THE ARCHITECTS' JOURNAL

standard contents

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

No. 2868] [VOL. 111
THE ARCHITECTURAL PRESS
11 and 13, Queen Anne's Gate, Westminster, S.W.1. 'Phone: Whitehall 0611

Price 9d.

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 Ic one week, Ie to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill, Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Welbeck 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. Department of Architecture, School of Building, Ferndale Road, Brixton, S.W.4.	Brixton 7048
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Welbeck 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 9, Conduit Street, W.1.	Mayfair 8641/6
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 43, George Street, Croydon.	Croydon 5452
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGF	British Gas Federation. 1 Grosvenor Place, S.W.1.	Sloane 8266
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.	Newport 3111
CAS	County Architects Society. C/o A. Guy Chant, F.R.I.B.A. Salop County Council, 5, Belmont, Shrewsbury.	Shrewsbury 3031
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAD	Central Institute of Art and Design. 41, 42, Dover Street, W.1.	Regent 3074
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7. Zurich, Switzerland.	
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPC	Codes of Practice Committee. MOW, 42, Onslow Gardens, S.W.7.	Kensington 8161
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUJC	Coal Utilization Joint Council. 13, Grosvenor Gardens, London, S.W.1.	Victoria 1534
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 1761
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DOT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
FC	Electricity Commission. Savoy Court, Strand, W.C.2.	Temple Bar 7565
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FB 1951	Festival of Britain 1951. 2, Savoy Court, Strand, W.C.2.	Waterloo 1951
FASSC	Federation of Association of Specialists and Sub Contractors. 21, Tothill Street, S.W.1.	Whitehall 9606
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37 Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, Nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577

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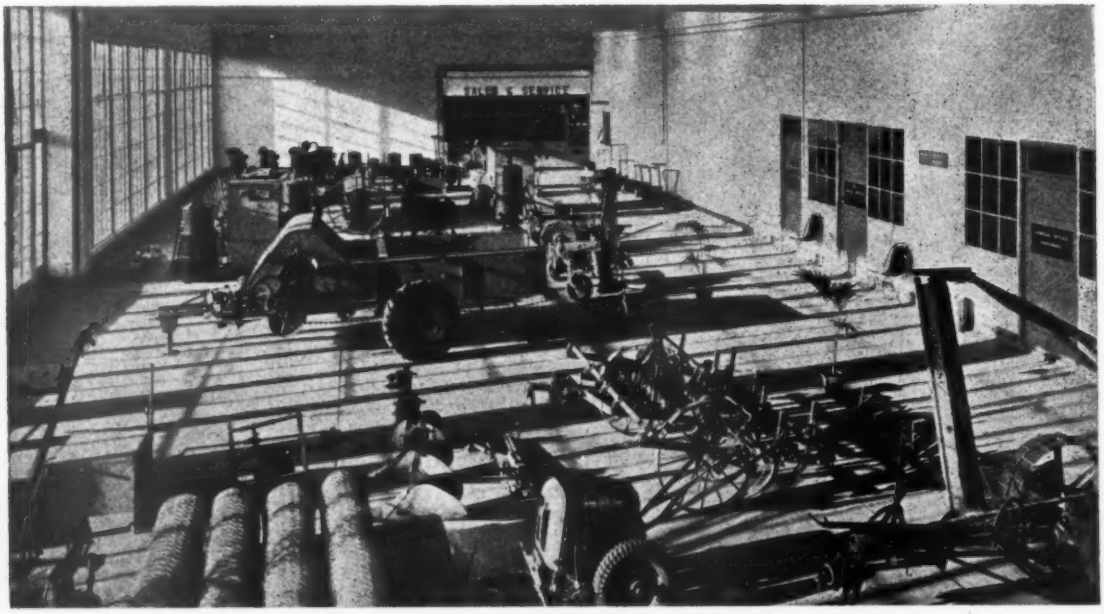

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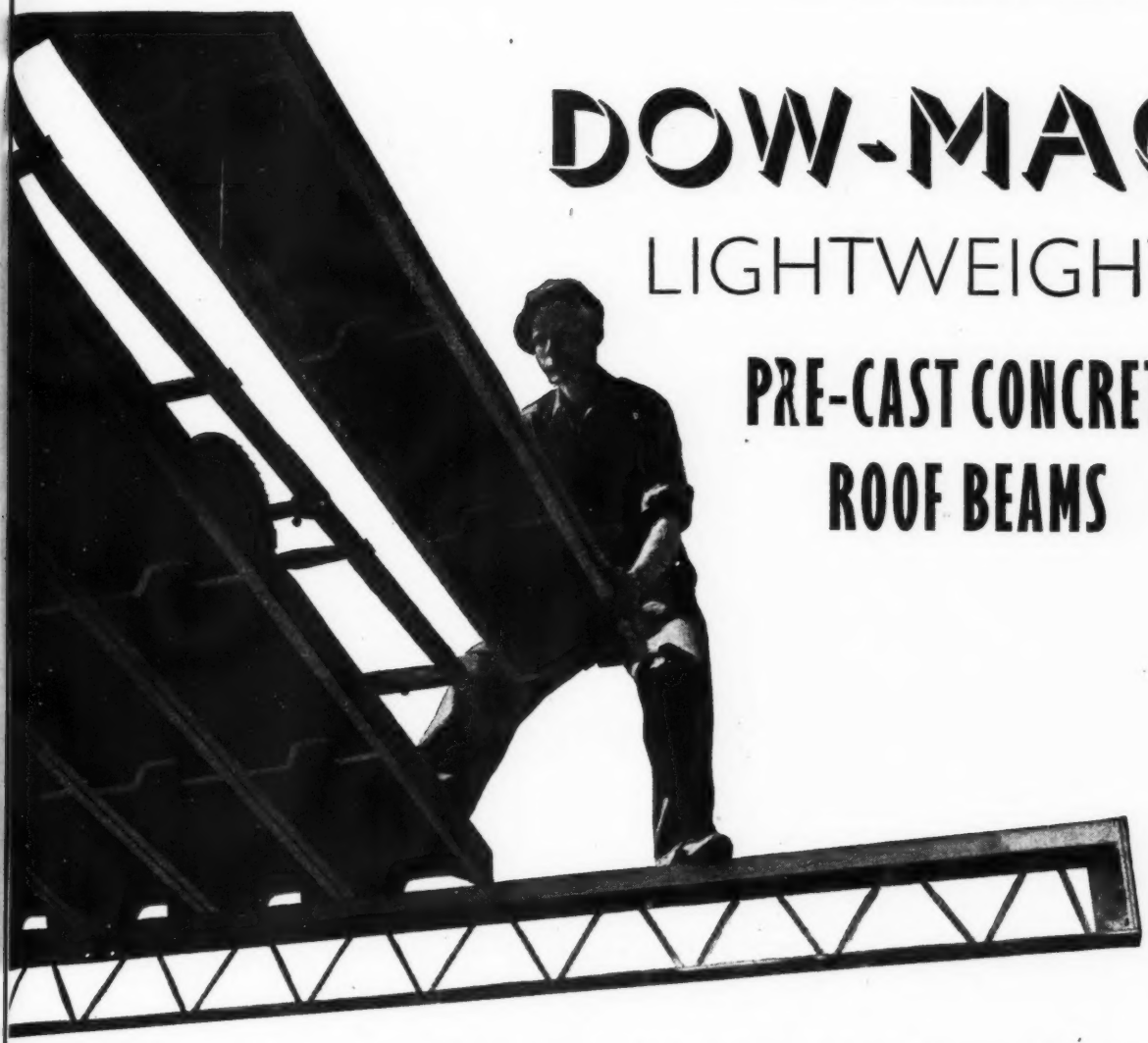

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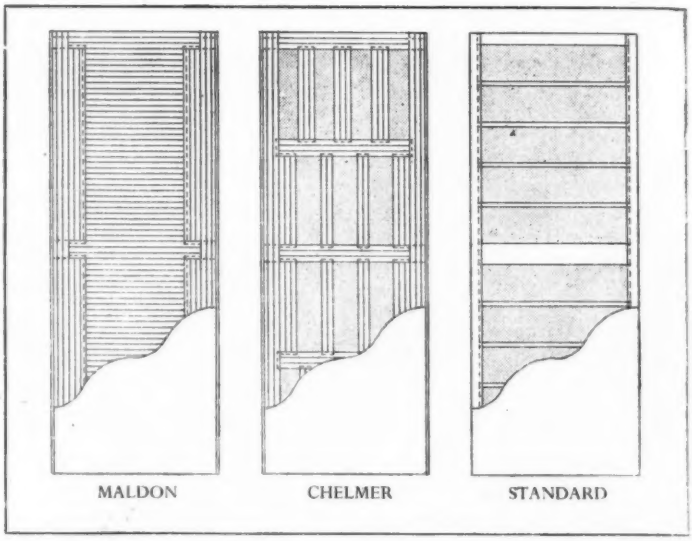

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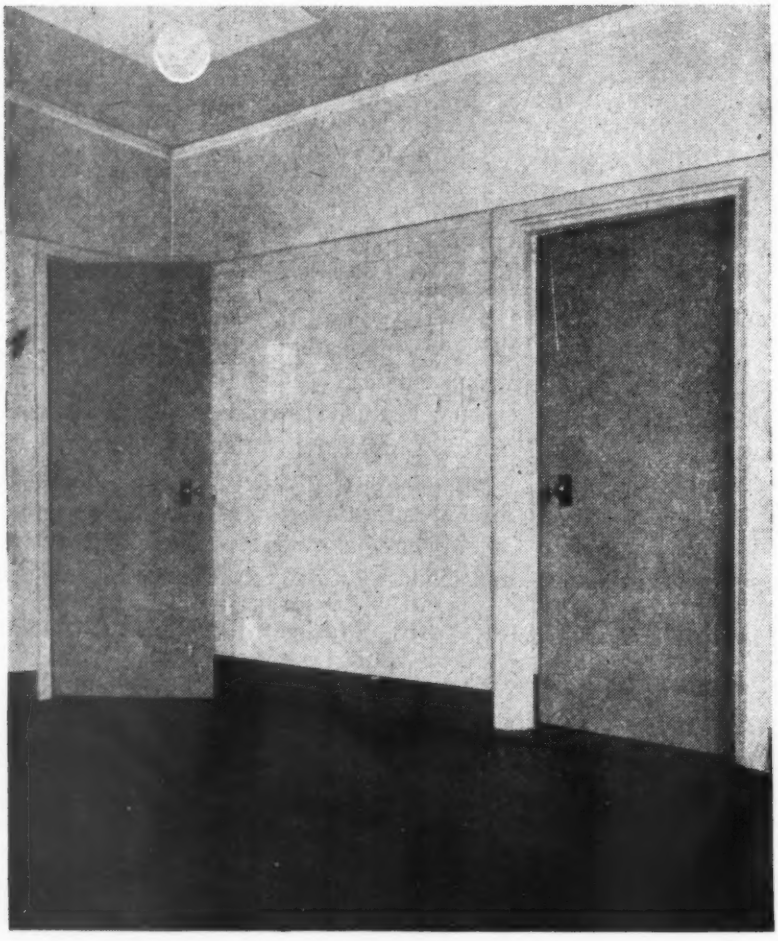

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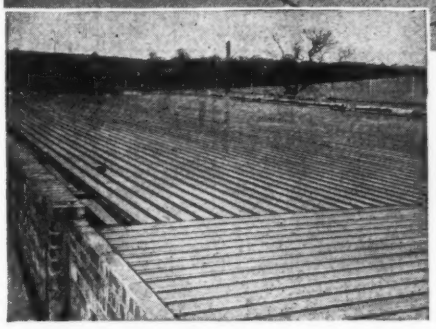
Installation of Briggs "BITUMETAL" Roof showing ½ inch Insulation Board being laid on Aluminium Decking and bonded with hot bitumen.



General view of Aluminium Decking prior to the application of Insulation Board and weather resisting surface.

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Progress in the use of ALUMINEX Extruded Glazing Sections for Roof and Sidewall Construction

Marked progress is being made in the use of factory-made aluminium sections for roof and sidewall glazing. At one time this form of glazing was considered of minor importance. Today, possibly due to the generally increased recognition of the uses of aluminium there is a system of patent glazing, Aluminex, which is actually in its own right, a method of construction. This is especially true in the building of sidewalls where maximum light is required.

Recent examples of the use of Aluminex as an integral part of the structure are to be seen in the Brabazon hangar at Filton.

Here the north wall consists in the main of a glazed stretch measuring 1,052′ × 50′. It is said to be the biggest composite plate glass window in the world. The construction of this "glass wall" is of Aluminex single glazing throughout. The profiles of the aluminium alloy sections are one of the standard patent types at present in use and the method of application does not depart from normal Aluminex practice, despite the size of the light, and the strength of wind pressure it has to withstand.

It is significant that the structure of this window consists entirely of slim aluminium alloy glazing bars to which are clipped panes of glass. The clipping device used is a continuous rolled cover strip of aluminium alloy which is inserted between the surface of the panes and a retaining rib on the glazing bars. The glass is held in place securely without the aid of putty, screws, cord seatings or flashings and no iron core or lead sheathing is used in any part of the Aluminex system.

The development of double glazing

The Aluminex system also includes two forms of double glazing, both of which give a high degree of insulation and freedom from internal condensation. The sealed double glazing is naturally of the highest thermal efficiency. A series of tests made recently established that this method retained 90% of room heat in conditions in which walls of more conventional materials retained only 68%.

In similar circumstances Aluminex double glazing with still air retained between the panes conserved 75% of the room heat.

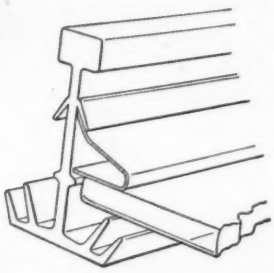
The specifications of a system of roof and sidewall construction with such varied applications as these are of more than ordinary interest. The following are some brief indications:

Composition and form of Aluminex sections

The Aluminex sections and fittings are of an alloy of aluminium, silicon and magnesium providing great strength with a high resistance to corrosion. The composition of the alloy has received great attention because it is considered to be the most important factor in the resistance to corrosion in aluminium work, the various forms of surface anodizing and laquering being secondary. Each section includes a main web with ribs on each side to hold the continuous glazing cover strip, ribs to serve as anti-capillary stops for the glass and supporting flanges to receive the weight of the glass. There are further flanges to form drainage and condensation channels. Aluminex roof glazing bars are produced in standard sizes for spans 6′ 2″, 7′ 8″, and 10′ 8″. The sections for sidewall glazing are similar but the method of application is determined in accordance with the requirements of the building.

The design of the continuous cover strip

The cover strip is a rolled springy strip of aluminium alloy which fits between the top rib of the glazing bar and the pane of glass. Its design is determined by the direction of the various forces and their reactions so that it holds the glass or solid panel firmly in place yet remains sufficiently resilient to absorb shocks and vibrations and to permit thermal movements. No screws, clips or other fixings are required. Experience has shown it to be completely weatherproof without additional safeguards such as cord seatings or flashings.



This is the Aluminex glazing bar. It is shown with one pane of glass secured in position by means of the glazing cover strip. The bar is of extruded aluminium alloy and the cover strip is rolled aluminium alloy.

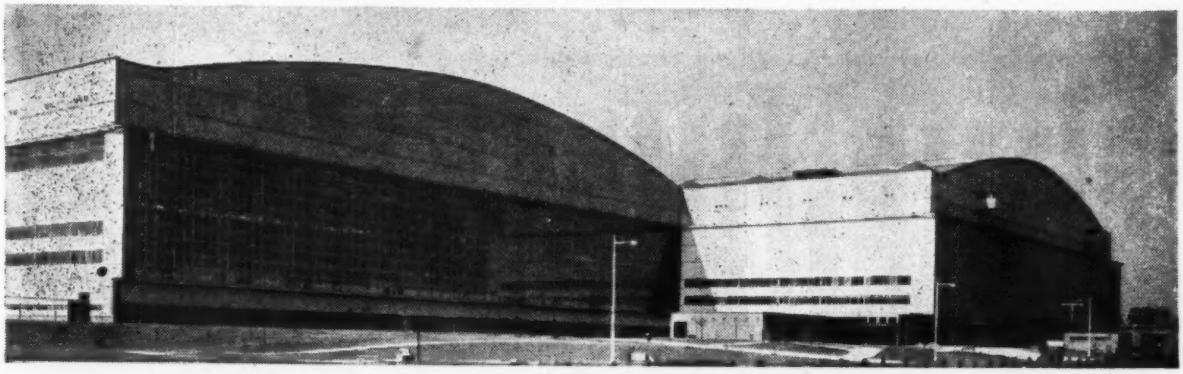
No maintenance required in normal conditions

When exposed to normal atmospheric conditions, a fine film forms on the surface of all exposed aluminium work in a comparatively short time. Thereafter this film completely protects the metal. Hence the Aluminex roof and sidewall glazing needs no protection and no maintenance either internally or externally. The durability of aluminium is now amply demonstrated by the good condition of the metal used on buildings over the last fifty years in this country and abroad.

In the hands of an architect of imagination this new, yet accepted form of construction has exciting possibilities, particularly in the treatment of industrial and other buildings where the maximum of light is required. The Company may be counted on for enthusiastic co-operation in all such developments and invites communications from all architects who might like to discuss ideas and projects in this field.

Aluminex Division *of Williams & Williams Limited, Reliance Works, Chester. Telephone: Chester 3600 (7lines). Telegrams: Reliance, Chester.*

Below: The window in the 1,052 ft. long north wall of the Bristol Aeroplane Company's hangar for assembling the Brabazon airliner at Filton.



Architect: Eric Ross, F.R.I.B.A. Photo by courtesy of Brian Colquhoun and Partners, the Consulting Engineers.

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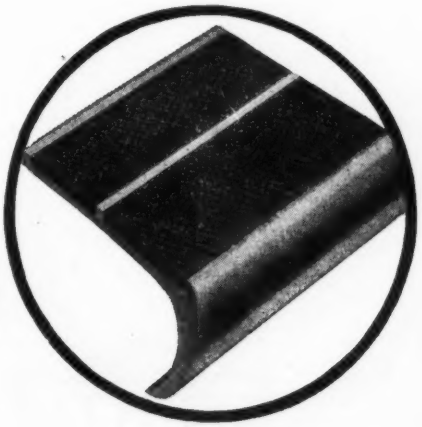

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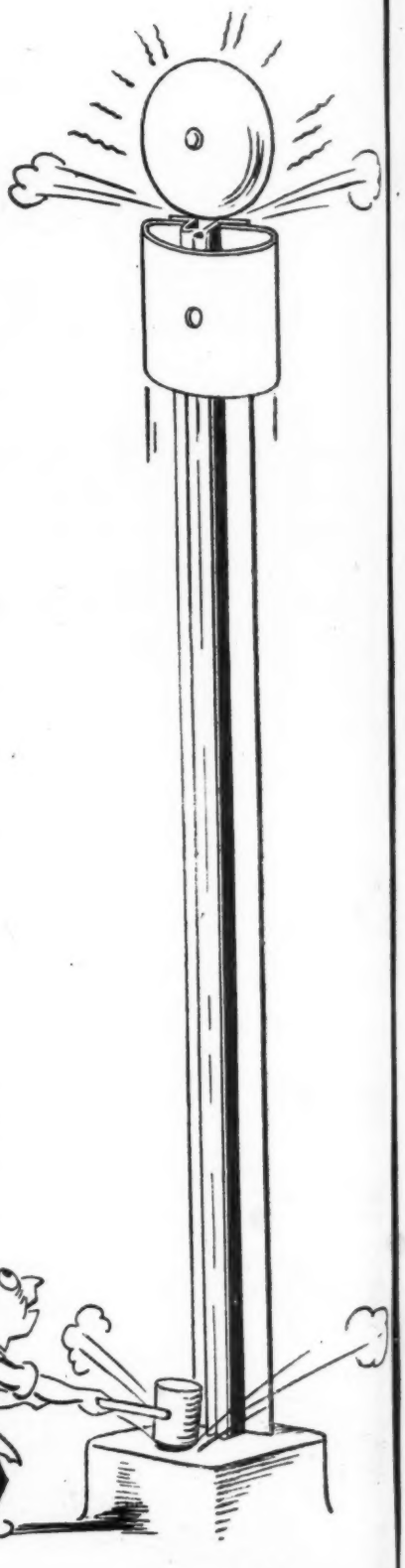

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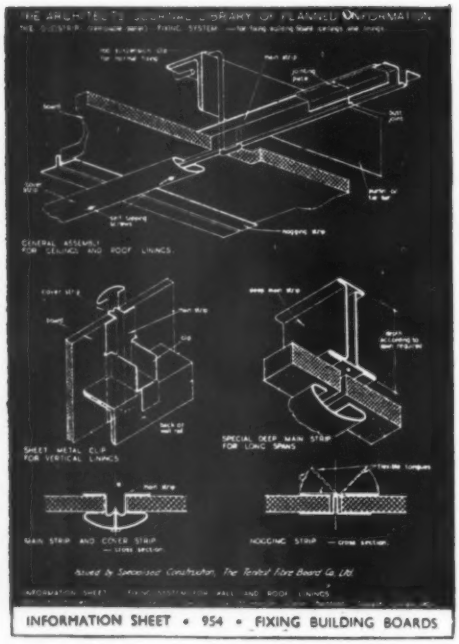

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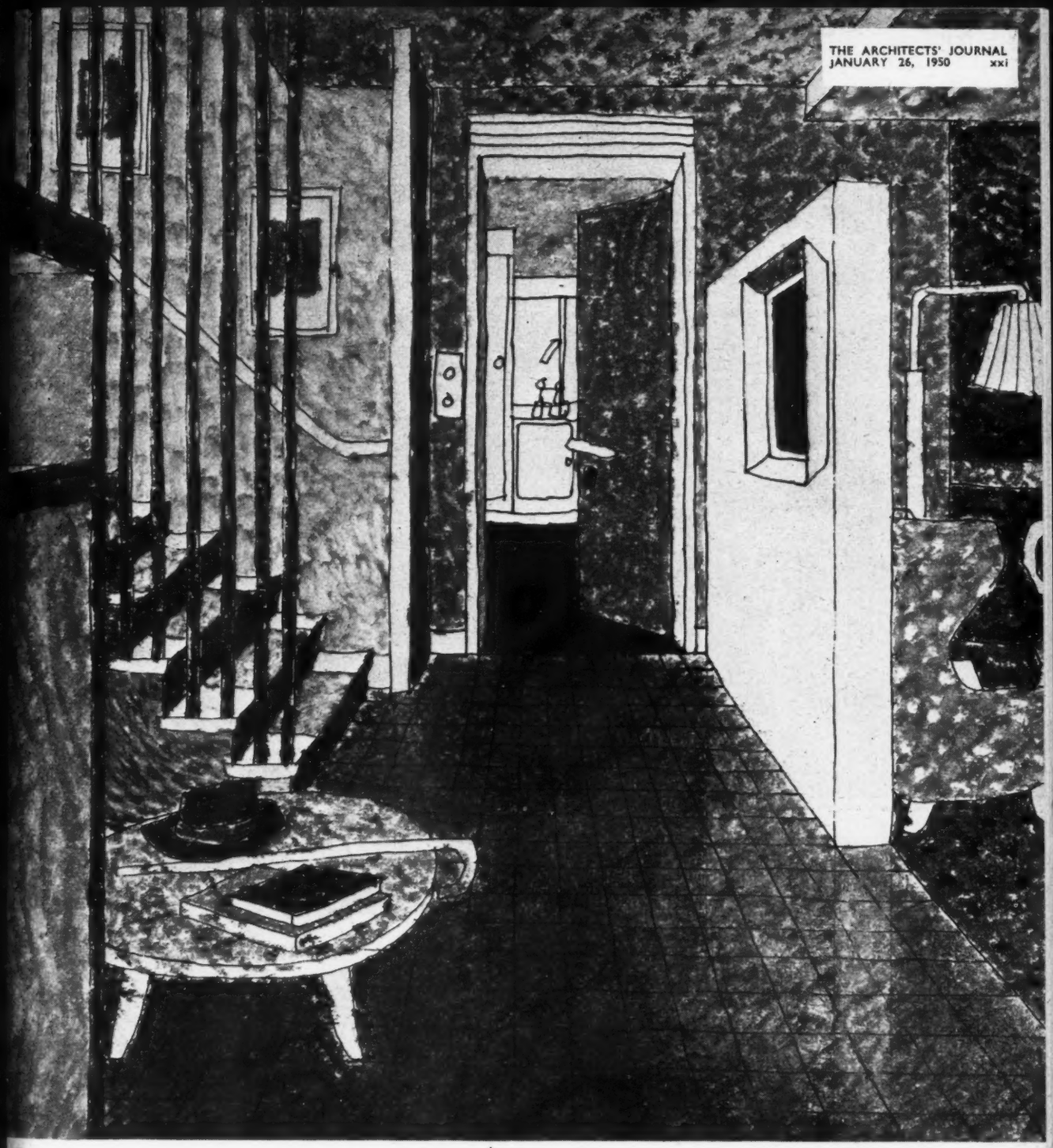

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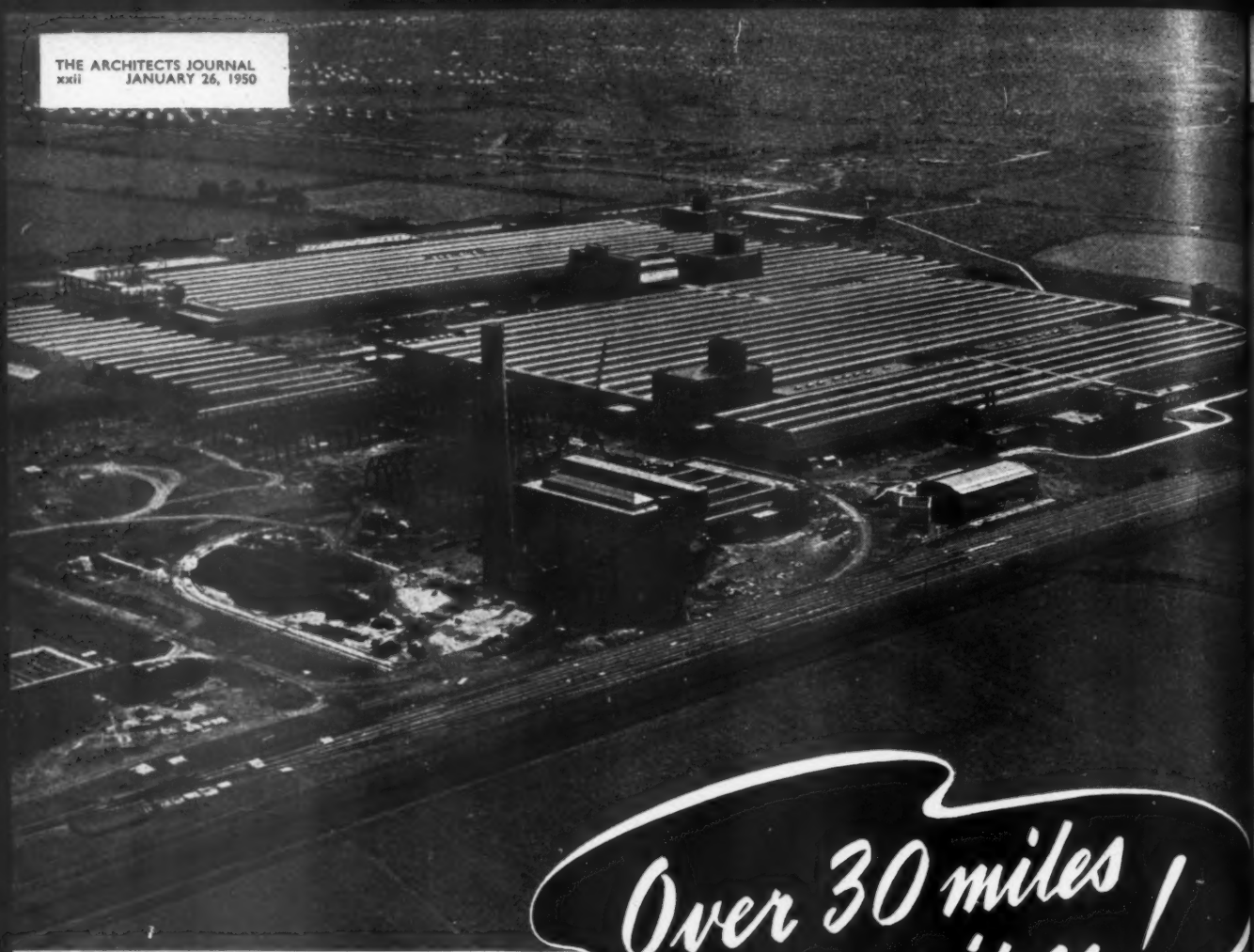

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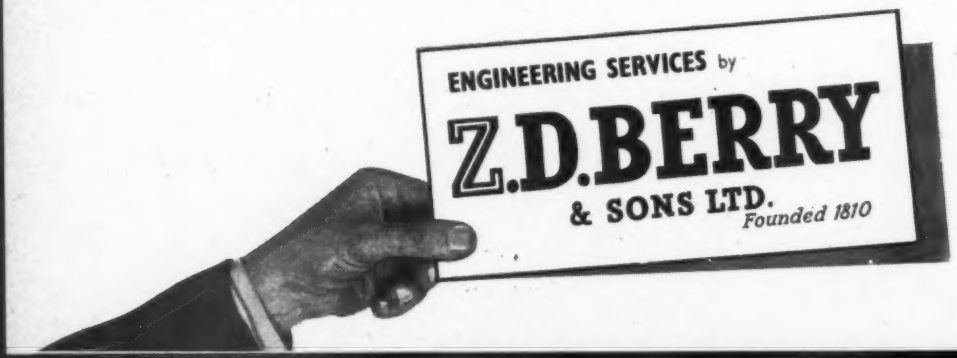

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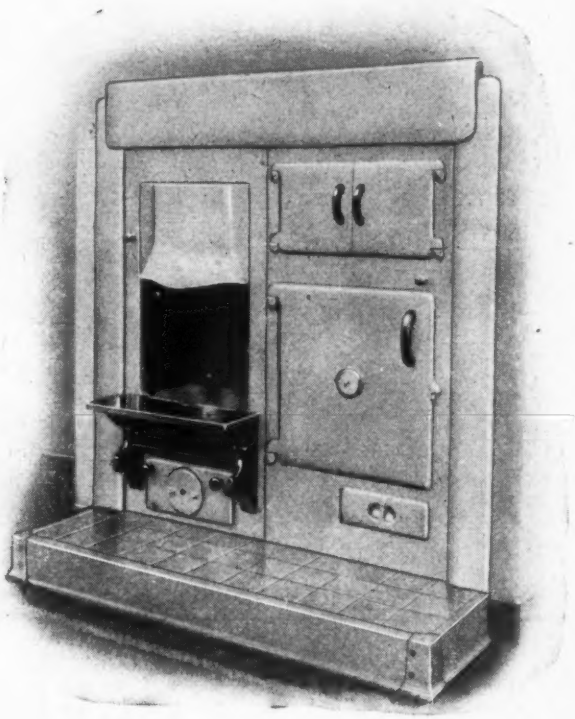

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Grate supplied in mottled fawn, mottled green, or black vitreous enamel. Mantel is supplied in mottled fawn, mottled brown (to tone with the mottled fawn grate), mottled green vitreous enamel or fine-cast and primed one coat. Kerb is supplied in mottled fawn, mottled green or black vitreous enamel. A bolster can be supplied to restrict heat losses from firebox in its closed position.

