition of this price book is very welcome and the present edition will ensure that the book regains its previous popularity and remains a reference book of the highest quality.

9.16 design: general DURABILITY

Durability. Code of Functional Requirements of Buildings. Chapter IX. (British Standards Institution. 1950. 4s.)

Now issued in final form. Notes on designed life, satisfactory life and maintenance requirements. Six appendices dealing with how and why materials and structures deteriorate.

The body of this code consists of one page of definitions, a few statements of the obvious, and a useful attempt to introduce the idea of grading structural and non-structural parts of buildings on two scales

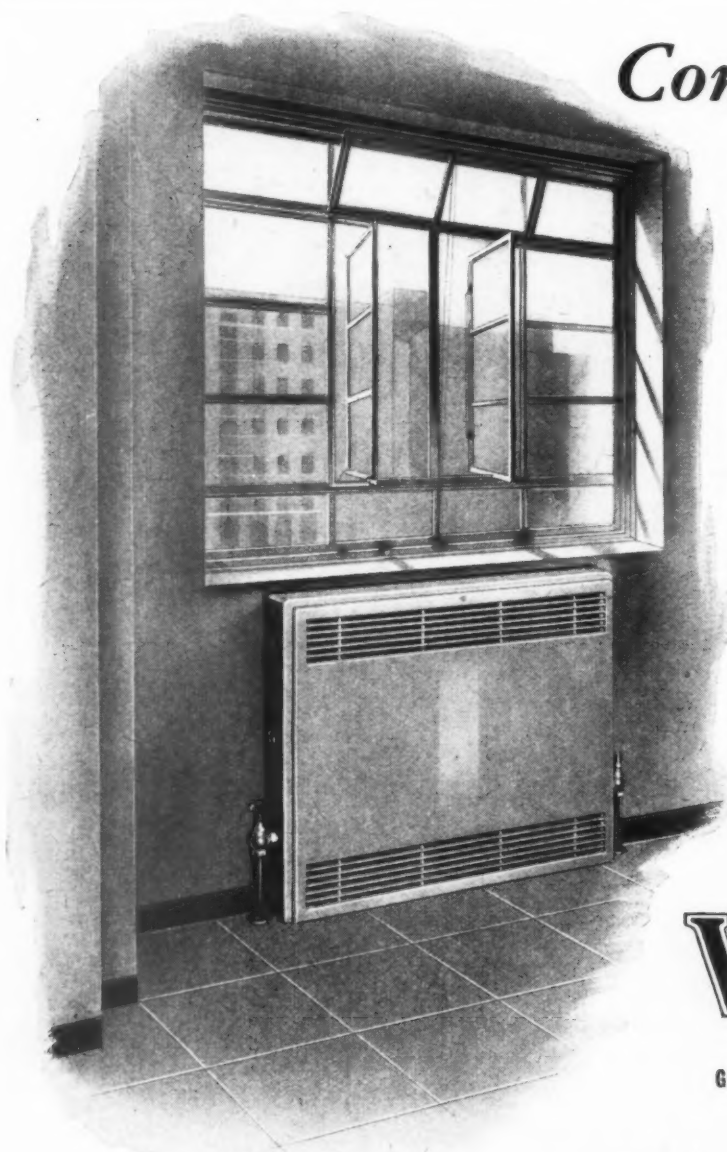
according to probable life. After these three pages come six appendices and it is in these that the most interesting information occurs. The first appendix lists the general causes of deterioration and gives brief notes on each. The next discusses the susceptibility of various types of material to deterioration and contains useful information, e.g. six pages on the corrosion of metals. The other appendices are quite brief and deal with the effect of design upon durability, the classification of water supplies in relation to metals, the classification of ground water and soils in relation to concrete, and a few notes on atmospheric pollution conditions.

While it is doubtful whether specific answers to particular problems will be found in this publication, it is the kind of background knowledge which is so valuable in pointing out where problems may arise. This is a valuable service, for it is not so much the finding of an answer to a specific problem that is difficult, but having enough general knowledge to know that a problem exists.

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10.82 design : building types

EXHIBITION DESIGN

Exhibition Design. Edited by Misha Black. (Architectural Press 1951. 25s.)

180 pages including 90 pages of photographs in addition to a number of other illustrations. Although examples of foreign exhibitions are included, the vast majority of those illustrated and described are British.

While the attraction of this book rests mainly on the quality and number of the illustrations, the text is very interesting, too. Misha Black contributes a fairly long opening section in which he discusses various types of exhibitions, from agricultural shows to international exhibitions. He has plenty to say and good advice to give and he sets down his ideas clearly. The large proportion of British illustrations, and the fact that nearly all of them come from fairly recent displays, justifies his claim that, at last, this country can hold its own with all comers in the field of good design for exhibitions. This section should be read by organisers and exhibitors as well as designers.

There are ten chapters on technique. Each is written by an acknowledged expert and each, contains, therefore, useful information based on practical experience. Some of these contributions do not go far enough to be of great practical help to the inexperienced designer, looking for ready-made answers to his own particular problems, and it is to be hoped that this part of the book will be enlarged in any future edition. Of these specialist chapters, those on lighting, models, and script-writing are the best.

The art of exhibition design has become so complicated that a team of experts is now required to produce quite modest displays, but the trained architect has a very large part to play and, as is stated in this book, the proportion of exhibits not controlled by architects or display designers is still very high, so that there are plenty of fields still open for conquest. Anyone coming fresh into this exciting but rather specialised field of design would be well advised to read this book, not so much in order to get ideas from the illustrations, but rather, to read the text and study the illustrations together, in order to obtain the maximum benefit from the accumulation of experience contained in these collected thoughts of many of our leading experts in this field.

11.26 materials : general

BUILDING RESEARCH STATION

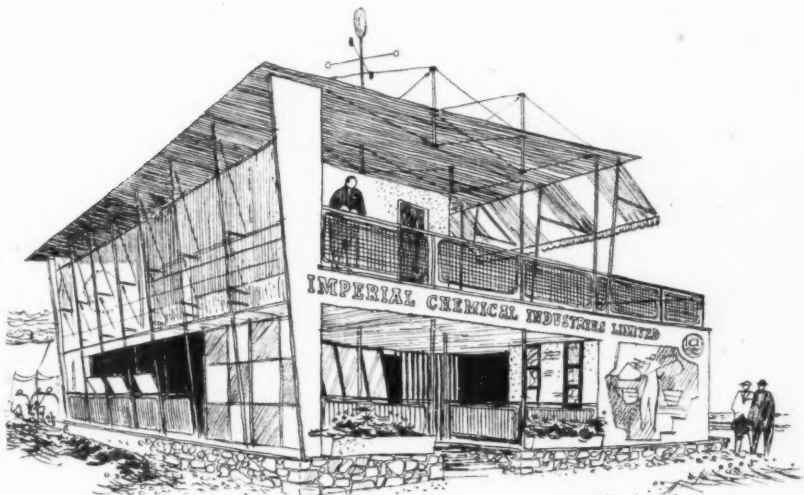
Building Research. 1949. DSIR. (HMSO, 1950. 3s.)

49 pages of quick review of BRS work. Useful as an indication of the scope of building research and as a reminder of things to be watched.

The Annual Report of the BRS should not be passed over as being simply an "annual report." It not only reminds the reader of the many sided work of the BRS, but is also a guide to important developments which should be noted. For example, in this report there is a brief, but useful, statement on short-bored pile foundations which all architects should know about.

To summarize this, already very condensed, work is impossible. Its main headings are: Materials; Building Construction; Design and Performance of Structures; Soil Mechanics; Efficiency of Buildings; Colonial Research and the Scottish Laboratory.

The increasing use of full-scale tests is interesting and so is the continued trend towards considering complete problems rather than isolated items. Obviously, this latter development is very valuable to the architect.



An open air exhibition stand especially designed to withstand the effects of strong winds
See 10.82.

A word of warning is given about enquiries. These are now so numerous that it is not possible to make visits of inspection to all jobs which form the subject of an enquiry. While this may be disappointing to the individual enquirer, it is really a good sign that more use is being made of the work of the Station. Even so, there seems plenty of room for further development in this direction. Surely the total number of cases where written advice might have been obtained cannot be so small as to justify only 1,480 from architects and professional consultants and 884 from builders. Even when a visit to the job cannot be made, the Station can often give useful advice.

11.27 materials : general
HISTORICAL REVIEW

Building Materials and Techniques, 1900-1950. J. K. Winsor. (Architect & Building News. Jan. 19. 1951.)

Review of developments in past 50 years. Interesting and thought provoking.

Those who remember the author of this review, as the apparent fountain of all information at the Building Centre in its early days, will not be surprised at the wealth of

interest compressed into a 6-page survey of the changes which have taken place during the last fifty years. Although no very new or startling revelations are brought to light, it is a useful article in so far as it brings present day practice into a proper perspective and it provokes a number of interesting lines of thought.

13.66 materials : timber
COLONIAL TIMBER

Colonial Timbers. C. W. Bond. (Sir Isaac Pitman & Sons, Ltd., 1950. 30s.)

43 pp. of general information on timber followed by single page of data on 46 Colonial woods. Coloured plates of each wood.

It is becoming more and more difficult to keep informed about the lesser-used types of imported timbers. This is a useful book for reference purposes and the coloured plates are, on the whole, helpful, although the accuracy of the colour reproduction is open to doubt, in one or two cases. The information given on each timber includes botanical name, place of origin and specific gravity, plus some general notes on properties. These notes do not, in every case, give all the information architects require and



Exhibition stand at BIF, 1949; designed by Beverley Pick for J. H. Birtwistle Ltd. See 10.82.



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- Vitamins Ltd. Hammersmith, London.
Patent Foods.

omit, conspicuously, to give an indication of sizes available. To give data on costs might be misleading, but some general indication might have been possible.

14.38 materials: concrete BRICKS

Dimensions of Common Building Bricks. BS 657: 1950. (British Standards Institution. 1950. 1s.)

Revised specifications. Two sizes only. Tolerance permitted is increased and changed methods of measurement defined.

14.39 materials: concrete CLINKER BLOCKS

Clinker Aggregate Building Blocks. (Federation of Clinker Block Manufacturers, 1950.)

Aggregate, sizes, manufacture and quality. Insulation value. Erection costs. Precautions in use.

The very widespread use of clinker building blocks makes regulation of manufacture to proper standards an important matter. The Federation clearly realises the importance of this and, through its members, attempts to ensure good quality products. This brochure describes the manufacture and properties of clinker blocks and refers to the appropriate British Standards.

It is unfortunate that some local authorities still raise unnecessary difficulties about the use of clinker blocks. A careful reading of this publication should help to provide the necessary facts upon which to argue a case.

15.85 materials: applied finishes and treatments PAINTING AND DECORATING

Modern Techniques in Painting and Decorating. John P. Barry. (Longmans, Green and Co., 1950. 9s.)

Intended primarily for student craftsmen. Lengthy description of composition and manufacture of paints. Otherwise follows normal content for books on this subject, except for the inclusion of a section on heraldry. 228 pp. Illustrated.

16.70 materials: miscellaneous COAL TAR PITCH

Coal Tar Pitches. BS 1310:1950. (British Standards Institution. 3s.)

Seven types of pitch. Methods of preparation and characteristics. Methods of test.

