THE ARCHITECTS' JOURNAL

standard contents

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

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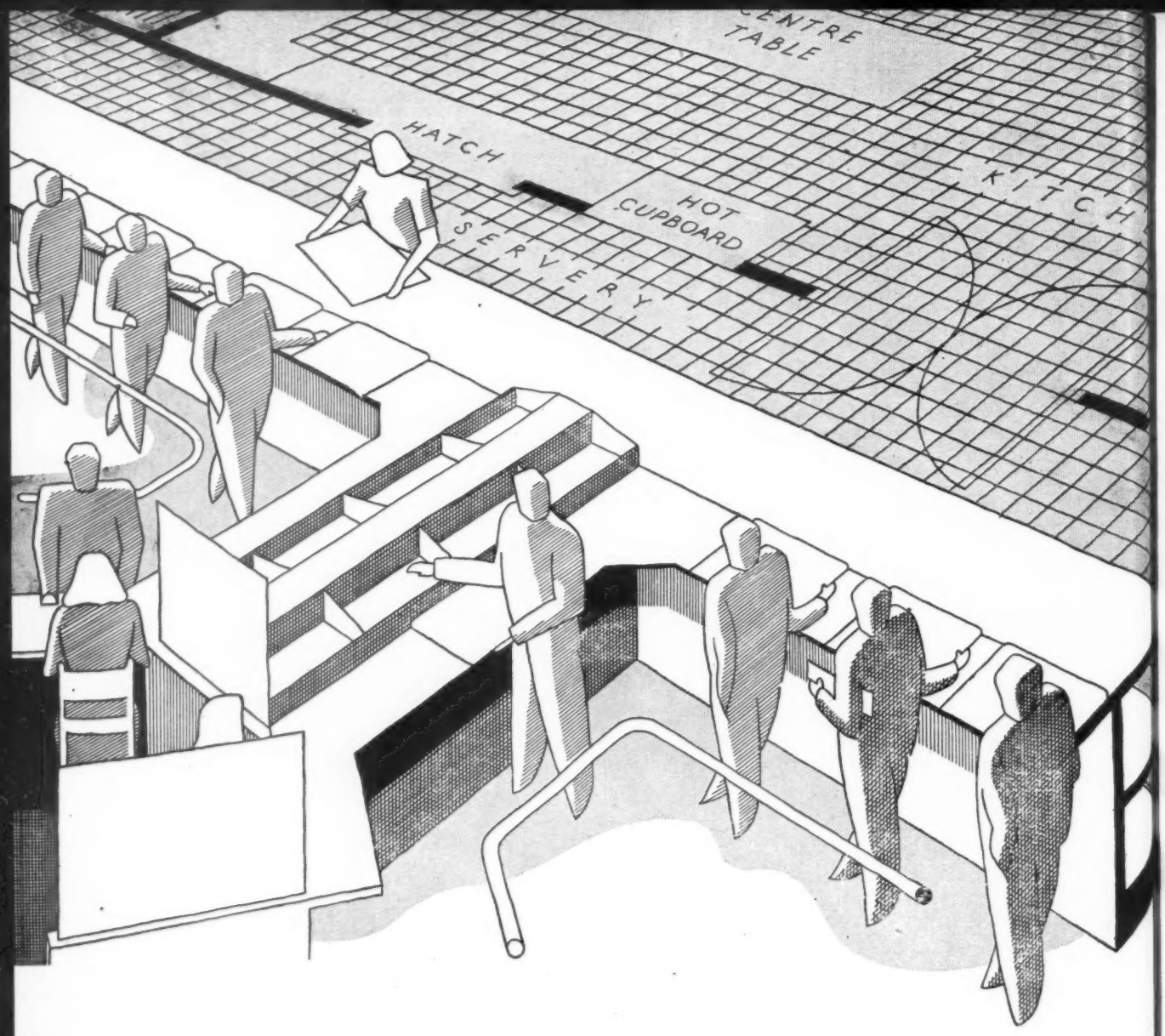
★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit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

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.	Langham 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.	Langham 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.	Langham 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. 10, The Boltons, S.W.10.	Flaxman 7766
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 F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7.Zurich, Switzerland.	
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
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
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
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
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
FASSC	Federation of Association of Specialists and Sub-Contractors. 21, Tothill Street, S.W.1.	Whitehall 9696
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
FOB 1951	Festival of Britain 1951. 2, Savoy Court, Strand, W.C.2.	Waterloo 1951
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
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
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215



Planning for Industrial Catering

WHILST THE PLANNING of every kitchen or canteen will vary according to individual circumstances, there are many essential data, including dimensions, which are common to any such scheme. It is of great value, too, if the planner can have access to the knowledge which has been accumulated from past experience of similar problems.

The Gas Industry has collated a great deal of information on the subject of industrial catering. For instance, planning requirements to which consideration must be given ; schedules of equipment required to produce a given number of meals in a given time ; typical plans illustrating the possibilities of combining various types of equipment ; and examples of kitchens which have been designed and installed to suit individual sites and conditions. This information is freely available to architects, and others in responsible positions, who are concerned with the planning and equipment of industrial kitchens and canteens.

The collation of this kind of information is one of many activities by which The Gas Council seeks to promote the development of gas services for cooking, hot water, space heating and refrigeration. In all cases where the use of gas is envisaged, early consultation with the Gas Undertaking is advisable.

GAS

ISSUED BY THE GAS COUNCIL · 1 GROSVENOR PLACE · SW1 · TELEPHONE: SLOANE 4554

THE MOST SATISFACTORY FLOOR FOR NEW HOUSING TODAY

Armstrong's Accotile Flooring is laid throughout the five blocks of Forty Lane Flats, recently completed by Wembley Borough Council. The architects are Robert Atkinson & Partners, 13 Manchester Square, London, W.1, and the contractors William Old Ltd., 533 Pinner Road, North Harrow, Middlesex.

PRESENT-DAY conditions strictly limit the choice of flooring available for new housing. It must be inexpensive, yet satisfactory when laid direct on base concrete; it should be attractive in appearance; it must wear well, and be easily and cheaply maintained.

Armstrong's Accotile Flooring fulfils these needs perfectly, and offers other advantages as well.

WHAT IS ACCOTILE?

Armstrong's Accotile is a composition of inert asbestos fibres and ground rock fillers, fadeless mineral pigment, and asphalt or resin binders, supplied in accurately-cut tiles, border strips, etc. It was originally made by our American Company and is widely used in the U.S.A., where 20 years of successful experience have proved its merits. Since the war it has been manufactured in England at the Tyneside factory of the Armstrong Cork Company Ltd.

LAID DIRECT ON CONCRETE—NO DAMP-COURSE

Accotile can be quickly laid on any sub-floor—concrete, wood, or metal. It is especially suitable for use on concrete direct to earth since it is unaffected by alkaline moisture. Damp-proofing is not essential unless actual water pressure is suspected.

INEXPENSIVE

Accotile installed costs considerably less than good quality linoleum, and is competitive with any other flooring laid direct on concrete.

OUTSTANDINGLY DURABLE

Accotile withstands hard wear. It stands up to the hard usage frequently met with in Council property and will, in most cases, long outlast more expensive floors. Many local authorities have found repair costs, too, much reduced by Accotile installations. Accidental damage is easily and cheaply made good. Broken tiles are quickly replaced.

Accotile durability is proved. Accotile floors laid in England twelve years ago can be inspected. They are still in excellent condition.

DECORATIVE—UNLIMITED CHOICE OF DESIGN

With Accotile there is unlimited scope for decorative effect. The tiles are made in a wide range of plain and marbled colours and can be laid in any design. The colours are fast since they are an integral part of the tile.

EASILY MAINTAINED—NON-STAINING

Accotile is kept fresh and new-looking indefinitely by normal sweeping and washing, but may be polished if an extra high finish is desired. It offers good resistance to most acids and, being non-absorbent, does not stain. Even marks made by smouldering cigarettes are easily removed.

ALSO FOR SCHOOLS, HOSPITALS, PUBLIC BUILDINGS, AND COMMERCIAL PREMISES

ACCOTILE is quiet and comfortable to walk on, warm and non-slip. For schools, hospitals, and public buildings, Accotile flooring is economical both in first cost and in maintenance.

Armstrong's Top-set Coved Skirting, available in Pompeian Red and Plain Black, gives an added finish.

Business offices, shops, restaurants, and licensed premises, are among places that exploit to the full the advantages of Accotile. In existing buildings, it is laid in a matter of hours and can be used immediately, so that occupation of the room is disturbed for the minimum time.

INSTALLATION

To ensure satisfaction, Accotile is laid only by skilled personnel trained in Armstrong's Laying School, where particular attention is paid to workmanship and the correct method of setting out.

ARMSTRONG'S ACCOTILE* FLOORING

THE LOW-COST FLOOR WITH THE LUXURY LOOK

ARMSTRONG CORK COMPANY LIMITED, FLOORING DEPARTMENT
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It is easy to apply and is available in a range of twenty-eight shades that includes the most popular of the fashionable colours. There is no better finish for interior use on plaster, brickwork, cement, wallboards and similar surfaces.

Mander's

VERNASCA

There's a Mander's paint for every job

MANDER BROTHERS LIMITED · WOLVERHAMPTON

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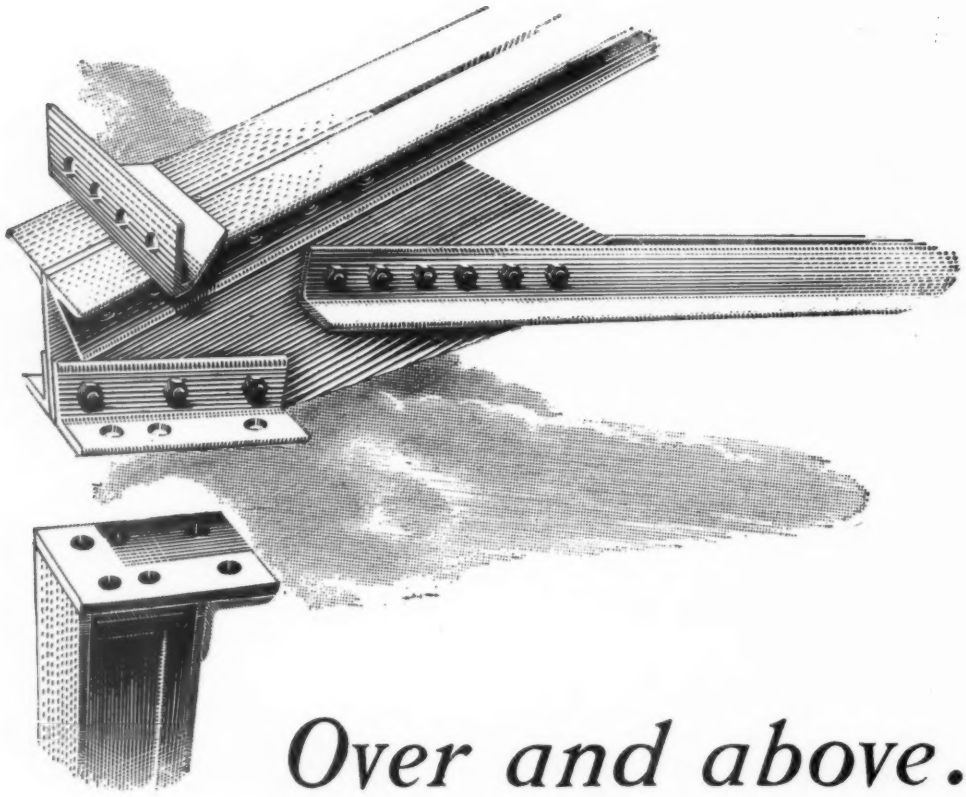
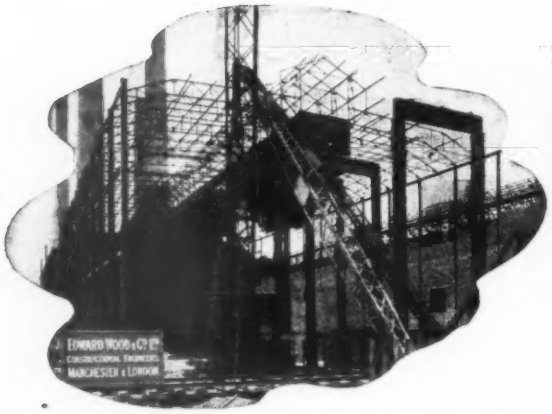


Over and above...

Over and above all, it's a matter of organisation. Every rivet or bolt position in a steel structure represents a potential delay, from the first stanchion to the last roof truss. Such delays are minimised in an organisation where resources are more than sufficient to ensure an even flow of work from start to finish. These resources exist very fully at our Trafford Park works and our advisory department is at your service.



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LONDON

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Firm to the tread . . . good-looking . . . and extremely long-wearing

SAFE STAIRS—essential in public places, valuable everywhere—need neither look dull nor lose their safety with wear.

In Ferodo Stairtreads, each part is important. The aluminium nosing is not there merely for its looks: it contributes to safety by giving each step a gleaming outline.

And the inlaid Ferodo fabric, non-slip through and through, seems to absorb endless wear without itself wearing appreciably. It gives a safe, friendly tread, even to wet shoes.

Ferodo Stairtreads are made in single and double channel types. Instead of Ferodo fabric, the inlaid strips may be of Ferodo composition, giving a non-slip surface in red, white, or grey.

Easily fitted, easily cleaned, and needing no other maintenance, Ferodo Stairtreads are being installed in many new and existing public buildings, stores, offices, etc. The various models, including a plain steel-backed industrial type, are described and illustrated in our Catalogue No. 732KK, gladly sent on request.

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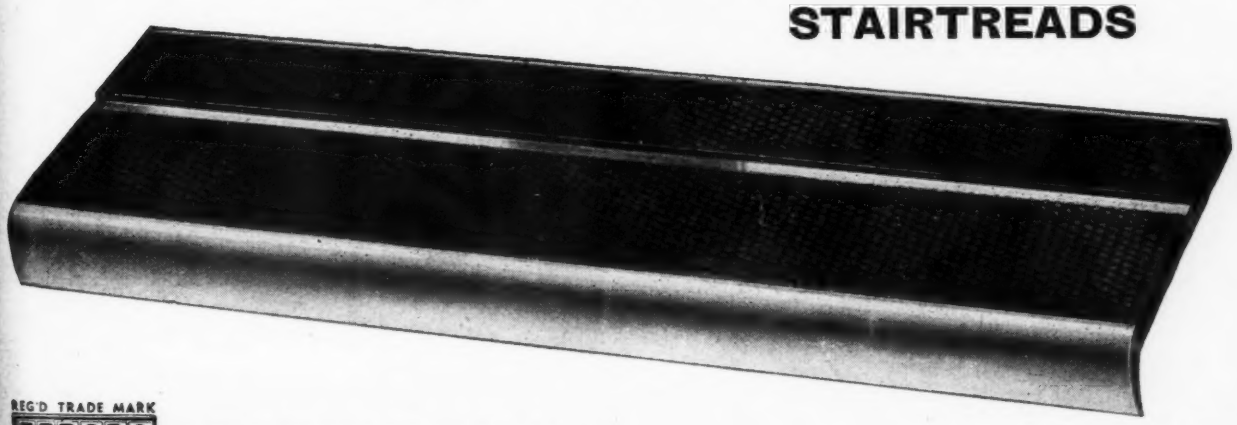
STAIRTREADS



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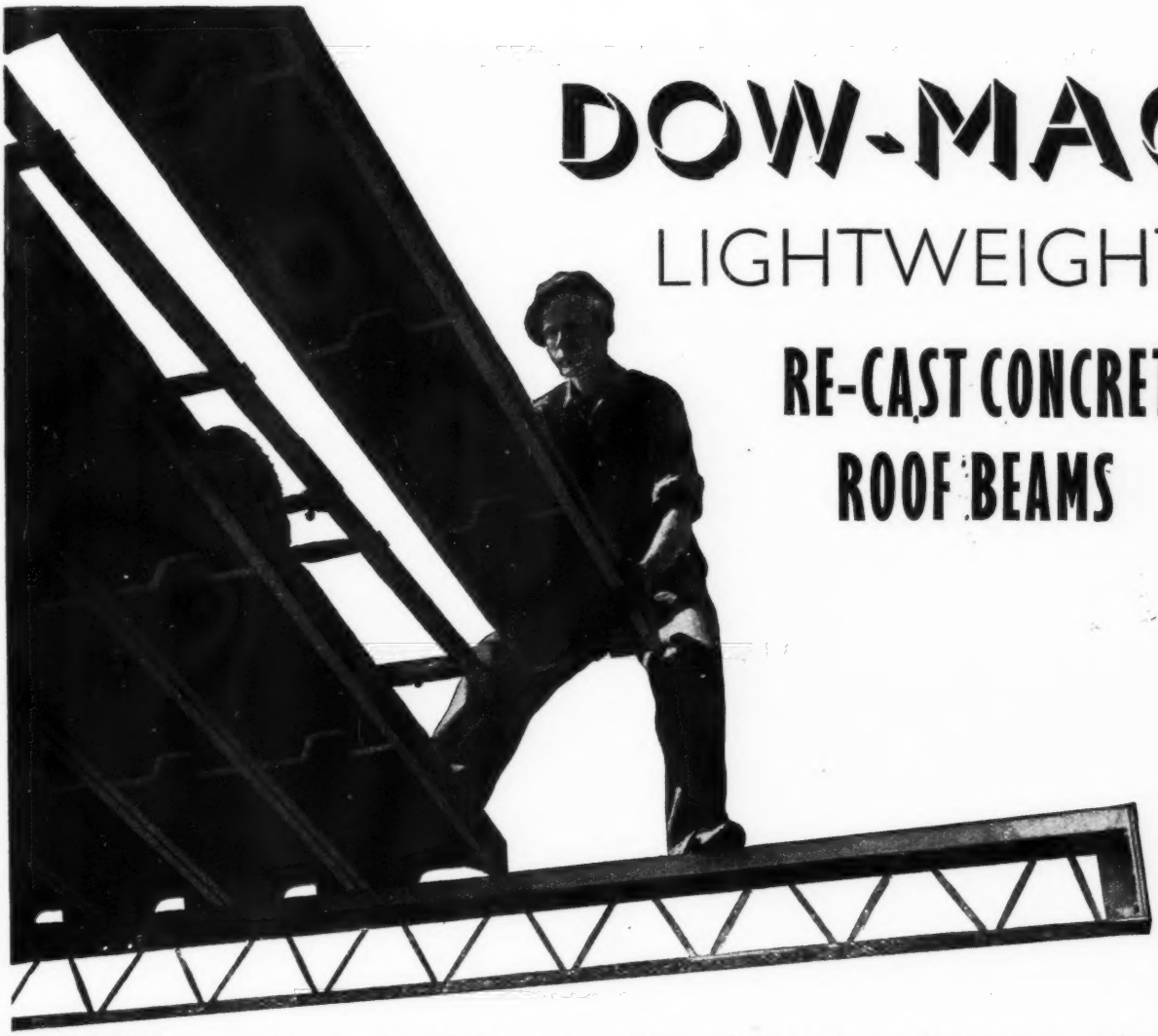

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LIGHTWEIGHT

RE-CAST CONCRETE ROOF BEAMS

EVOLVED to meet the current need for economy in structural materials and labour, this beam can be supplied as a simple roof beam, with the extraordinarily low dead-weight of 17½ lbs. per square foot, to carry a superimposed load of 30 lbs./sq.ft., or modified as a floor beam to carry more than twice this loading.