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COMBINATION GRATE

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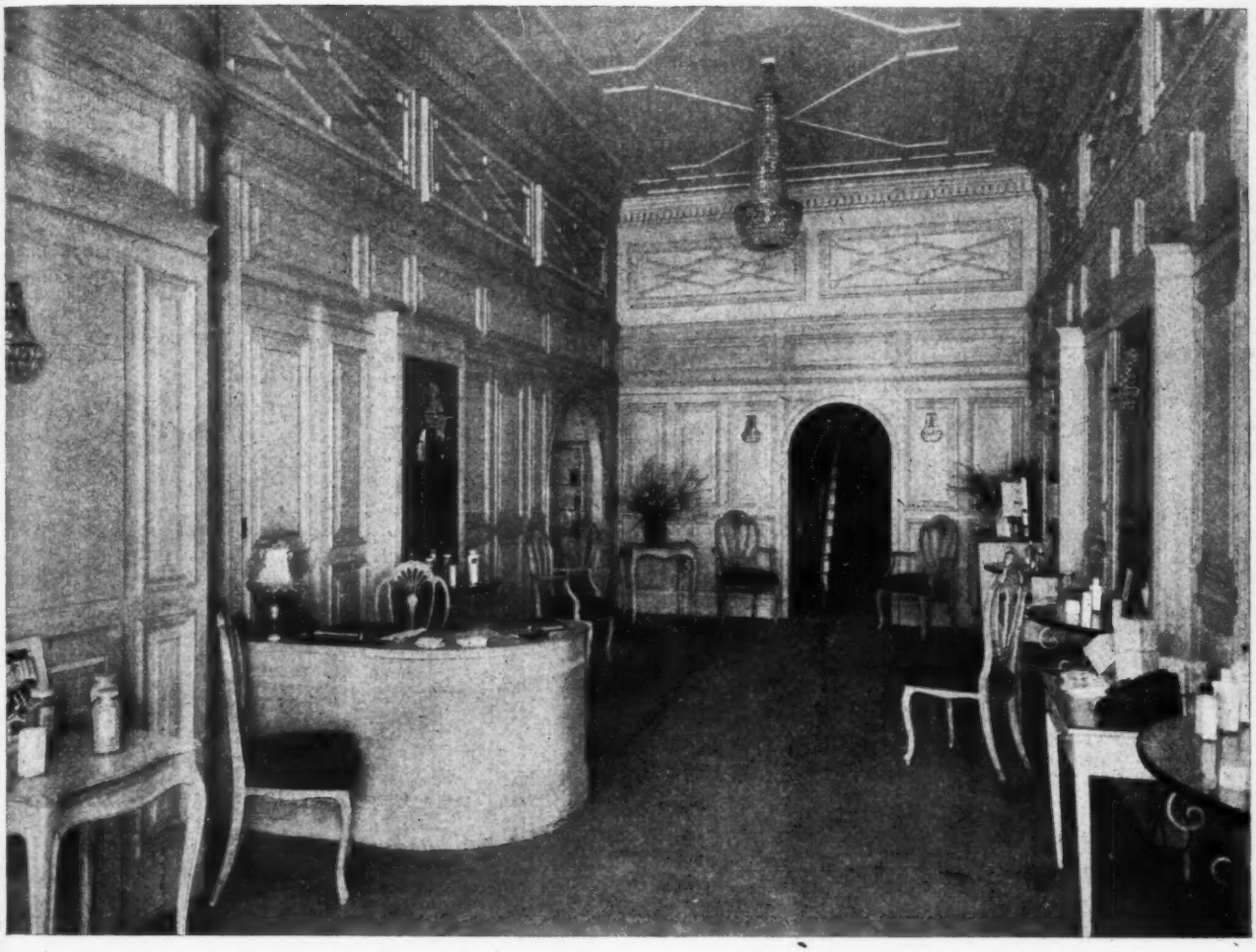

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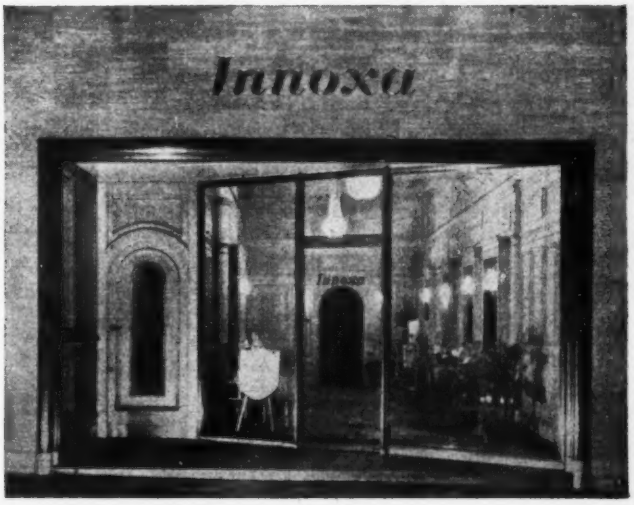

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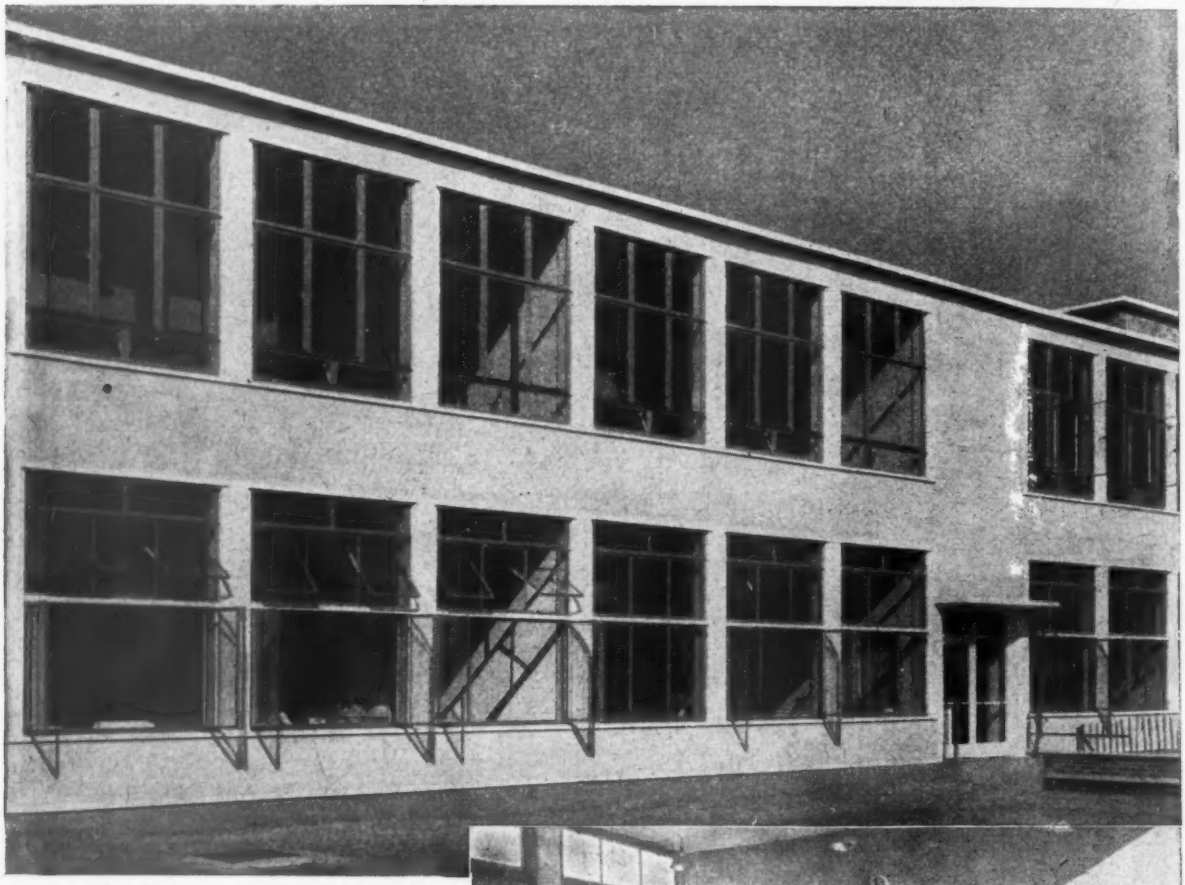
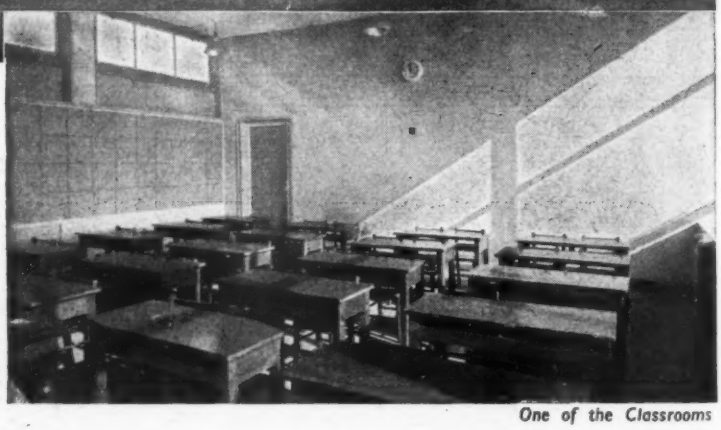
The L.C.C. chose Orlit Construction for the Horn Park School, Woolwich

Photographs by courtesy of The Architects Journal

Architect: Mr. Robert H. Matthew, A.R.I.B.A., Architect to the L.C.C.



Part of the building showing the use of 'Orlit' cladding



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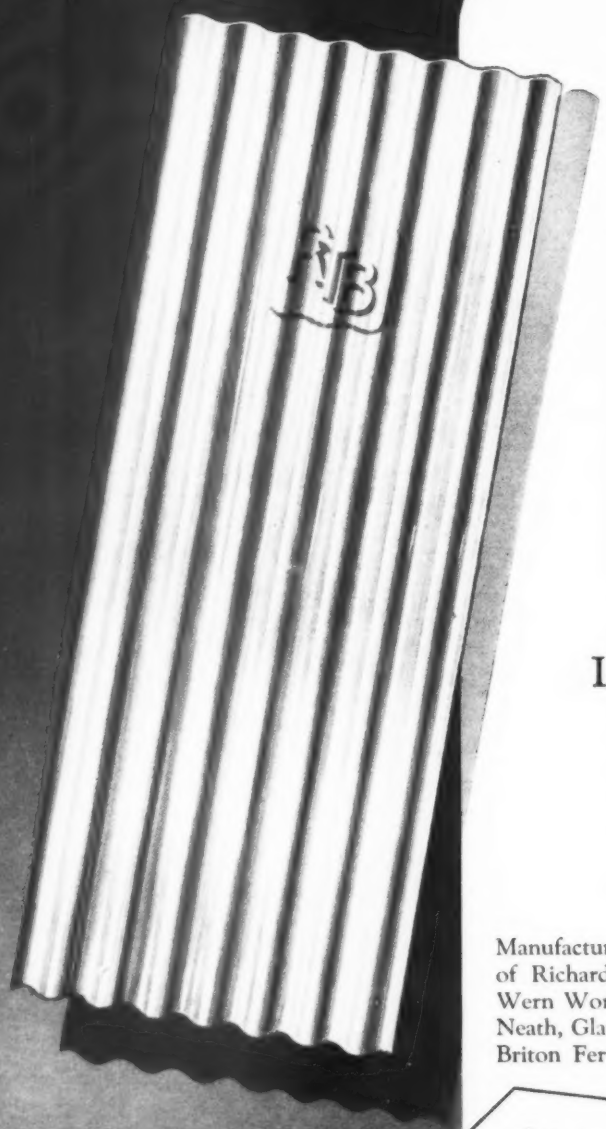
LIGHT AND STRONG



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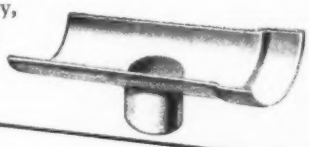

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AJ

THE ARCHITECTS' JOURNAL

No 2868 26 January 1950 VOL 111

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

Subscription rates : by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d. ; post free, 11d. Special numbers are included in subscription ; single copies, 1s. 6d. ; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases for 17s. 6d. each; carriage 1s. extra.

ROYAL GOLD MEDAL

Everyone will greet with approval the news that this year's recipient of the RIBA's Royal Gold Medal is Eliel Saarinen. I understand he has recently taken American citizenship, but he is, anyway, the first Finnish-born architect to receive this award.

*

Although he has built considerably in the USA his fame in Europe circles round his railway station at Helsingfors, which was built as long ago as 1914. The station was considered a very revolutionary effort at the time and the great tower soon became a landmark of the city, as famous as Ostberg's tower on the other side of the Baltic. For some years after the station was built the platforms were without a roof—this, apparently, was because there were not sufficient funds. I remember remarking to Saarinen when looking over the station with him that it seemed odd that they were able to spend money on an impressive tower but not on a utilitarian structure like a roof, which was obviously so necessary in the Finnish climate. Saarinen, who was then a rather dapper man with a cherubic face, said that he took good care to get the tower finished first. He pointed out that the platforms would be so uncomfortable that it would be essential to build a roof sooner or later, whereas if the tower was not finished first it might never be built at all.

*

Saarinen's first connection with America came through a world wide competition launched for the designs for the Chicago Tribune buildings. His drawings for the tower of the building, which was one of the requirements, caused quite a sensation, but he took second place to Ray Hood whose Gothic design is well known. This competition put Saarinen on the map in America and since then he has never looked back. He was appointed president in 1932 of the Cranbrook Academy of Art, whose buildings he designed, and received the AIA Gold Medal in 1947.

*

It is a long time since Saarinen has been in England, and apart from the pleasure we all share in the honour which is being done him, we look forward to meeting him when he comes to receive his medal.

LCC HOUSING: CONTINUED

ASTRAGAL is sorry to report that the battle about LCC housing does not seem to be over after all. A fierce rearguard action is being fought inside the LCC, led by some of the housing architects whose recent work, done under the Valuer's supervision, has been so widely criticized. The suggestion they are making (they recently held a meeting to put it forward) is that the whole of the architectural staff responsible for this work ought to be transferred—either immediately or in due course—to the architect's department now that the latter is to be responsible for housing. It is necessary to be quite frank. I think it is now generally agreed that when an important series of buildings (whether designed by public or private architects) falls short of a reasonable standard of design it is the duty of the press to say so. When the press thus criticizes buildings, it also, by implication, criticizes the architects responsible for them. As a result of the criticisms in this particular case, the LCC architect has been given the chance of building up a housing team in his own department that will produce better work than was done under the Valuer. His task would be quite impossible if he were made to take over all the staff whose work he is asked to improve upon. Better architecture is obtained by employing better architects, and the LCC, by its change in organization, has given itself the opportunity of doing so.

*

I said a little while ago, when writing of the new LCC housing appointments, that I hoped some members of the present Valuer's housing staff would be considered worthy of a transfer to the architect's department. I still hope so, but that is quite a different thing from a transfer *en bloc* and as a matter of right. It should be done strictly on merit, or the whole opportunity of improving LCC housing will be lost.

*

I know it is difficult for anyone to accept a verdict that his work is not up to standard, but quality of architecture must come before personal considerations. It is not for me to interfere in the filling of LCC appointments but I feel compelled to raise the matter on account of my interest in the freedom of architectural criticism. I regret that any architect should express his resentment against criticism by denying its honesty. In a document (a copy of which is before me as I write) circulated among the Valuer's housing staff, previous to the meeting (held on January 9) already referred to, the implication is made that the criticism which led to the transfer

of housing to the architect was merely a journalistic stunt. At that meeting the following resolution was put forward and passed:—

"That the Staff Association consult their solicitors to consider what action shall be taken to obtain legal redress for members of the Association from persons responsible for the publication of articles or statements damaging to their professional interests and status as official architects."

*

If this is the beginning of an attempt to stifle criticism of architecture by threatening legal action against anyone who has a low opinion of a work of architecture and says so, I do not think it will find much sympathy in the architectural profession or in the press generally. ASTRAGAL, for one, will not be put off by it.

*

Incidentally, it has often occurred to me lately, when the need for regular architectural criticism has been under discussion, that it would be useful to have an expert's view on the extent to which free criticism is impeded by the present law of libel. May I suggest to the editorial board of the JOURNAL that they invite a legal expert to write an authoritative article with the purpose of clearing this matter up.

IF YOU HAVEN'T GOT A PENNY, A HA'PENNY WILL DO

The new wage increase of a halfpenny an hour for building trade workers has received a certain amount of publicity, mainly, I suppose, because it seems contrary to the general wage-freezing policy of the TUC. But, in fact, the building industry wages have been tied to the cost of living index for the last twenty-five years or more. The present increase, which has been approved by the National Joint Council, is no more than the annual routine adjustment to an existing wage agreement, and is by no means the same thing as a demand for an increased basic rate.

*

And what of the architect? Why can't he be tied to an index, too, as this uncomfortable sounding situation produces such happy results? As a matter of fact he is, but he doesn't have to revise his scale of fees. When building industry wages increase by four and a half million pounds, architects get 6 per cent. of some of it, even though a rough reckoning does not put this at more than four pounds per house.

BAIRD BEFORE BREAKFAST

Many people are reluctant to buy television sets because they are not within range of Alexandra Palace. This is understandable, for in Britain the TV receiver is used largely for entertainment. But recent news from the USA shows that this practice may soon be outmoded. One of the latest American receivers is designed in "period" style and, in addition, has immense practical value. A silver coating on the back of the cabinet glass makes the screen suitable for "combing, powdering or shaving." Naturally, the picture obtained during transmission is not very bright. But that hardly matters. After all, the keen viewer can have endless fun in the early morning as he crouches on the floor beside his half-timbered console provided, of course, that he doesn't drop too much soap on to the carpet.

*

Incidentally, I hear that doctors recommend the use of a table lamp when viewing, as a means of preventing eyestrain. The difficulty here is that the lamp must be placed where it neither reflects on to the screen nor into the eyes of the audience. This sounds like another incentive for disorganizing house furnishings. I shudder to think of the dislocation of home life that is taking place in the Midlands as new viewers throw sentimental symbols out of the parlour —that shrine of memories—and juggle with lamps and furniture. And what of those who are prevented by their local authority from using outside aerials? The use of an indoor aerial can result in all manner of distortions, especially if the audience moves about. And as nobody with any self respect would wish to be translated into a nasty blob on a screen it seems that the TV menace may soon paralyse movement, as well as conversation, in the home.

ARCON

An analysis by Arcon on the problems of contemporary architectural practice is shortly to appear, I understand, in the JOURNAL. Readers know me well enough to realise that I would never lightly recommend them to read anyone else's column but this, but, nevertheless, I think that all young architectural assistants who hope one day to practice architecture in the second half of the century would do well to study Arcon's words carefully. They will find food for thought on the way to set about forming a practice, and the advantages to be gained by having a relatively large organization. Non-pyramidal, too, I hasten to add, in deference to the ABT, Frederick Gibberd and Percy Marshall. (I like bringing these names in, somehow it makes this page look contemporary.)

*

Arcon are a comparatively young firm.

"I was a surgeon till I heard the new rates for building operatives."

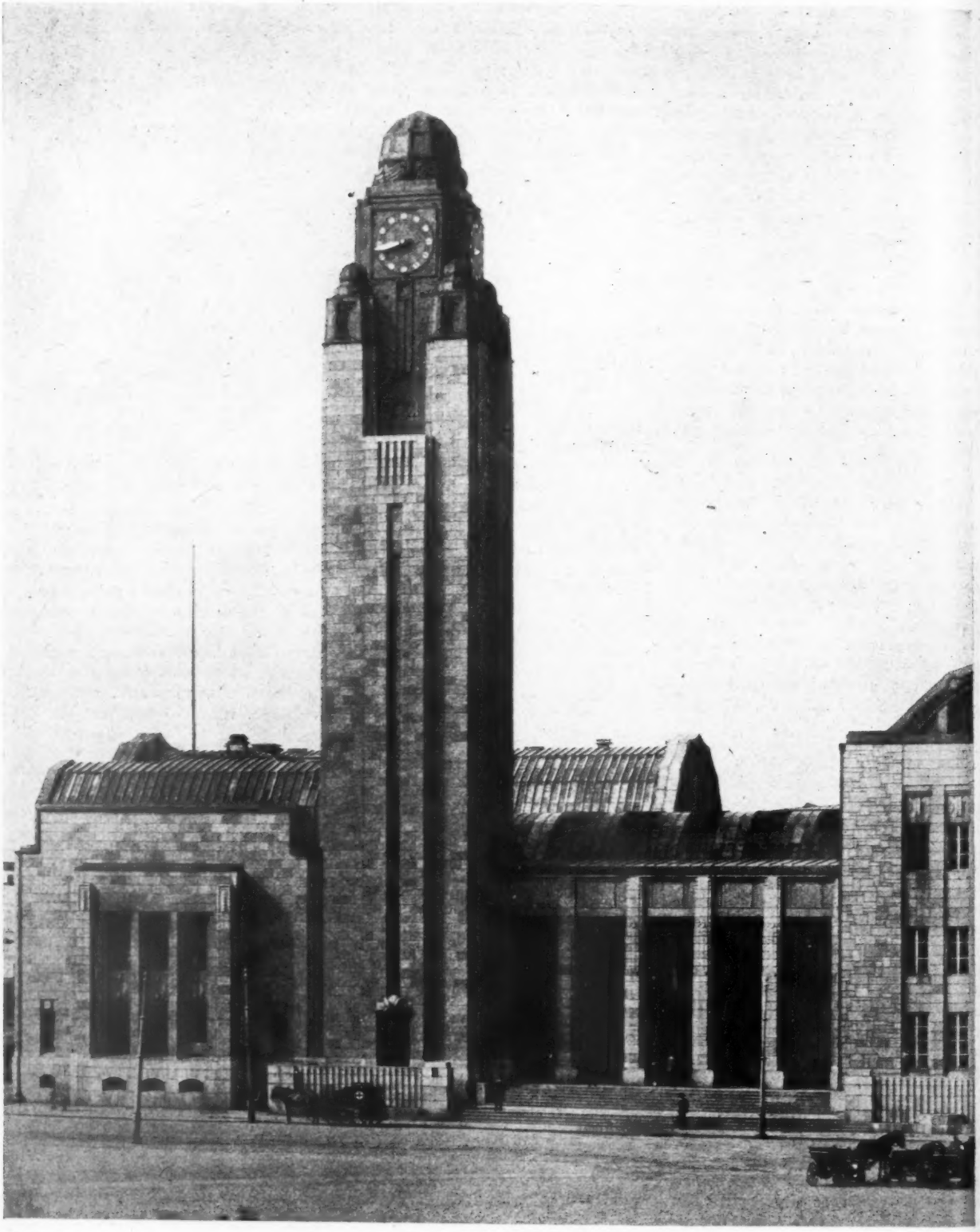
They were formed during the war in 1943, when three of them, who had been running small private practices, decided to combine on a united-we-may-stand, but divided-we'll-almost-certainly-fall basis. One of their early clients was a group of industrialists who employed them as architectural consultants (hence, incidentally, the name: Ar-con), and the result of this collaboration was the Arcon House, the Arcon classroom unit, the Arcon tropical roof and several other interesting designs. From this start, they have built up a practice which extends from the making of mobiles to town-planning, embracing on the way industrial design, prefabrication, display work and the running of a traditional practice. Quite a remarkable achievement over so short a period.

HOLBORN PATRONAGE

In itself, the façade of the Holborn Town Hall is far from arresting, and sliding away as it does down a tributary of that dreary main traffic stream from Kingsway to Charing Cross Road, it suggests, if anything, an atmosphere of green morocco leather and pompous mayoral chains. Nothing could be further from fact. Since the war no other borough has made a more determined or enterprising effort to solve its post-war housing problems. Architecturally the Council-cum-private-enterprise blocks of flats in Theobalds Road, compare more than favourably with the Ministry-of-Works-cum-private-enterprise office blocks now disfiguring almost every corner of the Borough's main thoroughfares.

*

Their efforts for pure art are perhaps



RIBA Gold Medallist

On the advice of the Royal Institute of British Architects the King has conferred the Royal Gold Medal for Architecture on Professor Eliel Saarinen, Honorary Doctor of Architecture and City Planning of the University of Michigan, and Director of the Department of Architecture and City Planning of the Cranbrook Academy of Art. Above is the railway station at Helsingfors in Finland which he designed. This won the first prize in a competition in 1904, and was completed ten years later. The station took Saarinen six years of research and four years to build. He worked in Finland from 1900-1923, and has worked in America since then. He has now taken American citizenship. (See also ASTRAGAL'S notes on page 113.)

more deserving of praise, because the immediate material reward is even less. In the hey-day of the Arts Council, Holborn generously allocated their limited space for the display of the Council's travelling exhibitions. For a variety of reasons these dwindled in size, but, nothing daunted, Holborn has now organized an exhibition of its own. Limited to works of comparatively unknown artists either living or working in the Borough, they expected about eighty pieces, but were overwhelmed with 437. Lack of space has forced the selection committee to limit these to about two hundred pictures.

*

I was pleased to find the Council's effort so rewarded and the exhibition so varied, pleased to see the AA and other private architects represented, and to hear that some of the Council's architectural staff had won space anonymously. Other Councils please note.

CAMBER CASTLE

The area of marsh between Rye and Winchelsea twenty-five years ago was a wild, wind-swept tract occupied by sheep and plovers, and trodden mainly by shepherds. Between the wars, the southern end became completely submerged under one of the most hideous rashes of bungalow development to be seen anywhere in England. Mr. Silkin has done well to preserve the area around Camber Castle from further desecration. The castle itself is a very interesting piece of military architecture. As the area is to be preserved, we hope that one day its peace and serenity may be restored by the destruction of the shacks that now deface it.

A PRIVATE SCALE

Now, when architects seem acutely conscious of the scale of fees established by the RIBA, some of them may be interested in the scale devised by an individual architect for the information of his prospective clients. Frank Lloyd Wright, who, as his son says, does many things that you or I do, but does them differently, has apparently succeeded in establishing his own rate. He asks of his clients a flat rate of ten per cent of the cost of the building "which invariably includes the planting of the grounds and considering major furnishings as part of the building scheme." The scheme also provides for one of the Taliesin apprentices to supervise the work and act as general contractor. The apprentice must be lodged and fed and paid $25 a week. A characteristic note on the document setting out this scale is: "Dwelling houses upon urban lots will not be accepted. Acreage is indispensable."

ASTRAGAL

The Editors

MOVEMENT FROM LONDON

THE progress that can be made with the proposals of the Minister of Town and Country Planning for moving population and industry from the congested areas of London will, of course, very largely depend upon how soon current restrictions on capital expenditure may be relaxed. Until the funds are available for houses and factories in the New Towns and reception areas in the Outer Country Ring there can be no decentralization from London.

Local authorities will have no easy task in selecting the industry and population to be moved. So far as the former is concerned, many will have noticed the remarkable degree to which the capital's congested areas coincide with those industry has found most convenient for carrying on its business—the Dockland boroughs and the localities flanking the canals and the banks of the River Lea, for instance. The crux of this part of the problem will be to move those industries which the capital, in the best planning interests, might well be without. In this category are several of the chemical works and manufactories of East London, where road, rail and water communications are far better than most reception areas are capable of providing. Are these industries likely to be so ready to move, then?

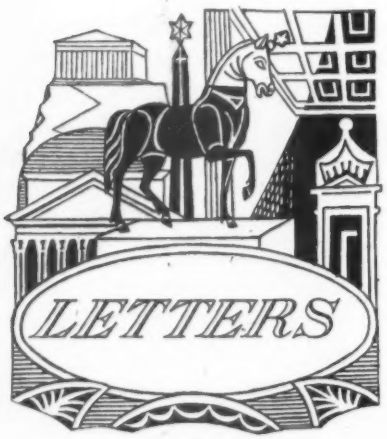
With regard to the other main part of the problem, there seems little point in taking drastic steps to reduce London's surplus population if no legislative action is taken to keep it reduced. Some means must be found of ensuring that localities vacated by those moving to the New Towns and reception areas will not be re-populated by families moving to London from the provinces. Something like this is happening today, as any member of the London County Council Housing Committee will verify. The County Council's housing programme is being constantly thrown out of gear by the influx of these newcomers who arrive at an estimated rate of about 100,000 a year. So long as a policy of full employment obtains these people will continue to move into the capital as soon as the barest chance of their being housed presents itself, and they will take their chance at getting jobs. In the light of these conditions, the advantages to be derived from moving half a million Londoners to new areas will be nullified in just over five years. It serves no useful purpose to argue that residential density standards prevent this sort of thing happening. They do not. They merely conceal it.

THE USE OF CURRENT PRICES

As readers of the JOURNAL for January 5 will know, two separate sections dealing with prices are now being published. The section in that issue gave current market prices of materials; the section in this issue gives current prices for measured work. In future the information will appear at quarterly intervals, the prices for measured work following a fortnight after the prices of materials.

It must be borne in mind that prices vary according to the size, nature and location of the job, and attention is drawn to the type of job to which these prices are intended to apply; that is, to a job of sufficient size to attract reputable builders with a good organization. It has also been assumed that there is sufficient work in all trades to warrant the sub-letting of work normally sub-contracted. This is important as the prices might be very different if the general contractor had to carry out the work. Although prices are for an average job they are not "average" prices in the sense that they cover a proportion of work in small quantities, narrow widths, etc., or the labours which are normally measured separately. Prices for these comparatively minor items are absent merely because of lack of space.

Published prices can only be used as a rough guide when considered in relation to a particular job, and all the factors mentioned above must be taken into account. The prices can be used with much more confidence for the purpose of comparison. Most architects want to know whether one item is more or less expensive than another and by approximately how much; this information can be deduced from the prices, and the ratio is much more likely to apply to a particular job than the prices themselves.



D. Pleydell Bouverie, A.R.I.B.A.

Peter Matthews

Percy Marshall, A.R.I.B.A.

Harold Falkner

Frank's Folly

SIR,—Surely I am not the only one of your readers to find distasteful your publication of an arched doorway in Amsterdam (December 22) with the implication that it is similar to Frank Lloyd Wright's doorway for a shop recently published.

Mr. Wright would be the first to admit that the outline of his doorway has derivations, but these derivations can be traced, not only to an obscure church in Amsterdam but (if one must continue the absurdity) to byzantine Ravenna or imperial Rome.

Castigation of creative work on the grounds of its superficial resemblance to something else is the very lowest form of architectural controversy and one which reflects no credit on the JOURNAL.

It is unfortunate that the photos of this shop give no idea of the brilliant handling of the spaces immediately within this archway, and it might be wise to see a proper presentation and good photographs before attacking this work.

The question of whether Mr. Wright's client is "long-suffering" will be decided by the balance sheet at the end of the year, rather than by the ill-informed opinions of Mr. A. L. N. Russell which were published by you in the same issue. I can only say that on the two occasions that I entered the shop it was full of customers.

D. PLEYDELL BOUVERIE.

New York.

SIR,—With reference to the letter entitled "Frank's Folly," by A. L. N. Russell, which you published recently, I should just like to add that I had the opportunity of meeting Mr. V. C. Morris both at the time when the conception of the new store had first been disclosed to him, and later during the construction.

It would be hard to imagine a client more enthusiastic or delighted with an idea, and I am sure that he would be the last to solicit Mr. Russell's sympathy.

The two photographs, subsequently published, of superficially similar entrance arches, are interesting, but surely it is the quality of "depth" in the treatment of the Morris store entrance (briefly referred to as "false perspective" in the original notes and not visible in the photographs selected) wherein its particular merit lies.

Since this building is not just a façade, it seems a pity that you were unable to publish a ground floor plan and section. It would be a refreshing change from the safe and commonplace, to see, more completely, this "cock-eyed idea."

PETER MATTHEWS.

Woodford Green, Essex.

Public Architecture

SIR.—As the speaker on behalf of Public Architecture in the recent Broadcast series, and as one who took part in the AA discussion which followed, I would like to reply to the letter from Mr. E. A. Barrie.

First, he seems to be under the impression that some of Mr. Gibberd's adversaries at the AA were "callow youths." I am at a loss to understand how he obtained this impression, especially as he admits that he was not present—mine was that a refreshing sense of realism ran through the discussion, the level of which neither Mr. Gibberd nor I had "to come down to."

From his short experience in one office, he boldly condemns the whole public office system, and pours scorn on the constructive proposals of the ABT. According to him, group working has been tried and has failed; it is impossible to change the hierarchic organization; all group leaders would have to be paid as much as the chief; and finally, it is impossible to change the civil service.

For the benefit of those who may be trying to make the choice of going into a private or a public office, this defeatism from one who has so little experience of either system must be condemned. Whether one likes it or not, the public office system exists, and is growing, but it is also evolving and improving. There are still too many public (and private) offices with a pyramidal structure, but there is also an increasing number where the new ideas which the ABT advocate are being successfully applied, and (this is essential) by architects who believe in them. Also, an increasing number of young architects are joining these offices. They are doing this not only, as Mr. Barrie seems to think, because the public office pays more, but because they believe in the opportunities in them for architecture as a social service as well as an art, and because they wish to obtain the experience to enable them to organize the public offices of tomorrow in such a way as to correct the present defects.

PERCY MARSHALL.

London.

Street Lighting

SIR.—It seems to me that the subject of street lighting is one of the things that have made very little progress in recent years, and its inefficiency is the cause of most casualties after dark.

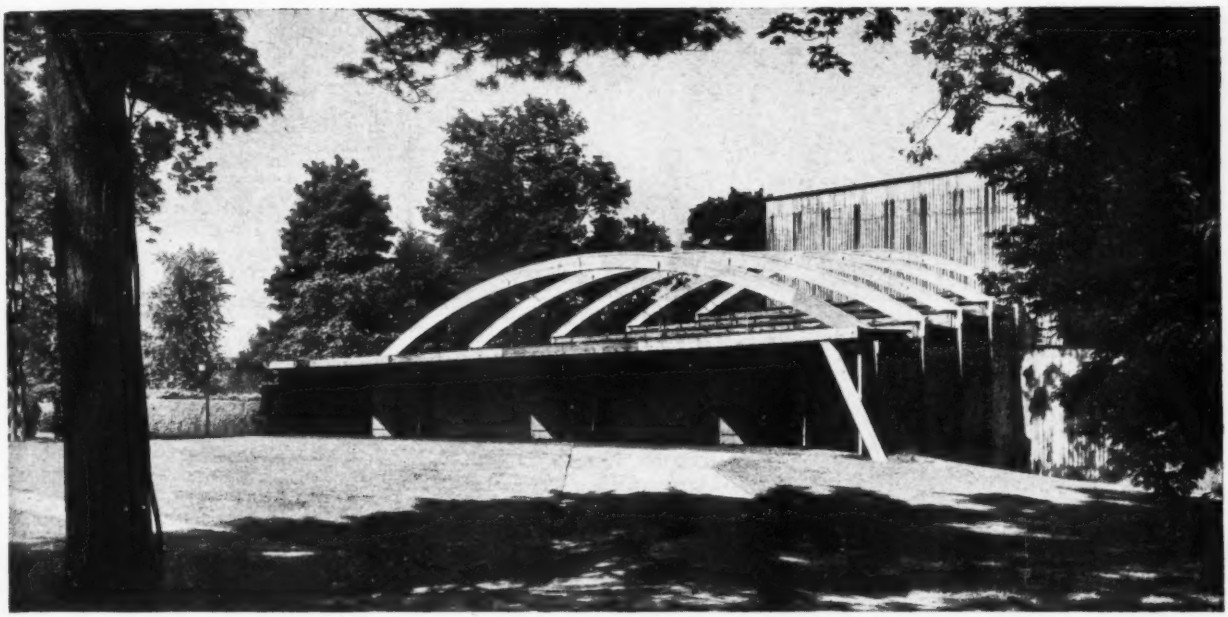
The road in which I live is lit by a fairly average modern system, *viz.*, the light is transfused through an area of about six inches by three, the lamp standards about 150-ft. apart on alternate sides of the street. The consequence, on a wet night, is that the whole roadway has streaks of intense light and dark.

This letter is intended as a challenge to the vendors of street lighting apparatus. Are they on the wrong track? Is the real solution floodlighting?

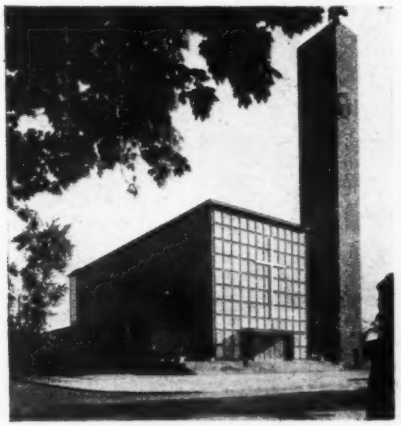
HAROLD FALKNER.

Farnham.

EXAMPLES OF THE WORK OF ELIEL SAARINEN, RIBA GOLD MEDALLIST



On this page we illustrate some of the work of Eliel Saarinen, right, who has been awarded the RIBA Royal Gold Medal for Architecture. Above, the Berkshire Music Centre, Tanglewood, Stockbridge, Massachussetts, designed in 1938 *in conjunction with his son, Eero Saarinen. Bottom, left, the Finnish Pavilion at the Paris Exhibition,* 1900. *Bottom, centre, the Tabernacle Church of Christ, Columbus, Indiana,* 1940. *Bottom, right, A. C. Wermuth house, Fort Wayne, Indiana,* 1941. *For a further illustration see p.* 116.



FACTORY BUILT HOUSES IN CALIFORNIA

The Mobilhome Corporation of California produces factory-built houses of conventional design, which are constructed on an assembly line at the rate of one a day. Five basic floor plans are offered for the buyer's choice; he may also choose the exterior wood trim treatment and colour, and the internal finishes and colour scheme. A tricycle trailer is used to transport the house to the site. The front half of the house rests on the truck itself, the back half on two widely spaced groups of wheels. Houses have been transported in this manner over 100 miles and at a speed of 30 mph.

AA

Scholarships for 1950

The Council of the Architectural Association offers the following Scholarships in Architecture for 1950:—

Entrance Scholarships: The Leverhulme Scholarship, *value* £200 *per annum;* The Minter Open Entrance Scholarship, *value* £100; The Sir Walter Lawrence Open Entrance Scholarship, *value* £100; The Metal Window Scholarship (*presented by the 'British Metal Window Manufacturers' Assoc., Ltd.*), *value* £75 *per annum*; The Natural Asphalte Council Scholarship (*presented by The Natural Asphalte Mine-Owners and Manufacturers' Council*), *value* £50 *per annum.*

These Scholarships, which are tenable for five years at the AA School of Architecture, will be available to students of British nationality. They will be awarded for one year, with the intention that they shall be renewed from year to year until the student has completed the course; renewal being subject to a satisfactory report of the student's progress, and to proof of the continued need for such assistance.

Senior Entrance Scholarship: The Metal Window Senior Scholarship (*presented by The British Metal Window Manufacturers' Assoc., Ltd.*) *value* £50 *per annum.* This Scholarship, which is tenable for two years at the AA School of Architecture, is open to students of British nationality, who have passed the Intermediate Examination of the RIBA, either externally, or at another recognised school of architecture, and is for entry to the fourth year of the course, and subject to satisfactory progress by the student, will be renewed for the fifth year.

Full particulars and forms of application may be obtained from the Principal, Architectural Association School of Architecture, 36, Bedford Square, W.C.1, to whom they should be returned not later than March 1. This is also the closing date for applications for the Entrance Examination which will be held on March 28.

1951 FESTIVAL

Architectural Awards

The Council of Architecture, Town Planning and Building Research, on behalf of the Festival of Britain Council, has decided to invite nominations for awards for the achievement of a high standard in civic or landscape design.

The main object of the scheme is to stimulate an interest in landscape or architectural design which would be beneficial for future work. A parallel object is to act as an historical record of the accepted ideas of good design at the time of the Festival of Britain. Any buildings, group of buildings, or improvement to rural or urban landscaping (excluding large entries, such as new towns or large development schemes and small entries, such as single houses) will be eligible for the award. The works must be in Great Britain and able to be viewed externally by the public. Their construction must not have begun before August 15, 1945, and must have reached a sufficiently advanced stage of completion by September 1, 1950, to be capable of visual judgment.