Most of this specification is outside the architect's field of interest. Its chief value is in defining the requirements for the pitches clearly. To architects, its immediate usefulness is in calling attention to the fact that merely to specify "pitch" is not sufficient. An appendix gives, very briefly, some examples of uses for which the different types are suitable.

18.74 construction: theory RAMMED EARTH AND PISE DE TERRE

Low Cost Dwellings in Under-developed Areas. United Nations Bulletin No. 4. (United Nations Publications. Sales No. 1950. IV.6. Oct., 1950.) (UK Sale Agents HMSO.)

Four valuable papers on various types of rammed earth technique in France, USA, West Africa and Nyasaland. Glossary of terms and very useful bibliography.

While the rammed earth technique of construction has largely died out in this country, it is very suited to areas where the materials

are available locally and where labour is inexpensive. In many of the under-developed areas, where housing is built by the occupiers, this form of construction has been used traditionally, but it is likely to continue to be the best method for some time. Much could, and should, be done to improve the technique used.

The four papers included in this Bulletin are full of information useful to anyone considering the use of this form of construction. It is difficult to know to what extent improvements could be introduced, but this is discussed. The bibliography is useful and, in general, is a valuable collection of information, although the subject has limited interest.

23.144 heating and ventilation DOMESTIC APPLIANCES

Recommended Domestic Solid Fuel Appliances. List No. 3. (Coal Utilisation Joint Council. Nov. 1950.)

This list of approved appliances is an essential reference for all house builders. It cancels earlier list dated June, 1950.

The excellent work which has been done in the past few years to improve the efficiency of solid fuel burning appliances for domestic use should be taken advantage of by all who design or build houses. The greatest hindrance to the use of better appliances is lack of knowledge about them. This list, which has so soon replaced an earlier issue, is, therefore, an essential office reference. It contains the names of a large number of appliances, conveniently grouped under various headings, such as: continuous burning open fire with back boilers, ditto without back boilers, etc. There is also a useful index to manufacturers.

26.83 services and equipment: miscellaneous REFRIGERATORS

Electrical Refrigerators and Food Freezers for Household Use in all Climates. BS 922: 1950. *Electrical Refrigerators and Food Freezers for Household Use in Temperate Climates Only.* BS 1691:1950. (British Standards Institution. 3s. each.)

General construction, method of determining performance and computing sizes.

These standards are of little value in the architect's office, but are good examples of the background value of British Standards—they ensure that manufacturers work on the same, well-defined basis. It seems curious that two publications are needed, as the bulk of the wording is similar and they differ only in respect of figures for temperature ranges and minima test pressure ranges. Surely savings in both paper and price would have been possible if one combined document had been issued.



THE LIBRARY OF INFORMATION SHEETS

1.B18 REFERENCE BACK

Readers are asked to note the following revision and to amend their copy of the Information Sheet in question:

The invert levels shown are incorrect. For 381.00 read 371.00, for 380.00 read 372.00, for 382.00 read 370.00, for 381.50 read 370.50 and for 383.00 read 369.00.

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A.J. 83.51

INFORMATION CENTRE INDEX, 1950

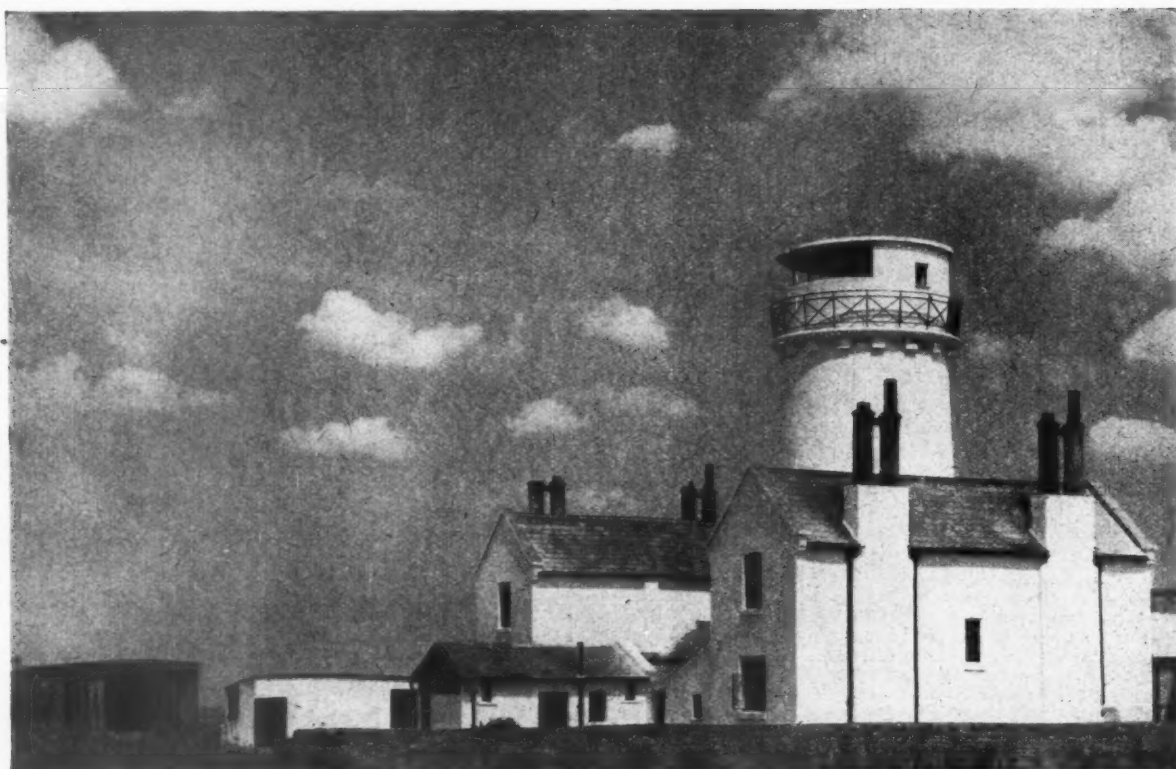
An alphabetical index covering items published during the twelve months ended December 31, 1950, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, *THE ARCHITECTS' JOURNAL*, not later than March 9, 1951.

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THE INDUSTRY

By Brian Grant

STAGE AMPLIFICATION

Although the old fashioned music hall star would regard the use of a microphone and amplifier system as a confession of incompetence, the installation of this equipment is now standard practice for all theatres except those where only straight plays are performed. Philips Electrical have installed, recently, at the Regent Theatre, Kings Cross, their "Stereophonic" system. This employs two completely separate channels, one for each side of the stage, and by using an ingenious method of balancing the two channels, including microphones, amplifiers and loudspeakers, the sound seems to come from the part of the stage from which it originated. This helps to "broaden" the stage, from the producers point of view; the microphones are placed in the footlights and the action is not limited to the area around one floor-stand microphone. There are no particular difficulties involved in installing the system and standard equipment is used for all items except the loudspeakers, which are specially designed. (Philips Electrical, Ltd., Century House, Shaftesbury Avenue, London, W.C.2.)

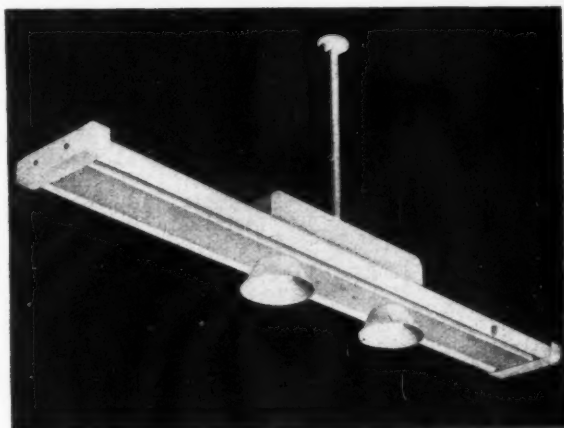
WELDING FIXTURES

The Nelson Stud Welding gun was referred to in these notes some years ago, when it was being made only in America. It is now being produced in this country by Messrs. Crompton Parkinson. A week of demonstrations was held recently at Messrs. Holland & Hannen & Cubitts' yard in Grays Inn Road, and the gun appeared to perform as well as was claimed in the report of the Anglo-American Productivity Team.

The welding of the studs is completely automatic; current is fed from the welding generator via a timing unit which controls the duration of the arc. The time required depends on the diameter of the stud and, to a certain extent, on the thickness of the metal to which it is to be welded. Once the timing is set for the job, the studs are loaded into the chuck of the gun and, according to the manufacturer's claim, fourteen studs can be fixed in the time which it would take to drill and tap for one. The time saved will naturally vary with the job but, on repetition work with small studs, it is possible to weld up to 300 an hour. Studs in all sizes from $\frac{1}{8}$ in. to $\frac{1}{2}$ in. are produced, and some of the special shapes, which can be used with a modified chuck, are shown in the illustration on the right. The other illustration shows long studs being welded to the exterior of the hot water accumulator on the Westminster City Council's Pimlico estate; the studs hold the cork insulation.

Studs welded by this method have also been used to fix various sheet claddings on buildings on the South Bank site, and it seems that the use of this method of fixing will prove economical, as it is equally suitable for pipe hangers, conduit and metal ducting. Design may also be simplified, as the studs or other fittings can be fixed from

Mazda ballast-lamp fittings. Right, a typical fitting consisting of two 40-watt fluorescent lamps and two 60-watt tungsten lamps.



one side only. This fixing method should have some considerable influence on design technique for a variety of purposes, since it is no longer necessary that metal should be thick enough to take threaded studs. Moreover, the fact that the welded stud does not penetrate the base metal means that there should be no leaks in vessels which have to be pressure-tight. (Crompton Parkinson Ltd., Crompton House, Aldwych, London, W.C.2.)

PANEL HEATING

The Invisible Panel Warming Association has just published a booklet setting out the



The Nelson Stud Welding Gun. Above, a selection of special hanger shapes. Right, the gun being used for welding studs on the hot water accumulator at Pimlico.



services they provide for architects and consulting engineers who desire advice about the installation of this type of heating system. The booklet contains sections giving typical details of panels in various types of floor slab and in suspended ceilings, and also shows warming panels in floors. These heating systems can, of course, also be used for circulating cooled water in summer.

The problem of plastering over panels of this kind can be complicated and recommended methods are described in a separate publication. (The Invisible Panel Warming Association, 136, Grand Buildings, Trafalgar Square, W.C.2.)

TUNGSTEN LAMPS WITH FLUORESCENT FITTINGS

The Mazda ballast-lamp fitting, which uses tungsten lamps in conjunction with fluo-

rescent tubes, has already been referred to in these notes (AJ, December 28, 1950). The illustration shows a typical fitting which contains two standard 40-watt, 4-foot fluorescent lamps and two 60-watt tungsten lamps. (The British Thomson-Houston Co. Ltd., Crown House, Aldwych, London, W.C.2.)

PANELLING IN PLASTICS

Wareite laminated plastic panels have been used for some time for decorative work where resistance to abrasion and cigarette burns is important. These factors, coupled with the absence of any need for re-decoration, have now led to their use in the officers' and crew's accommodation of small cargo ships. For work of this kind, there is unlikely to be any money to spare for what might be described as luxury finishes. It can be assumed, therefore, that these materials have been used mainly for economic reasons. Replicas of a fireman's mess and a single-berth cabin were recently exhibited at the Building Centre and will, in due course, be on show in various parts of the country. (Wareite Ltd., Ware, Herts.)

