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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THE ARCHITECTURAL PRESS

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Registered as a Newspaper.

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

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square.	Sloane 1601/3158
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2450
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	Museum 1783
I of Arb	Institute of Arbitrators. 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197/5176
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
IWA	Inland Waterways Association. 14, Great James' Street, W.C.2.	Chancery 7718
LDA	Lead Development Association. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
LSPC	Lead Sheet and Pipe Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
MARS	Modern Architectural Research Group (English Branch of CIAM). Secretary: Trevor Dannatt, 6, Fitzroy Square, W.1.	Euston 7171
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers, 10, Princes Street, S.W.1.	Abbey5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington	Molesey 1380
NSA	National Sawmilling Association. 14, New Bridge Street, E.C.4.	City 1476
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4.	City 5051
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

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Booking Office for K.L.M. Royal Dutch Airlines in the "Time and Life" Offices in New Bond Street, London, W.1.

Architect, J. Stroud Foster Esq. A.R.I.B.A.

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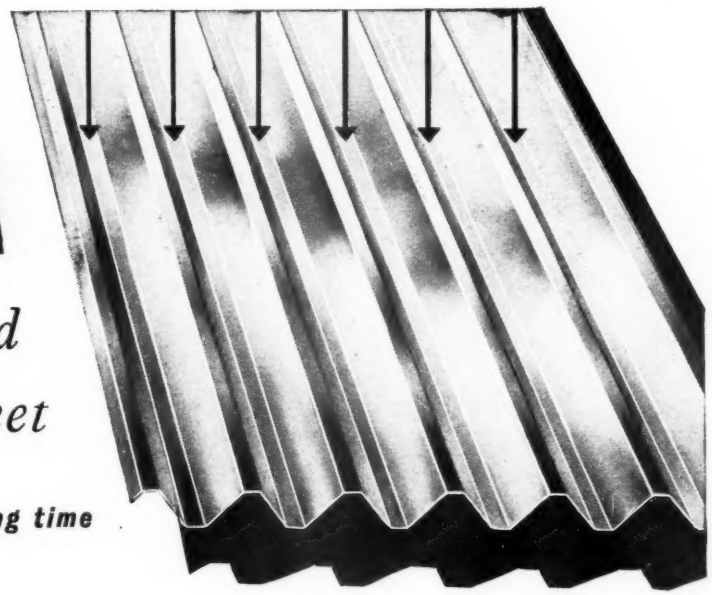
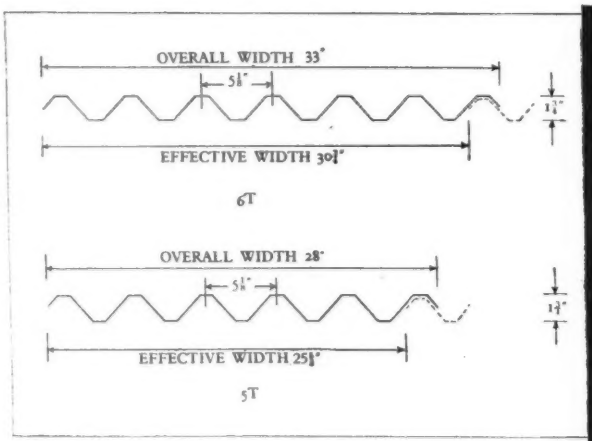
'Rigidal'

corrugated aluminium sheet

Saves handling, lapping and fixing time



In view of the success of 'Rigidal' 5T and 4T sheet, British Aluminium are now producing a 6T section which not only possesses all the features of the narrower sheets but also offers several additional advantages. Five inches greater in overall width than the 5T, the new 6T sheet saves 1 side lap in every 5, reduces handling, speeds fixing and affords greater cover per sheet.



Purlin spacings and recommended maximum design loads

Purlin Spacing	Design loads (lb./sq. ft.)	
	18 swg	19 swg
6' 0"	87	71
6' 6"	76	61
7' 0"	64	52
7' 6"	56	46
8' 0"	49	40
8' 6"	44	36
9' 0"	40	32
9' 6"	36	28
10' 0"	32	25
10' 6"	28	*

**Not recommended*

Notes 1. The above design loads are based on a maximum working stress of 11,000 lb./in.² giving a factor of safety of 2 on the 0.1% proof stress (yield).
2. The zigzag line indicates the maximum purlin spacings which may be employed when working to B.S. Code of Practice C.P.3., Ch. V Para. 7b. Use of purlin spacings below the line depends upon the pitch of the clad surface, the maximum spacings shown being those recommended for vertical walls.
3. The recommendations tabulated above are based on an assumed minimum roof pitch of 10°, with sheets fixed in accordance with recommended practice, including seam bolts at 18" centres.

'Rigidal' sheet lights can be supplied to match Trough Section (5T) sheet.

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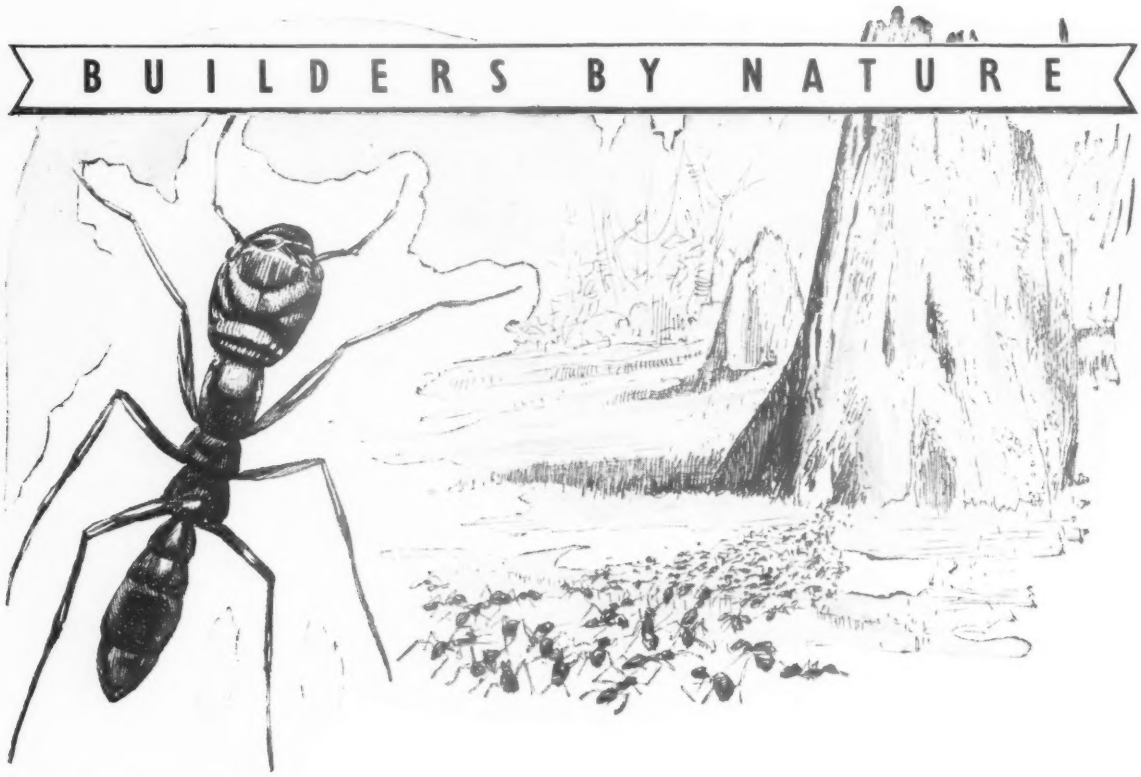


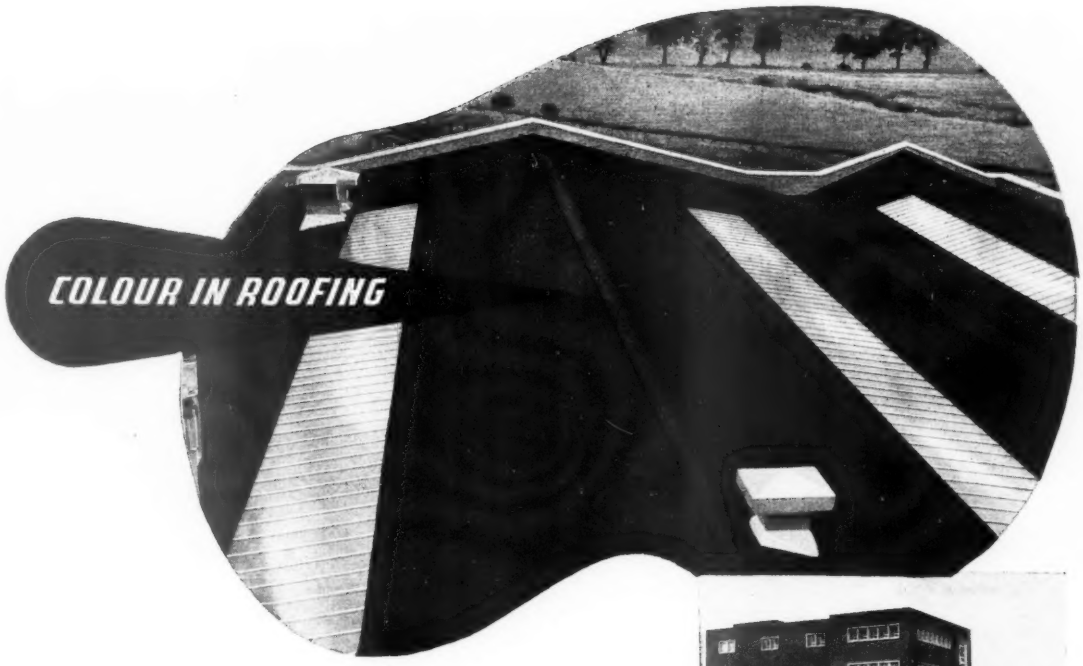
No. 8. THE ANT

With a sudden thrust of his spade the gardener bursts open the mound which betrays an ant nest, scattering the ants and shattering their home; but the mound of earth only acts as a clue to the whereabouts of the hill or mound nest, and the type of nest where the excavated soil forms a crater. Some ants go to great trouble to disperse the soil so that their home remains secret.

Beneath the ground an ant nest is formed of passages which link together a number of chambers. One is a brood chamber for the queen ant's use. Others form brood nurseries, granaries, fungus gardens and so on.

Some ants make nests under large stones or under leaves, others in old tree-trunks or under the bark of trees. There are even tropical ants which construct nests of earth bound together with silk and hung from branches.

Perhaps the most amazing of all ant nests is the leaf nest, formed of two or more large leaves, fastened together by a silken web from the larvae of the species, which the worker ants hold in their jaws and use like shuttles in weaving the silken tissue of the nest.



New Bakery at Dunfermline, Fife, designed by Kenneth Masson, A.R.I.B.A., Chief Architect S.C.W.S., and roofed with Bitumetal, Briggs Modern Development in Aluminium.

Colour is rapidly becoming an important and attractive feature in roof covering. Many factories, schools and hospitals now have the added advantage of a coloured finish in nature's own mineral granules, permanent and unfading.

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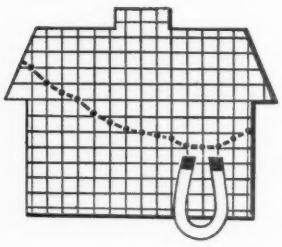

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and at **EDINBURGH**

Once again, radiators by Crane...

Without doubt, one of the outstanding features of the Churchill Gardens Estate, now under construction at Pimlico, is the heating system. The medium used for conveying heat—derived from exhaust steam at Battersea Power Station—is hot water. This is pumped through 12-inch bore insulated steel mains under the River Thames from the Power Station to the Estate. To help achieve an efficiently controlled central heating system, Crane have already supplied over 1,750 cast iron radiators and a large number of concealed pattern radiator valves. Important contracts like this draw added attention to Crane's fine reputation as a leading manufacturer of heating equipment.

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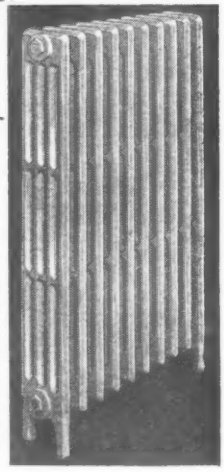

At the Churchill Gardens Estate, Crane 2 and 4-column Pall Mall cast iron radiators are fitted throughout the 4, 7 and 9-storey blocks, already finished and occupied. These radiators, graceful yet strong, are also available in 6 column design—in four different heights.

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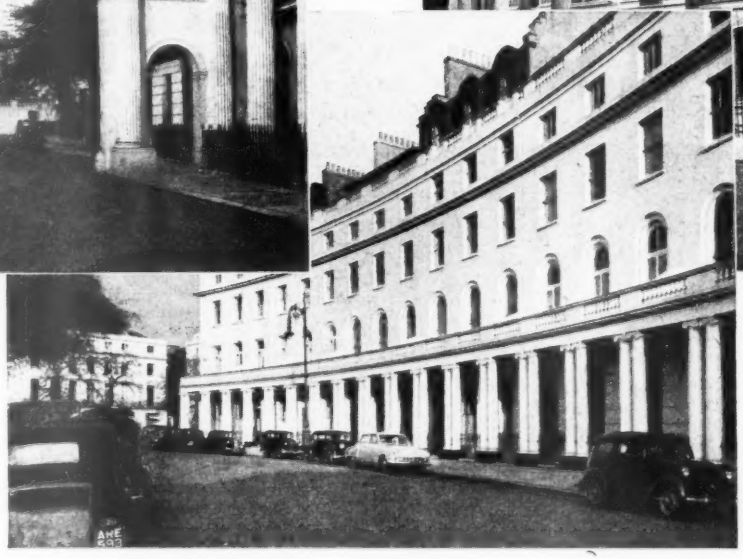

Columns, Ionic Caps, Cornices and Balustrades at Park Crescent

REGENTS PARK (Photographs by kind permission of Commissioners of Crown Lands)

Girlingstone was selected for the new offices at Fielden House, London Bridge Street, London, S.E.1 for the King Edward's Hospital Fund for London (Architect: J. S. Lacey, A.R.I.B.A., A.M.P.P.I.) which is reviewed elsewhere in this issue.

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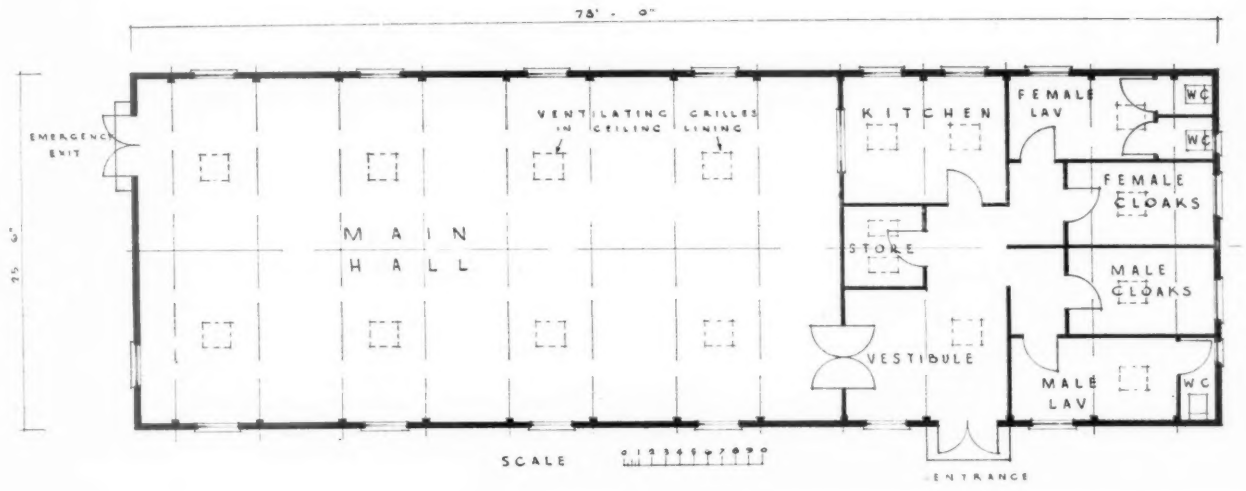
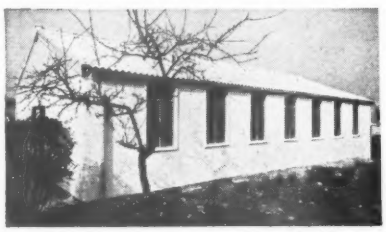
Internal Finishings by MESSRS. BISS & MOYLE, Builders and Contractors, Yeovil.



The Nurses' Recreation Room illustrates one of the many purposes efficiently fulfilled by this rapid and economical system of construction for single storey work. The clean, practical, dry-built structure was erected by one of the Woolaway building teams in ten working days (excluding the internal finishings). The building is well lit, well insulated with overall dimensions of 78ft. long, 25ft. 6in. wide and 8ft. 6in. to eaves.



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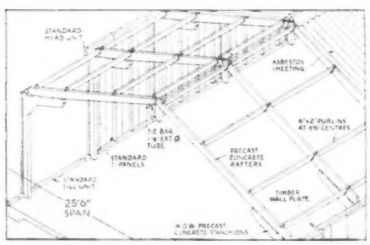

British Patents Nos. 636,686, 631,227 and 679,510. Patents granted and pending in many countries overseas

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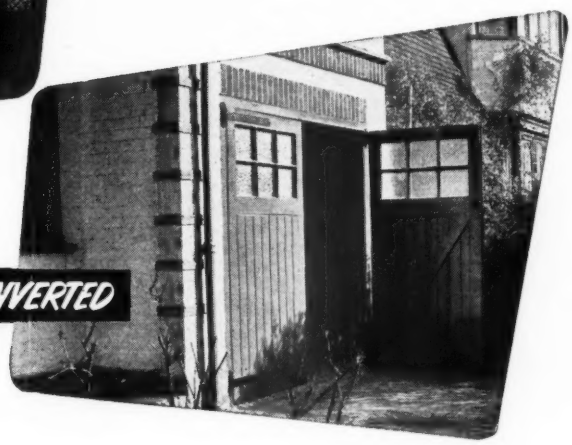

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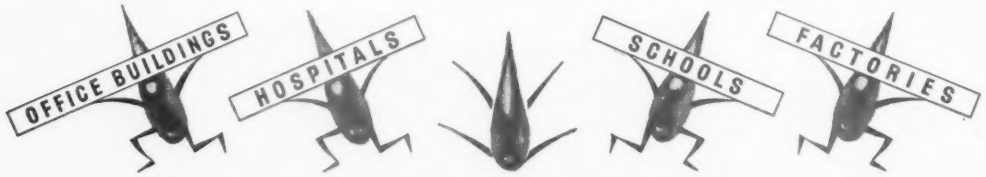

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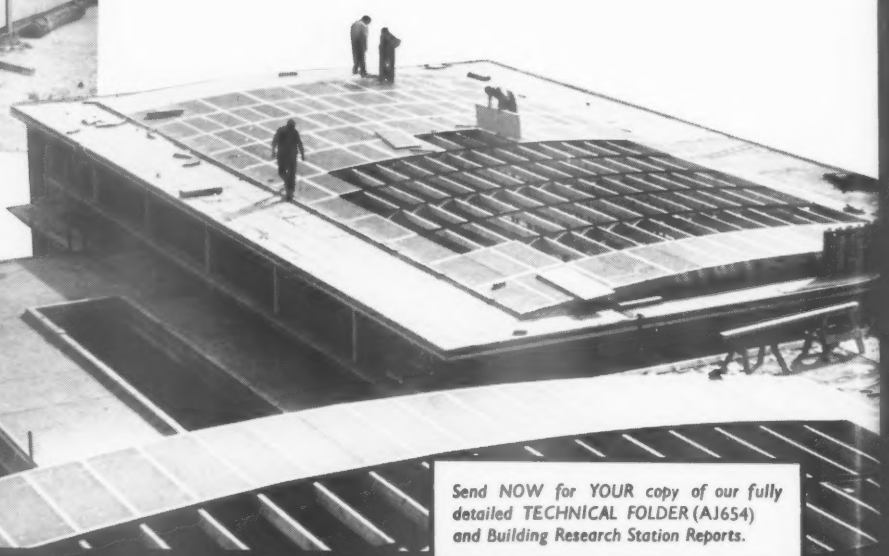

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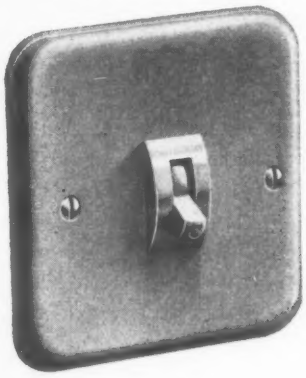

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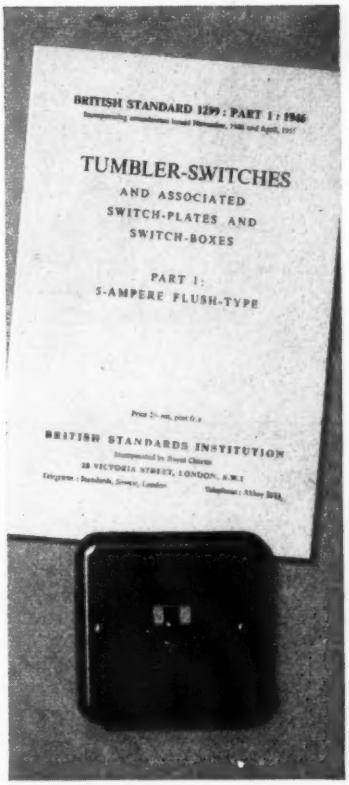

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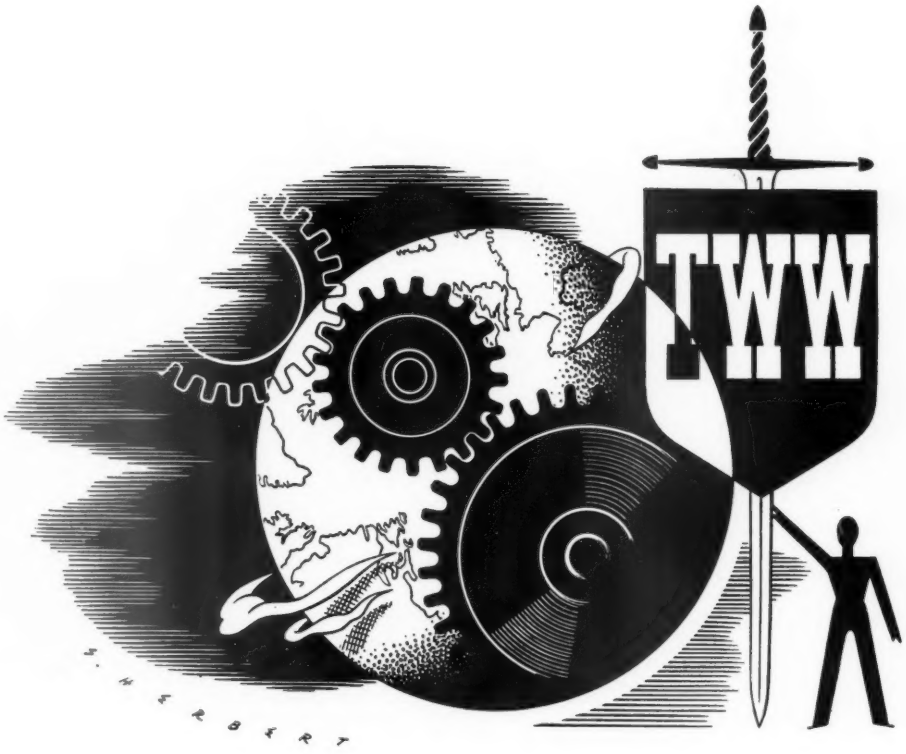

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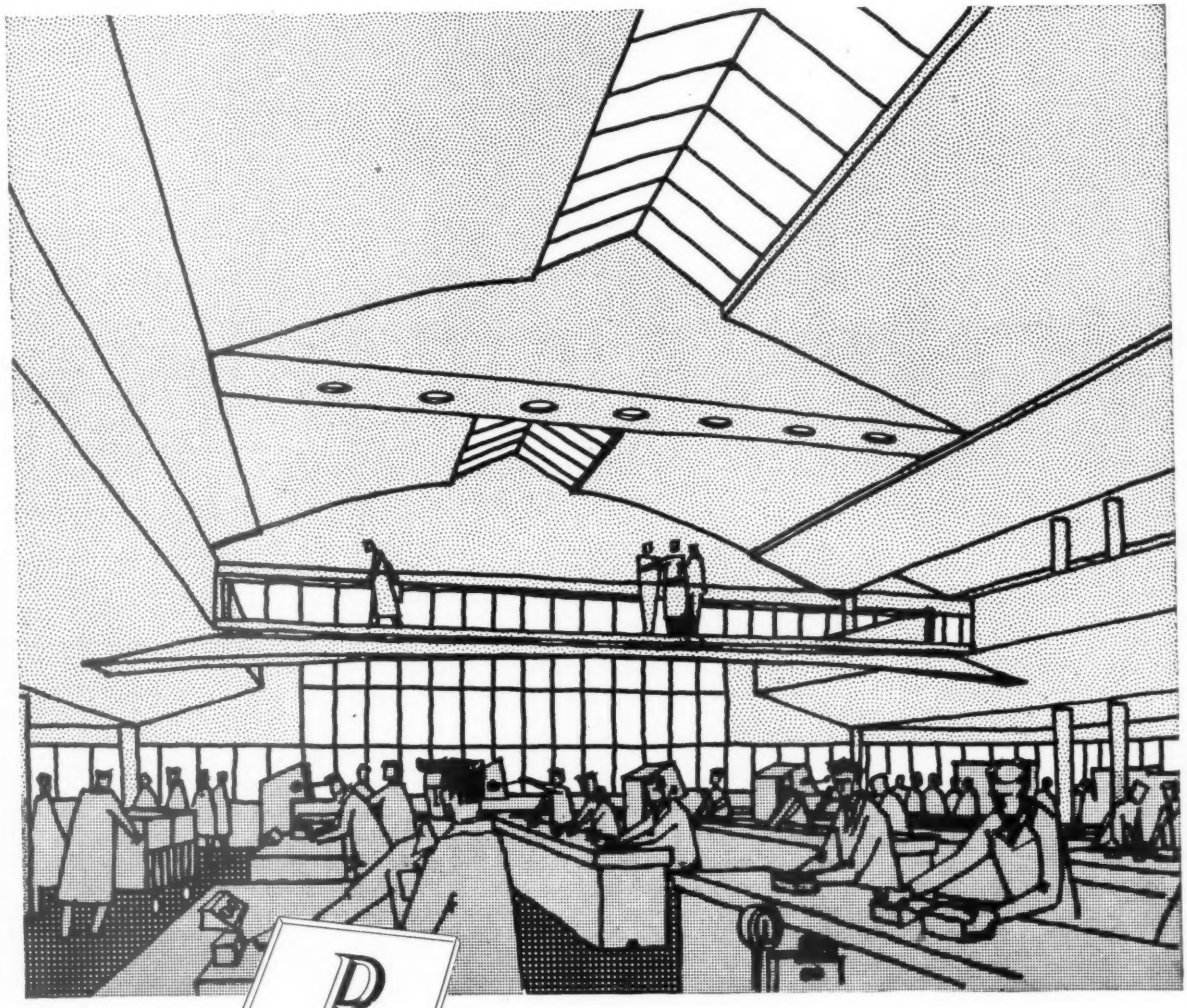
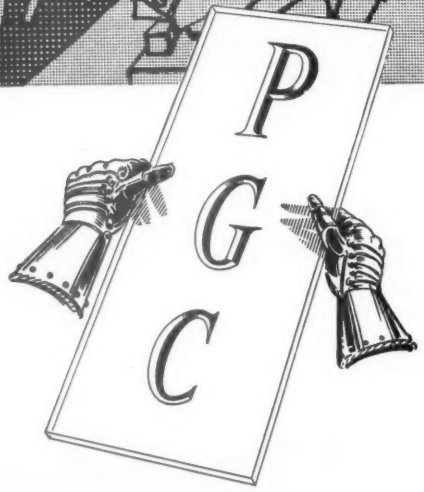
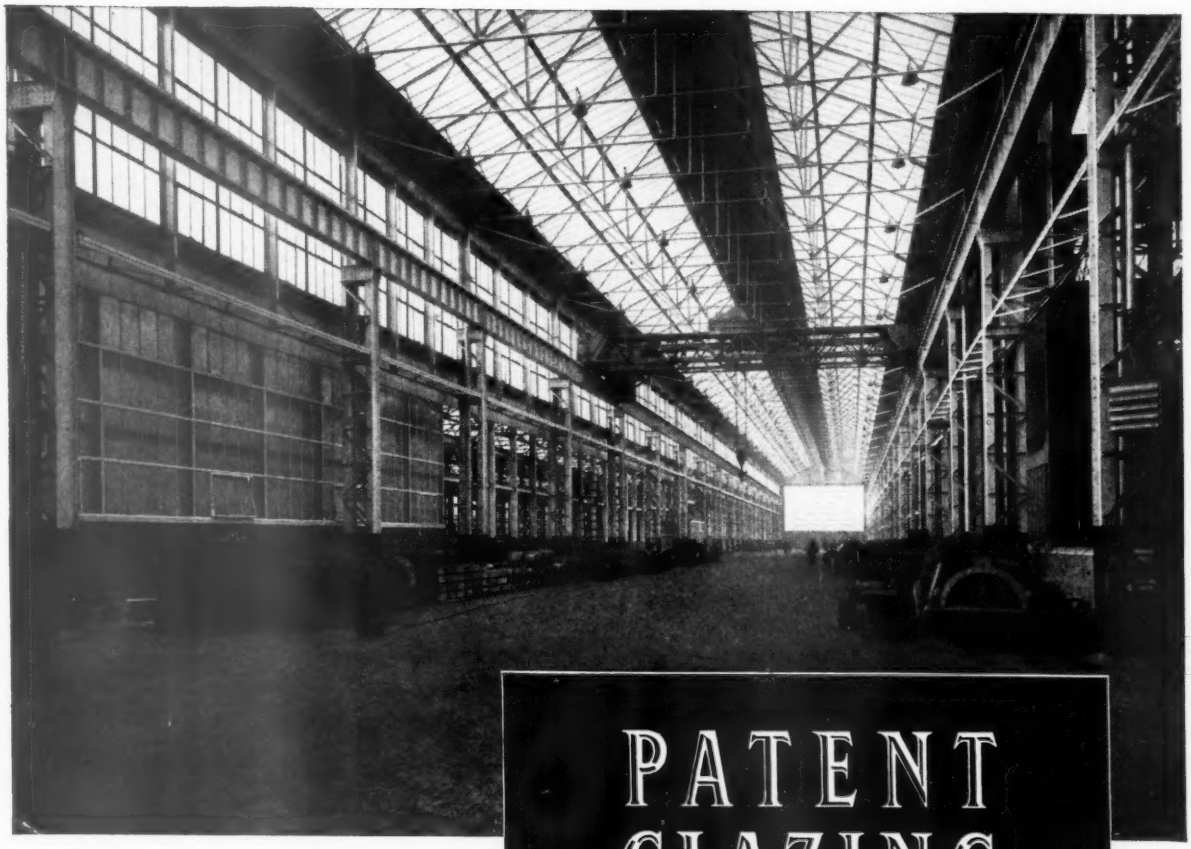
SPECIFICATIONS





From a design by Edward D. Mills, F.R.I.B.A.

For all facts about patent glazing, write to the Information Bureau, The Patent Glazing Conference, Burwood House, Caxton Street, London, S.W.1.