The Festival Council, on the recommendation of the Council of Architecture, Town Planning and Building Research, will make the awards shortly after the opening of the Festival. A ceremony will be held in London at which certificates commemorating the awards will be presented to the designers. The Council will then invite the appropriate persons to fix a special designed Festival emblem to the works in the form of a permanent plaque, and, in appropriate cases, the local authority will be invited to organize a suitable unveiling ceremony. Nomination forms are available from the Secretary, Festival of Britain 1951, 2, Savoy Court, London, W.C.2. Nominations must reach the Secretary not later than August 31, 1950.

Persons eligible to nominate.—Any person, including owners, occupiers or designers of the works, may nominate, provided they have the concurrence of the owners of the works or the persons primarily responsible for the maintenance of the works.

Exceptions.—No person connected with the Festival of Britain, 1951, whether in an honorary or official capacity, may make a nomination. No works, whether specifically commissioned or erected in any way only in connection with Festival activities, will be eligible for nomination.

Details.—In the event of an entry being considered for an award, the Council of Architecture, Town Planning and Building Research will request a written undertaking from the owner or occupier of the works or person primarily responsible for the external maintenance of the works: (1) that the works will be kept in first-class condition, at the expense of the person giving the undertaking, throughout the Festival and will be displayed in a manner approved by the Council of Architecture. (2) that the special Festival Emblem will be paid for by the Festival Authority, the owners being invited to pay the cost of the fixing and mounting only. (3) that they will allow the Festival Authority to reproduce any of the photographs submitted in any of its publications, and will not unreasonably withhold such permission for reproduction in the press.

The Council of Architecture will notify in confidence the persons making the nominations, as well as the persons responsible for the works, of the awards by April 1, 1951, in order that they can complete the undertaking mentioned in the nomination form, and in order that an opportunity can be given to tidy up the works, if necessary, before the Festival opening. The Council of Architecture, Town Planning and Building Research will not enter into correspondence concerning the entries and their awards and the decisions of the Council will be final. The Council reserve the right to limit the number of awards if the standard of merit desirable in the opinion of the Council is not attained.

The Council of Architecture, Town Planning and Building Research, which is to make these awards, was set up in 1948 by the Lord President of the Council to advise the Festival Office on architectural subjects. The members are: H. V. Lobb, Chairman, Professor H. V. A. Briscoe, F. J. Forty, Professor W. G. Holford, Robert H. Matthew, Rowland Nicholas, Sir George Pepler, J. M. Richards, Howard Robertson, Hugh Casson.

DIARY

The Housing Manual 1949. M. B. Blackshaw, J. Owens and C. Blair. At 13, Suffolk Street, S.W.1. (Sponsor, HC.) 6 p.m. JAN. 31

The Liberal Party Policy on Housing. Greville Collins, 13, Suffolk Street, S.W.1. (Sponsor, HC). 1.15 p.m. JAN. 24

The Edinburgh Programme for 20 Years. Professor Sir Patrick Abercrombie. At 28, King Street, W.C.2. (Sponsor, TCPA.) 6.15 p.m. FEB. 1

Are Town Planners Planning Too Far Ahead? E. Munro Runtz, RSA, John Adam Street, W.C.2. 2.30 p.m. FEB. 1

Planning and Agriculture. Professor L. Dudley Stamp, Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPI.) 6 p.m. FEB. 2

This week THE JOURNAL *is publishing the first of a series of fortnightly articles which will cover all those aspects of legislation, Parliamentary news and statutory rules and regulations which are of special significance to the architectural profession.*

ERNEST WATKINS

The Architect and Current Affairs

ARE architects interested in the rateable values of the buildings they design? Having asked the question, I will skip hastily on, hoping that the answer is (as it usually is) that some are and some are not. For those who are, February 1, 1950, is an important day. It is the day on which the local assessment committee disappears, to be replaced by the Inland Revenue.

In its own sphere, this is a revolutionary change. Ever since local rating began, so far as I can trace, it has been the parish, and its successors, which have been responsible for the rating valuations on which the collection of local rates was based. Now the process is being nationalised—and nationalised is the right word, for one of the main purposes of the change is to establish a uniform basis and method of assessment throughout England and Wales. Not that the new valuation of every property is expected before 1952—possibly 1953.

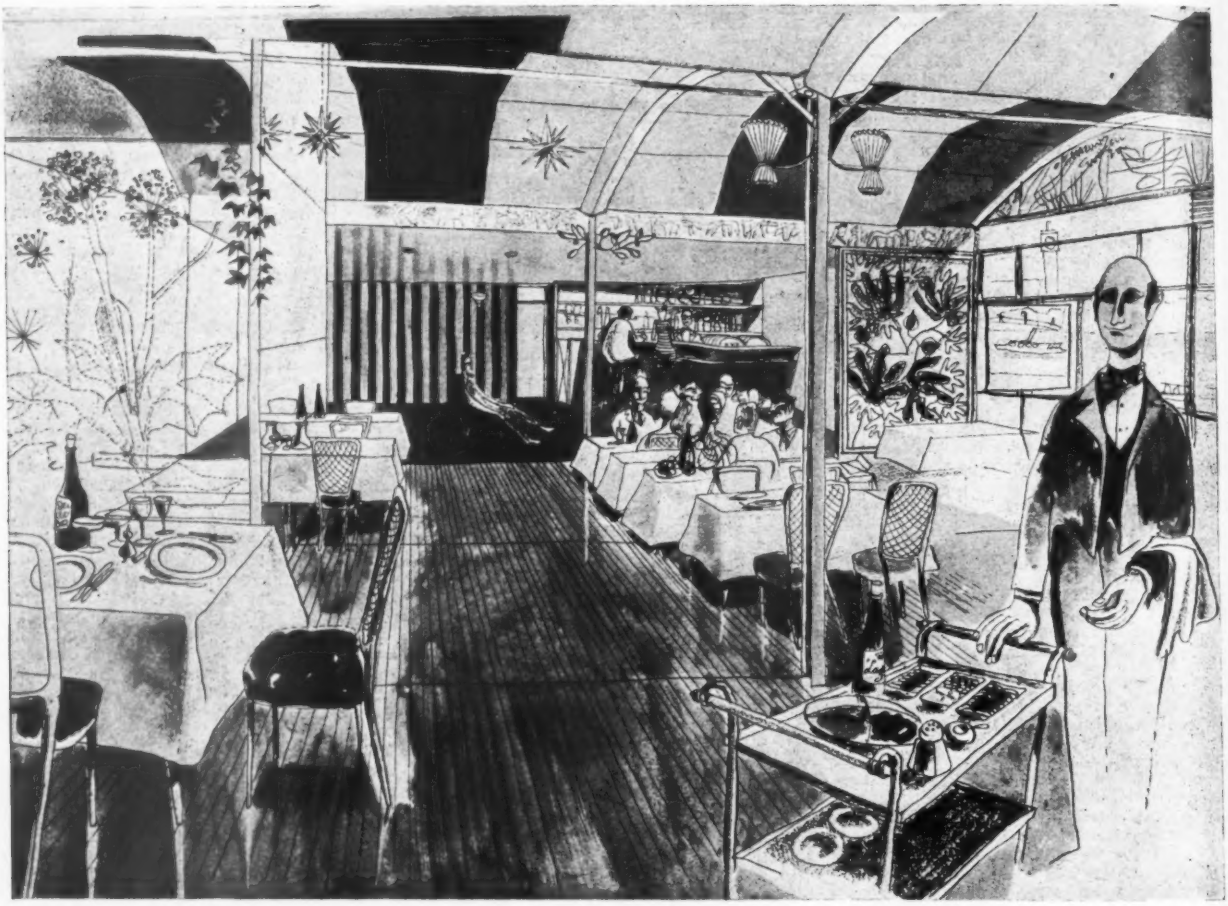
This argument is, I think, the strongest one in favour of the reform. Ever since the 'twenties and the 'thirties, when local rates had to carry so many of the burdens—unemployment pay, assistance and so on—now charged to national funds, there have been mutterings that some local authorities favoured their property owners by under-assessing the residential property in their area. By that means they were able to keep the rate in the pound that they levied reasonably high, and so avoid envious comment, but the effect of the under-assessment was that the total paid on each property was rather less than would have been paid by a similar property in a less prosperous area. I don't know if that did happen. I do know that a lot of people thought that it was happening.

The transition from local to national responsibility takes place on February 1, 1950. After that date all new assessments and all revisions to existing assessments will be made by the local valuation panel operating under Inland Revenue guidance (don't ask me how the unfortunate revenue officials will handle that and deal with development charges as well). Appeals will go to the new Lands Tribunals and no longer to Quarter Sessions. Quarter Sessions will hear only those appeals actually lodged before January 31, 1950. For reference, the two main Statutory Instruments dealing with the subject are the Rating Appeals (Local Valuation Courts) Regulations 1949 No. 2312 and the Rating and Valuation (Transitional) Regulations 1949 No. 2313, both of which are based on Part 3 of the Local Government Act 1948 (the Statutory Instruments are obtainable, as usual, from the Stationery Office, total cost, 2d.).

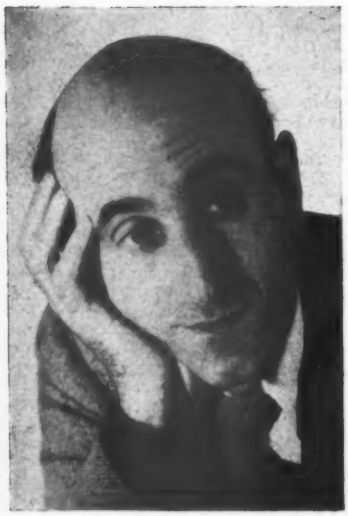
On this question of assessment for rates, there was an interesting decision in the courts at the end of last year, on how to assess a zoo carried on for profit. The zoo was Chessington Zoo, in Surrey, and the basis of assessment, so the court decided, must be the profit-making capacity of the undertaking. It is an ominous decision because, in general, the basis of assessment is the rental value, not the return to the occupier. The argument in this case was that a zoo is so unique that guesses at its possible rental value cannot possibly be a safe guide. Perhaps the point is academic. There can be few architects today, even those with local authorities, who are actively designing zoos (I decline to follow any possible comparison with what they are designing). But there is a moral—don't design a building so unique that no one can possibly assess a rent for it—except, of course, if it is for the Festival of Britain.

Planners in general will be dismayed when they read the result of the Manchester Corporation poll on the Mobberley Overspill plan. Under local government law a borough council promoting its own Bill in Parliament, as Manchester is, can be compelled, if the opposition in the council demand it, to submit the proposals in their Bill to a poll, or referendum, of the local electors. That is what happened over the Corporation's plans for development at Mobberley, and the result was shocking in its apathy. Only five per cent. of the electors bothered to record a vote one way or the other, and of those who did vote, three out of every four voted against. It will be idle in future to repeat the old saying, "what Manchester thinks today . . ." Over town and country planning, Manchester doesn't seem to be thinking at all. Unless, perhaps, the canny Lancastrians are saving up their votes for the General Election?

WINNING DESIGNS OF RESTAURANT



FIRST PRIZE



The following extracts are from the technical report of Leonard Manasseh, below left, prize-winning entrant to this competition. (Above, his sketch of the restaurant interior).

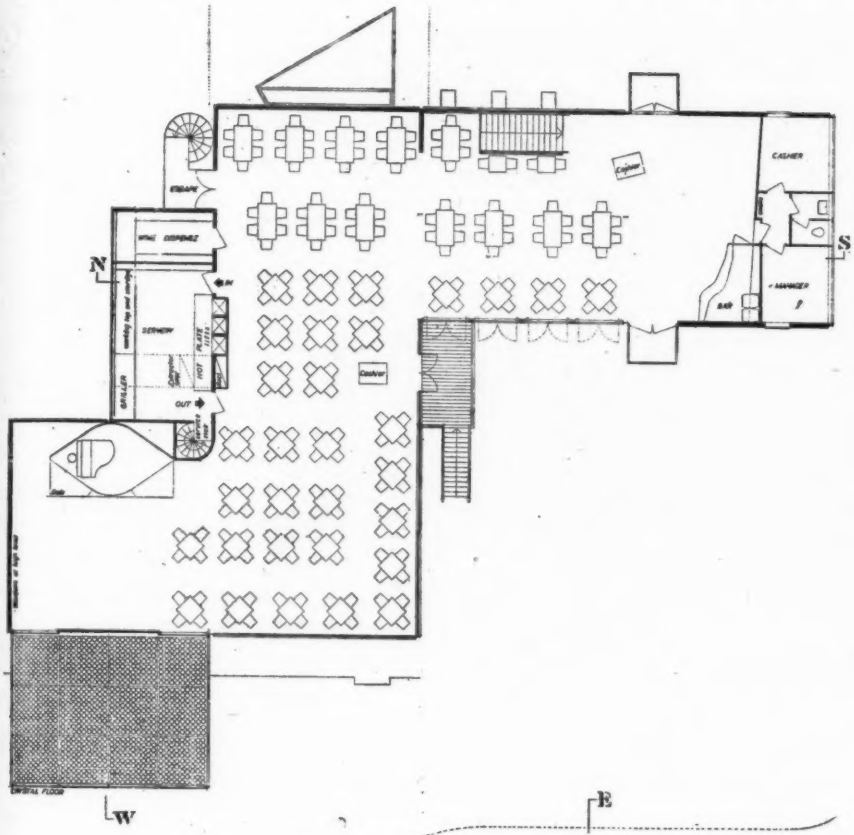
Two things stand out when one looks at the site plan. The first is that it commands one of the best known views in the world—the view across the River Thames, of Westminster Bridge and the Houses of Parliament. The second is that the sun, just after mid-day, and during the hottest part of the afternoon, shines from the same direction. These two factors govern the plan and its position on the site and the other requirements of the programme seem naturally to fall into place.

Except for the point supports of a projecting canopy (two 15-ft. bays) which take up a 7 in. by 4 in. rectangle each, and straddle the 12-ft. service road, nothing is built on the service turning area. It was found that to build over this area and give up in return a portion of the site nearer the river presented too many difficulties, and in any case this service area is the main approach.

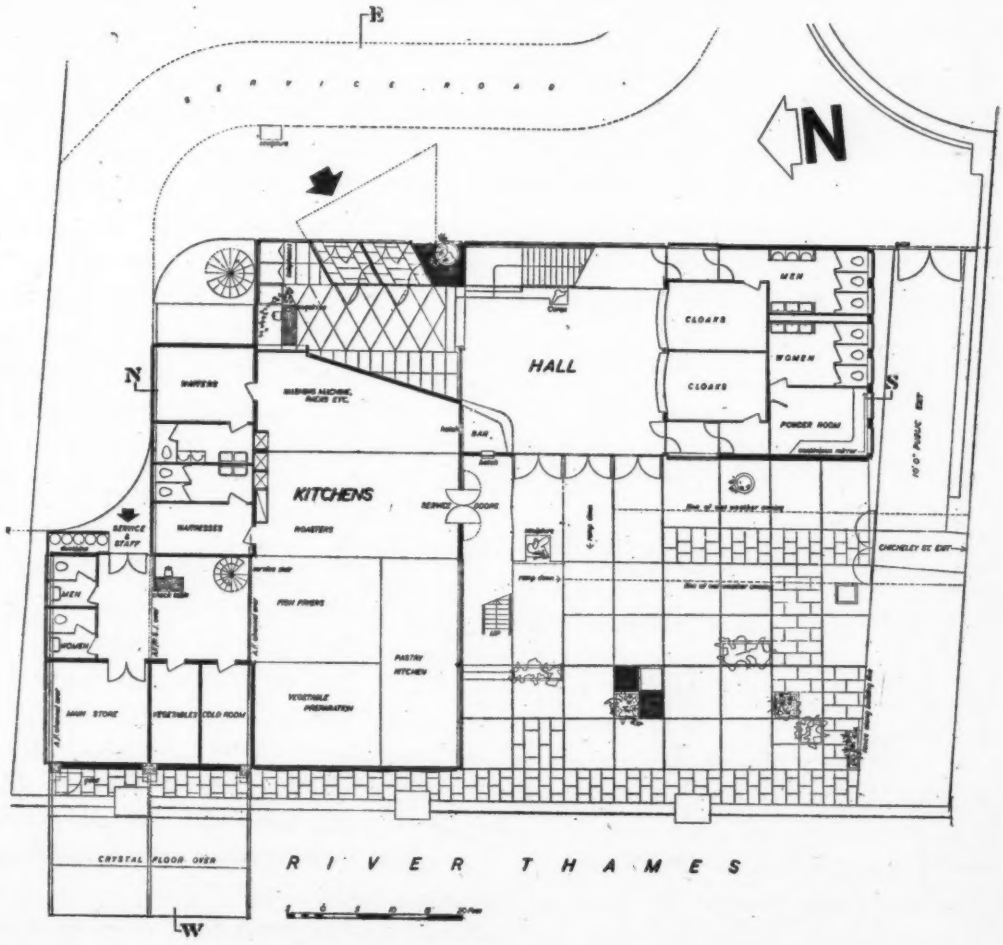
The main approach being from the exhibition grounds the entrance to the restaurant is at the north end of the east elevation. Four pairs of doors, 7 ft. wide, are inclined towards the main flow. The pairs of doors are arranged in tandem to form a draught lobby. One enters into the first hall containing the telephone kiosks and an information girl. This hall leads up three steps to the main hall.

The main stair leads out of this hall to another foyer or ante-space on the first floor, which gives on to the Restaurant. Here there is a larger bar.

COMPETITION 1951 FESTIVAL

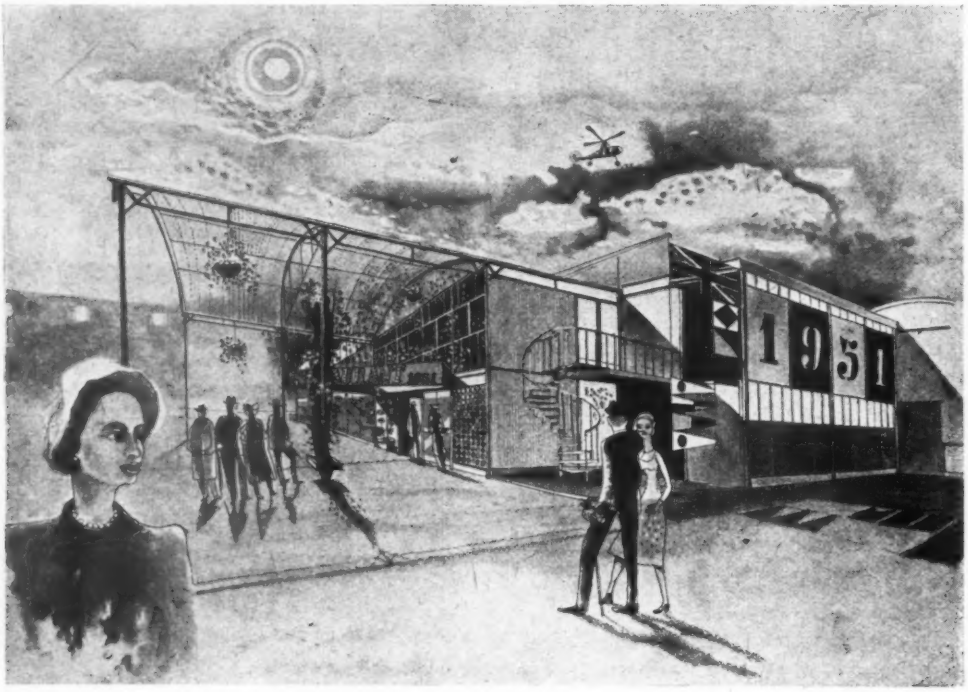


FIRST FLOOR PLAN



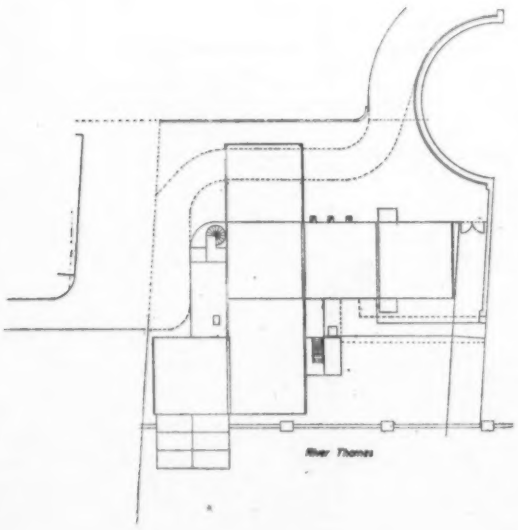
GROUND FLOOR PLAN

WINNING DESIGNS OF RESTAURANT



The main structure of the restaurant consists of a series of standard Dutch Barns as supplied by several manufacturers. The dimensions are :—30-ft. span (outside to outside of supports), 15-ft. bays (centre to centre of supports), 20 ft. to eaves. Two or more barns in series use the same row of supports so that a series measured along the span is not a multiple of 30 ft. The main roof is of standard corrugated asbestos sheeting, except for the two bays of the porte cochere, *which is covered entirely in clear perspex corrugated sheeting. The uprights consist of 7-ft. × 4-ft. steel stanchions, the long access in the direction of the span. The main structural problem when it was decided to have a first floor, was the problem of supporting it, as the 7-ft. × 4-ft. members are not quite strong enough themselves. There are several easy solutions, but it was a question of choosing the most suitable under the circumstances. The following were considered : A separate concrete structure ; precast concrete uprights and beams, bolted to the structure ; the use of stronger members ; or the clamping of subsidiary steel angles to the main supports. The last mentioned was selected. External walls are mostly glass except on the north. The larger areas consist of 4-ft. hollow tile outer skin with a finish raked out like stucco to form blocks, and colour washed. The inner skin consists of fibrous plaster combined with insulating board, constructed in panels and put up ready for painting. Smaller areas of walling are corrugated asbestos sheeting framed up. The west wall of the kitchen is entirely of fibrous plaster, the outer panels being like very much flattened pyramids on end with false shadows painted on the facets.*

Main beams and tie beams consist of very light, spot welded flange and rod girders. No beam spans more than 15 ft. Beams on the 30-ft. span are 1 ft. deep and are supported at mid-span by 3 ft. diameter steel tubes. The long beams are supported between the angles as shown, and the tie beams are cleated in the normal manner. The whole first floor, except the cantilever, consists of precast concrete trough beams ; soffits are left exposed and painted.



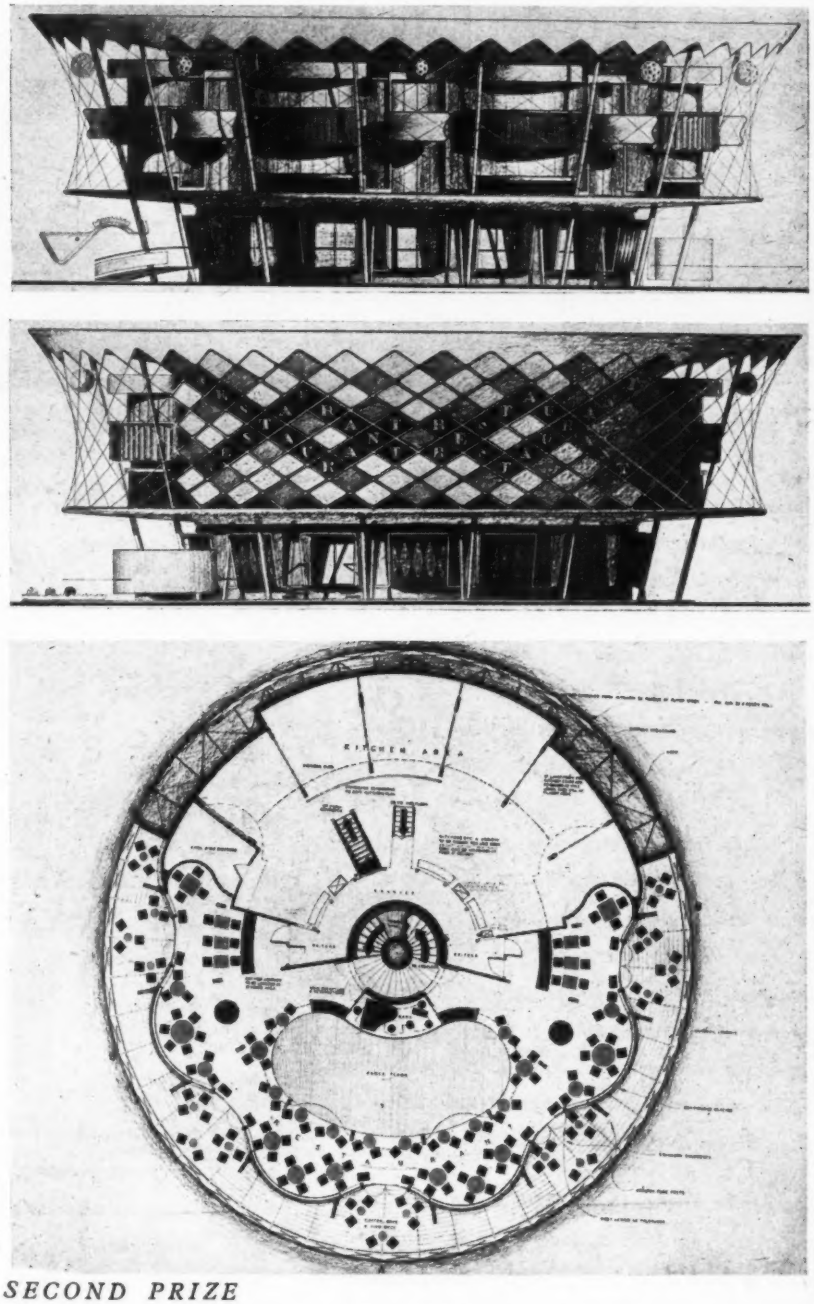
Left, the site plan. Above, the entrance from the north-east.

COMPETITION 1951 FESTIVAL

FIRST PRIZE REPORT—Continued

Doors and windows are of aluminium, except for the main entrance doors. Sub-frames are of teak. The ceiling of the restaurant is coloured canvas suspended from the roof members following the curve of the roof in a series of segmental chords. Insulation is by means of layers of three-ply quilt. All gable ends are covered with corrugated asbestos sprayed with different colours except the end gable of the porte cochere *which has just a curved barge board fixed to the end girder. The servery block is a standard lean-to structure as supplied by the makers of the barns, and the roof has a very slight pitch back to the gutter on the main building and is boxed in with a deep fascia. The cantilever is the only non-standard part of the structure and consists of three cut and welded beams supported on three reinforced concrete columns and tied back* 30 *ft. under the dance floor and bolted to the standard members. Except that it is restrained, it is almost like a balanced cantilever. The reinforced concrete supports are haunched so that the actual cantilever is approximately* 19 *ft.*

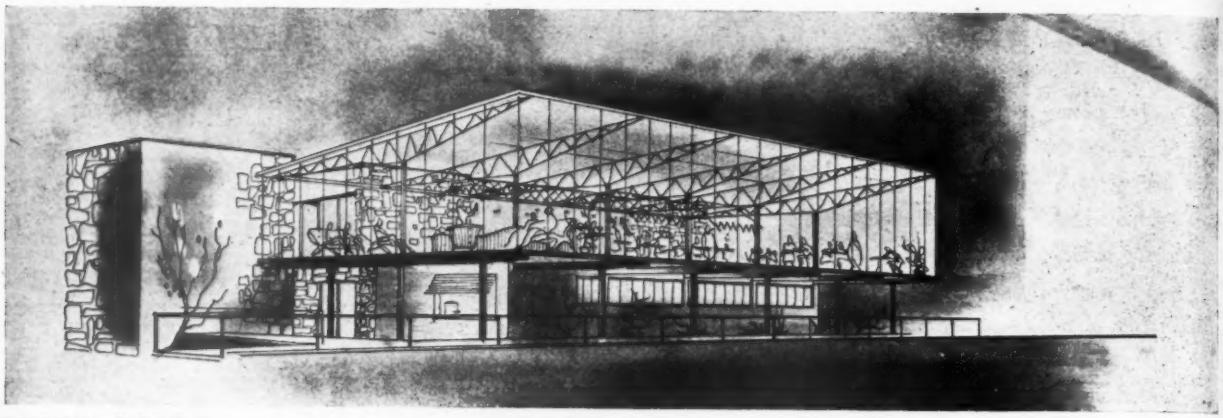
When the restaurant is approached from the Exhibition one sees the porte cochere *with its clear glass-like roof from which hang moss baskets of cyclamen and red and white geraniums and leafy trailing plants. By one of the supports there is a terra-cotta figure, tall and baroque, with ivy growing around. At night this canopy is lit from underneath by fluorescent lights and will glow like crystal. The sides of the entrance lobby are polished white marble and the floor is of unpolished slate. Inside the hall one sees on an inclined wall a line mural, or an engraving photostated up, witty and descriptive of eating and drinking at various periods. The floor is pale grey terrazzo with aluminium strips. Outside the window the flags, as befits a maritime nation, spell out the code letters FOB and the numeral pennants* 1951.



SECOND PRIZE

Above, designs of second prizewinner, Patrick Gwynne : top, elevation from the river ; centre, elevation from the east ; bottom, plan. The general conception of this design is of a frankly temporary structure formed without great precision from scaffold tubes and canvas. A circular platform raised 12 *ft. above the ground and slung partially over the river accommodates half the diners and the kitchens ; a partial balcony floor above accommodates the rest ; and underneath, just above ground level, are entrances, hall, offices, cloakrooms and lavatories. An overhanging saucer-type roof acts as an umbrella, thereby dispensing with the need for strict weatherproofing of window and wall, the latter being in the form of an independent continuous screening around the dining areas and a canvas walling round the kitchens. A central brick staircase drum is the only solid portion of the construction. Perimeter wires hold external canvas edges in place and act as ties in tension.*

WINNING DESIGNS OF RESTAURANT COMPETITION



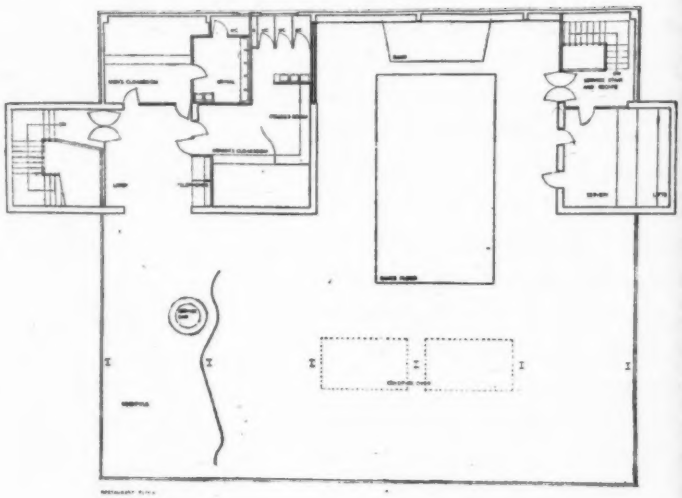
THIRD PRIZE

Above, a perspective of the third prizewinning design, by P. R. Davison, and right, a plan. The design report is as follows :—Not only the size of the site but also the aspect suggests two floors. The administration and "business" part of the restaurant is on the ground floor for easy working, and all the reception rooms and their ancillary rooms are put above. This includes the entrance hall as it would doubtless be more pleasant for guests to be able to watch the river whilst waiting for friends. An attempt has been made to get an atmosphere of dining in the open on the water's edge, the restaurant being mainly under glass, and the band and service area being under a solid roof giving the sense of an open fronted continental café. Canvas awnings are over a few tables and also over the tub bar in the lounge area, and all tables have independent lights adding to this effect.

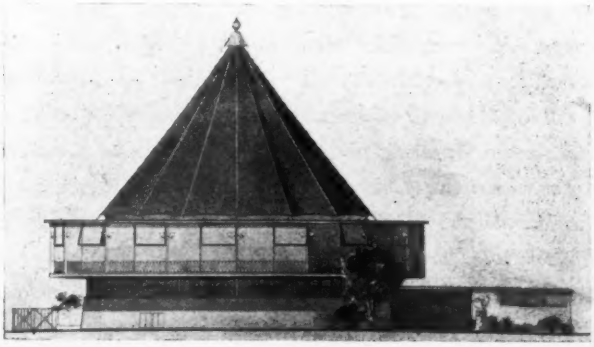
The garden layout, it is thought, cannot be done properly at this stage as there is no indication in the programme as to what goes on immediately outside the site. A scheme for planting would have to blend with the surroundings.

The promenade is raised 2 ft. It is not clear whether the site level will remain as it is or will be raised to the level of the existing granite river wall. If the latter is so, then the raised promenade would have no point and could be omitted.

The construction is of a reinforced concrete frame on a grid of 16 ft. × 12 ft. and 16 ft. × 16 ft., supporting a concrete raft or platform. There is



brick infilling. Light steel members and trusses support the glass roof. The solid roof is corrugated asbestos (proprietary make). The east wall, first floor level, is precast concrete blocks vertical jointed. Below, a commended design by T. Mellor.



The restaurant showing the curtains, specially designed by Michael O'Connell, and the central light fitting in anodised aluminium.

RESTAURANT

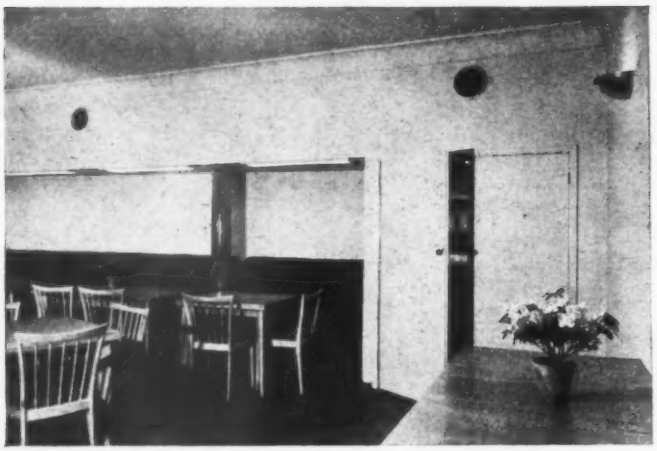
IN BAYSWATER ROAD, W.2

BY GILLIAN HARRISON

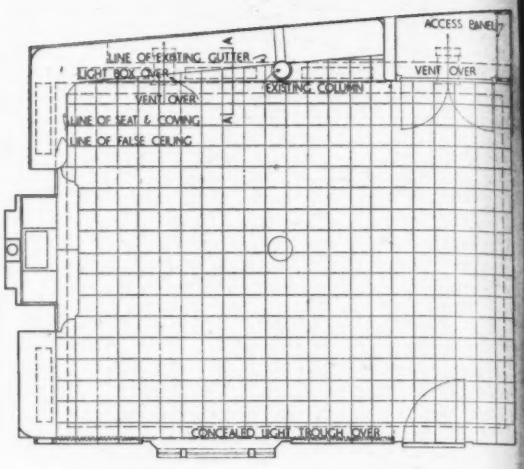
GENERAL.—A refectory was required in the disused basement kitchen of an existing residential club. The only light came from an area, and the room was condemned for habitable purposes until permission was granted to make alterations and use it as a refectory.

FINISHES.—The walls and ceiling are plastered and finished with pale oyster grey matt paint. The floor has cork tiles laid on concrete. There is a built-in cupboard opposite the door containing fitments for cutlery and crockery, and also concealing the existing gutter, which had to be retained. This gutter is hidden behind a false ceiling which follows the line of the cupboard and is continued each side of the chimney breast. There is boxed-in lighting in this false ceiling. The original windows over this gutter have been masked.

The built-in wall seating along



A view showing the built-in cupboard for crockery.