Announcements

Mr. J. Arnold Parker, A.I.A.A., A.I.A.S., and Mr. Sydney H. Jones, L.R.I.B.A., of 18, Warwick Row, Coventry, have opened a branch office at 648, Warwick Road, Solihull, Warwickshire, and would be pleased to receive trade catalogues at both addresses.

Stressed Concrete Design Ltd. (the licencees for the Magnel-Blaton system of pre-stressing in this country) have moved from 48, Great Marlborough Street, W.1, to "Lynton House," 54, South Side, Clapham Common, S.W.4.

Messrs. Sydney Clough & Partners have moved to Devonshire Close, 39, Devonshire Street, W.1. (Tel: Langham 7101-2-3.)

We have been asked to announce, in connection with the feature on the restoration of the Georgian Theatre at Richmond, Yorkshire, which we published on February 15, that Richard U. B. Leacroft, A.R.I.B.A., made a survey and prepared drawings under the supervision of Richard Southern.

The following is to be the new address for the Timber Development Association (Tel.: City 4771), the Timber Development Association regional office (Tel.: City 5171 and 4771) and the Timber Centre Ltd. (Tel.: City 4771):—21, College Hill, E.C.4.

Mr. Harold O. Samson, L.R.I.B.A., has retired from the firm of Samson, Colthurst and Steer, with which he has been connected for some 60 years. The firm will be carried on by Mr. Louis G. Steer, A.R.I.B.A., and Mr. Robin Shirley-Smith, B.A.R.C.H., A.R.I.B.A., A.M.T.P.I., under the title of Steer & Shirley-Smith, A.A.R.I.B.A., A.M.T.P.I., Chartered Architects, Surveyors & Town Planning Consultants. The Bridgwater address has now been changed to 8, King Square. The Taunton address remains as 1, Hammett Street.

In 1900 the output for the whole of the British cement industry was about 2,000,000 tons. This figure had risen to 9,672,000 in 1950—the jubilee year of the Associated Portland Cement Manufacturers Ltd. (the parent of The Blue Circle Group) which claims to be the largest cement organization in the world. In a booklet recording the history and progress of the company during the past fifty years, the drastic changes in the manufacturing process through mechanization are illustrated.

Messrs. Waverite Ltd., Ware, Herts., have for many years been manufacturing a range of solid tough Waverite finger plates in a range of patterns and colours. The firm

announces that there is no shortage of supply with these plates, and that they will therefore be useful substitutes for metal finger plates at the present time.

The African Lakes Corporation Ltd. will be glad to receive trade catalogues, information sheets and general information re building materials, machinery, woodworking machinery, furniture, furnishings, etc. Communications should be addressed to Mr. Martin MacInnes, Building Surveyor & Manager of the company at Mandala, Blantyre, Nyasaland.

Mr. R. C. Foster, M.B.E., M.C., F.R.I.B.A., and Mr. R. O. Foster, A.R.I.B.A., of the firm of Tooley & Foster, chartered architects, have been joined in partnership by Mr. H. D. Matthew, M.B.E., M.C., A.R.I.B.A., and Mr. A. J. Power, A.R.I.B.A. The practice will continue under the same name at Midland Bank Chambers, Buckhurst Hill, Essex. (Tel.: BUCKHURST 2211/2.)

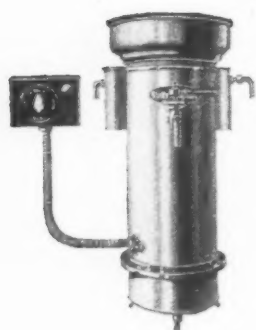
Buildings Illustrated

The Banco de Bilbao, 36, New Broad Street, London, E.C.2. (Pages 302-303.) Architect: Halfhide & Partners. Chief Assistant: H. Weinreich, A.R.I.B.A. General contractor: William Verrey Ltd. Sub-contractors: Structural steel, Laidlaw Smith Ltd.; partitions, glass, electric wiring, bells, plaster, joinery, William Verrey Ltd.; patent flooring, Semtex Ltd.; stoves, metalwork, mantels, grates, George Wright (London) Ltd.; electric light fixtures, E. K. Cole Ltd.; door furniture, signs, Comyn Ching & Co. (London) Ltd.; textiles, furniture, Maple & Co.; office fittings, signs, Beck & Pollitzer (Contracts) Ltd.

Withersdane Hall, Wye College, Kent. (Pages 307-310.) Architect: Richard Sheppard & Partners, F/A/A.R.I.B.A. Assistant Architect: Malcolm Mitchell, A.R.I.B.A. Consultant Structural Engineers: T. F. Burns & Partners. Acoustic Consultant: William Allen. Quantity Surveyors: E. C. Harris & Partners. General Contractor: G. E. Wallis & Sons Ltd. Sub-contractors: Bricks, A. H. Herbert & Co. Ltd.; artificial stone, Broadmead Products Co.; tiles, Carters (Brockley) Ltd.; woodblock flooring, Hollis Bros.; patent flooring, (Accotile) Armstrong Cork Co. Ltd., (cork) Resilient Tile & Flooring Co., (linoleum) Lenleys Ltd.; central heating, Benham & Sons Ltd.; electric wiring, G. E. Wallis & Sons (Elect.) Ltd.; electric light fixtures, Merchant Adventurers Ltd., Troughton & Young Ltd.; plumbing, Engineering Service Installations Ltd.; door and window furniture, N. F. Ramsey & Sons; plaster, E. E. Cheeseman & Sons Ltd.; textiles, Gerald Holtom; lifts (laundry), Hammond & Champness Ltd.; clocks, Gent & Co. Ltd.

Festival of Britain Information Centre at Swan & Edgar Ltd., Piccadilly Circus, W.1. (Pages 311-314.) Architect: J. Groag, D.I.P.L.I.N.G.A.R.C.H., F.S.I.A. General Contractor: Cooke's (Finsbury) Ltd. Sub-contractors: Electric light fixtures, Troughton & Young Ltd., Merchant Adventurers of London Ltd.; sunblinds, J. Avery & Co.; textiles, Cepea, Grafton Furnishing Co. Ltd., Donald Bros. Ltd.; furniture, Scottish Furniture Manfs. Ltd., East Brothers, John McGregor & Sons Ltd., H. K. Furniture Ltd., Cox & Co. (Watford) Ltd., H. C. Shepherd & Co. Ltd., Hempley Ltd., Ernest Race Ltd., S. Hills & Co. Ltd., Finewood Products Ltd., G. A. Harvey & Co. (London) Ltd.; ashtrays, James Powell & Sons Ltd., The Artware Distributing Co. Ltd., clocks, General Signal & Time System, Smith's English Clocks Ltd.