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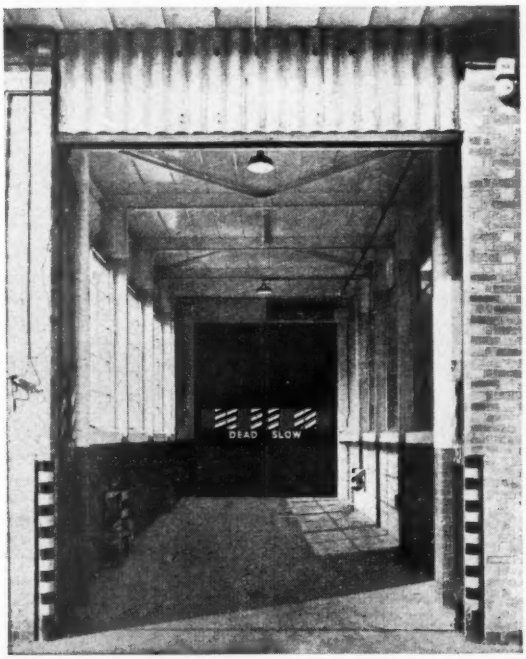

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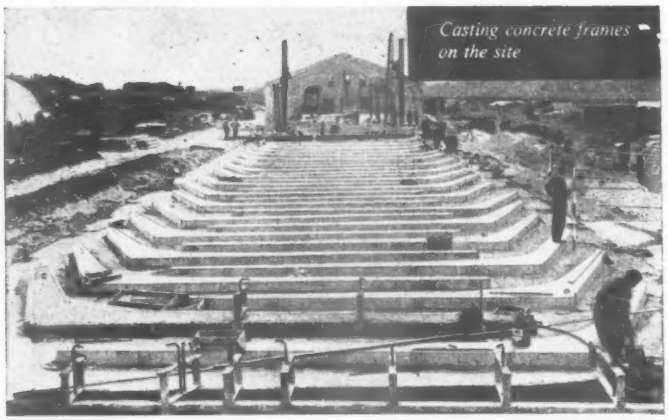
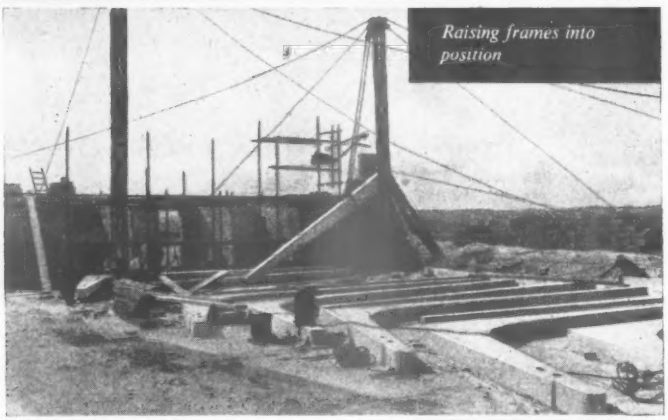
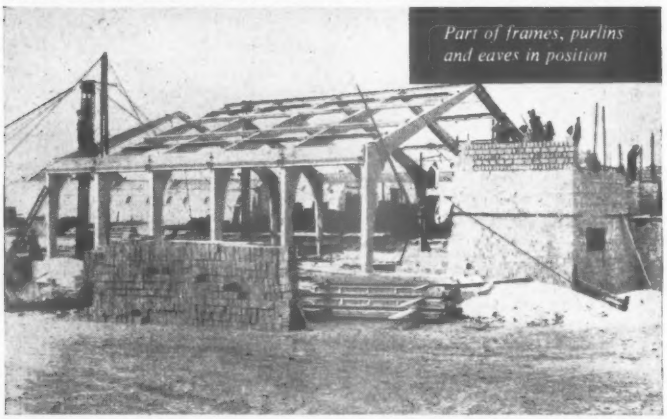


Casting concrete frames on the site



Raising frames into position



Part of frames, purlins and eaves in position

Interior view of building nearing completion

McN. 3474

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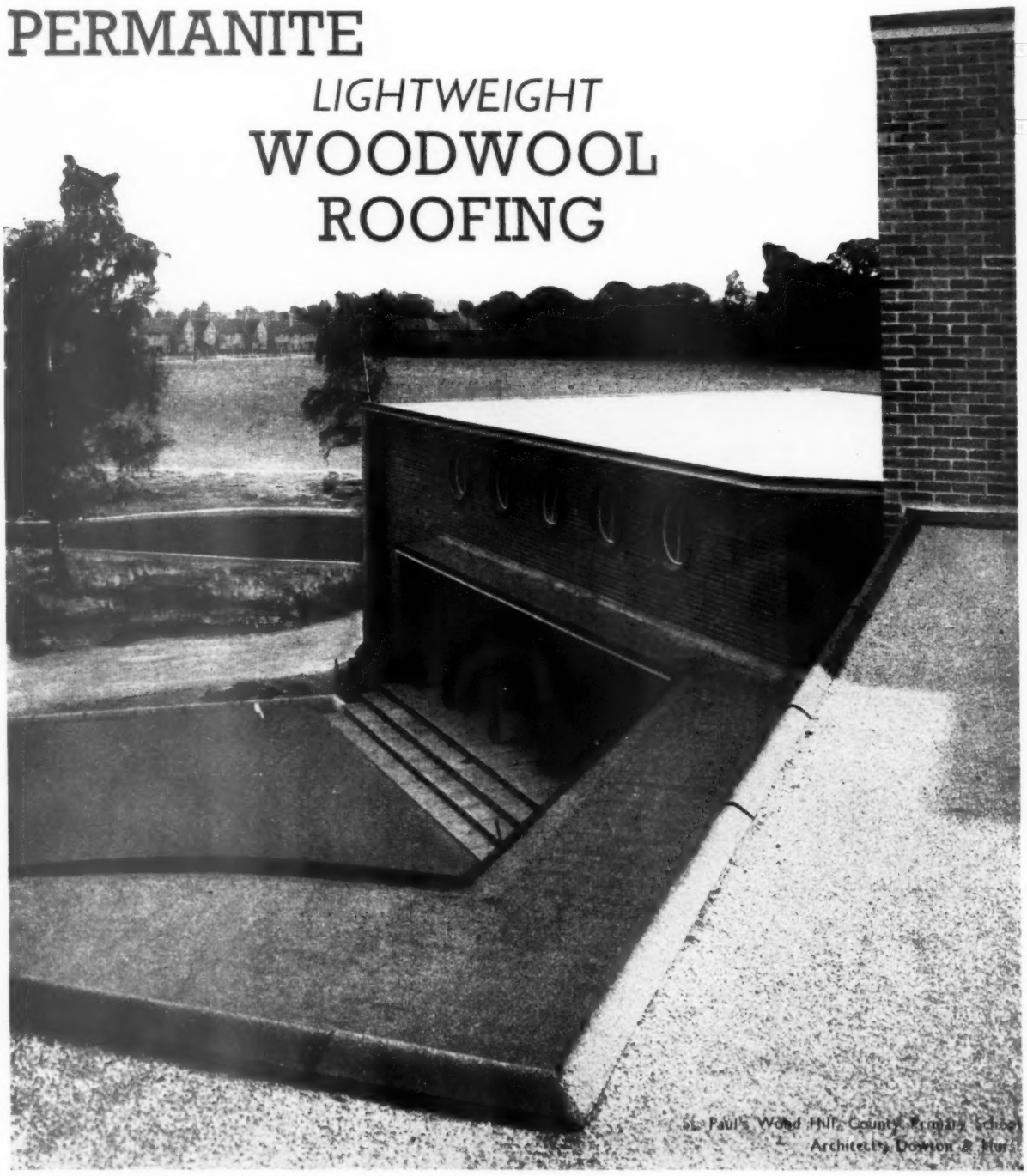

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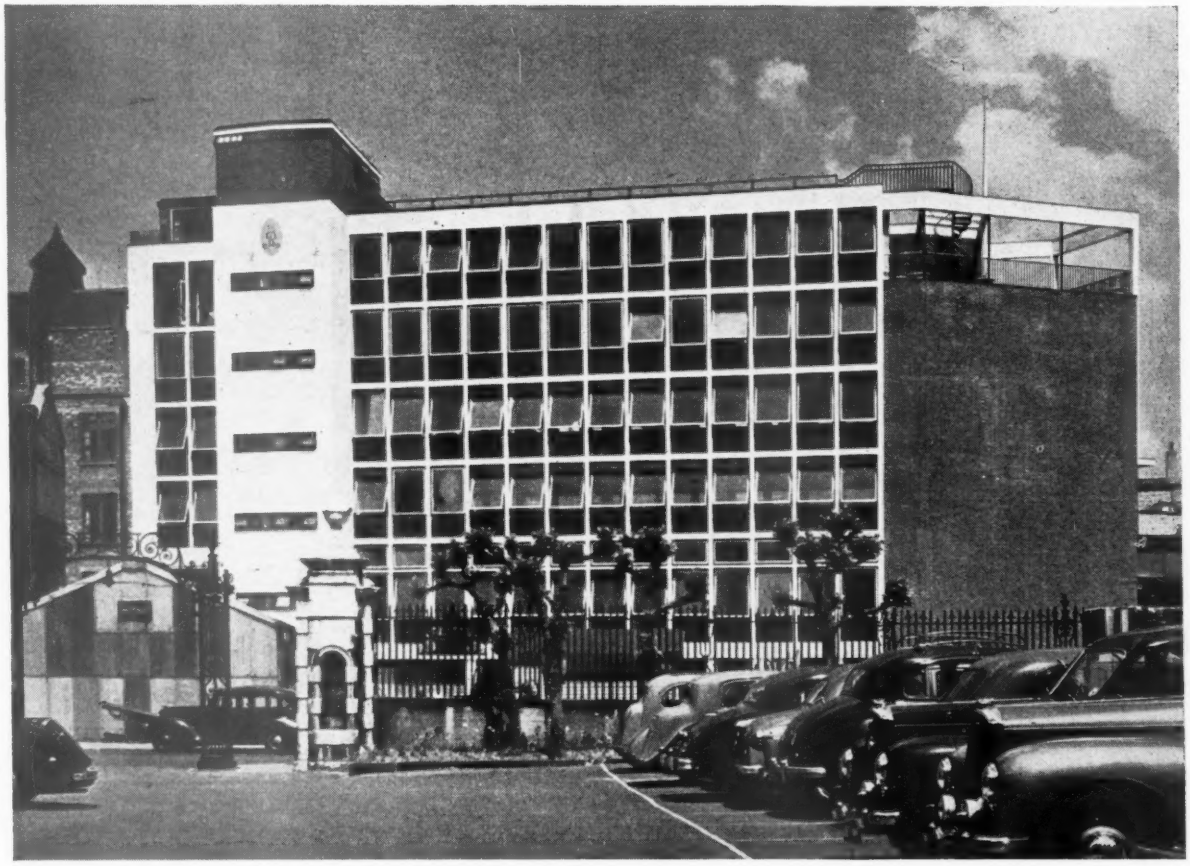

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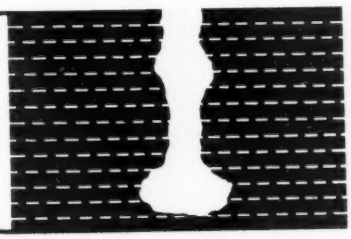

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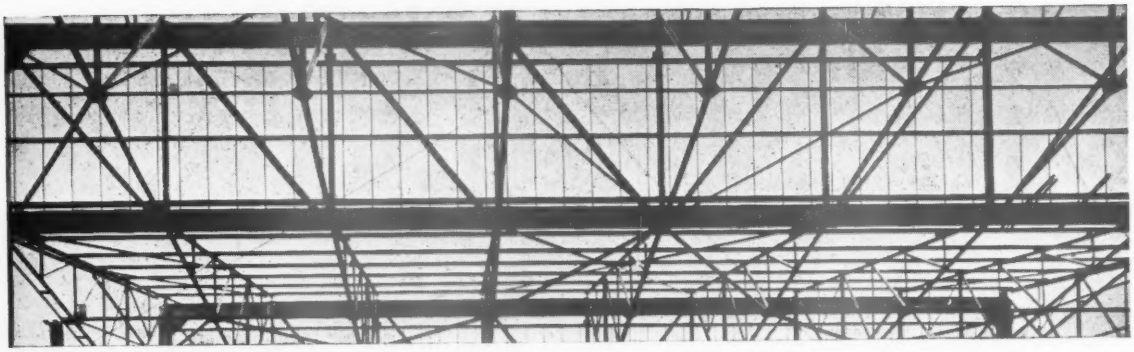

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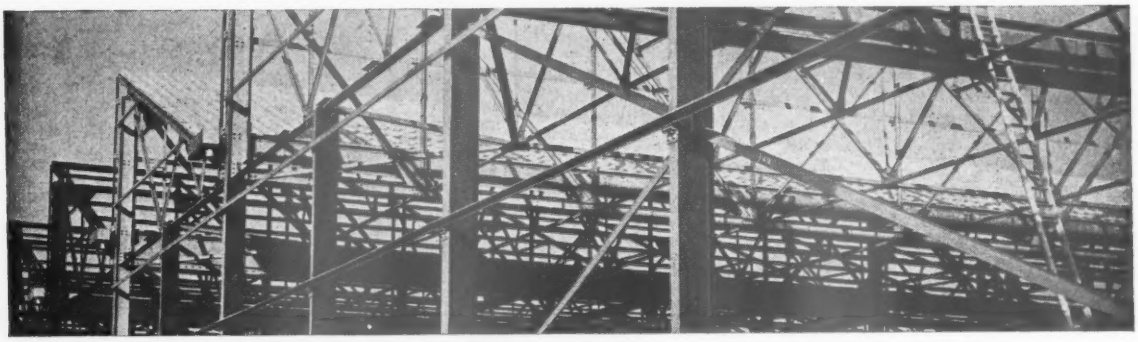

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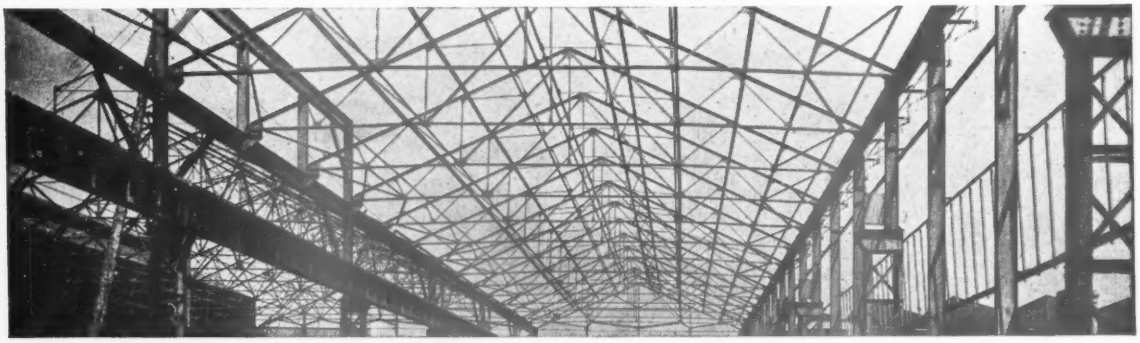

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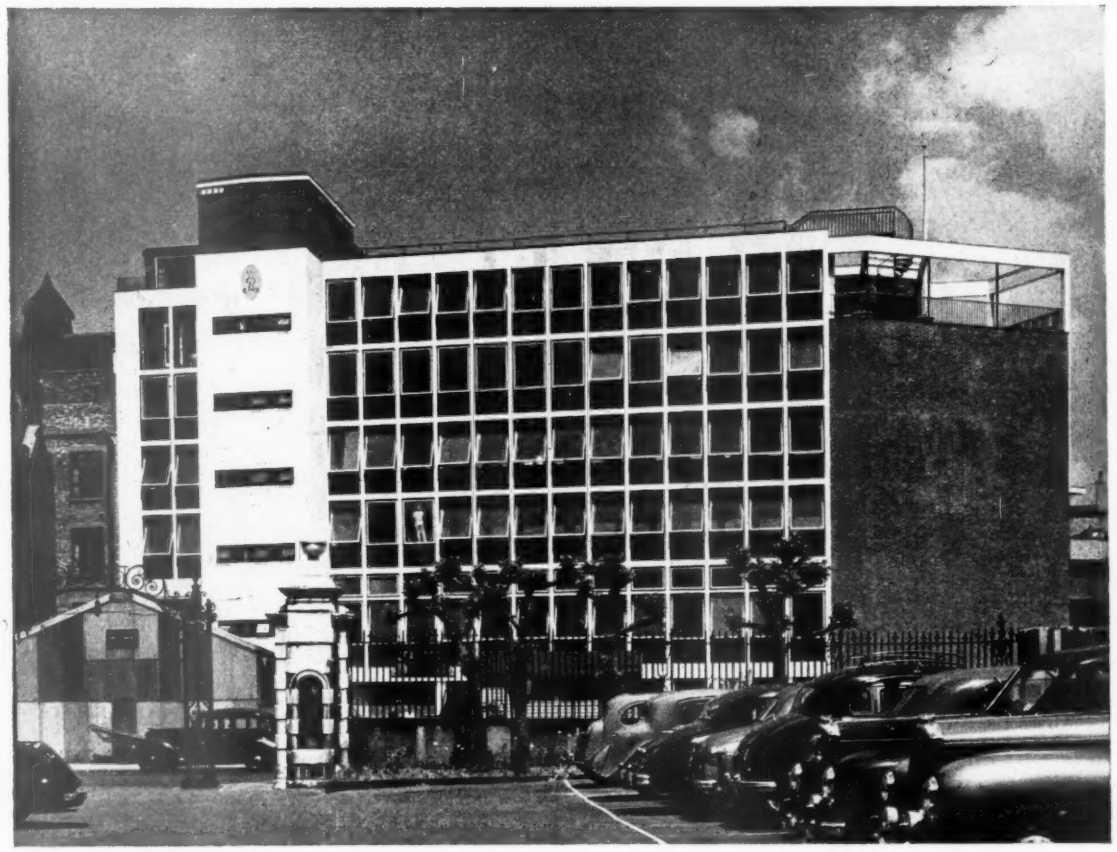

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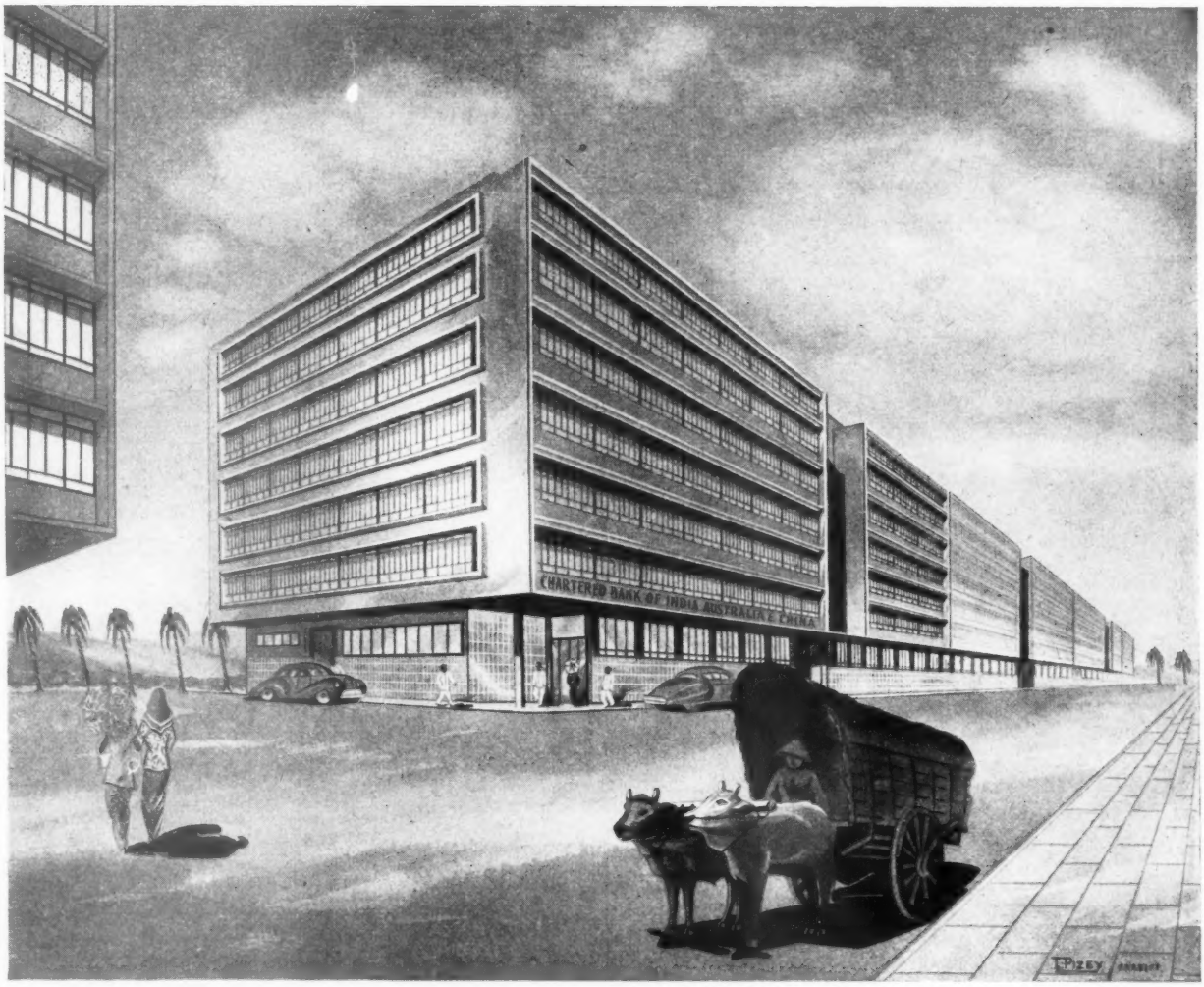

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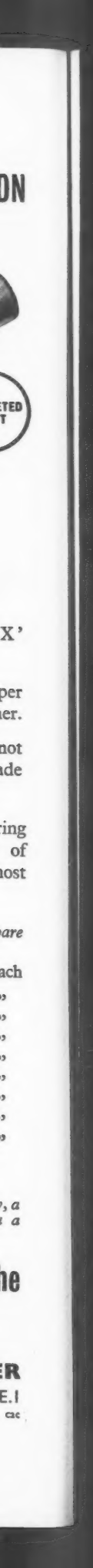

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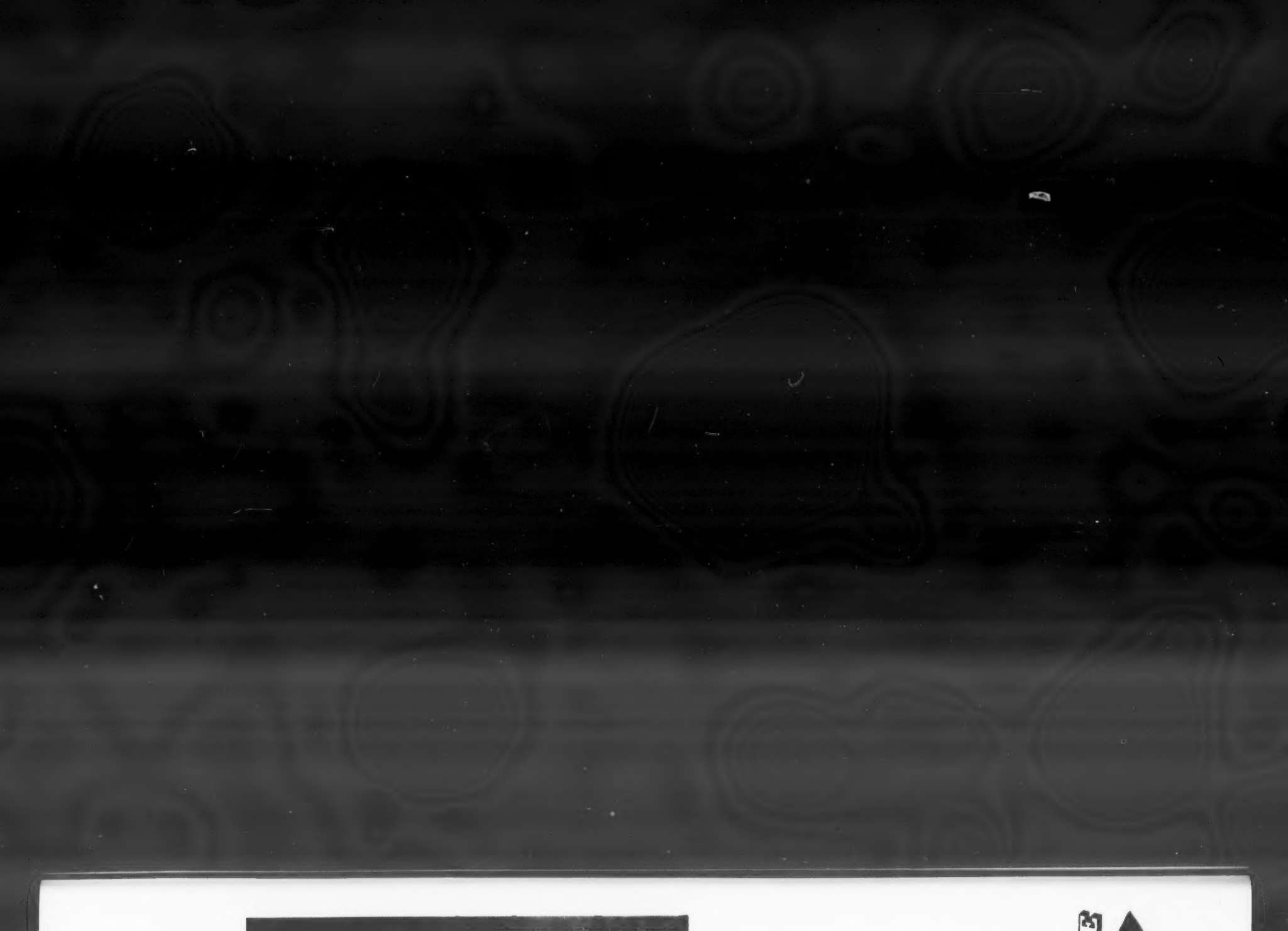

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THE ARCHITECTS' JOURNAL

9, 11 & 13, Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

No. 3095 June 24, 1954 VOL. 119

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TWENTIETH-CENTURY PATRON

Last week the JOURNAL Editors congratulated Howard Robertson and Stirrat Johnson Marshall on the honours given them in the Queen's Birthday list. ASTRAGAL, belatedly following suit, would also like to congratulate John Newsom, the Herts chief education officer, who received a CBE.

*

It is, of course, impossible to get good architecture without an intelligent, enlightened patron—and that is the part that Mr. Newsom has played so well. Before the county architects' department at Herts got into its stride, he ensured that some of the best private architects were given schools to design. He has had a tremendous influence on the planning of schools. Unlike many county education officers he goes out of his way—and makes his staff follow his example—to advise architects on educational matters which affect school design.

*

Mr. Newsom, who—as a public office equivalent to the eighteenth-century patron—has played a big part in the successful post-war programme at Herts, will be known to many readers for his wit as a speaker on radio and television.

NEW WAY WITH OLD MONUMENTS

The MOW has introduced an interesting experiment in its current Building Week at Sheffield. To supplement the usual technical exhibits the Ministry is showing a series of display panels (containing photographs, plans and brief but informative text) which tells visitors something about ancient monuments within reach of Sheffield.

*

Three buildings were chosen for this experiment (Monk Bretton Priory, Conisbrough Castle and Roche Abbey), and if the Ministry finds the experiment successful it intends to produce panels of historic buildings near other centres. After they have played their part in Building Week exhibitions, these panels can be used for educational purposes, and for arousing interest in the question of conservation of ancient monuments. Museum curators should find them useful as a background to their occasional *ad hoc* exhibitions of local antiquities.

DISENCHANTED EVENING

ASTRAGAL turned up at the discussion on the model building bye-laws at the RIBA in the hope that he would hear architects pouring out their technical troubles. But unfortunately A. J. Symons, of BRS, who led the discussion, opened with a learned account of the history of building legislation, which gave the cue to all subsequent contributors to talk out the allotted two hours with hopeless generalities.

*

At the end ASTRAGAL feared that he would scream if yet another speaker were to get up to weave jokes round the Babylonian penal code. . . .

THE FULLY-FORMED ENGINEER

A recent leader in *The Times* suggested that a Royal Academy committee might advise on the choice of a colour television system. A reasonable enough suggestion, but it has made a Mr. Stephenson (presumably an engineer) very cross. In a letter to the offending newspaper he has asked (*a*) if musicians should advise on frequency-modulated radio, and (*b*) if the safety of the proposed Severn Bridge should be left to a panel of architects.

*

The answer to (*a*) is surely yes; the answer to (*b*) is that there is an architect concerned with the appearance of the Severn Bridge, although its safety is an engineer's job. Mr. Stephenson claims that "the fully formed engineer is a compound of common sense, artistic values and technical knowledge." No doubt, but how many engineers *are* fully formed? Too many of them play around with cathode ray tubes, prattle about Angström units and think that because two curves coincide the answer is perfect.

A PAT FOR LETHABY'S BRAIN-CHILD

It is not often that the name of W. R. Lethaby is bandied about in County Hall, but that gentleman has a connection with the LCC through the Central School of Arts and Crafts, which was so largely his brain-child, and its recent diploma-day was the occasion for the invocation of his mighty name. The Central's annual prize-giving is never quite like that of other art schools, and ASTRAGAL was pleased to observe, among the usual pretty girls going up for their distinctions in pottery, fabric design and such, men students—who have long since ceased to be teenagers—going up for their diplomas in furniture and interior design.

*

Not many of these men will become independent designers, one suspects, but they are helping to build up a body of enlightened craftsmen who will make good contemporary furniture more available than it is at the moment. To ASTRAGAL'S possibly jaundiced eye, the furniture seemed by far the liveliest of the students' work exhibited at County Hall. Certainly it was chi-chi, and derivative too, but there is a way of being smart, and a way of copying, which reveals the promise of quality.

*

The Central's exhibition of industrial design is on view at the School itself, until tomorrow—and it is worth making an effort to see.

THOSE WHITE CLIFFS AGAIN

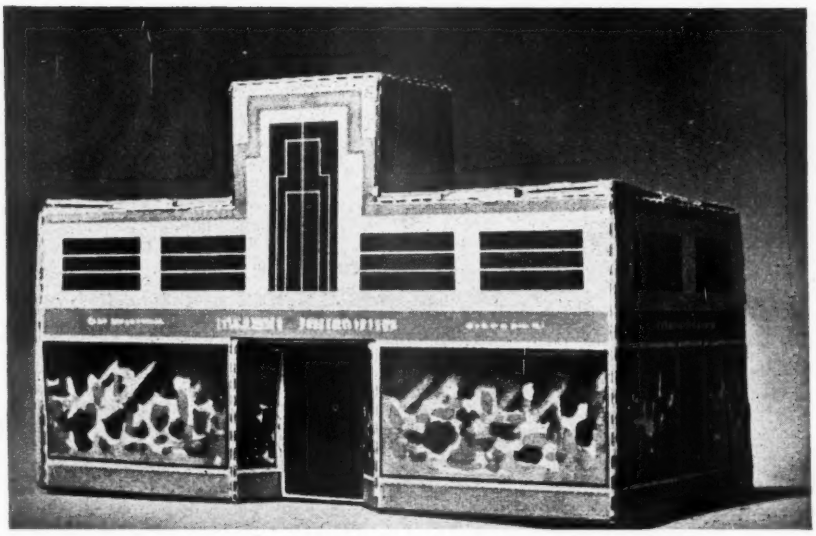
The Dover flats scheme is in the news again. A report in *The Times* says that the architects (K. Dalgliesh and R. K. Pullen) have made some alterations to the original design, and that these include "a reduction in the number of storeys from fifteen to twelve, with a corresponding reduction in height from 130 ft. to 105 ft." "The layout," says the report, "will follow a gentle curve . . . . the block of flats at the western end will be turned" (whatever that may mean), and "the turrets . . . will be eliminated." In addition "the balconies . . . will be brought forward and this, it is thought, will give emphasis to the horizontal rather than the vertical appearance of the building."

*

This revised design is approved by Arthur Kenyon, the assessor, and G. A. Jellicoe, the consultant architect for Kent CC. It remains to be seen whether or not the Kent CC and the RFAC also approve of it. In ASTRAGAL'S opinion the removal of three storeys from the high block will not alter the mock-cliff appearance of the whole scheme. And until it is clear how much of the western block is to be turned one cannot say whether or not the very relevant criticism that this type of layout cuts off the sea front from the town has been answered.

*

The town clerk of Dover is quoted as saying that the RFAC have had no practical alternative to put forward. It depends, of course, on one's interpretation of "practical," but it is hard to imagine such an intelligent body of men completely stumped for suggestions. Anyway, the moral for assessors surely is: if you are drawing up conditions for a competition on a site of national importance, make sure the RFAC agree with them.



Breakfast-table architecture. See note below.