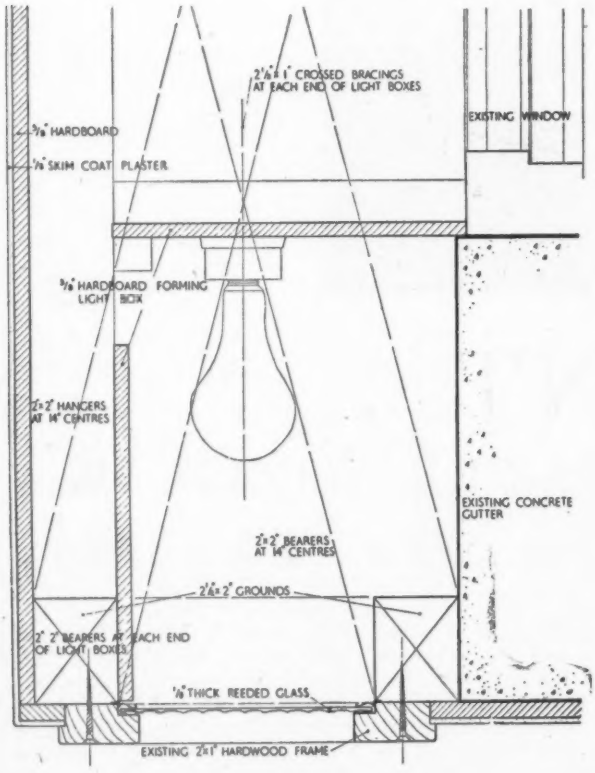
PLAN [Scale: 1"=1'0"]

two sides of the room is of softwood with hard board face polished to match the cork flooring, and the cushions and chair seats are covered in red material. The curtains are specially designed for this room by Michael O'Connell. All existing pipes are covered in coved corners and casing over the door. The column and door are painted a dull French blue. The old kitchen range recess is lined with Belgian granite and the stove stands on light travertine.

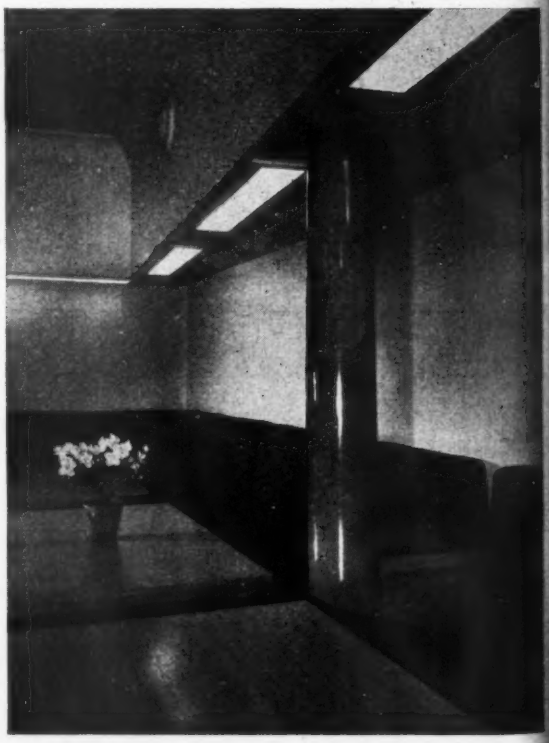
SERVICES.—Heating is provided by a large slow-combustion stove, and cross ventilation is obtained by two vent fans in the wall opposite the window. The lighting is by wall and ceiling fittings with boxed-in lights over the wall seats and concealed lights in the curtain pelmet.

The general contractors were Messrs. Leightons (Contractors), Ltd. For list of sub-contractors see p. 142.

SECTION A-A [Scale 3"=1'0"]



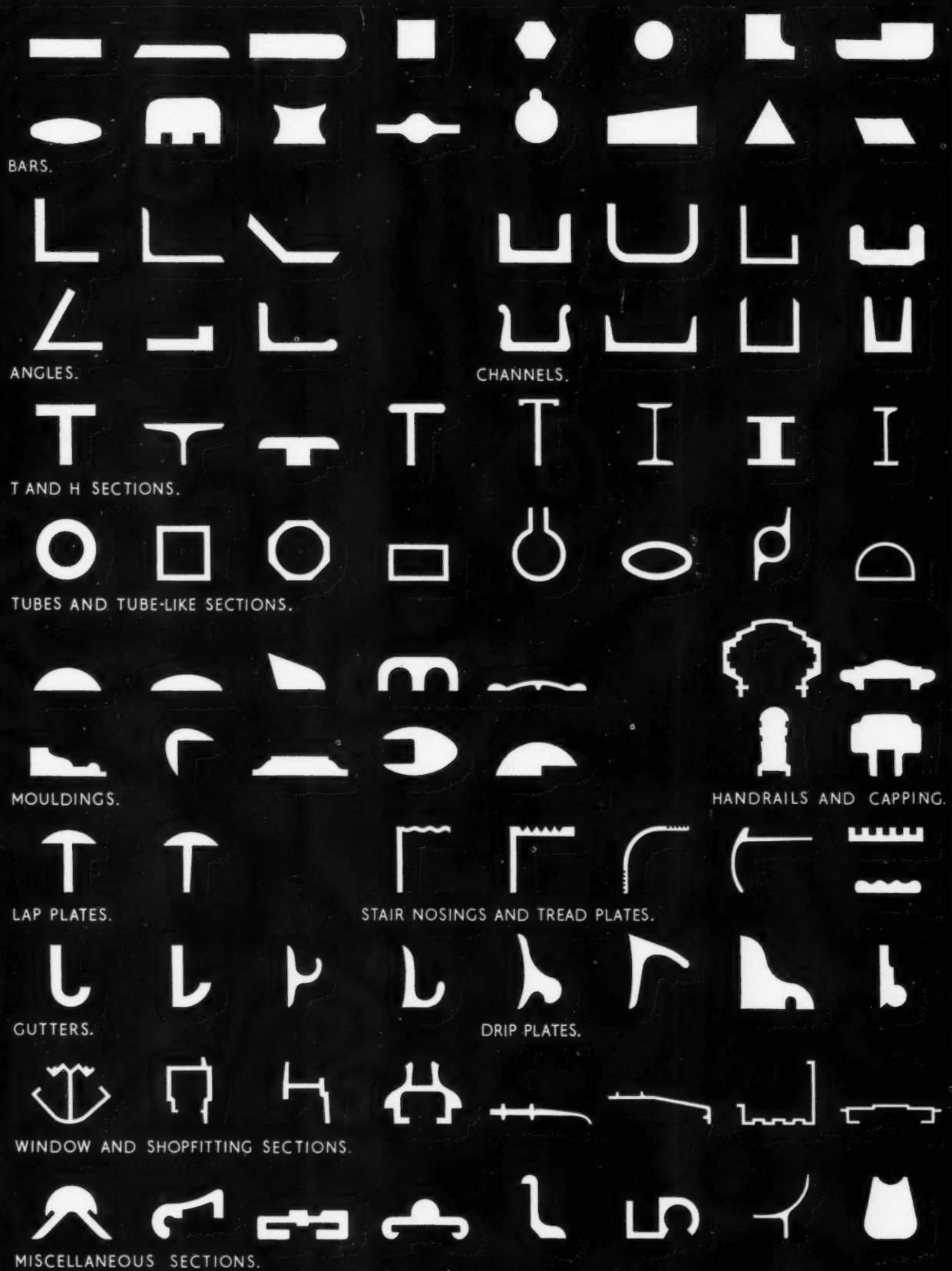
The false ceiling, which conceals an existing gutter.



RESTAURANT IN BAYSWATER ROAD

ALUMINIUM AND ALLOYS | GENERAL DATA

The Architects' Journal Library of Information Sheets 243. Editor: Cotterell Butler, A.R.I.B.A.



TYPICAL PROFILES OF ALUMINIUM ALLOY SECTIONS : I. NON-STRUCTURAL.

Compiled from information supplied by The Aluminium Development Association.

10.B3 ALUMINIUM AND ALUMINIUM ALLOYS : EXTRUDED SECTIONS 1

This Sheet illustrates a typical range of aluminium and aluminium alloy non-structural extruded sections. Structural sections are dealt with on Sheet 10.B4. Aluminium and its alloys are extruded into a wide variety of shapes including the more standardised forms of solid sections—such as round rod, rectangular and hexagonal bar, angles, and channels—also hollow sections, and an almost unlimited range of shapes designed for special purposes. Extruded stock is also used as raw material for the production of forgings, stampings and turned products.

The Extrusion Process

The process consists simply of forcing a heated billet of metal through an orifice cut in a hardened steel die, the orifice having the same profile as the section required ; the operation is performed on a hydraulically powered press.

An important advantage of the extrusion process is the facility with which very complex shapes can be obtained.

Sections may thus be designed to fulfil more than one purpose, e.g., both functional and decorative. Early consultation with the producer is strongly advocated in order to achieve a design that will be the most suitable and economical. Sections are usually supplied to standard tolerances, both as regards dimensions and straightness. Normal mill lengths are up to 30 ft., but much greater lengths can be supplied by arrangement. The maximum cross-sectional dimension possible is that which may be contained in a 1 ft. 3 in. dia. circle.

Alloys Available

Aluminium and aluminium alloys used for extrusions are normally divided into two groups—non-heat-treatable and heat-treatable. The minimum specified mechanical properties of the various alloys of these types are given below :—

Non-Heat-Treatable Materials

B.S. designation (B.S. 1476 : 1950)	0·1 per cent. proof stress (tons/sq. in.)	Ultimate tensile stress (tons/sq. in.)	Elongation per cent. on 2 in.
E.1C.M (Al 99·0 per cent. pure)	—	4	20
N.E.4M	—	11	18
N.E.5M	6	14	18
N.E.6M	8	16	18

Heat-Treatable Materials

B.S. designation (B.S. 1476 : 1950)	0·1 per cent. proof stress (tons/sq. in.)	Ultimate tensile stress (tons/sq. in.)	Elongation per cent. on 2 in.
H.E.9W	5	9	18
H.E.9WP	10	12	12
H.E.10W	7	12	18
H.E.10WP	15	18	10
H.E.9M	—	7	15

Some alloys are easier to extrude than others. While it is not possible to indicate precisely what alloys are available in a given section, all those listed above, with the possible exception of N.E.6, are suitable for a wide range of profiles.

Relevant British Standards

B.S. 1476 : 1950 *Wrought Aluminium and Aluminium Alloy Bars, Rods and Sections.*

B.S. 1161 : 1944 *Aluminium Alloy Sections* (*Standard Shapes and Sizes*).

B.S./STA7 Schedule, Part 6, *Aluminium and Its Alloys.*

Relevant A.D.A. Publications

Bulletin No. 16 *Aluminium and Aluminium Alloy Extruded Sections* (*Design and Tolerances*).

Other Publications

The producers' catalogues of extruded sections give full details of the many hundreds of shapes and sizes of sections available.

B.S. 1246 : 1945, *Metal Skirtings, Picture Rails and Angle Beads,* includes a standard aluminium alloy extruded skirting and picture rail.

Further Information

The Aluminium Development Association maintains a Technical Advisory Service and Information Bureau, and its architectural department is available to answer questions on the properties and uses of aluminium and its alloys in all forms and to advise on technical problems, suppliers, etc.

This Series of Sheets on aluminium and aluminium alloys gives general data on the properties of the materials and their use in various building applications.

Compiled from information supplied by :

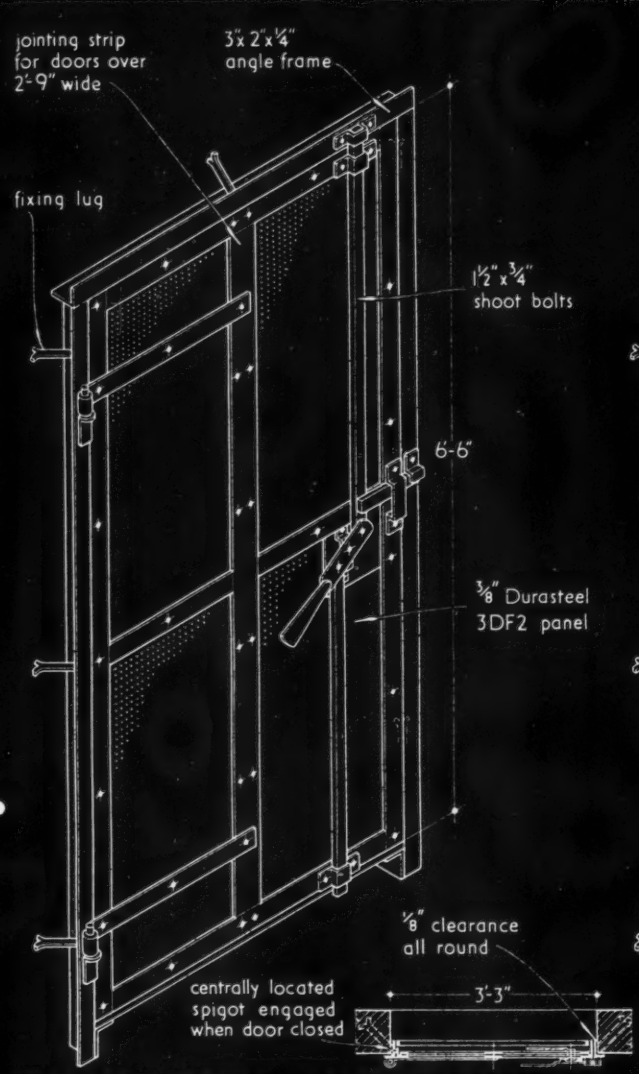
The Aluminium Development Association.

Address : 33, Grosvenor Street, London, W.1.
Telephone : Mayfair 7501-8.

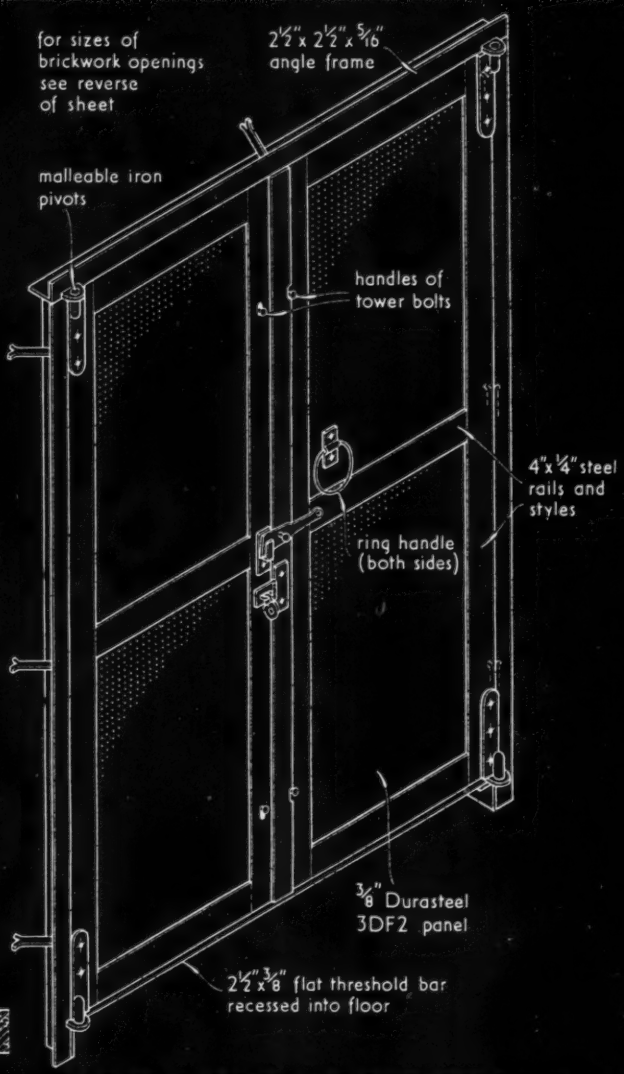
FIRE PROTECTION | DOORS

The Architects' Journal Library of Information Sheets 244. Editor: Cotterell Butler, A.R.I.B.A.

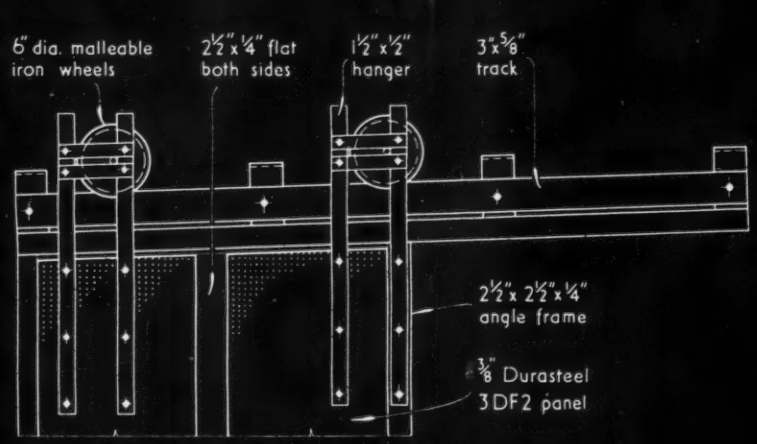
REVISED 26.1.50



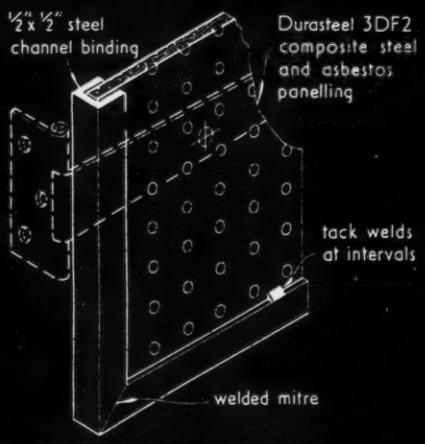
STANDARD DURASTEEL 'FIREMAN' FIRE-RESISTING HINGED DOOR. (F.O.C. tested and approved)



STANDARD DURASTEEL 'DURAPANEL' FIRE-RESISTING HINGED DOOR. (F.O.C. approved)



STANDARD DURASTEEL SLIDING 'FIREMAN' FIRE-RESISTING DOOR. (F.O.C. tested and approved)



CORNER DETAIL OF LIGHT DOOR USING SINGLE SHEET OF DURASTEEL.

'DURASTEEL' 3DF2 STEEL AND ASBESTOS FIRE-RESISTING DOORS. Manufacturer: Durasteel Roofs Ltd

36.D1 · DURASTEEL · 3DF2 STEEL AND ASBESTOS FIRE-RESISTING DOORS

This Sheet supersedes Sheet 36.D1 published 8.4.48. It describes fire-resisting doors made from Durasteel 3DF2 composite steel and asbestos sheeting. Sheet 15.R1 gives details of the material and shows typical applications to partitions and ceilings.

Standard 'Fireman' Fire-resisting Hinged Door

Details of this door are given in the upper left-hand drawings.

Size: The door is designed for openings up to 6 ft. 6in. high and up to 3 ft. 3 in. wide.

Construction—wall frame: 3 in. by 2 in. by ¼ in. mild steel angle at jambs and head with lugs at intervals for fixing to brickwork. The threshold bar is of 3 in. by ½ in. mild steel flat. Rebates at jambs and head are of 1 in. by ½ in. and 1 in. by ¾ in. respectively.

Construction—door: The door consists of single thickness ⅛ in. Durasteel 3DF2 panels bolted to a framework of 2 in. by 2 in. by ¼ in. angle. Where the width exceeds 2 ft. 9 in., two sheets are long jointed under a cover strip (as shown).

Fittings: Two strap hinges are provided, supplemented by a centre spigot when closed. The locking mechanism is triple acting, consisting of two shoot-bolts, which engage in the frame at top and bottom, and a centre catch engaging in an open clip fixed at mid-height to the frame angle. Lever operating handles are fixed both sides of the door.

Official grading: Tested 1947 by Fire Offices' Committee and classified as fulfilling conditions for Grade C (2 hours) of B.S. 476, for maximum opening as above.

Standard 'Durapanel' Fire-resisting Hinged Door

Details of this door are given in the upper right-hand drawing.

Size: Single-leaf for openings up to 9 ft. high by 3 ft. 6 in. wide. Double-leaf 9 ft. high maximum or 7 ft. wide maximum but not in any case exceeding 56 sq. ft. opening if to comply with F.O.C. Regulations.

Construction—wall frame: Rebated mild steel angle complete with fixing lugs.

Construction—door: The door consists of single thickness ⅛ in. Durasteel 3DF2 panels with 4 in. by ¼ in. mild steel flat styles and rails.

Fittings: The door is hung on malleable iron hook and ride type hinges or pivot hung as required. It may be fitted with a 3-way shoot bolt locking mechanism or with tower bolts and a centre latch.

Official grading: This door complies with F.O.C. Specification 1, Section 1. Amendment dated 2nd June, 1949.

Standard Sliding 'Fireman' Fire-resisting Door

Details of this door are given in the lower left-hand drawing.

Size: The door is designed for openings up to 8 ft. high by 7 ft. wide.

Construction: The door consists of single thickness ⅛ in. Durasteel 3DF2 panels bolted to framing members of mild steel angles, tees and flats.

Sliding gear: The door is suspended by two or three sets of hangers on 6 in. diameter grooved malleable iron wheels running on 3 in. by ⅜ in. mild steel flat track, inclined if door is to be self-closing. Closure at the bottom of the door is effected by a mild steel angle running in a recessed channel guide. Alternative arrangement at bottom is tight closure to floor if to comply with L.C.C. Regulations.

Official grading: Tested 1948 by Fire Offices' Committee and classified as fulfilling conditions for Grade C (2 hours) of B.S. 476.

Heavy Type 'Super Fireman' Splinter and Fire-re[illegible] Door

Developed during the war to meet air raid conditions, this door is intended for use in power stations, chemical works and similar situations where danger of fire is accompanied by risk of blast and/or splinters from explosion. Tested 1941 and classified by F.O.C. as Grade C (2 hours) of B.S. 476.

Light Type Doors

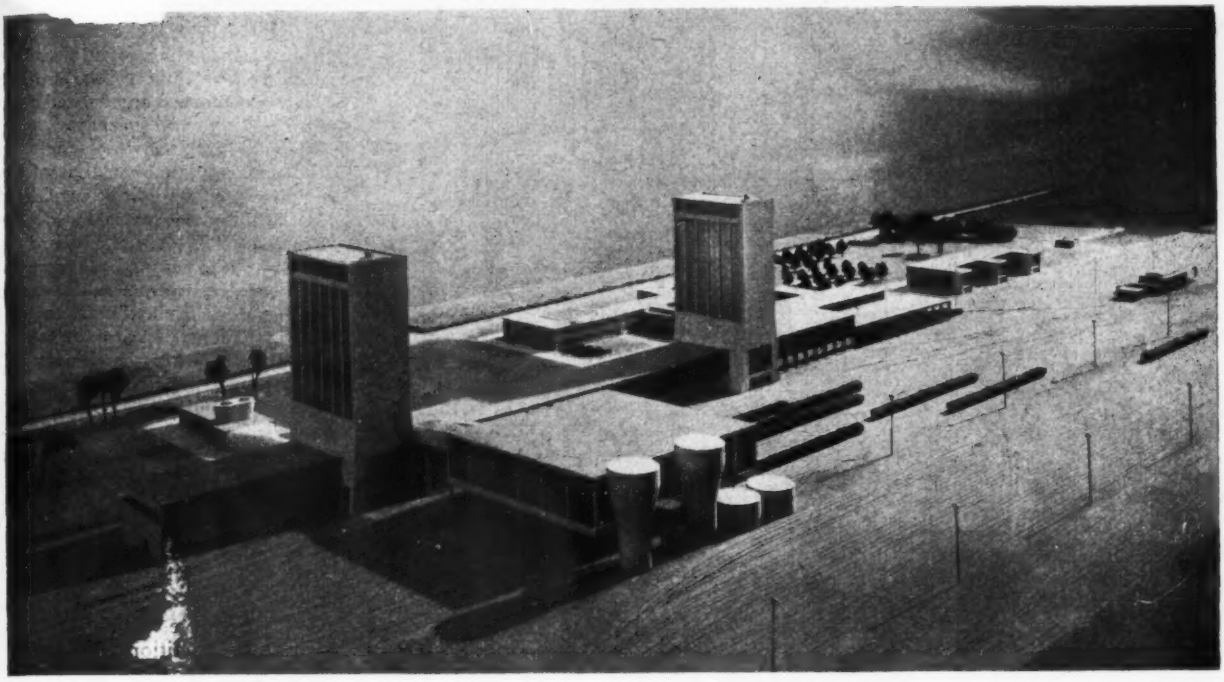
The lower right-hand drawing gives details of a light type door consisting of a single sheet of ⅛ in. Durasteel with an all-round binding of steel channel. The manufacturers supply these panels up to a maximum width of 2 ft. 6 in., but without hinges or furniture, which can be readily bolted on by the builder.

Fixing

Lugs (of long fish-tail type) should be securely anchored and any gaps between wall surfaces and the door should be made good.

Compiled from information supplied by t

Durasteel Roofs Ltd.
Address: Oldfield Lane, Greenford, Middlesex.
Telephone: Waxlow 1051 (Private Branch Exchange).
Telegrams: Endurafire, Wesphone, London.

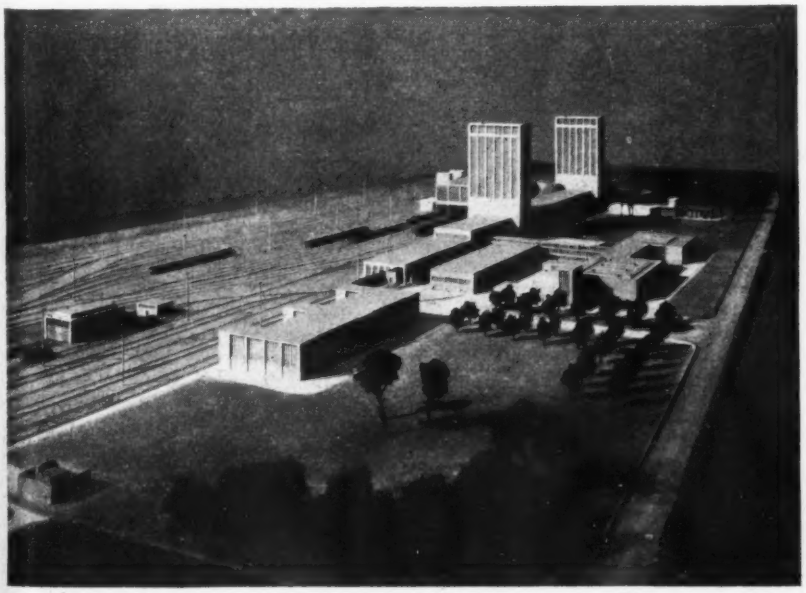


The model of the colliery from the south-west. The building in the foreground, built on to the sidings which run parallel to the main Thornton-Dunfermline Railway, is for coal preparation and loading.

COLLIERY AT ROTHES, FIFE

DESIGNED BY EGON RISS, SENIOR ARCHITECT, NATIONAL COAL BOARD, SCOTTISH DIVISION

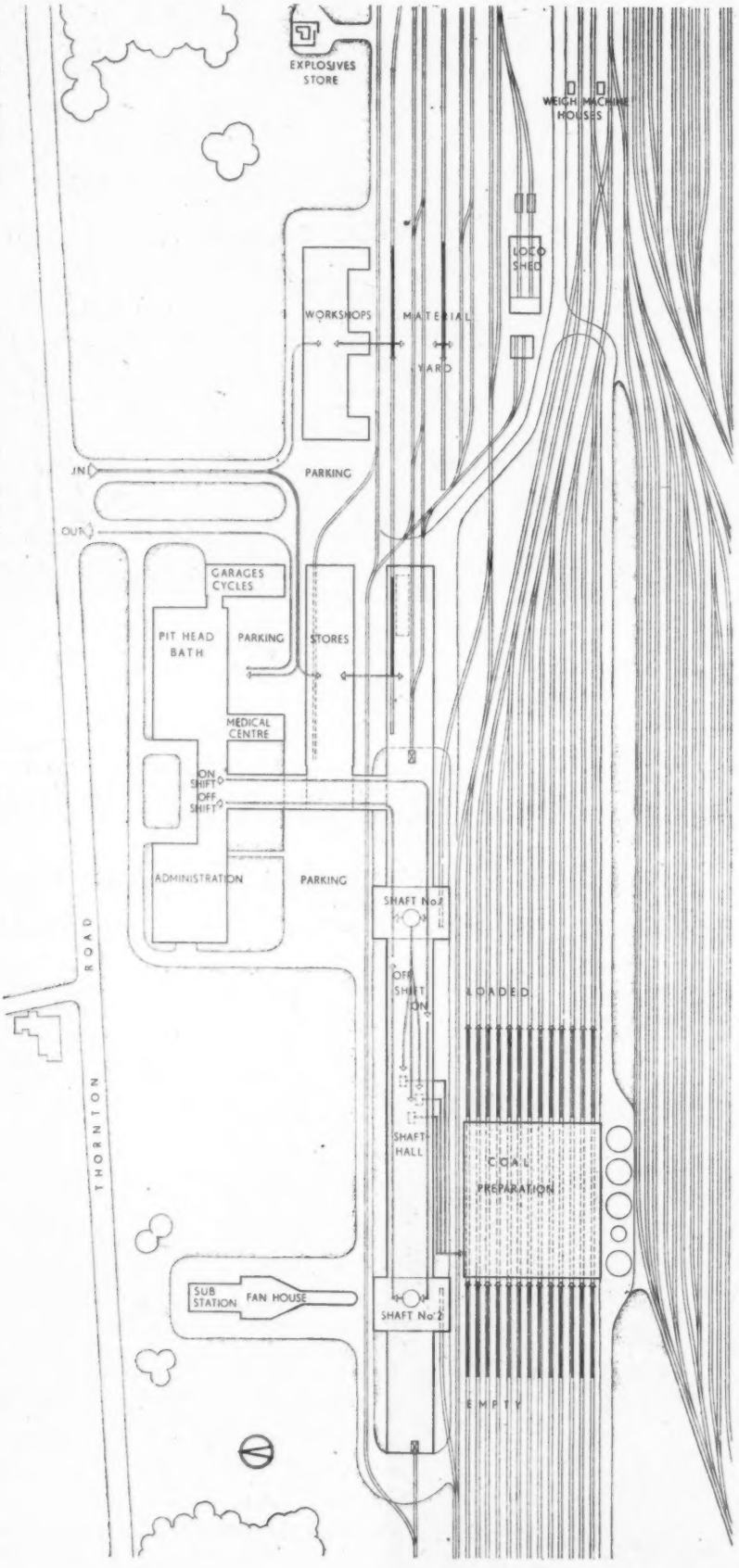
The model from the north-east. In the foreground is a block of workshops. The two blocks nearest to the main road, on the right of the picture, contain pithead baths (adjoining the intersecting road) and administrative departments. These are linked by a connecting block in which is a canteen and a time office.



INTRODUCTION.— Before describing the Rothes Colliery, which is said to be breaking new ground in pithead design, it is, perhaps, necessary to refer briefly to the general problems of colliery surface layout.

The production of coal involves the transportation of men and materials *via* the pithead to the pit bottom, and coal from the pit bottom to the surface. This sounds simple enough, but it embraces a number of highly specialised engineering jobs, every one of which has its own history, its own development, its own research field, and its own possibilities for future development. At the same time, all these jobs are closely inter-related, and have one common aim, namely, to get the coal from its natural deposits to the consumer.

The vertical journey is done either in skips, which are big containers travelling up and down the shaft, and are filled at the pit bottom and emptied at the pithead, or in mine



SITE PLAN

cars, which travel underground from the loading points to the decking level and to the surface. They are emptied and decked again for the downward journey.

The main problem which confronts the surface planner is that of circulation which might be considered in the following way :—

Circulation No. 1. Coal from the pit bottom to the pit bank, screens, washery, bunkers or stacking areas, and eventually loading into railway waggons, lorries or ships.

Circulation No. 2. Machinery and material coming in by rail, road or ship to the underground workings *via* stores, workshops, sawmills, material yards, or going out for repair.

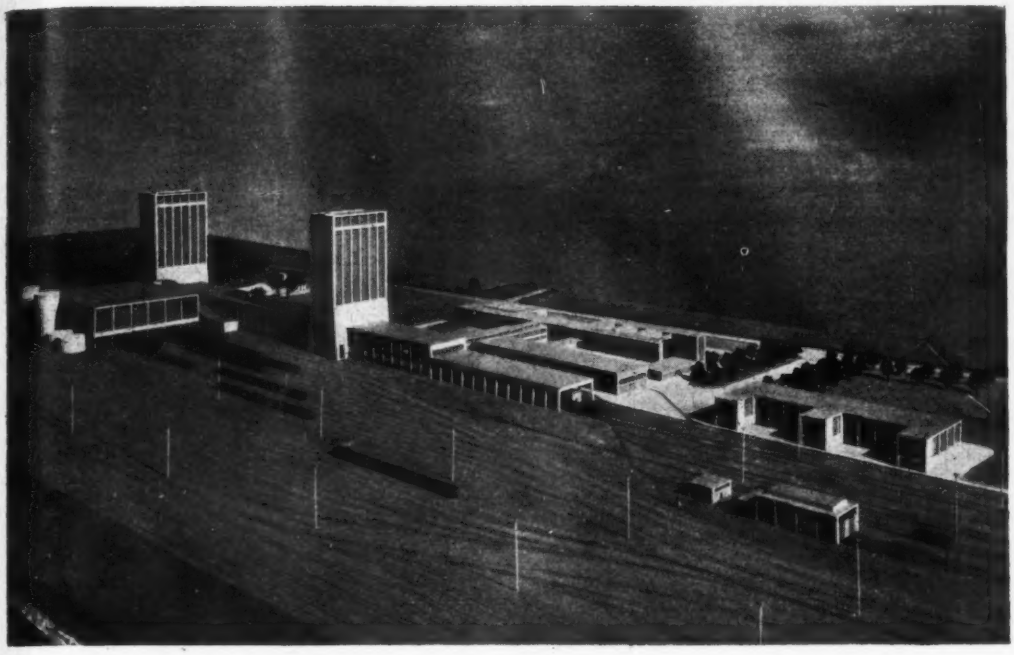
Circulation No. 3. Men coming on or going off shift.

The flexibility of this circulation depends on the means of conveyance, and, in the case of mechanical handling, on the devices used.

The grouping of the buildings follows to a certain degree these various circulations. It should be pointed out that some of these groups are interwoven to an extent which does not permit a division in separate buildings.

The pithead is one big industrial organism. Only after a thorough analysis can the process of designing such an organism start. There are, however, innumerable factors which have to be cared for. Industrial efficiency cannot be achieved without regard for all scientific and engineering aspects and without consideration for the action and reaction of the human element involved. When the production scheme is ready for translation into a series of buildings, which are partly the casings of mechanical installations and partly the housing for activities to be performed by men, new factors have to be considered. These include the sterilisation of coal underground, general development schemes, town and country planning, etc. And above all, the planners have a responsibility towards a population working and living against a background of an industry such as the coal industry. They must not ignore the important sociological and psychological aspects of their work.

GENERAL.—The site of the colliery at Rothes is long but comparatively narrow, extending from east to west between the Strathore Road and the Thornton-Dunfermline Railway. The two winding towers and the shaft hall will be situated at about the centre of the site, thus leaving the southern part for the coal preparation plant and the railway installations, and the northern part for the



The model from the south-east. To the right of the right-hand tower is a shaft hall. Beyond this, and parallel to it, is a stores block.

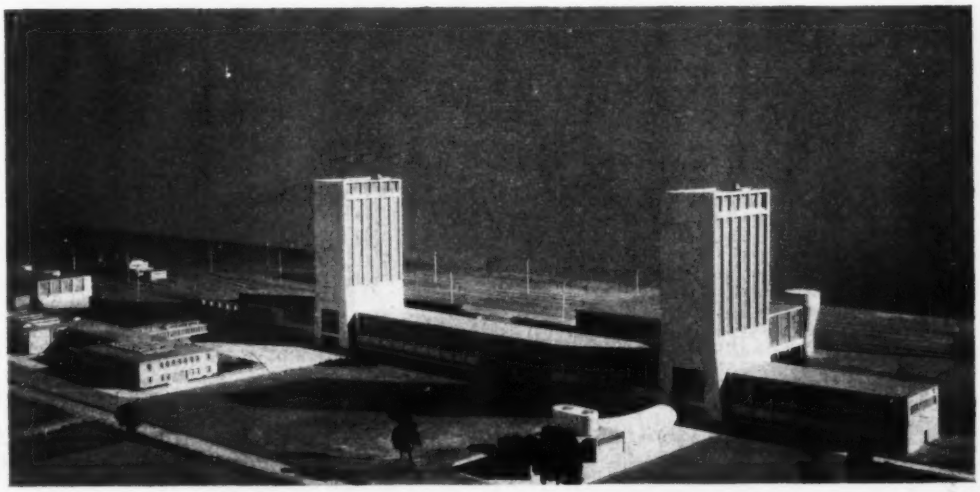
administration buildings, pithead baths, lamp cabin, stores, fan house, sub-station, etc.