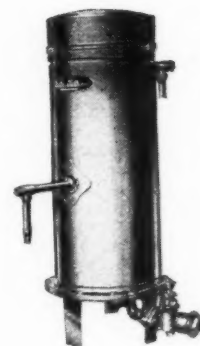
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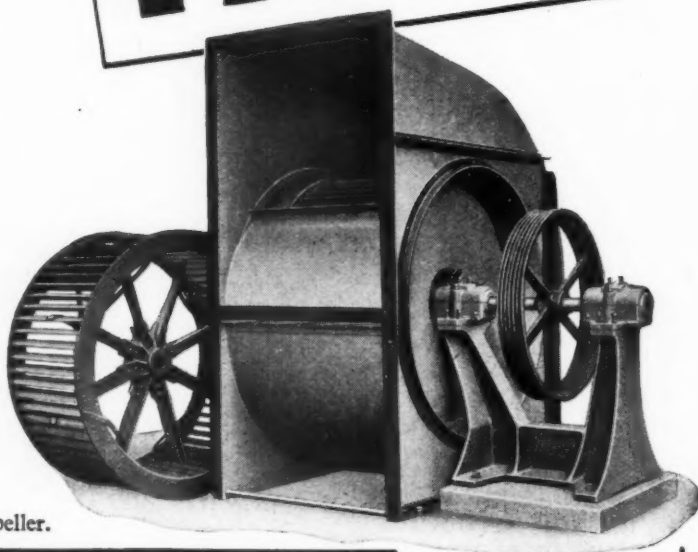
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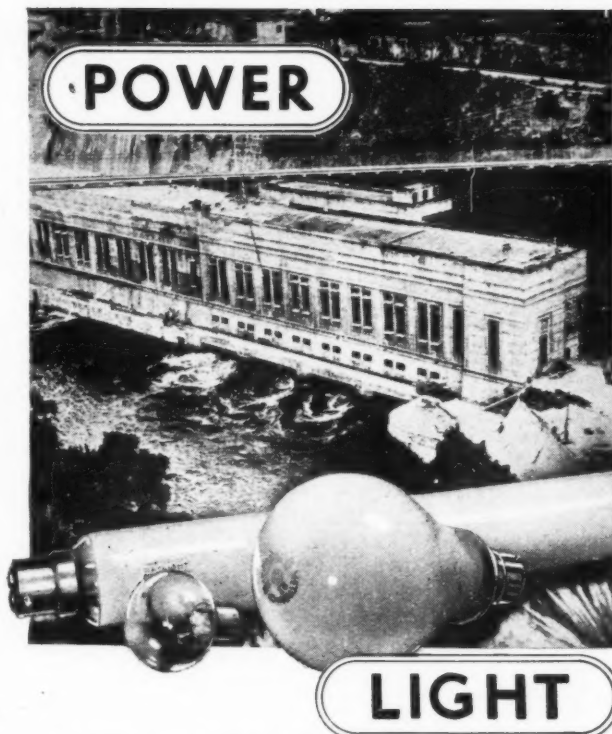
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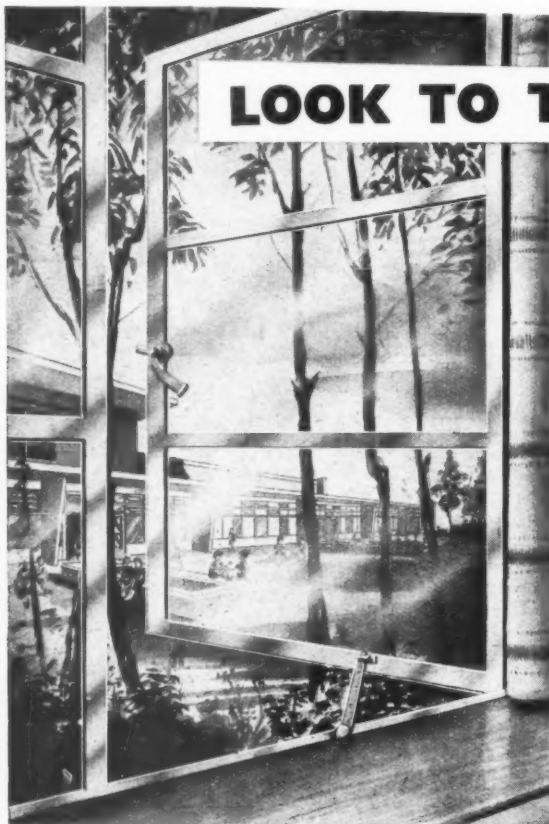
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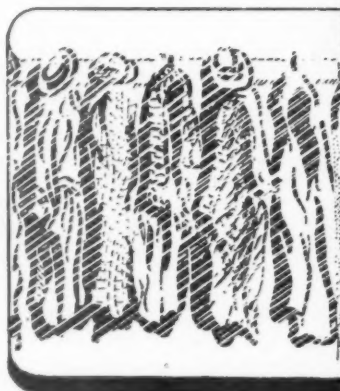
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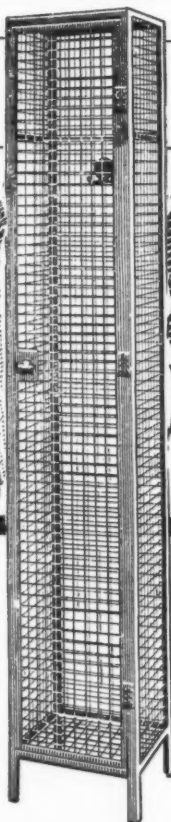
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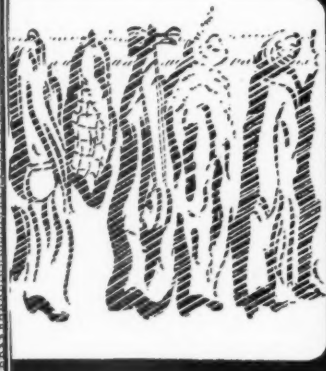
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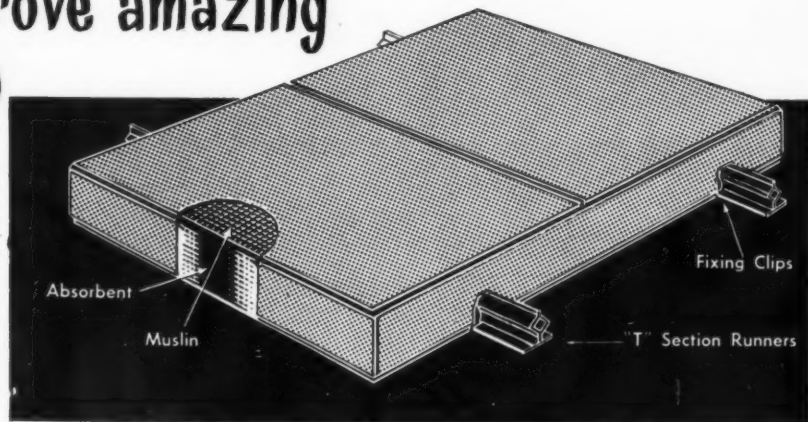
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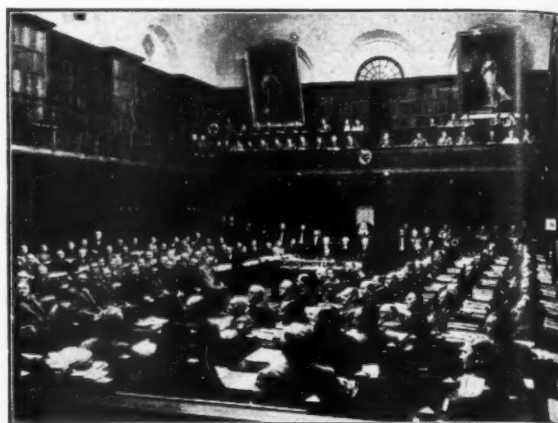
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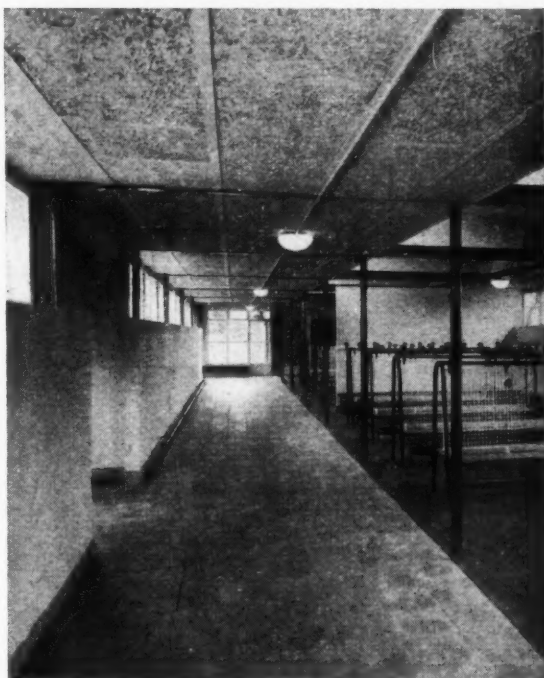
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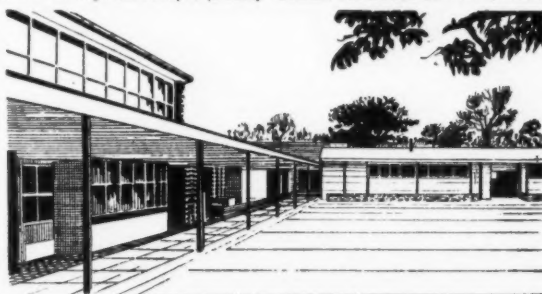


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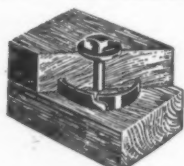
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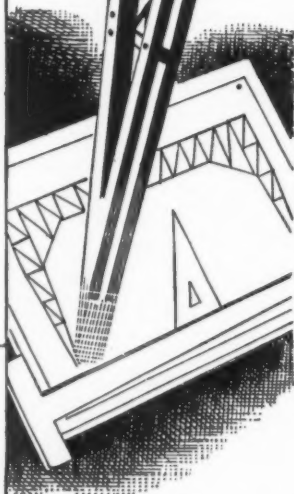
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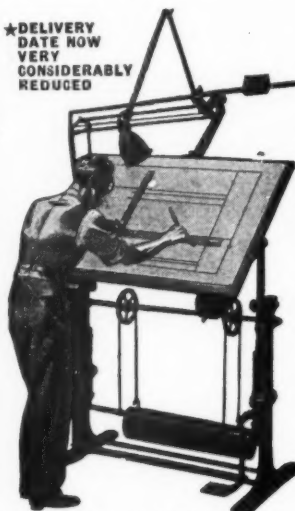
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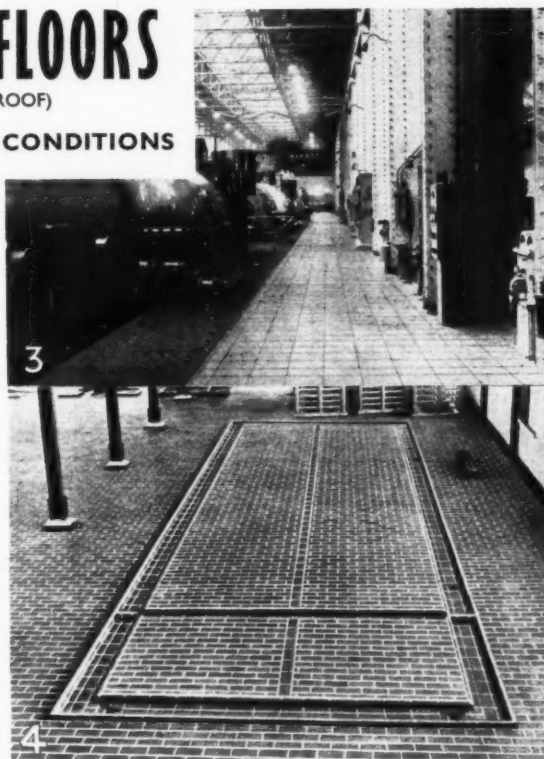
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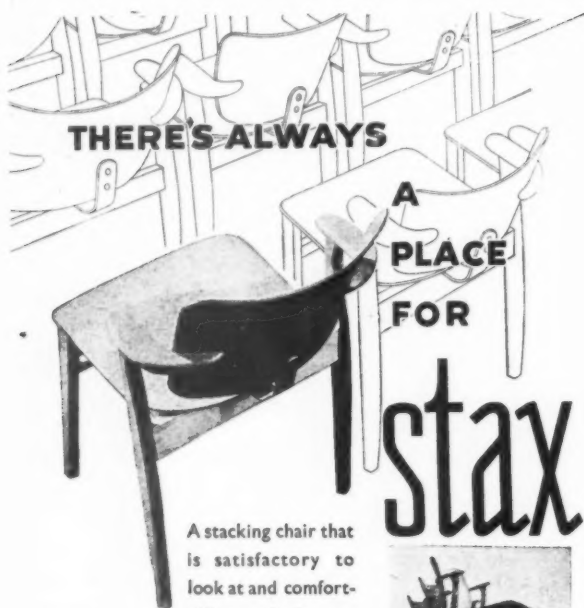
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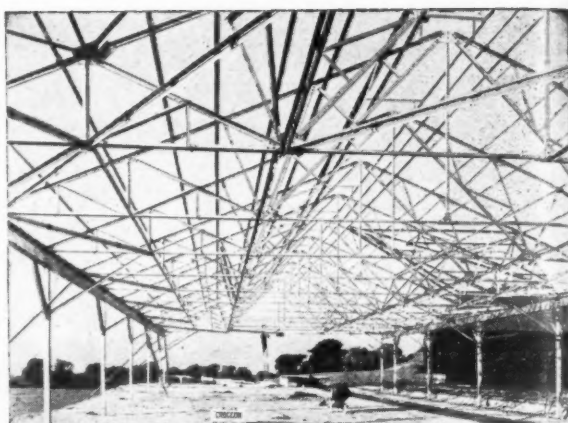
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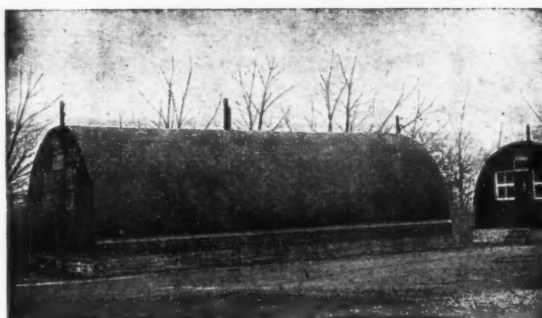
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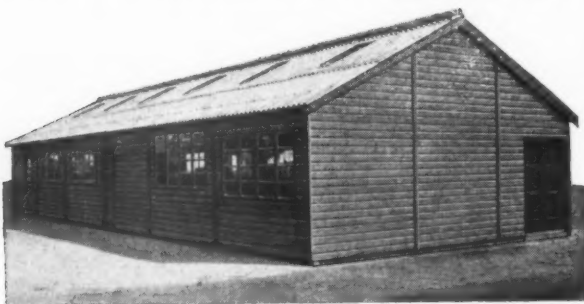
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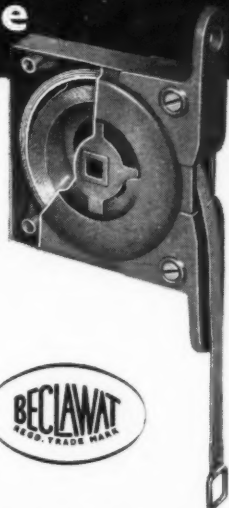
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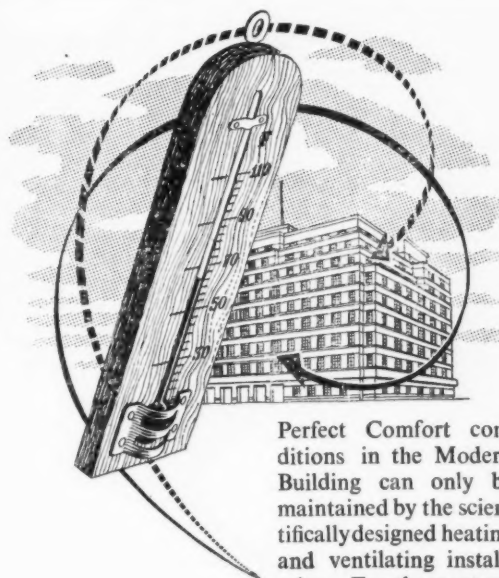
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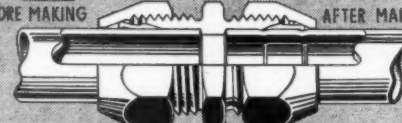


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The appointment will be terminable by one month's notice on either side, is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, giving age, experience, etc., accompanied by copies of not more than three testimonials, should be addressed to the undersigned, endorsed "Architectural Assistant," not later than 10 a.m. on Monday, the 19th March, 1951.