The photographs demonstrate the simplicity of fixing, which can be carried out by two unskilled men Each beam covers 1·06 yards super with a clear span of 8ft.

Special units are manufactured for eaves, verges and abutments and provision can be made for fixing fascias and soffits.

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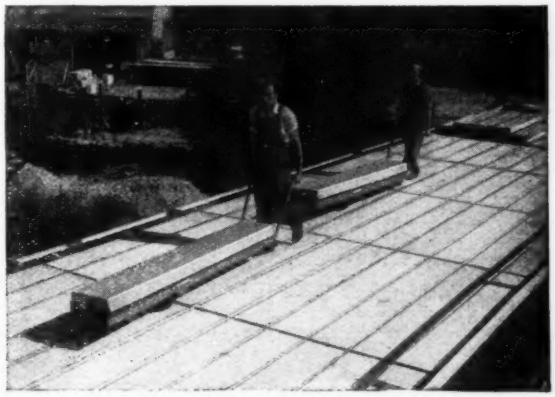

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Combine colour with dignity

The hotel bar or lounge must not only look inviting and comfortable, it must also be able to withstand the inevitable wear and tear without becoming shabby. Here, the sophisticated townsman, the country squire, and the traveller from distant climes, take their ease. Colour with dignity is the keynote. For this reason Robbialac Paints are widely used in the decoration of hotel bars and the hotel industry generally. Advice on the choice of finishes for specific purposes, inside or outside, will always be gladly given by the makers.

NEW
INTERIOR WALL TREATMENT

ROBBIALAC SUEDE FINISH WALL PAINT is the perfect, new finish for walls and ceilings . . . velvety in appearance and to the touch. Hygienic, dirt-resisting, washable. Suede Finish is ideal for canteens, restaurants, bars, offices, shops, etc. Many beautiful pastel tints, all intermixable. Please write for details.

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Jenson House, Stratford, London, E.15

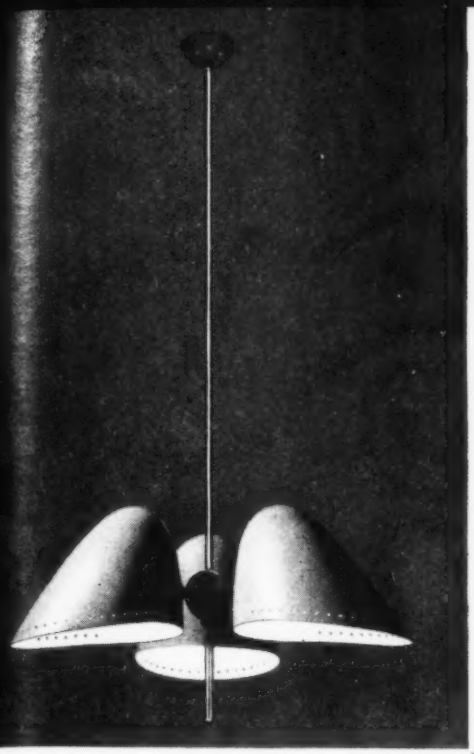
A SECRET? NO!...

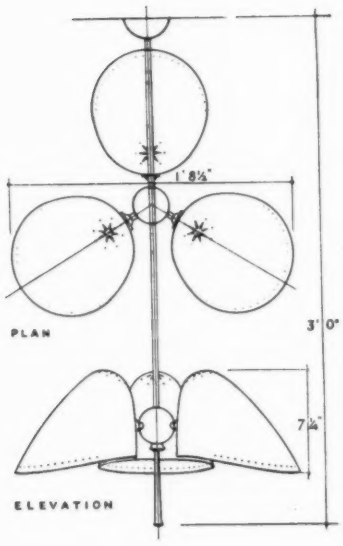
There isn't any secrecy about the ingredients of "NINE ELMS" Paint.

All experienced decorators know the remarkable protective capability of White Lead Paint. But its behaviour depends on the method by which it is prepared, on the use of Genuine White Lead, finely ground and scientifically blended with Refined Linseed Oil and the best Liquid Driers and Thinners. This is the guaranteed formula from which 'NINE ELMS' PURE WHITE LEAD PAINT is made. It protects as no other paint can. T. & W. Farmiloe are the manufacturers of the paint from actual blue lead (corroded by them), to finished paint. With the addition of pigment, 'NINE ELMS' is also available in a variety of lovely pastel colours, supplied in Glossy, Undercoat, Semi-prepared and Flat.

NINE ELMS PURE PAINT

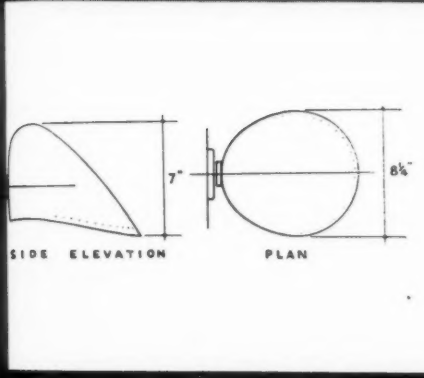
T. & W. FARMILOE LTD. ROCHESTER ROW, WESTMINSTER, LONDON, S.W.1. Phone: VICtoria 4480

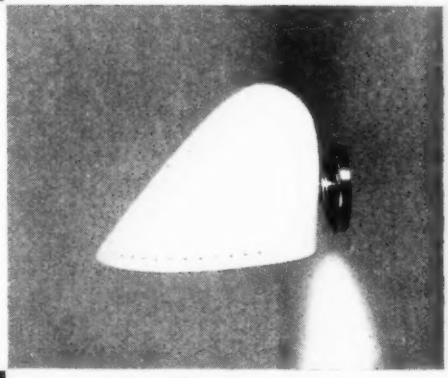




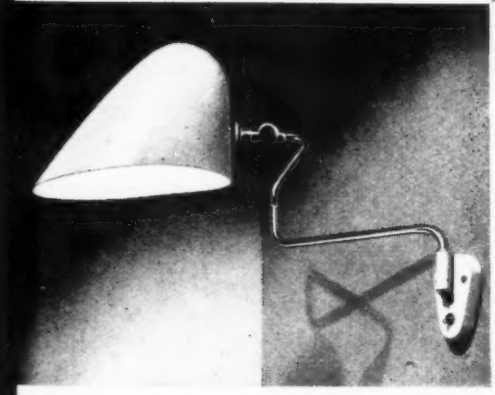
VERSALITE

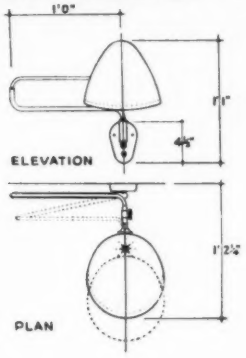
EVL/P3 Pendant. Three-light with metal reflectors. Finishes: reflectors, centre body and ceiling plate ivory white: remainder, satin brass or satin chrome. Overall suspension 3 ft. Lamps: up to 3 × 100 watts.





EVS/B Bracket. Fixed. Metal reflector. Finishes: reflector, ivory white: back plate, satin brass or satin chrome. Lamp: up to 100 watts.





EVA/B Bracket. Adjustable arm. Metal reflector. Finishes: reflector and back plate, ivory white: arm, satin brass or satin chrome. Complete with switch. Lamp: up to 100 watts.

These are some of the designs available in our new Versalite series of adjustable lighting fittings. Write to us for a catalogue giving full information about all fittings in this range, or pay us a visit at the Lighting Centre.

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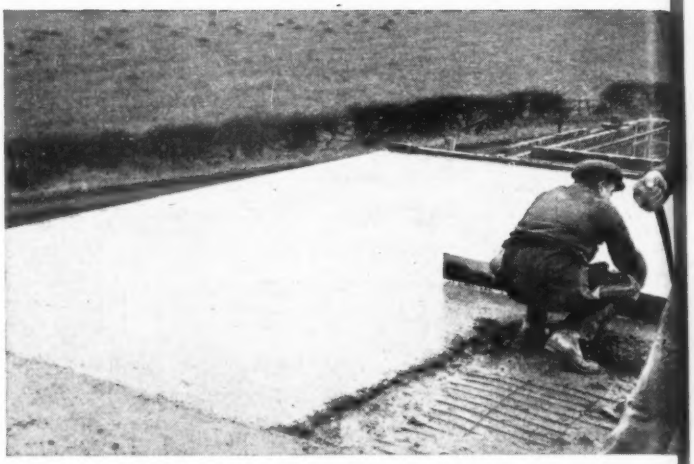
MARLITH

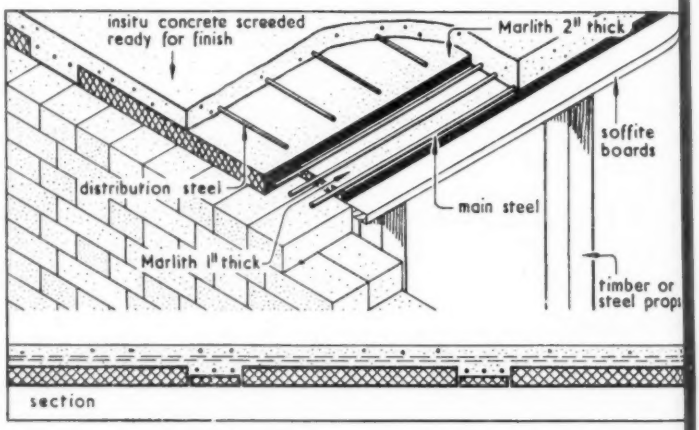
used as permanent shuttering
speeds up construction,
reduces costs, and provides
excellent thermal insulation

THE SHUTTERING for this flat in-situ reinforced concrete roof consisted of 2-inch MARLITH laid in temporary 2″ x 2″ x 3/16″ steel tees supported by tubular steel scaffolding. The concrete was poured and the reinforcement applied in the normal way. When the concrete was set, the temporary steel tees and scaffolding were removed, leaving the underside of the MARLITH ready for plastering.

The drawing on right shows a similar construction in which timber props were used in place of tubular scaffolding, in conjunction with soffite boards and 1″ thick MARLITH filling pieces.

The use of MARLITH in this way speeds up construction and reduces costs by eliminating the need for erecting and dismantling steel or timber shuttering and the application of insulation as a separate operation. It reduces the thermal transmittance "U" value of a 4½″ flat concrete roof from 0·61 to 0·20, and the increased thermal insulation will maintain the temperature of the interior surface of the roof, thus minimising or preventing the formation of condensation.





MARLITH

Wood Wool Building Slabs

The Marley Tile Company Limited · Sevenoaks · Kent

THE PHOTOGRAPHS were taken at Whitby Junior and Infants School, and show: *below*, MARLITH slabs being placed in position in the temporary steel tees; *above*, concrete being levelled.
ARCHITECTS: John Keppie & Henderson & J. L. Gleave, Chartered Architects, 196 West Regent Street, Glasgow C2
CONTRACTORS: Messrs. Jaram & Son, 20A Gladstone Street, Scarborough.
AUTHORITY: North Riding Education Committee, Northallerton

There is merit in being a firm of long standing—if the policy behind the business is not just one of standing still. A hundred years at Jarvis has seen many changes, but none in the attitude that only the most modern, efficient, methods are good enough for a job which carries the Jarvis name.

J. JARVIS & SONS LTD · 12 BUCKINGHAM PALACE GARDENS · LONDON · S.W.1

REDUCTION OF HOT WATER RUNNING COSTS
—and the best use of available fuels

PROGRESSIVE HOUSING AUTHORITIES are installing Sadia coal-electric water heaters because they give tenants a really efficient hot water system, and at the same time the lowest possible running costs. The coal-electric Sadia is not only suitable for blocks of flats, but for houses of every type, and for old houses that are being converted into flats.

The coal-electric Sadia makes the best use of available fuel supplies. In summer, when electricity is plentiful, it acts as an electric water heater, and the user has all the convenience of cool, clean, automatic water heating. In the colder weather, when the fire is wanted for space heating, the coal-electric Sadia acts as a storage tank for the boiler.

The small illustration shows how there is a substantial saving in plumbing costs with the coal-electric Sadia, by the elimination of expansion pipes. A common down-service pipe supplies water from a storage tank in the roof to all the cold water taps, in addition to the ball valves of the Sadia water heaters.

SADIA
HOT WATER BY ELECTRICITY

Please write for fully descriptive leaflets to
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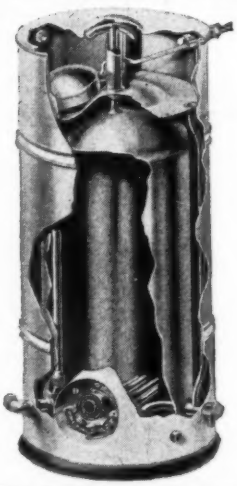
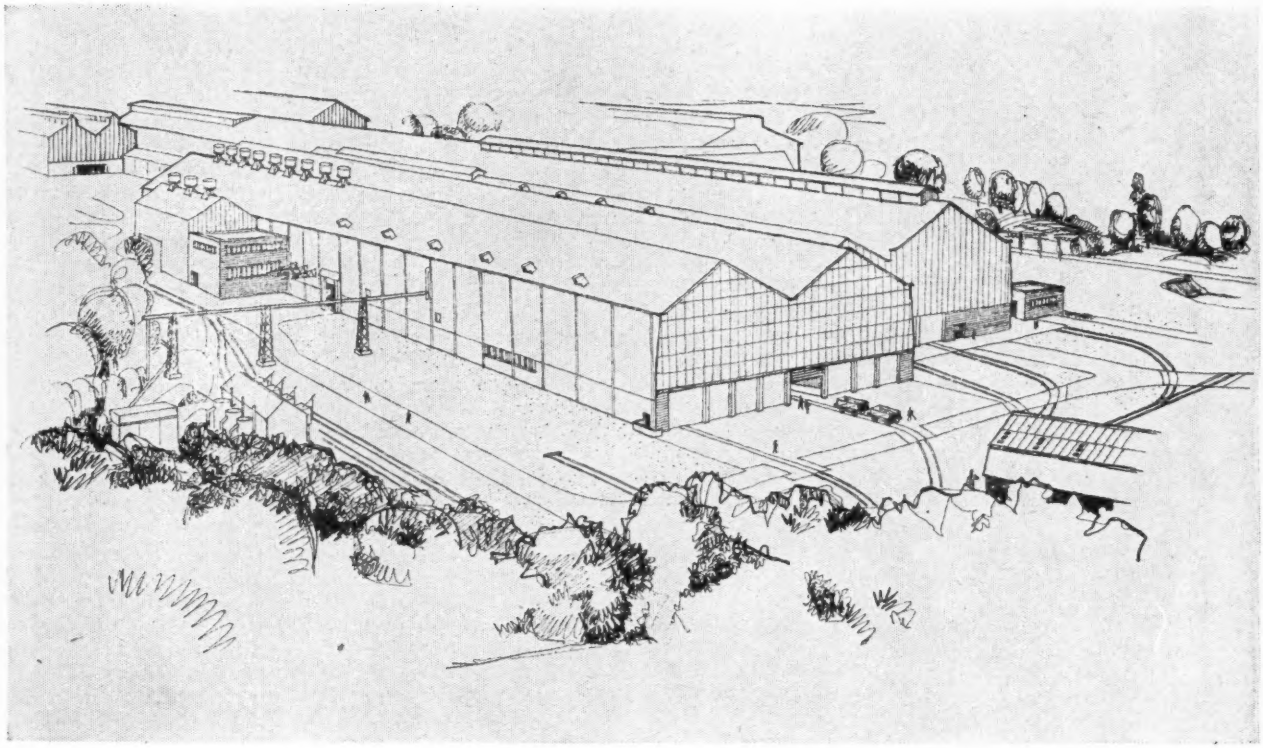
SCOTTISH AGENTS: W. BROWN & CO. (ENGINEERS) LTD., 89 DOUGLAS STREET, GLASGOW, C.2
MANUFACTURED IN SOUTH AFRICA BY SADIA WATER HEATERS (PTY.) LTD., 3-5 NEWTON STREET, VILLAGE MAIN, JOHANNESBURG



Sadia Type C.E.L. Coal-Electric Water Heater (with ball Tank)

Northern Aluminium presents

ONE OF THE MOST ADVANCED ROLLING MILLS IN THE WORLD



The new continuous strip mill at Rogerstone, with hot and cold rolling lines, increases Britain's capacity for aluminium sheet production by more than one-third, and challenges comparison with any aluminium-producing unit in the world.