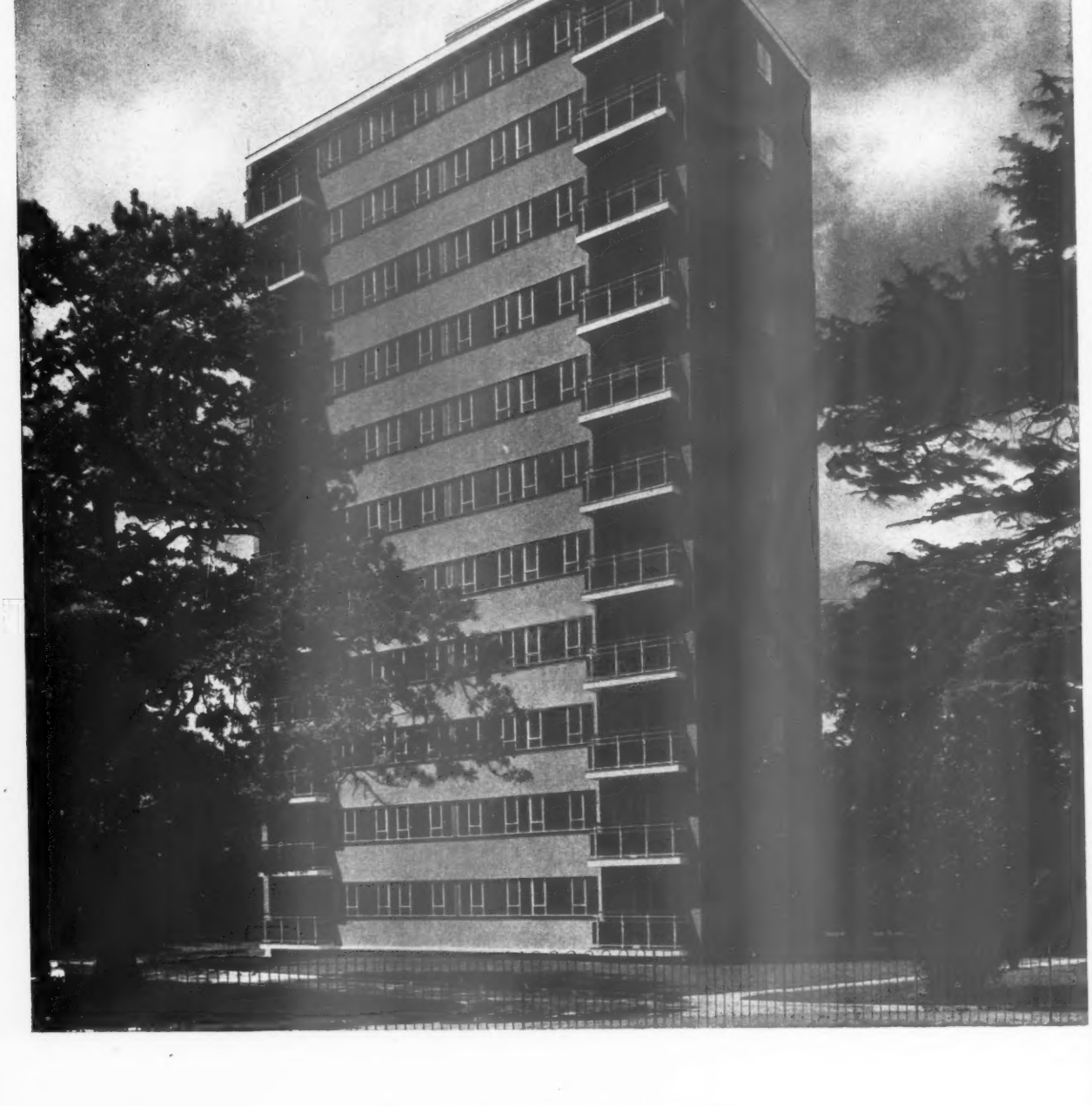
BREAKFAST-TABLE ARCHITECTURE

Those of you who follow the 30-second breakfast routine to the letter, and keep the cereal packet on the table while you eat, must have noticed the cut-outs on the packet's back—motor-cars, Red Indians and so forth—which help to relieve the tedium of the toddlers' existence, take the edge off the best scissors and cause nasty gashes in the edge of any scale-rules that get left about. A correspondent who eats a different flake to ASTRAGAL has just drawn attention to the fact that *her* packets have architectural cut-outs, whose realism is undoubted (see illustration above) but which, she feels, hardly set the younger generation a very high ideal of æsthetic value. Could not the JOURNAL, she asks, devote its front cover to simple cut-and-folds of famous masterpieces of the Modern Movement? Tut!—if one may say so.

*

If my correspondent had looked closely at the cover she would have seen a thick black rule running down the side of the tabulated information. Start cutting these out right away if you are not already doing so; they are the glazing

The winning design in the competition for flats at Dover. A modified scheme is discussed above by ASTRAGAL.



High Wimbledon

The first major scheme designed by the Housing Division of the LCC Architects Department (formed in 1950) is now nearing completion. It deserves a prominent place in architectural news for two reasons: it contains the first group of point blocks to be built in this country as well as flats which have won an MOHLG housing medal. The three eleven-storey point blocks, with their very small ground coverage, were brought into the Ackroydon estate scheme so that the pleasantly wooded site, which adjoins Wimbledon Common, could be developed at a high density without losing its character. The great success of the scheme, which is discussed opposite and illustrated on page 762, is due not only to the LCC architects, but also to planners, management and Parks Department. It is an astonishing revelation of the sort of work that *can* come from a complex government machine, and it must certainly have convinced the LCC—if it still needed convincing—of the wisdom of its action (taken some four years ago) in transferring responsibility for the design of housing from its valuer's to its architect's department.

bars of a simply enormous model of the UN building, and instructions for its erection will be published as soon as enough have been printed, *i.e.*, June 18, 1976—allowing for leap years.

THE BARGE AGROUND

ASTRAGAL spent an entrancing afternoon last week at the National Maritime Museum, an institution which is not patronized as much as it should be, perhaps because it is a little remote by West End standards. The occasion of my visit was the Thames Barge Sailing Club's show of models, pictures, records, books and other items on barges, now, alas, either dying or going diesel. This is a show that you cannot see properly in less than a full afternoon, but it goes on until September, so there is no excuse for missing it.

STEVENAGE REPORT

Stevenage Development Corporation have produced a fifty-page book* describing what they have achieved from 1945 to 1954. It is, to put it mildly, an extremely modest little book, although quite attractively produced, with photographs of the pleasant new church hall and the pub with which readers will be familiar, and aerial views showing sites before and after a two-year interval to demonstrate how rapidly the town is expanding.

*

The difficult thing about the book is to discover for whom it was written. It doesn't go out of its way to attract the attention of either industrialists or the homeless. It isn't nearly a detailed enough account to be of great value to those interested in the history of town planners—it is impossible to believe that the town has developed so smoothly and with so few doubts and second thoughts—and it has no information for architects. Nevertheless this neat, expurgated little book is there for those—not in the above categories—who want the story of the town in a nutshell.

WITHOUT COMMENT

A special correspondent in *The Scotsman* has written thus on the extensions to Heriot-Watt College:—"As the building will be largely out of the public gaze, the architect, Mr. Esmé Gordon, has been free to design in the contemporary manner."

ASTRAGAL

* *The Building of the New Town of Stevenage* is published by the Stevenage Development Corporation.

POINTS FROM THIS ISSUE

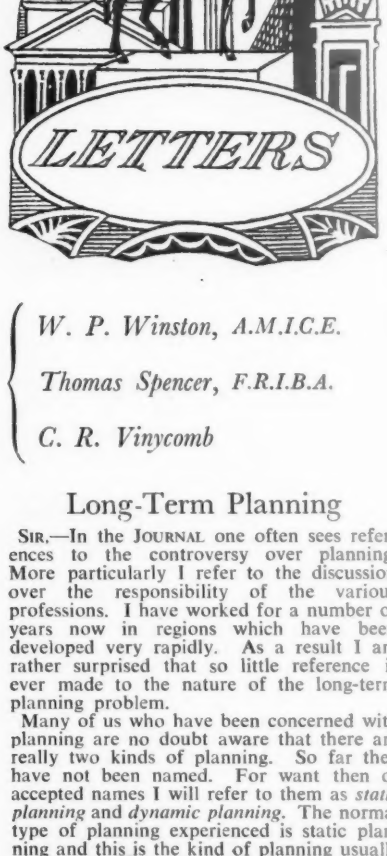
The Editors

THE LCC HOUSING DIVISION'S TRIUMPH

THE LCC's Housing Division has certainly proved its worth. The first major scheme designed by this division, which was formed in 1950, is nearing completion. The major achievement of the Division in its work on this scheme—the Ackroydon estate (see page 762) is its provision of a high density of housing while preserving the spacious and well-planned gardens which existed on the site. The chief means by which maximum density has been combined with maximum "common ground" for tenants is the use of three eleven-storey point blocks, one of which—the only one so far completed—is seen opposite. This particular block is linked to the rest of the scheme by wooded grounds which are said to have been laid out by Paxton, and it seems that both here and in other parts of the site the architects and planners have so relied on the landscape giving unity to the scheme that they have ventured to provide greater contrast between building types than they would have done on a more open site. So far each group of buildings has unity, but it must be said that there are signs that this unity may be missing in other parts of the scheme when they are completed.

It seems unlikely that the "Mark II" point block (square on plan) now under construction in the Wandsworth area will have quite the elegance of the T-shaped block now completed, and one can only assume that the T-shape is too expensive. Certainly the shape of the completed point block has been partly responsible for its unsatisfactory space-heating—by gas or electric fires. Apparently a central heating scheme was planned for Ackroydon, but it was abandoned for economic reasons—one of which, presumably, was the small number of flats (33) in each block. Another reason was that the point blocks were dispersed over the site—a dispersal that was æsthetically essential in such a place.

However, the loss of a central heating system is of small importance in a scheme which will cause all who see it to marvel that anything so handsome, and so human in scale, could come from the complex government machine.



W. P. Winston, A.M.I.C.E.

Thomas Spencer, F.R.I.B.A.

C. R. Vinycomb

Long-Term Planning

SIR,—In the JOURNAL one often sees references to the controversy over planning. More particularly I refer to the discussion over the responsibility of the various professions. I have worked for a number of years now in regions which have been developed very rapidly. As a result I am rather surprised that so little reference is ever made to the nature of the long-term planning problem.

Many of us who have been concerned with planning are no doubt aware that there are really two kinds of planning. So far they have not been named. For want then of accepted names I will refer to them as *static planning* and *dynamic planning*. The normal type of planning experienced is static planning and this is the kind of planning usually taught. I use the term *static* because this type of planning is based entirely on the use of current resources.

For example, the static type of planning is usually applied to building design and town planning. Building design is usually based on using the materials, labour and services available at the time when the design is prepared. It is difficult to do otherwise. Town planning, in its turn, allows for expansion but rather along the lines of present day development.

The idea behind *dynamic planning* is different. It is concerned with planning over a period and involves incorporating into plans the changing social and industrial pattern. It may perhaps be easiest to explain dynamic planning by giving some examples.

An outstanding example is the development of road traffic over the last thirty to forty years. In domestic architecture the garage has emerged as an essential addition to many suburban houses. In towns and cities there is the problem of providing parking space. Roads are having to be improved and congested areas have to be bypassed.

Locally domestic architecture provides examples. Much use is now made of reinforced concrete. It has taken many years to develop the techniques. It has then taken some years to develop designs which exploit the use of this material to best advantage. A similar development is now occurring with air conditioning. Air conditioning is now considered essential for cinemas but may or may not be applied to offices. In the house it is so far only acceptable in the bedroom. We have still to discover how to air condition the living room satisfactorily. I should perhaps point out that in this matter of air conditioning I am referring to the moist equatorial climate. Other difficult climates have of course been air conditioned satisfactorily.

In some quarters there is very little conception of dynamic planning and the local development of civil aviation serves to illustrate this point. For various reasons, such as the degree of development of surface communications, there is scope locally for internal air services. In recent years a number of airstrips have been built for these services. From the planning point of view the problem of siting the airstrip is often solved by siting it well clear of the town where it is claimed it will not interfere with development! In one instance an airstrip was integrated with a town in much the same way as a railway station or bus station is integrated. There was strong opposition but this was not on account of noise or flying hazards. The opposition arose because the old static type town plan had to be abandoned and it was not easy to see how to evolve a new plan.

Perhaps these examples serve to illustrate *dynamic planning* and its problems. Perhaps the absence of this concept of planning was the background to some of the criticism of the South Bank Exhibition. That exhibition was a magnificent exhibition of what Britain could do but to many of us failed to demonstrate the dynamic nature of British development. Radar on the Shot Tower in this respect would be more symbolic than the Skylon.

What I am arguing is of course but one point of view. Never the less many of us who have been concerned with long term planning, that is planning covering periods of five or ten years or more, must have been exasperated at the obstruction to our plans or by modifications. But looking back, I think possibly the root cause has been that a static plan has been modified into a dynamic one.

In this argument I have been at pains to avoid any reference to the various professions concerned with development. But now I have argued the existence of something I call *dynamic planning* it would be of interest to see how the various professions react to it.

W. P. WINSTON.

Kuala Lumpur, Malaya.

No-Driving Drive

SIR,—I was very interested, and in a way amused, to read ASTRAGAL'S remarks under "Wanted—A No-Driving Drive" (June 10). I don't know if you will remember it, but you are stirring up an old trouble which was dealt with in the JOURNAL of October 15, 1930. If you have a copy of this in your library, and will refer to page 580, you will then find the solution to this chaotic condition which was suggested at that time, but not adopted.

THOMAS SPENCER.

London.

[See illustration below.—ED.]

THE ARCHITECTS' JOURNAL for October 15, 1930

LONDON'S GARAGE PROBLEM

A Ring of Car Parks Underground

DEVISED BY THOMAS SPENCER

f cars who have been
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only for two hours

to the number of a dozen or more, situated on the perimeter of the congested area, where motorists would leave their vehicles, completing their journeys to the City by the public means of transport, already abundant, and susceptible of considerable acceleration were the roads made freer for them by the withdrawal of all private vehicles.

The garages would accommodate about 2,000 cars, and would be constructed underground. This is not a new suggestion: the idea of so using Leicester Square has recently been mooted. The use of any square, however, is open to the objection that

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Part of the article referred to in Thomas Spencer's letter.

Stand-Ins Not Wanted

SIR,—I notice that Luton Corporation has been advertising for a senior assistant quantity surveyor who is evidently expected to "double" on the work of another profession for it is stated that "A knowledge of valuations and estate work (is) an advantage."

Is this to be the thin end of the wedge in the grossly underpaid local government service whereby other professions will be expected to stand-in and understudy another man's work, e.g., architects as municipal measurers and accountants?

Quantity surveying is a distinct profession and its undue association with the landed interest is to be deprecated. I am sure that building employers and architects would hesitate to entrust their quantity surveying commissions to estate agents.

One would have thought that because an expanding municipal borough like Luton aspires to County status and one-tier government it could afford the services of either a chartered valuation surveyor or chartered auctioneer and estate agent or incorporated landed property agent.

C. R. VINYCOMB.

Luton, Beds.

RIBA

Election Results

The results of the RIBA council elections show that only one of the nominees (Ronald Bradbury), who refused to answer questions of policy put to them by the JOURNAL (see issue for May 13) was elected.

Four fellows of the RIBA who replied were elected. They were the Hon. Lionel Brett, Sir William Holford, L. C. Howitt and Richard H. Sheppard.

Two associates who replied, Professor Robert H. Matthew and W. A. Allen, were elected. And one licentiate who replied, S. Vincent Goodman, was elected.

Following are the election results:—

PRESIDENT:

C. H. Aslin (unopposed).

PAST-PRESIDENTS:

Sir Howard Robertson and Sir Percy E. Thomas (unopposed).

MEMBERS OF COUNCIL:

The following were elected:—1, Professor Sir William G. Holford (2,612 votes); 2, The Hon. Lionel G. B. Brett (1,979 votes); 3, C. G. Stillman (1,890 votes); 4, Richard H. Sheppard (1,812 votes); 5, Dr. Ronald Bradbury (1,544 votes); 6, Leonard Cecil Howitt (1,530 votes).

The following were not elected:—7, Anthony M. Chitty; 8, R. E. Enthoven; 9, Harold Conolly; 10, A. Douglas Jones; 11, T. Cecil Howitt; 12, P. G. Fairhurst; 13, Rolf Hellberg; 14, Clifford E. Culpin; 15, F. J. M. Ormrod; 16, T. E. North; 17, J. R. Edwards, N. Pyman; 19, A. R. F. Anderson; 20, W. A. Rutter; 21, T. W. Haird; 22, W. William Fisk; 23, E. B. Musman; 24, A. F. B. Anderson; 25, F. H. Risdon.

ASSOCIATE MEMBERS OF COUNCIL:

The following were elected:—1, Professor R. H. Matthew (2,588 votes); 2, Eric Bedford (1,377 votes); 3, W. A. Allen (1,358 votes).

The following were not elected:—4, Tom Mellor; 5, N. P. Thomas; 6, S. E. T. Cusdin; 7, F. F. C. Curtis; 8, L. Hugh Wilson; 9, W. D. Lacey; 10, J. T. Castle; 11, J. G. Woollatt; 12, A. Drew-Edwards; 13, D. W. Richardson; 14, S. H. Statham.

LICENTIATE MEMBER OF COUNCIL:

The following was elected:—1, S. V. Goodman (1,649 votes).

The following were not elected:—2, A. W. Vincent; 3, D. W. Joel.

The Present Council

Following is a complete list of the RIBA Council as it now stands:—

President: C. H. Aslin.

Past-Presidents: Howard Robertson. Sir Percy Thomas.

Vice-Presidents: F. Charles Saxon. (Three to be appointed by the Council on July 6.)

Honorary Secretary: (To be appointed by the Council on July 6.)

Honorary Treasurer: (To be appointed by the Council on July 6.)

Members of Council: Professor Sir Patrick Abercrombie. H. Bennett. Dr. Ronald Bradbury. The Hon. Lionel G. B. Brett. Sir Hugh Casson. J. Murray Easton. A. G. Sheppard Fidler. Professor R. J. Gardner-Medwin. Frederick Gibberd. Professor Sir William Holford. Leonard C. Howitt. Dr. J. L. Martin. S. Rowland Pierce. Richard H. Sheppard. Basil Spence. C. G. Stillman. Ralph Tubbs. F. R. S. Yorke.

Associate Members of Council: W. A. Allen. G. Grenfell Baines. Eric Bedford. D. E. E. Gibson. P. E. A. Johnson-Marshall. S. A. W. Johnson-Marshall. Professor Robert H. Matthew. Peter F. Shepheard. J. L. Womersley.

Licentiate Members of Council: B. H. Cox. S. Vincent Goodman. G. H. Morris.

The following are Representatives of Allied Societies in the United Kingdom or the Republic of Ireland.

Six Representatives from the Northern Province of England: Professor W. B. Edwards (Northern Architectural Association). G. B. Howcroft (Manchester Society of Architects). W. H. Glen Dobie (Liverpool Architectural Society). Allanson Hick (York and East Yorkshire Architectural Society). N. H. Fowler (West Yorkshire Society of Architects). H. A. Hickson (Sheffield, South Yorkshire and District Society of Architects and Surveyors).

Five Representatives from the Midland Provinces of England: S. T. Walker (Birmingham and Five Counties Architectural Association). C. C. Ogden (Leicestershire and Rutland Society of Architects). H. D. Williams (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects). F. H. Crossley Nottingham, Derby and Lincoln Society of Architects). B. W. J. Olley (East Anglian Society of Architects).

Six Representatives from the Southern Province of England: J. Vyvyan Salisbury (Devon and Cornwall Society of Architects). (One representative to be nominated by the Wessex Federal Society of Architects.) D. Booth (Berks, Bucks and Oxon Architectural Association). J. B. Brandt (Hampshire and Isle of Wight Architectural Association). H. Mileson (Essex, Cambridge and Hertfordshire Society of Architects). G. Crump (South Eastern Society of Architects).

Four Representatives of Allied Societies in Scotland: nominated by the Council of the Royal Incorporation of Architects in Scotland: T. S. Cordiner (Glasgow). W. A. P. Jack (Glasgow). L. Grahame MacDougall (Edinburgh). T. W. Marwick (Edinburgh).

One Representative of Allied Societies in Wales: L. R. Gower (South Wales Institute of Architects).

Two Representatives of Allied Societies in Ireland: L. P. Tierney (Royal Institute of the Architects of Ireland).

One representative to be nominated by the Royal Society of Ulster Architects.

The following are Representatives of Societies in alliance with the Royal Institute Overseas: R. Schofield Morris (The Royal Architectural Institute of Canada). Thomas E. Scott (Representative in the United Kingdom). To be appointed: The Royal Institute of Architects. A. Graham Henderson (Representative in the United Kingdom). J. I. King (New Zealand Institute of Architects). R. H. Uren (Representative in the United Kingdom). To be appointed: The Institute of South African Architects. To be appointed: Representative in the United Kingdom. M. K. Jadhav (The Indian Institute of Architects). Stuart Bentley (Representative in the United Kingdom).

Representative of the Architectural Association (London): Bryan P. Westwood.

Representative of the Association of Building Technicians: Kenneth J. Campbell.

Chairman of the Board of Architectural Education: P. G. Freeman.

Chairman of the RIBA Registration Committee: Howard V. Lobb.

Two Representatives of the RIBA Salaried and Official Architects' Committee: (To be appointed).

Chairman of the RIBA Allied Societies' Conference: F. Charles Saxon (Chester).

Health Conference

A two-day conference on the design of health buildings is to be held at the RIBA on October 21 and 22. The conference is open to members of the RIBA who apply in advance for tickets. Tickets will cost 10s. each. (This includes morning coffee and tea on both days, programmes and advance copies of the conference papers.)

The following are the arrangements for the four sessions into which the conference will be divided:—*Thursday,* October 21: Morning Session, 10.30 a.m. C. H. Aslin, President of the RIBA, in the chair. Opening address by the Minister of Health, Iain Macleod. Talk on "The Organization of the Health Service in relation to the Provision of Health Buildings," by Sir John Charles, Chief Medical Officer, Ministry of Health.

Afternoon Session, 2 p.m. J. H. Forshaw in the chair. Papers dealing with the general design problems of the hospital from the architectural point of view, by R. Llewelyn Davies, Director, Division of Architectural Studies, The Nuffield Foundation, and M. E. Molander, Director, The Central Hospital Planning Bureau, Sweden.

Friday, October 22: Morning Session, 10.30 a.m. Maxwell C. Tebbitt in the chair. A paper dealing with the hospital from the nursing point of view, by Miss T. Turner, of the Royal College of Nursing, Birmingham.

A paper dealing with the hospital from the medical point of view, by J. O. F. Davies, Senior Administrative Medical Officer, Oxford Regional Hospital Board.

Afternoon Session, 2 p.m. Donald A. Goldfinch in the chair.

Donald A. Goldfinch, architect to the Birmingham Regional Hospital Board, will sum up the papers given during the previous sessions and this will be followed by a general discussion.

Members of the RIBA are asked to apply for tickets as soon as possible. Applications (enclosing cheque or postal order) should be addressed to the Secretary, RIBA, 66, Portland Place, W.1. Envelopes should be marked "Hospitals Conference" in the top left-hand corner.

N.Z. OFFICES

Designer to be Robert Matthew

Professor Robert H. Matthew, who holds the Chair of Architecture at Edinburgh University, and was previously Architect to the LCC, has agreed to prepare designs for the £1m. New Zealand Government offices, in London, to be built on the site of the Carlton Hotel.

A start will be made on preparation of the site in 1958, when tenancies in the Carlton will have ended.

RSA

Albert Medal awarded to Sir Ambrose Heal

The gold Albert Medal of the RSA has been awarded for 1954, with the approval of H.R.H. The Duke of Edinburgh, President of the Society, to Sir Ambrose Heal "for services to Industrial Design." The Albert Medal was instituted by the RSA in 1864 to commemorate the 18 years' Presidency of the Prince Consort, and is awarded annually for distinguished merit in promoting arts, manufactures or commerce.

Sir Ambrose, who is 81 years of age, is, of course, head of Messrs. Heal & Son Ltd., the furniture manufacturers in London. He himself is a cabinet-maker by training, and exhibited his first suite of furniture in 1896. He has since become a pioneer in the development of improved design in this country during the first half of the present century.

In 1939 the council of the Royal Society of Arts recognized the quality of Sir Ambrose's work as a designer by appointing him a Royal Designer for Industry.

BOOK DESIGN

Architectural Press Books in Exhibition

Among the eighty-six books selected for display at the National Book League's annual exhibition of book design, at 7, Albemarle Street, London, in September, are three published by the Architectural Press.

They are: *Town Design* (published at £3 13s. 6d.), by Frederick Gibberd; *Architects' Working Details, 1* (£1 1s.), edited by D. A. C. A. Boyne, and *Modern Gardens* (£1 16s.), by Peter Shepheard.

DIARY

Drawing as Communication (Triumphs and Obscurities of Mechanical Draughtsmanship). Illustrated lecture by Reyner Banham, Chairman, Ove Arup. At the ICA, 17, Dover Street, W.1. 8.15 p.m. JUNE 24

Designed and Manufactured. Industrial Design Exhibition at the LCC Central School of Arts and Crafts, Southampton Row, W.C.2. UNTIL JUNE 25

Annual General Meeting of the Library Group. At the RIBA, 66, Portland Place, W.1. 6.0 p.m. JUNE 28

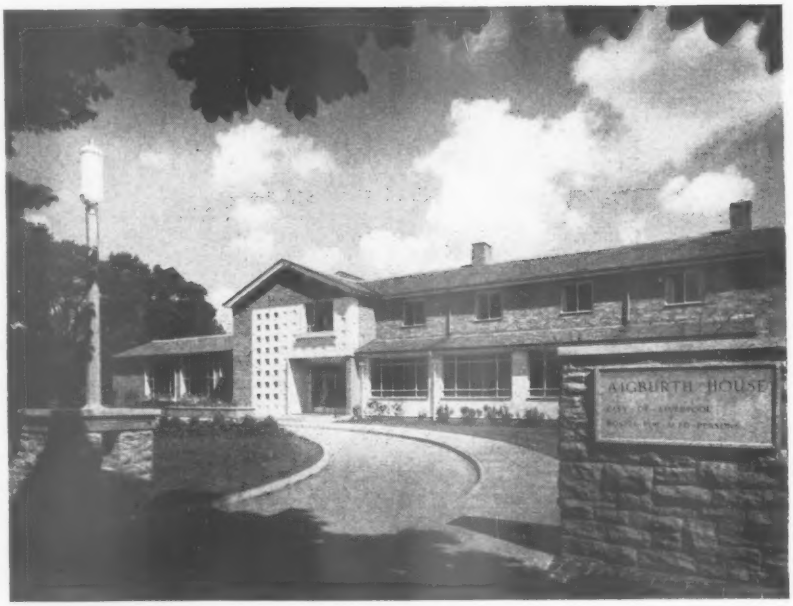
Presentation of the Housing Medal Awards for 1954. By Harold Macmillan, Minister of Housing and Local Government. At the RIBA, 66, Portland Place, W.1. 3 p.m. JUNE 30

A Policy for the AA. Meeting for members only. At the AA, 34, Bedford Square, W.C.1. 7.30 p.m. JUNE 30

BRS Exhibition. The exhibition prepared by the BRS for the British Architects' Conference, Torquay. At the RIBA, 66, Portland Place, W.1. JULY 3 TO 17

The Production Exhibition and Conference. The Institution of Production Engineers. At the National Hall, Olympia. JULY 7 TO 14

BUILDINGS IN THE NEWS

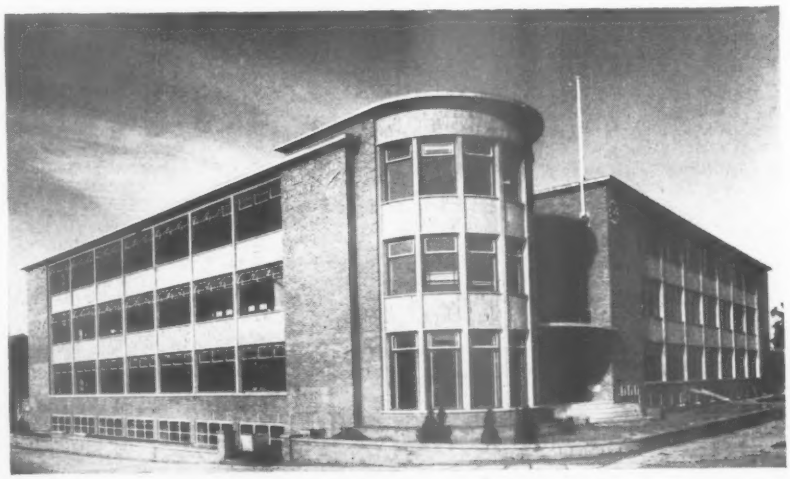


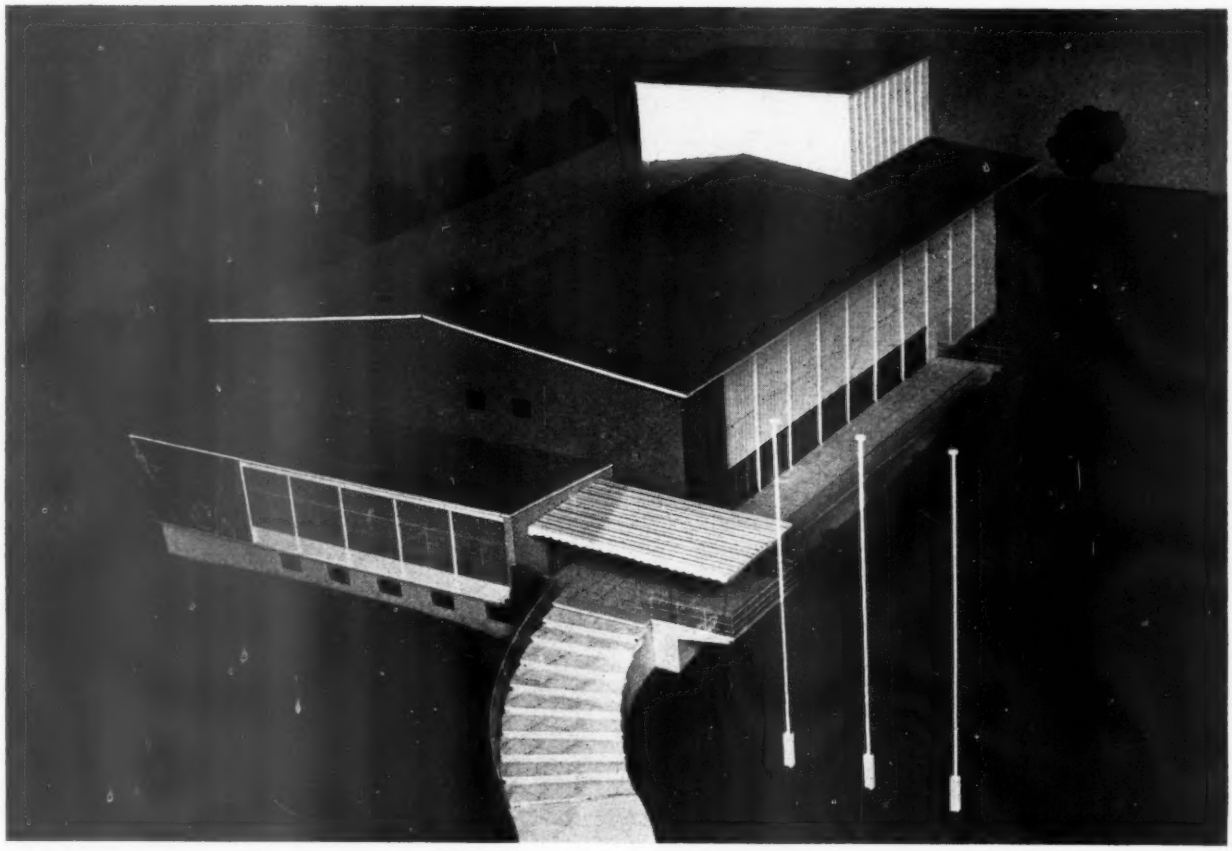
Old People's Hostel, Liverpool

Aigburth House, a recently-completed hostel in Liverpool, was designed by the city architect, Ronald Bradbury, in collaboration with the city's medical officer of health. It accommodates fifty elderly men and women in thirty-six single bed-sitting rooms, five double bedrooms and one four-bedroom. The matron has a self-contained two-bedroom flat and other members of the staff each have a bed-sitting room.