It will be necessary for the successful candidate to provide his own housing accommodation as the Council is not in a position to assist.

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

(Sgd.) R. S. FORSTER.

Town Clerk.

Town Hall, Dyne Road, Kilburn, N.W.6. 1959

BURGH OF HAMILTON.

SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited from suitably qualified persons for appointment as SENIOR ASSISTANT in the Burgh Architect's Department.

Applicants should have a sound knowledge of contemporary design and be experienced in the preparation of housing layouts, type plans and working drawings.

The salary will be between £520-£660 per annum (A.P.T., V-VI), and placing within the grade will be in accordance with the experience of the successful candidate.

Applications, stating age, with full particulars of qualifications and experience, together with copies of recent testimonials, should be lodged with the undersigned not later than 19th March, 1951.

The appointment is subject to the Local Government Superannuation (Scotland) Act, 1937, and canvassing, either directly or indirectly, will be a disqualification.

JOHN R. McLEAN.

Town Clerk.

The Town House, Hamilton. 2nd March, 1951. 2043

BUCKS COUNTY COUNCIL.

Applications are invited from QUALIFIED ARCHITECTS for vacancies in the under-mentioned grades on the staff of the County Architect:—

Grade X (£850-£1,000 p.a.).

Grade IX (£750-£900 p.a.).

Grade VIII (£685-£760 p.a.).

Grade VII (£635-£710 p.a.).

Grade VI (£595-£660 p.a.).

The posts offer scope for initiative and enthusiasm. Applicants should preferably have been trained at a recognised School of Architecture, and for the two Grade X appointments must have considerable experience and be able to administer a section of the department as Principal Assistant.

The appointments are superannuable and subject to medical examination.

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

Further particulars and form of application may be obtained from the County Architect, County Offices, Aylesbury, to whom applications must be delivered by 15th March, 1951.

GUY R. CROUCH.

Clerk of the Council.

County Hall, Aylesbury. 1984

EAST SUFFOLK COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following post in the County Architect's Department:—

Grade "A" ASSISTANT ARCHITECT. A.P.T., Grade VII. Consolidated salary £635-£710 per annum.

The commencing salary in this grade will be fixed according to the qualifications and experience.

Applicants must be Members of the R.I.B.A., quick and accurate draughtsmen capable of carrying a job through in all its stages, including sketch plans, working drawings, supervision of work in progress, as well as the administration work in connection therewith. They should have a sound knowledge of design and building construction, and should be capable of writing specifications. Office experience after school training or articles is essential. The work to be dealt with is that normally carried out by a Local Authority. 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 applicant will be required to pass a medical examination.

Applications, stating age, qualifications, and full details of previous experience, accompanied by copies of three recent testimonials, should be sent to E. J. Sykes, F.R.I.B.A., County Architect, County Hall, Ipswich, not later than 16th March, 1951.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

G. C. LIGHTFOOT.

Clerk of the Council.

1991

COUNTY BOROUGH OF CARLISLE.

CITY ENGINEER'S DEPARTMENT.

Applications are invited for the appointment of an ASSISTANT QUANTITY SURVEYOR, Grade A.P.T., VI (£595-£660).

Applicants for the appointment should be Corporate Members of the Royal Institution of Chartered Surveyors (Quantities Division) and should have experience in the preparation of Bills of Quantities, Estimates, measuring up and settlement of Final Accounts.

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

Forms of application and conditions of employment may be obtained from the City Engineer, 15, Fisher Street, Carlisle, to whom all applications should be returned not later than Saturday, 17th March, 1951.

H. D. A. ROBERTSON.

Town Clerk.

The Town Clerk's Office, 15, Fisher Street, Carlisle. 1970

LIVERPOOL REGIONAL HOSPITAL BOARD.

Applications are invited for the permanent pensionable appointment of ASSISTANT QUANTITY SURVEYOR in the Regional Architect's Department (Quantity Surveyors' Section) on the Headquarters staff of the Board.

Applicants should be Corporate Members of the Royal Institution of Chartered Surveyors, having passed the Final Examination in the Quantities Sub-Division, and should have had considerable experience in "taking-off" and settling Contractors' Final Accounts.

The work to be undertaken will include the preparation of Bills of Quantities for work carried out by the Department, in addition to other duties concerned with Private Architects and Quantity Surveyors.

Salary £635, rising by annual increments of £25 to a maximum of £710 per annum, in accordance with A.P.T., Grade VII.

The offices of the Department will shortly be moving from their present position at Alder Hey Hospital to the centre of the City.

Applications, stating age, education, qualifications, experience, present and previous appointments, salary, together with the names and addresses of three referees, should be sent to the undersigned at No. 19, James Street, Liverpool, 2, not later than Friday, 30th March, 1951.

VINCENT COLLINGS.

Secretary to the Board.

2029

NORTHERN IRELAND HOSPITALS

AUTHORITY.

Applications are invited for the post of ARCHITECTURAL ASSISTANT on the Headquarters Staff of the Authority.

Applicants must be Associate Members of the Royal Institute of British Architects.

Duties will involve hospital work of all kinds, including the planning of new projects.

Candidates selected for interview will be expected to produce drawings and/or photographs of their work illustrating their general ability in both creative and constructional work.

The salary for the post will be on the scale £600 x £25-£750 per annum, and will be subject to deductions for superannuation in accordance with regulations made under the Health Services Act (Northern Ireland), 1948.

It is the Authority's policy to give preference to candidates who served in His Majesty's Forces in wartime.

Canvassing, either directly or indirectly, will be an absolute disqualification. Any approach to a member of the Authority or a member of a Committee of the Authority, in writing or otherwise, by or at the request of any applicant will be regarded as canvassing.

Applications, stating age, experience, and qualifications, and giving the names and addresses of three persons to whom the Authority may apply for a confidential report, should be sent in an envelope marked on the top left-hand corner "Architectural Assistant," so as to reach the Secretary, Northern Ireland Hospitals Authority, 58, Howard Street, Belfast, not later than 5 p.m. on 22nd March, 1951. 2044

GLOUCESTERSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT ARCHITECT (Section Leader) on A.P. & T., Grade IX (£750-£900) in the above Department.

The successful applicant will be in charge of a section of the County and will be responsible for all work carried out in that section.

Applicants should be Associate Members of the R.I.B.A., and have wide experience in projects usually dealt with by a County Council, i.e., Education, Police, etc.

Appointment will be subject to the Local Government Superannuation Act, 1937, and candidates before appointment will be required to pass a medical examination.

The appointment will be terminable by one month's notice on either side.

Applicants should state whether or not they possess a motor car and/or hold a driving licence.

Applications, stating (a) name and address, (b) married or single, (c) age, (d) qualifications, (e) present position, salary and date of appointment, (f) particulars of experience, together with names and addresses of three persons to whom reference may be made, should be sent to S. E. Urwin, F.R.I.B.A., County Architect, Shire Hall, Gloucester, not later than Wednesday, 21st March, 1951.

GUY H. DAVIS.

Clerk of the County Council.

2042

MINISTRY OF SUPPLY require an ASSISTANT CIVIL ENGINEER for 12 to 18 months' tour of duty at Tropical Testing Establishment in Nigeria, British West Africa. Duties: Administration of Building Contracts, Site Detailing, Supervision of Work in Progress, and Certification of Contractors' Claims. Qualifications: British of British parentage; regular engineering apprenticeship and either Corporate Membership Institutions of Civil or Structural Engineers, or have passed recognised exempting examinations for A and B (Civil) or Complete (Structural) Associate Membership Examinations; practical appropriate experience essential; Colonial experience desirable, but not essential; must be physically fit, active and over 21; selected candidate must pass medical examination, and be vaccinated and inoculated at public expense. Salary range: £600- (at age 30-less below) £750 p.a. Foreign service allowance: £350 p.a. (married, unaccompanied), £200 p.a. (single) tropical clothing allowance £30. Free transport to and from Nigeria. Housing accommodation provided. Further details if selected for interview. Write for application form, which should be returned completed by 24th March, 1951, to Ministry of Labour and National Service, Technical and Scientific Register (K), York House, Kingsway, London, W.C.2, quoting Reference No. E.99/51/0. 2041

LONDON ELECTRICITY BOARD.

ASSISTANT QUANTITY SURVEYORS.

Applications are invited for the above positions in the Construction Branch of the Chief Engineer's Department at Lesco House, Stamford Street, S.E.1.

Applicants should have a good general experience in the preparation of Bills of Quantities and in the measurement of variations.

The post has been graded under the National Joint Board agreement of 17th February, 1950, as Grade 8 (Schedule C)—salary range: £462 to £653 2s. per annum inclusive. This grading is subject to the approval of the District Joint Board and confirmation by the National Joint Board.

Application forms, obtainable from Establishments Officer, 46, New Broad Street, E.C.2, to be returned duly completed not later than 12th March, 1951. Please enclose addressed foolscap envelope and quote Ref. EST/V/1174/A. on envelope and all correspondence. 2017

**COUNTY BOROUGH OF GREAT YARMOUTH
EDUCATION COMMITTEE.
APPOINTMENT OF TWO CLERKS OF
WORKS.**

Applications are invited for the appointment of Two Clerks of Works, to supervise the erection of the new Secondary Technical School and the erection of the Beccles Road Secondary Modern Girls' School.

The appointments will be temporary for approximately 2½ years in the case of the first and 2 years in the case of the second, and subject to one month's notice on either side.

The salary will be £12 per week. Applicants must have a thorough knowledge of the building trade, including experience in connection with steel framed buildings, they must be conversant with plans, specifications, bills of quantities, and competent to set out work, give levels, and keep all necessary records and progress reports.

Applications, stating age, qualifications, present employment and previous experience, accompanied by copies of three testimonials, should be enclosed in an envelope endorsed "Clerk of Works, Schools," and must be received by me not later than Monday, 26th March.

Canvassing, directly or indirectly, will be deemed a disqualification, and candidates must disclose in writing whether, to their knowledge, they are related to any member or holder of any senior office under the Council. Candidates who fail to do so will be disqualified and if appointed will be liable to dismissal without notice.