The building in which it is housed is entirely sheathed in Noral corrugated sheet with aluminium foil insulation and demonstrates many other uses of Noral alloys in building. It is itself an illustration of the significance of this new mill to architects.

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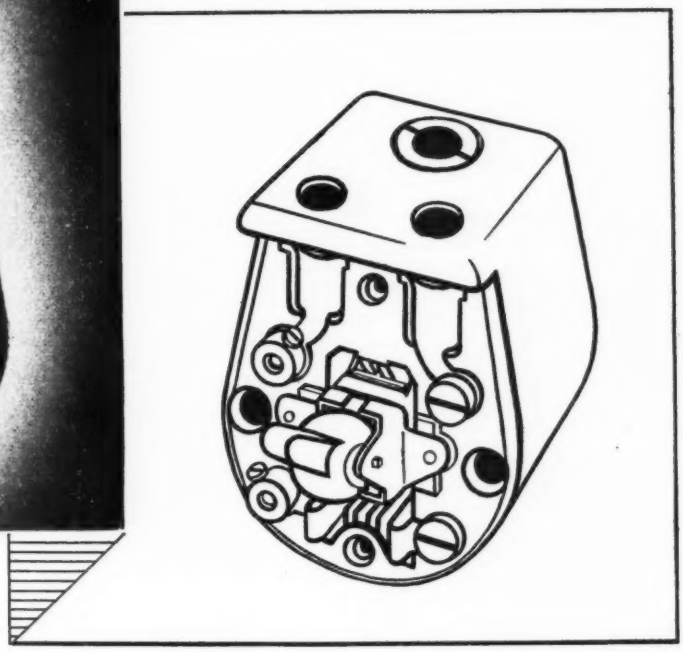

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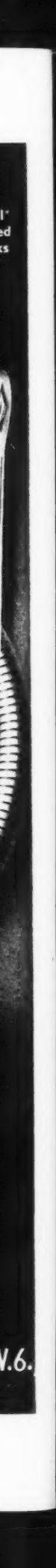

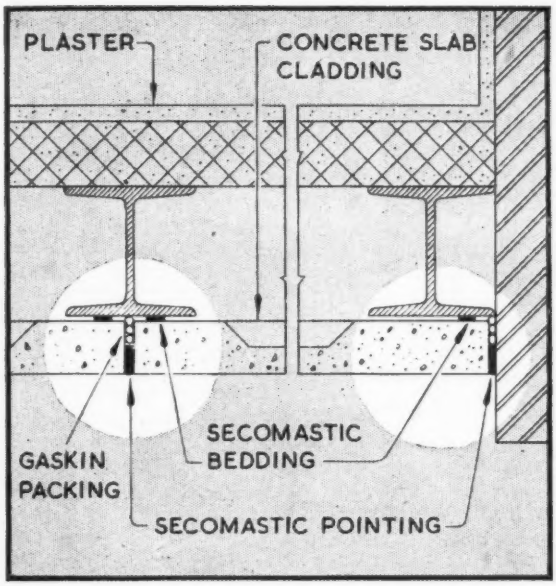

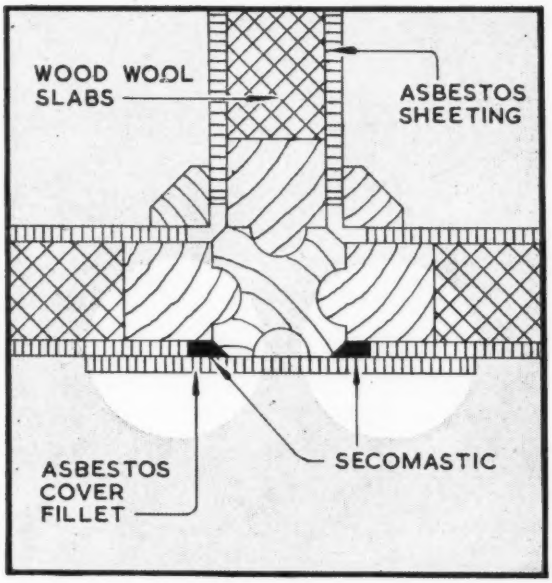

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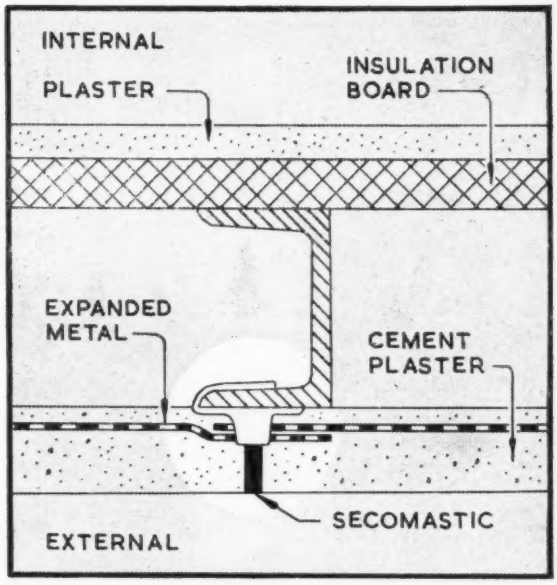

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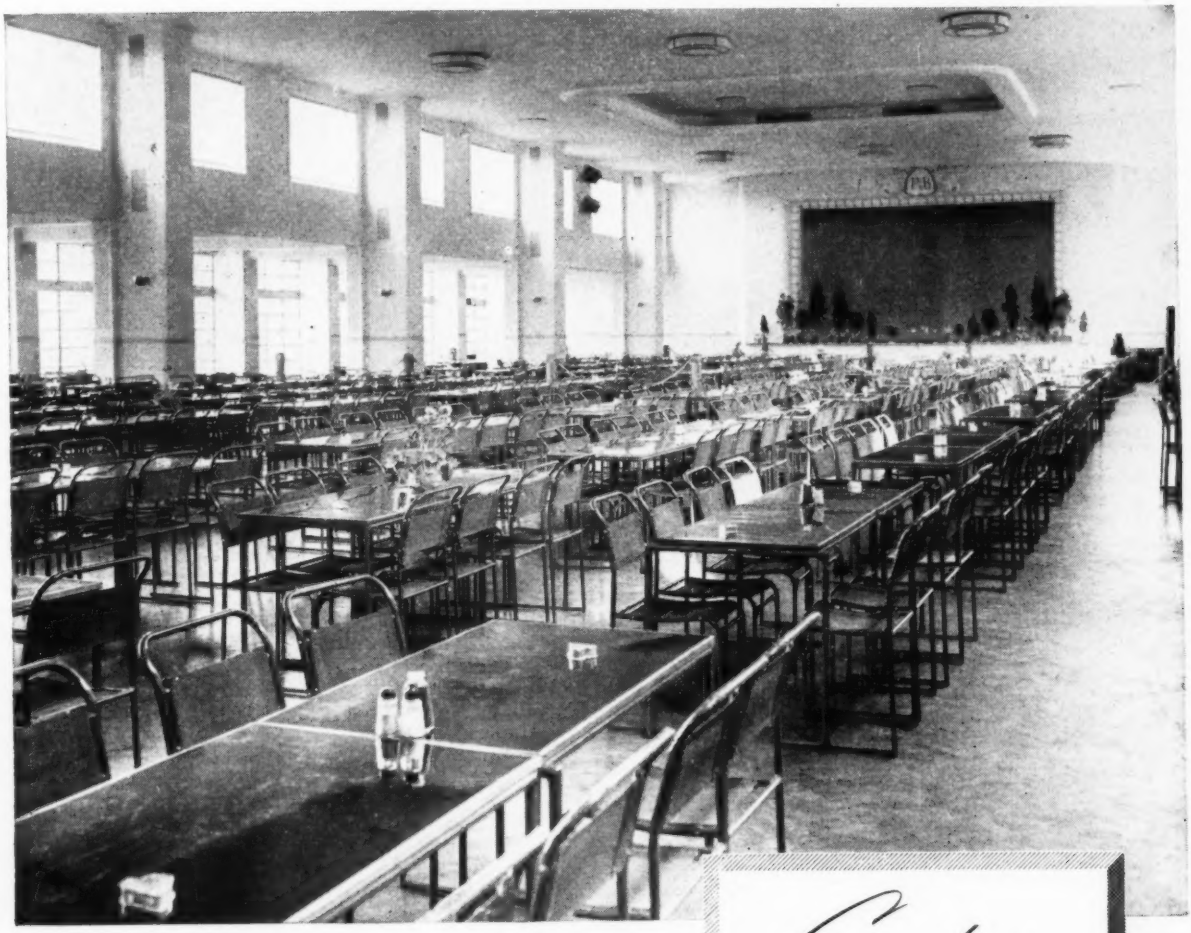

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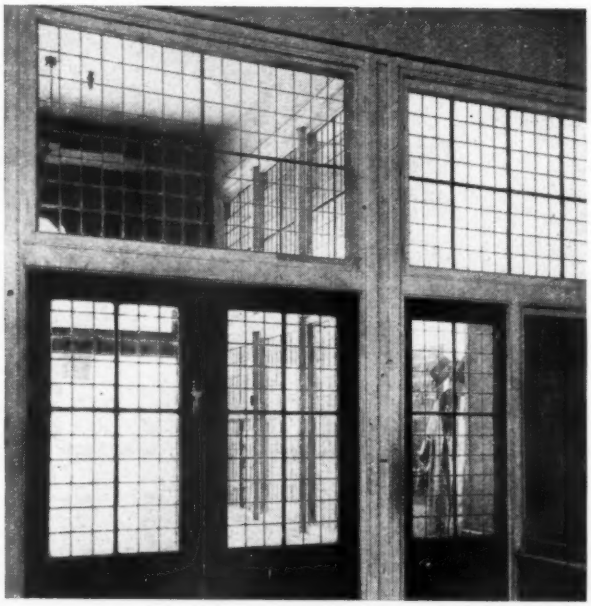

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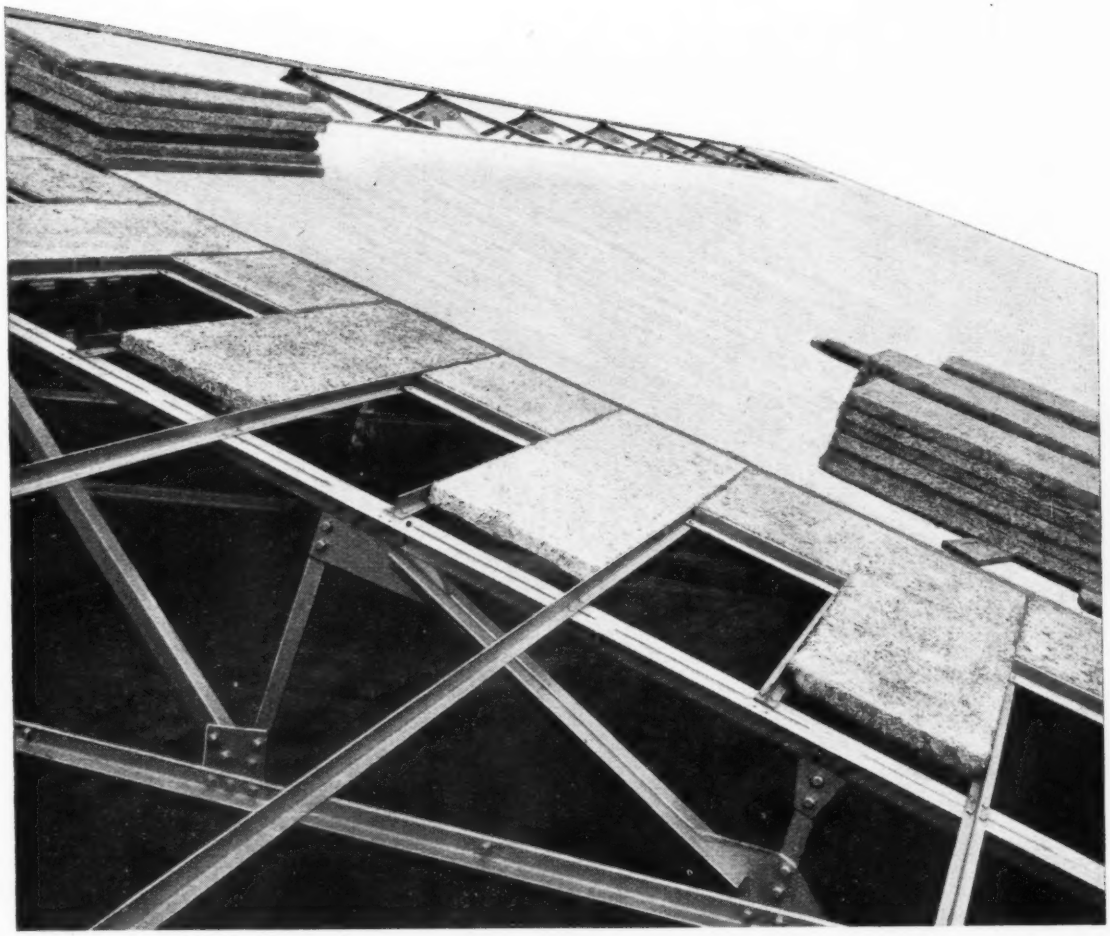

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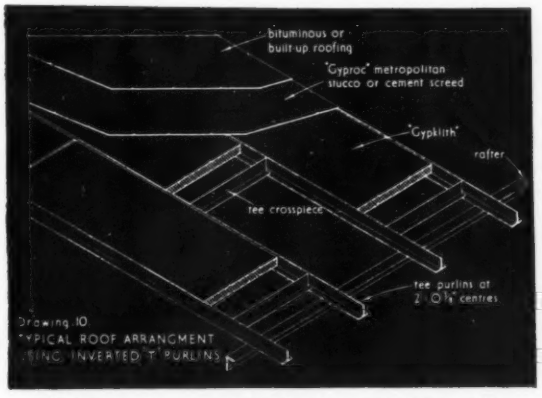

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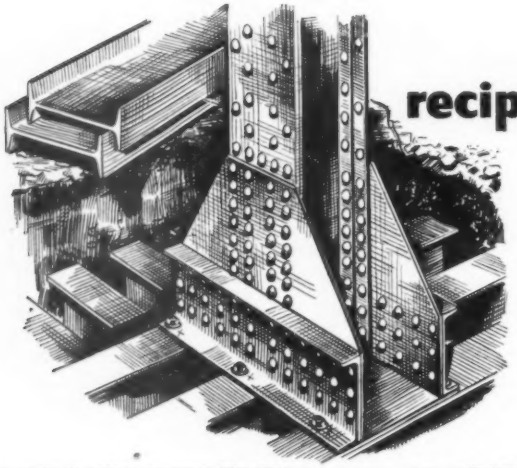

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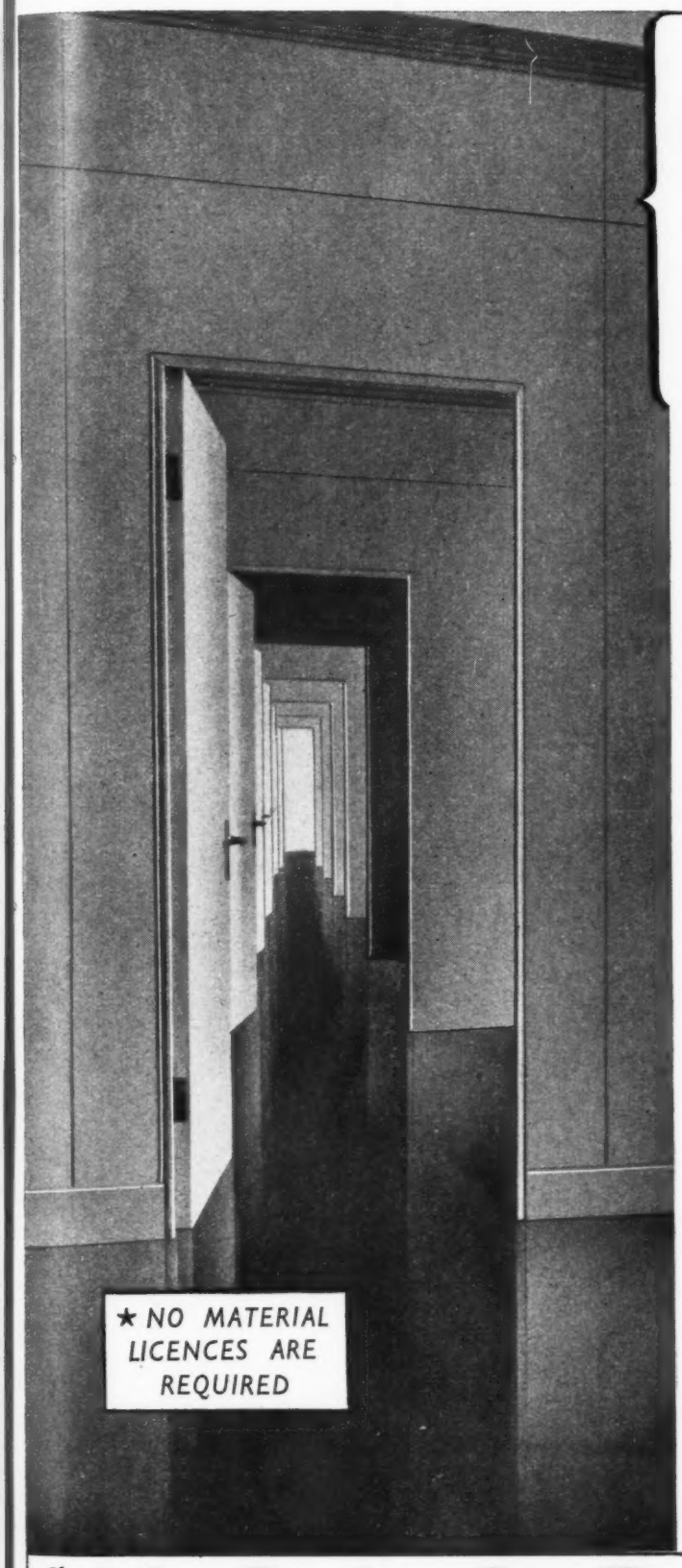

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AJ

THE ARCHITECTS' JOURNAL

No 2903 5 Oct. 1950 VOL 112

ROUGH-HEW THEM HOW WE MAY

A belated but final word on the new Ocean Terminal at Southampton (see *AJ*, August 3, 10, 17 and 24). It has been pointed out to me that I never acknowledged the fact that the designs for this building were submitted to, and approved by, the Royal Fine Art Commission, a panel of whose members, consisting of Maxwell Fry, Edward Maufe and Knapp Fisher, " viewed the site from all its aspects," before strongly commending, to quote J. H. Jellett, the Docks Engineer, the proposal to " develop the south end of the building and have the north end plain as a means of emphasizing its seaward-looking character."