Office Building, Southall

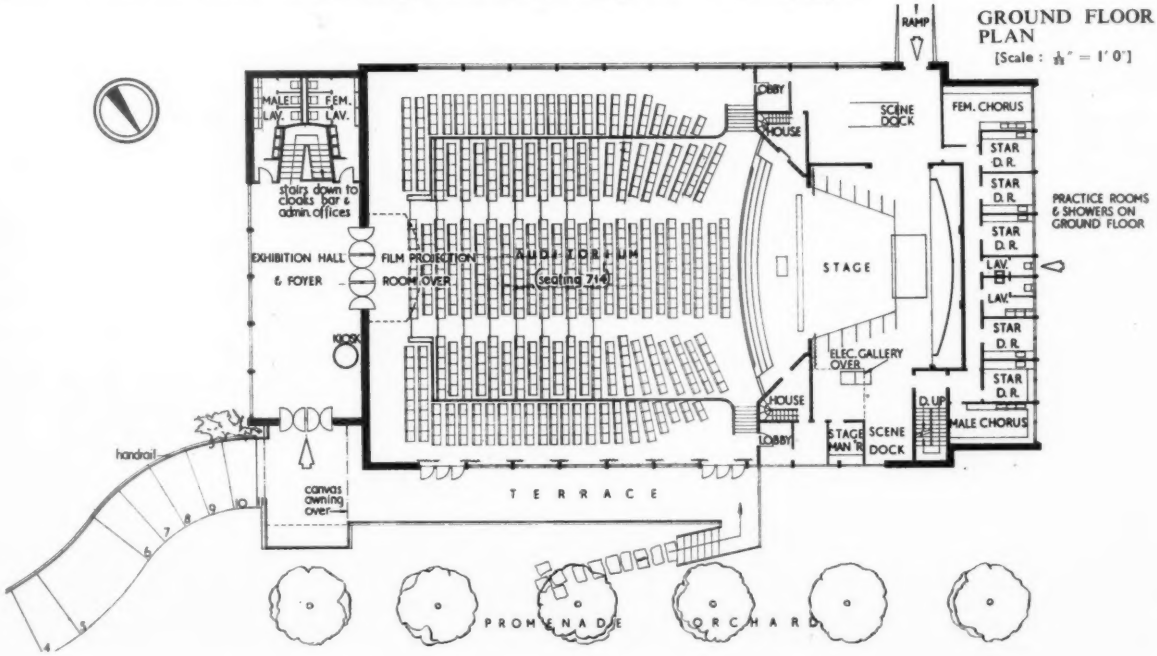
This office building at Southall, Middlesex (for Taylor Woodrow Ltd.) was designed by A. V. J. Kirkham and M. R. Dumville, of Elliott, Cox and Partners, in collaboration with a consulting engineer, H. G. Cousins. The building is of reinforced concrete. A single-storey office section, behind the multi-storey parts shown here, is of barrel-vault construction with continuous lantern lights. In the multi-storey section, heating, lighting and telephone facilities have been arranged so that subdivision can be easily made if required.





Opera House for Aldeburgh

Ian Warwick's project for a 714-seat opera house for Aldeburgh, home of the English Opera Group's annual festival, was on view in the town during this year's festival week, which has just finished. Seating is so arranged that a smaller audience—in the lower centre section—will not experience "a loss of intimacy." The exhibition hall-cum-foyer, of traditional construction, is on the sea side of the building. The stage consultant was Michael Northern. Steel stanchions support tubular steel roof trusses. External cladding, asbestos sheeting; internal, wood-wool and plaster. Proscenium, fibrous plaster. End wall, fair-face brick. Floor, wood block covering. Roof, asbestos cavity decking, covered with roofing felt.



FLATS

on the ACKROYDON ESTATE, WANDSWORTH, LONDON, S.W.19

for the LONDON COUNTY COUNCIL,

architect to the Council DR. J. L. MARTIN, in succession to ROBERT H. MATTHEW

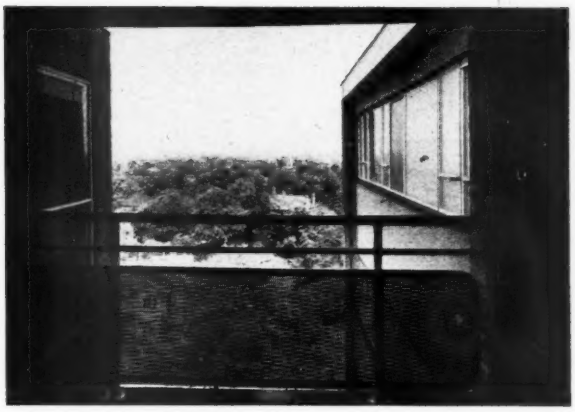
principal housing architect, H. J. WHITFIELD-LEWIS; assistant housing architect, MICHAEL POWELL,

architect-in-charge, H. G. GILLETT; assistant architect, A. P. ROACH,

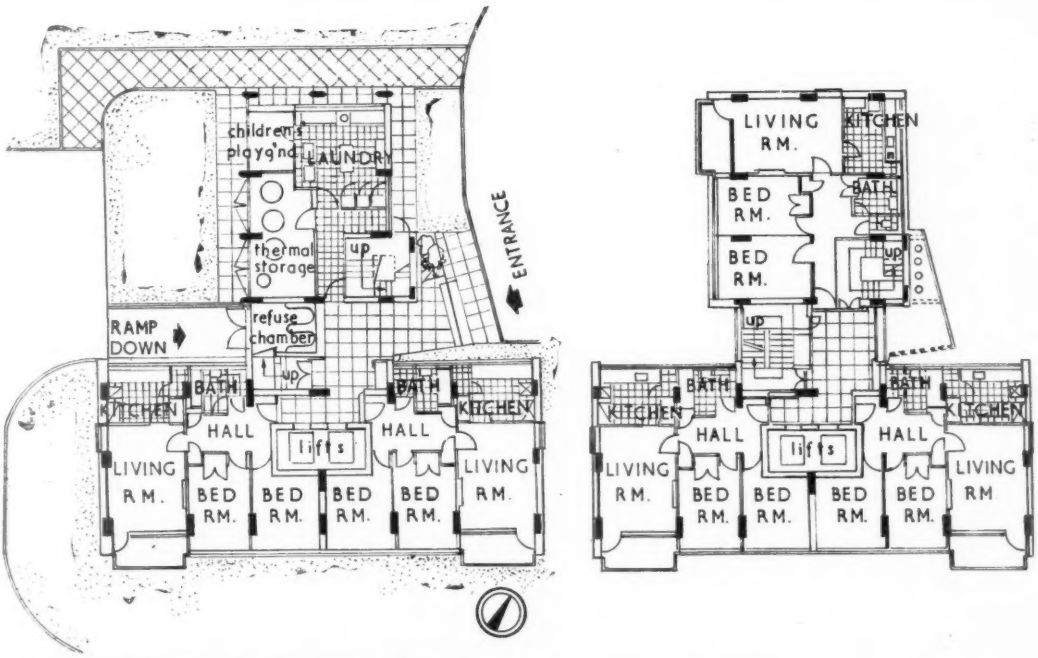
consulting engineers, BYLANDER and WADDELL; quantity surveyors, FRANK N. FALKNER and PARTNERS

The Ackroydon Estate, Wandsworth, is one of the LCC's first mixed development schemes and includes flats, maisonettes, houses and shops, varying in height from two to eleven storeys. The first of three 11-storey point blocks was opened on June 9. It is the forerunner of point blocks of a different type on LCC estates being developed in the Putney-Wimbledon area. The group of three-, four- and five-storey balcony access flats in the south-west corner of the site, illustrated on pages 766-769, have been awarded a 1954 Housing Medal by the MOHLG. These flats, grouped round a quadrangle, can be seen in the photograph below. (See also frontispiece, page 756, and editorial, page 757.)

Looking south from the top of the 11-storey point block.



Above, entrance to block 1, the first 11-storey block. Above right, view from the top floor landing of block 1, looking north-east.



Ground and typical upper floor plans, point blocks [Scale: $\frac{1}{16}$ = 1' 0"]

KEY

1-3. 11-storey flats.

4. 8-storey flats.

5, 6, 9. 5-storey flats.

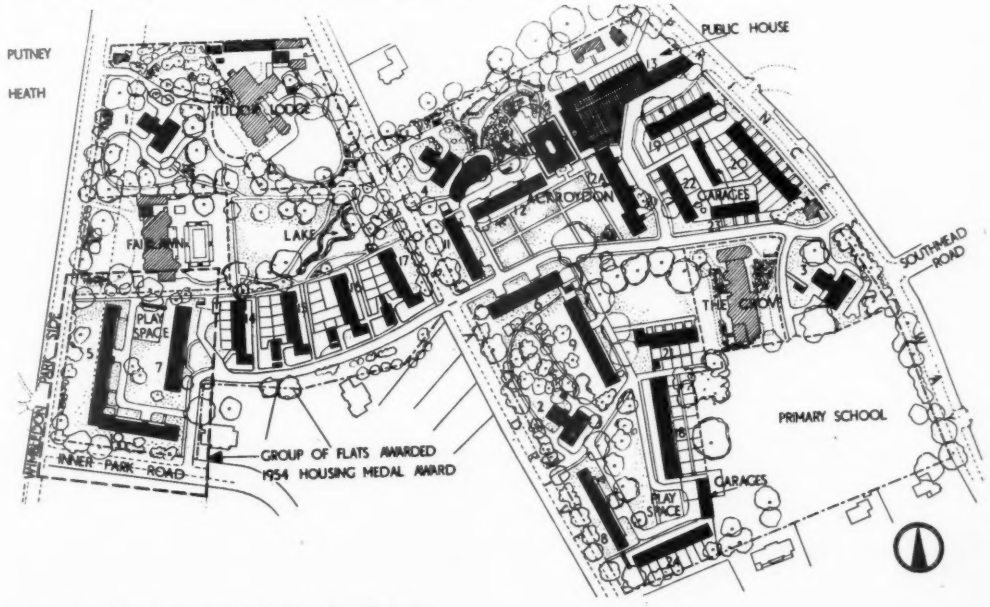
7. 4-storey flats.

8 10, 11, 12, 12A 3-storey flats.

13. Shops and maisonettes

14-21. 4-storey maisonettes.

22-24. 2-storey houses



Site plan (the Grove has now been demolished)

Left, block 1 from the south-west. On the right the south staircase window. Above, staircase in this block, from the eleventh floor.

SITE.—The site, which is 16·5 acres and is 170 ft. above sea level, is bordered by Wimbledon Park Side and Putney Heath to the west and Princes Way to the east. The main object of the mixed development of tall point blocks and flats, maisonettes and houses in blocks of 2, 3, 4 and 5 storeys, was to preserve as much as possible of the landscaping, some of which is said to have been designed by Paxton. There will be 24 blocks, containing 446 dwellings with 1,436 habitable rooms. This provides a density of 27 dwellings and approximately 100 persons to the acre. The site also contains a number of large Victorian and Edwardian properties, two of which flank the first point block in the north-west corner of the site: Tudor Lodge is now used as a LCC children's home, Fairlawn is to become a LCC home for the blind. The development to the east of Victoria Drive which includes shops, garages and a public house, is still under construction and will be illustrated later.

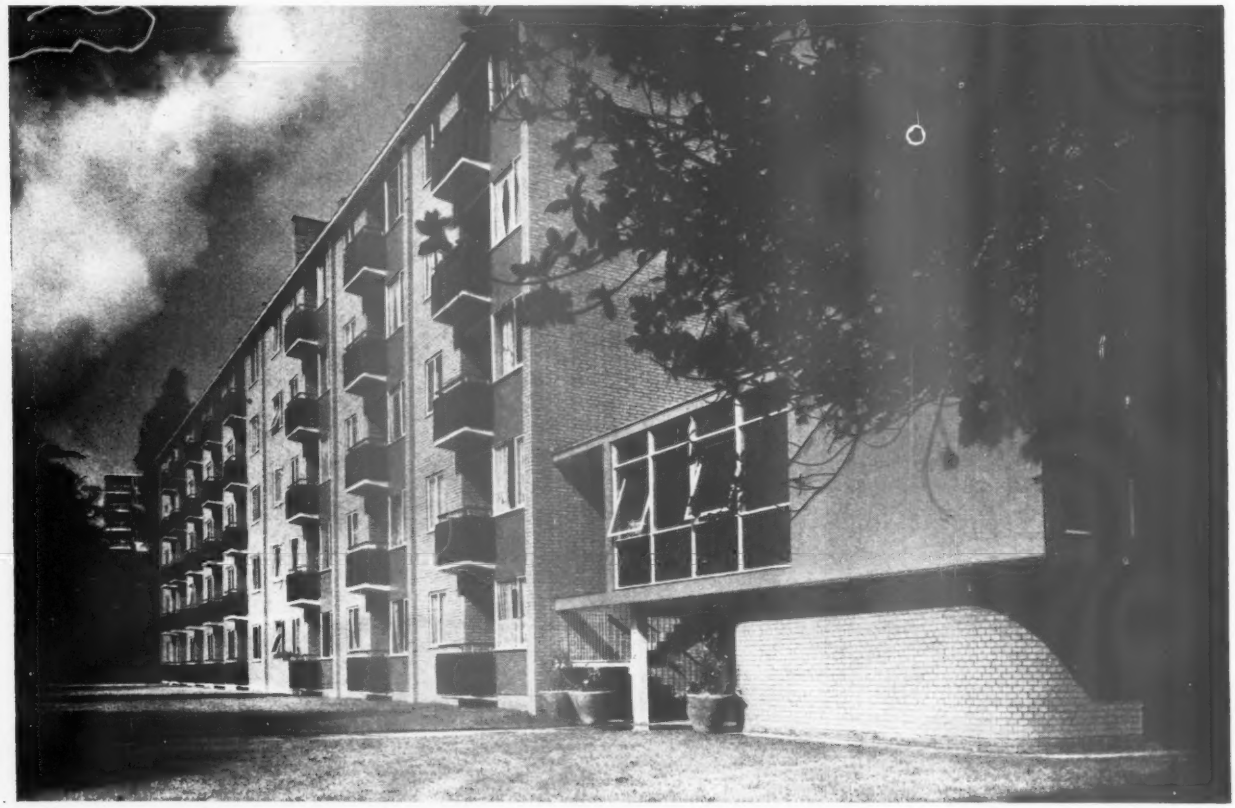
PLAN.—In the point block (1) each floor, except the ground floor, is identical and contains three two-bedroom flats. The ground floor contains two flats, a communal laundry, with separate room for hot water storage, and a children's playroom. There is a pram store and prams can be taken in the lifts. Blocks 5, 7 and 10 contain balcony access flats of varying sizes from bed-sitting room type to three bedrooms. There are lifts in block 5 and block 7. Every flat has a semi-recessed private balcony. In the point block the kitchens are placed so that children playing in the living room or on the balcony can be seen through a glazed door and panel which separates the kitchen from the living room.

Above, the point block (1) from the south-west. In the centre is the south staircase window. Left, from the south, block 7 (4-storey flats) on the left and block 14 (4-storey maisonettes) on the right. In the backgrounds is the point block.

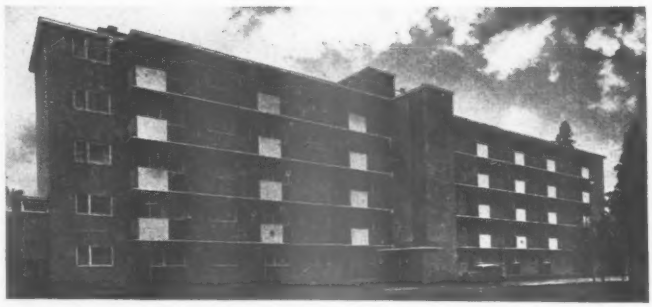
FLATS

on the ACKROYDON ESTATE, LONDON, S.W.19

DR. J. L. MARTIN, architect to the LCC



Above, block 5 from the south-west. On the right is the communal laundry linking blocks 5 and 10. The point block (1) can be seen in the background. Right, the east facade of block 5.

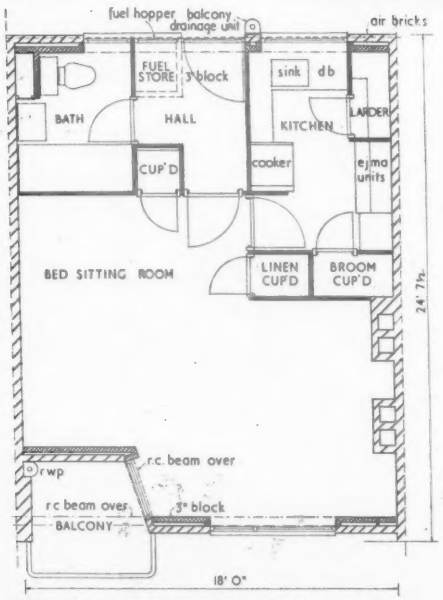


CONSTRUCTION.—The point block has a reinforced concrete frame with columns of 48 in. by 12 in. below ground floor and decreasing in stages above this level to 18 in. by 9 in. at top storey level. The width remains constant (at 9 in.) above ground to simplify external wall con-

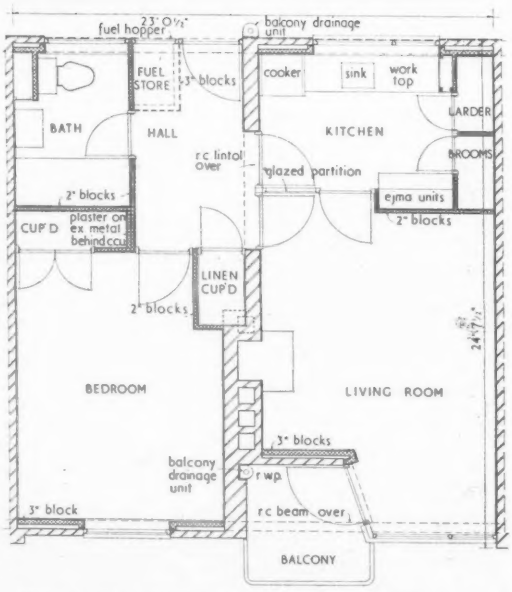
FLATS

on the ACKROYDON ESTATE, LONDON, S.W.19

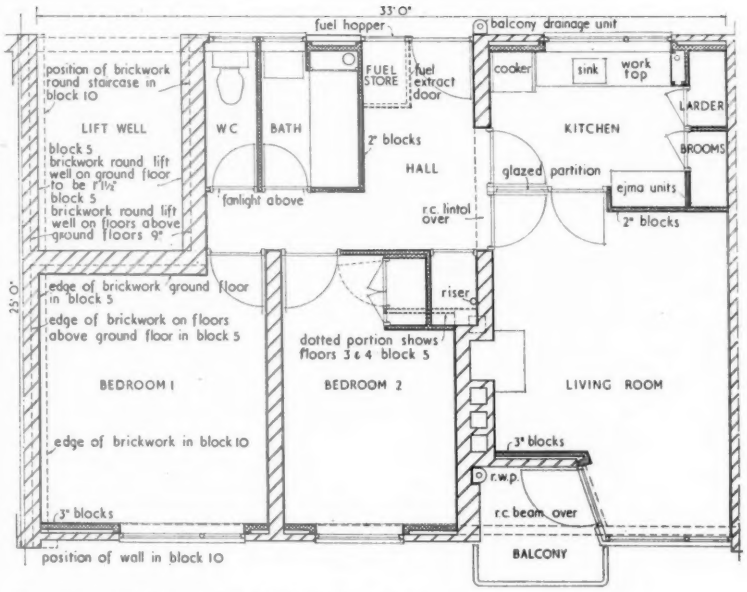
DR. J. L. MARTIN, architect to the LCC



Plan of typical 1-room flat, blocks 5, 7 and 10
[Scale : $\frac{1}{8}$" = 1' 0"]



Plan of typical 2-room flat, blocks 5, 7 and 10

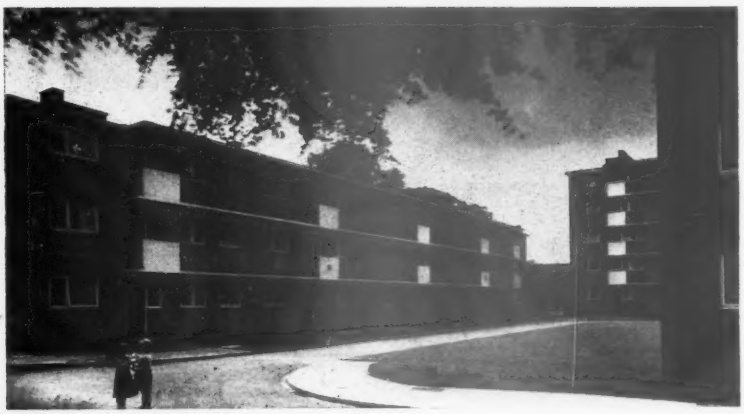


Plan of typical 3-room flat, blocks 5, 7 and 10 [Scale : ⅛" = 1' 0"]

Below, a view from under the communal laundry linking blocks 5 and 10. In the centre is block 7.

struction. There are 4½ in. thick solid r.c. floors and roof. Foundations have independent bases to each column. Balconies are a continuation of the floor slab. As the floor slabs are cantilevered beyond the line of the columns, walls become curtain walls externally and allow the use of windows to the full width of rooms. External walls are of cavity construction with a 4½-in. flint brick outer skin, 2-in. cavity and 4¼-in. clinker block inner skin. Concrete aprons under windows are cast in with the floor slabs and lined with 3-in. woodwool internally for thermal insulation and as permanent shuttering. The medal award blocks 5, 7 and 10, are of calculated load-bearing brick cross walls 9 in. thick, except for end walls which are 13½ in. thick. Infilling walls are of cavity construction with an outer skin of 4½-in. brick, 2-in. cavity and 3-in. clinker block inner skin. Balconies are cantilevered from a r.c. edge beam spanning between cross walls. Floors and roofs are like those of the point block.

FINISHES.—In the point block external finishes include flint facing bricks, panels of rendered concrete and metal windows which have standard opening lights alternating with purpose-made fixed lights using standard sections. Balconies have 2-in. thick tubular steel uprights with perforated metal panels and a hardwood handrail. One side of the balcony recesses is painted deep red. Internally, partitions are mostly of 2-in. clinker blocks. Walls are distempered in living rooms and bedrooms and finished with emulsion paint in kitchens and bathrooms. Staircases have one wall painted yellow. Floors are finished with thermoplastic tiles throughout the flats and granolithic on landings and staircases. Internal doors are flush, and front doors to flats are glazed and painted red, blue or yellow. Kitchens are equipped with a porcelain



Two views of the balcony access flats. Top, the west facade of block 7, with block 10 in the background. Above, from left to right, blocks 10, 5 and 7, seen from the north-east.

FLATS

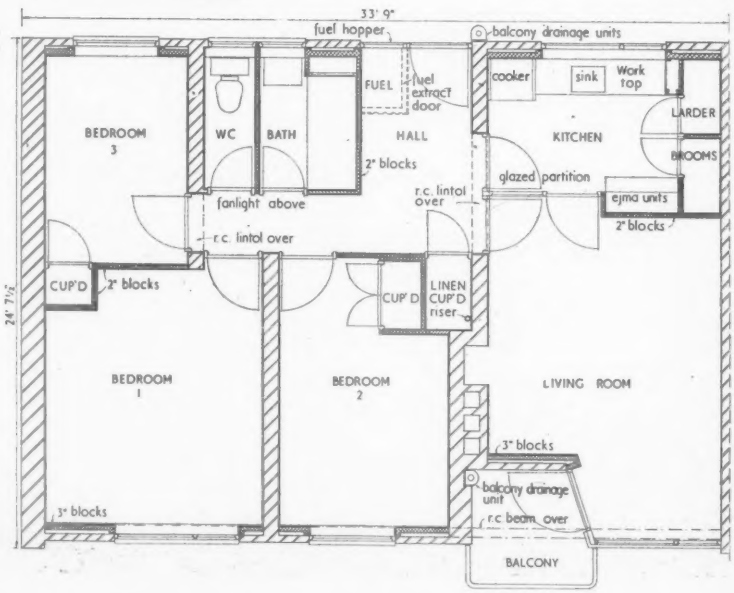
on the ACKROYDON ESTATE, LONDON, S.W.19

DR. J. L. MARTIN, architect to the LCC

sink, hardwood draining board, dresser unit and a larder with ventilation to the open air. The lift shaft is of cavity wall construction for sound insulation and all floors are insulated by layers of glass fibre. In blocks 5, 7 and 10, wood windows are used, either centre- and side-pivoted or side-hung casements to LCC designs. Private balconies have hardwood vertical slats fixed to a tubular steel frame and access balconies have wrought iron railings and concrete upstands opposite entrance doors. The rendered clinker block panels under living room windows are coloured khaki (No. 23 in the Munsell range). Flint facing bricks are used.

SERVICES.—Point block living rooms have gas fires giving convection and radiant heat. There are electric radiant heaters over kitchen draining boards. Hot water is provided by an electric immersion heater unit under draining boards. Communal laundries are provided on the ground floor of the point block, with a room where electric storage cylinders heat water during off-peak periods, and also in a separate block, with pram store under, linking blocks 5 and 10. Although exact costs are not yet available, the estimated total cost of the whole development, including site works and planting, is approximately £1,000,000. The estimated average cost per liveable room in the point block is £700 and in the maisonettes, which will be illustrated in a later issue, £425 per room. As an economy each lift in the point block stops only on alternate floors. In the point block the rents are 27s. and 27s. 9d. per week, excluding rates.

The general contractors are Tersons, Ltd. For sub-contractors, see page 782.



Plan of typical 4-room flat, b'ocks 5, 7 and 10
[Scale ⅛" = 1' 0"]

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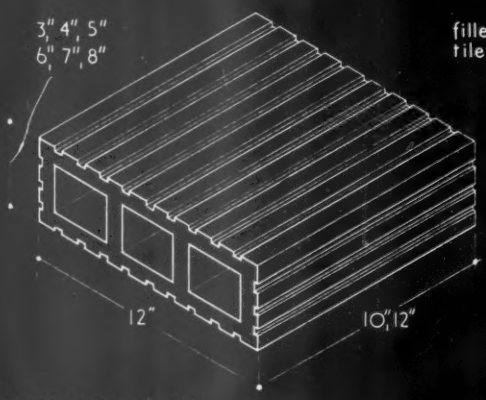
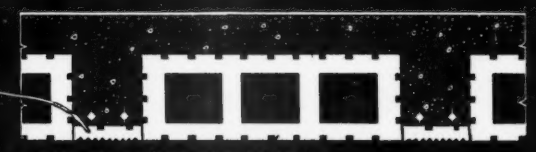
For

BUILDING BLOCKS | HOLLOW CLAY | GENERAL DATA

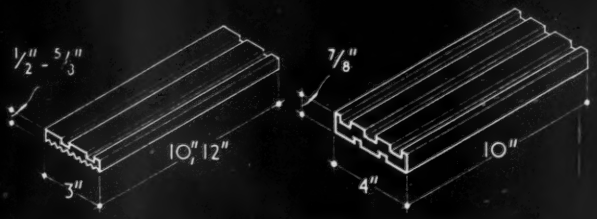
The Architects' Journal Library of Information Sheets 473. Editor: Cotterell Butler, A.R.I.B.A.



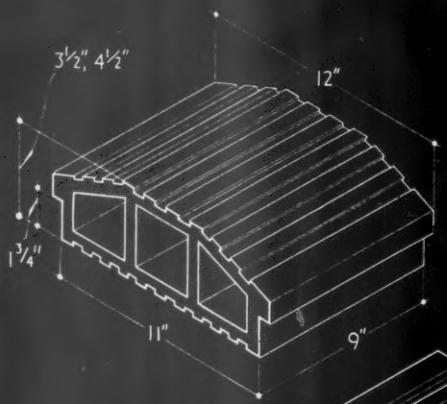
STANDARD BLOCK.

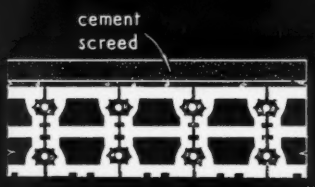


application of standard block

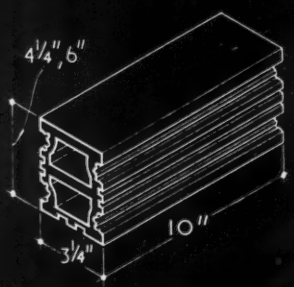


FILLER TILE. PANEL HEATING TILE.

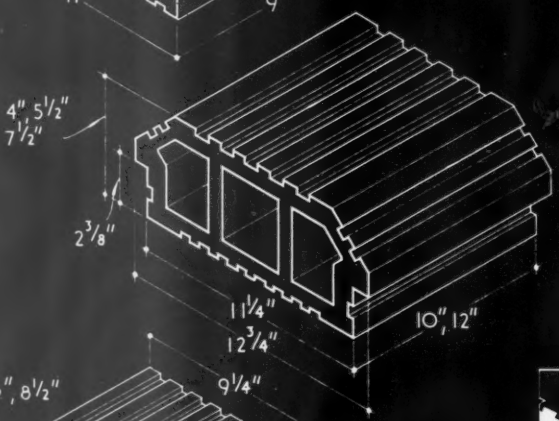


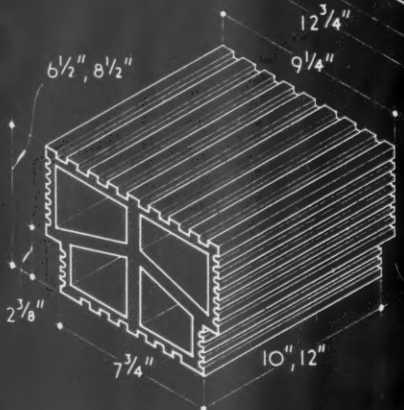


application of clay block unit

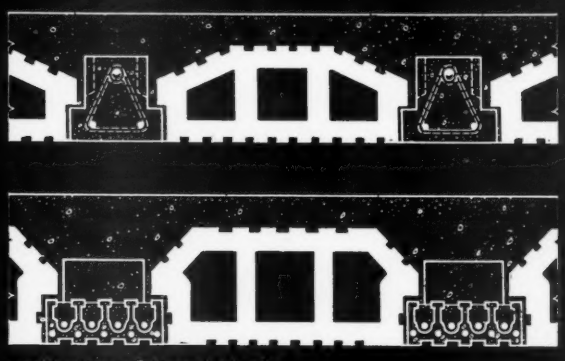


CLAY BLOCK UNIT.





LIPPED BLOCKS.



application of lipped blocks

·PHORPRES· HOLLOW CLAY BLOCKS FOR FLOORS.

Manufacturer: London Brick Company Limited.

14.B3 'PHORPRES' HOLLOW CLAY BLOCKS FOR FLOORS

This Sheet, together with Sheets 14.B1 and 14.B2, supersedes Sheet 14.B1 published 15.5.52, and describes Phorpres hollow blocks for floors. Sheet 14.B1 deals with Phorpres blocks for walls and partitions and Sheet 14.B2 with walls.

Materials

Phorpres floor blocks are manufactured from gault (buff in colour) and also weald clay (terra cotta in colour), the latter being a high quality engineering clay.
The clays are extensively tempered and extruded into hollow blocks which are then entirely mechanically handled throughout a strictly controlled drying and burning process. The clays are generally free from injurious particles of lime or salts and the burning process renders the material entirely inert, minimising the occurrence of shrinkage or cracking in the finished plastered surface. The finished product is uniform in size and shape and free from excessive winding and bowing (see B.S. 1190 : 1951 for tolerances) ensuring minimum laying and plastering costs.

Design and Construction

Three types of block are illustrated on the face of the Sheet: the standard block for use in in-situ floors with filler and panel heating tiles as shown in the drawing; the lipped type for use with prestressed or precast beam construction and the clay block unit for hollow-tile beam construction.

Key for plaster: The bond or physical adhesion of a rendering or plaster is dependent upon the inherent porosity of the backing material, and in this respect Phorpres blocks possess a balanced absorption or suction value. This is further assisted by the mechanical keying provided by grooves of dovetail form. This mechanical key is of first importance in the early stages of drying and setting, when cracking may result from the vibration inevitable during construction. This vibration may also otherwise interfere with, or even prevent, the development of the necessary physical adhesion.

Sizes and Weights of Floor Blocks

Type of Block	Size	Weight of blocks (Tons per 1,000)	
		Gault	Weald
Floor Blocks (For in-situ hollow tile floors and roofs)	10" × 12" × 3"	—	5·0
	10" × 12" × 4"	—	6·3
	10" × 12" × 5"	—	6·5
	12" × 12" × 3"	5·85	—
	12" × 12" × 4"	6·3	—
	12" × 12" × 5"	7·55	—
	12" × 12" × 6"	8·4	—
	12" × 12" × 7"	10·45	—
	12" × 12" × 8"	12·3	—
Filler Tiles (For concrete ribs)	10" × 3" × ¾"	—	5·0*
	12" × 3" × ¾"	5·0*	—
Panel Heating Tiles	10" × 4" × ⅞"	—	10·25*
Lipped Floor Blocks (For prestressed and concrete beam floors)	9" × 12" × 3½"	—	5·2
	10" × 12½" × 4"	—	5·5
	9" × 12" × 4½"	—	5·5
	10" × 12½" × 5½"	—	5·75
	10" × 9½" × 6½"	6·2	—
	12" × 12" × 7½"	10·25	—
	12" × 9½" × 8½"	9·0	—
Clay Block Units (For prefabricated hollow tile floors)	10" × 3¼" × 4½"	—	2·3
	10" × 3¼" × 6"	—	3·0

* Weight per 10,000 tiles.

Crushing Strength

Average crushing strengths of individual blocks (weald and gault) tested on flat.