D. G. FARROW,

Chief Education Officer.

22nd February, 1951.

1994

CUMBERLAND COUNTY COUNCIL.

Applications are invited for the following appointments on the permanent establishment of the Architects' Department—

(a) **ARCHITECTURAL ASSISTANTS.** Grade IV, A.P.T. Division (£480-£525).

(b) **JUNIOR ARCHITECTURAL ASSISTANTS.** Grade III, A.P.T. Division (£450-£495). Applicants for post (a) should have passed or attained the equivalent standard of the R.I.B.A. Final Examination, and applicants for post (b) should have passed or be preparing to take the R.I.B.A. Intermediate Examination.

The appointments will be terminable by one month's notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Applications, on forms obtained from John H. Haughan, F.R.I.B.A., County Architect, 15, Portland Square, Carlisle, should be received by him not later than Thursday, 22nd March, 1951, together with copies of three recent testimonials.

G. N. C. SWIFT,

Clerk of the County Council.

February, 1951.

1995

**HARROW URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S
DEPARTMENT.**

ARCHITECTURAL STAFF.

Applications are invited for the under-mentioned appointments in the Department of the Engineer and Surveyor—

(1) **ARCHITECTURAL ASSISTANT.** Grade A.P.T., IV. Salary, scale £480 to £525, plus London "weighting."

Applicants should have office experience, and preference will be given to those holding recognised professional qualifications. Duties will include the preparation of sketch designs, working drawings, and specifications and supervision of work under construction.

(2) **ARCHITECTURAL ASSISTANTS (TWO).** Grades A.P.T., I/II. Salary scale £390 to £465, plus London "weighting."

Applicants should be students of the Royal Institute of British Architects or equivalent standard, and must be neat and expeditious draughtsmen.

The Council is unable to offer any assistance in obtaining housing accommodation.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937; to the passing of a medical examination, and to the National Joint Council's Scheme of Conditions of Service.

Forms of application may be obtained from the undersigned, to whom they should be returned not later than 10 a.m. Wednesday, 21st March, 1951.

Canvassing will be a disqualification.

H. WELLS,

Clerk of the Council.

Council Offices.

Harrow Weald Lodge, Harrow.

1986

**NATIONAL COAL BOARD—NORTH-WESTERN
DIVISION.**

Applications are invited for the position of ARCHITECT, Grade II, with the National Coal Board, North-Western Division.

Salary will be in the range £450×£25—£700 per annum.

Applicants should be Members of the Royal Institute of British Architects, and experienced in the preparation of sketch plans and full working drawings, negotiations with specialist sub-contractors, and supervision of work under construction.

Applications, giving full details of age, education, qualifications, experience, and present appointment and salary, should be submitted not later than the 24th March, 1951, to the Divisional Establishment Officer, National Coal Board, North-Western Division, 40, Portland Street, Manchester, 1.

2013

COUNTY BOROUGH OF BLACKPOOL.
Applications are invited for the following appointments in the Borough Surveyor's Department—

(a) **SENIOR ARCHITECTURAL ASSISTANT.** A.P.T., Grade V. (£595-£660 p.a.).

Applicants must have passed the Final Examination of a recognised professional architectural body. They should have worked in an Architectural office for a period of at least five years, and experience in housing and school building work would be an advantage.

(b) **Architectural DRAUGHTSMAN** (salary within the range of £245-£375 p.a.).

Applicants should have had previous Drawing Office experience and a knowledge of building construction would be an advantage.

Applications (stating, in the following order, post applied for, age, present position and salary, previous appointments, qualifications and full details of experience), accompanied by copies of not more than three recent testimonials, to be forwarded to Arthur Hamilton, B.Sc., R.I.B.A., Borough Surveyor, Municipal Buildings, Blackpool, not later than 12 noon on Wednesday, 14th March, 1951.

The Council will not assist in providing housing accommodation.

Canvassing of the Council will be a disqualification.

TREVOR T. JONES,

Town Clerk.

2058

**METROPOLITAN BOROUGH OF
PADDDINGTON.**

**HOUSING DEPARTMENT: ARCHITECTURAL
SECTION.**

APPOINTMENT OF ASSISTANT ARCHITECT (II): A.P.T., Va (£550×£20—£610 p.a., plus London "weighting").

Applications are invited for the above appointment, which is subject to the National Joint Council's Service Conditions, the Council's Superannuation Acts, and to one month's notice on either side.

Candidates must be Registered Architects, preferably Associates of the Royal Institute of British Architects, and have had experience in Architectural design and construction of general Municipal work, including multi-storey flats, or similar experience with private firms of Architects.

Candidates must state age, qualifications, present and past appointments, with dates and salaries, experience, and names of three referees.

Applications must be received not later than noon on Thursday, 22nd March, 1951.

W. H. BENTLEY,

Town Clerk.

Town Hall, Paddington, W.2.

8th March, 1951.

2024

CITY AND COUNTY OF BRISTOL.

CITY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF DEPUTY SECTION HEAD. Grade IX (£750×£50—£900 per annum).

Applications are invited from qualified Architects for the appointment of a Deputy Section Head.

Candidates must be Associate Members of the R.I.B.A. or hold equivalent qualifications, with considerable experience particularly in housing, and the control of a number of senior and junior architectural staff. Experience in Local Authority office work and attendance at Committees will be an advantage.

The salary offered is Grade IX (£750×£50 to £900 per annum). The appointment is subject to the provisions of the Local Government Superannuation Acts, 1937 and 1939, and successful applicants require to pass medical examination. The appointment is terminable by one month's notice in writing on either side.

Housing accommodation provided, if necessary, at an economic rent.

Applications, stating age, full details of training, qualifications and experience, present appointment and period held and salary, together with the names of three referees, must be delivered to the undersigned by Monday, the 19th March, 1951.

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

City Architect.

Eagle House, Colston Avenue, Bristol, 1.

27th February, 1951.

2023

BINGLEY URBAN DISTRICT COUNCIL.

SURVEYOR AND ARCHITECT'S DEPT.

**APPOINTMENT OF ARCHITECTURAL
ASSISTANT.**

Applications are invited for the appointment of Architectural Assistant, at a salary in accordance with Grade III of the A.P.T. Division of the National Scale of Salaries, i.e., £450×£15 to £495 per annum.

Candidates should have had experience in housing design, development, and general architectural work. Preference will be given to candidates who have passed some portion of the examination qualifying for A.R.I.B.A.

The appointment will be terminable by one month's notice on either side, and subject to the provisions of the Local Government Superannuation Act, 1937.

It will not be possible to provide housing accommodation for the successful applicant.

Applications, stating age, qualifications, training and experience, and details of past and present appointments, accompanied by copies of three recent testimonials, should be forwarded, endorsed "Architectural Assistant," to the undersigned before the 19th March, 1951.

F. M. DUNWELL,

Clerk of the Council.

Town Hall, Bingley.

2027

HUDDERSFIELD TECHNICAL COLLEGE.

Principal: Dr. W. E. Scott, M.B.E.

**Applications are invited for the post of HEAD
OF THE DEPARTMENT OF BUILDING.**

Candidates should hold suitable professional qualifications in Building or Architecture and have had both teaching and industrial experience.

The Department is at present graded II in the Burnham Scale for Establishments of Further Education. Revised salary scales will come into operation as from 1st April, 1951. Duties will commence on 1st September, 1951, or earlier if possible.

No forms of application are issued, but further particulars are obtainable from the Principal, The Technical College, Queen Street South, Huddersfield, to whom applications should be sent as s.o.n as possible, accompanied by two testimonials and the names of three persons to whom reference can be made.

H. KAY,

Chief Education Officer.

2032

**BOROUGH OF ILFORD.
APPOINTMENT OF TEMPORARY ARCHITECTURAL ASSISTANT (GRADE IV).**

Applications are invited for the position of Temporary Architectural Assistant on the staff of the Borough Engineer.

Salary in accordance with Grade IV of the A.P.T. Division, viz., £480×£15—£525, plus London weighting.

Candidates should possess approved qualifications and have general Architectural experience in Municipal Buildings, particularly with regard to the preparation of contracts and of working drawings.

The appointment will be subject to one month's notice on either side, to the provisions of the Local Government Superannuation Act, 1937, the National Conditions of Service, and to medical examination.

Forms of application obtainable from the Borough Engineer, Town Hall, Ilford, should be returned to the undersigned not later than 12th March, 1951.

K. F. B. NICHOLLS,

Town Clerk.

Town Hall, Ilford, Essex.

February, 1951.

2031

**CITY OF PETERBOROUGH.
CITY ENGINEER AND SURVEYOR'S
DEPARTMENT.**

Applications are invited for the appointment of TWO ARCHITECTURAL ASSISTANTS, at a salary on A.P.T., Grade III (£453, rising by annual increments to £495 per annum), and in accordance with the National Scheme of Conditions of Service. The appointments are subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination. Applicants should be good draughtsmen, possess a sound knowledge of building construction, and be capable of preparing working drawings under supervision.

Housing accommodation is not immediately available, but the Council will, if necessary, assist the successful applicants to obtain accommodation so far as they are able, but it must be distinctly understood that the Council do not guarantee to find either a house or living accommodation.

Applications, stating age, qualification and experience, accompanied by copies of not more than three recent testimonials, and suitably endorsed, must be delivered to the City Engineer (Mr. F. J. Smith, M.B.E., A.M.I.C.E., Reg. Architect), at the Town Hall, Peterborough, not later than 22nd March, 1951.

Applicants must disclose whether they are related to any member or senior official of the authority.

C. PETER CLARKE,

Town Clerk.

Town Hall, Peterborough.

February, 1951.

2030

**CITY OF LEEDS.
CITY ARCHITECT'S DEPARTMENT.**

Applications are invited for the following appointments—

(a) **ASSISTANT QUANTITY SURVEYOR.** Grade A.P.T., VIII (£685-£760 p.a.).

Candidates must be Members of the Royal Institution of Chartered Surveyors, and must be competent and experienced in all branches of quantity surveying.

(b) **ASSISTANT QUANTITY SURVEYOR.** Grade A.P.T., V/VI (£520-£660 p.a.).

Candidates should preferably have passed the Final Examination of the Royal Institution of Chartered Surveyors.

In each case the payment of salary increments will be subject to satisfactory service, and will be granted normally with effect from the 1st April following the completion of 6 months' service.

The appointments are subject to the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Applications, on forms to be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned, together with copies of three recent testimonials, by 10 a.m. on Friday, 16th March, 1951.

Canvassing in any form, either directly or indirectly, will be a disqualification.

R. A. H. LIVETT, A.R.I.B.A.,

City Architect.

Priestley House, Leeds, 9.

26th February, 1951.

2014

**WEST SUSSEX COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.**

Applications are invited for the appointment of an ASSISTANT ARCHITECT, at a salary in accordance with Grade IV A.P.T. Division (£450 to £550 per annum) 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 the 21st March, 1951.

T. C. HAWKINS,

Clerk of the County Council.

County Hall, Chichester.

28th February, 1951.

2040

**STEVENAGE DEVELOPMENT
CORPORATION.**

Applications are invited for the post of ASSISTANT CHIEF ARCHITECT (Grade II), at a salary of £1,000-£1,200 per annum, in the Department of Architecture and Planning (Chief Architect and Planner, Clarendon Road, M.Arch., F.R.I.B.A., M.T.E.I.).