The towers will be approximately 200 ft. high, and will house koepe tower winders and other machinery. They will be spaced at 500-ft. centres and will be connected by the shaft hall which will house the mine car circuit. The two blocks nearest to the road will be the administration building and pithead baths. A connecting block between these buildings will contain a canteen on the ground floor and a time office and offices for officials on the upper floor.

Circulation of men will take place at a higher level through an elevated block connecting the assembly point in the shaft hall with the time office above the canteen. In this block, snack service, boot cleaning and greasing equipment, lamp rooms, small stores, etc., will be housed.

The stores between the shaft hall and pithead baths, with the workshops nearly in line, but further east, will be readily accessible by road, mine car or railway. The area south of the workshops will be developed into the material yard. North of the west tower will be the fan house and sub-station. The buildings have been sited in such a way that further extension is possible if required.

It is obvious that the two winding towers will dominate not only the colliery, but also a fairly large neighbourhood area. No attempt was made to disguise their function. A frame structure was chosen in order to allow for the maximum daylighting. The east and west sides, with their slender columns and glass, will contrast with the solid north and south end wall. Throughout the entire design, expression has been sought in simple contrast of material and in a powerful rhythm rather than in insipid detail.



This view of the north side of the model shows, in the foreground, the sub-station and fan house adjoining one of the winding towers. The narrow block which connects the pithead baths and administrative blocks, on the left, with the shaft hall, contains stores, snack service, lamp rooms and boot cleaning equipment.

TECHNICAL SECTION

HEATING RESEARCH AND HOUSE DESIGN

Report on lecture by H. G. Goddard

ONE way and another we have heard much of the BRS full-scale heating trials during the past year or so; and rightly so, for they are by far the largest trials of their kind so far carried out in any country, and any information derived from them must be of the greatest importance to all who are in any way connected with housing, whether as architect, engineer, housing manager, or lay member of a housing committee.

We all await with interest the next report on the occupied period of the trials, which will disprove or confirm the results of the previous period—though, alas, it will not be Richard Eve who presents it to us, as he did at the RIBA, for he has now left that establishment to assist the Hertfordshire County Council with their very advanced schools programme.

The last time he spoke on the subject it was to give us the factual results of the unoccupied phase of the trials, leaving us to draw our own conclusions from the scientific facts. This time he gave us his own conclusions from them, with an occasional glimpse of the future by way of one or two facts gleaned from the present occupied phase. He emphasized that he spoke as a private person, and not as a member of the BRS, and that the conclusions were his own. This, I think, made his talk the more valuable, for he was able to combine the scientific knowledge derived from his long connection with the trials with the more detached view of an ordinary architect.

He commenced by defining the rôle of the scientist in respect of heating research. His rôle was not to produce spectacular ideas, but rather to provide the norm by which the ideas of others could be judged; he was the surveyor, not the explorer. One merit he must be seen by all to have, the merit of impartiality; and he must show clearly and equally wherein lay the reason for failure as well as for success.

The speaker went to say that he had found one difficulty in forming views on heating and that was the difficulty of assessing accurately the human element. The problem was essentially an economic one. Ten to fifteen per cent. of the cost of a house went on the heating, including the flues; this was reflected in the rent, and a balance had to be struck between what could be afforded for this, for fuel and for food. Out of every ten people occupying 1,000 sq. ft. houses only one had more than £10 a week, while two out of every ten had less than £5. He felt than no more than £20-£25 per annum should be spent on fuel—that is, not more than 7s. 6d.-9s. a week, and in this 2s. 6d. must be included for cooking in the case of the poorer class. Planning must play its part in achieving this; the external surface area of a three-storey terrace house was but a quarter of that of a bungalow of similar floor area, while flats in large blocks were better still. Of these, he gave as an example the Parkchester Estate in New York, where the charge for constant hot water and full central heating was the equivalent of 3s. 9d. per flat per week, owing to the high thermal efficiency and excellent insulation—outside walls, U=·10. It seemed at first that Richard Eve showed this as an example of how things should be done in order to achieve a high efficiency, but, in reply to a later speaker, he pointed out that it was an example of how not to do it.

He, himself, liked the open fire; wood, if he could get it, otherwise coal. But its attraction lay in the visual effect. Slides of isotherms in rooms, identical, except that one had a fire, the other radiators, showed how chillingly irregular was the heat distribution from open fires. Here he put in a plea that architects should make it their business to see that, wherever high-temperature radiant-heat sources were provided, there should also be provided the means of guarding them, especially from children.

The speaker went on to describe the improved open fire, and added that, to avoid loss of efficiency, flues must be on inner walls, Metal flues, with their attendant risks, were to be avoided.

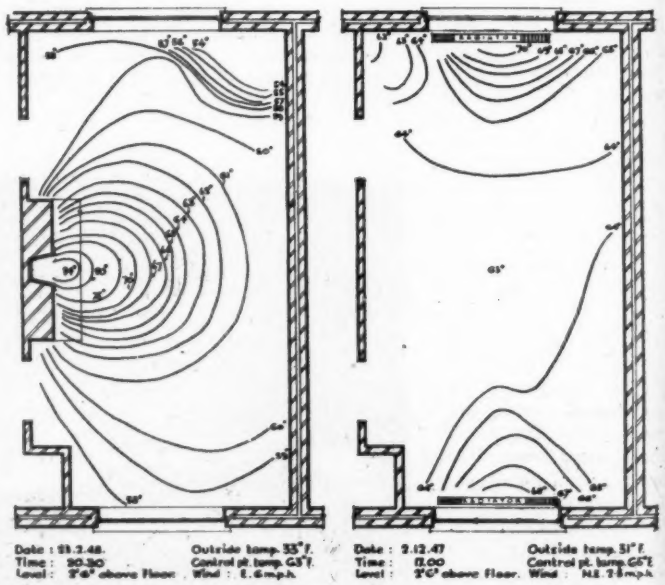
HEAT LOSS BY VENTILATION

One of the worst sources of heat loss was excessive ventilation. (The speaker, in his recent Paper to the IHVE, had stated that the infiltration through an ordinary sash was equal to that which would occur if one cut a 4-in. diameter hole in the glass.) Weather stripping could help, but it was advisable to restrict the amount of opening sash; large areas of glass were to be avoided, in any case. Later, two speakers brought up the question of double glazing. Mr. Eve's personal experience of storm sashes in Canada put him dead against it. The sashes were bulky to store, they rotted if not painted every three years, and lawn-mowers and the like smashed the glass during the summer. Only in the coldest parts of the United States were they to be found; they were jettisoned as soon as climate allowed them to be. Generally, he thought, there was ample ventilation in houses without special provision being made, though he thought that grilles over doors, to allow a general circulation through the house, was a good thing.

Solid fuel was the most economic, in his opinion, but there should only be one appliance burning it in the house, provided space heating and hot water, while gas or electricity was used for cooking. The same could be used for auxiliary summer water heating, or, if capital cost did not allow this, then provision for future fitting should be made. He stressed also the necessity for a good standard of insulation. The first figures for some of the occupied houses had now been collated, and they agree remarkably closely with the "unoccupied" figures. In one case a living room showed an average temperature of 58·8° F. unoccupied and 59·9° F. occupied. Only in one case was there a large discrepancy, and this had been foreseen and remarked upon in the original report: a solid fuel cooker in the kitchen grossly overheated the room, and it was obvious that the housewife using it would have to open the window.

An improved closeable fire with back boiler was ideal in his opinion. It burnt our national fuel, coal, and it gave high temperature radiant heat, which people wanted. He preferred such a device to an inset stove. But what was to be done, he asked, to widen the distribution of heat to other rooms? For convected warm air, systems of duct work proved expensive, and for background heating, the stair well sufficed amply as a conveyor of heat of this kind. But hot water radiators had the advantage of putting the heat where it was wanted. He suggested a radiator in the kitchen, where the gas or electric cooker did not really give enough heat: and possibly one in the best bedroom. The second bedroom might have a gas fire.

Here, the speaker showed a table, giving comparative fuel consumptions and costs. (This may be found on the opposite page). He did not rule out central heating entirely; but if it was used, the boiler should take the place of all other fires—there was no question of having an open fire as well. With the open plan, convected warm air was quite unsuitable: far too much heat was lost up the staircase. Forced warm air, or hot water must be used: and even then, there was a risk of too much of the heat going aloft and care must be taken to stop it.



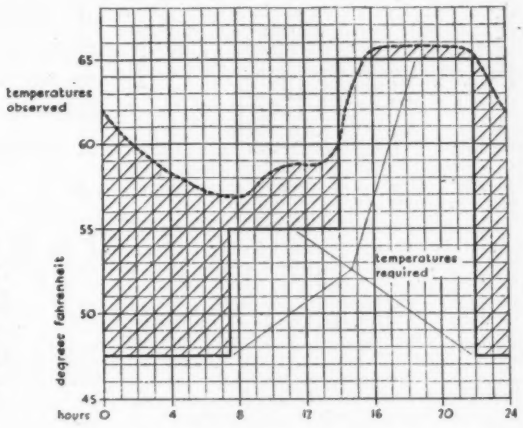
This diagram shows isotherms in two living rooms. On the left is shown a living room heated by an open fire, and on the right is a room heated by radiators.

One point in particular was against really economical heating. Far too much fuel was burnt, giving heat to parts of the house where it was not, at the time required. A diagram showed the temperature maintained, in an average case, in excess of that really required by the daily routine for every hour of the day. It showed how much fuel was wasted in keeping the house over-warm at night (see diagram on right).

The problem was one of providing the means of rapid heating when required. High frequency electric heating would be all right for people themselves, but woe betide them if they had anything metallic in their pockets! The real answer lay in the low thermal capacity structure, and the BRS was now undertaking full scale trials in this connection. It was possible, if the findings were in favour of such a structure, that it might tip the scales in favour of the prefabricated house, which was often, by the very nature of its construction, of low thermal capacity.

The alternative seemed to be to seek other sources of heat. In America, a considerable amount of work had been done at the Massachusetts Institute of Technology and elsewhere on Solar heating: he doubted whether it would be much good here, though it might be capable of taking the summer hot-water load. There was also the heat pump, but the Americans said that this was not economic, unless it was able to provide a third of its output in refrigeration as well. (The findings on their economics in this country will be awaited with enthusiasm.)

The speaker ended by giving a summary of ten points which he considered particularly important in small house heating and design: these are given below:—



This diagram, which gives the temperatures in a living room in excess of those required, shows the seasonal average of hourly temperatures with central heating thermostatically controlled.

RECOMMENDATIONS FOR SMALL HOUSES

The following recommendations are made for the design of houses of around 1,000 sq. ft. floor area:—(1) The house should be insulated to "U" values between 0.20 and 0.25. This may be achieved for the walls by an unventilated cavity construction with a brick outer leaf and lightweight concrete (such as foamed slag or clinker) or hollow clay blocks for the inner leaf: the internal finish to be plaster. These constructions are little, if anything, more expensive than 11-in. cavity brickwork (U=0.30).

The ground floor should be a solid floor consisting of concrete laid, where necessary, over hard-core, with a finish such as wood block or asphalte tiles or bitumastic generally, and quarry tiles in the kitchen or scullery. The pitched roof should be of tiles on battens with roofing felt over the rafters, and the first floor ceiling should be insulated by a material such as glass silk, slag wool or aluminium foil laid between the joists.

(2) The windows and doors should fit as well as possible, attention being paid to the quality of the units and the careful positioning of the hinges. External doors should be weather stripped.

(3) No flue should be on an external wall.

(4) In localities where gas or electricity are available a single solid fuel appliance should be used. This may be some version of open fire with back boiler, or inset or free standing stove with boiler, or central heating boiler. The back boiler should be of sufficient size to provide both domestic hot water and about 30 sq. ft. of radiator surface. These radiators should be placed in downstairs rooms. If the boiler is not of sufficient size to provide adequate radiator surface then the appliance must provide convected warm air, and this should be supplied to downstairs rooms.

Electric immersion heaters or gas multipoint heaters or circulators are desirable additions for summer use. Thermostatic control should be provided for electric immersion heaters. If the living room appliance can provide hot water without unduly heating the room, this should be used to supply hot water for baths, and only gas or electric sink heater provided in addition. At least one bedroom should be provided with either gas or electric fire for use in times of sickness.

(5) Where convected warm air is used, the air to be heated should be taken from the hall; under floor ducts for the supply of combustion air are unnecessary.

(6) Cooking should be done by gas or electricity where this is available. In rural districts solid fuel cookers will have to be used and, here, of course, an additional open fire downstairs may be necessary as well as in one bedroom.

(7) The hot water storage tank should be lagged with 1 in. of insulation. Where the storage tank is to be used in conjunction with a gas circulator or electric immersion heater in the summer, 3 in. of insulation should be used, and a removable cover provided for the top.

(8) If the cold water tanks and water pipes are placed in the roof space, the ceiling insulation immediately below the tank should be omitted and the tank insulation taken down to ceiling level.

(9) Water pipes should be kept away from external walls, and the whole of the plumbing layout should be as compact as possible. Flow and return pipes should be lagged with 1-in. insulation.

(10) Rooms without flues should be vented to the roof space by an opening of 30 sq. ins. free area. Air bricks should not be provided except in the larder.

COMPARISON OF ESTIMATED FUEL CONSUMPTION AND COSTS FOR WATER HEATING, SPACE HEATING AND COOKING IN HOUSES OF APPROXIMATELY 900 SQUARE FEET IN FLOOR AREA

SYSTEM	Mean House Temperature (heating season only)	Winter Input therms. Space and water heating cooking	COSTS—pounds a year		
			WINTER	SUMMER water heating and cooking only	TOTAL for year
OPEN FIRE OR STOVE with back boiler and radiators or convection. No overnight burning. Only downstairs heated	55° F.	800	£16	£7	£23
CLOSEABLE OPEN FIRE or OPENABLE STOVE with back boiler and radiators or convection. Overnight burning. Only downstairs heated	57° F.	950	£19	£7	£26
As above, but upstairs and downstairs heated, and overnight burning	59° F.	1,100	£22	£7	£29
FULL CENTRAL HEATING (coke burning)	61° F.	1,250	£25	£7	£32
SOLID-FUEL COOKER back-to-back type with back boiler and convection to one bedroom. Gas alternative cooking when back-to-back not alight	56° F.	1,100	£20	£7	£27
NATIONAL AVERAGE EXPENDITURE	—	—	—	—	£27

COMMENTS ON THE REPORT

It is most valuable to have the opportunity of examining Richard Eve's conclusions on the BRS heating trials, and it is interesting to have the opportunity of comparing them with one's own. There are a few points I would like to raise. In the first place, I am glad that a definite figure was given as the permissible annual fuel cost. The problem, "How much can a family afford to pay for heating," is no easy one: it is difficult to know at which end to start. Here, a definite decision has been made: what is the best we can give the tenant for his £20-£25 per annum? But in America, and to a rather lesser degree in Scandinavian countries, the standard of comfort comes first, and the question is: how cheaply can we provide the high standard demanded? The question brings another in its train: what are we to do about it if the cost is more than the poorer folk can afford? By choosing the first premise, such questions at least can be avoided.

The standard aimed at in America is almost invariably "whole house" heating. If we were to adopt the same standard here, there is no doubt that the open fire would have to go: and almost certainly, the tenant would have to find, each week, the price of a packet of cigarettes to pay for his added comfort. But who are we to decide that a man is not to have an open fire, if he wants one? Or who is to

deny him the right to have his extra cigarettes, or pint or so of beer, at the cost of cold bedrooms, if he wishes. Far too many people are engaged at this time in telling people what is good for them; and in spending their money for them, too.

What is needed is a flexible scheme, capable of providing an agreed minimum standard, at an agreed maximum cost: but equally capable of providing something better when taste and pocket permits.

Now for the technical matters discussed. I am glad to see that hot-water has once again received the consideration it deserves as a means of distributing heat within a building: even a very small one. A hot water heating installation is safe, simple, easily controlled, long lived and, as the speaker said, it puts the heat where you want it. Whether it was shortage of materials for such a system, just after the war, or just the wish to be clever and new, but the old and tried system was pushed aside, in favour of all sorts of "gravity warm air systems," some of which failed in their object of heating, while some were even dangerous from the point of view of fire or fumes. All were more expensive than hot water installations to carry out the same work: none, I think, had higher thermal efficiency.

I was a little surprised to hear a figure as low as ·25 given, as an acceptable "U" value for walls; admittedly, this was the lower limit of a bracket, ·20 to ·25. Following the exhortations of the BRS I have studiously tried to get the "U" values of walls below ·20, and believe it to be possible without additional cost, by careful choice of materials. As an example, a cavity wall, with brick outer skin, 2-in. cavity, and 4½-in. vibrated hollow clinker concrete block inner skin has a published "U" value of ·18. But the availability of materials clearly plays an important part here. I wish it were possible to persuade local authorities that their horrid little airbricks are futile. Some are enlightened, some are not; the latter are only too ready to turn down plans, incorporating all the BRS recommendations, until the AB's reappear on the drawings. The outside air, is, after all, the outside air.

DOUBLE GLAZING

I preserve an open mind about double glazing, though I must agree that storm sashes are an unspeakable nuisance. But there is no doubt that a large glass area, with inner surface but a few degrees above freezing, in an otherwise well warmed room, can be an unpleasant neighbour. I still think that a cheap and efficient system of double glazing would probably be worth while, if only in exposed situations; the Danish BRS is of the same opinion, and one awaits with interest the results of its present trials. Upon one point there can certainly be no argument: to go to the expense of double glazing, without controlling infiltration, can be nothing but a waste of money.

Finally, I await with interest the results of the experiments in the heating of low thermal capacity buildings. Clearly it is right in principle: to heat an unoccupied room is wasteful. But very accurate temperature control will be needed, if unpleasant fluctuations are to be avoided: easy enough with gas or electricity, or even with expensive warm water or air systems, but hardly suited to the crude "hit and miss" control of the open, if improved fire, which we have decided we wish to retain. It will miss the flywheel effect of the structures' thermal capacity. But why cross bridges before one reaches them? Doubtless the answer will be there, in the report, when it is published.

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order. Headings below.

INFORMATION CENTRE

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13.53 materials: timber
FURNITURE BEETLE

The Common Furniture Beetle. (Anobium Punctatum) (Col., Anobiidæ) in Britain. N. E. Hickin. (The Entomologists' Monthly Magazine, Sept., 1949.)

Note of warning that attack by Anobium Punctatum is likely to increase extremely rapidly during next few years.

Birch plywood is very susceptible to attack, but it appears that softwood does not become susceptible until twenty years after cutting. The writer fears that we may experience widespread infestation within the next few years, because the vast amount of imported softwood used in the large building programme of 1920-1930 will by then have matured sufficiently to become susceptible to attack.

15.67 materials:
GLOSS PAINTS

Gloss Paints. (The Decorator, Oct. 1949. pp. 75-76.)

Discussion for craftsmen on the reasons for failure in obtaining a high gloss.

The author stresses that whereas most craftsmen believe that the proportion of vehicle to pigment is responsible for the amount of gloss obtained—in fact, the shape and the degree of fineness to which the pigment particles are ground is also very important. For instance, the cheaper earthen colours have harsh irregular shaped particles which do not always lie within the paint film and thus break its continuity so that a good gloss can only be obtained by using a small amount of pigment and therefore at the expense of the opacity of the paint. The typical surface defects known as ropiness, "silking," orange peeling, sinking in, and blooming are also briefly discussed.

16.58 materials: miscellaneous
SYNTHETIC RESIN ADHESIVES

Adhesion and the Synthetic Resins. A. Brookes. (Wood, Oct., 1949, pp. 305-306.)

Short historical introduction and brief non-technical notes on the use of extenders, weathering tests in boiling water, hot and cold glueing processes and uses of urea-resin adhesives.

16.59 materials: miscellaneous
PRESTRESSED CLAY BLOCK FLOORS

Prestressed Hollow Clay Block Floors. (Claymaker, Nov., 1949. pp. 217 and 218.)

Simple non-scientific description of the effects and advantages of prestressing beams. Hollow clay block and plank tile types of floor are described and illustrated with photographs. Reference is made to a Copenhagen Dock warehouse which has a roof divided into bays of about 21 in. square which are spanned by the prestressed hollow clay units.

The practical advantages claimed for this system in use are:—

Method of erection on this job is much the same as that of the ordinary hollow clay block floor.

Substantial reduction in total steel content as compared with ordinary reinforced floors. Where ordinary reinforcement is also necessary, as in floors of unusual span or loading, the reinforcement can be of small diameter, thus saving steel.

20.164 construction: complete structures
RAYON YARN PLANT

Rayon Yarn Plant—1949 Model. (Eng. News Record [USA], Oct. 13, 1949, p.45; 2 illustrations.)

Large industrial buildings without windows, completely air conditioned.

This rayon yarn plant was recently built in Alabama with windowless walls. Certain process departments required full air conditioning, but all departments are treated similarly in this plant to exclude unfiltered air. Comfort of employees was another consideration. The building measures 350 ft. by 500 ft. and has 285,000 sq. ft. floor area in one, two and three-storey sections. The structural steel framework includes 65-ft. roof trusses at 21 ft. centres. Precast concrete slabs are used as roofing, insulated with 3-in. vermiculite concrete. The outer walls have a 4-in. brick exterior, 8-in. cinder blocks inside and 2-in. glazed tile interior facing. Glazed tiles were extensively used to reduce cost of cleaning and maintenance. Excavation started April, 1948; the structure was completed in May, 1949.

20.165 construction: complete structures
DOUBLE SWING BRIDGE

Double Swing Bridge is First of Type. (Eng. News Record [USA], Oct. 13, 1949, p. 27; 1 illustration.)

3,750-ft. long bridge, with two 500-ft. swing spans. Architectural considerations decided type of bridge structure.

A bridge of considerable length and unusual features is being built in Virginia, USA. A proposed suspension bridge project was turned down because its 200-ft. towers would overshadow the war memorials on an historic battleground nearby. The bridge, of the open deck lattice girder type, will carry a 26-ft. wide roadway. 60 ft. will be the minimum clearance between water and underside of the closed bridge. The two swing spans, acting simultaneously in the horizontal plane, will give a 450-ft. wide clear width for shipping.

This feature covers both the production and marketing of new materials and designs of equipment, as well as the general trend of developments within the Building Industry.

THE INDUSTRY

By Brian Grant

A NEW GAS WATER HEATER

On sale since the beginning of this year, the new Ascot type 503 sink water heater is illustrated on this page. The older type R12/4, of which well over half a million have been sold, will continue in production, and the newer model is on approximately the same lines, the main difference being that it is totally enclosed and improved in appearance, with some internal modifications, particularly in respect of the automatic control of water temperature.

Installation is straightforward, the weight of the heater being taken by the water and gas supply pipes, but a wall-fixing clip should be used to steady the heater at the top of the outer shell. Shown in the illustration is a tubular supporting pillar, available as an extra, which makes installation simple and neat in places such as bars and on counter tops, or on the window sill immediately above the sink, a point where most of these heaters will be placed in the average small house.

Output varies between 1¼ gallons per minute raised through 40° F. to half a gallon raised 100°; this on a gas consumption of 1¼ cubic feet a minute. Both gas and water connections are ½ inch BSP, water supply being preferably from the mains or from a tank giving a head of from 15 to 20 ft. at the level of the heater tap. A flue is not normally required unless the ventilation of the room is inadequate, or unless a single operation is likely to exceed 10 minutes, when a flue should be used with the draught diverter, which is available as an extra. The only other installation detail to be watched is the clearance over the heater, which must be at least 2 ft. 9 in., both to give the combustion products a clear flow and to allow the outer shell to be removed for maintenance. Outlet spouts up to 18 in. long are available as an alternative to the standard 6-in. length. (*Ascot Gas Water Heaters Ltd., 43, Park Street, London, W.1.*)

RAPID PIPE LAYING

I have already referred (this page, June 16, 1949) to the experiments carried out by ICI on the laying of soft temper copper pipes by mole plough. Full scale tests and actual installations carried out by the Yorkshire Copper Works during recent months with their Yorcalon copper pipe have shown that this work can be done in a fraction of the time needed by the usual manual trenching. The average speed of laying is 100-150 ft. per minute, and in most types of ground the procedure is practicable, simple and economical.

A typical installation was carried out at Carr Hill Farm, Morley (near Leeds), when a 230-yard pipeline was laid across the fields to the farm by mole drain plough in a matter of minutes, and at a fraction of the original estimate. The laying was of particular interest as the original tender submitted to the town council for laying the pipeline by manual trenching worked out at over £1 per yard.

The tube is attached to a tractor or winch-hauled mole plough (such as is in regular use in agricultural areas), and the knife and mole are lowered into a conveniently sized starting hole to the depth it is required to bury the tube.

One end of the tube is fastened to the back of the mole by a short length of flexible plaited wire tube, or other suitable device (having a breaking load in the region of 10/20 cwts.), which grips the end of the tube being laid, so that when the plough moves off the tube follows the mole until the whole length of tube is buried at the chosen depth. The only soil displacement is that caused by the ¼-in. wide track of the knife.

The tractor to be used should have sufficient power to exert a drawbar pull of 7,000/8,000 lb. (the load required to pull the plough through the soil) when laying at the pre-set depth. Yorkshire fittings are recommended for joining the tubes. Joints can be made either after each successive coil has been laid, or a composite length can be made up from two or three coils of tube and then pulled in at one operation. The joints should be made before the tube enters the ground, and from one starting hole lengths of 1,000 to 1,500 ft. can be run if necessary. The streamlined shape of the fittings is especially suitable for mole plough work.

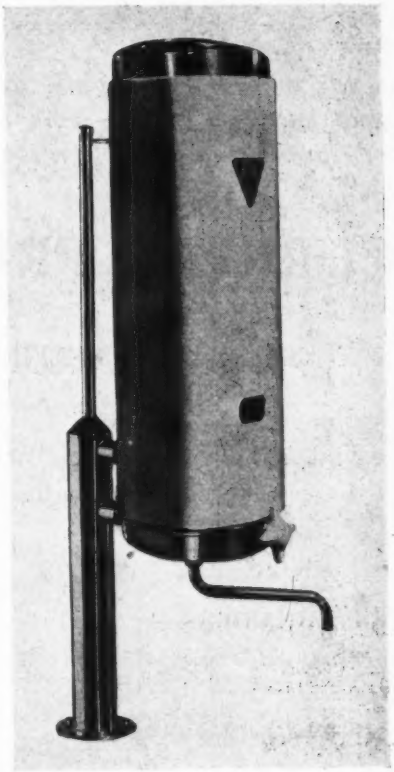
Yorkshire half-hard copper tubes in straight random lengths of 15-18 ft. can also be laid underground by the mole plough method, even to the extent of laying in a full right-angle turn on not less than a 20-ft. radius—in the same way that Yorcalon can be laid—without damage to the tube and fittings. It is advisable, however, to lay the pipelines as straight as possible, but slight deviations can be made to clear obstacles. As I have said before, nearly all architects seem nowadays to be farmers in their spare time, so this method of pipe-laying may be of immediate personal interest. (*The Yorkshire Copper Works, Ltd., Leeds.*)

LOW-TENSION WIRING

In view of the considerable advances in electrical practice since the appearance of the last edition of *Lektrik Lighting Connections*, the new (eighth) edition of this standard handbook has been entirely rewritten, and is now available at 3s. 6d.

Essential particulars are given of how generation and distribution are carried out by the British Electricity Authority and the Area Boards, respectively, while elementary electrical principles, such as, for example, Ohm's Law, induction, capacitance, power factor, frequency and the theory of electrical generators are lucidly explained.

About half of the 134 pages is occupied by comprehensive information regarding the great variety of circuits and their control,



A new Ascot sink water heater.

which most of the 83 diagrams and 20 plates illustrate. These have special reference to the electrification of domestic and public buildings, dealing with the connecting-up of apparatus from cookers to electric clocks, bells and electronic alarms, and giving sound advice on portable apparatus and earthing. There is also an up-to-date chapter on fluorescent lighting, and notes on possible faults and their remedies. A section on the control of fractional h.p. motors discusses the elementary theory of the machines themselves as well.

Three appendices describe various wiring systems, summarize the IEE Wiring Regulations and present data on the consumption of electrical appliances and on the current ratings of cables and motors.

Although the whole book is designed primarily to help the working electrician it should be very useful to the architect, who wants to know enough but not too much. (*A. P. Lundberg & Sons, Ltd., Gredanda Works, Rood End Road, Oldbury, Birmingham*).

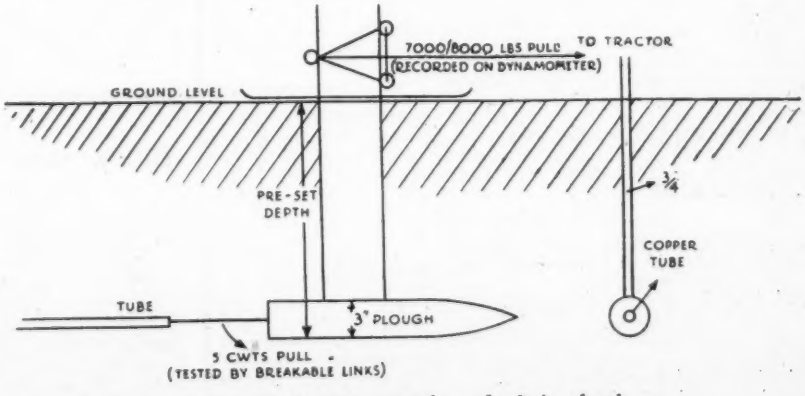


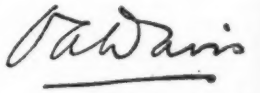
Diagram showing the laying of copper pipes by mole drain plough.

A note on page 117 explains the new system by which prices for measured work and materials are to be presented in future. Prices given here 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 FOR MEASURED WORK

BY DAVIS, BELFIELD AND EVEREST, Chartered Quantity Surveyors

For Rates of Wages and Market Prices of Materials see THE ARCHITECTS' JOURNAL for January 5.



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

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	–/9
Ditto, 12" deep	per yard super	1/5
Excavating not exceeding 10' 0" deep to reduce levels	per yard cube	5/10
Excavating not exceeding 5' 0" deep to form basement	per yard cube	6/7
Ditto, exceeding 5' 0" and not exceeding 10' 0" deep ditto	per yard cube	9/6
Excavating not exceeding 5' 0" deep to form surface trenches	per yard cube	8/–
Ditto exceeding 5' 0" deep and not exceeding 10' 0" deep ditto	per yard cube	11/–
Excavating not exceeding 5' 0" deep to form basement trench, commencing 10' 0" deep	per yard cube	13/10½

Disposal

Returning, filling and ramming around foundations	per yard cube	2/7
Wheeling excavated soil not exceeding 100 yards and depositing	per yard cube	2/11
Ditto and spreading and levelling	per yard cube	3/9½
Ditto, ditto, and consolidating to make up levels under floors and pavings	per yard cube	4/10
Filling into lorries and carting away	per yard cube	10/6

Planking and Strutting

Planking and strutting to sides of surface or basement excavation not exceeding 5' 0" deep	per ft. super	–/5
Ditto not exceeding 10' 0" deep	per ft. super	–/5½
Planking and strutting to sides of surface trenches not exceeding 5' 0" deep (both sides measured)	per ft. super	–/1½
Ditto not exceeding 10' 0" deep (ditto)	per ft. super	–/3½

CONCRETOR

Concrete (Basic Prices)

Portland cement concrete 1 : 3 : 6 with 1½" coarse aggregate in foundations and masses exceeding 12" thick	per yard cube	51/6
Ditto 1 : 2 : 4 with ¾" coarse aggregate ditto	per yard cube	50/10

Add to Basic Prices for :—

Working around rod or mesh reinforcement	per yard cube	4/4½
Being in beds less than 12" thick (6"-12")	per yard super	–/4½
Ditto less than 6" thick (3"-6")	per yard super	–/9

CONCRETOR—(*continued*)

Being in small quantities not exceeding 3' cube	per yard cube	11/8
Being in suspended floors and roofs	per yard cube	8/9
Being in walls not exceeding 6" thick	per yard cube	10/3
Ditto exceeding 6" but not exceeding 12" thick	per yard cube	5/10
Ditto exceeding 12" thick	per yard cube	2/11
Being in lintels, beams, etc., not exceeding 72 sq. in. sectional area	per yard cube	13/2
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	per yard cube	8/9
Ditto exceeding 144 sq. in. sectional area	per yard cube	5/10
Being in columns not exceeding 72 sq. in. sectional area	per yard cube	20/6
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	per yard cube	13/2
Ditto exceeding 144 sq. in. sectional area	per yard cube	8/9

Formwork

Close boarded formwork and supports to soffites of floors not exceeding 12' high	per yard super	17/6
Ditto to vertical faces of walls (both sides measured	per yard super	14/–
Ditto to sides and soffites of lintols and beams	per ft. super	1/10
Add to any of the above for wrot formwork and rubbing down concrete	per yard super	1/10

Reinforcement

⅜" to 1" diameter mild steel rod reinforcement, hooked, bent and tied at intersections as required and fixing in concrete	per cwt.	34/1
½" diameter ditto	per cwt.	36/10
⅝" diameter ditto	per cwt.	46/3
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	2/6
Ditto weighing 9·32 lb. per yard super ditto	per yard super	4/10

BRICKLAYER

Common Brickwork

		Flettons	Rough stocks
Reduced brickwork one brick thick in cement-lime mortar (1 : 3 : 9)	per yard super	22/4	27/–
Add to the above :—			
If in cement mortar (1 : 3)	per yard super	–/2	–/2
If circular on plan to flat sweep	per yard super	3/8½	3/10
Ditto to quick sweep	per yard super	7/3	7/8
Half brick wall in cement lime mortar (1 : 3 : 9)	per yard super	12/4	14/10
Ditto built fair and pointed both sides with a neat flush joint	per yard super	13/11	16/4

BRICKLAYER—(*continued*)

		Flettons	Rough stocks
One brick wall built fair and painted both sides with a neat flush joint	per yard super	25/6	30/4
11″ hollow wall with 2″ cavity and galvanized iron twisted ties	per yard super	25/1	30/–

Engineering Brickwork

		Lingfield Engineering Wirecuts	Blue Pressed bricks
Reduced brickwork one brick thick in cement mortar (1 : 3)	per yard super	32/6	53/–
Half brick wall in cement mortar (1 : 3)	per yard super	17/7	28/1
Ditto built fair and pointed both sides with a neat flush joint	per yard super	19/4	30/2
One brick wall built fair and ditto	per yard super	36/–	57/–

Sundries

Extra for internal fair face and flush pointing	per yard super	–/11
Horizontal damp-proof course of two courses of slates and bedding and pointing	per foot super	2/9
Ditto of hessian base bitumen well lapped at joints	per foot super	–/7
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	6/3
Ditto, 3′ 3″ × 4′ 0″ ditto	each	9/9
Ditto, 6′ 6″ × 4′ 0″ ditto	each	17/2

Partitions

		2″	2½″	3″	4½″
Breeze concrete solid partition blocks to B.S. 492 and setting in cement mortar	per yard super	6/8	7/8	8/11	11/2
Hollow clay partition blocks to B.S. 1190, keyed on both sides and ditto	per yard super	6/7	7/4	8/8	10/1
Moler hollow partition blocks, keyed on both sides and ditto	per yard super	11/1	13/3	14/11	17/1

Facings

		Ordinary facings, p.c. 200/– M.	p.c. 216/– M.	White glazed facings p.c. 1,020/– M for stretchers 1,006/3-M for headers and pointing with white cement
Extra over common brickwork built with bricks p.c. 85-M for facings as described, and pointing with a neat weathered joint :—				
To solid wall in Flemish bond	per yard super	12/–	13/3	71/9
To cavity wall in stretcher bond	per yard super	9/10	10/9	55/5
To ditto in Flemish bond with snapped headers	per yard super	11/5	12/6	—
Half brick wall in facings in stretcher bond built fair and pointed one side with a neat weathered joint	per yard super	21/2	22/1	—
Ditto pointed both sides	per yard super	23/8	24/7	—
One brick wall in facings built fair and pointed one side	per yard super	40/8	42/5	—
Ditto pointed both sides	per yard super	43/2	45/–	—
Brick on end flat arch in facings 4½″ on soffite and 9″ high and pointing	per foot run	2/5	2/6	—
Brick on edge coping to 9″ wall with two courses plain tiles under, laid breaking joint, two cement angle fillets and pointing	per foot run	3/9	3/10	—

ASPHALTER

Tanking

		To B.S. 1097	To B.S. 1418
Horizontal asphalt tanking in three thicknesses on brick or concrete	per yard super	15/–	25/2
Vertical ditto	per yard super	18/11	28/10½

Roofing

		To B.S. 988	To B.S. 1162
½″ asphalt flat in two thicknesses on and including felt underlay	per yard super	11/3	18/4½

ASPHALTER—(*continued*)

		To B.S. 988	To B.S. 1162
¾″ asphalt skirting 6″ high with angle fillet at bottom and rounded top, turned into groove	per foot run	1/11	2/4½
¾″ asphalt fascia 6″ high with solid water check roll at top and undercut drip at bottom	per foot run	2/7½	3/2

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	2/4
Ditto for trenches exceeding 3′ 0″ and not exceeding 5′ 0″ deep	per yard run	3/8
Ditto for trenches exceeding 5′ 0″ and not exceeding 10′ 0″ deep	per yard run	5/11

		4″	6″
6″ concrete (1 : 3 : 6) bed and benching for pipes	per yard run	5/4½	6/4½
6″ ditto, and surround	per yard run	12/2	14/8

Drains

		3″	4″	6″	9″
Clayware butt-jointed land drains and laying in trench	per foot run	–/3½	–/4	–/7	—
"Seconds" quality glazed stoneware socketed drains and laying and jointing in trench	per foot run	—	1/7	2/4	3/8
"British Standard" quality ditto	per foot run	—	1/10½	2/8½	4/4½
Extra on "Seconds" quality for bends	each	—	1/10½	2/9½	4/–
Ditto "British Standard" quality ditto	each	—	2/3½	3/4½	5/10
Extra on "Seconds" quality for single junction	each	—	3/1	4/6	6/3½
Ditto "British Standard" quality ditto	each	—	3/7	5/2½	8/10½
Cast iron socketed drains to B.S. 437 and laying and jointing in trench	per foot run	—	9/–	14/–	27/8
Extra for short radius bend (Fig. No. 4)	each	—	18/6	36/3	103/7
Extra for single junction (Fig. No. 18)	each	—	33/6	65/–	193/2

Fittings, etc.