Type of block	Crushing strength (lb./sq. inch)
10" × 12" × 4" (Weald)	3,278 (B.S. requires 2,500)
12" × 12" × 3" (Gault)	3,000 (,, ,, 2,500)
12" × 12" × 5" (Gault)	3,290 (,, ,, 2,500)

Thermal Resistance

The transfer of heat from the air on the warm side of a floor or roof to the air on the cooler side is determined by the difference in air temperatures, number of air spaces, type and amount of construction materials, direction of heat flow and by the character of the surfaces.
The heat transmission coefficient (obtained for floors and roofs by tests on composite sections as for walling), allowing for a 4-in. floor block plus 2-in. concrete topping with plastered ceiling, is as follows:—

Overall transmittance (U) = 0·41 (Heat flow up)
,, ,, ,, = 0·33 (Heat flow down)

Sound Insulation

Sound transmission figures can be only approximate since the type of floor construction varies widely. The following approximate figure for airborne sound (average 256—1,024 frequencies, cycles per second) allows for a floor block 4-in. to 8-in. in thickness, 2-in. concrete topping and a plastered ceiling:—

Average loss of of 55 decibels.

Applications

Phorpres hollow clay floor blocks are manufactured to comply with B.S. 1190 : 1951 and the requirements of local authorities for the construction of structural floors and roofs.

Piggery and Cattle Floors: Hollow clay floor blocks are particularly suitable for forming this type of floor. A single layer of floor blocks is bedded in cement mortar upon a prepared base of well-rammed hardcore, suitably blinded out. The floor is finished with a ¼-in. to 1-in. cement screed. The blocks are usually laid butted together with cement to give a maximum surface area without waste through cutting.
The construction provides cattle standing and bedding which are damp and vermin-proof. The good insulation enables the animals to retain their body heat and eliminates the necessity for bedding materials. The floor requires no upkeep or maintenance, is easily cleaned and dries quickly.

This Series of Sheets on bricks and brickwork covers general data on, and applications of, common, facing, cellular and keyed bricks, hollow walling, partition and floor blocks.

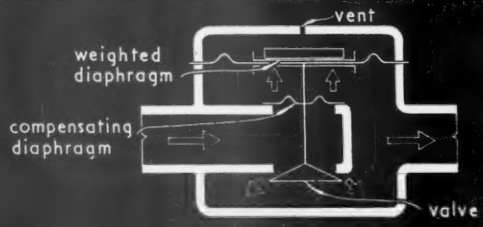
Compiled from information supplied by:

London Brick Company Limited
Head Office: Africa House, Kingsway, London, W.C.2.
Telephone: Holborn 8282.
Telegrams: Phorpres, Westcent, London.

Midland District
Office: Prudential Buildings, St. Philip's Place, Birmingham, 3.
Telephone: Colmore 4141.

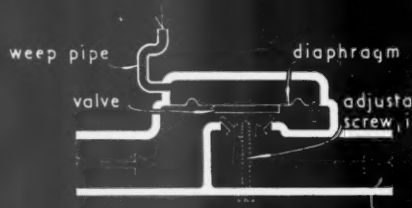
South Western
District Office: 11, Orchard Street, Bristol, 1.
Telephone: Bristol 23004/5.

Northern District
Office: Gascoigne Street, Boar Lane, Leeds, 1.
Telephone: Leeds 20771.



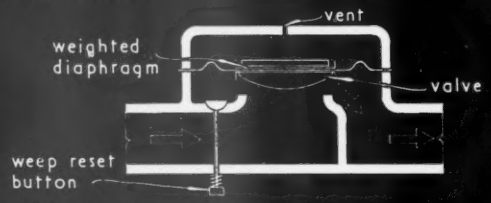
when outlet pressure increases, weighted diaphragm is raised and valve closes. compensating diaphragm counteracts effect of inlet pressure on valve

PRESSURE GOVERNOR.



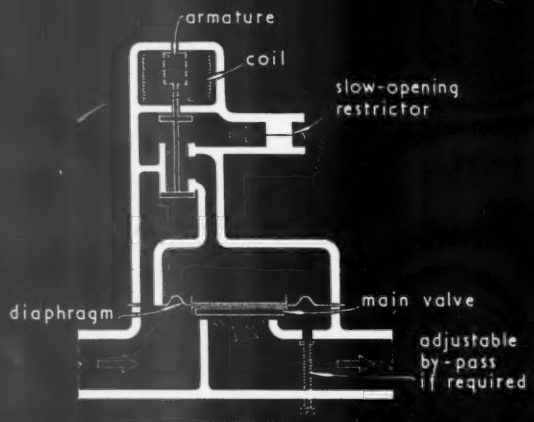
normal inlet pressure holds valve open, a small quantity of gas flows thro' small hole in diaphragm to weep pipe. if weep pipe is closed, eg. by thermostat, pressures above and below diaphragm become equal and valve closes by its own weight

RELAY VALVE.



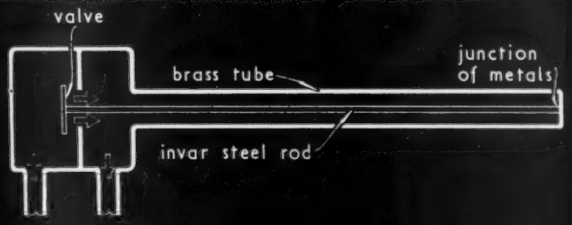
normal inlet pressure holds valve open. if pressure falls below a fixed minimum, valve closes. when normal pressure is restored valve will not open until weep reset button is pushed up, admitting gas to underside of diaphragm

LOW PRESSURE CUT-OFF VALVE.



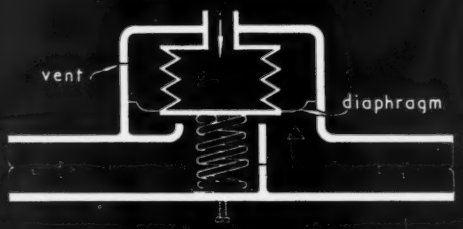
when electricity flows thro' the coil, the armature is held up, any gas above diaphragm is released and inlet pressure holds main valve open. if electricity is cut off, e.g. by a thermostat, the armature drops, causing pressure above diaphragm to increase, closing valve

ELECTRICALLY-OPERATED VALVE (solenoid type).



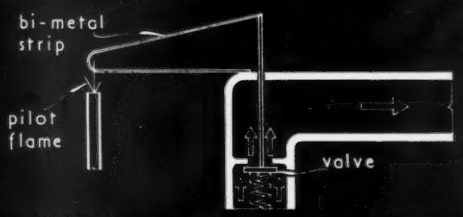
brass tube expands to greater extent than invar steel rod, which is consequently pulled towards junction, closing valve

THERMOSTAT (metal rod type).



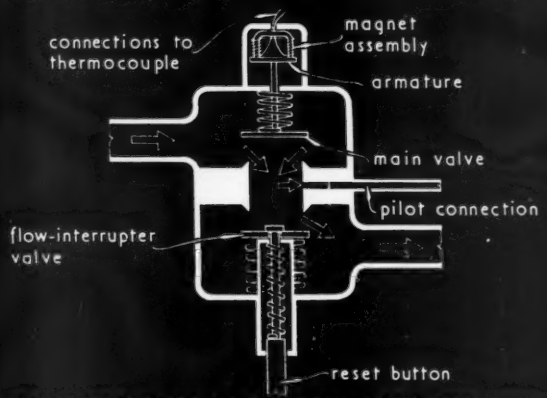
when steam pressure becomes too great, the bellows expand, closing valve

PRESSURESTAT.



when heated by pilot flame, the strip changes its curvature and opens valve. if pilot is extinguished, the strip cools and, assisted by the spring, closes valve

FLAME-FAILURE DEVICE (differential expansion type).



while pilot is alight the main valve is held open, if pilot is extinguished the armature drops from magnet, closing main valve. to relight appliance, reset button is pushed up, opening main valve and closing flow-interrupter valve, allowing gas to pass to pilot only. when pilot is lit, magnet holds the armature, the reset button is released and flow-interrupter valve opens, allowing gas to pass to burner

FLAME-FAILURE DEVICE (thermo-electric type).

Architects' Journal 24.6.54

37.D4 CONTROLS FOR GAS APPLIANCES

This Sheet describes typical controls for gas appliances. These range from simple manually-operated devices to those which may be combined to give complete automatic control.

General

Although it is stressed that the provision of gas controls is the work of a specialist, the architect should be familiar with the subject for several reasons. Primarily he can see that the recommendations made in the relevant Codes of Practice of the British Standards Institution receive appropriate consideration. He can also assess the merits of alternative types where there is a choice of control and perhaps cost is involved. When selecting appliances he should be aware of the fact that some manufacturers include certain controls in the purchase price, while others consider them as extras.

Types

Gas cock: This is the simplest type of control, giving an infinite variation of the gas rate up to the maximum capacity of the pipe in which it is situated or the burner which it serves. It enables the gas to be shut off rapidly, as a quarter of a turn separates " full on " and " off." Interlocking cocks are often incorporated in an appliance as an inexpensive precaution to ensure that pilot and gas supply (and sometimes water where this is also involved) are turned on and off in the correct sequence.

Governor: There are two types, of which the most common is the pressure governor.

Pressure governor automatically maintains the correct gas pressure at the burner, thereby ensuring that the heat input is always correct.

Volume governor ensures that a predetermined gas rate is maintained, irrespective of variations in gas pressure or damage to jets of an appliance.

Thermostat: A thermostat automatically controls the gas rate of an appliance to maintain a pre-set temperature. The element may consist of a metal rod (as shown on the face of the Sheet), metal spiral or strip, or a fluid-filled bulb.

Relay valve: A relay valve is fitted in the gas supply pipe to a burner and is remotely actuated by a thermostat or flame-failure device by means of a controlled weep of gas.

Low pressure cut-off valve: This is a valve which automatically shuts off the gas supply to a burner if the inlet gas pressure falls below a preset minimum (usually about 1 in. water gauge). It should be preferably of a type which has to be reset manually after shutting down.

Electrically-operated valve: This is a gas valve which is operated by a solenoid or motor energised by mains electricity. The gas valve can either control the gas supply to a burner directly, or indirectly by controlling the weep of gas from a relay valve.

Pressurestat: This is designed to maintain a constant pressure of steam in a steam generator, the supply of gas to a burner being regulated according to the steam pressure.

Flame-failure devices: These are devices which permit gas to pass to a burner only when the pilot flame is established. They are intended as a safeguard if the supply of gas should be interrupted, or if controls are operated incorrectly during lighting. They may be one of the following types:

Differential expansion type (illustrated on the face of the Sheet) depends for its operation on the different coefficients of expansion of dissimilar metals.

Thermo-electric type (also illustrated), which depends on the fact that, when the junction of two wires of dissimilar metals (a thermocouple) is heated, an electric current is generated. This is used to energise an electro-magnet which holds open a gas valve.

Electronic type, which relies upon the conduction of an electric current by the gas flame, or the detection of a flame by photo-electric cells, to keep open a gas valve. This operates instantaneously and permits remote control of lighting and shutting-down and remote automatic operation.

Applications

Governor : It is desirable that a governor be fitted to all appliances, even though many are supplied without. A volume governor must be designed to give a particular gas rate; a pressure governor can be adjustable, or the required gas rate can be obtained by the provision of jets of a suitable size.

Thermostat : These can be fitted directly into the gas supply pipe to the burner to give a gradual opening and closing of the gasway. Others operate remotely in conjunction with a relay or solenoid valve and can be arranged to give a gradual or an " on-off " action. The latter is particularly useful in central heating where the thermal efficiency of the system would be lowered by the gradual action of a directly operating thermostat. The rod type of thermostat is widely used in water- or air-heating appliances, the fluid-filled bulb gives greater flexibility of design as the head need not be in line with the heat-sensitive element; the metal spiral or strip mainly for room thermostats.

Relay valve : This is used on many appliances, especially:

(*a*) where the inlet pipe is too large for a direct thermostat
(*b*) where remote control is required
(*c*) where devices other than a thermostat, e.g. clock controls and flame-failure devices, are used; sometimes the one relay valve serves all these controls
(*d*) when it is required to have the full gas rate applied rapidly when the temperature falls, e.g. in a fish-fryer when " chips " are inserted.

Low-pressure cut-off valve : This can be used on continuously burning appliances fitted with prepayment meter supplies, as a safeguard should the gas run out. It can also be used in conjunction with flame-failure devices on appliances with high gas rates as a safeguard if the supply of gas should be interrupted momentarily. Another type is used in factories where gas compressors are employed for industrial processes. It protects the meter and neighbouring installations.

Electrically-operated valve : This is used in conjunction with electronic flame-failure equipment; it also forms a safeguard against failure of the electricity supply or a fan. It can be controlled remotely from an unlimited distance.

Flame-failure devices : The choice is governed by the cost of the installation and the delay that can be permitted in the action of the device. The differential expansion and thermo-electric types have a time lag of up to 1 minute. The electronic type is used only on large and expensive gas installations such as air heaters and many industrial installations where instantaneous response is required. It lends itself to the inclusion of spark-ignition devices, fan-failure switches, temperature - limit switches, etc.

Relevant Publications

CP332.303:1951*: Installation of gas-fired boilers for central heating by hot water.*
Safety in design and operation of gas-heated ovens and furnaces. Factory Department, Ministry of Labour and National Service, Form 1856: Oct. 1948.

Compiled from information supplied by:

The Gas Council.
Address : Gas Industry House, 1, Grosvenor Place, London, S.W.1.
Telephone : Sloane 4554.
Telegrams : Gascil, Knights, London.

OFFICES

in LONDON BRIDGE STREET, LONDON, S.E.1

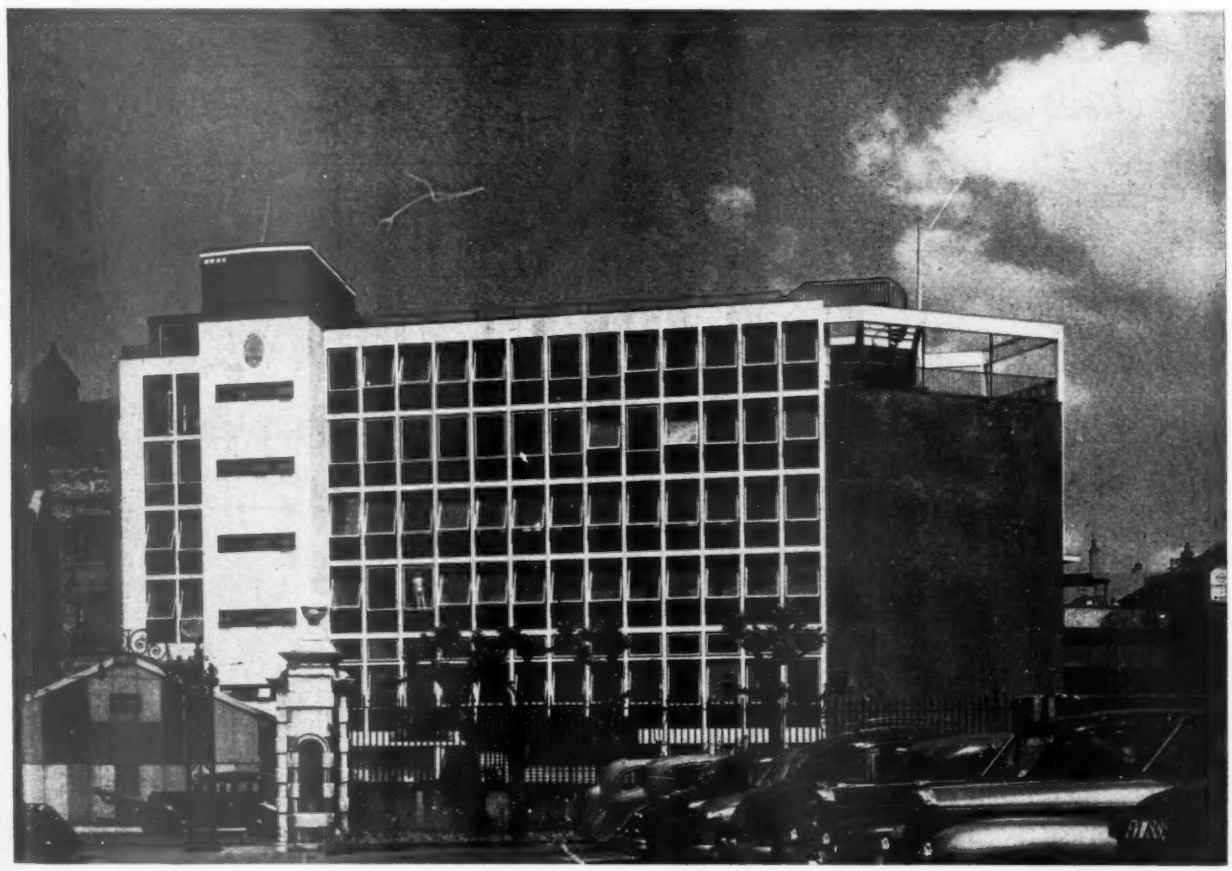
designed by JOHN LACEY, associate architect, C. F. TIMOTHY

consulting engineer, F. J. SAMUELY

quantity surveyors, H. J. VENNING and PARTNERS

Fielden House, in London Bridge Street, has been built (for King Edward's Hospital Fund for London) as the headquarters of the Emergency Bed Service, which occupies the third floor of the building, and also as lettable office and warehouse space on the lower floors. This is a war damage reconstruction on a restricted site. Ground levels at front and rear of the building vary by 25 ft. as the site abuts the arched approach to London Bridge Station.

Fielden House seen from the grounds of Guy's Hospital to the south-west.



SITE.—Fielden House is the first part of a large scheme of reconstruction adjoining the station approach, the stages of which are shown on the site plan on the opposite page. Due to the fact that a public staircase from the station level to Joiner Street, (this street, not named on the site plan, runs north and south under the station approach) 25 ft. below, had to be kept open throughout the building of the offices, a temporary staircase was built, while the original stairs were demolished and reconstructed as part of the east end of the Fielden House. The wall adjoining London Bridge approach, though the property of the client, could not be used for support for fear of differential subsidence. This necessitated the east end of the building being cantilevered from pile foundations set back 6 ft. from the site boundary.

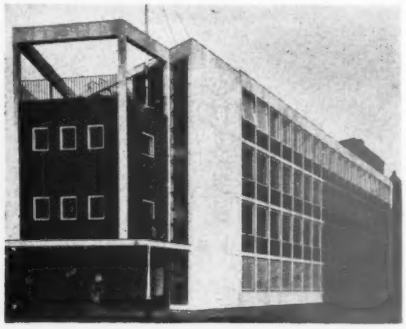
PLAN.—Main access is from London Bridge Street; the service access is at the lower level, where there is a yard commonly owned by the clients and Guy's Hospital, owners of adjoining land, to the south. The entrance hall, lift and staircase are situated at the widest point of the site with the offices on either side. The Emergency Bed Service, an organi a-tion which gives a 24-hour service to hospitals and doctors requiring beds for patients in an emergency, has its headquarters on the third

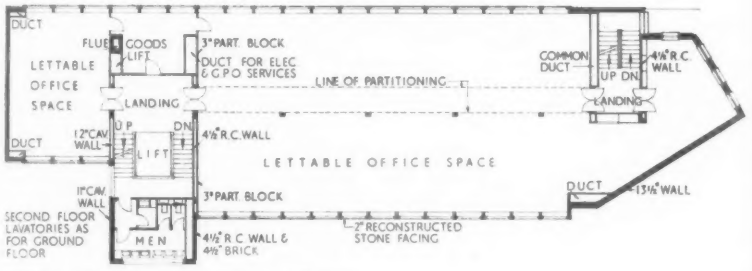
OFFICES

in LONDON BRIDGE STREET, LONDON, S.E.1

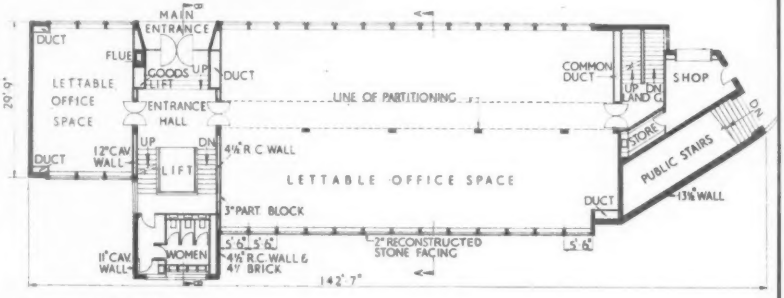
designed by JOHN LACEY

Below, the main entrance doors on to London Bridge Street. Bottom, the east corner of Fielden House from the station approach. On the left is the entrance to the public staircase to Joiner Street, 25 ft. below.

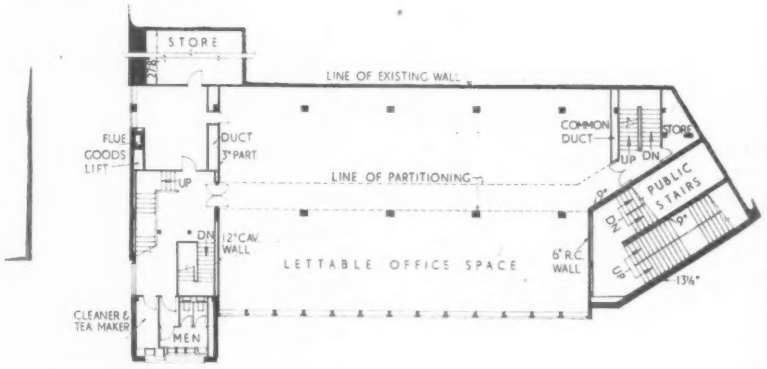




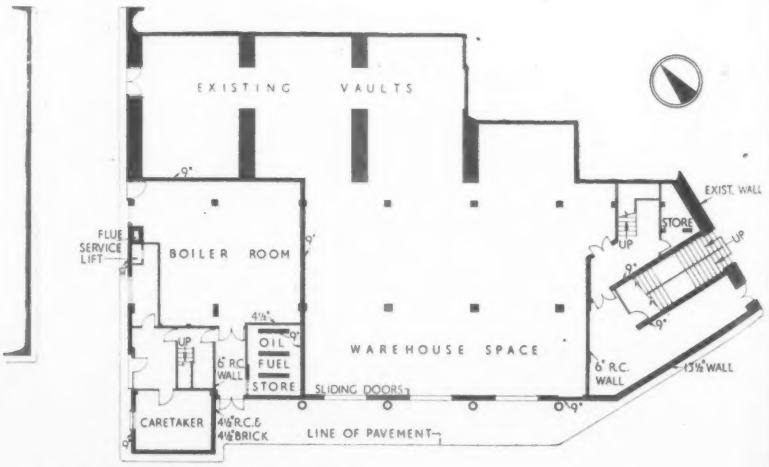
Plan, typical of first and second floors



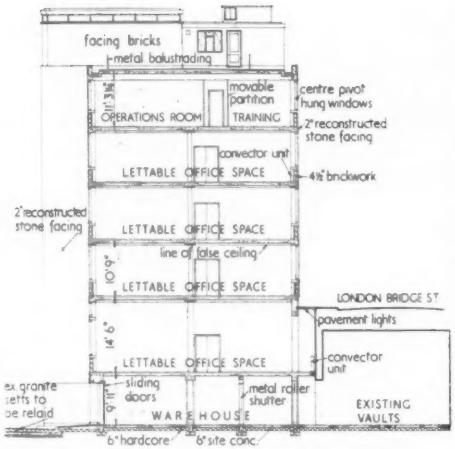
Ground floor plan



Basement plan

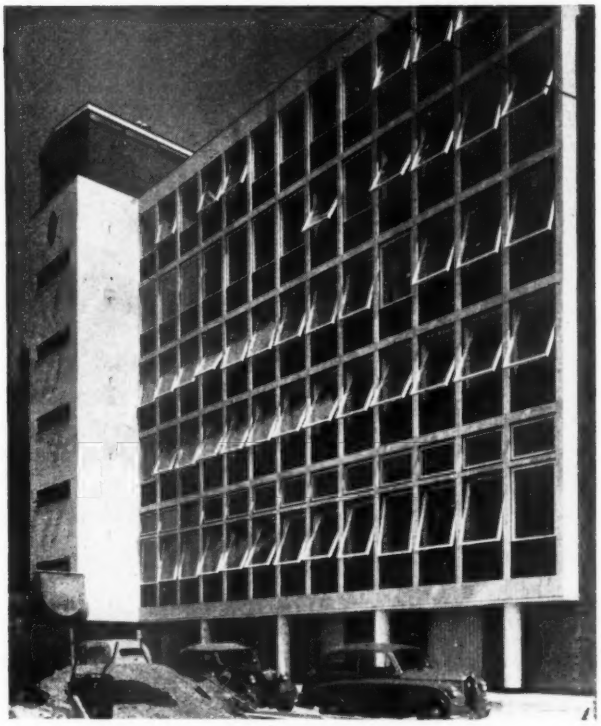


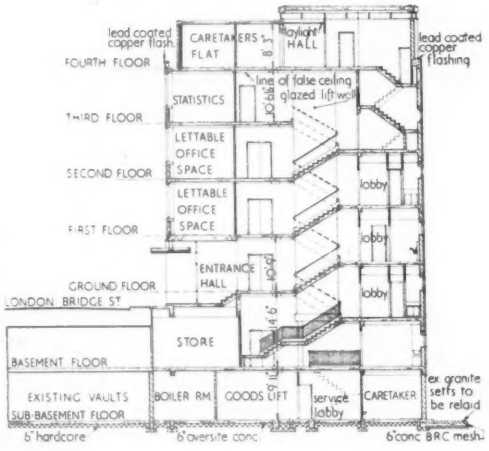
Sub-basement plan [Scale : $\frac{1}{16}$" = 1' 0"]



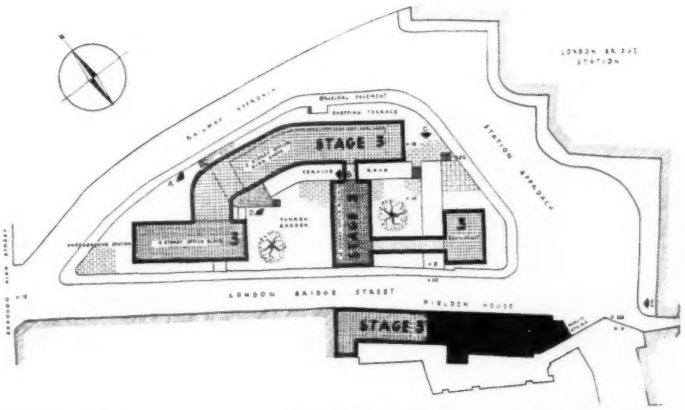
Section A-A

Right, part of the west facade which faces Guy's Hospital. The panels below the double-glazed windows are faced with dark blue tiles.

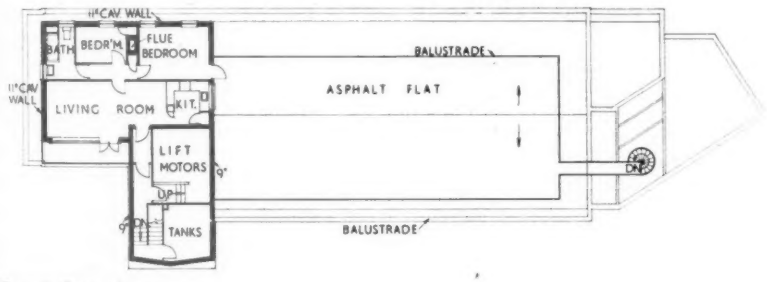




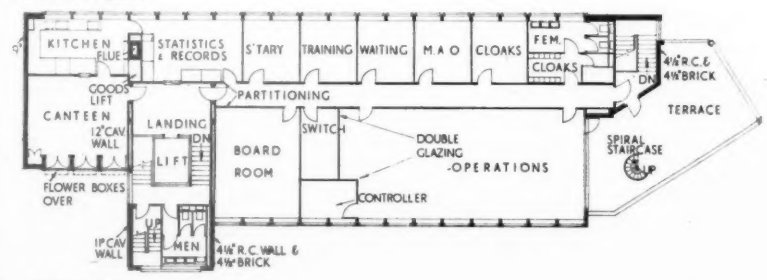
Section B-B



Site plan showing Fielden House solid black and stages 2 and 3 of the development hatched



Fourth floor plan



Third floor plan [Scale : $\frac{1}{16}$" = 1' 0"]

floor of the building. The state of hospital accommodation in the London region is recorded visually on an operations room board in view of the controller and staff. The operations room is similar to that of a Fighter Command headquarters. The canteen and kitchen on the third floor are for the staff of the emergency bed service, and the fourth floor is occupied by the caretaker's flat.

Top and above, two views of the operations room of the Emergency Bed Service for London on the third floor. The floor is covered with cork and the ceiling with acoustic tiles for sound deadening. Left, typical lettable office space below third floor level.

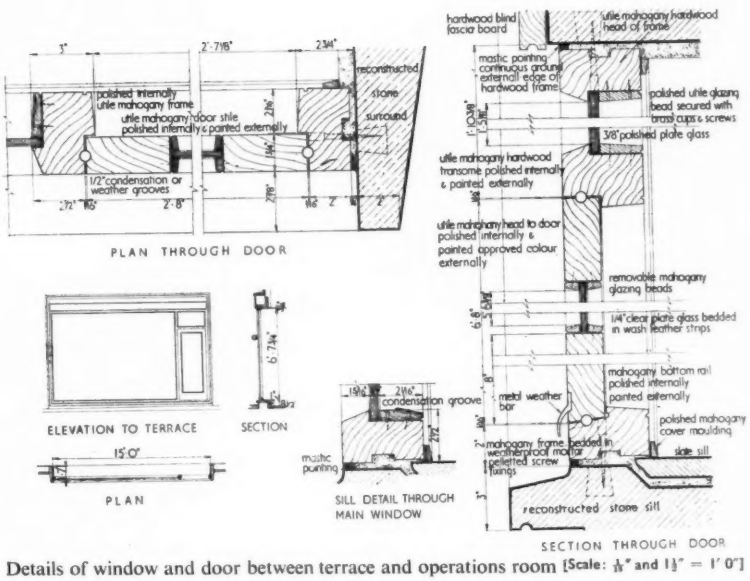
CONSTRUCTION.—The construction is largely of precast, and partly of in situ, reinforced concrete. Wall columns 14 in. by 6 in. at 5 ft. 6 in. centres, precast in pairs, are joined by a sill member and form H frames (illustrated as a Working Detail in the JOURNAL for June 17, 1954). Secondary beams span 19 ft. 11 in. and 19 ft. 1½ in. between these wall columns. There are central r.c. columns, 18 in. by 9 in. below first floor level, and 12 in. by 9 in. above this level, at 16 ft. 6 in. centres. A central spire beam spans between these central columns and precast r.c. trough units span between the secondary beams, from which are hung suspended ceilings of ¾-in. plaster on expanded metal. By the use of prestressed concrete the floor thickness has been kept at 10 in. throughout, with a flat soffit. Pressure pile r.c. foundations were used, with in situ caps and ground beams. (As Guy's Hospital adjoins the site, it was necessary to use the silent process of piling; the compressor was silenced by being bricked up under railway arches). On the third floor of the building there are no central columns, due to the greater need for flexibility of internal partitions, and the precast prestressed composite beams span 40 ft. clear across the building.

FINISHES.—Windows are centrally-pivoted and double-glazed. Below sill level there are panels of 4½-in. brickwork, faced externally with dark blue tiles and lined internally with 2-in. wallboard.