The successful candidate will be responsible for the control of a large drawing office staff. It is essential that applicants should have ability in contemporary design and considerable experience of large-scale building works, contract management, and be able to co-ordinate the work of groups of architects.

(a) The successful applicant will be required to contribute to a Local Government Superannuation Fund or Assurance Scheme.

(b) The Corporation anticipates that, if so desired, it will be able in the near future to offer a successful married candidate the tenancy of a Corporation house.

(c) Candidates, directly or indirectly of members of the staff or of the Corporation will be disqualified.

Applications should be made in writing by 21st March, 1951, to the Chief Administrative Officer, Stevenage Development Corporation, Aston House, Aston, near Stevenage, Herts., stating age, professional qualifications, full details of experience and works carried out, appointments held, present salary, and the names of three persons to whom reference may be made.

2008

**BOROUGH OF NUNEATON.
ARCHITECTURAL ASSISTANT.**

Applications are invited from Registered Architects (or from persons possessing other approved qualifications) for the appointment of Architectural Assistant on the staff of the Borough Surveyor, at a salary in accordance with Grade A.P.T. V, of the National Scheme of Conditions of Service (£520-£570).

Consideration will be given to the provision of housing accommodation.

Further particulars and conditions of appointment may be obtained from the undersigned, by whom all applications must be received not later than 24th March, 1951.

T. OLDROYD,

Town Clerk.

Council House, Nuneaton.

28th February, 1951.

2026

**NATIONAL COAL BOARD—NORTH-WESTERN
DIVISION.**

QUANTITY SURVEYOR, Grade I, required for North-Western Divisional Coal Board. Salary will be in the range £700-£875 p.a.

Applicants should be Members of the R.I.C.S., with considerable experience in a Quantity Surveyor's office and experienced in the preparation of Bills of Quantities for all trades, detailed approximate estimates, writing of Specifications, valuation and measurements for interim certificates and settlement of final accounts.

Applications, stating age, education, qualifications, experience, present appointment and salary, should be submitted within 14 days from the date of this advertisement, to the Divisional Establishment Officer, National Coal Board, North-Western Division, 40, Portland Street, Manchester, 1.

2012

BOROUGH OF SLOUGH.**BOROUGH ENGINEER'S DEPARTMENT.
APPOINTMENT OF TWO ASSISTANT
ARCHITECTS.**

Applications are invited for appointment to the permanent establishment of two Assistant Architects on Grade A.P.T. VI, of the National Scales, at a commencing salary of £595 per annum, rising on satisfactory service by two annual increments of £20 and one of £25 to a maximum of £660 per annum. Applicants must be Registered Architects.

Applicants must give details of age, marital state, qualifications, present and previous appointments, with dates, technical training and experience, whether related to any member or senior officer of the Council, and the names of two architects to whom reference can be made.

The appointments will be subject to: (i) the provisions of the Local Government Superannuation Act, 1937; (ii) the National Scheme of Conditions of Service; (iii) the satisfactory passing of a medical examination by the successful candidates; and (iv) termination by one month's notice on either side.

Applications, in sealed envelopes, endorsed "Assistant Architect," must reach the undersigned not later than noon on Monday, 19th March, 1951.

The Borough Council is unable to assist the successful candidates with housing accommodation. Canvassing, directly or indirectly, will be disqualified.

NORMAN T. BERRY,

Town Clerk.

Town Hall, Slough.

1st March, 1951.

2018

**PEMBROKESHIRE COUNTY COUNCIL.
APPOINTMENT OF ASSISTANT LANDS AND
BUILDINGS SURVEYOR.**

Applications are invited for the appointment of an Assistant Lands and Buildings Surveyor, at a salary in accordance with Grade III, A.P. & T. Division (i.e., £450 per annum, rising by annual increments of £15 per annum to a maximum of £495 per annum).

Candidates should possess a good general knowledge of Drawing Office routine, be capable of tracing working drawings, and be competent to undertake surveys and levels. A knowledge of routine and procedure in connection with Acquisition of Lands, etc., will be an advantage.

The appointment is subject to the provisions of the National Conditions of Service for Local Government Administrative, etc., officers, to the provisions of the Local Government Superannuation Act, 1937, and to the passing of a medical examination, and would be terminable by one month's notice.

Canvassing in any form will be disqualified. Application forms can be obtained from the County Architect, County Offices, Haverfordwest, and should be completed and returned not later than fourteen days of the appearance of this advertisement, to:

H. LOUIS UNDERWOOD,

Clerk of the County Council.

County Offices, Haverfordwest.

26th February, 1951.

2016

**WESTERN AUSTRALIAN PUBLIC SERVICE.
ARCHITECTS FOR THE STATE HOUSING
COMMISSION.**

Applications are invited for TWO ARCHITECTS, Grade II (Permanent), to work with the State Housing Commission of Western Australia. Salary range £781-£976, Australian currency, on present basic wage.

Qualifications: Applicants must be Associates of Royal Institute of British Architects or hold the degree of Bachelor of Architecture. Experience in house construction essential.

Appointees will be eligible to join the Superannuation Fund—a contributory scheme under which the State provides 60 per cent. of pension on retirement.

Travelling expenses up to a maximum of £300 sterling for a married man and £150 sterling for a single man will be paid, subject to an agreement being entered into by the appointee to serve for a period of three years.

Accommodation for a married man will be provided.

Applications in duplicate, stating age, marital state, qualifications and experience, with copies of testimonials, should be forwarded to the Agent-General for Western Australia, Savoy House, 115-116, Strand, London, W.C.2, to reach him not later than 31st March, 1951.

2015

BOROUGH OF BARKING.**BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.**

Applications are invited for the under-

mentioned permanent appointment:—
TOWN PLANNING ASSISTANT. Within Grade VI/VII, A.P.T., £595-£710, plus appropriate London weighting.

Candidates must have had good general planning experience and should possess an appropriate professional qualification. Preference will be given to Corporate Members of the Town Planning Institute. Application forms may be obtained from the Borough Engineer, Town Hall, Barking, and must be returned to the undersigned not later than the 19th March, 1951.

E. R. FARR,

Town Clerk.

Town Hall, Barking.

2025

MIDLANDS ELECTRICITY BOARD.**BIRMINGHAM SUB-AREA.****APPOINTMENT OF ASSISTANT CONSTRUCTIONAL ENGINEER.**

Applications are invited for the position of Assistant Constructional Engineer in the Engineer's Department of the Birmingham and District Sub-Area. Conditions of employment will be in accordance with the National Joint Board Agreement for the Electricity Supply Industry. The salary subject to negotiation will be Class "M," Grade VII (£200-£330 p.a.).

Applicants should have received a recognised training and be in possession of appropriate professional qualifications, and should have had considerable experience in the preparation of estimates, preliminary plans and working drawings for large building projects and also be experienced in the administration of contracts and the conduct of negotiations with contractors.

The successful applicant will be required, with the assistance of a suitable staff, to undertake the design, specification and supervision of erection of new buildings and alteration to existing buildings, to provide further centres, depots, sub-stations, and reinforced concrete foundations for heavy plant. He will also be required to advise on questions of maintenance and exercise some supervision over the direct labour staff engaged on maintenance and construction.

Applications, stating age, qualifications and full particulars of training and experience, should reach the undersigned within 7 days of the appearance of this advertisement, in envelopes endorsed "Assistant Constructional Engineer," Emil Braathen, Manager, Birmingham and District Sub-Area, 14, Dale End, Birmingham, 4.

A. STEPHENS,

Secretary.

24th February, 1951.

2007

LONDON COUNTY COUNCIL.**ARCHITECTS' DEPARTMENT.**

Applications are invited for positions of ARCHITECT, Grade III (£550-£700), and TECHNICAL ASSISTANT (up to £580) for work on new housing, schools, and other public buildings. The positions are superannuable. Candidates for Grade III positions should possess professional qualifications. Application forms from the Architect (A/R/P/S), The County Hall, Westminster Bridge, S.E.1, enclosing stamped addressed foolscap envelope. Canvassing disqualified. (38s)

LIVERPOOL REGIONAL HOSPITAL BOARD.

Applications are invited for the following permanent appointments in the Regional Architect's Department, on the Headquarters staff of the Board:—

ASSISTANT ARCHITECTS, at a salary in accordance with A.P.T., Grade IV, £480-£525 per annum.

Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects, and have a good general experience and ability in design and construction.

The offices of the Department will shortly be moving from their present position at Ader Hey Hospital to the centre of the City.

The above appointments will be subject to the National Health Service (Superannuation) Regulations, 1950, and the successful candidates may be required to pass a medical examination.

Applications, stating age, education, qualifications, experience, present and previous appointments, salary, together with the names and addresses of three referees, should be sent to the undersigned at 19, James Street, Liverpool, 2, not later than 30th March, 1951.

VINCENT COLLINGS,

Secretary to the Board.

2028

BOROUGH OF RUGBY.**ARCHITECTURAL ASSISTANT.**

Applications are invited for the permanent position of ARCHITECTURAL ASSISTANT in the Borough Engineer's Department. Salary A.P.T., IV, £480-£525.

Preference will be given to candidates who have had good Municipal experience and who have passed the Intermediate Examination of the R.I.B.A.

Applications, giving details of qualifications and experience, together with copies of three recent testimonials, should be delivered to the Borough Engineer and Surveyor, Burford House, Church Walk, Rugby, not later than Wednesday, the 21st March, 1951.

D. E. BIART,

Town Clerk.

2057

SALOP COUNTY COUNCIL.**COUNTY ARCHITECT.**

Applications are invited from qualified persons for the whole time appointment of County Architect for Shropshire, at a salary of £2,150, rising to £2,400 per annum. A travelling and subsistence allowance will be paid.

The person appointed will be responsible for advising the County Council and other branches of the County Administration as to the whole of the County Buildings, including both new construction and maintenance (except in so far as properties belonging to the Highways and Smallholdings Departments are dealt with by those departments), and for advising the Council on such other matters and carrying out such other duties as they may from time to time require. The establishment of the department is a large one, including both engineers and quantity surveyors, and in addition to first-class architectural ability exceptional administrative capacity will be necessary. The appointment will be terminable by three months' notice and will be superannuable and subject to a medical examination.

Applications (no forms), giving particulars of age, education, qualifications and experience, and the names of three referees, must be delivered to me not later than 31st March, 1951.

G. C. GODBER,

Clerk of the County Council.

Shirehall, Shrewsbury.

24th February, 1951.

2009

Competition and Exhibition

6 lines or under, 12s. 6d.; each additional line, 2s.

LEICESTER COLLEGE OF ART.**FESTIVAL OF BRITAIN.**

The City of Leicester Art Gallery Committee is proposing to stage in the Autumn an Exhibition of the work of Students and Staff who have been associated with the Leicester College of Art. Will all past Students and those who have served on the staff who are willing to submit work for this Exhibition write at once to the Principal of the College, The Newark, Leicester.

2066

Partnership

6 lines or under, 12s. 6d.; each additional line, 2s.

A.R.I.B.A. (47), school trained, wide experience (not housing), desires position of responsibility with established firm, preferably S. or S.W. England, view to Partnership. No capital available. Box 2011.