*

An unaccustomed fluttering of my heart warns me that the long dried-up source of sympathy within can still eke out a tiny drop. It is surely a bit hard for an architect, having obtained the approval of his design by such an eminent body as the RFAC (see again names above) to be criticized (inadequately, I freely admit) by a mere columnist who is anonymous, and who is taking good care to stay that way with these big guns going off. If the RFAC approved one of *my* designs, I would be as pleased as Punch.

*

Or would I? On second thoughts I'm not so sure. Before letting myself go I would check and compare very carefully all the designs which have received the Commission's approval. The results, I think, would be very illuminating, and somewhat disturbing.

*

To return, however, to the Ocean Terminal, I can only repeat that, despite this august approval, I still do not think this building is as good a design as it might be. But, of course, one man's meat . . .

SALISBURY SPIRE

The Building Centre's exhibition of stone and metal work from the top of Salisbury Cathedral spire closes at the end of this week. Go to see it if you can but avoid the photographs if, like me, you have no head for heights. The pictures of men hopping around quite casually at four hundred feet or more gives me a slightly clammy feeling.

*

I was impressed by the quality of most of the early ironwork and by the courage of craftsmen who built the 150-ft. spire. I gather from Mr. Forsyth, who is supervising the repairs, that the load on each of the four pieces which carry the complete tower and spire structure is something like 6,000 tons and that the foundations go down only five feet! It makes me wonder if our ideas about factors of safety are all wrong.

HIGH WYCOMBE'S NEW HIGHWAYS

At the hundreds of shows held every year in small towns and villages the arts seldom have any place. I am pleased to say that at the exhibition, held recently in a tent at High Wycombe, by the local Arts Association, interest was focused on Anthony Chitty's plan for the district. The County Council Planning Department also exhibited some of its planning survey drawings. As the layman rarely appreciates the importance to him of what is being done in the planning offices, and the services it can and should perform for him, the initiative of the High Wycombe Arts Association is commendable. Perhaps next year the Association will consider presentation of the work of the architect with the assistance of the local Society of Architects.

BRAUN'S STUDY

I suppose that one should always applaud any attempt to make the layman take an informed interest in architecture. Hugh Braun's history* is factual enough, and he very rightly starts with primitive huts and ends with present-day buildings, but I feel that a page without illustrations headed " Nowadays " is not enough to describe the road that designers have followed since Victorian times. Surely the reader should be given not only history, but some fuller explanation of the buildings he sees going up today. None the less, this is quite a good book to present to the enquiring mind, and it is reasonably cheap.

* The Story of English Architecture. By Hugh Braun, F.R.I.B.A. (*Faber and Faber*, 12s. 6d.

PARLIAMENT SQUARE

The new Parliament Square is taking shape, and it's beginning to be possible to see what we have gained and what we have lost as a result of Grey Wornum's efforts. We've clearly gained a lot in tidiness and simplicity of lay-out; the statues, in particular, are arranged in a less haphazard fashion. Temporarily we have also gained some elegant lamp-standards (see illustration) which I commend to the notice of other local authorities. I hope the permanent ones will be as simple and unobtrusive.

*

We have lost the Buxton Memorial Fountain—not everybody's taste, but I regret its passing. I think things that are temporarily out of fashion ought to be left because it's surprising how fashions come round again. After all, many of the things we value now—like Regency terraces—have passed through a stage of being thoroughly despised, and we owe their survival to the fact that they were not pulled down just because they were unfashionable.

*

On a more important scale, we may have lost the possibility of a more drastic replanning of the area in a few years' time. Readers will remember the *Architectural Review's* scheme for restoring Westminster's precinctual character, which received a great deal of support. It clearly could not be put into effect right away because it depends on a new road, by-passing the Abbey precincts, which present restrictions on expenditure would not allow. But it is obviously the long-term ideal, and the risk is that the work that is now being done will be made an excuse not to tackle the bigger job when the time comes. (This subject is referred to, by the way, on page 306 of this issue.)

*

Meanwhile, heavy traffic, facilitated by the new roadways, will continue to roar past the north side of the Abbey with increasing speed—right through the middle of what would still be a peaceful collegiate precinct if it had not been for the ruthless efforts of the Victorian road engineers. What we want to aim at is the undoing of their work, not merely making it more agreeable to look at.

A new view of Central Hall, Westminster. (See Astragal's note).

CENTRAL HALL REGAINED

There is another scene of building activity to the west of Parliament Square, where the demolition of the old Westminster Hospital has just been completed. This has opened up a head-on view of Rickards's Central Hall and a new view of the north flank of the Abbey, and some people have said they wish the site could have remained open and these views preserved.

*

I don't think that would really be a good plan, because a sense of enclosure will be an important attribute of the precinct it is hoped will eventually be planned there, and it should not be opened out too widely on the western side. But I wish there was going to be a less bulky building on the hospital site than Tait's new Colonial Office. A lot of people seem to dislike the massive edifice he has designed, but I suppose it's too late now for second thoughts.

NEWEST NEW TOWN

It is easy to pass along main roads quite near Corby without ever seeing it. But Corby as the newest New Town has a greater attraction than Corby alone and recently ASTRAGAL visited it for the first time. Prepared for a horizon of belching chimneys sur-

One of the temporary lamp standards in Parliament Square, which Astragal refers to on this page.

The Mask and the Face

The mask, which for years has concealed the face of the Central Hall, Westminster, has now been removed and for a short time Londoners, looking across the site of the demolished Westminster Hospital, will view it as it was meant to be seen. Before long, however, it will be hidden by the new Colonial Office.

rounded by miles of devastation after ironstone working, I approached by car from Thrapston on a fine sunny morning.

*

First impressions were, however, climatic, sociological and architectural. As you climb up to the 50 ft. plateau of Corby a powerful bracing wind comes to meet you, and stays. At the same time, abruptly, the brick and twin plaster houses of East Anglia vanish and Northamptonshire limestone with pantiles or slates take their place. More distant landscape-plus-houses resembles Lancashire or Northumberland, and as 3 out of 5 people talk Scots, local phenomena are a poor guide to geographical position. Land unrestored after iron workings is grim enough, but the workings do not ring Corby but rather pop up here and there behind houses or across fields; and the steel works, though very big, were sending only half a dozen modest streamers of smoke down the wind.

*

Of Corby as a town one feels it has not had time to catch up. Shops are small and usually makeshift. Its 18-year growth has already been a scramble, and it is still in a hurry as is plainly shown by the number of houses now building. Equally plainly it is a very special kind of New Town.

DO YOU KNOW?

The DSIR has just started an Unanswered Question bulletin in an attempt to answer specific technical questions where the normal sources of information have apparently failed. Now it isn't likely that many of us could be much help when the DSIR is floored and, in fact, most of the questions mean to me nothing whatever. Number 1, for example: "Is there any substance (hormonal or otherwise) which, applied to plant tissues, will induce (*a*) cork formation or (*b*) suberization of all walls?"

*

There is one building industry one, number 12: "What is the best method of protecting the structure from subsidence following the cutting of a tree endangering it and its root system?" I assume that "its" is meant to refer to the tree, but I still cannot think of an answer. If you can, write to DSIR, Intelligence I, Charles House, Regent Street, SW1.

ASTRAGAL

The Editors

CONTROL OF DESIGN

TWO important issues arise from letters in the correspondence columns of this week's JOURNAL. The first is raised by C. Talbot Larrington, who is under the misapprehension that the JOURNAL advocates that in the interest of a high standard of design, advisory bodies like the Royal Fine Art Commission and the Council of Industrial Design should be given power to insist on their advice being accepted and acted upon. This is very far from being the JOURNAL's desire. Mr. Larrington in his letter describes clearly the disastrous effect such powers would have.

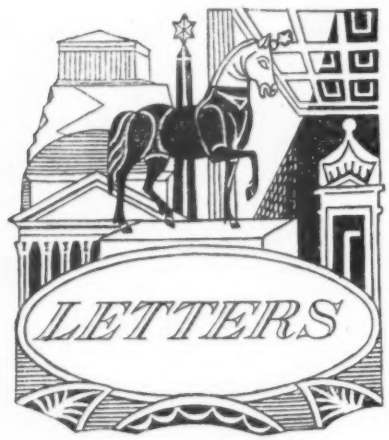
It cannot be too much emphasized that the only way to obtain good architecture is by employing the best architects. Advisory bodies on design, however well intentioned, can never create great works of art. They can, and should, only tender advice and criticism in an endeavour to make sure that a certain minimum standard of quality is obtained.

It has become apparent, as readers will have seen for themselves from examples published in the JOURNAL over the last year, that several valuable opportunities to ensure the highest standards of design in buildings of national importance have been lost because there exists no means of ensuring that such buildings are designed by the best architects in the country. In the JOURNAL for August 10 we stated that "pending a more enlightened policy and more imaginative leadership on the part of the Ministry of Works—the one existing Government department that could exercise some influence in this direction—it would surely be wise for the Government to set some individual or commission the task of foreseeing such opportunities and to give them the authority to see they are taken advantage of." This might perhaps mean giving power to such a commission to appoint or approve the architect for buildings of which the good design is of special importance to the nation, but once the architect had been appointed he should be interfered with as little as possible.

THE ARCHITECT AND THE ENGINEER

Another issue of great importance is mentioned in a letter from J. H. Jellett, the Docks Engineer for Southampton. This concerns the relationship of the architect and the engineer. We feel that ideally these two professions should not be in the position, with regard to each other, of employer and employee, but should instead have the happier relationship of consultant and chief designer. As Mr. Jellett says, there are engineering structures which, although largely the work of the engineer, would benefit as regards design from the advice of an architect. And, of course, the architect is largely dependent on the advice of the engineer as regards the structural aspects of his own design.

The JOURNAL's plea is for correct and responsible relations between two professions, and the avoidance of the position whereby the one becomes subservient to the other.



J. H. Jellett, M.I.C.E.

C. Talbot Larrington and A. H. Dawes Dingle, A/A.R.I.B.A.

Ernest Hillson

Dock Terminal: The Engineer Replies again

SIR,—Although I can hardly expect you to devote any more of your valuable space to this discussion, there are one or two points which I cannot let pass without further comment. I am disappointed that there is no acknowledgment by ASTRAGAL of the fact that the design was submitted to and approved by the Royal Commission on Fine Arts. In view of your own editorial reference to this Commission in your issue of August 10, some such acknowledgment would appear to be not out of place. I am not suggesting that, having learned that the design was approved by the Royal Commission you should then discover in it æsthetic merit which was not apparent to you before, but, presuming that you find yourselves conscientiously bound to criticise unfavourably this particular decision of such an august body, the courageous course would appear to be that you should inform your readers in so many words.

ASTRAGAL, in his comments on Mr. Dromgoole's letter, appears to be at pains to advise him that those who assume responsibility for designing important buidings, must be prepared to hear criticisms of their work. This is such an obvious platitude as to be very nearly an insult when tendered as advice to a qualified professional man, and moreover, I am unable to discover in Mr. Dromgoole's letter any suggestion that he resents, or would resent genuine architectural criticisms of his designs as such. So far, however, neither you, nor ASTRAGAL have favoured us with very much solid food for thought of this kind.

ASTRAGAL'S statement that he respects Mr. Dromgoole's frankness in acknowledging full responsibility for the design, is another example of condescension which might well have been omitted. No professional man with any degree of faith in himself and his work would seek to evade responsibility for his designs merely because they had been criticised in public journals, or anywhere else for that matter. The fact that ASTRAGAL considers it worth while to refer in this way to these elementary principles of professional conduct as though they were something unusual, appears to me to call in question his competence to criticise professional work in any way whatsoever.

Your methods of deducing the statement that the building was designed by myself from the wording of the official handout, has all the dangers and defects of oversimplification. It is true that the responsibility for the design was in the last resort in my hands, in that had I myself had any reason to be dissatisfied with it, it was open to me to ask Mr. Dromgoole to revise his ideas. I would however mention that, as far as the pure architecture of a building is concerned, and where no other considerations of cost or functional suitability are involved, this would be an impertinent intrusion into another professional colleague's sphere of responsibility, which I hope I shall never allow myself. There is a big difference between "responsibility for" a design, and being the original author of it, which nobody with any knowledge of these matters should find any difficulty in appreciating.

I must say that ASTRAGAL'S statement, in which he deplores the principle whereby the architect of an important building works under an engineer, reads more like the recital of a religious devotee intoning an article of his particular dogma, than a reasoned statement of professional opinion on a complex technical matter. As is so often the case with dogma of this kind, it gets into difficulties when it comes up against practical realities. For example, how do you propose for this purpose to define "buildings." There are many engineering structures whose finished appearance would benefit greatly from the attentions of a good architect in the design stage, just as there are many buildings whose operational requirements are so complex and closely defined that the engineer, if he happens—as in this case—to be the person most fully acquainted with these requirements, must have the last word *de facto*, even if the formal administrative arrangements give it to the architect *de jure*.

Possibly you are prepared to amplify this statement of your belief by saying that any project which requires the attention of an architect in any degree whatsoever, becomes by reason of this, a building, and that therefore the architect should be in charge. As there are many buildings in which the architect will rightly be in charge and would also require the assistance of engineers, the logical conclusion of this argument is that, while architects may properly be put in charge of engineers, engineers must never be in charge of architects. Again, if this is in fact your view, I invite you to make a public statement of it, but I doubt whether even the RIBA will be prepared to follow you into this position, which is likely to ensure them the uncompromising hostility of the other professional institutions.

J. H. JELLETT.

Southampton.

Control of Design

SIR,—Watching each issue of the JOURNAL carefully, since the editorial criticisms of the Ocean Terminal on August 10, we had hoped that some representative body of architects would have taken the JOURNAL to task over advocating a policy that seems to us to be full of terrifying possibilities for the profession.

Apparently, in the matter of good design, the JOURNAL is asking for advisory bodies to be given *power* to *insist* on action being taken according to their ideas; surely one doesn't require to use much imagination to foresee the catastrophic effect that this would have upon individual effort and the eventual sterility it would produce in architectural design; buildings would soon become monuments to concession and architects, privately commissioned, would finally in desperation submit the plans only, and the boys-who-know would style the favoured façades.

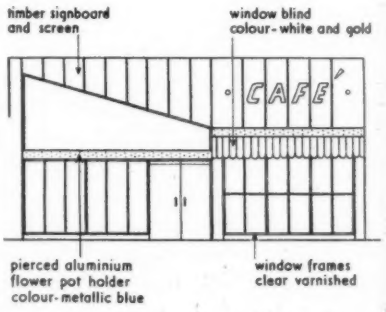
Anyhow, the most one could expect from such a restrictive practice would be a depressingly imitative style, in the favoured idiom, developed to get the drawings through the controls; for one must surely acknowledge that it is almost entirely over the matter of appearance that controversy rages.

However, to carry it a little further, simply to replace the misguided neo-classical façade by a post-cubist abstraction would be obviously naughty; or is the idea of plan and elevation being conceived together outmoded? Logically then, control would have to be not only of elevation but also of plan, and the conclusion is that even qualified architects would need to be weeded out—those who would be allowed to design and those who would not! For if there's going to be an advisory controlling body then some architects will be bound to have their hair shortened.