OFFICES

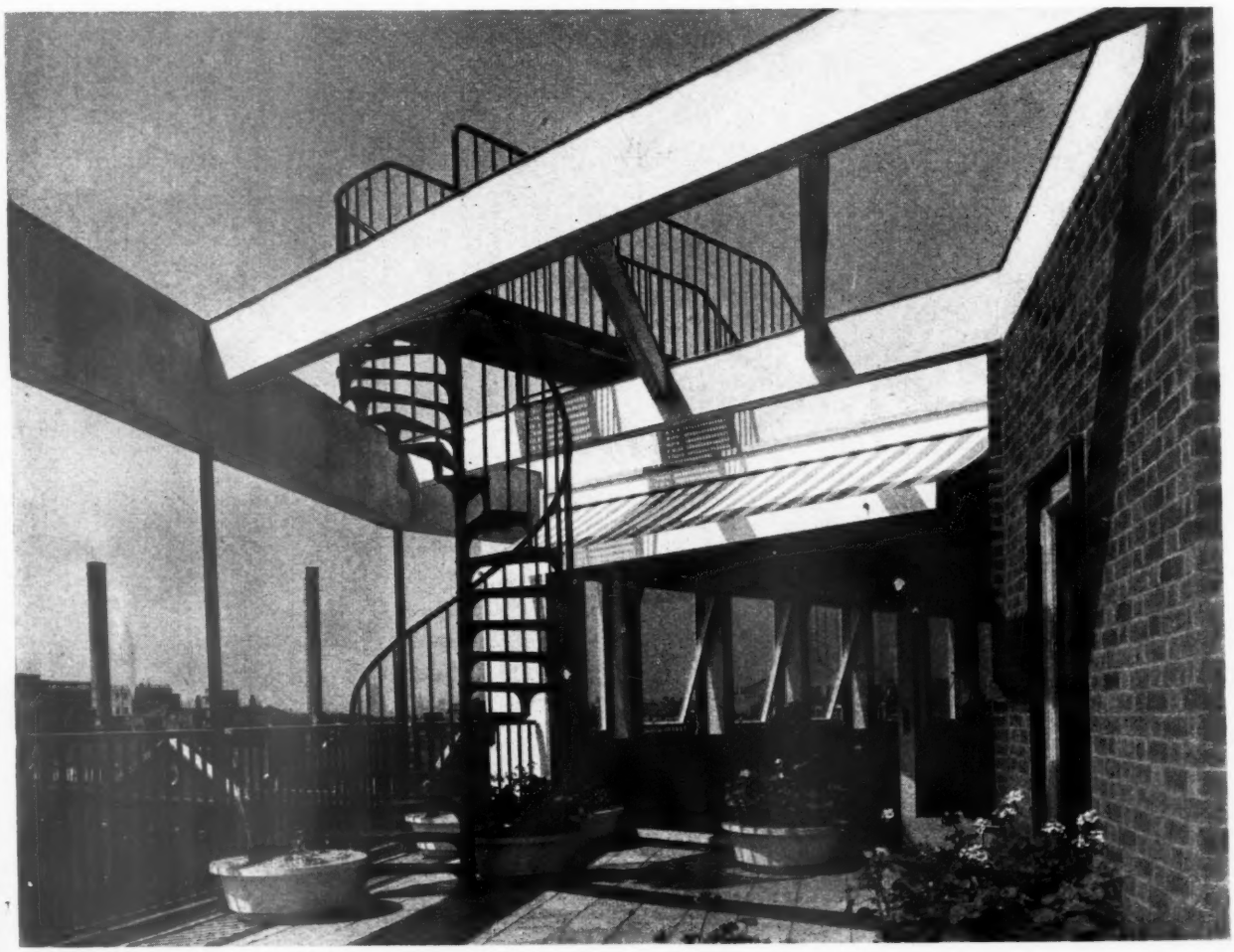
in LONDON BRIDGE STREET, LONDON, S.E.1
designed by JOHN LACEY

The brickwork is reinforced horizontally at every fourth course, as required by the LCC. At the east end of the building the walls are faced with hand-made deep red facing bricks, and 2-in. thick artificial stone is used as facing on beams and columns externally, and on the projecting staircase block on the west side. There is a plinth of black Neros granite. Entrance hall walls are lined with Derbyshire fossil marble. The floors are wood blocks in offices, terrazzo on stairs and main landings and cork tiles in the operations room, which, for sound insulation, also has acoustic tiles on the ceiling. The purpose-made movable internal partitions, which can be placed at any mullion, are of leather cloth on 2-in. compressed strawboard in a softwood frame. Hardwood is used for window frames, doors to main landings and for panelling on the window wall of the canteen. The fully glazed lift shaft and cage will be illustrated as a Working Detail in a later issue of the JOURNAL.

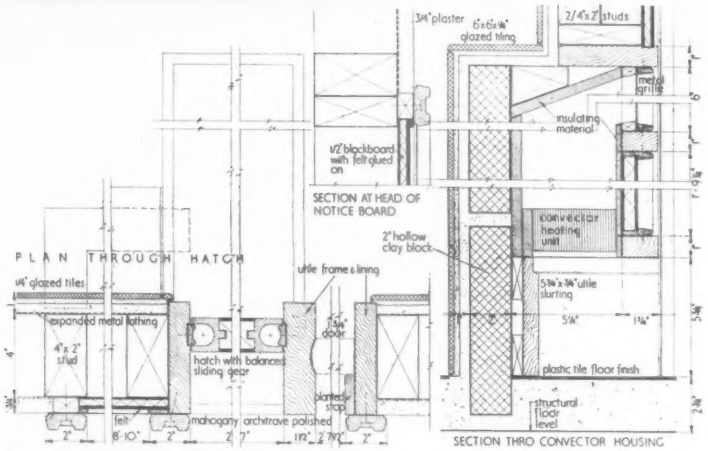


Details of window and door between terrace and operations room [Scale: 1/16" and 1 1/2" = 1' 0"]

Third floor roof terrace, looking into operations room.



Extreme left, the glazed lift-shaft at second floor level. This lift-shaft and cage will be illustrated as a Working Detail in a later issue of the JOURNAL. *Left, the ground floor entrance hall. Bottom right, built-in hatch and storage unit between canteen and kitchen on the third floor.*



Details of canteen—kitchen fitting [Scale : 1½" = 1' 0"]

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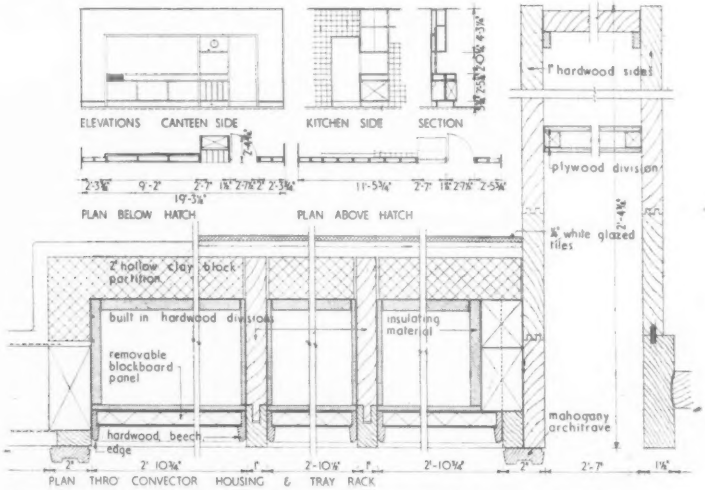
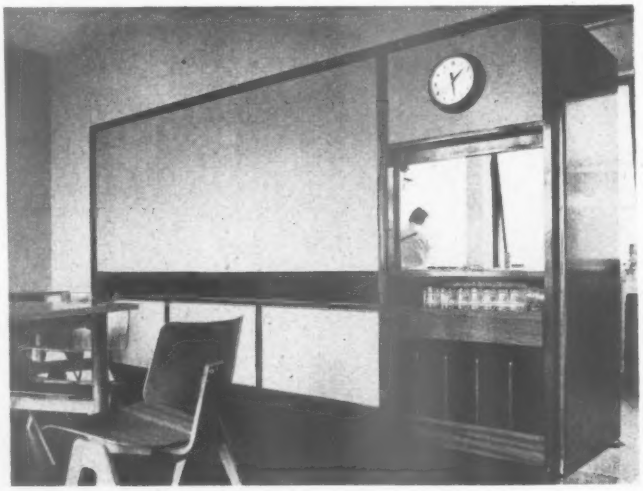


Elevations and details of fitting between canteen and kitchen on third floor [Scale : $\frac{1}{16}$" and 1½" = 1' 0"]

SERVICES.—Each 5 ft. 6 in. bay is self-contained for heating, lighting and telephones and all services are hidden in accessible ducts. There are convectors in each bay ; a cover panel forms a flush face with the window sill internally. Heating and hot water are supplied by oil-fired boilers. There is a service lift from the basement to the main kitchen. Telephone risers are in main ducts adjoining main and secondary staircases, each serving the outer walls of half the building on all floors. On the third floor there is special telephone equipment with a central exchange. Lines are distributed in floor ducts to individual desks and in flexible tubes to the underside of desks. The underfloor duct grid allows for changing positions of desks.

The contract price was £127,411. The cost of the building was made considerably cheaper by the use of a Swiss-made tower crane, which the general contractors had on order at the time of tendering.

The general contractors were G. E. Wallis & Sons Ltd. For sub-contractors see page 782.



TECHNICAL SECTION

More than one speaker at the British Electrical Power Convention, held at Eastbourne June 14-18, drew attention to the glaring difference in lighting standards between the Old World and the New. As an example, we in this country have painfully raised the illumination level for ordinary work in factories from $\frac{1}{4}$ lumen per square foot (1915) to 3 lumens (1922) and thence to 6 lumens (1940), only to find that the equivalent standard in the United States is 20 lumens. An analogous situation applies in the provision of outlets: where the British architect would supply two or three outlets per room the American architect would supply ten or twelve.

When we read the documents presented at the annual conventions of industrial concerns, we realise how much greater is the volume of research carried out by industry than that carried out by DSIR. There is a danger in this: for the orientation of research carried out by an industry is never the same as that carried out in the public interest. If the industry's own research is in itself the most thorough and comprehensive available, it will tend to impose itself unwarrantably on the public mind. The moral, as always, is not that industry should spend less on research but that DSIR should spend more.

CURRENT PRICES FOR MEASURED WORK

Prepared by Davis, Belfield & Everest, chartered quantity surveyors

Prices are for work executed complete and are for an average job in the London area. All prices include overhead charges and profit for the general contractor. Current prices of materials and rates of wages last appeared in the JOURNAL *for June* 10.

PRELIMINARIES

To all valuations for measured work add for Preliminaries, Water and Insurances, according to the nature of the job (say)		10%

EXCAVATOR

Excavation

N.B.—The following prices are applicable to hand excavation in heavy soil.

Surface digging, 6″ deep	per yard super	1/–
Ditto, 12″ deep	,,	2/1
Excavating not exceeding 10′ 0″ deep to reduce levels	per yard cube	8/3
Excavating not exceeding 5′ 0″ deep to form basement	,,	9/4
Ditto exceeding 5′ 0″ and not exceeding 10′ 0″ deep ditto	,,	12/6
Excavating not exceeding 5′ 0″ deep to form surface trenches	,,	11/5
Ditto exceeding 5′ 0″ deep and not exceeding 10′ 0″ deep ditto	,,	15/7
Excavating not exceeding 5′ 0″ deep to form basement trench commencing 10′ 0″ deep		19/8

EXCAVATOR—(*continued*)

Disposal

Returning, filling and ramming around foundations	per yard cube	3/8
Wheeling excavated soil not exceeding 100 yards and depositing	,,	4/2
Ditto and spreading and levelling	,,	5/5
Ditto, ditto, and consolidating to make up levels under floors and pavings	,,	6/10
Filling into lorries and carting away	,,	13/1

Planking and Strutting

Planking and strutting to sides of surface or basement excavation not exceeding 5′ 0″ deep	per ft. super	–/7
Ditto not exceeding 10′ 0″ deep	,,	–/9
Planking and strutting to sides of surface trenches not exceeding 5′ 0″ deep (both sides measured)	,,	–/2
Ditto not exceeding 10′ 0″ deep (ditto)	,,	–/3

CONCRETOR

Concrete (Basic Prices)

Portland cement concrete 1 : 3 : 6 with 1½″ coarse aggregate in foundations and masses exceeding 12″ thick	per yard cube	67/9
Ditto 1 : 2 : 4 with ¾″ coarse aggregate ditto	,,	68/7

CONCRETOR—(*continued*)

Add to Basic Prices for :—

Working around rod or mesh reinforcement	per yard cube	4/2
Being in beds less than 12″ thick (6″-12″)	,,	2/1
Ditto less than 6″ thick (4½″-6″)	,,	6/3
Being in small quantities not exceeding 3′ cube	,,	16/7
Being in suspended floors and roofs	,,	12/5
Being in walls not exceeding 6″ thick	,,	20/9
Ditto exceeding 6″ but not exceeding 12″ thick	,,	14/6
Ditto exceeding 12″ thick	,,	10/5
Being in lintels, beams, etc., not exceeding 72 sq. in. sectional area	,,	31/1
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	24/10
Ditto exceeding 144 sq. in. sectional area	,,	20/9
Being in columns not exceeding 72 sq. in. sectional area	,,	39/5
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	31/1
Ditto exceeding 144 sq. in. sectional area	,,	24/10

Formwork

Close boarded formwork and supports to soffites of floors not exceeding 12′ high	per yard super	15/3
Ditto to vertical faces of walls (both sides measured)	,,	15/5
Ditto to sides and soffites of lintols and beams	per foot super	2/3
Add to any of the above for wrot formwork and rubbing down concrete	per yard super	2/10

Reinforcement

½″ to 1″ diameter mild steel rod reinforcement, hooked, bent and tied at intersections as required and fixing in concrete	per cwt.	53/7
½″ diameter ditto	,,	57/11
¼″ diameter ditto	,,	71/9
Steel wire mesh fabric reinforcement to B.S. 1221, weighing 4·71 lb. per yard super, well lapped at joints and embedded in concrete	per yard super	3/4
Ditto weighing 9·32 lb. per yard super ditto	,,	6/6

BRICKLAYER

Common Brickwork

		Flettons	Rough stocks
Reduced brickwork one brick thick in cement-lime mortar (1 : 3 : 9)	per yard super	30/–	35/5
Add to the above :—			
If in cement mortar (1 : 3)	,,	–/3	–/3
If circular on plan to flat sweep	,,	4/10	5/1
Ditto to quick sweep	,,	9/8	10/3
Half brick wall in cement lime mortar (1 : 3 : 9)	,,	16/3	19/–
Ditto built fair and pointed both sides with a neat flush joint	,,	18/3	21/1
One brick wall built fair and pointed both sides with a neat flush joint	,,	35/5	40/10
11″ hollow wall with 2″ cavity and galvanized iron twisted ties	,,	35/3	40/8

Engineering Brickwork

		Lingfield Engineering Wirecuts	Blue Pressed bricks
Reduced brickwork one brick thick in cement mortar (1 : 3)	per yard super	43/10	76/6
Half brick wall in cement mortar (1 : 3)	,,	23/8	40/4
Ditto built fair and pointed both sides with a neat flush joint	,,	25/8	43/2
One brick wall built fair and ditto	,,	48/3	81/9

Sundries

Extra for internal fair face and flush pointing	per yard super	1/2
Horizontal damp-proof course of two courses of slates and bedding and pointing	per foot super	3/9
Ditto of hessian base bitumen well lapped at joints	,,	–/10
Fixing only metal window, size 1′ 8″ × 4′ 0″, including cutting and pinning lugs to brickwork, bedding frames and pointing in mastic one side	each	8/6
Ditto 3′ 3″ × 4′ 0″ ditto	,,	13/2
Ditto 6′ 6″ × 4′ 0 ditto	,,	23/3

BRICKLAYER—(*continued*)

Partitions

		2″	2½″	3″	4″
Clinker concrete solid partition blocks to B.S. 492 and setting in cement mortar	per yard super	8/2	9/6	11/3	13/8
Hollow clay partition blocks to B.S. 1190, keyed on both sides and ditto	,,	8/11	9/10	11/3	–
Moler hollow partition blocks, keyed on both sides and ditto	,,	18/3	19/9	21/3	25/8

Facings

		Ordinary facings, p.c. 242/– M.	Ordinary facings, p.c. 254/10 M.	White glazed facings p.c. 1,280/– M for stretchers 1,260/-M for headers and pointing with white cement
Extra over common brickwork built with bricks p.c.113/– M for facings as described, and pointing with a neat weathered joint :—				
To solid wall in Flemish bond	per yard super	14/3	15/2	78/8
To cavity wall in stretcher bond	,,	11/8	12/4	63/2
To ditto in Flemish bond with snapped headers	,,	13 10	14/8	—
Half brick wall in facings in stretcher bond built fair and pointed one side with a neat weathered joint	,,	26/9	27/5	—
Ditto pointed both sides	,,	27/10	28/6	—
One brick wall in facings built fair and pointed one side	,,	49/10	51/2	—
Ditto pointed both sides	,,	50/10	52/3	—
Brick on end flat arch in facings 4½″ on soffite and 9″ high and pointing	per foot run	3/1	3/2	—
Brick on edge coping to 9″ wall with two courses plain tiles under, laid breaking joint, two cement angle fillets and pointing		5/2	5/3	—

ASPHALTER

Tanking

		To B.S. 1097	To B.S. 1418
Horizontal asphalt tanking in three thicknesses on brick or concrete	per yard super	18/5	29/5
Vertical ditto	,,	23/8	33/7

Roofing

		To B.S. 988	To B.S. 1162
½″ asphalt flat in two thicknesses on and including felt underlay	per yard super	13/2	22/1
½″ asphalt skirting 6″ high with angle fillet at bottom and rounded top, turned into groove	per foot run	2/4	2/7
½″ asphalt fascia 6″ high with solid water check roll at top and undercut drip at bottom	,,	4/6	5/3

DRAINLAYER

Trenches and Beds

N.B.—The following prices are applicable to hand excavation in heavy soil, only requiring planking and strutting for depths of 3′ or more.

Excavate trenches for 4″-9″ pipes, including planking and strutting, filling in and ramming, and wheeling and spreading surplus :—		
For each 12″ in depth, for trenches not exceeding 3′ 0″ deep	per yard run	3/4
Ditto for trenches exceeding 3′ 0″ and not exceeding 5′ 0″ deep	,,	4/9
Ditto for trenches exceeding 5′ 0″ and not exceeding 10′ 0″ deep	,,	7/5

		4″	6″
6″ concrete (1 : 3 : 6) bed and benching for pipes	per yard run	9/2	10/8
6″ ditto, and surround	,,	14/10	17/10

LS.50

Polyflex

Patent pending and registered trade mark

The 'Polyflex' toilet seat has a *flexible mounting*. Breakages are very unlikely. 'Polyflex' includes a flexible PVC rod attached to the seat and firmly fitted into Polythene seat pillars. The pillars, reinforced with a threaded brass insert, are self-centering in the WC pan with polythene washers secured by wing nuts. The 'Polyflex' seat can be fitted by the housewife without any tools, and, because of the flexible mounting, it will stay firmly in position. The 'Polyflex' is hygienic. The seat, hinge, and pillar heads cannot corrode or peel. All are easily cleaned. The 'Polyflex' is available in black, white and a range of standard pastel shades.

MADE BY LORIVAL* AND SOLD BY Shires *for your convenience*

* The firm well-known as 'Lorival Plastics' —designers and moulders of components and complete articles in modern plastic materials.

Shires are the largest manufacturers of moulded cisterns in the country. They also make WC pans and seats, flush-pipes and complete WC suites.

LEAFLETS FROM:—DIVISION A, SHIRES & CO. (LONDON) LTD., GREENBOTTOM WORKS, GUISELEY, YORKS. (FACTORIES ALSO AT LONDON AND STOKE)
SHIRES (IRELAND) LTD., STANNAWAY DRIVE, CRUMLIN, DUBLIN

DRAINLAYER—(*continued*)

Drains

		3″	4″	
Clayware butt-jointed land drains and laying in trench	per foot run	-/4½	-/5½	
"Seconds" quality glazed stoneware socketed drains and laying and jointing in trench		4″	6″	9″
	,,	2/1	2/11	4/11
"British Standard" quality ditto	,,	2/5	3/6	6/–
Extra on "Seconds" quality for bends	each	3/2	4/9	13/9
Ditto "British Standard" quality ditto	,,	4/–	5/11	17/7
Extra on "Seconds" quality for equal single junction	,,	5/5	8/–	17/3
Ditto "British Standard" quality ditto	,,	7/11	9/10	21/8
Cast iron socketed drains to B.S. 437 and laying and jointing in trench	per foot run	11/1	16/10	32/11
Extra for short radius bend (Fig. No. 4)	each	22/7	44/6	125/–
Extra for single junction (Fig. No. 18)	,,	41/3	79/11	221/2

Fittings, etc.

		4″	6″
Glazed stoneware trapped gulley with galvanized grating and outlet and setting in concrete	each	22/9	42/5
Ditto with vertical inlet ditto	,,	28/5	47/11
Cast iron trapped gulley with high invert, grating, and 4″ outlet and setting in concrete	,,	63/9	—
Ditto with vertical inlet ditto	,,	72/8	—
Glazed stoneware intercepting trap with inspection arm, stopper and chain and fixing in manhole and jointing to drain	,,	72/3	84/2
Brown glazed stoneware half round straight channels and bedding and jointing in cement mortar	per foot run	1/11	2/10
Ditto ordinary channel bend and ditto	each	5/8	7/11
Cast iron coated single seal manhole cover and frame to B.S. 497 Grade C and setting frame in cement and cover in grease	,,	24″×18″ 41/9	24″×24″ 61/8
Galvanized ditto	,,	69/10	105/11

PAVIOR

		¾″	1″	1½″
Cement and sand (1 : 3) floated screed to receive pavings	per yard super	3/6	4/4	4/10
Ditto trowelled smooth to receive linoleum	,,	3/10	4/8	5/2
Cement and sand (1 : 3) paving trowelled hard and smooth	,,	3/11	4/9	5/3
Granolithic paving (1 : 2½) laid on concrete	,,	1″ 6/5	1¼″ 7/3	1½″ 8/1
½″ red composition paving to B.S. 776 laid on prepared screed	per yard super		16/6	
⅝″ terrazzo paving (Portland cement and spar aggregate) laid on prepared screed	,,		33/8	
Extra for white or cream cement	,,		5/3	
¼″ rubber flooring in all colours, laid on prepared screed	,,		58/3	
⅛″ × 12″ × 12″ rubber tile flooring ditto	,,		48/10	
5/16″ × 12″ × 12″ cork tile flooring (brown shades) laid in mastic on prepared screed, surfaced and polished	per yard super		45/11	
1½″ hard red paving bricks p.c. 404/6 per M. laid flat on prepared bed in cement mortar	,,		23/6	
1½″ ditto laid herringbone	,,		25/7	
6″ × 6″ red quarry tile paving to B.S. 1286 laid on prepared screed with straight joints	per yard super	½″ 21/11	¾″ 24/10	
6″ × 6″ buff quarry tiles as last	,,	25/5	28/7	
2½″ (finished) gravel path laid on prepared bed, well watered and rolled to cambers and falls	,,		2/10	

MASON

		Portland	Artificial
Portland stone and all labours in pilasters, and quoins	per foot cube		36/6
Ditto in jambs, lintols, etc.	,,		38/10
Ditto in arches	,,		47/3
Ashlar av. 6¾″ on bed with plain dressed face	per foot super		21/3
Portland stone or artificial stone to B.S. 1217 :—			
4½″ × 4″ sill, sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	per foot run	7/1	4/3

MASON—(*continued*)

		Portland	Artificial
9″ × 3″ ditto	per foot run	8/4	6/6
2″ × 12″ Coping, weathered and twice throated, set and jointed as last	,,	7/5	5/9
3″ × 12″ Ditto	,,	11/–	8/8
5″ × 12″ Saddle back coping twice throated, set and jointed as last	,,	18/5	13/2
6″ × 12″ Ditto	,,	20/6	14/11

SLATER, TILER AND ROOFER

Slate

		20″ × 10″	16″ × 10″
Best Bangor slates to B.S. 680 laid with 3″ lap, each slate nailed with two stout copper nails	per square	279/3	252/–
Ditto hung vertically to dormer cheeks and gables	,,	284/6	259/3

Tiles

		Hand made	Machine made
Best sand faced plain (nibbed) tiles to B.S. 402, 10½″×6½″ laid to a 4″ gauge with each tile in every fourth course nailed with galvanized nails	per square	178/6	163/10
Ditto hung vertically to dormer cheeks and gables to 4½″ gauge with each tile nailed with galvanized nails	,,	194/3	183 9
Berkshire hand made sand faced red pantiles 14½″ × 10″ laid to 2½″ head and 1½″ side laps, each tile in every third course nailed with galvanized nails	per square		189/–
Ditto to mansard slopes	,,		212/8
Bridgwater hand made Double Roman red sandfaced tiles 16½″ × 14″ laid to 3″ laps, each tile in every course nailed with galvanised nails	,,		136/6
Concrete plain (nibbed) tiles to B.S. 473, 10½″ × 6″ laid as before described for plain tiles	,,		132/4
Ditto hung vertically to dormer cheeks, and gables, ditto	,,		157 6
Concrete interlocking tiles 15″ × 9″ laid to 3″ lap, each tile in every third course nailed with galvanized nails	,,		97 8
Ditto to mansard slopes ditto	,,		102/11

Asbestos Cement

6″ corrugated asbestos cement sheeting fixed to wood roofs with galvanized drive screws and washers with a side lap of 1½ corrugations and an end lap of 6″	,,	102/11
6″ ditto but fixed vertically	,,	113/11
Add to both last if fixed to steel purlins or sheeting rails with galvanized hook bolts	,,	4/9

Felt

Reinforced bituminous roofing felt laid with 3″ laps and nailed to rafters at 18″ centres with galvanized clout nails	,,	22/4

		Two layer	Three layer
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot bitumen	per yard super	8/8	11/6
Extra on last for finishing with granite chippings	,,		-/9½

CARPENTER

Carcassing

Softwood, sawn and fixed, in plates, sleeper joists and lintols	per foot cube	14/8
Ditto in floor and ceiling joists	,,	16/7
Ditto in stud partitions	,,	18/5
Ditto in rafters	,,	18/3
Ditto in purlins and struts	,,	18/5
Ditto and framing in ridge	,,	18/3
Ditto in hip and valley rafters including cutting rafters to sizes	,,	20/6

Battening and Boarding

		Roof slopes	Vertical hanging
¾″ × 2″ battens nailed to softwood for 20″ × 10″ slates to 8½″ gauge	per square	31/3	33/7
Ditto 16″ × 10″ slates to 6½″ gauge	,,	42/–	44/1
¾″ × 1½″ ditto for 10½″ × 6″ tiles to 4″ gauge (4½″ for vertical hanging)	,,	53/6	53,6

		Roof slopes	Mansards
¾″ × 2″ ditto for 14½″ × 10″ pantiles to 12″ gauge	,,	23/11	24/11
¾″ × 1½″ ditto for 15″ × 9″ concrete interlocking tiles to 12″ gauge	,,	18/8	19 8
Roof boarding in batten widths close jointed and fixed to flat or sloping roofs	,,	¾″ 110/–	1″ 136 5
Ditto tongued and grooved and prepared for felt roofing including firring to falls		163/11	190 10

CARPENTER—(*continued*)

		Roof Slopes	Mansards
Sawn gang boarding fixed to joists in roof	per foot super	1/2	1/5½
Wrot and crosstongued eaves soffite	,,	1/11	2/2½
6″ wrot and grooved eaves fascia planted on	per foot run	−/10½	1/−

Wall and Ceiling Boards

		Vertically	Soffites
¼″ fibre board to B.S. 1142 fixed with galvanized flat headed nails to softwood	per yard super	5/11	6/1
5/32″ asbestos cement flat sheeting to B.S. 690 fixed as last	,,	6/10	7/1
¼″ ditto	,,	8/−	8/3

JOINER

Floors and Skirtings
(All thicknesses stated are nominal)

		⅞″	1″	1¼″
Plain edge softwood flooring in batten widths nailed to floor joists	per square	135/6	151/−	181/−
Tongued and grooved ditto	,,	145/−	161/−	192/6

1″ double grooved and tongued and grooved wood block floor laid herringbone with two-block border, set in hot mastic composition on prepared screed and wax polished :—

Swedish softwood	per yard super	29/5
European beech	,,	35/2
English oak	,,	46/9
European oak	,,	39/11
Burma teak	,,	44/8

		Sectional area 3″ to 6″	Over 6″
Softwood skirtings with splayed or moulded top edge, planted on (per inch sectional area)	per foot run	−/2¾	−/2½
Extra for grounds plugged to brickwork	,,	−/8	

Windows in Softwood

		1½″	2″
Rebated and moulded softwood fanlights and casement sashes divided into squares for glass	per foot super	3/2	3/5
Extra for hanging	each	6/10	6/10
Cased frames with 6″ × 3″ oak sill and 2″ moulded double hung sashes including pulleys, line and weights	per foot super	—	10/4

N.B.—The above prices are for purpose made joinery. Standard pattern casement windows and double hung sashes and frames to B.S. 644 are cheaper.

Doors in Softwood

		1½″	1¾″	2″
Framed ledged and braced doors filled in with 1″ T. & G. and V-jointed boarding and hanging	per foot super	6/6	7/3	7/3
Four-panel door, square both sides and hanging	,,	5/4	6/1	6/1
Ditto molded one side	,,	5/11	6/7	6/7
Ditto molded both sides	,,	6/6	7/3	7/3

N.B.—The above prices are for purpose made doors. Standard panelled doors to B.S. 459 are cheaper.

1¾″ standard flush doors 2′ 6″ × 6′ 6″ internal pattern	each	120/8
2″ ditto external pattern	,,	129/5

Linings, Frames, etc., in Softwood

		Sectional area Up to 6″	6″ to 12″
Window and door linings etc. (per inch in sectional area)	per foot run	−/4	−/3½
Frames wrot all round and framed (ditto)	,,	−/3	−/2¾
Mullions, transomes and cills (ditto)	,,	−/3½	−/3

		2″ to 4″	4″ to 6″
Moldings, architraves, etc. (ditto)	,,	−/3¾	−/3½

		Thickness 1″	1½″
6″ Window boards with rounded nosings, tongued at back and including bearers	,,	3/3	3/6
9″ Ditto	,,	3/8	4/−

Shelving and Fittings in Softwood

		¾″	1″
Shelving of 2″ slats spaced 1″ apart on bearers (measured separately)	per foot super	2/9	3/1
Shelving on ditto	,,	2/6	3/1½
Cross tongued shelving on ditto	,,	3/1½	3/9
Shelving 9″ wide on ditto	per foot run	1/9	2/2
2″ shelf bearers plugged to walls	,,	1/1	1/3

The following in framed up cupboard fittings :—

T. & G. & V-jointed back	per foot super	2/2	2/6½
Cross tongued top, bottom shelf or division	,,	3/2½	3/9
1¾″ flush cupboard doors	,,	7/5	
Labour rebate or groove	per foot run	−/3½	

JOINER—(*continued*)

Labour cross-grain	per foot run	−/4½
1″ × 2″ bearers screwed on	,,	−/6

N.B.—The above prices are for purpose-made cupboard fittings Standard pattern kitchen fittings to B.S. 1195 are cheaper.

IRONMONGERY

		Soft-wood	Hard-wood
3″ steel butts (medium quality)	per pair	5/2	6/4
4″ ditto (ditto)	,,	6/11	8/6
Double action floor springs and top centres including filling boxes with oil P.C. 149/3	each	182/8	188/10
Overhead check action door springs. P.C. 66/8	,,	84/11	88/9
6″ barrel bolts. P.C. 5/6	,,	7/9	8/3
Cupboard locks. P.C. 8/2	,,	12/5	13/7
Norfolk latches. P.C. 5/6	,,	10/8	12/3
Cylinder night latch. P.C. 15/11	,,	23/6	25/6
Mortice latch. P.C. 9/4	,,	14/11	16/7
Rim lock. P.C. 10/−	,,	14/6	15/8
Mortice lock. P.C. 15/2	,,	22/6	24/5
Door furniture. P.C. 24/−	per set	27/7	27/11
Sash fasteners. P.C. 9/−	each	11/9	12/4
Casement fasteners. P.C. 7/11	,,	10/1	10/7
Casement stays. P.C. 11/6	,,	14/−	14/6

STEEL AND IRONWORKER

Structural Steelwork

The following prices are for Basic sections only. Prices for other sections vary roughly in proportion to the price of the steel ex mills—see "Current Market Prices of Materials."