		4″	6″
Glazed stoneware trapped gulley with galvanized grating and outlet and setting in concrete	each	17/8	28/10
Ditto with vertical inlet ditto	each	21/–	32/2
Cast iron trapped gulley with high invert, grating, and 4″ outlet and setting in concrete	each	40/5	—
Ditto with vertical inlet ditto	each	49/9	—
Glazed stoneware intercepting trap with inspection arm, stopper and chain and fixing in manhole and jointing to drain	each	47/11	54/8
Brown glazed stoneware half round straight channels and bedding and jointing in cement mortar	per foot run	1/5	2/2
Ditto ordinary channel bend and ditto	each	4/4½	6/2

		24″ × 18″	24″ × 24″
Cast iron coated single seal manhole cover and frame to B.S. 497 Grade C and setting frame in cement and cover in grease	each	35/7	49/7
Galvanized ditto	each	54/2	78/2

PAVIOR

		¾″	1″	1½″
Cement and sand (1 : 3) floated screed to receive pavings	per yard super	3/1	3/9	4/3
Ditto trowelled smooth to receive linoleum	per yard super	3/4½	4/0½	4/6½
Cement and sand (1 : 3) paving trowelled hard and smooth	per yard super	3/5	4/1	4/7
Granolithic paving (1 : 2½) laid on concrete	per yard super	1″ 5/2	1½″ 5/10½	1½″ 6/7
⅛″ Red composition paving to B.S. 776 laid on prepared screed	per yard super	15/9		
⅜″ Terrazzo paving (Portland cement and spar aggregate) laid on prepared screed	per yard super	34/1½		
Extra for white or cream cement	per yard super	5/3		
⅛″ Rubber flooring in all colours, laid on prepared screed	per yard super	34/1½		
⅛″ × 12″ × 12″ Rubber tile flooring ditto	per yard super	28/10½		

PAVIOR—(*continued*)

½″ × 12″ × 12″ Cork tile flooring (brown shades) laid in mastic on prepared screed, surfaced and polished	per yard super	34/1½
1½″ Hard red paving bricks p.c. 309/6 per M. laid flat on prepared bed in cement mortar	per yard super	17/3
1½″ Ditto laid herringbone	per yard super	19/·

		½″	¾″
6″ × 6″ Red quarry tile paving to B.S. 1286 laid on prepared screed with straight joints	per yard super	20/6	21/9
6″ × 6″ Buff quarry tiles as last	per yard super	21/6	23/10½
2½″ (Finished) Gravel path laid on prepared bed, well watered and rolled to cambers and falls	per yard super	2/3½	

MASON

Portland stone and all labours in pilasters, quoins, jambs, lintols, etc.	per foot cube	34/8
Ditto in arches, columns, cornices, etc.	per foot cube	43/1
Ashlar av. 6½″ on bed with plain dressed face	per foot super	18/11

		Portland	Artificial
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	6/4	3/4
9″ × 3″ ditto	per foot run	7/4	4/9½
2″ × 12″ Coping, weathered and twice throated, set and jointed as last	per foot run	6/10½	4/5
3″ × 12″ Ditto	per foot run	9/5	6/2
5″ × 12″ Saddle back coping twice throated, set and jointed as last	per foot run	15/9	10/7
6″ × 12″ Ditto	per foot run	17/4	12/4

SLATER, TILER AND ROOFER

Slates

		20″ × 10″	16″ × 8″
Best Bangor slates to B.S. 680 laid with 3″ lap, each slate nailed with two stout copper nails	per square	225/–	210/–
Ditto hung vertically to dormer cheeks and gables	per square	236/3	225/–

Tiles.

		Hand made	Machine made
Best sand faced plain (nibbed) tiles to B.S. 402, 10½″ × 6″ laid to a 4″ gauge with each tile in every fourth course nailed with galvanized nails	per square	141/9	133/10½
Ditto hung vertically to dormer cheeks and gables to 4½″ gauge with each tile nailed with galvanized nails	per square	136/6	131/3
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		141/9
Ditto to mansard slopes	per square		149/7½
Concrete plain (nibbed) tiles to B.S. 473, 10½″ × 6″ laid as before described for plain tiles	per square		86/8
Ditto hung vertically to dormer cheeks, and gables, ditto	per square		89/3
Concrete interlocking tiles 15″ × 9″ laid to 3″ lap, each tile in every third course nailed with galvanized nails	per square		76/1½
Ditto to mansard slopes ditto	per square		84/–

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″	per square	65/8½
6″ Ditto but fixed vertically	per square	72/4½
Add to both last if fixed to steel purlins or sheeting rails with galvanized hook bolts	per square	2/8½

Felt

		Two layer	Three layer
Reinforced bituminous roofing felt laid with 3″ laps and nailed to rafters at 18″ centres with galvanized clout nails	per square		18/11
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot bitumen	per yard super	6/4	8/5

CARPENTER

Carcassing

Softwood, sawn and fixed, in plates, sleeper joists and lintols	per foot cube	11/11
Ditto in floor and ceiling joists	per foot cube	13/5
Ditto in stud partitions	per foot cube	15/2
Ditto in rafters	per foot cube	14/6
Ditto in purlins and struts	per foot cube	15/2

CARPENTER—(*continued*)

Ditto and framing in ridge	per foot cube	14/6
Ditto in hip and valley rafters including cutting rafters to sides	per foot cube	16/4

Battening and Boarding

		Roof slopes	Vertical hanging
¾″ × 1½″ Battens nailed to softwood for 20″ × 10″ slates to 8½″ gauge	per square	24/2	25/2
Ditto 16″ × 10″ slates to 6½″ gauge	per square	28/10½	30/2
Ditto 10½″ × 6″ tiles to 4″ gauge (4½″ for vertical hanging)	per square	39/4½	39/4½

		Roof Slopes	Mansards
Ditto 14½″ × 10″ pantiles to 12″ gauge	per square	16/10	17/4
Ditto 15″ × 9″ concrete interlocking tiles to 12″ gauge	per square	16/10	17/4
Roof boarding in batten widths close jointed and fixed to flats or sloping roofs	per square	¾″ 88/5	1″ 110/1
Ditto tongued and grooved and prepared for felt roofing including firring to falls	per square	145/6	169/8
Sawn gang boarding fixed to joists in roof	per foot super	–/11½	1/2
Wrot and crosstongued eaves soffite	per foot super	1/7	1/9½
6″ Wrot and grooved eaves fascia planted on	per foot run	–/7	–/8

Wall and Ceiling Boards

		Vertically	Soffites
¼″ Fibre board to B.S. 1142 fixed with galvanized flat headed nails to softwood	per yard super	5/4	5/5
5/16″ Asbestos cement flat sheeting to B.S. 690 fixed as last	per yard super	4/4	4/8
¼″ Ditto	per yard super	5/2	5/6

JOINER

Floors and Skirtings

(All thicknesses stated are nominal)

		¾″	1″	1¼″
Plain edge softwood flooring in batten widths nailed to floor joists	per square	104/2	115/9	138/11
Tongued and grooved ditto	per square	111/4	123/5	147/7

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	24/3
English Beech	per yard super	34/9
European Beech	per yard super	31/6
English Oak	per yard super	45/3
European Oak	per yard super	39/4
Burma Teak	per yard super	46/3

		Sectional area 3″ to 6″	Over 6″
Softwood skirtings with splayed or molded top edge, planted on (per inch sectional area)	per foot run	·/2¼	–/2½
Extra for grounds plugged to brickwork	per foot run	–/5	

Windows in Softwood

		1½″	2″
Rebated and molded softwood fanlights and casement sashes divided into squares for glass	per foot super	2/5½	2/9
Extra for hanging	each	4/11	4/11
Cased frames with 6″ × 3″ Oak sill and 2″ molded double hung sashes including pulleys, line and weights	per foot super	—	8/6

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

		1¼″	1¾″	2″
Framed ledged and braced doors filled in with 1″ T. & G. and V-jointed boarding and hanging	per foot super	4/3	4/10	5/·
Four-panel door, square both sides and hanging	per foot super	3/2	3/6	3/7
Ditto molded one side	per foot super	3/6	3/9	3/10
Ditto molded both sides	per foot super	3/9	4/·	4/2

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

1¼″ Standard flush doors 2′ 6″ × 6′ 6″, internal pattern	each	84/2
2″ Ditto external pattern	each	89/7

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	–/3	–/2½
Frames wrot all round and framed (ditto)	per foot run	–/2½	–/2
Mullions, transomes and cills (ditto)	per foot run	–/2¾	–/2½

		2″ to 4″	4″ to 6″
Moldings, architraves, etc. (ditto)	per foot run	–/2	–/1½

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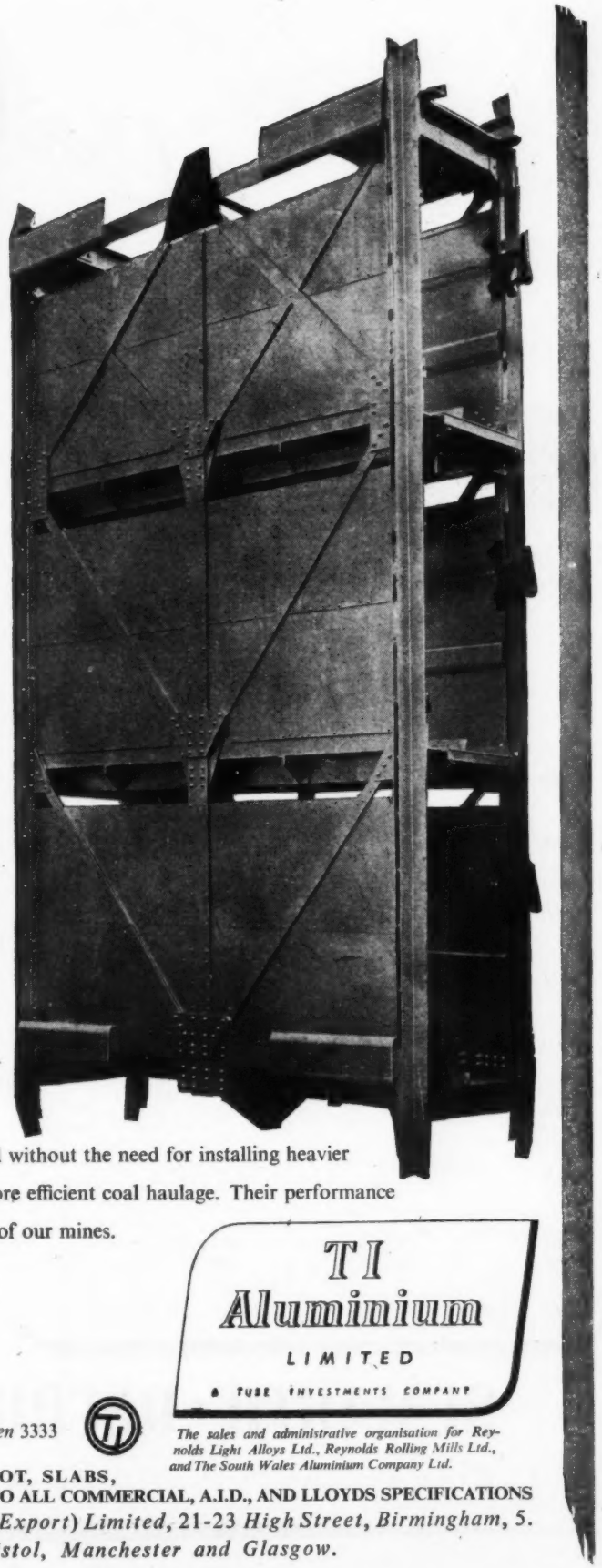

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CODE	NAME OF TILE	COLOURS INCORPORATED
YK	JET BLACK	JET BLACK
YM	PEAT BROWN	PEAT BROWN
YJ	TERRA COTTA	TERRA COTTA
YF	OLIVE WOOD	OLIVE WOOD
YL485	ARRAS ROSE MARBLE	ARRAS ROSE · SAND · TAN · REGENCY CREAM
YG485	CYPRESS GREEN MARBLE	CYPRESS GREEN · SAND · REGENCY CREAM
YE65	REGENCY CREAM MARBLE	REGENCY CREAM · TAN · CYPRESS GREEN
YS248	TAN MARBLE	TAN · ARRAS ROSE · WHITE
YH44	LARKSPUR BLUE MARBLE	LARKSPUR BLUE · WHITE
YJ45	TERRA COTTA MARBLE	TERRA COTTA · SAND · REGENCY CREAM
YR485	ALMOND GREEN MARBLE	ALMOND GREEN · ARRAS ROSE · SAND · REGENCY CREAM
YF34	OLIVE WOOD MARBLE	OLIVE WOOD · TERRA COTTA · WHITE
YM38	PEAT BROWN MARBLE	PEAT BROWN · TERRA COTTA · ARRAS ROSE · SAND
YQ25	SAND MARBLE	SAND · ARRAS ROSE

To carry into effect the advice of the British Colour Council and generally to assist Architects and Interior Decorators, the manufacturers of Semastic Decorative Tiles have named each of the fourteen tiles making up the present range.

It is intended that these names shall convey the colour, or basic colour, of the tile. This, coupled with the existing code number system, will assist in selecting or specifying a particular tile. The details of this new arrangement can be seen in the accompanying chart.

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SEMASTIC DECORATIVE TILES

A Product of a Company in the Dunlop Group

SOEL/D3

JOINER—(*continued*)

		Thickness 1″	Thickness 1½″
6″ Window boards with rounded nosings, tongued at back and including bearers	per foot run	2/3	2/5
9″ Ditto	per foot run	2/5	2/8

Shelving and Fittings in Softwood

		¾″	1″
Shelving of 2″ slats spaced 1″ apart on bearers (measured separately)	per foot super	1/8	1/10
Shelving on ditto	per foot super	1/2½	1/6
Crosstongued shelving on ditto	per foot super	2/–	2/2
Shelving 9″ wide on ditto	per foot run	1/0½	1/2
2″ Shelf bearers plugged to walls	per foot run	–/8½	–/9
The following in framed up cupboard fittings :—			
T. & G. & V-jointed back	per foot super	1/10	2/–
Crosstongued top, bottom shelf or division	per foot super	2/3½	2/6½
1½″ Flush cupboard doors	per foot super	4/10	
Labour rebate or groove	per foot run	–/2¼	
Ditto cross-grain	per foot run	–/3¼	
1″ × 2″ Bearers screwed on	per foot run	–/4½	

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	1/9	1/9
4″ Ditto (ditto)	per pair	2/2	2/2
Double action floor springs and top centres including filling boxes with oil P.C. 106/–	each	130/10	135/6
Overhead check action door springs. P.C. 55/–	each	69/4	72/4
6″ Barrel bolts. P.C. 3/3	each	4/10	5/2
Cupboard locks. P.C. 5/9	each	9/–	9/10½
Norfolk latches. P.C. 4/2	each	8/1½	9/4
Cylinder night latch. P.C. 9/6	each	14/10½	16/4½
Mortice latch. P.C. 7/–	each	11/3	12/5
Rim lock. P.C. 7/6	each	10/11	11/10
Mortice lock. P.C. 11/–	each	16/6	18/–
Door furniture. P.C. 16/–	per set	18/6	18/6
Sash fasteners. P.C. 5/6	each	7/6	8/–
Casement fasteners. P.C. 5/6	each	7/1½	7/6
Casement stays. P.C. 8/–	each	9/10½	10/3

STEEL AND IRONWORKER

Structural Steelwork

The following prices are for Basis sections (5″ × 4½″ to 16″ × 6″) 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	45	3	0
Riveted compound girders including plates and rivets	per ton	49	7	0
R.S. Stancheons including caps, bases, cleats, etc	per ton	50	18	6
Riveted compound stanchions ditto	per ton	52	10	0
Riveted roof trusses with flat and angle members, plates, cleats, etc., 30′ span	per ton	70	7	0
Ditto 40′ span	per ton	68	5	0

Sundries

Simple wrot iron balustrades fixed complete (excluding mortices etc.)	per cwt.	7	7	0
Bolts with heads, nuts and washers and fixing	per cwt.	8	12	0

PLASTERER AND TILE FIXER

24 gauge expanded metal lathing and fixing to softwood soffites	per yard super	4/8

Lime and Gypsum Plaster

Three coat lime and two coat Sirapite or similar Gypsum plaster :—		Lime	Sirapite
On brick walls and partitions	per yard super	4/4	3/5½
On concrete soffites including hacking	per yard super	5/3½	4/5
On soffite of E.M.L. (measured separately)	per yard super	4/4	4/7
On and including wood laths, to soffites	per yard super	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		5/8½
Plaster moulded cornice or cove (per inch in girth)	per foot run		–/4

Cement Rendering

Rendering in Portland cement and sand (1 : 4) and setting in Keenes cement on brick walls and partitions	per yard super	4/6
Portland cement and sand (1 : 3) plain face trowelled smooth on ditto	per yard super	4/1
Portland cement and sand (1 : 3) screed for tiling on ditto	per yard super	2/2

PLASTERER AND TILE FIXER—(*continued*)

Wall Tiler

6″ × 6″ × ¼″ Standard quality white glazed wall tiles set and jointed on prepared screed	per yard super	33/1
Ditto coloured enamel bright glazed tiles ditto	per yard super	40/2
Ditto eggshell matt enamelled	per yard super	41/6

EXTERNAL PLUMBER AND COPPERSMITH AND ZINCWORKER

		Flats	Gutters, flashings, etc.	Stepped flashings
Milled sheet lead and labour	per cwt.	175/4	175/4	183/–
24 S.W.G. sheet copper and labour	per foot super	4/2½	4/5½	4/9
23 S.W.G. sheet copper and labour	per foot super	4/4½	4/7½	4/10½
14 gauge zinc and labour	per foot super	2/3½	2/5½	2/7½

Rainwater Pipes and Gutters

		3″ With holderbats	3″ With nails	4″ With holderbats	4″ With nails
Cast iron medium section (5/16″ 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	4/6	3/7	5/5½	4/5½
18 Gauge pressed steel R.W. pipes and ditto	per foot run	2/10½	2/4½	3/10	3/3½
Asbestos cement R.W. pipes and ditto	per foot run	1/11½	—	2/6½	—

		4″ ½″	4″ 5/16″	6″ ½″	6″ 5/16″
Cast iron half round eaves gutter and jointed and fixed with brackets to fascia	per foot run	1/11½	2/8	3/4	4/–
Ditto O.G. ditto	per foot run	2/5	3/3½	3/8	5/–

		4″	6″
18 Gauge pressed steel half round ditto	per foot run	1/11½	2/10
Ditto O.G. ditto	per foot run	2/5	3/3½
Asbestos cement half round ditto	per foot run	1/9½	2/9½
Ditto O.G. ditto	per foot run	2/–	3/–

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	10/–	13/7

		Heavy 3″	Medium 3″	Heavy 4″	Medium 4″
Medium or heavy section cast iron soil, waste and ventilating pipes with caulked joints, fixed to walls, with pipe nails and distance pieces	per foot run	4/7	4/3	5/10	5/7

INTERNAL PLUMBER

Lead Pipes

Prices are based upon the following weights per yard.

		½″ lb.	¾″ lb.	1″ lb.	1¼″ lb.
Supply		7	11	16	21
Distributing		6	9	12·5	16
Flushing and overflow		3	5	7	9
Waste and ventilating		—	—	—	7

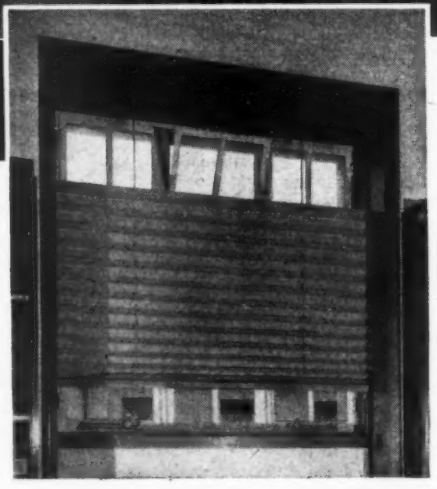
		½″	¾″	1″	1¼″
Supply pipe in trench (measured separately)	per foot run	3/4½	5/–	7/2½	9/7
Ditto fixed to walls and ceilings	per foot run	3/8½	5/6	7/11½	10/6½
Distributing pipe fixed to walls and ceilings	per foot run	3/3½	4/10	6/6	8/6
Flushing and overflow pipe ditto	per foot run	2/6½	3/2	4/4	5/7
Waste and ventilating pipe ditto	per foot run	—	—	—	4/11
Joints to fittings	each	4/3½	5/1	5/6	6/3
Bends	each	–/9½	–/9½	1/0½	1/6
Branch joints	each	5/1	6/2½	6/7	7/8

Steel Tubes and Fittings

Galvanised 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	1/6½	1/9½	1/11	2/7
Ditto Class B ditto fixed to walls and ceilings as supply, distributing, waste pipe, etc.	per foot run	1/7	1/10	1/11	2/6
Joints to fittings	each	2/10½	3/6	4/2½	5/1
Bends	each	2/·	2/4½	2/10	4/2½
Tee, equal or reducing	each	2/2	2/6½	2/10½	4/–

R.I.B.A. HEADQUARTERS
ASTON WEBB COMMITTEE ROOM

ACCORDO *Blinds*



EFFICIENT in operation, and unobtrusive when not in use, ACCORDO Blinds have been specified for leading hospitals, schools, public and commercial buildings throughout the country. Springs have been eliminated and other moving parts kept to a minimum. ACCORDO Blinds have a trouble-free gravity action, enabling adjustment from top and bottom to give light or shade exactly where required. The distraction of noisy flapping blinds is effectively prevented when windows are open by the use of special guide rods. ACCORDO Blinds can be fitted to horizontal laylights or sloping roof lights, and can be supplied in any widths up to 20 feet. ACCORDO Dark Blinds, which give complete obscuration of light, are recommended for laboratories, operating theatres and rooms used for instructional or cinematic purposes. Illustrated literature will be sent on request.

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INTERNAL PLUMBER—(*continued*)

Copper Tubes and Fittings

Prices are based upon the following gauges :—

		⅜″	¾″	1″	1¼″
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	1/4	1/11½	2/9	3/3
Ditto as distributing, waste pipes, etc. fixed to walls and ceilings. Couplings measured separately	per foot run	1/5	1/10	2/6	3/–
Brass compression type couplings—copper to copper	each	3/6	4/2½	5/7	7/3
Ditto bends	each	4/6½	5/5	7/9½	9/10½
Ditto tees	each	6/0½	6/10	10/6	15/4

Sanitary Fittings

		£	s.	d.
Fireclay sinks 24″ × 18″ × 10″ including cutting and pinning brackets to tiled wall. P.C. 60/–	each	3	16	6
Combined metal sink and drainer 42″ × 18″ × 8½″ to bearers (measured separately). P.C. 299/6	each	16	15	3
		£	s.	d.
Fireclay lavatory basin 25″ × 18″ with taps and towel rail bracket including screwing brackets to tiled wall. P.C. 101/6	each	6	1	6
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. 312/–	each	18	12	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. 136/–	each	18	18	3
Ditto with low level cistern. P.C. 148/–	each	19	10	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	1/0	1/2
24 oz. Ditto and ditto	per foot super	1/1½	1/3½
32 oz. Ditto and ditto	per foot super	1/5½	1/7¾
¼″ Figured, rolled, and cathedral—untinted and ditto	per foot super	1/3	1/5
¼″ Rough cast and ditto	per foot super	1/4	1/6
¼″ Wired arctic and ditto	per foot super	—	—
¼″ Georgian wired cast and ditto	per foot super	1/6	1/8

GLAZIER—(*continued*)

		To wood	To metal
¼″ Georgian wired polished plate and ditto	per foot super	5/1	5/3
¼″ Polished plate (glazing quality) and ditto	per foot super	4/0½	4/2¾

PAINTER

Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered walls and ceilings	per yard super	–/11
Prepare and twice distemper with washable distemper on plastered walls and ceilings	per yard super	1/4
Ditto on brick or concrete	per yard super	1/7
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	per yard super	2/10

Paint on Metal

		Basic price	Add for each additional coat
Prepare, prime, and paint one coat oil colour on general surfaces	per yard super	2/8½	1/2½
Ditto metal casements	per yard super	3/11½	1/8½
Ditto members of roof trusses	per yard super	3/4	1/5½
Ditto balustrades one side	per yard super	3/11½	1/8½
Ditto bars, etc., not exceeding 6″ girth	per yard run	–/8	–/3½
Ditto small pipe	per yard run	–/8	–/3½
Ditto large pipe	per yard run	1/4	–/7

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/–	1/3
Ditto on skirtings, rails, frames, etc., not exceeding 3″ girth	per yard run	–/4½	–/1¾
Ditto ditto for each additional 3″ in girth	per yard run	–/4	–/1½
Ditto on sash squares one side	per dozen	3/8½	1/5
Ditton on large sash squares one side	per dozen	6/7½	2/7

Stain and Varnish on Wood

Prepare, size, stain and twice varnish on general surfaces of woodwork	per yard super	1/11
Ditto on skirtings, rails, frames, etc. not exceeding 3″ girth	per yard run	–/3½
Ditto ditto for each additional 3″ in girth	per yard run	–/3

INFORMATION CENTRE

INDEX, 1949

An alphabetical index covering items published during the twelve months ended December 31, 1949, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, not later than February 27, 1950.

Please send me the Information Centre Index for 1949 :—

Name .....

Address .....

..... A.J. 26.1.50

Announcements

Amendments have been made to Cement Economy Memorandum (P.I.31-5) on the Use of Cement in Housing and Small Scale Building. A sheet incorporating these amendments may be had, gratis, from the Ministry of Works, Room 617, Lambeth Bridge House, S.E.1. A Scottish edition is obtainable from the Ministry's office at 122, George Street, Edinburgh, 8.

Within three years of opening the Building Department of the North Staffordshire Technical College has over 1,400 pupils, and is one of the largest in the country. To celebrate this achievement the Department held the first "Careers in Building" week in the country from January 13 to 20. Supported by the Building Industry and the Ministry of Works, the purpose of the week was to show how the builder of the future will be trained, and that the skill required of a trained craftsman in the building industry today is of a very high standard. In addition, it illustrated the method of training students in professions allied to the building industry.

Messrs. Pyle & Saint, L. /A.R.I.B.A., of Thomas Street House, Cirencester, have opened a branch office at 5, Tailor's Court, Broad Street, Bristol, where the Managing Assistant, Mr. E. A. Clarke, A.R.I.B.A., will be pleased to receive trade catalogues, etc.

The inaugural meeting of the Scottish Planning and Architectural Research Group, the Scottish off-shoot of MARS group, which has, nevertheless, an independent existence, was held in the Scottish Building Centre at Glasgow last week. Miss Brenda Colvin, F.I.L.A., addressed the meeting on the subject of "Landscaping in Relation to Civic Design," and Donald Reay, A.R.I.B.A., A.M.T.P.I., Chief Architect & Planning Officer, East Kilbride Development Corporation, was in the chair. It is intended to hold meetings both in Glasgow and Edinburgh, although no headquarters have as yet been established. The Group has a membership of some 30 persons, including a number of student members from the various technical schools.

To meet the need for adequate servicing and showroom arrangements for solid fuel appliances and for a full technical advisory service, the Coal Utilization Joint Council is establishing a service and showroom scheme throughout the country through existing distributors of solid fuel equipment. The first CUJC Panel of approved distributors of domestic solid fuel burning appliances has been operating for over twelve months in the North-Western Area. The North-Eastern Panel has now been formed and will cover Yorkshire. In addition to the Council and to the Women's Advisory Council on Solid Fuel, the governing Committee is representative of the following constituent organisations of the CUJC:—National Coal Board; Coal Merchants' Federation of Great Britain; Co-operative Union Limited; British Ironfounders' Association; Combustion Engineering Association; Building Industry Distributors, British

Federation of Plumbers; Merchants' Associations; National Federation of Ironmongers; Scottish Metal and Plumbers Merchants' Federation. A full technical advisory service will be provided to all users of domestic solid fuel appliances. This will be through approved appliance distributors able and willing to comply with the conditions of membership of the CUJC Panel. Under these conditions members of the Panel agree to provide service facilities to all users of solid fuel appliances, whether already installed or still to be purchased. The scheme will be of particular value to architects and builders and to local authorities in selecting suitable appliances for new housing estates. The Ministry of Fuel and Power who are anxious that only improved solid fuel burning appliances shall be installed in Local Authority houses, have expressed their complete approval of the scheme. To ensure the efficiency of the technical services a Training Centre has been established in London under the technical management of Mr. W. C. Moss, BSc, formerly a Chief Scientific Officer at the Fuel Research Station.

Mr. E. Vannan has been promoted to the position of Technical Adviser to The Neuchatel Asphalte Co., Ltd., and, in this capacity, will deal with technical matters concerning the company's interests both in the United Kingdom and overseas.

Mr. Gordon Hale, F.R.I.B.A., of Bingham Park Road, Sheffield, 11, has been appointed an architect in the Public Works Department, Nigeria.

Mr. James V. T. Scott, DIPL.ARCH.(LIVERPOOL), A.R.I.B.A., DIPL.T.P.(EDINBURGH), A.M.T.P.I., is carrying on the practice of his late father, Mr. James Scott, B.E., architect and civil engineer, at 18, Annadale Avenue, Belfast (tel.: 41115), where trade catalogues, etc., will be welcome.

Staines UDC have changed their address. The Engineer & Surveyor's Dept. are now at Shortwood House, 240, London Road, Staines (tel.: Staines 4121-2-3). The Treasurer's Department is now at the Council Offices, Bridge Street, Staines (tel.: 721-2).

Mr. S. P. Jordan, A.R.I.B.A., M.S.I.A., has removed from 1, Thurloe Street, S.W.7. All professional communications and trade catalogues should be addressed in future to 7, Hobart Place, London, S.W.1 (tel.: Sloane 6127), where he is in practice on his own account and as a member of Gaby Schreiber & Associates.

Buildings Illustrated

Restaurant in Bayswater Road, W.2 (pages 127-128). Architect: Gillian Harrison, F.R.I.B.A. Curtain design, Michael O'Connell. General Contractor: Leightons (Contractors), Ltd. Sub-contractors: Patent flooring, G. Stephenson & Co. Ltd. (cork tiles); waterproofing materials, General Industrial Bitumens, Ltd.; stoves, Cozy Stoves, Ltd.; gas fitting, North Thames Gas Board; electric wiring, electric light fixtures, Dick's, Ltd.; ventilation, Vent-Axia, Ltd.; door furniture, Yannedis, Ltd.; plaster, James & Son; joinery, West London Timber & Moulding Co.; marble, W. Perrin, Ltd.; textiles, furniture, seats, Dunns of Bromley.

The form printed below is to assist readers requiring up-to-date information on building products and services. Complete and post it to The Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1, and the advertisers listed will be asked to supply information direct.

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal."

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Please ask manufacturers to send further particulars to:—

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BLOCK LETTERS Please

CLASSIFIED ADVERTISEMENTS

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

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

Available only to applicants excepted from the Control of Engagement Order, 1947.

Public and Official Announcement

21s. per inch; each additional line, 2s.

THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: EMPLOYMENT REGISTER, WEBB PARK, WHYTELEAFE. Tel.: Uplands 0935. 991

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS, with recognized training and fair experience. Successful candidates will be employed in London and elsewhere on a wide variety of Public Buildings, including Atomic Energy and other Research Establishments, Telephone Exchanges, and Housing. Similar vacancies also exist for ASSISTANTS, with specialized knowledge and experience in stonemasonry, particularly in detailing and jointing of ashlar and carved stonework.

Salary: Architectural Assistants, £300-£525 per annum; Leading Architectural Assistants, £500-£625, plus overtime. Starting pay will be assessed according to age, qualifications and experience. These rates are for London; a deduction is made in the Provinces.

Although these are not established posts, some of them have long-term possibilities, and competitions are held periodically to fill established vacancies.

Apply in writing, stating age, nationality, full details of experience, and locality preferred, to Chief Architect, W.C.10/T, Ministry of Works, Abell House, London, S.W.1. 3065

LONDON COUNTY COUNCIL.

Applications are invited for unestablished positions of (i) ARCHITECT, Grade III (salaries up to £700 a year) and (ii) ARCHITECTURAL ASSISTANTS (salaries up to £580 a year), in the Housing and Valuation Department. Commencing salaries in either grade will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to undertake the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats), and will be employed in the Housing Architect's Division. Preference will be given to candidates holding a recognized professional qualification.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required, and quote Ref. G.R.3). Canvassing disqualifies. (2269) 1046

THE UNIVERSITY OF MANCHESTER.
APPOINTMENT OF TEMPORARY CLERK OF WORKS.

Applications are invited for the appointment of a temporary Clerk of Works, at a salary of £700-£750 per annum, according to qualifications and experience, to supervise the erection of a building with an area of approximately 30,000 sq. ft., in York Place, Manchester, for a number of Clinical Departments in the Medical Faculty.