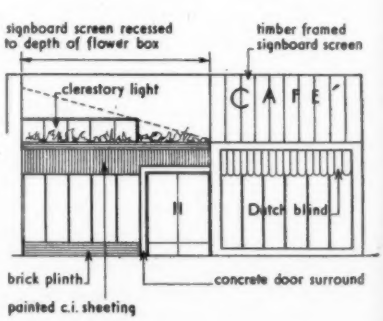
Perhaps we have not quite reached that final stage but we are, at least, at the first stage of facial control, and to support this statement we bring to your notice a quite recent example which, although small and insignificant, indicates the earliest signs of decay and, unless immediately stopped, the final extraction from the individual of his freedom to design.

However reactionary we may seem, for our own part we prefer that the possibly-really-bad should rub shoulders with the rarely-exceptionally-good, rather than the whole be reduced to a clinical mediocrity. Imagine some future Betjeman becoming enraptured over our medallioned housing estates!

The drawing herewith enclosed shows alterations to a small café and is a copy of



the working drawing submitted to the appropriate authorities; the architects' panel who considered our elevation unsuitable is nominated by the local architectural society and comprises five practising architects, their opinion apparently re-enforced by the County Planning Department who produced the "new look," shown below.



Approval to the alteration, valid anyhow for only five years, was given subject to our changing our elevational design in order to "preserve the amenities of the district." A quick study of our drawing would show, apart from any æsthetic consideration, the reason we adopted the shaped window was to obtain maximum light with the existing lean-to behind, etc., etc.

What we think of this effort of control, as far as quality of design, choice of materials, lettering, draughtsmanship, function and the multiple implications of such petty tyranny is unprintable; however, theirs is the power and in order to conform, we must now reluctantly return to what seemed to us a rather unhealthy adolescent period in design, when Hitler and pimples were getting beneath the skin.

We would appreciate your comments on this example of criticism with the power of control; for government backed interference has such power to control where an architect is attempting to earn a living and must bear the cost of appeal against decisions; anyhow the butter is off this bread-and-butter line when drawings have to be revised and details scrapped. Furthermore, one is placed in the most unenviable position with one's client in attempting to explain away a change of face without losing face. Summing up, we humbly suggest you invite opinion as to the virtue of having this control for which you clamour, and in the field of æsthetic criticism, whether it is not better that a greater tolerance be shown to those who honestly endeavour yet cannot see the light—which of course is almost everybody but oneself.

C. TALBOT LARRINGTON,
A. H. DAWES DINGLE.

Torquay.

Timber Supplies

SIR,—I was interested to read the article in your issue of August 3 written by Ian Bowen, and was pleased to see such an early comment upon Mr. Masterman's recent Report on this question.

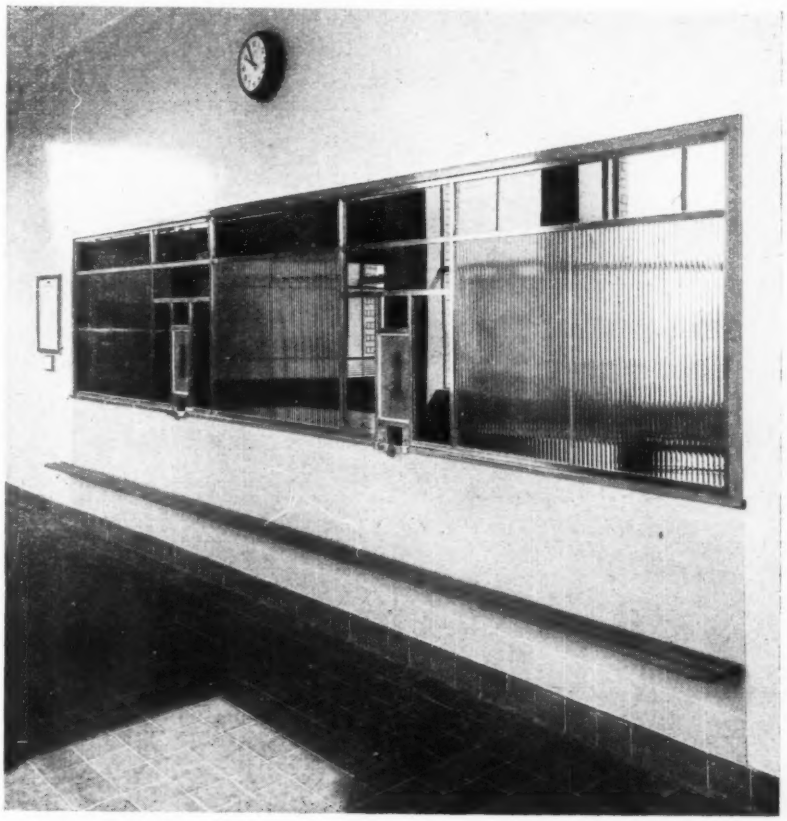
I cannot, however, altogether agree with Mr. Bowen's conclusions. He states that "the prejudice against flat roofs is mainly on æsthetic grounds," but I would suggest that flat roofs, generally speaking, are not at all suitable to the English climate. Further, he emphasizes the portion of Mr. Masterman's paper which deals with flat roofs and the constructional design of the first floor, but for some reason or other he entirely disregards Mr. Masterman's observations on the possibilities of alternative methods of pitched roof construction. A close study of Mr. Masterman's paper would show that there is no reason to depart substantially from the use of the traditional pitched roof, so long as suitable alternative methods of construction are used.

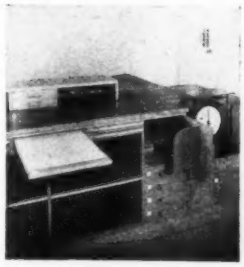
I do not wish to join issue with Mr. Bowen on the national and international position regarding timber supplies, and have no hesitation in accepting his figures and conclusions on this aspect of the matter. I do, however, suggest that the increased use of flat roofs is not the answer to this question, particularly so far as housing is concerned. The local authorities would get all the advantage they seek if they would study and adopt the alternative systems of pitched roofing to which Mr. Masterman refers. Such a course would not entail an increase in the importation of timber, or the further expenditure of foreign currency. I strongly support Mr. Bowen's concluding suggestion that "the results of research already completed should be exploited both by vigorous administrative action and by the voluntary action of local authorities and architects."

ERNEST HILLSON.
President, National Federation of Roofing Contractors.

Manchester.

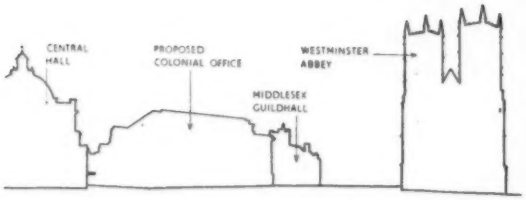
RECONSTRUCTION OF STATION OFFICE

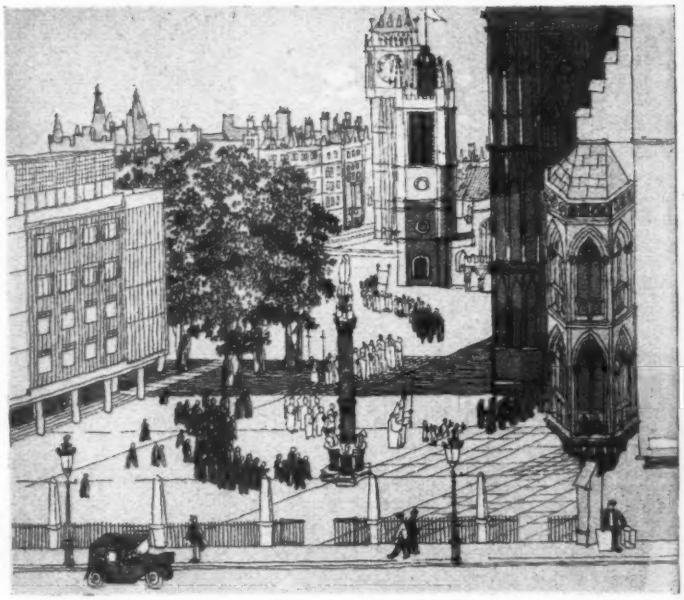




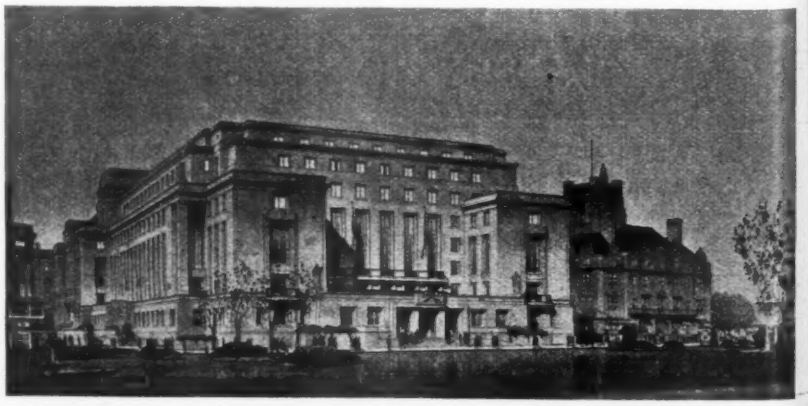
A new interior for Lea Bridge Station, designed by H. H. Powell, architect for the Eastern Region, has recently been completed. Above, the glazed front, with luggage rack below. Right, the parcel reception counter. Below, a general view of the booking counter.

WESTMINSTER REVEALED: A TEMPORARY GAP IN THE PRECINCT'S WALLS





Above is an unique and transitory view into the Westminster precinct, revealed by the demolition of the old Westminster Hospital. On this site work will shortly begin on the new Colonial Office (below, right, first published in the JOURNAL *for August 4, 1949), designed by T. S. Tait, of Sir John Burnet, Tait & Partners. The outline drawing, above, indicates roughly how this proposed building (height: 90 ft.) will appear in relationship with its immediate neighbours, the Central Hall and Westminster Abbey (height of nave: 140 ft.). Despite the virtues of a new view of the Abbey and another open space in Westminster it is more important to preserve the enclosed intimate quality of the precinct obtained by grouping small buildings close to the Abbey. This was realized in the* Architectural Review's *plan for Westminster, and the sketch, above right, shows the small scale suggested in this plan for any new building on this site. It is debatable whether the proposed Colonial Office has this quality.* *See Astragal's comments on page* 301.



At the invitation of Arcon, Owen Davis, the firm's quantity surveyor, has written the following:

ARCON

The Purpose of a Specification

The purpose of a specification, the form it should take, and whose responsibility it is to write it, are not always understood. And it is not surprising that some confusion should exist, at least in the minds of young architects, as the attitude of professional bodies and educational authorities has not yet caught up with contemporary practice.

Memories of student days and the RIBA scale of fees, remind architects that specification writing is their responsibility; later, they learn with relief that the quantity surveyor can cope from mere notes, but find out in due course that the builder *must* have his specification. The copying of detailed descriptions of materials and workmanship from the bill of quantities seems a waste of time and there are dire warnings that discrepancies between the two documents will be a nuisance and probably lead to extras. In desperation the matter is frequently left to the quantity surveyor and the result is not always what it should be.

It is not possible to predict future trends. Contractors, stimulated by the Productivity Team's description of American methods, may agree that the bill of quantities could become a much less elaborate document than it is at present. As a result it may be possible, at some time in the future, to write a combined specification and bill of quantities; alternatively, the specification may resume its former glory and the bill of quantities may become merely a schedule of quantities—references being made to the specification or drawings for full descriptions. But these speculations do not help us with our present problems.

At one time the specification served two purposes; it told the contractors what to allow for in their tenders, and later, it told the successful contractor how the building was to be constructed. The advent of the bill of quantities changed its purpose into that of telling the quantity surveyor what to allow for in his bill of quantities.

When the status of the quantity surveying profession had risen to a fairly high level, the average architect in private practice considered it unreasonable that he should be required to write a full specification in order to convey his ideas to his trusted colleague, the quantity surveyor. Similarly, when the bill of quantities became an elaborate contract document, it was felt that the contractor could no longer require an equally elaborate specification. It followed that two quite separate things were required—brief specification notes to enable the quantity surveyor to interpret the architect's wishes and, later, a brief specification which would tell the contractor how the job is to be built, *in so far as this had not already been made clear in the bill of quantities and on the drawings.*

This comparatively new procedure is already widely practised but it has not yet been officially sanctioned; it is not adequately taught in the schools and it is not reflected in the terms of service or scales of fees.

INADEQUATE TEACHING

One may ask why the procedure is not functioning properly if it is already so widely adopted. I think the answer is firstly, that architectural students are taught specification writing, which they have neither the time to absorb nor to practise, but they are not taught what information is *essential* for them to give to the quantity surveyor. Secondly, the brief specification which is to be read in conjunction with the bill of quantities, is left to the quantity surveyor and as this service is not reflected in his scale of fees it is natural for him to regard it as something of an imposition, to be got over as quickly as possible.

There can be no doubt that a high proportion of young architects and architectural assistants have little or no idea of what information the quantity surveyor must have and I suggest that students should be taught that drawings and specification notes are complementary to one another, that one, without the other, is useless to the quantity surveyor, and that however much the quantity surveyor can be relied upon to elaborate descriptions, it is for the architect to decide what each component is to be made of. Surely it is not too much to expect that a student should not be allowed to qualify as an architect until he has at least learned to state, in the briefest possible terms, what his requirements are.

Although I have said that the quantity surveyor can be relied upon to elaborate descriptions, I still do not feel that architects can afford to neglect this important aspect of their work entirely or be relieved of their responsibility; I merely mean that they can regard this as something which can be entrusted to a colleague, under their supervision.

There seems to be no question that the brief specification for the contractor should be written by the quantity surveyor, as the bill of quantities is the contract document and the specification can do no more than elucidate what is already there. But to expect him to write the specification when (according to the scale of fees) the architect is paid for it and he is **not**, and when his own work has been made more difficult by the lack of that very document, is asking a lot of human nature and, in fact, creates a sense of grievance quite out of proportion to the sum of money involved. In consequence I suggest that the job should be made officially his, that it should be mentioned in his terms of service and reflected in his scale of fees.

I suggest that more study should be given to the form which these "brief specifications" should take, so that they can be written with some degree of consistency and thus become familiar to those who are called upon to interpret them.

The bill of quantities states what the materials and workmanship are to be but it does not state where they are to be used. This is largely the function of the specification and frequently it can be done by a brief reference to the bill of quantities, e.g., "All ground floor slabs are to be of 6 in. concrete, as item ....., except that in the outhouse which is to be of 4 in. concrete as item ....."

COMPOSITE ITEMS

The difficulty is with composite items, such as a screen consisting partly of fir framing covered with plasterboard and partly of a deal glazed light in a hardwood surround. For convenience, the various components are spread over the bill of quantities, in the carpenter, joiner, plasterer, glazier and painter, but isolated references to these items in trade order, cannot help the contractor to visualize the whole. Frequently a brief reference to the detail drawing is all that is required but this does not always occur to the junior who has merely been told to state where the various items appearing in the bill of quantities occur on the job.

If it is prepared conscientiously, a brief specification such as this can be adequate and can go far towards assuring the contractor that the contract documents do tie up. The danger is that when cross referencing is employed, it is easy to write a specification which only someone with the mind of a cross-word addict can follow and it is, therefore, essential that specification writers should be properly trained and not merely be taught to write a full specification in the traditional manner.