		£	s.	d.
R.S.J.—in steel framed structures hoisted and fixed complete	per ton	59	17	0
Riveted compound girders including plates and rivets	,,	70	7	0
R.S. stanchions including caps, bases, cleats, etc	,,	69	7	0
Riveted compound stanchions ditto	,,	74	11	0
Riveted roof trusses with flat and angle members, plates, cleats, etc., 30′ span	,,	105	0	0
Ditto 40′ span	,,	101	17	0

Sundries

Simple wrot iron balustrades fixed complete (excluding mortices etc.)	per cwt.	11	10	6
Bolts with heads, nuts and washers and fixing	,,	11	1	9

PLASTERER AND TILE FIXER

24 gauge expanded metal lathing and fixing to softwood soffites	per yard super	5/4

Lime and Gypsum Plaster

		Lime	"Sirapite"
Three coat lime and two coat "Sirapite" or similar gypsum plaster :—			
On brick walls and partitions	per yard super	6/4	4/11
On concrete soffites including hacking	,,	7/8	7/−
On soffite of E.M.L. (measured separately)	,,	6/5	7/8
⅜″ Gypsum plasterboard fixed to softwood soffites, in accordance with manufacturer's instructions, scrimmed and finished with setting coat of suitable plaster	per yard super		7/9
Plaster moulded cornice or cove (per inch in girth)	per foot run		−/5

Cement Rendering

Rendering in Portland cement lime sand(1:1:6) and setting in Keenes cement on brick walls and partitions	per yard super	6/1
Portland cement and sand (1 : 3) plain face trowelled smooth on ditto	,,	5/6
Portland cement and sand (1 : 3) screed for tiling on ditto	,,	2/11

Wall Tiler

6″ × 6″ × ⅜″ standard quality white glazed wall tiles set and jointed on prepared screed	per yard super	39/11
Ditto eggshell matt or glossy glazed enamelled	,,	49/11

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER

		Flats	Gutters, flashings, etc.	Stepped flashings
Milled sheet lead and labour	per cwt.	199/9	199/9	209/6

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER—(*continued*)

		Flats	Gutters, flashings, etc.	Stepped flashings
24 S.W.G. sheet copper and labour	per foot super	5/4	5/8	5/11
23 S.W.G. sheet copper and labour	,,	5/8	6/-	6/3
14 gauge zinc and labour	,,	2/4	2/7	2/9

Rainwater Pipes and Gutters

		3″		4″	
Cast iron medium section ($\frac{3}{16}$″ metal) R.W. pipes and jointing and fixing to walls with pipe nails and distance pieces or holderbats (cutting and pinning holderbats measured separately)	per foot run	With holderbats 5/-	With nails 4/-	With holderbats 6/3	With nails 5/2
Pressed steel R.W. pipes and ditto	,,	24 G. 3/9	3/1	20 G. 5/4	4/8
Asbestos cement R.W. pipes and ditto	,,	2/8	—	3/6	—
		4″		6″	
Cast iron half round eaves gutter and jointed and fixed with brackets to fascia	,,	$\frac{1}{4}$″ 2/11	$\frac{3}{16}$″ 3/2	$\frac{1}{4}$″ 4/3	$\frac{3}{16}$″ 4/10
Ditto O.G. ditto	,,	3/5	4/-	4/8	6/-
18 Gauge pressed steel half round ditto	,,	2/9		3/8	
Ditto O.G. ditto	,,	3/5		4/4	
Asbestos cement half round ditto	,,	2/6		3/9	

Soil and Ventilating Pipes

		3″	4″
Lead soil, waste and ventilating pipes (17 lb. per yard for 3″ and 22·8 lb. per yard for 4″ diameter) fixed to walls with lead tacks and brass screws	per foot run	11/4	15/6

		Heavy $\frac{11}{32}$″	Medium $\frac{9}{32}$″	Heavy $\frac{11}{32}$″	Medium $\frac{9}{32}$″
Medium or heavy section cast iron soil, waste and ventilating pipes with caulked joints, fixed to walls, with pipe nails and distance pieces	,,	5/3	4/11	6/9	6/8

INTERNAL PLUMBER

Lead Pipes

Prices are based upon the following weights per yard.

	$\frac{1}{2}$″ lb.	$\frac{3}{4}$″ lb.	1″ lb.	1$\frac{1}{4}$″ lb.
Supply	7	11	16	21
Distributing	6	9	12·5	16
Flushing and overflow	3	5	7	9
Waste and ventilating	—	—	—	7

		$\frac{1}{2}$″	$\frac{3}{4}$″	1″	1$\frac{1}{4}$″
Supply pipe in trench (measured separately)	per foot run	3/9	5/9	8/1	10/9
Ditto fixed to walls and ceilings	,,	4/2	6/5	9/-	12/-
Distributing pipe fixed to walls and ceilings	,,	3/10	5/6	7/5	9/9
Flushing and overflow pipe ditto	,,	2/5	3/8	4/11	6/6
Waste and ventilating pipe ditto	,,	—	—	—	5/8
Joints to fittings	each	5/-	5/11	6/4	7/-
Bends	,,	—	—	—	2/-
Branch joints	,,	6/5	7/4	7/10	9/2

Steel Tubes and Fittings

		$\frac{1}{2}$″	$\frac{3}{4}$″	1″	1$\frac{1}{4}$″
Galvanized steel tubes to B.S. 1387 Class C with screwed joints in red lead as supply pipe laid in trench (measured separately)	per foot run	1/11$\frac{1}{2}$	2/2	2/5$\frac{1}{2}$	3/-
Ditto Class B ditto fixed to walls and ceilings as supply, distributing, waste pipe, etc.	,,	1/11$\frac{1}{2}$	2/2	2/4	2/10
Joints to fittings	each	3/9	4/6$\frac{1}{2}$	5/2	6/3
Bends	,,	—	—	3/2	4/5$\frac{1}{2}$
Tee, equal or reducing	,,	2/1	2/5$\frac{1}{2}$	3/-	4/-

Copper Tubes and Fittings

Prices are based upon the following gauges :—

	$\frac{1}{2}$″	$\frac{3}{4}$″	1″	1$\frac{1}{4}$″
Supply	18	17	16	16
Distributing, waste, etc.	19	19	18	18

Copper tubes to B.S. 1386, as supply pipe laid in trench (couplings and trench measured separately)	per foot run	1/10	2/8	3/7	4/8
Ditto to B.S. 659 as distributing, waste pipes, etc. fixed to walls and ceilings. Couplings measured separately		1/10	2/4	3/2$\frac{1}{2}$	3/10$\frac{1}{2}$

INTERNAL PLUMBER—(*continued*)

		$\frac{1}{2}$″	$\frac{3}{4}$″	1″	1$\frac{1}{4}$″
Brass compression type couplings—copper to copper	each	4/4$\frac{1}{2}$	5/-	6/10	8/9
Ditto bends	,,	5/8	6/7	7/3	11/9
Ditto tees	,,	7/3	8/4	12/6	18/-

Sanitary Fittings

		£	s.	d
Fireclay sinks 24″ × 18″ × 10″ including cutting and pinning brackets to tiled wall. P.C. 75/-	each	4	17	0
Combined metal sink and drainer 42″ × 18″ × 8$\frac{1}{2}$″ to bearers (measured separately). P.C. 330/-	,,	18	12	6
Fireclay lavatory basin 25″ × 18″ with taps and towel rail bracket including screwing brackets to tiled wall. P.C. 138/6	,,	8	8	0
Rectangular cast iron porcelain enamelled bath 5′ 6″ long, with taps, and panels to side and one end fixed to framing (measured separately) P.C. 390/6	,,	23	10	3
Fireclay w.c. pan with trap, plastic seat, high level cistern and flush pipe, including screwing pan to floor and cistern brackets to backboard. P.C. 200/-	,,	12	13	0
Ditto with low level cistern. P.C. 240/-	,,	14	18	6

GLAZIER

		To wood	To metal
18 oz. Ordinary quality sheet glass and glazing with putty in squares not exceeding 4 ft. sup.	per foot super	1/-	1/1$\frac{1}{2}$
24 oz. Ditto and ditto	,,	1/1$\frac{3}{4}$	1/3$\frac{1}{2}$
32 oz. Ditto and ditto	,,	1/7$\frac{1}{2}$	1/9
$\frac{1}{8}$″ figured, rolled, and cathedral—untinted and ditto	,,	1/4	1/5$\frac{1}{2}$
$\frac{1}{4}$″ rough cast and ditto	,,	1/8$\frac{3}{4}$	1/10
$\frac{1}{4}$″ wired cast and ditto	,,	1/11	2/0$\frac{1}{2}$
$\frac{1}{4}$″ Georgian wired cast and ditto	,,	1/11$\frac{1}{2}$	2/1
$\frac{1}{4}$″ Georgian wired polished plate and ditto	,,	6/1$\frac{1}{2}$	6/3
$\frac{1}{4}$″ polished plate (glazing quality) and ditto	,,	6/-	6/2

PAINTER

Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered walls and ceilings	per yard super	1/2
Prepare and twice distemper with washable distemper on plastered walls and ceilings	,,	1/9
Ditto on brick or concrete	,,	2/4
Prepare and paint two coats emulsion paint on plastered walls	,,	2/7
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	,,	4/9

Paint on Metal

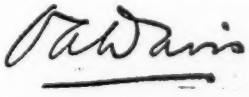
		Basic price	Add for each additional coat
Prepare, prime, and paint one coat oil colour on general surfaces	per yard super	3/-	1/5
Ditto metal casements	,,	4/8	2/1
Ditto members of roof trusses	,,	3/10	1/9
Ditto balustrades one side	,,	4/8	2/1
Ditto bars, etc., not exceeding 6″ girth	per yard run	-/9	-/4
Ditto small pipe	,,	-/9	-/4
Ditto large pipe	,,	1/7	-/8$\frac{1}{2}$

Paint on Wood

		Basic price	Add for each additional coat
Knot, prime, stop and paint one coat oil colour on general surfaces of woodwork	per yard super	3/4	1/5
Ditto on skirtings, rails, frames, etc., not exceeding 3″ girth	per yard run	-/5	-/2
Ditto ditto for each additional 3″ in girth	,,	-/4$\frac{1}{2}$	-/2
Ditto on sash squares one side	per dozen	4/5	1/8
Ditto on large sash squares one side	,,	7/11	3/1

Stain and Varnish on Wood

Prepare, size, stain and twice varnish on general surfaces of woodwork	per yard super	3/9
Ditto on skirtings, rails, frames, etc. not exceeding 3″ girth	per yard run	-/6
Ditto ditto for each additional 3″ in girth	,,	-/5



F.R.I.C.S., F.I.Arb.

INFORMATION CENTRE

24.170 lighting
PRINCIPLES OF LIGHTING DESIGN

The Design of the Visual Field. A Report prepared for the National Illumination Committee of Great Britain by the Sub-Committee on Lighting Principles. *Transactions of the Illuminating Engineering Society (London), Vol.* 18 (*No.* 8), 1953.

Although architects may find this report difficult to follow and rather confusing, it is of considerable interest, as it attempts to review the problem of lighting building interiors as a whole and to consider all the various and complex aspects in their proper relationship. For some years recognition has been given to a wider conception of interior light—*i.e.*, extending beyond the mere provision of illumination on a working plane—but no authoritative statement has been made hitherto. This report attempts to make such a statement, and in doing so it surveys the present state of knowledge and indicates directions in which future work might go.

The report is divided into three parts:—

Part I, which reviews the aims of good lighting.

Part II, which discusses the mechanism of interior lighting.

Part III, which concerns itself with the formation of the brightness pattern and its determination.

Part I. The Aims of Good Lighting

The report states, "the aim of good lighting is to reveal adequately all objects in an interior with appropriate emphasis and pleasing appearance without discomfort to users and in such a way that they can easily perform their visual tasks." In terms of illumination alone this means the right amount of light in the right places and from the right direction. It also means that the main items of visual interest must be clearly distinguishable from their surroundings by being brighter, more colourful, or providing more contrast, or all three. Vision is facilitated if a moderately light and unobtrusive background is provided to give the eyes a suitable state of adaptation, and furthermore, if the light comes from such directions that the form and texture of the object of regard is presented in an easily recognizable way.

Visual Efficiency and Comfort. The report then goes on to state that the lighting of an interior can be designed with visual efficiency or visual comfort as the principal aims, the emphasis on one or the other depending upon the nature of the work.

Visual efficiency is defined as the effectiveness with which the eyes can obtain critical relevant information from the scene presented to them and some of the factors which govern it are as follows:—

(1) The amount of light.
(2) The size of the critical details of the task.
(3) The contrast of the critical details contained within the task.
(4) The relation between the brightness of the task area and that of its surround.
(5) The relation between the pattern and texture of the task area and that of its surround.
(6) The relation between the colours of the task area and of its surround.

In contrast, visual comfort is defined as the sense of pleasure, well-being and satisfaction evoked by the whole scene. It is more than the mere absence of discomfort and may involve the provision of a certain amount of stimulant lighting to provide centres of interest. The kind of visual comfort desirable will differ according to circumstances. Some of the factors contributing to visual comfort are set out as follows:—

(1) The gradation of brightness and contrast in the field of view.
(2) The presence or absence of bright sources of light.
(3) The presence or absence of centres of attraction.
(4) The provision of visual rest centres.
(5) The directional character of the lighting.
(6) The nature of the colour pattern.

Specification of the Visual Field. The report points out that consideration of the factors that make for visual efficiency, comfort and interest will lead the designer to a conception of the kind of visual field he wishes to produce. In order to realize this conception he must be able to express it in figures and to design and locate the lighting equipment which will produce the desired effect. The next two parts of the report are devoted to these aspects of the problem.

Part II. The Mechanism of Interior Lighting

The report in this section describes the results of releasing light within an interior, either by daylight from outside or by lamps associated with lighting equipment. It points out that the interreflection of light within an interior by all the surfaces forms a pattern of brightness which is determined also by the scheme of decoration. The general brightness pattern so formed influences the brightness of the task, thus determining the adequacy with which the task can be seen. It also influences the adaptation of the eye of the user and determines whether the user will experience glare, discomfort, and distraction, and it can be organized so as to enhance effects which the architect is seeking. The report then goes on to describe the relevant factors in some detail:—

(i) adaptation of the eyes.
(ii) the amount of light for the task.
(iii) emphasis and contrast.
(iv) the surroundings, distraction and glare.
(v) modelling and shadows and the revealing of architecture and form.
(vi) colour and decoration.

The last two items are probably of greatest immediate interest to the architect. Not the least important aspect of the problem is that many interiors appear quite different by night and by day, mainly because of the difference in modelling. In the section on colour the report also mentions that the effect known as "colour constancy" is considered of major importance by architects concerned with the design of interior decorations.

Part III. The Formation of the Brightness Pattern and its Predetermination

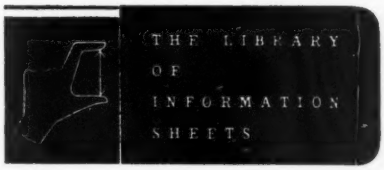
Attention is drawn to the fact that studies now proceeding on visual comfort, emphasis, concentration, and the revealing of architecture involve consideration of the brightness pattern in greater detail than hitherto. It is desirable therefore to devise methods of predetermining the brightness pattern in the detail such studies demand. With this in view, the report then gives a detailed analysis of the problem in terms of the illumination falling on a surface and its reflection characteristics. It points out that the illumination falling on a surface consists of two components—E_d the illumination received direct from the lighting equipment and E_i the illumination received by reflection and inter-reflection from all other surfaces. The relative importance of the two components depends on the conditions in the interior, *i.e.*, the concentration or diffusion of the illumination, and the reflection factors of walls, ceilings, etc. The brightness pattern is further complicated by the effects of orientation and shadow.

A description is then given of a possible method of building up the brightness pattern. The following design stages are envisaged:—

(i) Specification of the desired brightness pattern, from considerations of emphasis, visual tasks, modelling and comfort.
(ii) Preliminary lighting design by conventional methods with assumed or actual average reflection factors of walls and ceiling.
(iii) Determination of direct illumination (E_d) on interior surfaces chosen with regard to the requirements of emphasis, comfort, etc.
(iv) Determination of the interreflected component of illumination (E_i) on the same surfaces.
(v) Determination of the overall illumination of each selected area by combining (iii) and (iv).
(vi) Calculation of luminance pattern from the illumination and luminance factors.
(vii) Glare check by analysis of light source/background relationships by methods of Ward Harrison or Hopkinson.
(viii) Modification of luminance factors and lighting design where necessary to achieve the desired brightness pattern or degree of comfort.

The report then gives detailed consideration to items (ii) and (iii). It concludes with the reminder that "in the final design architecture, furniture, decoration, colour and light will be compounded together into an æsthetically satisfying whole and the design must result from combining the skills of the artist understanding technical means and materials and of the engineer appreciating the artistic aims."

A very full bibliography is included.



27.B10 *REFERENCE BACK*

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

Reverse of Sheet—under heading "Tiles" sub-heading "Sizes": substitute for present wording "The following sizes are available for use with the Cullum channel fixing system:

"Type C.3G $\frac{13}{16}$ in. thick—12 in. by 24 in., 24 in. by 24 in.

"Type C.4G $1\frac{1}{4}$ in. thick—12 in. by 24 in., 24 in. by 24 in.

"Similar tiles, including 12 in. by 12 in., are available for fixing by other methods."

36.B1 *REFERENCE BACK*

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

Face of Sheet—isometric view of Everyway Hose-reel: the handle operating the shut-off nozzle cock should be in the "down" position, not up as shown. Front elevation: dimension shown as 1 ft. 4 in. is now 1 ft. 5 in., 11 in. is now 9 in., and 1 ft. 0 in. is now $9\frac{1}{4}$ in.

Reverse of Sheet—under heading "Other Types of Soda-Acid Fire Extinguisher," last item Model C.15 is now Model C.50.

Readers requiring up-to-date information on building products and services may complete and post this form to The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers names please.)

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Please ask manufacturers to send further particulars to :—

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PROFESSION or TRADE .....

ADDRESS .....

.....

AJ 24.6.54

Buildings Illustrated

Ackroydon Estate, Wimbledon Park Side and Princes Way, Wandsworth, London, S.W.19, for the London County Council. (*Pages* 762-768.) Architects: Dr. J. L. Martin, M.A., F.R.I.B.A. Architect to the Council, in succession to Robert H. Matthew, C.B.E., A.R.I.B.A. Principal Housing Architect: H. J. Whitfield-Lewis, A.R.I.B.A.. Assistant Housing Architect, Michael Powell, B.A., A.R.I.B.A. Architect-in-charge, H. G. Gillett, A.R.I.B.A., Assistant Architect, A. P. Roach, A.R.I.B.A. Consulting Engineers: Bylander & Waddell. Quantity Surveyors, Frank N. Falkner & Partners. General Contractors: Tersons Ltd. Subcontractors: Tarmacadam, Wainwright Paving & Contracting Co. Ltd.; electrical installation, Haines & Sheppard Ltd.; plastic tile flooring, Marley Tile Co. Ltd.; lift installation, Bennie Lifts Ltd., and Express Lift Co. Ltd.; hot and cold water services and ventilation to laundries, Benham & Sons Ltd., and Champions (London) Ltd.; cement glazing, Prodorite Ltd.; lightning conductors, R. C. Cutting & Co. Ltd.; formwork, scaffolding and wrought ironwork, Scaffolding (Great Britain) Ltd.; plumbing, Z. D. Berry & Sons Ltd.; glazing and patent glazing, Faulkner, Greene & Co. Ltd.

Offices at Fielden House, 28-42, London Bridge Street, London, S.E.1, for the King Edward's Hospital Fund for London. (*Pages* 769-774.) Architect: J. S. Lacey, A.R.I.B.A., A.M.T.P.I.; Associate Architect, C. F. Timothy, A.R.I.B.A.; Consulting Engineer, F. J. Samuely, B.SC., M.I.C.E., M.I.STRUCT.E., F.I.A.S., M.I.W., M.CONS.E.; Quantity Surveyors: H. J. Venning & Partners; General Contractors: G. E. Wallis & Sons Ltd.; Clerk of Works: G. R. Millhouse; General Foreman, W. Penn; Subcontractors: demolition, Willment Bros. Ltd.; foundations, Pressure Piling Co. (Parent) Ltd.; asphalt, Val de Travers Asphalte Paving Co. Ltd.; reinforced concrete, Liverpool Artificial Stone Co. Ltd. (precast and prestressed), G. E. Wallis & Sons Ltd. (Insitu); bricks, A. Turner & Son Ltd.; granite, Fenning & Co. Ltd.; artificial stone, Girlingstone Ltd.; slate, Bow Slate & Enamel Co. Ltd.; glass, Aygee Ltd.; woodblock flooring, patent flooring, Horsley Smith & Co. (Hayes) Ltd.; central heating, Weatherfoil Heating Systems Ltd.; stoves, Radiation Group Sales Ltd.; gas fixtures, Radiation Group Sales Ltd. (incinerators), William Sugg & Co. Ltd.; boilers, Ideal Boilers & Radiators Ltd.; electric wiring, bells, Courtney Pope (Electrical) Ltd.; electric light fixtures, Courtney Pope (Electrical) Ltd., Merchant Adventurers of London Ltd., and Troughton & Young (Lighting) Ltd.; ventilation, Weatherfoil Ltd.; plumbing, Ellis (Kensington) Ltd.; casements, Holcon Ltd. (wood), Brunwick Metal Casement & Engineering Co. Ltd. (metal); iron staircases, metalwork, Haskins; telephones, Modern Telephones; convector covers, G. A. Harvey & Co. (London) Ltd.; sunblinds, Dean's Blinds Putney Ltd., Holcon Ltd. (Venetian blinds); plaster, Gyproc Products Ltd.; joinery, G. E. Wallis & Sons Ltd.; terrazzo and marble, Art Pavements & Decorations Ltd.; tiling, Carter & Co. (London) Ltd.; furniture, Hille of London Ltd.; shop fittings, Courtney Pope Ltd.; lifts, Hammond & Champness Ltd..

Announcement

The British Standard for Timber scaffold boards (B.S. 2482 : 1954) has been published. The object of this British Standard is to give the essential requirements for producing satisfactory timber scaffold boards and to assist in the selection of suitable timber. Copies may be obtained from the Sales Branch, British Standards Institution, 2, Park Street, W.1. Price 2s. 6d.

Some BOOKS on English architecture and social life

The Architecture of England by Frederick Gibberd, F.R.I.B.A., A.M.T.P.I. This popular book (70,000 copies of it have already been sold) presents in text and pictures the complete evolution of English architecture and explains, briefly, its relation to the historical background and social life of the times. Size 11½ ins. by 9 ins. 48 pages, with over 150 drawings and about 80 halftone illustrations. New edition (70th thousand). 10s. 6d. net, postage 7d.

English Architecture at a Glance by Frederick Chatterton, F.R.I.B.A. Illustrated by J. D. M. Harvey, B.A. A simple review in pictures of the chief periods of English architecture, accompanied by brief historical notes on the various styles and their details. Nearly 100,000 copies of it have already been sold, and its popularity is accounted for by the fact that it enables the amateur to identify the periods literally " at a glance." It contains over 90 line drawings and some halftone illustrations. Size 8¼ ins. by 5½ ins. Eighth Impression of the Fifth Edition. 4s. 6d. net, postage 3d.

A History of the English House by Nathaniel Lloyd, O.B.E. The most authoritative and exhaustively illustrated history of the English house ever published. 498 pages with 900 illustrations. Size 12¼ ins. by 9 ins. £3 13s. 6d. net, postage 1s. 10d.

A Miniature History of the English House by J. M. Richards. Specially written for those who need a small inexpensive handbook on the English house, this is a complete outline history of our domestic architecture from primitive hut to present-day house. Many illustrations are drawn from the late Mr. Nathaniel Lloyd's standard work (described above); but Mr. Richards' text is entirely original and, moreover, continues beyond the early 19th century, tracing the subsequent development of the house down to the nineteen-thirties. Size 8¼ ins. by 5⅝ ins. 72 pages with over 90 illustrations. Seventh impression. 4s. 6d. net, postage 3d.

Parliament House: the Chambers of the House of Commons by Maurice Hastings, Ph.D. To understand the traditional plan adopted for the new Chamber of the House of Commons we have to go back to 1547 when the King's chapel of St. Stephen's became the home of the Commons. Dr. Hastings makes a brilliant and learned reconstruction of this place where so many high events and great Parliamentarians moved; he also describes Barry's Chamber and that opened in 1950, designed by Sir Giles Gilbert Scott, showing how the choir-stall seating plan has continued unchanged through the centuries. Bound in full cloth boards. Size 8½ ins. by 5½ ins. 200 pages with 78 illustrations. 12s. 6d. net, postage 6d.

English Panorama by Thomas Sharp, M.A., D.Litt. The first carefully studied and original account of the evolution down the centuries of the English scene in town and countryside, this book ends with a penetrating analysis of the problems of town and country planning which now confront us. First published in 1936, it has now been revised with much new material and is almost entirely newly illustrated. Bound in full cloth boards. Size 8½ ins. by 5½ ins. 148 pages, with over 50 halftone and line illustrations. 12s. 6d. net, postage 6d.

English History at a Glance: a chart designed by H. A. Vetter. With a historical digest by Peter Dantry and Ernest Savage. Dr. Vetter's large coloured chart is an original method of presenting history in a visual way. It is divided vertically by lines representing dates and horizontally into a series of different sections which cover the following subjects: The Land, Science, Economics and Social History, Exploration, Politics, Literature, Drama, Painting, Sculpture, Architecture, Music, Religion and Philosophy. On their correct date-lines, and in their appropriate sections, appear the names of the men who have influenced the development of English life and achievement; and these are printed on coloured labels representing the period to which they belong. The historical digest which follows the chart gives a brief account of the development of each activity, and outlines the achievement of the men named in the chart. At a glance, therefore, the reader can follow the development of, say, literature through the centuries, and, at a glance also, can see who was contemporary with whom—for instance, which writers were contemporary with which composers, and which prime-ministers with which philosophers, and so on. An unbelievably large amount of information in every field of English history, in its broadest sense, is contained in this book. Size 13¾ ins. by 10⅝ ins. Containing a coloured chart (6 pages), text (which includes 70 halftone illustrations), a bibliography and index. 8s. 6d. net, postage 8d.

A complete illustrated catalogue will be sent on application to
THE ARCHITECTURAL PRESS 9-13, *Queen Anne's Gate, London, S.W.*1.

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

Public and Official Announcements

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

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

MINISTRY OF WORKS.

ARCHITECTURAL ASSISTANTS are required for drawing office work in London and various Regional Offices. Candidates must have had at least three years' architectural training, some experience in an architect's office, and be of Intermediate R.I.B.A. standard.

London salary scale per annum: £420 (at age 21) to £670 (slightly less in the provinces). Starting rate up to £580, according to age and experience. Although unestablished, these posts have long-term possibilities and promotion prospects, and competitions are held periodically for establishment.

State age, nationality, and full details of training and experience, to W.G.10/CA5 (F), Ministry of Works, Abell House, John Islip Street, London, S.W.1. 2892

AIR MINISTRY WORKS DEPARTMENT requires ARCHITECTURAL ASSISTANTS in Design Branch. Applicants should be experienced in planning and preparation of working drawings and details for permanent and semi-permanent buildings. Professional quals. an advantage. Vacancies mainly London few Provinces. Appointments carry liability for overseas service for which allowances payable. Salaries up to £780 p.a. for men, £618 for women. Starting pay dependent upon age, quals. and experience. Extra duty allowance or overtime payable. Reasonable prospects of promotion. Posts temporary and non-pensionable but have long term possibilities. Competitions held periodically to fill established vacancies. Applications from natural born British subjects only, quoting A/C and stating age, quals. and previous appointments, giving dates and stating types of work done, to Air Ministry, S.2(h)/NA, Cornwall House, Stamford Street, London, S.E.1. 2748

GOVERNMENT OF NORTHERN IRELAND. MINISTRY OF FINANCE—DIRECTORATE OF WORKS.

ARCHITECTURAL ASSISTANTS.

Applications are invited from ARCHITECTURAL ASSISTANTS with recognised training and fair experience for unestablished posts in the Chief Architect's Branch. The employment will provide useful experience for those seeking to obtain professional qualifications. Successful candidates will be eligible for consideration for permanent and pensionable posts as vacancies arise and for promotion to a higher grade on their obtaining full professional qualifications.

The inclusive annual salary scale (which is at present under review) is £351 rising to £628. The starting pay of candidates who have passed the R.I.B.A. Intermediate Examination will be £495. Entry points for other candidates will be fixed in relation to their ages, e.g., £351 at age 21; £440 at age 25 or over.

Preference will be given to candidates who served in H.M. Forces in the 1914-18 or 1939-45 wars, provided that such candidates are, or within a reasonable time will be, able to discharge the duties efficiently.

Candidates who are invited to attend for interview will be recouped cost of railway and steamer fares at minimum rates.

Applications, giving date of birth and full details of training and qualifications, should be sent to the Director of Establishments, Ministry of Finance, Stormont, Belfast. 2905

CUCKFIELD URBAN DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANT (GRADE A.P.T. IV).

The Council invite applications for the post of Architectural Assistant in the Surveyor's Department. Salary Grade A.P.T. IV (£580×£15-£625).

Applicants must be able to undertake the design of houses and estate layouts and to prepare final plans, working drawings, specifications and estimates, and preference will be given to those who have passed the Intermediate Examination of the Royal Institute of British Architects or its equivalent.

The appointment is superannuated and subject to passing a medical examination.

Consideration will be given to the housing needs of married applicants.

Applications, enclosing copies of three recent testimonials, should reach me by noon on Monday, 5th July, 1954.

Canvassing disqualifies.

J. A. EVANS,
Clerk of the Council.

Oaklands, Haywards Heath, Sussex.
11th June, 1954. 2988

COUNTY BOROUGH OF WEST HAM.
BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.

Applications are invited for the following appointments:—

(1) CHIEF ASSISTANT (TOWN PLANNING). A.P.T., Grade X (£920×£40×£40×£50—£1,050, plus London allowance).

Applicants must be A.R.I.B.A., A.M.T.P.I., and the successful applicant will be required to take charge of the Town Planning Section of the Department. Experience in the following is essential:—

(*a*) The preparation and realisation of a Development Plan for a County Borough;
(*b*) the redevelopment of war damaged and obsolescent areas;
(*c*) the examination of development applications and their presentation to Committee;
(*d*) the preparation of evidence for Public Inquiries and acting as technical witness;
(*e*) the delineation of areas for compulsory acquisition under the Planning and Housing Acts.

Ability to handle negotiations and some experience of public relations work will be an advantage.

(2) SENIOR ASSISTANT (TOWN PLANNING). A.P.T., Grade VIII (£785×£25×£25×£25—£860, plus London allowance.

Applicants must be A.R.I.B.A., A.M.T.P.I. Preference will be given to applicants who have had experience in the redevelopment of obsolescent areas and in the layout of detailed proposals for such areas. Applicants should also be capable of preparing evidence for Public Inquiries.

(3) SENIOR ASSISTANT (TOWN PLANNING). A.P.T., Grade VII (£735×£25×£25×£25—£810, plus London allowance).

Applicants should be A.R.I.B.A., and preference will be given to those with a planning qualification. Applicants should have had some experience in the preparation of layouts for residential areas, and also be capable of giving advice in matters relating to the exercise of architectural control under the Planning Act.

Forms of application are available from Thomas E. North, O.B.E., F.R.I.B.A., Dist.T.P., Borough Architect and Planning Officer, 70, West Ham Lane, Stratford, E.15, and must be submitted by 7th July, 1954. 2973

CITY OF CAMBRIDGE.
CHIEF ASSISTANT ARCHITECT, GRADE X.

Applications are invited for the above appointment on Grade X (£920-£1,050).

This officer will be responsible to the City Surveyor for the design and construction of all architectural work, including schools, houses, flats, redevelopment schemes, libraries, etc., and will have under his direction an architectural staff of about seventeen assistants.

The appointment is subject to the Scheme of Conditions of Service of the N.J.C. for Local Authorities, and to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination.

Forms of application may be obtained from the City Engineer and Surveyor, Guildhall, Cambridge, and should be returned to him by Monday, the 28th June, 1954.

ALAN H. I. SWIFT,
Town Clerk.

The Guildhall, Cambridge.
June, 1954. 2956

NORTHAMPTON.
ASSISTANT ARCHITECT (HOUSING). A.P.T., V (£620-£670).

Particulars of appointment and form of application, to be returned by 3rd July, may be obtained from the Borough Architect, Guildhall, Northampton.

C. E. VIVIAN ROWE, *Town Clerk.*
2964

COUNTY BOROUGH OF WOLVERHAMPTON.
APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Architectural Assistants required in Borough Engineer's Department. Salary: A.P.T., III, £550-£595, or A.P.T., IV, £580-£625, according to qualifications.

Appointments subject to one month's notice and to provisions of Local Government Superannuation Act, 1937. Medical examination.

N.J.C. Conditions of Service.

Applications, stating age, qualifications, present position, and full details of experience, together with names of three referees, should be delivered to the Borough Engineer, Town Hall, Wolverhampton, not later than Wednesday, 7th July, in envelope endorsed "Architectural Assistant."

A. G. DAWTRY,
Town Clerk.

Town Hall, Wolverhampton. 3055

BOROUGH OF BRENTFORD AND CHISWICK.
APPOINTMENT OF TEMPORARY ASSISTANT ARCHITECT.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications invited for this appointment (for minimum period of six months) on Grade VI (£725 to £790 per annum, including London weighting), salary dependent on experience and qualifications. Experience in housing design and detailing is essential.

Written applications, stating age, experience and qualifications, with two recent testimonials, to reach undersigned by 10th July, 1954.

W. F. J. CHURCH,
Town Clerk.

Town Hall, Chiswick, W.4. 3040

COUNTY BOROUGH OF BARNSLEY.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF CHIEF ASSISTANT ARCHITECT.