The duration of the contract will be approximately two years, and the appointment will be terminable by one month's notice on either side.

Candidates must have a thorough practical knowledge of all branches of the building trade, and must be experienced in the supervision and erection of large buildings.

Applications, giving age and particulars of qualifications, experience, past and present appointments, with dates, and the names of three persons to whom reference may be made, should be sent to The Bursar, University of Manchester, Manchester 13, not later than the 7th February, 1950.

19th January, 1950. 3270

BIRMINGHAM REGIONAL HOSPITAL BOARD.

Applications are invited for the appointment of an ASSISTANT QUANTITY SURVEYOR in the Architect's Department. Salary scale A.P.T., Va, £550-£610. Applicants should have a recognised qualification and should have considerable experience in the taking off and preparation of Bills of Quantities and the settlement of final accounts.

The appointment is subject to the National Health Service (Superannuation) Regulations, 1947 to 1949, and is terminable by one month's notice in writing on either side. Applications, stating age, qualifications, experience and present appointment, together with the names and addresses of two referees, should be submitted to the Secretary, Birmingham Regional Hospital Board, 10, Augustus Road, Birmingham, 15, not later than 8th February, 1950. 3273

COUNTY BOROUGH OF DERBY.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff, in accordance with the National Scale of Salaries:—

(*a*) ONE SENIOR ASSISTANT ARCHITECT, Grade VIII. Salary £685-£760.

Applicants must be Associate R.I.B.A., with a good knowledge of work undertaken by a Local Authority, preferably with experience in School work.

(*b*) ONE SENIOR ASSISTANT ARCHITECT, Grade VII. Salary £635-£710.

Applicants must be Associate R.I.B.A., with a good knowledge of work undertaken by a Local Authority.

(*c*) ONE ASSISTANT ARCHITECT, Grade III, IV and V). Salary £450-£570.

Applicants should be of R.I.B.A. Intermediate Examination standard, and have had good architectural experience.

The appointments will be subject to one month's notice in writing on either side and to the terms of the National Joint Council's Scheme of Conditions of Service and the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Forms of application may be obtained from Thos. W. East, F.R.I.B.A., Borough Architect, the Council House, Corporation Street, Derby, and should be returned when completed, together with a copy of one testimonial and the names of two persons to whom reference may be made, to arrive not later than Monday, 6th February, 1950.

Canvassing, directly or indirectly, will be a disqualification.

E. H. NICHOLS,
Town Clerk.
3205

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT—PLANNING STAFF.

Applications are invited for positions of PLANNING OFFICER, Grade I (£840-£960), Grade II (£700-£840), and Grade III (£550-£700), and TECHNICAL ASSISTANT (up to £580). The positions are superannuable. Candidates for Grade I positions should have architectural and town planning qualifications, and will be engaged on Reconstruction Areas and Detailed Planning. Candidates for Grade II and III positions should have architectural or surveying qualifications with town planning qualification in addition, and will be engaged on Development Plan, Development Applications and Detailed Planning. Technical Assistants are required for work on Development Applications and Detailed Planning.

Particulars and application forms from the Architect (AR/P/P), The County Hall, Westminster Bridge, S.E.1, enclosing stamped addressed foolscap envelope. Canvassing disqualifies. (11) 3154

COUNTY BOROUGH OF EAST HAM.
HOUSING DEPARTMENT.

Applications are invited for the following appointment:—

CHIEF TECHNICAL ASSISTANT. Grade VIII (£685-£760 per annum), plus appropriate London weighting. Applicants should be Associate Members of the Royal Institute of British Architects, and have had experience in design of modern housing and areas of housing development. The possession of a town planning qualification will be an advantage.

Full particulars of the duties, terms and conditions of appointment and form of application, which must be returned by noon on Monday, the 6th February, 1950, can be obtained from the undersigned.

H. A. EDWARDS,
Town Clerk.

Town Hall, East Ham, E.6.
January, 1950. 3206

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Architect to the Council: ROBERT H. MATTHEW, A.R.I.B.A.

Deputy Architect: J. L. MARTIN, M.A., D.Phil., F.R.I.B.A.

APPOINTMENT OF PRINCIPAL HOUSING ARCHITECT AND ASSISTANT HOUSING ARCHITECT.

Following the Council's recent decision to place upon the Architect to the Council the responsibility for the design and erection of all new housing schemes, applications are invited for the following newly-created positions in the Architect's Department:—

PRINCIPAL HOUSING ARCHITECT (£1,500×£100—£1,700). To be responsible to the Architect for a new Housing Division, which will ultimately be responsible for the design and erection of all the Council's housing, and will immediately accept responsibility for new schemes.

ASSISTANT HOUSING ARCHITECT (£1,250×£75—£1,550).

The Principal Housing Architect must be able to organise, lead, and inspire a large division. The Assistant Housing Architect will assist the Principal mainly in the sphere of design.

No age limit. Experience of public architecture not essential.

Form of application obtainable from the Architect to the Council, The County Hall, Westminster Bridge, London, S.E.1. Stamped addressed foolscap envelope necessary. Applications, marked AR/P/H, must be returned not later than 31st January, 1950. Canvassing disqualifies. (1464) 3144

QUANTITY SURVEYORS required by British Railways (L.M.R.) in London, for Architectural Building Works; sound working knowledge, preferably trained in professional office. Capable of dealing with Site Measurements, Interim Valuations, Approximate Estimates and "Taking Off" under supervision in accordance with S.M.M.

Salary £510, rising to £575.

SENIOR QUANTITY SURVEYOR also required.

Salary £600, rising to £630.

Apply, stating age, qualifications and experience, to Box 3216.

COUNTY BOROUGH OF MIDDLESBROUGH.
EDUCATION COMMITTEE.
ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent establishment:—

(*a*) ONE ASSISTANT ARCHITECT. A.P.T., Division VI (salary £595-£660 per annum).

(*b*) TWO ASSISTANT ARCHITECTS. A.P.T., Division V (salary £520-£570 per annum).

(*c*) ONE ASSISTANT INSPECTOR OF SCHOOL BUILDINGS (salary A.P.T., Division I, £390-£435 per annum).

In respect of appointment (*a*) housing accommodation is being made available, and can, if necessary, be provided by the authority for the successful applicant.

Applicants for appointment (*a*) must be Associates of the Royal Institute of British Architects, with experience in the design and construction of school buildings and capable of carrying out large contracts.

Applicants for appointment (*b*) should preferably be fully qualified architects, with experience in the design and construction of school buildings.

Applications for appointment (*c*) must be experienced in the repair and maintenance of Buildings and Playgrounds, and be able to prepare reports, specifications and estimates.

Forms of application and conditions of service may be obtained from the Director of Education, Education Offices, Woodlands Road, Middlesbrough, to whom applications should be returned not later than 9 a.m. on Friday, 27th January, 1950.

E. C. PARR,
Town Clerk.
3191

NORTH THAMES GAS BOARD.

ARCHITECTURAL ASSISTANTS required, preferably experienced in the design, alteration and maintenance of Industrial buildings, and capable of preparing surveys, working drawings, details and specifications. Salary range £480-£650 per annum, according to age and qualifications. The appointment is of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications, stating age and full particulars of training and experience, should be sent to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 9646. 3196

BOROUGH OF SOUTHALL.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment on the permanent staff of the Corporation. Salary in accordance with Grade A.P.T., IV, of the National Scheme (£480-£525), plus appropriate London weighting.

Candidates should have had previous Local Government experience. The appointment is subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination. Applications, on forms to be obtained from the Borough Engineer, Town Hall, Southall, must be returned to him not later than 13th February, 1950.

J. S. SYRETT,
Town Clerk.

Town Clerk's Offices, Southall, Middlesex.
January, 1950. 3274

COUNTY BOROUGH OF SOUTHPORT.
BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the appointment of a QUANTITY SURVEYOR, on the permanent staff of the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade V of the A.P.T. Division of the National Joint Council Scale of Salaries (£520-£570 per annum. The commencing salary within the Grade will be determined according to the candidate's qualifications and experience.

Applicants should be experienced in the preparation of bills of quantities, the checking of interim valuations, and the settlement of final accounts. Experience with a local authority is not essential, and preference will be given to Corporate Members of the Royal Institute of Chartered Surveyors (Quantity Surveyors' Section).

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

Applications, endorsed "Quantity Surveyor," stating age, with full particulars of qualifications and experience, accompanied by copies of three recent testimonials, must be delivered to the Borough Engineer, Town Hall, Southport, not later than Monday, 6th February, 1950.

R. EDGAR PERRINS,
Town Clerk.

Town Hall, Southport.
January, 1950. 3170

CORPORATION OF LONDON.
APPOINTMENT OF ARCHITECTURAL AND SURVEYING ASSISTANTS.

Applications are invited for the appointment of Architectural and Surveying Assistants in the City Surveyor's office. Salaries will be within the range Higher Grade I, £400×£25—£625. Commencing salaries will be arranged according to qualifications and experience.

Applicants should not be under the age of 25 years and should be Associate Members of the Royal Institute of British Architects or the Royal Institution of Chartered Surveyors (Building Subsection). Applicants without these qualifications and who have passed the Intermediate Examinations of the R.I.B.A. or R.I.C.S. (Building Subsection) will be considered. The appointments call for good draughtsmanship and a sound knowledge of building construction, specification writing, contract management, and general administrative ability.

The appointments are on a temporary basis, but candidates will be considered for transfer to the permanent staff as and when vacancies occur. Temporary service counts for superannuation, and candidates will be required to pass a medical examination.

Applications, giving full personal details, particulars of qualifications, experience, age, past and present appointments, and the names of two persons to whom reference may be made, should be forwarded to George Holliday, F.R.I.C.S., City Surveyor, Corporation of London, 55-61, Moorgate, E.C.2. 3252

COUNTY COUNCIL OF NORTHUMBERLAND.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for posts of ASSISTANT ARCHITECT, A.P.T., Grade V (consolidated salary £520 per annum, rising to £570 per annum) on the permanent staff of the Department.

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

Applications, stating age, qualifications and previous experience, accompanied by recent testimonials, should be forwarded to the County Architect, County Hall, Newcastle-upon-Tyne, not later than 28th January, 1950.
7th January, 1950. 3178

LONDON COUNTY COUNCIL.
Architect to the Council: ROBERT H. MATTHEW, A.R.I.B.A.
Deputy Architect: J. L. MARTIN, M.A., D.Phil., F.R.I.B.A.
ARCHITECTS FOR HOUSING DIVISION.

The following are required for a newly-created Housing Division of the Architect's Department, which will ultimately be responsible for the design and erection of all the Council's housing:—

ARCHITECT, PRINCIPAL ASSISTANT (Professional) (£960-£1,100).
ARCHITECT, Grade I (£840-£960).
ARCHITECTS, Grade II (£700-£840).
ARCHITECTS, Grade III (£550-£700).
TECHNICAL ASSISTANTS. Salaries up to £580.
SITE ORGANISER (£1,000).
QUANTITY SURVEYOR, Grade I (£840-£960).

This staff is required as soon as possible for preparatory work and for the immediate taking over of new schemes. The Site Organiser's function will be to collate information in regard to sites, act as co-ordinating clerk of works, and assist on the sites in maintaining smooth and rapid production. Some experience of programmed work would be a desirable qualification.

Those appointed will be required to contribute to the Council's Superannuation and Provident Fund.

Form of application obtainable from the Architect to the Council, the County Hall, Westminster Bridge, London, S.E.1. Stamped addressed foolscap envelope necessary. Applications, marked AR/P/H, must be returned to the Architect. Canvassing disqualifies. (1465) 3145

CITY OF LEICESTER.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the established staff of the City Architect:—

(a) CHIEF QUANTITY SURVEYOR. A.P.T., Grade VIII. Salary £685-£760 per annum.

Applicants must be Fellows or Professional Associates (Quantities Sub-Division) of the R.I.C.S., and must be experienced in the preparation of Specifications, Estimates, Bills of Quantities, Valuation and Measurement for Interim Certificates and Settlement of Final Accounts.

(b) TWO ASSISTANT QUANTITY SURVEYORS. A.P.T., Grade V. Salary £520-£570 per annum.

Applicants must be A.R.I.C.S. (Quantities Sub-Division).

The appointments will be subject to the National Conditions of Service, as adopted by the City Council; to the provisions of the Local Government Superannuation Act, 1937; and to one month's notice on either side. Successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications, previous and present appointments and salaries, details of experience, etc., together with copies of two recent testimonials, should be sent to the undersigned not later than 8th February, 1950.

J. H. LLOYD OWEN,
City Architect.
10, Loseby Lane, Leicester. 3264

COUNTY BOROUGH OF DARLINGTON.
BOROUGH SURVEYOR'S DEPARTMENT.
APPOINTMENT OF CHIEF TOWN PLANNING ASSISTANT.

Applications are invited for the appointment of a Chief Town Planning Assistant, at a salary in accordance with Grade A.P.T., VIII, of the National Scale of Salaries (£685, rising to £760 per annum).

Candidates must have had previous planning experience, and preference will be given to those holding the Diploma of the Town Planning Joint Examination Board or its equivalent.

A flat will be made available to a successful married candidate if it is required.

Applications, endorsed "Chief Town Planning Assistant," and giving the names and addresses of three referees, should be delivered to the Town Clerk, 11, Houndgate, Darlington, not later than Friday, 3rd February, 1950.

Canvassing, directly or indirectly, will disqualify.

H. HOPKINS,
Town Clerk.
3233

MIDLANDS ELECTRICITY BOARD.
BIRMINGHAM AND DISTRICT SUB-AREA.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the position of Architectural Assistant in the Sub-Area Engineer's Department.

Applicants should have received a recognised architectural training and should be conversant with the design and construction of industrial and commercial type buildings.

The appointment will be permanent and superannuable, and the provisional salary in accordance with the National Joint Board Schedule, Class O, Grade 10, at present £524 per annum, will be subject to negotiation with such organisations as may be appropriate.

Applications, giving full details of experience, professional and technical qualifications, present salary and position held, should be endorsed "Architectural Assistant," and forwarded within 14 days to:—Emil Braathen, Manager, Birmingham and District Sub-Area, 14, Dale End, Birmingham, 4.

A. STEPHENS,
Secretary.
19th January, 1950. 3248

NORTHERN IRELAND HOUSING TRUST.

Applications are invited for the following posts:—

(a) SENIOR ARCHITECT. Salary scale £950×£30—£1,100.

(b) SENIOR ENGINEER. Salary scale £950×£30—£1,100.

Applicants must have first-class general and administrative experience and must be fully qualified.

Preference will be given to ex-Service candidates.

Particulars regarding these appointments and forms of application (which must be completed and returned not later than Monday, 27th February, 1950) may be obtained from The General Manager, Northern Ireland Housing Trust, 5, Donegall Square South, Belfast. 3228

ESSEX EDUCATION COMMITTEE.
SOUTH-EAST ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART.

Applications are invited for the post of SENIOR ASSISTANT IN ARCHITECTURE. Candidates should possess a Degree or Diploma in Architecture and have had suitable practical experience; some teaching experience is also desirable but not essential. A qualification in Town Planning would be an advantage.

Salary in accordance with the Burnham Scale: For men, £700×£25 to £800, plus the following allowances: London allowance £36 or £48, according to age; degree or equivalent qualification £30, plus £15 on minimum, £30 on maximum for first class honours; approved full-time study or training £15, £30, or £45 for 3, 4 or 5 years respectively.

Forms of application and further particulars obtainable from the Clerk to the Governors, South-East Essex Technical College, Longbridge Road, Dagenham, within 14 days of the appearance of this advertisement.

D. N. BUNGEY,
Acting Chief Education Officer.
County Offices, Chelmsford. 3247

ESSEX EDUCATION COMMITTEE.
MID-ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART.

Applications are invited from suitably qualified persons for the post of Full-time LECTURER IN ARCHITECTURE, to assist in the instruction of full-time Day and Evening Students preparing for the Inter. and Final Examinations of the R.I.B.A. Salary in accordance with the Assistants' Scale of the Burnham Further Education Report, £300 by £15 to £555 per annum (allowance being made for approved professional and teaching experience and war service), plus graduate and training allowances.

Further particulars may be obtained (stamped addressed foolscap envelope), from the Clerk to the Governors, Mid-Essex Technical College, Market Road, Chelmsford, to whom completed application forms should be returned as soon as possible.

D. N. BUNGEY,
Acting Chief Education Officer.
Council Offices, Chelmsford. 3246

EAST SUSSEX COUNTY COUNCIL.

Applications are invited for appointment to the following posts in the County Planning Department:—

(a) ARCHITECTURAL PLANNING ASSISTANT, in the headquarters office at Lewes. The salary will be on Grade A.P.T., VI, of the National Scales (£595 to £660). The person appointed will be engaged mainly on the preparation of layout and development plans and on architectural work in connection with development control. Previous experience in a planning office will not be regarded as essential, but applicants must be trained architects, and preference will be given to Associates of the R.I.B.A.

(b) TECHNICAL PLANNING ASSISTANT, in the headquarters office at Lewes. The salary will be on one of the following grades of the National Scales: A.P.T., III (£450 to £495), or A.P.T., IV (£480 to £525), according to the capabilities and qualifications of the successful candidate. Applicants must be capable draughtsmen and should have passed the Intermediate Examination of a suitable professional body. The person appointed will be required to assist in the general work of the office and to be responsible for the maintenance of record maps of applications for planning permission, etc.

(c) TECHNICAL PLANNING ASSISTANT, in the area office at Haywards Heath. The salary will be on Grade A.P.T., III, of the National Scales (£450 to £495), and applicants must be capable draughtsmen and should have passed the Intermediate Examination of a suitable professional body. Preference will be given to candidates who have been trained in the office of a Planning Officer, an Engineer, an Architect or a Surveyor. The person appointed will be required to assist the area officer, primarily in development control and survey work.

The above appointments are terminable by one month's notice on either side; they are superannuable, and a candidate to be successful must pass a medical examination to the satisfaction of the County Medical Officer. Canvassing, either directly or indirectly, will disqualify, and a candidate who is related to a member of, or a senior officer under, the Council must disclose the fact in his application.

In the case of posts (a) and (c) possession of a motor car is desirable, and travelling and subsistence allowances in accordance with the scales approved by the County Council from time to time will be payable in addition to the salary.

Applications on a form to be obtained from the County Planning Officer, County Hall, Lewes, must be sent to me at the County Hall, Lewes, by the 4th February, 1950.

H. S. MARTIN,
Clerk of the County Council.
16th January, 1950. 3254

ADMINISTRATIVE COUNTIES OF EAST AND WEST SUFFOLK.
COUNTY PLANNING DEPARTMENT.

Applications are invited for the appointment of ARCHITECT-PLANNER in the County Planning Department.

The salary will be within Grade VII (£635-£710 per annum) of the National Joint Council's Scales, with scale allowance for use of motor car; and will be determinable by one month's notice on either side.

Candidates must possess a Degree or Diploma in Architecture or have passed the Final Examination of the Royal Institute of British Architects. Preference will be given to those who are also members of the Town Planning Institute.

The successful applicant will be attached to the Development Plan Section, and extensive experience in the detailed planning of residential, industrial and central areas is essential.

Applications, stating age, qualifications, experience, present and past appointments, present salary, and giving the names and addresses of two referees, to be delivered to the County Planning Officer, County Hall, Ipswich, not later than Wednesday morning, the 1st February, 1950.

Canvassing, directly or indirectly, will disqualify.

G. C. LIGHTFOOT,
Clerk of the County Council.
County Hall, Ipswich.
12th January, 1950. 3249

COUNTY BOROUGH OF WALSALL.
PUBLIC WORKS DEPARTMENT.

Applications are invited for the following appointments:—

(1) ASSISTANT ARCHITECT in Grade Va of the Administrative, Professional, and Technical Division of the National Joint Council's Scales of Salaries (£550×£20—£610).

(2) ASSISTANT ARCHITECT in Grade III of the above Division (£450×£15—£495).

Applicants for both appointments must have had general architectural experience, especially in connection with Housing and Schools, and in the case of the former appointment preference will be given to members of the Royal Institute of British Architects.

Both appointments are subject to the provisions of the Local Government Act, 1937, and the selected candidates will be required to pass medical examinations.

Applications, giving age, details of qualifications and experience, together with copies of three recent testimonials, should be received by the undersigned not later than Monday, 6th February, 1950.

M. E. HABERSHON,
Borough Engineer and Surveyor.
Council House, Walsall.
16th January, 1950. 3244

GLOUCESTERSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF HEATING, VENTILATING AND ELECTRICAL ENGINEER.

Applications are invited for the appointment of a Heating, Ventilating and Electrical Engineer, in the County Architect's Department, at a salary on A.P. and T., Grade VII, £635-£710 per annum.

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

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be sent to S. E. Urwin, Esq., F.R.I.B.A., County Architect, Shire Hall, Gloucester, not later than Tuesday, 31st January, 1950, endorsed "Appointment of Heating, Ventilating and Electrical Engineer."

GUY H. DAVIS,
Clerk of the County Council.

13th January, 1950. 3241

MONTGOMERYSHIRE COUNTY COUNCIL.
NEW BILATERAL AND PRIMARY INFANT'S SCHOOL AND CANTEEN AT LLANIDLOES.
APPOINTMENT OF CLERK OF WORKS.

Applications are invited for the temporary appointment of Clerk of Works for a period of approximately 18 months at an inclusive salary of £10 per week.

Applicants must have a thorough knowledge of the building trade and be conversant with Plans, Specifications and Bills of Quantities, competent to set out work, including levelling, check and measure up variations, keep records, and write reports to the County Architect. The appointment may be determined by one month's notice in writing on either side.

Applications, in candidate's own handwriting, stating age, qualifications, experience, previous appointments and when able to take up duties, accompanied by copies of not more than two recent testimonials, in an envelope endorsed "Clerk of Works," must reach the undersigned not later than Monday, the 30th January, 1950. Canvassing disqualifies.

P. E. WHITE,
Clerk of the County Council.

County Offices, Welshpool.
17th January, 1950. 3256

ISLE OF MAN LOCAL GOVERNMENT BOARD.
ARCHITECT AND PLANNING OFFICER.

Applications are invited for the post of Architect and Planning Officer to the Isle of Man Local Government Board. Commencing salary £750 per annum.

Applicants must be Fellows or Associates of the Royal Institute of British Architects, and must either hold a diploma recognised by the Town Planning Institute or have had experience in Town and Country Planning.

The post is pensionable on a contributory basis under the Isle of Man Superannuation (Officers of Boards) Scheme, 1934.

Applications, stating age, qualifications, experience and particulars of previous appointments held, and accompanied by copies of not more than three recent testimonials, should be enclosed in an envelope endorsed "Architect and Planning Officer," and forwarded to the undersigned so as to reach him not later than 5 p.m. on Wednesday, the 22nd day of February, 1950.

This 18th day of January, 1950.

W. H. KARRAN,
Secretary.

6, Mount Havelock, Douglas, Isle of Man. 3263

CUMBERLAND COUNTY COUNCIL.

Applications are invited for the appointment of CLERK OF WORKS, to supervise the erection of a New Primary School at Seascale.

The inclusive wage will be £10 10s. per week. Applicants should have good practical knowledge of all trades and supervisory experience in the erection of steel frame buildings, and should be able to measure up work.

The appointment will be temporary and subject to four weeks' notice on either side.

The successful applicant will be expected to commence his duties on or about 1st March, 1950.

Applications, stating age, present employment, qualifications and experience, together with copies of three testimonials, should be delivered to John H. Haughan, F.R.I.B.A., County Architect, 15, Portland Square, Carlisle, not later than 6th February, 1950.

G. N. C. SWIFT,
Clerk of the County Council.

17th January, 1950. 3262

DUNDEE COLLEGE OF ART SCHOOL OF ARCHITECTURE.

The Governors of the Dundee Institute of Art and Technology invite applications for the position of LECTURER AND STUDIO INSTRUCTOR.

Applicants should be Members of the R.I.B.A. and should preferably be holders of a degree or diploma of a recognised School of Architecture.

Salary scales: Men, £450 by £20 to £700; women, £400 by £15 to £575, with placing according to qualifications and experience.

Applications should be lodged as soon as possible, and should be on the prescribed form, copies of which, with full particulars, may be obtained from the undersigned.

G. R. HALL,
Clerk and Treasurer.

Bell Street, Dundee.
12th January, 1950. 3227

CITY OF NOTTINGHAM.
HOUSING ARCHITECT'S DEPARTMENT.
ASSISTANT QUANTITY SURVEYORS.

Applications are invited for the following appointments:—

(*a*) ASSISTANT QUANTITY SURVEYOR. Grade A.P.T., V, £520-£570.

(*b*) JUNIOR ASSISTANT QUANTITY SURVEYOR. Grade A.P.T., III, £450-£495.

Candidates for post (*a*) should be Associates of the Royal Institution of Chartered Surveyors (Quantities) and for post (*b*) should have passed the Intermediate Examination of the R.I.C.S.

The appointments are in accordance with the National Joint Council's Scheme of Conditions of Service and are subject to the Local Government Superannuation Act, 1937.

Successful candidates will be required to pass a medical examination.

Applications, giving details of age, training, qualifications, present appointment and salary, together with the names and addresses of two persons to whom reference can be made, should be forwarded to C. A. Pilkington, L.R.I.B.A., City Housing Architect, The Guildhall, Nottingham, not later than Monday, 6th February, 1950.

J. E. RICHARDS,
Town Clerk.

The Guildhall, Nottingham. 3250

CAMBRIDGESHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments:—

(*a*) ONE PLANNING ASSISTANT. Grade A.P.T., VI (salary £595-£660 p.a.).

(*b*) THREE PLANNING ASSISTANTS. Grade A.P.T., V (salary £520-£570 p.a.).

Candidates for appointment (*a*) will be engaged in the survey and research section of the County Planning Department, and must have had experience in the study of government statistics relating to planning and census returns and possess a broad working knowledge of planning techniques.

Candidates for appointments (*b*) will be required to work on engineering, surveying and architectural problems arising in the Department. Candidates should have a broad general knowledge of modern planning techniques, with particular experience in one of the subjects mentioned. They should indicate their preference in the application.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the Council's conditions of service, and a medical examination.

Applications, stating age, past and present appointments (with dates), qualifications, present salary, and the names of two referees, should be sent to the undersigned not later than 14th February, 1950.

CHARLES PHYTHIAN,
Clerk of the County Council.

Shire Hall, Castle Hill, Cambridge. 3268

EAST RIDING OF YORKSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the permanent appointment of a CHIEF ASSISTANT ARCHITECT, on A.P.T., Grade IX, salary £750, rising by £50 to £900 per annum.

Applicants must be fully qualified and have had experience in the supervision of drawing office staff, and at the same time possess a contemporary outlook on Architectural design and construction, particularly in relation to modern buildings.

It is desirable that the successful candidate should possess a motor car, in respect of which a mileage allowance will be paid in accordance with the Council's scale.

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

Applications, stating age, training, qualifications, experience and details of past and present appointments, with salary, and accompanied by copies of three testimonials, should reach the County Architect, County Hall, Beverley, not later than Friday, 3rd February, 1950.

Applicants should disclose relationship to any member or senior officer of the Council. Canvassing will be a disqualification.

T. STEPHENSON,
Clerk of the Council.

County Hall, Beverley.
January, 1950. 3259

BLACKWELL RURAL DISTRICT COUNCIL.
ARCHITECT AND HOUSING SUPERINTENDENT'S DEPARTMENT.
ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant, in the Architect and Housing Superintendent's Department, at a salary of £420 per annum, rising by annual increments of £15 to £465 (Grade A.P.T., II).

Applicants should have attended a full time course of Architecture and have passed the R.I.B.A. Intermediate Examination, or its equivalent at one of the recognised schools of Architecture, but have had less than one year's subsequent experience in an architectural office.

Applications, stating age, experience, and training, accompanied by two recent testimonials, should be sent so as to reach the undersigned not later than 14th February, 1950.

R. EVANS,
Clerk to the Council.

Dale Close, 100, Chesterfield Road South, Mansfield. 3255

MONMOUTHSHIRE COUNTY COUNCIL.

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

TWO PERMANENT PRINCIPAL ARCHITECTURAL ASSISTANTS, at a salary in accordance with Grade IX (*i.e.*, commencing at £800 per annum, rising by annual increments of £50 to £900 per annum). Candidates for these posts must be Fellows or Associate Members of the Royal Institute of British Architects.

TWO PERMANENT ARCHITECTURAL ASSISTANTS, at a salary in accordance with Grade VII (*i.e.*, £635, rising by annual increments of £25 to £710 per annum).

TWO PERMANENT ARCHITECTURAL ASSISTANTS, at a salary in accordance with Grade VI (*i.e.*, £595 per annum, rising by two annual increments of £20 and one of £25 to £660 per annum).

TWO PERMANENT ARCHITECTURAL ASSISTANTS, at a salary in accordance with Grade V (*i.e.*, £520 per annum, rising by two annual increments of £15 and one of £20 to £570 per annum).

ONE PERMANENT ASSISTANT QUANTITY SURVEYOR, at a salary in accordance with Grade VI (*i.e.*, £595 per annum, rising by two annual increments of £20 and one of £25 to £660 per annum).

ONE PERMANENT ASSISTANT LAND SURVEYOR, at a salary in accordance with Grade III (*i.e.*, £450 per annum, rising by annual increments of £15 to £495 per annum).

All these posts are in accordance with the Administrative, Professional and Technical Division of the National Joint Council's Scale.

Consideration will be given to the payment of a temporary lodging allowance to selected candidates who are maintaining a home elsewhere pending their obtaining suitable accommodation.

Forms of application, particulars of posts and conditions of service, can be obtained from the undersigned. Applications, together with copies of three recent testimonials, must be forwarded to Mr. Colin L. Jones, F.R.I.B.A., County Architect, Queens Hills, Newport, Mon., not later than 15th February, 1950.

Canvassing in any form will be a disqualification.

VERNON LAWRENCE,
Clerk of the Council.

County Hall, Newport, Mon. 3237

CITY OF WAKEFIELD.
CITY ENGINEER'S DEPARTMENT.
APPOINTMENT OF PRINCIPAL ARCHITECTURAL ASSISTANTS (GRADE VII).

Applications are invited for the following appointments:—

(*a*) PRINCIPAL ARCHITECTURAL ASSISTANT (Education).

(*b*) PRINCIPAL ARCHITECTURAL ASSISTANT (Housing and General).

These appointments are on Grade VII (£635-£710), and the commencing salary will be decided according to the qualifications and experience of the successful applicants.

The appointments will be subject to the Local Government Superannuation Act and to the passing of a medical examination.

Candidates should state in writing whether to their knowledge they are related to any member or senior official of the Corporation. Canvassing will be a disqualification.

Applications, endorsed "Principal Architectural Assistant," stating age, qualifications, present and previous appointments, and details of experience, together with copies of two testimonials or names of two referees, should be sent to me not later than Wednesday, 8th February, 1950.

The Council will provide houses for the successful candidates if required.

W. S. DES FORGES,
Town Clerk.

Town Hall, Wakefield.
13th January, 1950. 3242

BOROUGH OF NEWCASTLE-UNDER-LYME.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
ARCHITECTURAL ASSISTANT.

Applications are invited for the whole-time appointment of Architectural Assistant, in the Borough Engineer and Surveyor's Department, at a salary in accordance with A.P. and T. Division, Grade II, £420-£465 per annum.

Applicants should have been trained as pupils in an Architect's office, and should have had further experience in general architectural work after completing their Articles.

Preference will be given to applicants who have passed the Intermediate Examination of the R.I.B.A. and who have had experience on new schools.

The appointment is terminable by one month's notice on either side, and is subject to the National Scheme of Conditions of Service and to a medical examination for superannuation purposes to the satisfaction of the Council's Medical Officer of Health.

Applicants must disclose whether to their knowledge they are related to any member of, or the holder of any senior office under, the Council.

Canvassing in any form will be a disqualification.

Applications on forms to be obtained from the Borough Engineer and Surveyor, Lancaster Building, High Street, Newcastle, Staffs., should be completed and returned to him not later than Wednesday, 1st February, 1950.

C. J. MORTON,
Town Clerk.

District Bank House, Penkhull Street, Newcastle, Staffs. 3234

COUNTY OF ESSEX.
ILFORD COMMITTEE FOR EDUCATION.

The Essex County Council invite applications for MAINTENANCE ASSISTANTS as follows:—
One A.P.T. Division, Grade V, £520-£570.*
One A.P.T. Division, Grade III, £450-£495.*
*Plus appropriate London area allowance.

The successful applicants will be engaged on the maintenance of school buildings under the direction of the Borough Engineer of Ilford.

Applicants should have had experience in the supervision of repair and maintenance works of all classes of buildings, together with the preparation of estimates and the execution of minor alterations.

Application should be made on a form to be obtained from, and returned to, the Borough Education Officer, Town Hall, Ilford, together with copies of not more than three recent testimonials, within 14 days of the appearance of this advertisement. 3269

BASILDON (NEW TOWN) DEVELOPMENT CORPORATION.

Applications are invited for the following posts on the staff of the Chief Architect, Mr. N. Tweddell, A.R.I.B.A., to start immediately on housing and industrial building. Applicants should have had experience (according to their grade) of contemporary design, preparation of working drawings, specifications, placing, and management of contracts.

ONE SENIOR ARCHITECT, £1,000-£1,200 p.a., to be responsible for the work of the group.

ONE ARCHITECT, £750-£1,000 p.a.

TWO ASSISTANT ARCHITECTS, £650-£750 p.a.

TWO ASSISTANT ARCHITECTS, £550-£650 p.a.

TWO DRAUGHTSMEN, commencing at £300.

Appointments, which will be superannuable, will be made within the salary range stated, according to age and experience. Subsistence allowances are payable in approved cases (up to a maximum of 6 months) in addition to the above salaries until arrangement can be made for family accommodation by purchase or letting within 10 miles of the Corporation offices. A hostel for members of the staff should shortly be available. The appointments are subject to the Corporation's conditions of service.

Applications should be made (on the special form obtainable from the Chief Architect) to the General Manager, Gifford House, Pitsea, Essex, by the 8th February, 1950. 3232

SALOP COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT ARCHITECTS, on A.P.T., Grades III-IV (£450 to £525 p.a.).

The appointments will be subject for their termination to one month's notice in writing on either side; to the terms of the National Joint Council's Scheme of Conditions of Service, and to the provisions of the Local Government Superannuation Act, 1937. The successful applicants will be required to pass a medical examination.

Application forms may be obtained from the County Architect, A. G. Chant, F.R.I.B.A., Column House, London Road, Shrewsbury, to whom they must be returned, accompanied by copies of not more than three recent testimonials, not later than Tuesday, 14th February, 1950.

G. C. GODBER,
Clerk of the Council.

Shrewsbury.
January, 1950. 3236

COUNTY BOROUGH OF HUDDERSFIELD.
APPOINTMENT OF BOROUGH ARCHITECT AND PLANNING OFFICER.

Applications are invited for the appointment of Borough Architect and Planning Officer, at the salary of £1,235 per annum, rising by two annual increments of £100 to £1,435 per annum.

Particulars of the duties and conditions of the appointment may be obtained from the undersigned. The duties will include the preparation and carrying out of housing schemes and the construction and maintenance of Corporation buildings, and also the preparation of the Development Plan under the Town and Country Planning Act, 1947.

Applications, endorsed "Borough Architect," must reach the undersigned not later than the 13th February, 1950.

HARRY BANN,
Town Clerk.

Town Hall, Huddersfield.
17th January, 1950. 3260

HUNTINGDON COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
ARCHITECTURAL ASSISTANT GRADE II, A.P.T.
BUILDING INSPECTOR GRADE II, A.P.T.

Applications are invited for the appointment of (*a*) Architectural Assistant, and (*b*) Building Inspector. The salary of each appointment will be Grade II A.P.T., £420×£15—£465 per annum.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937.