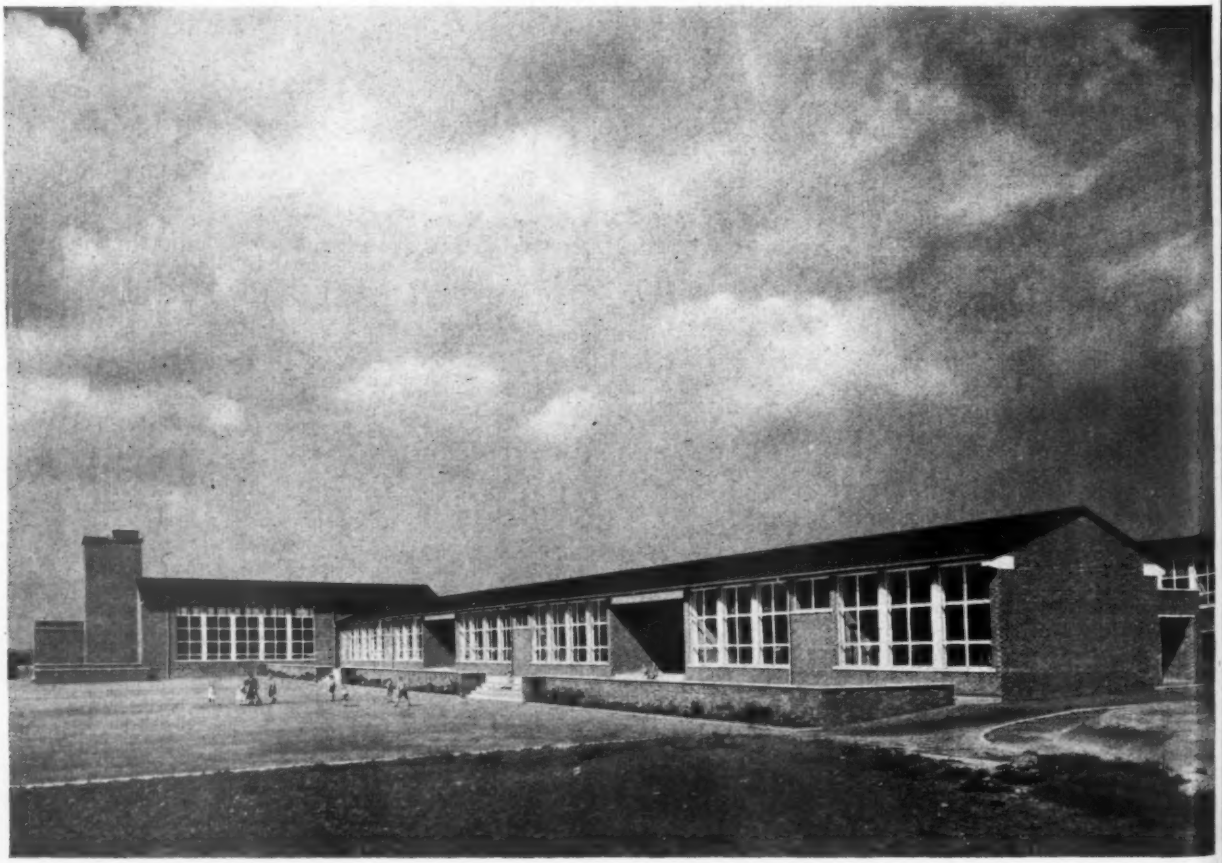
D

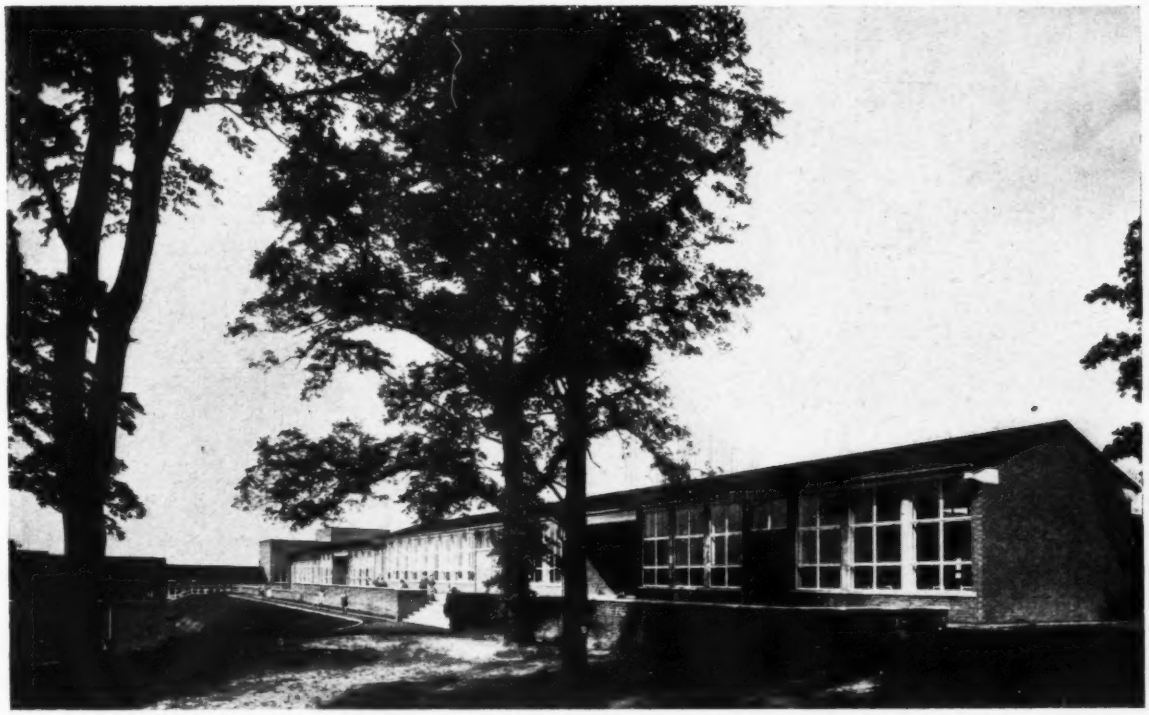
PRIMARY SCHOOL

at SEACROFT, LEEDS
designed by R. A. H. LIVETT, CITY ARCHITECT

The new primary school at Seacroft, Leeds, which was opened on July 15 by the Minister of Education, is the first school of the large building programme under the new Education Act to be completed for the City of Leeds Education Committee. The building is the first stage in the development of a 27-acre site situated in a new municipal housing estate. A secondary modern school for 680 boys and a nursery for 120 infants under 5 are to be built on the site, the latter on an area adjacent to the primary school.

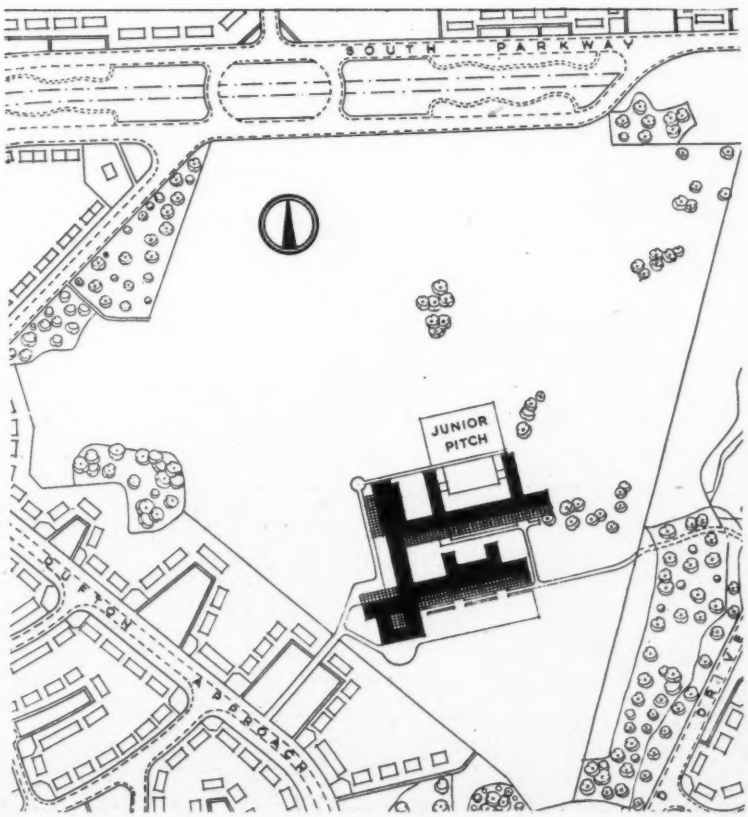
A classroom block from the south-east.





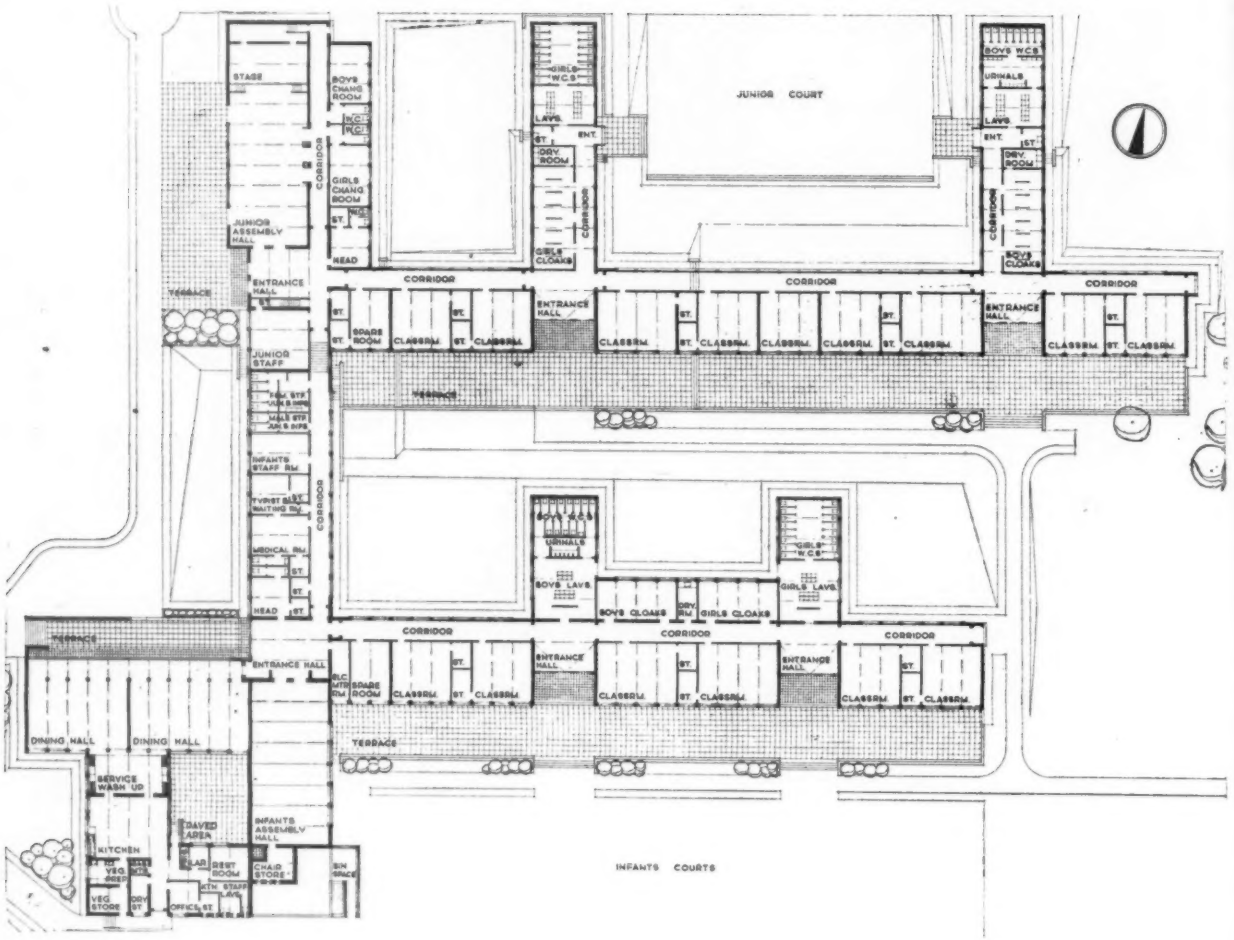
A classroom block and terrace from the south-east.

Site plan



SITE.—The primary school, which consists of an infant department for 260 and junior department, for 380 children, has been placed on a part of the site which slopes to the south, and views of near and distant woodlands can be obtained from the windows of all the main rooms. The junior department is raised several feet above the infant department and a change of level occurs in the administration wing which connects the two.

PLAN.—The principal approach to the site leads directly to the main entrance hall of each department, from which there is direct access to assembly halls, staff and administration rooms and classroom wings. The classrooms, which are planned along the contours for economy, are divided into groups by subsidiary entrance halls which lead from the terraces on the south side to classrooms and sanitary accommodation, thus avoiding long unbroken corridors. The junior playground is placed behind and at some distance from the classrooms to avoid noise disturbance, whereas the infants' playground is placed in front of the classrooms for easier supervision. The junior assembly hall, which has a fixed stage and changing rooms, may be used for

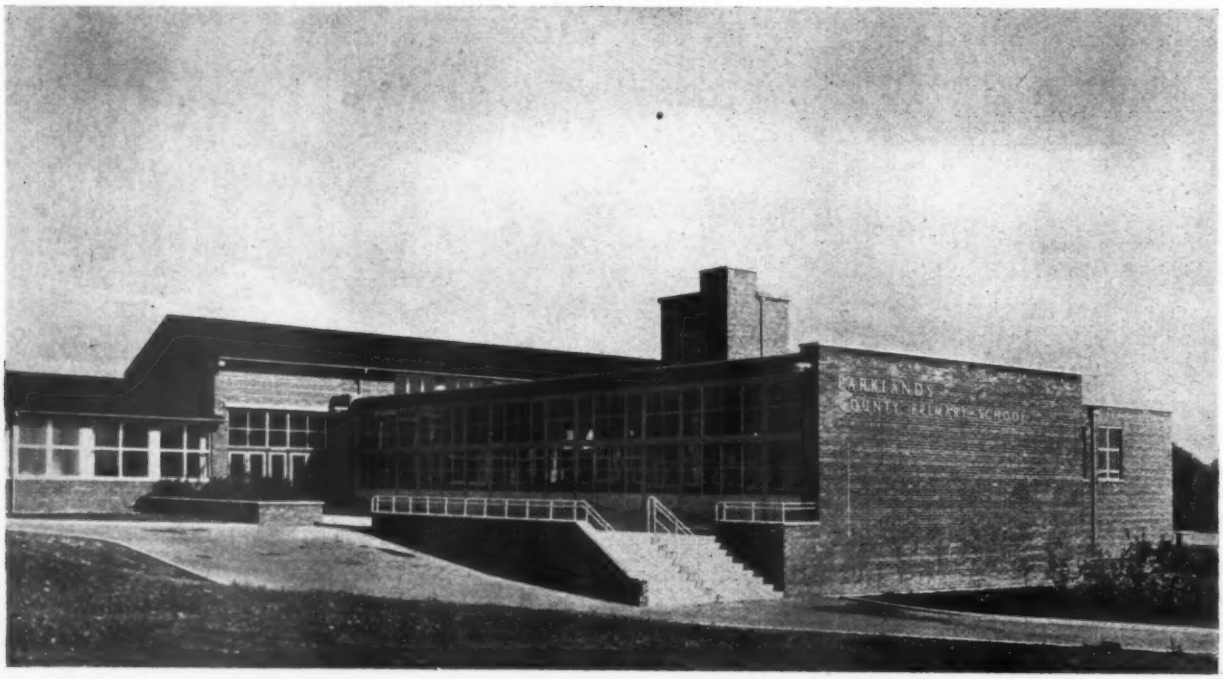


Plan [Scale : $\frac{1}{16}$" = 1'0"]

PRIMARY SCHOOL

at SEACROFT, LEEDS
designed by R. A. H. LIVETT, CITY ARCHITECT

The dining hall from the northwest

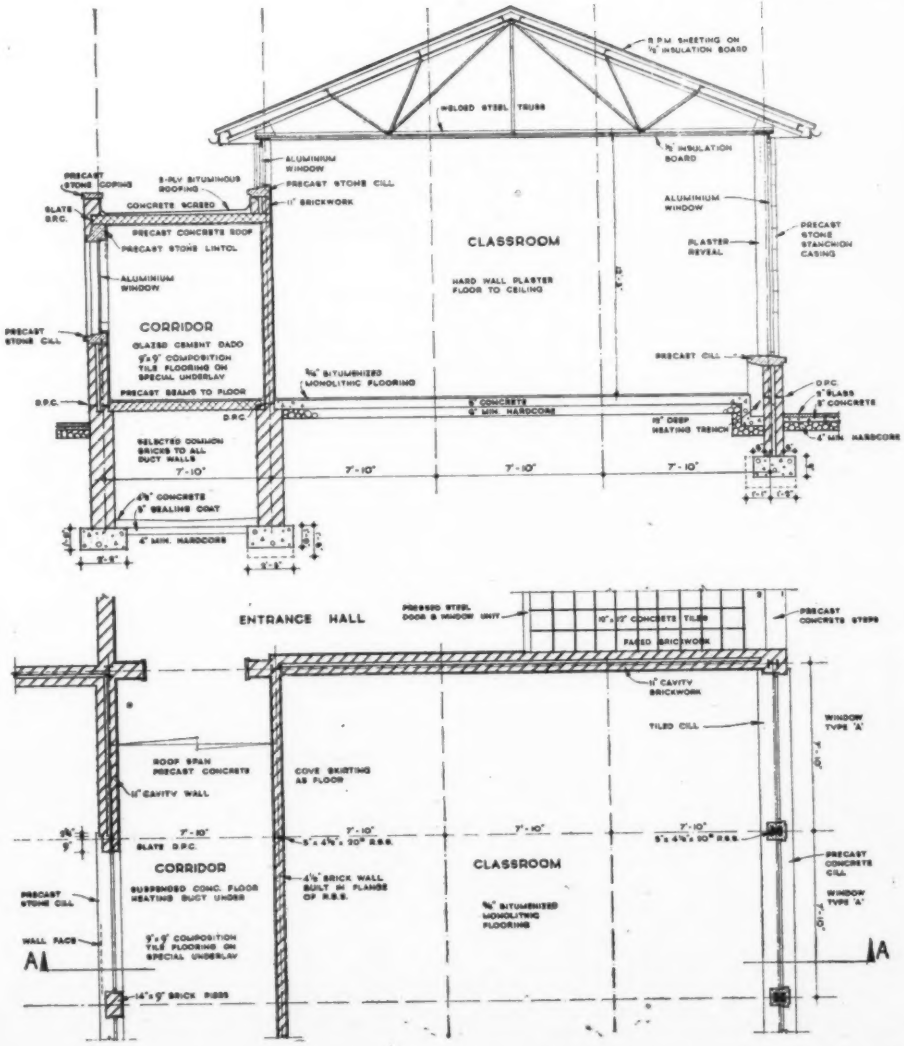


local activities. The dining hall can be reached under cover via the connecting administration block and has a continuous sliding-folding window along one side, opening on to a terrace. The kitchen is planned to cater for 500 meals daily.