Applications are invited for the appointment of CHIEF ASSISTANT ARCHITECT in the Borough Engineer and Surveyor's Department at a salary in accordance with A.P.T. Grade VIII (£785-£960).

Applicants should be Associate Members of the Royal Institute of British Architects and have had considerable experience in the design and layout of Municipal Housing Estates and other Public Buildings (excluding Schools).

The Corporation have a large and varied programme of schemes in preparation and the post offers wide scope in the field of architecture.

Housing accommodation will be provided for the successful candidate, if necessary, and a car allowance will be paid in accordance with the Scheme for Casual Users.

The appointment will be subject to (*a*) the Scheme of Conditions of Service for A.P.T.C. Staff; (*b*) any other general conditions of employment in operation within the Corporation from time to time; (*c*) one month's notice on either side; and (*d*) to the Local Government Superannuation Acts for which purpose the successful candidate will be required to pass a medical examination.

Applications, on forms to be obtained from the Borough Engineer, Town Hall, Barnsley, should be returned to reach him not later than Tuesday, 20th July, 1954.

Canvassing will disqualify and applicants should disclose whether they are related to any Member or Senior Officer of the Council.

A. E. GILFILLAN,
Town Clerk.

Town Hall, Barnsley.
June, 1954. 2984

COUNTY BOROUGH OF BURY.

Applications are invited for the following appointments:—

(*a*) ARCHITECTURAL ASSISTANTS, up to Grade A.P.T., V (£620-£670), according to qualifications and experience.

(*b*) BUILDING INSPECTOR, Grade A.P.T., II (£520-£565).

The appointments are subject to the Local Government Superannuation Act, 1937, and medical examination.

Applications, stating age, details of training, qualifications and experience, together with the names and addresses of two persons to whom reference may be made, must be received by me not later than 10th July, 1954.

EDWARD S. SMITH,
Town Clerk.

Town Hall, Bury.
16th June, 1954. 3054

BOROUGH OF FINCHLEY.
TEMPORARY JUNIOR ARCHITECTURAL ASSISTANT.
HOUSING AND TOWN PLANNING DEPARTMENT.

Salary: A.P.T., Grade II (£520×£15—£565, plus London weighting).

Candidates must have passed R.I.B.A. Inter. Examination, and should have practical office experience of housing work.

The National Scheme of Conditions of Service and the Local Government Superannuation Acts apply and medical examination required.

Applications, stating age and full particulars of qualifications and experience, with the names of two referees, to the Borough Housing and Town Planning Officer, The Avenue, Finchley, N.3, by first post on Monday, the 5th July, 1954.

R. M. FRANKLIN,
Town Clerk.

3036

SOUTHAMPTON C.B.C. require SENIOR ASSISTANT ARCHITECT, Grade VI (£695-£760). Application forms from Borough Architect, Civic Centre, Southampton, to be returned by 12th July, 1954. 3037

FIFE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for appointment as ASSISTANT ARCHITECT in the above Department. Salary scale: £760, rising by three increments of £30 and two of £10 to £870. Candidates should be qualified Architects, having A.R.I.B.A. and registered Architects. Previous Local Authority experience an advantage. The successful candidate will be considered for admission to the Council's Superannuation Scheme, subject to passing a medical examination, and consideration may be given to meeting housing needs. Applications, stating age, experience and qualifications, together with copies of recent testimonials, to be lodged with the undersigned not later than 3rd July, 1954.

MATTHEW POLLOCK,
County Clerk.

County Buildings, Cupar, Fife. 3035

COVENTRY CORPORATION require CHIEF PLANNING ASSISTANT, A.P.T., IX (£840-£960). A.M.T.P.I. plus another professional qualification essential. Responsible, under Principal Planning Assistant, for all planning work other than Development Control. Candidates should be experienced in preparation of development plan, central area reconstruction, and planning administration; knowledge of landscape design desirable. Housing accommodation may be available in approved circumstances. Application forms and conditions from D.E.E. Gibson, Bull Yard, Coventry, returnable by 12th July. 3038

BOROUGH OF SOLIHULL.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL ASSISTANT (A.P.T., GRADE IV).

Applications are invited for the appointment of an Architectural Assistant, A.P.T., Grade IV (£580-£625).

Candidates must have had at least two years' office experience, and should either have passed, or be about to take, the Intermediate Examination of the R.I.B.A.

Housing accommodation can be made available to the successful applicant, if required.

Applications, stating age, experience and previous appointments, together with copies of two recent testimonials, should reach The Borough Engineer and Surveyor, 90, Station Road, Solihull, not later than Friday, 9th July, 1954.

W. MAURICE MELL,
Town Clerk.

The Council House, Solihull.
16th June, 1954. 3039

HACKNEY BOROUGH COUNCIL invite applications:—

(*a*) From Registered Architects for the appointment of an ASSISTANT ARCHITECT. Salary offered within A.P.T. Division, Grades V(a)-VI (£650-£760 per annum), plus London weighting allowance.

Preference will be given to candidates with experience in the design and construction of Municipal housing schemes and public buildings.

(*b*) For two posts of ARCHITECTURAL ASSISTANT. Salary for each appointment within A.P.T. Division, Grades III-IV (£550-£625 per annum). London weighting allowance also payable.

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

Apply to Town Clerk, Town Hall, Hackney, E.8, for application form, returnable by 10th July, 1954. 3041

HEMEL HEMPSTEAD DEVELOPMENT CORPORATION.
APPOINTMENT OF ASSISTANT ARCHITECTS (Vacancy No. 108). Inter. R.I.B.A. essential. Salary scale: £510×£25—£635 p.a. Consideration will be given to starting salary at maximum scale where appropriate, and to promotion to next grade (£660×£30—£750) on passing Final Examination. Applicants should have experience in housing and in the case of one appointment of industrial development.

APPOINTMENT OF JUNIOR ASSISTANT ARCHITECTS (Vacancy No. 109). Salary scale: £255-£450. Applicants should have good architectural drawing office experience and ability to execute drawings in connection with housing and/or industrial work, and should be studying for R.I.B.A. examinations.

Housing accommodation may be available. Conditions of service similar to Local Government Charter, with opportunity of entering or continuing in Local Government Superannuation Scheme.

Application forms can be obtained from General Manager, Westbrook Hay, Hemel Hempstead, and should be completed and returned by 2nd July. 2983

COUNTY BOROUGH OF GREAT YARMOUTH.
APPOINTMENT OF ASSISTANT ARCHITECTS.

Applications are invited for the following appointments in the Borough Engineer's Department:—

(*a*) SENIOR ASSISTANT ARCHITECT (Grade A.P.T., VII, £735-£810). Applicants should be A.R.I.B.A., with office experience, which is essention for this position.

Preference will be given to candidates with wide administrative experience in the handling of large contracts. Housing accommodation will be offered by the Council if required.

(*b*) JUNIOR ARCHITECTURAL ASSISTANT (Grade A.P.T., II, £520-£565). Applicants should possess enthusiasm for their job and be of contemporary outlook. Preference will be given to candidates of Intermediate standard. Housing accommodation is not available for this post.

The appointments will be terminable by one month's notice on either side, subject to the provisions of the Local Government Superannuation Acts, and passing a medical examination. Applications, stating age, qualifications, education and training and appointments held, giving the names of two referees, should be enclosed in an envelope appropriately endorsed, and must reach me by the 9th July, 1954.

Candidates must disclose in writing whether they are related to any officer or member of the Council. Canvassing disqualifies.

FARRA CONWAY,
Town Clerk.

Town Hall, Great Yarmouth.
10th June, 1954. 2987

ROYAL BOROUGH OF KINGSTON-UPON-THAMES.
APPOINTMENT OF ARCHITECTURAL ASSISTANT Grade A.P.T. III.

Commencing salary £550, plus London Weighting. National Scales of Salaries. Canvassing will disqualify. Details from Borough Surveyor, Guildhall, Kingston-upon-Thames.

Applications with names of two referees to undersigned by 17th July.

A. B. ROGERS,
Town Clerk.

Guildhall, Kingston-upon-Thames. 3019.

STAFFORDSHIRE COUNTY COUNCIL.
COUNTY PLANNING AND DEVELOPMENT DEPARTMENT.

Applications are invited for the appointment of:—

(*a*) PLANNING ASSISTANT, A.P.T., Grades IV-VI. Salary: £580 to £760.

(*b*) JUNIOR PLANNING ASSISTANT, A.P.T., Grades I-IV. Salary: £490 to £625.

Both vacancies exist at the Southern Area Planning Office at Wolverhampton. Commencing salary according to experience and qualifications.

Applicants for (*a*) should be professionally qualified and have had experience in the preparation and carrying into effect of housing estate layouts, estate redevelopment work, and urban redevelopment schemes.

Applicants for (*b*) should have had training in an Architects, Engineers, Surveyors or Planning Office, and preference will be given to those who have passed the Intermediate Examination of the Town Planning Institute or its equivalent.

Applicants should give details of age, education and training, qualifications, present and previous appointments and experience, and the names of two persons to whom reference can be made. Applications, in which relationship to any member or senior officer of the County Council must be disclosed, should be sent to D. W. Riley, County Planning and Development Officer, 41a, Eastgate Street, Stafford, not later than the 3rd July, 1954.

T. H. EVANS,
Clerk of the County Council.

3009

BOROUGH OF LUTON
TECHNICAL STAFF

Applications are invited for the following appointments in the Borough Engineer's Department:—

(*a*) ARCHITECTURAL ASSISTANT (salary between General Division at £170 per annum and A.P.T. V at £620 according to qualifications and experience). Previous experience of schools and housing work an advantage.

(*b*) ARCHITECTURAL ASSISTANT Grade A.P.T. VII (£735 per annum). Extensive experience in school and housing work. House available.

Appointments are subject to National Conditions of Service and Local Government Superannuation Acts, 1937/1953.

Particulars of age, qualifications, experience, previous and present appointments and salary, with names of two referees, to the Borough Engineer, Town Hall, Luton, by 12th July, 1954.

A. D. HARVEY,
Town Clerk.

2989

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE.
COUNTY PLANNING DEPARTMENT.

Applications are invited for the appointment of CHIEF PLANNING ASSISTANT on the Headquarters staff of the Department at Wakefield, at a commencing salary within the Grade (£785×£25—£860), according to qualifications and experience.

The duties attached to the post will include work on central area redevelopment and the preparation of advisory housing layouts, etc.

Applicants must be qualified Architects, and should preferably in addition be Corporate Members of the Town Planning Institute and have had a sound general planning experience.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, as amended by the West Riding County Council (General Powers) Act, 1948, and the successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications and experience, should be accompanied by copies of two recent testimonials, or should give the names and addresses of two referees, and must reach the undersigned not later than 3rd July, 1954.

ARTHUR BATES,
County Planning Officer.

County Planning Department,
71, Northgate, Wakefield. 3011

CAMBORNE-REDRUTH URBAN DISTRICT COUNCIL.
APPOINTMENT OF QUANTITY SURVEYOR.

Applications are invited for the appointment of Quantity Surveyor (Housing) at a salary in accordance with Grade A.P.T. V (£620-£670).

Applicants should have had suitable experience in the preparation of Bills of Quantity, measuring and valuation for interim certificates and final accounts, for work in connection with large housing schemes.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and to the National Joint Council's Scheme of Conditions of Service, and is terminable by one month's notice in writing on either side.

Consideration will be given to the provision of housing accommodation, if required.

Applications, stating age, details of qualifications and experience, together with the names and addresses of two persons to whom reference may be made, should be received by the undersigned not later than the 3rd July, 1954.

Canvassing, either directly or indirectly, will be a disqualification, and applicants must disclose their relationship to any Member or Senior Officer of the Council.

S. C. WILSON,
Clerk of the Council.

Council Offices, Camborne,
Cornwall.
11th June, 1954. 2991

COUNTY OF ESSEX.
ILFORD COMMITTEE FOR EDUCATION.

The Essex County Council invite applications for the post of ARCHITECTURAL ASSISTANT in the Offices of the Borough Engineer of Ilford. Candidates should have passed the R.I.B.A. Intermediate Examination, or its equivalent, at one of the recognised Schools of Architecture, and have worked in an architectural office for a period of not less than two years.

The scale of salary will be in accordance with the National Joint Council, A.P.T. Division, Grade IV, £580×£15—£625, plus the appropriate London Area allowance.

Application should be made on a form to be obtained from, and returned to, the Borough Education Officer, Education Offices, Town Hall, Ilford, together with copies of not more than three recent testimonials, within 14 days of the appearance of this advertisement. 3010

COUNTY COUNCIL OF DURHAM.
APPOINTMENT OF DEPUTY COUNTY PLANNING OFFICER

Applications are invited from persons who are at least Associates or Members of the Town Planning Institute and who have had considerable experience in planning work for the appointment of Deputy County Planning Officer at a salary of £1,400 × £100-£1,700 per annum. Applications must reach me on or before 7th July, 1954, and applicants should state the names of two or more persons to whom reference may be made. Canvassing either directly or indirectly will disqualify and applicants must disclose in writing whether to their knowledge they are related to any member of the Council or to the holder of any senior office under the Council.

J. K. HOPE,
Clerk of the County Council.

Shire Hall, Durham.
14th June, 1954. 3000

DERBY CORPORATION.
BOROUGH ARCHITECT'S DEPARTMENT.

(*a*) SENIOR QUANTITY SURVEYOR, GRADE VI. Salary £695-£760, commencing at £696 per annum.

Applicants should be Chartered Quantity Surveyors or Prospective, and be fully experienced in the preparation of quantities, specifications, site measuring and estimates for all classes of building works.

(*b*) JUNIOR QUANTITY SURVEYOR, GRADE I/II. Salary £490-£565, commencing at £490 per annum.

Applicants should have passed the R.I.C.S. First Examination, be not less than 21 years of age, and be experienced in working up bills of quantities and measuring up on site.

Permanent staff appointments, subject to one month's notice and pensionable subject to medical examination. National Conditions of Service. Forms of application obtainable from, and to be returned to, the Borough Architect, The Council House, Derby, not later than 5th July, 1954.

G. H. EMLYN JONES,
Town Clerk.

3001

CORPORATION OF THE CITY OF ABERDEEN
APPOINTMENT OF CITY ARCHITECT.

The Corporation of Aberdeen invite applications for the appointment of City Architect.

The salary scale is £1,850, rising by two annual increments of £100 each and one increment of £50 to a maximum of £2,100 per annum.

The person to be appointed shall be a member of the Royal Institute of British Architects who, on 1st June, 1954, had not reached the age of 50 years. Previous local government experience is desirable.

Applicants should state age, present position, professional qualifications and experience. Each application should be accompanied by a copy of not more than three recent testimonials and should give the names of three persons who would be prepared to act as referees.

The post is superannuable and the person selected will be required to pass a medical examination before appointment.

Further particulars as to terms and conditions of appointment may be had on request from the undersigned.

Applications must be lodged with the Subscriber on or before 10th July, 1954. Each candidate is required to furnish forty copies of his application.

J. C. BENNIE,
Town Clerk.

Town House, Aberdeen.
12th June, 1954. 2990

NORTHERN IRELAND HOUSING TRUST.
ASSISTANT ARCHITECT.

The Trust has a vacancy for an Assistant Architect, Grade II, on the salary scale of £725 ×£25-£800.

Candidates must be Associate Members of the Royal Institute of British Architects and should have experience of housing projects.

Preference will be given to ex-service candidates.

The person appointed will be required to participate in a contributory superannuation scheme allowing for the reciprocal transfer of benefits in Local Government Superannuation Schemes in suitable cases.

Assistance in obtaining housing accommodation may be given to the successful candidate.

Please apply, as soon as possible, giving full details of age, education, qualifications and experience, including present post and salary to the General Manager, Northern Ireland Housing Trust, 12 Hope Street, Belfast. 3018.

THE DEPARTMENT OF HEALTH FOR SCOTLAND invite applications from ARCHITECTURAL DRAUGHTSMEN, with considerable office experience for a non-pensionable post. Duties include development of designs for multi-storey flats, traditional housing and non-traditional forms of house construction. Salary range: £410-£655 (women £575), with placing according to age and experience. Form of application, obtainable from Establishment Officer, Department of Health for Scotland, St. Andrew's House, Edinburgh, 1, must be returned by 3rd July, 1954. 3034

ARCHITECTURAL ASSISTANT required by UNIVERSITY OF CAMBRIDGE, Department of Estate Management. Commencing salary: £290-£375, according to age and experience; contributory pension scheme. Wide variety of interesting work, giving opportunity of valuable experience towards qualifications. Applicants should have completed National Service and have a sound knowledge of working drawings, details and surveys. Reply, giving full details to Secretary, 74, Trumpington Street, Cambridge. 3016

COUNTY BOROUGH OF BOLTON.

Applications are invited for the appointment of an ASSISTANT ARCHITECT in the Borough Engineer and Surveyor's Department at a salary in accordance with grade A.P.T. V/VI of the National Scales (£620-£760).

Applicants must have passed the Final Examination of the R.I.B.A. and be Registered Architects.

The commencing salary will be fixed according to the candidate's experience and qualifications.

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

Applications, on forms to be obtained from the undersigned, should be forwarded to me not later than Monday, 5th July, 1954, in envelopes endorsed "Assistant Architect."

PHILIP S. RENNISON,
Town Clerk.

Town Hall, Bolton. 3021.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.
CITY ARCHITECT'S DEPARTMENT.

The City Architect will be pleased to receive applications from suitably qualified and experienced Architects for the following vacancies in his Department:—

(*a*) SENIOR ASSISTANT ARCHITECT A.P.T. Division Grade VIII (£785-£860).

(*b*) SENIOR ASSISTANT ARCHITECT A.P.T. Division Grade VI (£695-£760).

(*c*) SENIOR ASSISTANT ARCHITECT A.P.T. Division Grade V (£620-£670).

(*d*) ASSISTANT ARCHITECT A.P.T. Division Grade IV (£580-£625).

The extensive programme of building work being undertaken is of an interesting contemporary character. Preference will be given to applicants trained at a recognized School of Architecture, especially in the case of the Grade VIII post.

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

Applications stating position applied for, age, particulars of training, qualifications, experience, present and past appointments, together with copies of two recent testimonials or the names and addresses of two persons to whom reference may be made should be addressed to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle-upon-Tyne, 1, not later than Saturday, 3rd July, 1954.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle-upon-Tyne, 1.
11th June, 1954. 2985

EAST RIDING OF YORKSHIRE COUNTY COUNCIL.
APPOINTMENT OF ELECTRICAL ENGINEERING ASSISTANT.

Applications are invited for the appointment of an Electrical Engineering Assistant on the staff of the County Architect's Department at a salary in accordance with A.P.T., Grade II (£520-£565 per annum).

Candidates will be required to provide evidence of satisfactory experience in the employment of an electrical contractor or Local Authority, and in the design, supervision and maintenance of electrical installations.

The appointment is superannuable and subject to the passing of a medical examination.

Applications, giving particulars of age, training, qualifications, experience, past and present employment (with salaries), and accompanied by copies of three recent testimonials, should be addressed to the County Architect, County Hall, Beverley, and must be received by him not later than Friday, 9th July, 1954.

THOMAS STEPHENSON,
Clerk of the Council.

County Hall, Beverley.
June, 1954. 3063

WORCESTERSHIRE COUNTY COUNCIL.

Applications are invited for architectural assistants, Grades A.P.T. IV-VI (Grade IV £580-£625; Grade V £620-£670; Grade VI £695-£760), according to ability and experience.

Application forms from L. C. Lomas, F.R.I.B.A., County Architect, 14, Castle Street, Worcester. (P.268.) 3058

CANNOCK URBAN DISTRICT COUNCIL.
(Population, 41,830 (est.).)

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

QUANTITY SURVEYOR—Salary within Grades A.P.T. VII (£735-£810) and A.P.T. VIII (£785-£860). A.R.I.C.S. or equivalent required.

HOUSING ACCOMMODATION AVAILABLE to married candidates.

Further particulars and forms of application are available from the undersigned.

Closing date 8th July, 1954.

W. C. SPEEDY,
Clerk of the Council.

The Green, Cannock, Staffs. 3020.

METROPOLITAN BOROUGH OF FULHAM.
ASSISTANT QUANTITY SURVEYOR.

Borough Architect's and Housing Dept.—Quantity Surveying Section—A.P.T., Grade VIII (£785-£860 p.a., plus £30 p.a. London weighting). Experienced in preparation of bills of quantities and complete management of large contracts for blocks of multi-storey flats and public buildings. A.R.I.C.S. (Quantities) examination or equivalent. Application form from Town Clerk, Town Hall, S.W.6. Closing date: 6th July, 1954. 3012

WESTMINSTER CITY COUNCIL require ARCHITECTURAL ASSISTANT (permanent), A.P.T., III or IV, £550-£625 per annum, according to qualifications (plus London weighting £10-£30, according to age). Applications, detailing experience of surveys, making working and detail drawings, structural calculations, specifications, approximate estimates and London Building Acts procedure, together with two copy testimonials, to Town Clerk, City Hall, Charing Cross Road, W.C.2, by 3rd July, 1954. 3013

CITY OF LEEDS.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(1) ASSISTANT ARCHITECTS, A.P.T., VII (£735-£810).

(2) ASSISTANT ARCHITECTS, A.P.T., VI (£695-£760).

(3) ASSISTANT ARCHITECTS, A.P.T., V (£620-£670).

(4) ARCHITECTURAL ASSISTANT, A.P.T., III (£550-£595).

(5) ASSISTANT QUANTITY SURVEYOR, A.P.T., VIII (£785-£860).

(6) ASSISTANT QUANTITY SURVEYOR, A.P.T., VII (£735-£810).

(7) ASSISTANT QUANTITY SURVEYORS, A.P.T., V (£620-£670).

(8) ASSISTANT QUANTITY SURVEYOR, A.P.T., I (£490-£535).

(9) ASSISTANT SURVEYOR, A.P.T., VI (£695-

(10) ASSISTANT SURVEYORS, A.P.T., V (£620-£670).

(11) CLERK OF WORKS, A.P.T., IV (£580-£625).

(12) CLERK OF WORKS, A.P.T., II (£520-£565).

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 six months' service.

The appointments are subject to the Local Government Superannuation Acts, 1937-1953, and the successful applicants will be required to pass a medical examination.

Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned, together with copies of three testimonials, by 12 noon on Friday, 9th July, 1954.

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

R. A. H. LIVETT, O.B.E., A.R.I.B.A.,
City Architect.

Priestley House, Quarry Hill, Leeds, 9.
16th June, 1954. 3062

BOROUGH OF WIDNES.
Amended Advertisement.
APPOINTMENT OF QUANTITY SURVEYOR.

Applications are invited for the appointment of a QUANTITY SURVEYOR, at a salary in accordance with Grade VII £735-£810 commencing at the minimum of the grade. The appointment will be subject to review in two years time.

Candidates should be corporate members of the R.I.C.S. possessing a thorough knowledge of building contract procedure, and wide experience in the preparation of bills of quantities, estimates, valuation for interim certificates, and settling of final accounts, etc.

The Corporation's present building programme consists of varied housing, educational and general works, including the conversion of existing premises into a Civil Hall.

HOUSING ACCOMMODATION, if required, will be provided by the Council.

The appointment will be subject to the National Scheme of Conditions of Service as adopted by the Council and to the successful candidate passing a medical examination.

Applications, stating age, education, technical training, qualifications, and full details of professional experience, present and previous appointments with dates, together with the names and addresses of three referees should be sent to the Borough Architect, Brendan House, Widnes Road, Widnes, not later than first post, Monday, 12th July, 1954.

Canvassing directly or indirectly will disqualify.

FRANK HOWARTH,
Town Clerk.

Town Hall, Widnes.
18th June, 1954. 3060

COUNTY BOROUGH OF WEST HARTLEPOOL.
BOROUGH ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ASSISTANT ARCHITECT.

Applications are invited for the position of Assistant Architect in the Borough Architect's Department on Grade A.P.T. V £620-£670 or Grade VI £695-£760 according to qualifications and experience.

Applicants for the position on Grade A.P.T. V should be Registered Architects, and applicants for this position on Grade A.P.T. VI should be Associates of the Royal Institute of British Architects.

The appointment is subject to the Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Technical and Clerical Services and the Local Government Superannuation Acts, 1937-1953. The successful candidate will be required to pass a Medical Examination.

Applicants should state the Grade applied for and give details of age, experience and qualifications, together with copies of not more than three testimonials.

The Council is prepared, in a suitable case, to provide housing accommodation in connection with this appointment.

Applications should be addressed to the Borough Architect, Municipal Buildings, West Hartlepool, and be received by him not later than 14th July, 1954.

ERIC J. WAGGOTT,
Town Clerk.

Town Clerk's Department,
West Hartlepool.
18th June, 1954. 3059

CITY OF CARDIFF.
APPOINTMENT OF ARCHITECTURAL DRAUGHTSMAN.

Applications are invited for the following appointment in the City Surveyor's Department:—

ARCHITECTURAL DRAUGHTSMAN, Miscellaneous Grade 3 (£395-£460 per annum).

Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services for posts in the above-mentioned grade.

General Conditions of Appointment may be obtained from the undersigned.

Applications, accompanied by the names and addresses of three referees and endorsed "Architectural Draughtsman, Miscellaneous Grade 3," must be delivered to me not later than the 12th July, 1954.

S. TAPPER-JONES,
Town Clerk.

City Hall, Cardiff.
18th June, 1954. 3064

EAST ELLOE RURAL DISTRICT COUNCIL.
ARCHITECTURAL ASSISTANT.

Applications are invited for the above, A.P.T., Grade IV, appointment in the Architect's Department.

The appointment will be subject to the National Scheme of Conditions of Service and to the provisions of the Local Government Superannuation Act, 1937. Housing accommodation may be made available if required.

Applications, endorsed "Architectural Assistant," stating age, qualifications and experience, together with the names of two persons to whom reference may be made, must be forwarded to the undersigned not later than the 10th of July, 1954.

J. C. PYWELL,
Clerk to the Council.

Council Offices, Mattimore House,
Holbeach, Spalding, Lincs. 3061

Tenders for Contracts

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

BRITISH ELECTRICITY AUTHORITY.
LONDON DIVISION.

Offers are invited for the purchase and removal from Fulham Generating Station, Townmead Road, Fulham, London, S.W.6, of the following:—

1 "Barcro" Drawing Storage Eliminator, Model 502, complete with Camera, Turntable, Copy Holder, and Back Flood Lighting Box, Double Front Light Box, Switchboard, Enlarging Easel, Enlarging Condenser and Lamphouse, Rails and Bookholder.

For permission to view and conditions of tender, application should be made to the Divisional Purchasing Officer, British Electricity Authority, London Division, Generation House, Great Portland Street, London, W.1, not later than the 16th July, 1954. 2986

Architectural Appointments Vacant

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

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

ASSISTANT (at Intermediate stage) required for Architects' London office engaged in major works of restoration and construction of Schools and Colleges. Appointment offers excellent opportunities for supervision of works and calls for a candidate with initiative. Salary £350-£450 per annum. Box 2974.

SENIOR AND JUNIOR ARCHITECTURAL ASSISTANTS and Draughtsmen or women required in busy office in the Home Counties. Some experience essential. Large varied practice. Please state experience and salary required. Box 2137.

ASSISTANT required, intermediate/Final Standard, previous office experience and ability to do working drawings, surveys and specifications essential. Write details of age, training and experience to Box 2E G3179, A.K. Advg., 212a Shaftesbury Ave., London, W.C.2. 3057

ASSISTANT required. Qualified or approaching Final, and with experience. Immediate requirement is for large-scale and interesting work. Valuable experience for keen man. Watson, Johnson & Stokes, Victoria Square, Birmingham. 2958

WEST END Architects require ASSISTANTS, Inter. to Final standard, for industrial and commercial buildings. Salary £500-£700, according to experience. Ring Mayfair 3245. 2976

ASSISTANT required in branch office of London Architects at Crawley. Must have good general experience and be up to Intermediate standard. Interesting contemporary work. Possibility of accommodation locally, otherwise contribution towards fares from London. Salary from £500, according to experience. Apply Box 2970.

ARCHITECTURAL ASSISTANT urgently required, experienced in preparation of Working Drawings, Details, Specifications and supervision, for South-West London office. Apply in writing, giving full particulars of experience, age, and salary required, to Box 2912.

ARCHITECTURAL ASSISTANT (JUNIOR) required in Architect's Department. Interesting work and good prospects. Apply Staff Architect, Greenall Whitley & Co., Ltd., Wilderspool Brewery, Warrington. 2952

ASSISTANT for general practice in Midlands. One about to finish 3- or 5-year School course suitable. Box 2960.

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

ECCLESIASTICAL ARCHITECT has vacancy for an ASSISTANT of Intermediate Standard who would be interested in old and new church work. Lawrence H. Bond, 11, Elmer Street, Grantham, Lincs. 2650

CLIFFORD TEE & GALE, F./F.R.I.B.A., require ARCHITECTURAL ASSISTANT, Intermediate standard, for industrial work in their office at 43, Frederick Road, Birmingham, 15. Five-day week. 3002

ASSISTANT ARCHITECT required, age 25-35. Must be fully qualified A.R.I.B.A. Experience in industrial and commercial work an advantage. Applications to Personnel Manager, Taylor Woodrow Construction, Ltd., Ruislip Road, Southal Middlesex. WAXlow 2366. 2968

GOOD salary offered to keen architectural ASSISTANT of Intermediate standard; small office in North London area; must be good draughtsman and have good general experience in a private office. Reply with brief details of experience, age, etc., to Box 2831.

QUALIFIED ASSISTANT, with good general experience, required in small London office. Salary from £625, according to experience and ability. Varied practice and interesting work. Telephone Alleyn & Mansel, HOLborn 5311, for appointment. 2969

RILEY & GLANFIELD require one SENIOR ASSISTANT ARCHITECT for work on Churches, Private Houses, Factories, Shops, Flats, etc. CHA. 7328. 2967

ASSISTANT required by Architect, office N.W. London, wide practice, qualification essential. Apply in writing, giving particulars of qualification, age, experience, and salary required. Box 2992.

ARCHITECTURAL ASSISTANT, Inter. standard, with sound knowledge of construction and detailing for large commercial and industrial buildings, required by Architects in Westminster. Box 2994.

SENIOR and Intermediate standard ARCHITECTURAL ASSISTANTS required in Mid. Essex office. Good draughtsmanship and office experience essential. Interesting and progressive positions. Details to Box 2995.

ARCHITECTURAL ASSISTANT. — Building development company requires the services of an Architectural Assistant. Applicant must be quick and accurate draughtsman, with sound knowledge of modern building techniques. Production of ¼ in., ½ in., and F.S. working drawings, and ability to apply standardised methods of construction to new buildings. Salary commensurate with experience. Apply Box 2996.

SINGLE ARCHITECTS, with R.I.B.A., two years' post graduate experience, offered fare New Zealand under bond, two years employment, large Wellington office. Salary: £600-£800. Enquiries accompanied by samples of work to: Williment, of 54, Baldry Gardens, S.W.16, until June 30 or Haughton Son & Mair, Registered Architects, Lambton Quay, Wellington, N.Z. 2999

REQUIRED for Architects' office, Central London area, young qualified ASSISTANTS interested in design and construction. Write, stating experience and salary required. Box 2395.

EXPERIENCED qualified ASSISTANT ARCHITECT required to assist in management of large overseas branch office under resident partner in West Indies. Excellent opportunity open for one who has initiative and experience of all branches of the profession. Reply, giving particulars of experience and age, Box 3003.

ARCHITECTURAL ASSISTANTS required immediately, Senior and Intermediate standards, to take charge of preparation of full working drawings for major schemes and to assist in supervision. Excellent prospects. Holidays allowed this year. Apply in writing to J. Stanley Beard, Bennett & Wilkins, 101/3, Baker Street, W.1, stating age, qualifications, experience, and salary required. 3004

SENIOR AND JUNIOR ARCHITECTURAL ASSISTANTS required immediately in private office in Midlands. Should be quick, accurate draughtsmen with sound knowledge of construction and detailing. Please write stating age, when available, experience and salary required to Box 3050.

ARCHITECTURAL ASSISTANTS required immediately. Should be experienced and good draughtsmen. Salary according to experience. Apply in writing, giving full particulars of qualifications, age, experience, and salary required to Deacon & Laing, 9, St. Paul's Square, Bedford. 3051

EXPERIENCED architects' assistant required; general practice, including schools. Apply S. T. Walker, Chartered Architects, 83, Suffolk Street, Birmingham, 1. Salary according to experience. 3049

ARCHITECTS' ASSISTANTS required by a large Chain Store organisation. Commencing salary £600 to £750 per annum, according to experience. Staff canteen. Pension scheme. Write Box AJ 333, LPE, 110, St. Martin's Lane, W.C.2. 3048

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