Applications should be submitted to S. J. Hands, A.R.I.B.A., County Architect, County Buildings, Huntingdon, by not later than first post on Monday, 13th February, 1950, with two recent testimonials or the names of two persons to whom reference may be made.

JOHN KELLY,
Clerk of the County Council.

County Buildings, Huntingdon.
26th January, 1950. 3254

JOINT COUNTY COUNCIL OF PERTH AND KINROSS.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following posts:—

(*a*) ASSISTANT ARCHITECT. Salary scale £520 to £570 (A.P.T., V). Applicants should have considerable experience of design and supervision of building, preferably in the office of a Local Authority, and should be able to take charge of building projects. A house will be available to the person appointed.

(*b*) ASSISTANT ARCHITECT (THREE). Salary scale £450 to £495 (A.P.T., III). Applicants should have experience in general architectural work, preferably with some experience of Local Authority Housing. Qualifications should be equivalent to R.I.B.A. Intermediate standard.

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

Applications, stating post applied for, age, qualifications, experience, and accompanied by copies of not more than three recent testimonials, should be lodged with the County Clerk, County Offices, York Place, Perth, not later than 13th February, 1950. 3265

BRIGHTON TECHNICAL COLLEGE.
Principal: G. E. WATTS, M.A., Ph.D., B.Sc., F.R.I.C.

Applications invited from qualified Architects with professional experience for post as LECTURER IN ARCHITECTURAL SUBJECTS in Civil Engineering and Building Department.

Burnham Technical Scale of Salary (£330×£15—£585), with allowance for professional experience, war service and training.

Forms of application and further particulars obtainable from the undersigned, to be returned to the Principal within 14 days.

W. G. STONE,
Education Officer.

54, Old Steine, Brighton. 3261

WELSH REGIONAL HOSPITAL BOARD.

Applications are invited for the following permanent posts on the Board's Headquarters Staff:—

ARCHITECT'S DIVISION:

(*a*) ASSISTANT ARCHITECT. Salary A.P.T., Grade VIII (£685-£760).

(*b*) ASSISTANT ARCHITECT. Salary A.P.T., Grade V (£520-£570).

(*c*) ARCHITECTURAL ASSISTANT. Salary A.P.T., Grade III (£480-£495).

Applicants for posts (*a*) and (*b*) must be registered architects and have passed the Final Examination of the R.I.B.A. They should have had wide experience in planning and construction, and in the preparation of working drawings for important hospital buildings. Applicants for post (*c*) must have passed the Intermediate Examination of the R.I.B.A.

The appointments are subject to the provisions of the National Health Service (Superannuation) Regulations, 1947 and 1948.

Applications, stating age, qualifications and experience, together with the names of two referees, should be addressed to the Secretary, Temple of Peace and Health, Cathays Park, Cardiff, so as to reach him not later than 18th February, 1950. 3260

CROWN AGENTS FOR THE COLONIES.

ASSISTANT ENGINEER (CIVIL) required for the Design Branch of the London office. Salary scale £475 a year, rising to £750 a year. The £475 minimum is linked to entry age of 25, with the addition of £25 for each year above that age, up to £600, and the subtraction of £25 for each year below that age. Extra duty allowance of 8 per cent. of annual salary also payable at present. Engagement will be on unestablished terms with a prospect, after satisfactory service of appointment to the established and pensionable staff in due course, vacancies permitting. Candidates, not over 30 years, must be Corporate Members of the Institution of Civil Engineers, or have passed the qualifying examination of this Institution or hold an exempting degree or have obtained the Testamur of the Institution of Municipal Engineers. They must have had experience in the office of a Civil Engineer, the Civil Engineering Department of a railway, a firm of Structural Engineers, the Civil Engineering Branch of a Municipality or a Contractor, and should be capable of preparing designs for bridge and buildings in steel, and have knowledge of re-inforced concrete design. Some experience in the field or on works desirable. Duties will entail designs for steel and re-inforced concrete structures and general Civil Engineering work. The officer may be required to undertake short tours in the Colonies on field or survey work. Apply at once by letter, stating age, whether married or single, and full particulars of qualifications and experience, and mentioning this paper to the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/N/24958/3A on both letter and envelope. The Crown Agents cannot undertake to acknowledge all applications, and will communicate only with applicants selected for further consideration. 3259

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

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

Canvassing disqualifies. (13) 3155

DERBYSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the undermentioned appointments on the permanent staff.

Conditions of service and salaries are in accordance with the National Joint Council Scheme for Local Authorities, as adopted by the County Council.

ARCHITECTURAL ASSISTANTS:

(*a*) A.P.T., Grade III. Salary £450×£15 to £495 per annum.

(*b*) A.P.T., Grade II. Salary £420×£15 to £465 per annum.

(*c*) A.P.T., Grade I. Salary £390×£15 to £435 per annum.

Applicants for (*a*), (*b*) and (*c*) to have had a good architectural experience and to be first-class draughtsmen.

JUNIOR ARCHITECTURAL ASSISTANTS:

(*d*) Miscellaneous Division (Grade I). Salary £315×£15 to £360 per annum.

(*e*) General Division. Salary £135 per annum at 16 years of age, with annual increments to £385 per annum at the age of 32.

Applicants for (*d*) to have had experience in an architect's office and to be first-class draughtsmen.

Applicants for (*e*) must possess some ability in draughtsmanship.

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

Canvassing members of the Council, directly or indirectly, will be a disqualification for appointment.

The County Council is not in a position to assist successful applicants with housing accommodation.

Applications to be made on a form to be obtained from the undersigned, to whom it must be returned, accompanied by copies of three recent testimonials, not later than 8th February, 1950.

Envelopes and applications must be endorsed, stating clearly the vacancy for which the application is made.

(By permission of the Ministry of Labour and National Service under the Control of Engagement Order, 1947).

F. HAMER CROSSLEY,
Dipl. Arch.(L'pool), A.R.I.B.A.,
County Architect.

St. Mary's Gate, Derby.
26th January, 1950. 3251

CUMBERLAND COUNTY COUNCIL.

Applications are invited for the following appointments on the permanent establishment of the Architect's Department:—

(*a*) SENIOR ASSISTANT ARCHITECTS. Grade VIII, A.P.T. Division (£685-£760 p.a.).

(*b*) JUNIOR ARCHITECTURAL ASSISTANTS. Grade III, A.P.T. Division (£450-£495 p.a.).

Applicants for post (*a*) are required to be Associate Members of the R.I.B.A. and capable of a high standard of design. Preference will be given to those candidates who have had experience in the control of staff.

Applicants for post (*b*) should have passed, or be preparing to take the R.I.B.A. Intermediate Examination.

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

Applications, on forms obtainable from John H. Haughan, F.R.I.B.A., County Architect, 15, Portland Square, Carlisle, should be delivered to him not later than Monday, 13th February, 1950, together with copies of not more than three recent testimonials.

G. N. C. SWIFT,
Clerk of the County Council.

20th January, 1950. 3255

EAST RIDING OF YORKSHIRE COUNTY COUNCIL.

Applications are invited for the appointments of ASSISTANT ARCHITECTS, on the permanent staff of the County Architect's Department, in accordance with Grades V to VI of the A.P.T. Division of the National Scales.

The salary range is £520 to £660, and each suitable applicant will be appointed to the grade appropriate to his qualifications and experience.

Applicants should have had satisfactory experience in the design and construction of modern buildings, and preference will be given to those who have appropriate professional qualifications.

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

Applications, stating age, training, qualifications and experience, with particulars of past and present appointments, with salaries, and accompanied by copies of three recent testimonials, must be received by the County Architect, County Hall, Beverley, not later than Wednesday, 8th February, 1950. Applicants should disclose relationship to any member or senior officer of the Council, and canvassing will be a disqualification.

T. STEPHENSON,
Clerk of the Council.

County Hall, Beverley. 3269

SCOTTISH SPECIAL HOUSING ASSOCIATION, LTD., which is a non-profit making company limited by guarantee and financed by H.M. Treasury, invite applications for the appointment of ARCHITECT, Grade II, £450×£25—£675. The post is superannuable under the Local Government Superannuation (Scotland) Act, 1937. Forms of applications, with full particulars, can be obtained from the Secretary, 15/21, Palmerston Place, Edinburgh, 12. Applications should be submitted within 14 days of the appearance of this advertisement. 3279

BOROUGH OF LUTON.
BOROUGH ENGINEER'S DEPARTMENT.
TECHNICAL STAFF.

Applications are invited for the following appointments:—

(a) SENIOR ARCHITECTURAL ASSISTANT (A.P.T., Grade VII, £630×£25—£710 per annum). Housing accommodation will be made available to the successful candidate, if required.

Applicants should be A.R.I.B.A. and have extensive Municipal experience, especially in housing and school works.

(b) ARCHITECTURAL ASSISTANTS, in salary grades ranging between A.P.T., I (£390—£435), and A.P.T., IV (£480—£525), according to qualifications and experience. Applicants must have made some progress in obtaining architectural qualifications, and have had Municipal experience, with particular reference to housing and school works.

The appointments will be subject to the Local Government Superannuation Act, 1937, to the National Scheme of Conditions of Service, and to the successful candidates passing a medical examination.

Applications, appropriately endorsed, giving details of age, qualifications, experience, present appointment and salary, and accompanied by the names of three persons to whom reference may be made, should be sent to The Borough Engineer, Town Hall, Luton, not later than first post on Saturday, 18th February, 1950. Canvassing will disqualify. Applicants must disclose whether they are related to any member or senior officer of the Council.

W. H. ROBINSON,
Town Clerk.

Town Hall, Luton.
21st January, 1950. 3253

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointments of ASSISTANT ARCHITECTS between the Grades of VI, VII and VIII, with salaries ranging from £595-£760, plus London allowance of £30 per annum. Selection of candidates for individual grades will be in accordance with experience.

Applicants must be Members of the Royal Institute of British Architects, and have had a good training and an adequate experience in the design and construction of modern buildings. They should give full details of present and previous appointments and the salary attaching thereto.

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 11th February, 1950.

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

The Council will be unable to provide any housing accommodation, and the successful applicants will be required to make their own arrangements in this direction.

DUDLEY AUKLAND,
Clerk of the Council.

County Hall, Kingston-upon-Thames. 3280

Tenders for Contracts

COUNTY BOROUGH OF WALSALL.
WELFARE COMMITTEE.
PROPOSED ADAPTATION OF No. 111, BIRMINGHAM ROAD, WALSALL, TO RESIDENTIAL HOME FOR OLD PEOPLE.

Tenders are invited for the adaptation of No. 111, Birmingham Road, Walsall, to a Residential Home for old people.

Contractors wishing to tender should make application to the undersigned, together with a deposit of three guineas (returnable on receipt of a *bone fide* tender). Bills of Quantities will be sent out shortly after 31st January, and tenders are to be delivered to "The Town Clerk, Council House, Walsall," in a sealed envelope endorsed "Tender No. 111, Birmingham Road," by 10 a.m. on Tuesday, 14th February, 1950.

The Corporation do not bind themselves to accept the lowest or any tender.

M. E. HABERSHON,
Borough Engineer and Surveyor.

Council House, Walsall.
20th January, 1950. 3257

Partnership

5 lines or under, 10s.; each additional line, 1s. 6d.

PARTNERSHIP or position leading to Partnership in West Riding, preferably Bradford area, by A.R.I.B.A., A.A.Dip., 34 years old, with sound training, varied experience, and good connections; capital available. Box 3156.

Architectural Appointments Vacant

4 lines or under, 5s.; each additional line, 1s. 6d.

ASSISTANT ARCHITECT.

APPLICATIONS are invited for a fully qualified Assistant Architect, with experience in Urban and Rural District Council housing and industrial work.

Salary offered £750/£800 per annum, subject to qualifications and experience.

Candidates about to take the Final R.I.B.A. Examination will be considered.

Full details in writing to Husband & Company, Chartered Civil Engineers and Architect 388, Glossop Road, Sheffield, 10. 3027

CONTRACTS MANAGER required by well-known Architectural Woodwork and Furniture Managers, to organise and build up Contract Department; experience estimating and control essential; excellent opportunity for man of administrative ability. Box 3121.

ARCHITECT'S and Surveyor's ASSISTANTS required by important Institution in London; applicants should be Associates of R.I.B.A., age 30-35, with good general experience, and capable of making building surveys; salary up to £600, according to age and experience. Write only to Box G721, c/o Streets, 110, Old Broad Street, E.C.2. 3132

ARCHITECT requires ASSISTANT; passed Intermediate, with office experience; must be speedy draughtsman, with flair for good contemporary design; good proapects; salary up to £500, according to experience. Write Sidwell, A.R.I.B.A., 27, Union Street, Coventry. 3131

ASSISTANT ARCHITECTS required for work of great variety; applicants should be qualified, preferably school trained, with office experience, and able to assume responsibility for all stages of work. Write, stating age, experience, and salary required, to T. P. Bennett & Son, 43, Bloomsbury Square, W.C.1. 3119

BOOTS PURE DRUG CO., LTD.,
NOTTINGHAM.
ARCHITECT'S DEPARTMENT.

ARCHITECTURAL ASSISTANT required for the permanent staff of this Department. Progressive appointment for the right man. Work of a very varied character, including Factories, Laboratories, Retail Premises, Farms, Housing, etc., in all parts of the British Isles.

The Company operates a 5-day week and a pension scheme and the successful applicant will be required to pass a medical examination.

Write, stating age, qualifications, training, details of experience, and salary required, with a copy of two recent testimonials, to:

CHIEF ARCHITECT,
Boots Pure Drug Co., Ltd.,
Station Street, Nottingham. 3096

WEST RIDING Architects require ASSISTANT, for busy general practice; good prospects for reliable man. Box 3129.

ARCHITECTURAL ASSISTANT required in private office; Westminster area; good draughtsman essential, with constructional and designing ability; salary by arrangement. Box 3101.

ARCHITECTURAL ASSISTANT required of Intermediate R.I.B.A. standard and with some previous experience in an Architect's office; salary according to ability. Write, stating age and experience to Staff Officer, Handley Page, Ltd., Cricklewood, N.W.2. 3099

E. MAY, Architect and Town Planner, formerly of Frankfurt-on-Main, requires for the beginning of April, ONE or TWO ARCHITECTURAL ASSISTANTS, with practical experience in Architect's offices; applicants must be healthy (doctor's certificate required) talented young men, preferably unattached.

Further required experienced DRAUGHTSMAN.

Applications to state age and to include samples of work, references, photograph, and hand written summary of qualifications and previous experience.

Starting salary for Architectural Assistants £50 per month or more, according to ability. Share in profits from second year onwards.

Draughtsman's starting salary £40.

Passage out will be paid and cost of postage for applications refunded.

Applications by airmail to: E. May, P.O. Box 1910, Nairobi, Kenya Colony. 3164

SENIOR and Intermediate ARCHITECTURAL ASSISTANTS required; preferably with experience of commercial and city practice; interesting and varied work; 5-day week; good salaries. Please apply in writing, Lewis Solomon & Son, 21, Bloomsbury Way, W.C.1. 3169

ARCHITECTURAL ASSISTANT required for General Practice; surveys, working drawings and specifications. Write, stating age, previous experience and salary required, Henry C. Smart & Partners, L.R.I.B.A., 120, Moorgate, E.C.2. 2981

ARCHITECTS (A.R.I.B.A.) and ARCHITECTURAL ASSISTANTS, preferably with experience of power station buildings or similar work, required immediately; salary according to experience. Apply, with references, to Sir William Halcrow & Partners, MM.I.C.E., Consulting Engineers, Alliance House, Caxton Street, Westminster, S.W.1. 3192

ARCHITECTURAL ASSISTANTS.—Interest in interior design of large stores and of exhibitions essential; must be able to take both design and constructional responsibility; salary from £500 to £800 p.a. Apply in writing to Misha Black, Design Research Unit, 37, Park Street, W.1. 3215

ASSISTANTS required in the Architect's Department of a Multiple Company in the Midlands; experience in design, alteration and maintenance of retail shop premises, surveys, working drawings and specifications; permanent appointments, with good prospects. Applicants are requested to state age, experience, and salary required to Box 3229.

ARCHITECTURAL ASSISTANTS, with sound experience in design and construction, required immediately; capable of preparing working drawings, details and specifications for industrial and commercial projects; salary commensurate with qualifications. Apply to Mackintosh, Beecroft & Partners, 11, Orchard Street, Bristol, 1. 3230

EXPERIENCED ASSISTANT required, by Denis Clarke Hall, F.R.I.B.A., 6, Mason's Yard, Duke Street, St. James's, London, S.W.1. 3231

ARCHITECTURAL ASSISTANT required for General Practice; Factories, Warehouses, Hospital Work, etc. Kindly write, stating age, experience and salary required, A. Neville Holt, F.R.I.B.A., 20, Exchange Street East, Liverpool, 2. 3239

MIDDLESEX COUNTY COUNCIL.

REGISTERED or EXPERIENCED ARCHITECTURAL ASSISTANTS required in County Architect's Dept.; A.P.T. Div., Grade V (£550-£600 p.a. incl. if 26 years or over); estab., subject to medical fitness. Application forms from County Architect, 10, Gt. George Street, S.W.1 (stamped addressed foolscap envelope), to be returned within 14 days (quoting G.547 AJ). Canvassing disqualifies.

C. W. RADCLIFFE,
Clerk of the County Council.

Middlesex Guildhall, S.W.1. 3240

VAUX & ASSOCIATED BREWERIES, of Sunderland, require a qualified ARCHITECT to take charge of their Property Department. Applications to the Secretary should state particulars of qualifications, experience, and salary required. Box 3243.

ARCHITECTURAL ASSISTANT, Intermediate standard, required in Bristol Architects' office; salary £400 p.a. Box 3258.

QUALIFIED ARCHITECTURAL ASSISTANT required at Coventry immediately for large industrial contract. Replies, stating age, experience, and salary required, to Messrs. Wood & Kendrick & Williams, F.F.R.I.B.A., 57, Colmore Row, Birmingham, 3. 3261

LONDON ELECTRICITY BOARD.
DRAUGHTSMEN.

APPLICATIONS are invited for positions as Draughtsmen in the following Sub-Areas: Western Headquarters, at 25, Eccleston Place, S.W.1; North-Eastern Headquarters, at 84/86, Romford Road, Stratford, E.15; Southern Headquarters, "Chalfont," South Eden Park Road, Beckenham, Kent.

Applicants should have a sound training, preferably a drawing office apprenticeship, and knowledge of electrical technology up to National Certificate standard. It will be an advantage for the candidate to have had experience in one or more of the following branches: mains records, sub-station switchgear, layouts, and building construction.

Salaries will be within the range of £299 per annum, at age 21, to £500 per annum, according to qualifications and experience.

These salaries are provisional and subject to adjustment through the appropriate negotiating machinery.

Application forms on receipt of an addressed foolscap envelope from Establishments Officer, 46/47, New Broad Street, E.C.2, to be returned not later than 8th February, 1950. Separate applications are required if more than one vacancy is applied for. Please mark envelope EST/V/614.A. 3265

ARCHITECTURAL ASSISTANTS required immediately with Architects having offices in London and Worcester; work is of a varied character, and includes Schools, Factories and Housing; applicants should have at least three years' office experience and have passed the Intermediate Examination. Write, stating age, experience and salary required, Box 3267.

SOUTH BANK RESTAURANT, 1951.—Experienced ASSISTANT required immediately to assist for three or four months in preparation of working drawings; ability to detail rapidly essential. Apply, giving particulars, telephone number, salary required, to Leonard Manasseh, A.R.I.B.A., The Cottage, Datchworth Court, Datchworth, Hertfordshire. 3281

DAVID STOKES, F.R.I.B.A., 32, Victoria Street, S.W.1, Abbey 2491, requires ONE SENIOR and ONE JUNIOR ARCHITECTURAL ASSISTANT (office experience essential) for work on schools. 3277

CO-OPERATIVE WHOLESALE SOCIETY, LTD. ARCHITECT'S DEPARTMENT, LONDON.

APPLICATIONS are invited for the following:—

FOUR ASSISTANT ARCHITECTS. Salary £490-£555 per annum. Applicants should have a sound knowledge of building construction and Architectural design, capable of preparing working drawings and details under supervision.

TAKER OFF; experienced in all branches of building work, with sound knowledge of present day prices, and preferably Member of the R.I.C.S. (Quantities Section); salary £600-£750.

THREE WORKERS UP, with thorough knowledge Abstracting and Billing; salary £350-£600.

The appointments are permanent, and offer prospects of up-grading.

Successful candidates will be required to undergo medical examination for a compulsory Superannuation Scheme.

Applications, stating age, experience and qualifications, to the Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London, E.1. 3194

ARCHITECTURAL ASSISTANT up to Intermediate standard, required in West End architects' office; salary by arrangement. Telephone Museum 1105. 3271

REQUIRED by Architect to Brewery Company, an Assistant Architect, A.R.I.B.A., or equivalent, with interest in contemporary design, used to good quality work and competent to carry jobs through from their inception to completion. Salary about £500 to commence. A pleasant self-contained flat on the outskirts of a South-east Midlands Town, served by an excellent bus service, is available for the successful applicant. Box 3256.

ARCHITECTURAL ASSISTANT, R.I.B.A., required immediately in small progressive office in London. Interesting and contemporary domestic, exhibition, industrial and shop design. Sound knowledge construction and working drawings. Also Junior Assistant, Inter. standard. Salaries according to qualifications and experience. Apply David Stern, A.R.I.B.A., 26, Wilfred Street, Buckingham Gate, S.W.1. VIC 5331. 3262

BUSY London Office requires Senior Architectural Assistants, schools, housing and factory work. Progressive posts for thoroughly experienced men. Write full particulars to Box 3265.

ASSISTANT required in busy country Architect's Office. Progressive position for man interested in agricultural and domestic work. Inter. standard or above and capable in preparation of working drawing and details. Smith-Woolley & Co., Architects, Collingham, Newark, Notts. 3264

ARCHITECT'S ASSISTANT, recently qualified from whole-time school of architecture, required for permanent appointment with opportunities for interesting experience. Harry S. Fairhurst & Son, 55, Brown Street, Manchester, 2. 3266

ARCHITECT'S ASSISTANT, with about three years' experience, required to work under Senior in busy office; permanent post, with variety and interest, for ambitious man. Harry S. Fairhurst & Son, 55, Brown Street, Manchester, 2. 3267

ARCHITECTS' SENIOR ASSISTANT, with about seven years' experience, required; to take charge of industrial, commercial or hospital jobs; interesting work in busy office, and plenty of scope for man with initiative. Harry S. Fairhurst & Son, 55, Brown Street, Manchester, 2. 3268

ARCHITECT'S office in Midlands require ASSISTANT, under 35, with good training and experience in architecture; knowledge of Town Planning an advantage; good salary and prospects of advancement to suitable man, willing to take keen interest in his work. Apply, giving full details of qualifications and experience, Box 3270.

SOUTH DEVON.—Qualified Architect required as MANAGER for Branch office. Write, stating age, experience, and present salary. Box 3272.

Other Appointments Vacant

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INTELLIGENT and enthusiastic, young man, with some knowledge of building construction and materials, wanted for unusually interesting selling job, mainly in London (full-time). Write, with full particulars of age, training, experience, salary required, to Box 366.

CONTRACTS MANAGER required by well-known Specialist Building Firm to organise and build up Contract Department; experience estimating and control essential; excellent opportunity for man of technical and administrative ability. Apply in first instance to Box 2775.

DRAUGHTSMEN wanted; used to Metal Windows and Brakepress work. Apply Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17. 2141

ESTIMATORS wanted; used to Brakepress work. Apply personally or by letter to Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17. 2143

SANITARY ENGINEER required by London Architects; must be fully experienced all branches, thorough knowledge of by-laws, good draughtsman, and capable of undertaking all classes of work. Write, giving full details of qualifications, experience, age, and salary required, and when available. Box 3120.

SETTER OUT wanted for Architectural Metalwork; good wages and ideal working conditions. Apply The Morris Singer Co., Ltd., Ferry Lane, Forest Road, Walthamstow, E.17. 3143

CAPABLE ARCHITECTURAL DRAUGHTSMAN required immediately; Eastern Counties; permanency; salary according to experience; flat available. Full particulars to Box 3150.

ARCON, Chartered Architects, have vacancies for SENIOR QUALIFIED DRAUGHTSMEN, with office experience, at £500-£550 p.a., and for Intermediate standard DRAUGHTSMEN, with office experience, £350-£400. Apply to No. 39, Eaton Square, S.W.1. SLOane 4226. 3152

WEST COUNTRY.—Private Company, manufacturing high-class cast-stone, requires ASSISTANT to Manager of Technical and Architectural Advisory Department; the duties will include translation of architects' drawings to working details, direction of manufacturing department and assistance in estimating; excellent prospects for capable man prepared to specialise; state professional qualifications and experience. Box 3182.

DESIGNER/DRAUGHTSMAN required for architectural joinery and interior decorative work; North-West London area. Details, etc., to Box 3184.

DESIGNER/DRAUGHTSMAN required for Architectural Woodwork, modern and period furniture and furnishing schemes; must have constructional knowledge and good perspective draughtsmanship. Reply, stating experience and salary required, Box 3146.

ARCHITECTURAL DRAUGHTSMAN/DESIGNER wanted, with long experience of Architectural Metalwork; must have sound knowledge of detailing and construction; only top grade applications will be considered. Apply, giving résumé of experience, to Managing Director, Morris Singer Co., Ltd., 159, John Street, London, E.C.1. 3186

MANUFACTURING Company in the Maidstone area have vacancies for DRAUGHTSMEN, with architectural or building trade experience; also for an ESTIMATOR AND QUANTITIES CLERK; congenial work and conditions and good prospects. Write, stating age, experience, and salary required, to Box 3266.

RICHARD COSTAIN, LTD., require QUANTITY SURVEYORS for Contracts in London and the Provinces; only men with first-class practical experience considered. Apply in writing, giving full details of age, experience, qualifications and salary required, to the Personnel Director, Richard Costain, Ltd., Dolphin Square, London, S.W.1. Please quote on letter and envelope Q.S.1. 3245

ARCHITECTURAL DRAUGHTSMEN required immediately to work on non-traditional housing under supervision of qualified architect; salary £300-£450, according to capabilities. Write, with full particulars, to Woolaway Constructions, Limited, 43, East Street, Taunton. 3282

Architectural Appointments Wanted

YOUNG Lady, with 5 years' practical experience in Architect's office, requires position as JUNIOR ASSISTANT; in Devonshire, Torquay or Exeter area preferred; Inter. R.I.B.A. taken last November. Box 444.

ARCHITECTURAL ASSISTANT, 3½ years' experience with London architects, including 3 years at Regent Street Polytechnic, seeks position in or near West End, London, where appreciation of contemporary design is encouraged; present salary £375 per annum. 455

Services Offered

4 lines or under, 2s. 6d.; each additional line, 1s.

MANUFACTURERS of exclusive hand-made Lampshades; architects' contracts carried out. J. & M. Beagley, 51, Great Ormond Street, London, W.C.1. CHAncery 8959. 2397

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CHARTERED ARCHITECT (A.R.I.B.A.) offers part-time assistance at own London office; all-round architectural experience, exhibitions and surveys. Box 3136.

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NOTICE TO ARCHITECTS, ETC.—A small group of fully qualified Architectural Assistants offer to assist professionals in the preparation of Designs, Working details, Surveys, Perspectives, etc., on part-time basis; superb draughtsmanship; moderate remuneration. Box 2932.

TO OVERSEAS ARCHITECTS.—An Associate, with wide practical experience abroad, first-hand knowledge post-war conditions in a dozen countries outside Europe, offers advisory service, suitability home materials, equipment, etc., advertising, interviewing staff, duplication plans, technical enquiries from London office, and similar assistance; businesslike. Enquiries to Box 2308.

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ALL Kinds of Fencing supplied and erected; established over 100 years. Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham, 1.

DESIGN RESEARCH UNIT requires immediately additional accommodation (about 1,200 sq. ft. of well day-lighted space suitable for drawing offices) for minimum of 18 months, but would consider longer; as close as possible to 77, Park Street, W.1. Apply to Business Manager, MAYfair 9255. 3253

OFFICE TO LET.—Marble Arch; 225 sq. ft. ground floor; suitable for Architect requiring accommodation for limited period; telephone available. Box 3256.

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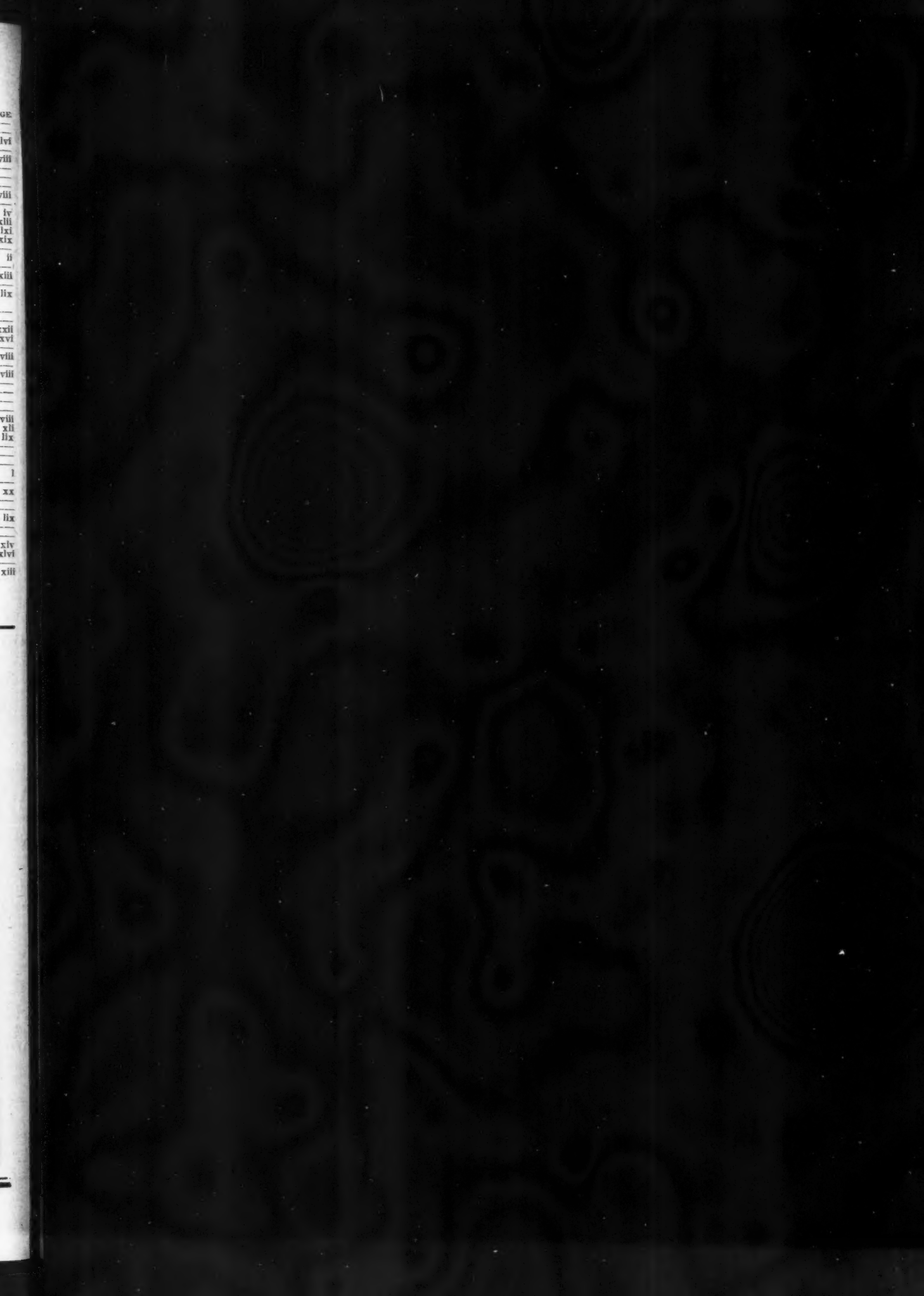

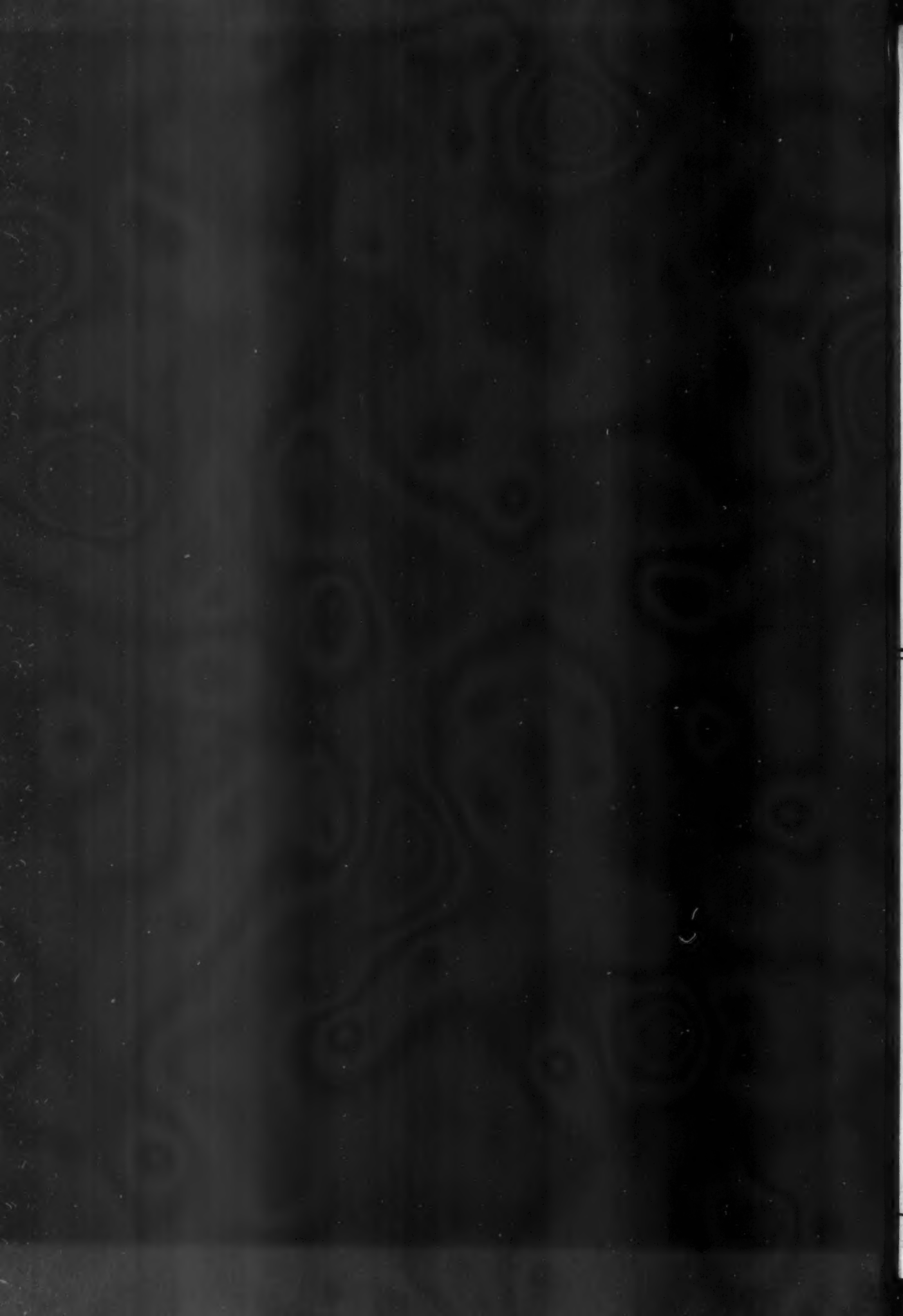

Printed in Great Britain for the Proprietors of "THE ARCHITECTS' JOURNAL" (The Architectural Press, Ltd.), 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, by HARRISON & SONS LTD., Printers to His Majesty The King, London, Hayes (Middx.), and High Wycombe.