Architectural Appointments Vacant

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

FULLY qualified ARCHITECTURAL ASSISTANT required for West End office. Capable of handling contracts. State qualifications, experience, and salary required. Box 1586.

ASSISTANTS required in Architects' Department of large commercial organisation. Sound all-round training in the profession essential, including supervision of work. Excellent opportunities for men of initiative. Apply in writing, giving details of experience, age, and salary required, to Box 1885.

SENIOR ARCHITECTURAL STAFF required by London Firm of Architects. Please reply by letter, stating training, experience, age, and salary required. Box 1932.

THE RAILWAY EXECUTIVE invite applications for posts of ASSISTANT ARCHITECT in London. Applicants should be A.R.I.B.A. or hold equivalent qualification, and have had several years' experience in an Architect's office. Commencing salary £500-£550 per annum. Applicants selected may be required to join a Superannuation Fund, in accordance with the rules of any such scheme. Applications should give full particulars of qualifications, experience and age, and should be sent to Civil Engineer, the Railway Executive, London Midland Region, Euston Grove, London, N.W.1. 1891

CADBURY BROTHERS, LTD. require an ARCHITECTURAL ASSISTANT, with knowledge of industrial design, to assist in designing large factory units. Write, stating age, experience, and salary required, to E.M.A. Cadbury Bros., Ltd., Bournville. 1940

ARCHITECTURAL ASSISTANT required, of at least intermediate standard, for housing and light industrial work. Salary £400-£500 per annum, according to experience. Messrs. E. O'Sullivan, Ltd., Cray Avenue, St. Mary Cray, Kent. Telephone ORP. 3737. 1963

ARCHITECTURAL ASSISTANTS (TWO). Senior, required for Dublin City office. Eire. Expert knowledge working drawings, building construction and alteration works, also Hospital and Institution design. £290 to £750 per year. Enclose copy of references. Box 1981.

EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT for varied practice. Write, giving particulars of experience and salary required, to J. C. Prestwich & Sons, M.A., F.A.R.I.B.A., Bradshawgate Chambers, Leigh, Lancs. 2006

MALE ARCHITECTURAL ASSISTANT, bet. Inter. and Final standard, req'd N.E. Lond. office. Varied and int. wk. of a contemporary nature, mainly indust. and comm. Write exp., age, sal. req'd. Box 2034.

ARCHITECTURAL ASSISTANT, of Intermediate standard, required immediately. Must have experience in preparing working drawings and details. Apply, stating age, experience, and salary required, to W. J. Lewis & Sons, 68, Cranbrook Road, Ilford, Essex. 2035

GENERAL ARCHITECTURAL AND SURVEYING ASSISTANTS required in Surveyors' Department of large multiple shop firm (London), capable of making own surveys and preparing working drawings and specifications for alterations and conversions shop property. Write full details and salary. Permanency. Box 2037.

ARCHITECTURAL ASSISTANT urgently required for private practice, engaged on varied and interesting work. Reply by letter, stating age, qualifications, etc., to Robert C. Carvell, L.R.I.B.A., 3a, Charlotte Street, Perth, Scotland. 2038

CAPABLE ASSISTANT required, between Inter. and Final standard R.I.B.A., for office at Morden, Surrey. MIT. 4477/8. 2046

JUNIOR ASSISTANT, in Architect's office, W.C.2. Write, giving full details, Box 2019.

ARCHITECTURAL ASSISTANT required by Gollins, Melvin & Partners. Capable working drawings. Salary £350-£500. Once experience essential. Five-day week. Telephone Museum 0683 for appointment. 2021

ARCHITECTS' CO-OPERATIVE PARTNERSHIP require an ASSISTANT with experience of administration. Salary according to experience. Apply in writing to 34, Gordon Square, London, W.C.1. 2051

ARCHITECT'S ASSISTANT required in Cusworth district. Intermediate or Senior. Write, giving details, experience, and salary required, to Eric Cole & Partners, F.F.R.I.B.A., Dyer Street House, Cirencester, Glos. 2050

GUILDFORD AND WOKING, SURREY. CONSULTANT ARCHITECT required to give occasional part-time assistance to firm of Chartered Surveyors in Woking, having own draughtsmen. Chiefly for work in connection with conversions, but scope for expansion of general architectural practice. Box 2049.

SENIOR ASSISTANT, not necessarily qualified but with experience of job administration, required for interesting work of contemporary character. Salary according to experience. Lavender, Twentymen & Percy, 2, Waterloo Road, Waverhampton. 2047

REQUIRED, at Company's head office, Guildford, ARCHITECTURAL ASSISTANT, R.I.B.A. Intermediate standard. Varied work, mainly factory. Five-day week. Salary by arrangement. Box 2045.

Architectural Appointments Wanted

QUALIFIED ASSISTANT, with good all round experience, including handling large contracts, seeks responsible position in progressive office in London. Box 96.

QUALIFIED SENIOR requires responsible post with contemporary firm, leading to eventual Partnership. Capable of taking complete charge in all stages, from initial design to final accounts. 14 years' varied experience, including work on South Bank Exhibition. Minimum starting salary £800. Box 94.

EXPERIENCED and efficient ARCHITECT'S Secretary desires a post with an Architect in S.W. or W. London. Please write Box 1960.

SENIOR ASSISTANT (30), A.R.I.B.A., 15 years' practical experience, seeks position with scope for initiative. Box 101.

HANTS, DORSET, WILTS.—SENIOR ASSISTANT desires post in above area. 10 years' office experience, sketch, working drawings, details, specifications, surveys, reports. Excellent draughtsman. All types domestic, flats, hotel and hospital work. Home and overseas. Traditional and non-traditional. Please state approx. salary offered. Box 100.

A. R.I.B.A. and qualified TOWN PLANNER requires senior post in London. 18 years' varied experience, including administrative work and contemporary design. Minimum starting salary £800. Box 103.

SECRETARY/SHORTHAND TYPIST.—Young Lady, 3½ years' experience with Architects, seeks similar position in West End or City. Box 2052.

A. R.I.C.S. (Building), (30), Prob. R.I.B.A., studying Special Final, several years' general experience as Senior Assistant in private practices in London and Surrey, seeks similar responsible Architectural post in South with further prospects. Assistance with accommodation appreciated. Box 102.

Other Appointments Vacant

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QUANTITY SURVEYOR required for Architects' office. Applicants should be experienced in preparing Bills of Quantities and Final Accounts, and should state age, experience, and salary required, to Johnson & Crabtree, F.F.R.I.B.A., 20, Priory Place, Doncaster. 1947

LONDON Architects require TWO or THREE DRAUGHTSMEN. Must be accurate and have had experience of making working drawings. Prospect of several years' employment. Reply, stating age, experience, and salary required, to Box 2022.

QUANTITY SURVEYOR required immediately by firm of Architects in the South-West. Applicants must be A.R.I.C.S., and should be not more than 45 years of age. Salary £600 p.a., but there is a possibility of a Partnership to a suitable applicant. Box 2010.

QUANTITY SURVEYORS require ASSISTANT for Branch office, Harrow, with experience in working up, site measuring, and with some taking off experience under supervision. Reply in writing, stating age, experience, and salary required, George Lewis & Son, 49, Shepperton Road, Harrow, Middlesex. 2020

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A. R.I.B.A. (44) offers services to other Architects, of Surveys and Dilapidations, with reports and estimates thereon, Sketch and Working Drawings and Estimated Costs, Supervision of Work and Final Accounts. Many experience in domestic, ecclesiastical and agricultural building. Country work preferred, up to 200 miles from London. Own car. Owen, 25, Collingham Gardens, S.W.5. Flaxman 9676. 1922

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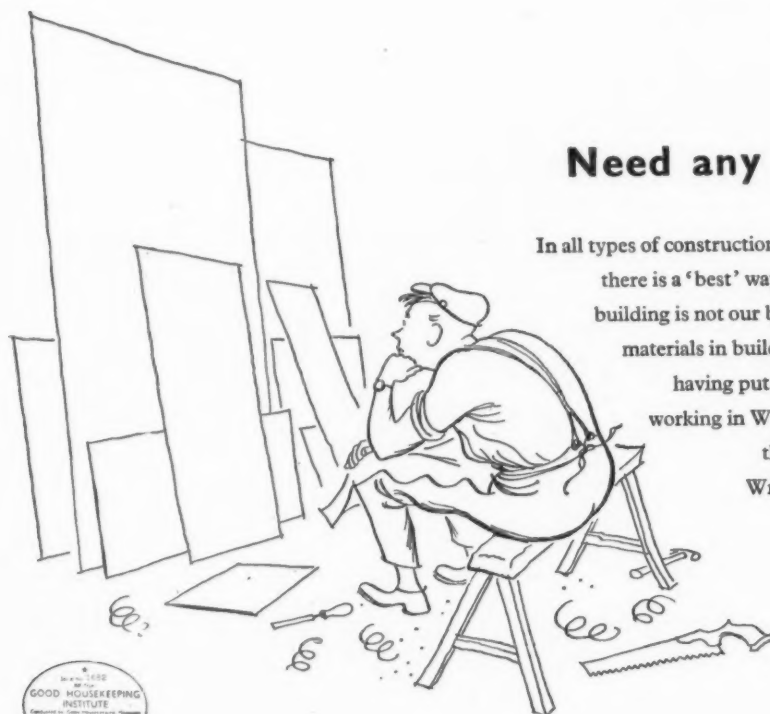
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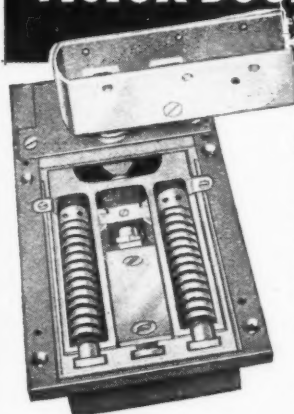


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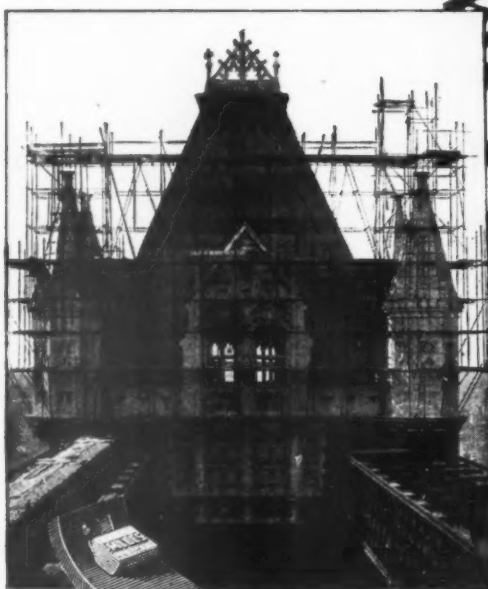
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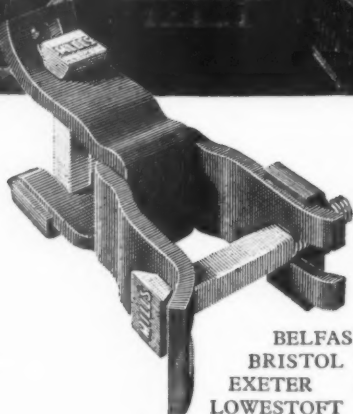
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