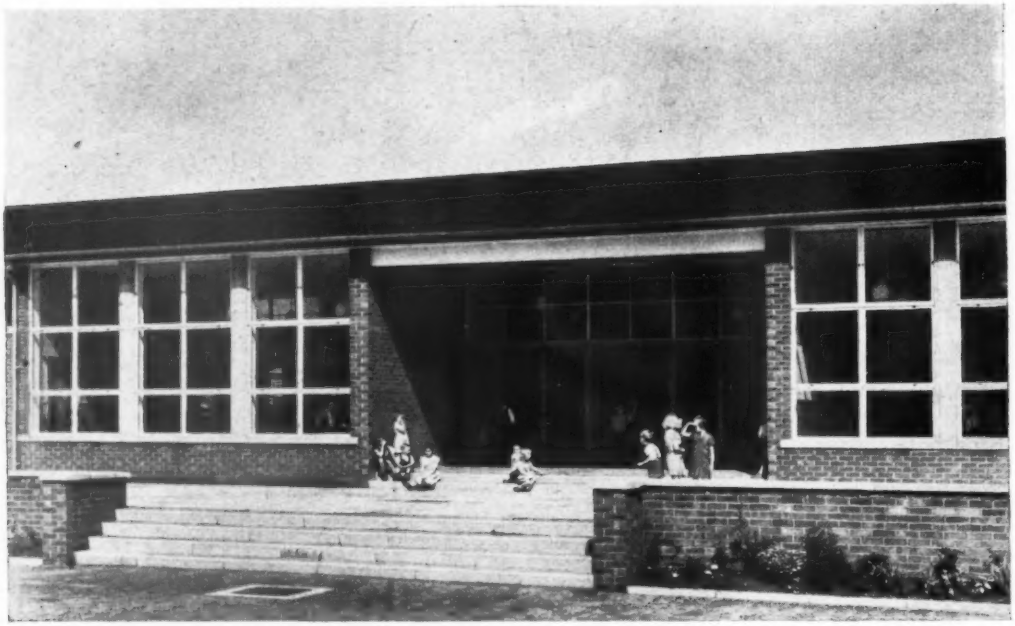
CONSTRUCTION AND FINISHES.—The building was designed on a 7-ft. 10-in. grid and economy in the use of timber was aimed at. It has a steel frame and external, load-bearing walls of 11-in. cavity brickwork. Rolled steel stanchions, at grid centres, are only 5 in. by 4½ in. (6 in. by 6 in. in Assembly Hall, where spans and height are greater). The pitched roof has light, welded steel trusses, supporting patent, asphalt-protected steel decking on ½ in. insulation board. The fascia is also of pressed steel. Flat roofs consist of pre-cast concrete slabs, ½-in. insulation board and covering of 3-ply bituminous roofing felt. Acoustical considerations have

Typical classroom interior.

Section A-A



Plan of typical classroom [Scale: ⅛"=1'0"]



Typical classroom and entrance seen from the south.

PRIMARY SCHOOL

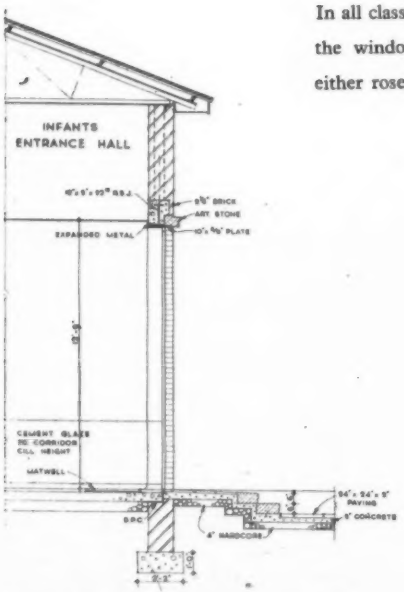
at SEACROFT, LEEDS
designed by R. A. H. LIVETT, COUNTY ARCHITECT

been satisfied by the use of a monolithic, bituminous cork flooring screed and ceilings of insulation board, supported by aluminium sections, spanning between the trusses. Flooring in Assembly Hall needs to be more hard-wearing and composition blocks, laid in basket weave pattern, are used. Flush doors were specially made solid, to stand up to heavy usage and observation panels in them are of unbreakable glass; frames are, again, of pressed steel—to save timber. Aluminium was chosen for window frames, delivery in this case being quicker than for steel. Special consideration was given to the internal decoration. Doors in corridors and entrances are red, in classrooms blue and assembly halls yellow. In all classrooms, the blackboard wall is grey-green, the window wall white and the remaining walls either rose, primrose or warm stone.

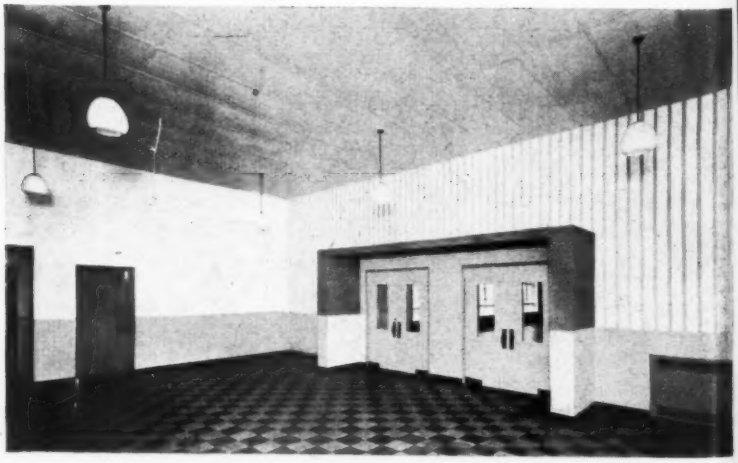
SERVICES.—Convector type heaters are operated by an accelerated, low pressure hot-water system, which also caters for the hot water supply. The heaters for the principal rooms were especially designed and are concealed behind continuous metal panels under the main windows. All pipe runs are concealed in ducts. Electric lighting is designed to give even illumination, thus allowing the arrangement of classrooms to be varied. Pear-shaped, opal glass fittings were selected having a fairly high efficiency, but the aperture is small enough to prevent direct glare.

The contract was based on a Schedule of Rates and Prices to facilitate early commencement of the work. The cost per place is not expected to exceed £215.

The general contractors were William Nicholson and Sons (Leeds) Ltd. For list of sub-contractors see page 322.



Section through infants' entrance hall
[Scale: ¼" = 1'0"]



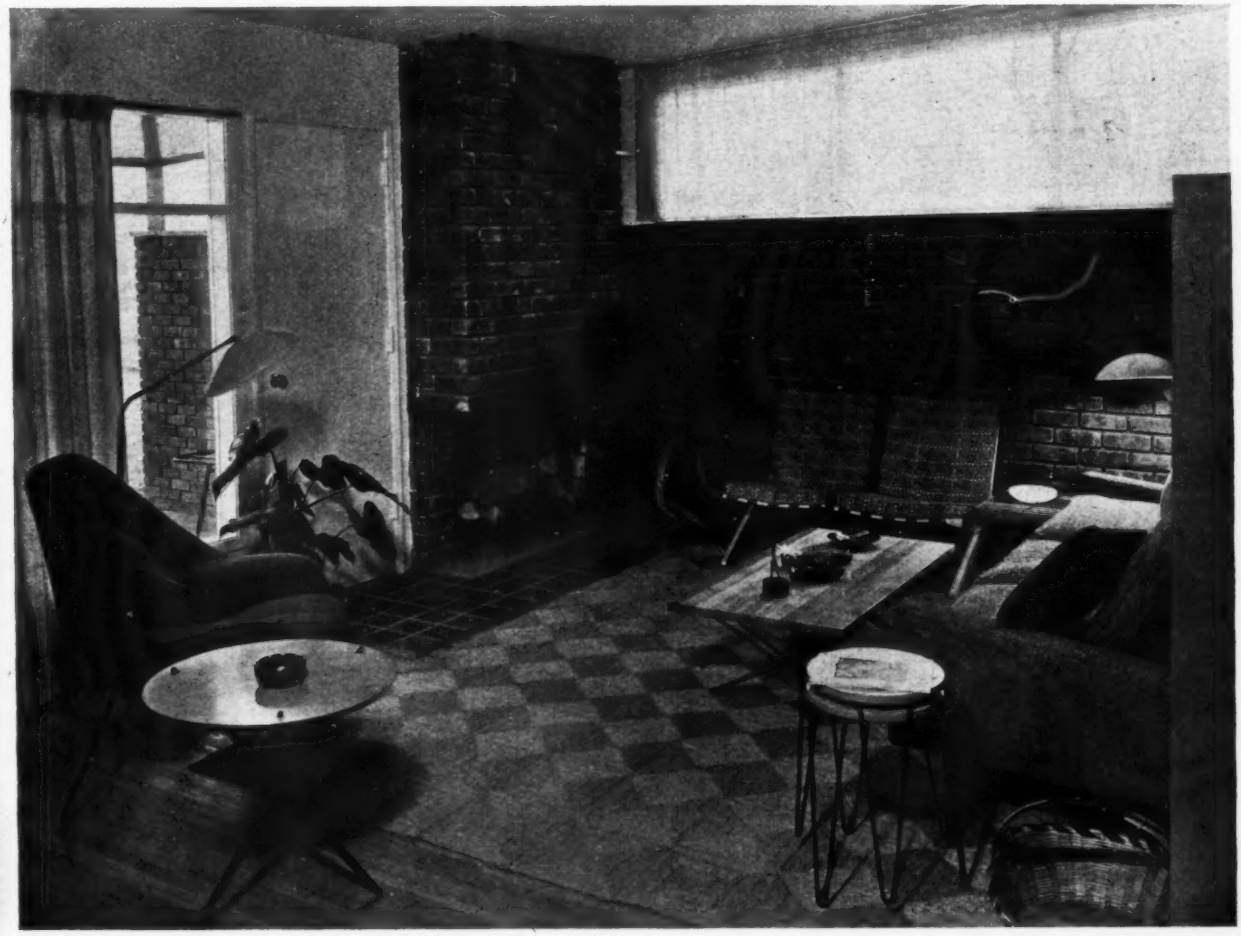
Infants' entrance hall.

HOUSE

at FREEPORT, LONG ISLAND
NEW YORK, USA
designed by HUSON JACKSON

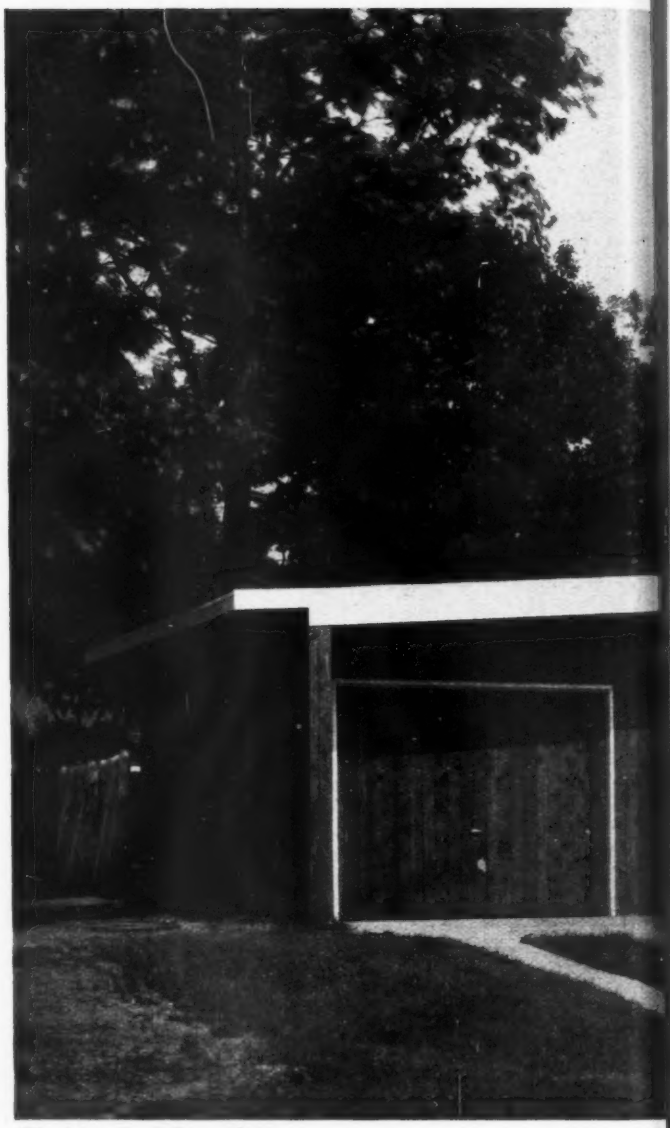
A firm of builders asked the architect to design a house, the intention being to build one and then take orders for the construction of additional houses. The intending buyer would then be able to see the finished house and would be able to make minor alterations in layout and finish for the one he was to have constructed.

The living room.



HOUSE

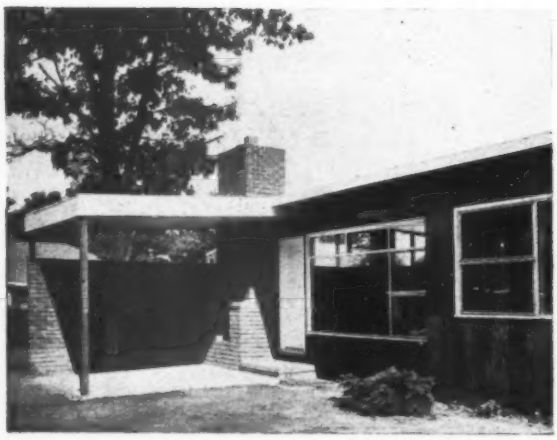
at FREEPORT, LONG ISLAND, NEW YORK, USA
designed by HUSON JACKSON



The house from the north-west.

PLAN.—The living room and bedrooms face south. Some privacy between neighbouring houses is obtained by placing the living room and all bedrooms on the side which faces the rooms of least use in the next house. Landscaping work, including fences or hedges is left to the owner.

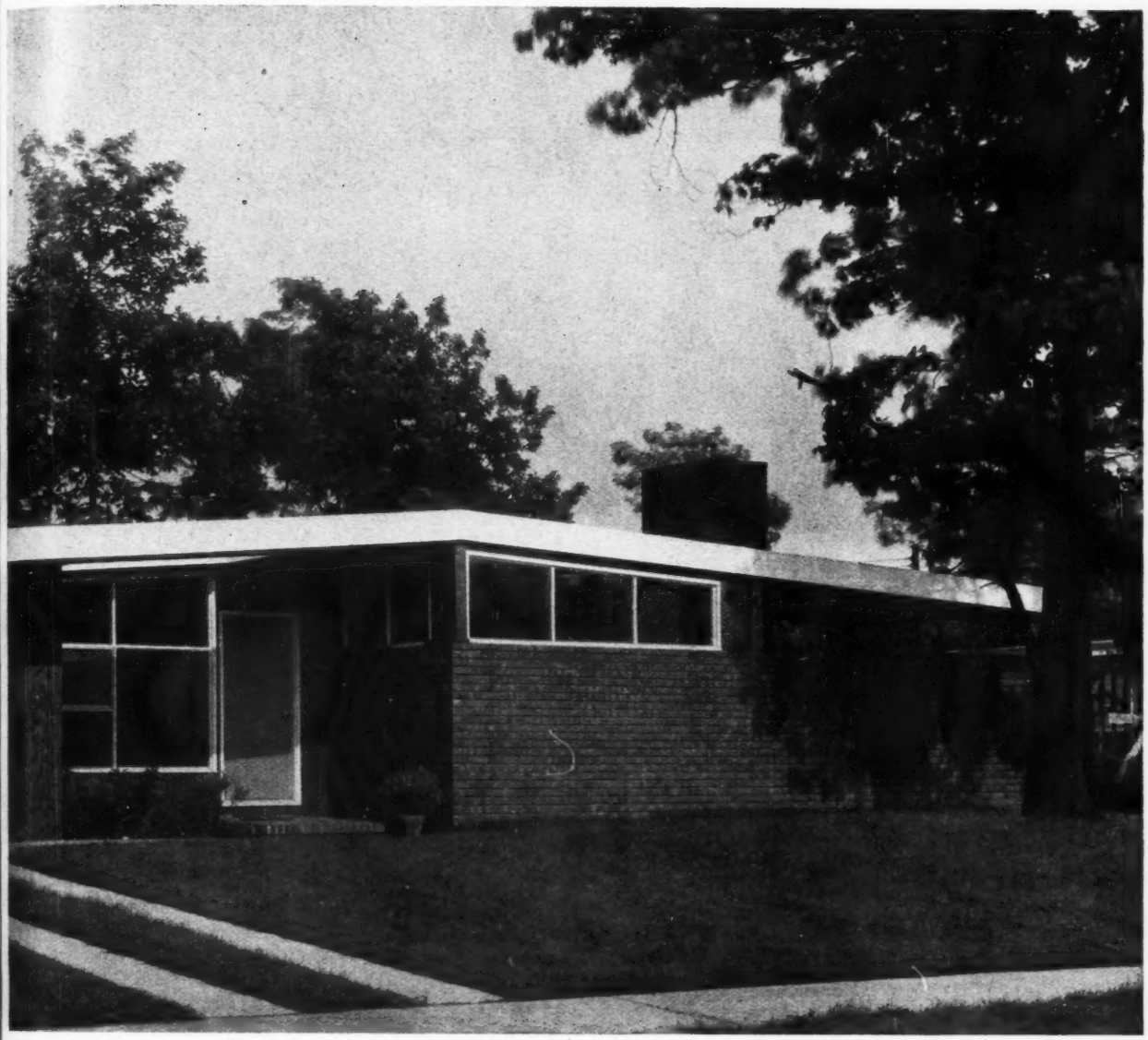
CONSTRUCTION.—The foundations are of poured concrete. A steel joist supported on brick piers carries the 10-in. by 2-in. wood joists. Brick walls are of cavity construction. Other walls are of 4-in. by 2-in. studs packed with glass wool insulation.



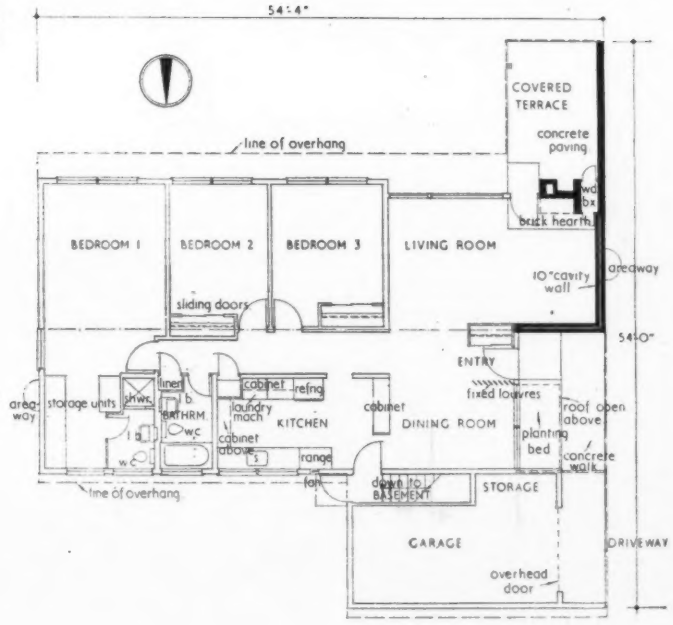
The covered terrace.

A 4-in. layer of glass wool is laid between the 10-in. by 2-in. roof joists. All joists and studs are at 1-ft. 4-in. centres.

FINISHES.—Facing bricks are used for exposed exterior and interior surfaces. Exterior woodwork is of cedar. Plasterboard walls and ceilings have recessed edges which are fitted with plaster of Paris reinforced with tape. The ceramic glazed wall tiles in the bathroom are fixed with a rubber base adhesive to the plasterboard, which has previously been waterproofed.



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



SERVICES.—Kitchen equipment includes electric range, refrigerator and automatic clothes washer. The sink is of stainless steel. The oil-fired boiler supplies hot water to baseboard radiators and for convectors by means of a thermostatically-controlled circulating pump. Extract fans are fitted in the kitchen and in the passage ceiling.

COST.—The cost of the house, including a plot of land 120 ft. by 75 ft. is $18,500 (£6,600).

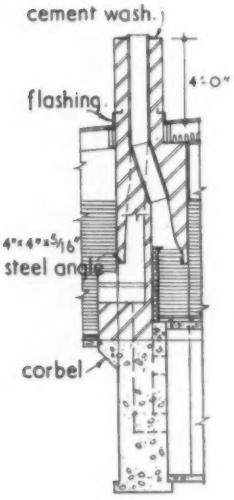
The house was designed for Kee-Lee Homes. The builders were Keenan Morrow and LeRoy Simon.

HOUSE

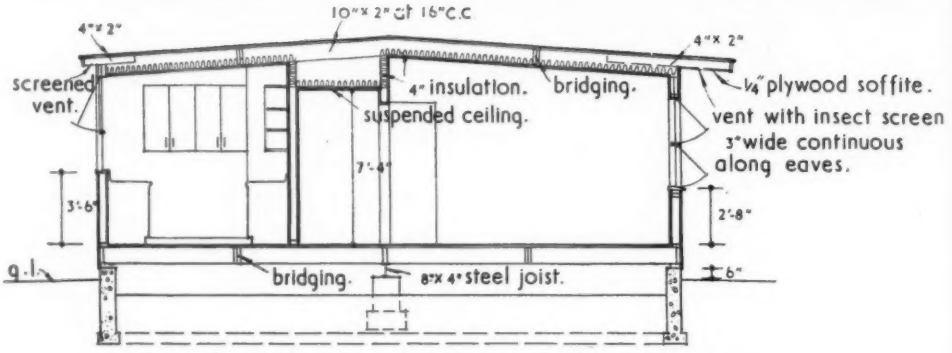
at FREEPORT, LONG ISLAND, NEW YORK, USA

designed by HUSON JACKSON

The principal bedroom (bedroom 1 on plan) looking towards the dressing room. A shower, wash and lavatory basins are situated behind the curtain on the left.

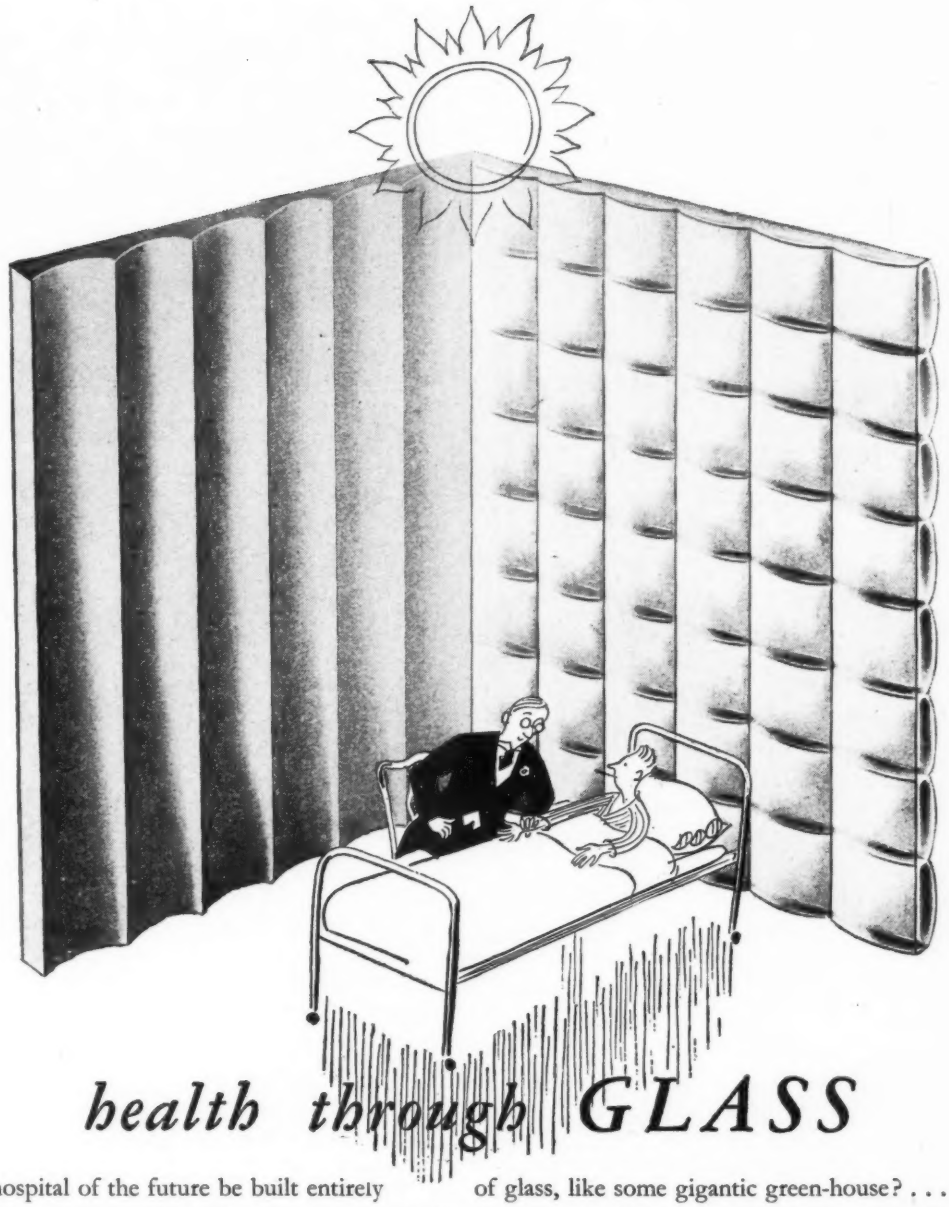


Section through external and living room fireplaces



Section through kitchen, passage and bedroom, looking east [Scale: ½" = 1'0"]

Far left, the dining room. The door opens on to a staircase to the basement in which is the oil-fired boiler. The opening on the right leads to the kitchen. Above left, the nursery and below left, the study-bedroom (bedrooms 2 and 3 on plan). Floors in both rooms are covered with linoleum.



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THE INDUSTRY · PRICES · TECHNICAL ARTICLES

TECHNICAL SECTION

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

2.108 planning: general
MAPS

Maps, Topographical and Statistical. T. W. Birch (Geoffrey Cumberlege, Clarendon Press, Oxford, 1949, 15s.).

This book could be studied with profit by almost any architect/town-planner, especially those who are in any way engaged on map-making and who wish to know more about the fascinating subject of maps. 240 pp., over 100 illustrations; useful list of sources of information.

By topographical maps is meant maps which are mainly concerned with the surface of the earth and man's physical environment. Topographical maps are normally drawn at scales between 10 inches and 1 inch to the mile. By statistical maps is meant maps which depict man's social and economic environment.

The first part of the book deals with topographical maps. It describes some early and modern types of maps; methods of surveying; representation of relief; different map projections; map preparation and interpretation. Included are some notes on air-photo-survey and interpretation of air photographs.

The second part of the book, which is about statistical maps, includes chapters on dot maps and density maps and appropriate methods of drawings. The examples shown are good.

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1 Sociology. 2 Planning: General. 3 Planning: Regional and National. 4 Planning: Urban and Rural. 5 Planning: Public Utilities. 6 Planning: Social and Recreational. 7 Practice. 8 Surveying, Specification. 9 Design: General. 10 Design: Building Types. 11 Materials: General. 12 Materials: Metal. 13 Materials: Timber. 14 Materials: Concrete. 15 Materials: Applied Finishes, Treatments. 16 Materials: Miscellaneous 17 Construction: General. 18 Construction: Theory. 19 Construction: Details. 20 Construction: Complete Structures. 21 Construction: Miscellaneous. 22 Sound Insulation-Acoustics. 23 Heating, Ventilation. 24 Lighting. 25 Water Supply, Sanitation. 26 Services Equipment: Miscellaneous: 27 Furniture, Fittings. 28 Miscellaneous.

5.37 planning: public utilities
TRAFFIC CONGESTION

Traffic Congestion in Large Cities. S. Green (The Surveyor, Aug. 11, 1950, pp. 463-465).

Analysis of the relative costs of delays incurred through traffic congestion and of making traffic circulation improvements.

The article describes: type of traffic, capacity of traffic lanes, and causes of congestion; improvements in form of palliatives such as prohibition and restriction and major improvements of the type familiar to all town-planners.

5.38 planning: public utilities
ROADS AND ACCIDENTS

Roads—Past, Present and Future. G. T. Bennet (J. Inst. of Municipal Engineers, Aug. 1, 1950, pp. 138-150).

Paper by the County Surveyor of Bucks on the problem of heavy traffic volume through villages.

Formulæ are discussed for balancing the good effect of speed limit in reducing accidents against the bad effect (economic loss) due to loss of speed.

6.27 planning: social and recreational
AMBULANCE STATIONS SITING AND PLANNING

National Health Service Ambulance Stations. Circular 60/50. (MOH, 1950.)

Notes on siting and planning of new stations; 4 pp.

The notes on planning include reference to garage, workshop, control and office, and staff accommodation, and standards for installation of services and storage of petrol and lubricants. Before a station is built or equipped, the local licensing authority under the Petroleum (Consolidation) Act, 1928, should be consulted about safety precautions.

11.24 materials: general
BRITISH STANDARDS

British Standards Handbook No. 3, 1950. "Building Materials and Components for Housing." (British Standards Institution. 1950. 25s.) and British Standards Addendum No. 3, 1950, to BS Handbook No. 3. 1947 Edition. (British Standards Institution. 1950. 5s.)

New edition of collected abbreviated British Standards including all issued to end of 1949. Summarises 279 British Standards. The addendum No. 3 brings the 1947 edition and its supplements up to date as an alternative to the new edition.

The increasing use of British Standards makes an up to date reference to them indispensable to almost any architect's office. The cost of a complete set of the individual standards is considerable and the problem of keeping them filed is also difficult. For most purposes reference to the abridged standards published as Handbook No. 3 is quite adequate and very convenient.

The early edition of Handbook No. 3, published in 1945, is now dangerously out of date because of the many changes from wartime to peacetime conditions and because of the many additional standards since produced.

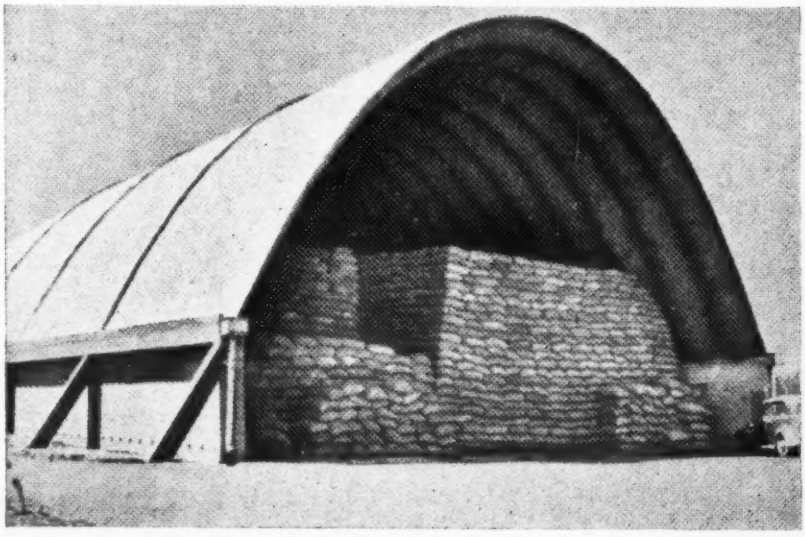
The 1947 edition, plus addendum No. 2 can still be used if the present No. 3 addendum (PD.1023) is added but many will find it more convenient to have all information in one volume as provided by the No. 3 Handbook 1950 edition which covers 279 British Standards.

13.61 materials: timber
TIMBER RESEARCH

Forest Products Research, 1939-47. DSIR (HMSO, 1950. 3s. 6d.).

General report on the work of Forest Products Research Laboratory. 94 pp. Useful list of publications.

Although too general to be of great value for reference on detailed points, this publication should be noted as giving an excellent review of the wide scope of the work of the Forest Products Research Laboratory. The long and comprehensive list of publications, including both those published by HMSO and those published elsewhere, forms a very useful reference.



Corrugated concrete arch. S. African example. See 18.57.

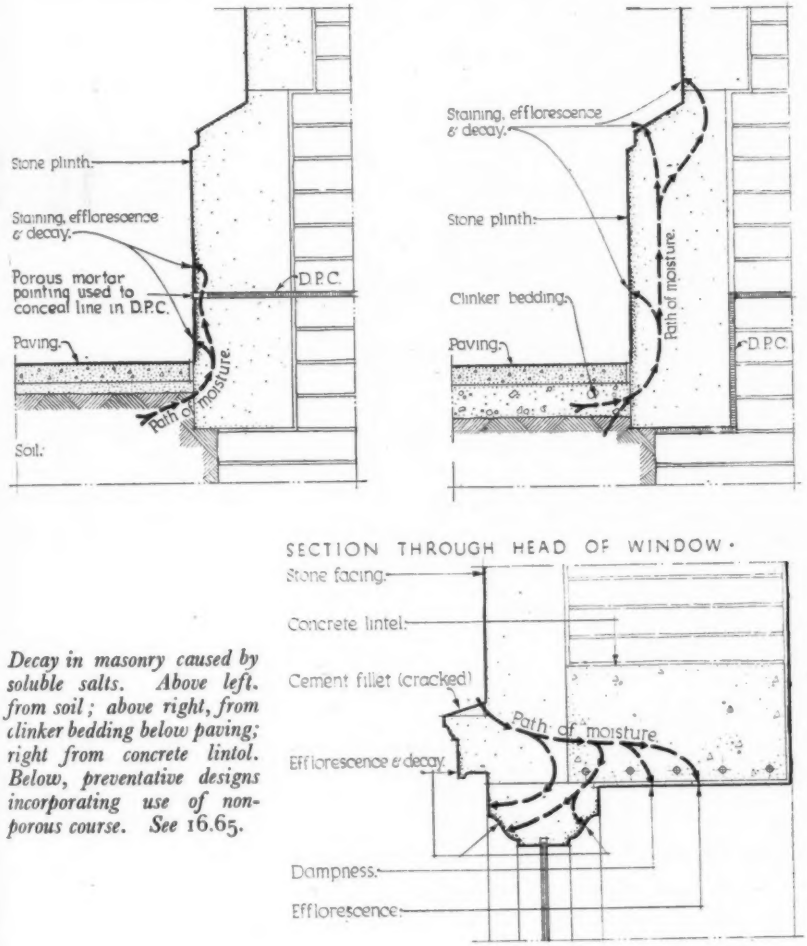
16.65 materials: miscellaneous
STONE PRESERVATION AND MAINTENANCE

Weathering, Preservation and Maintenance of Natural Stone Masonry. (Part I.) (Building Research Station Digest No. 20. July, 1950.)

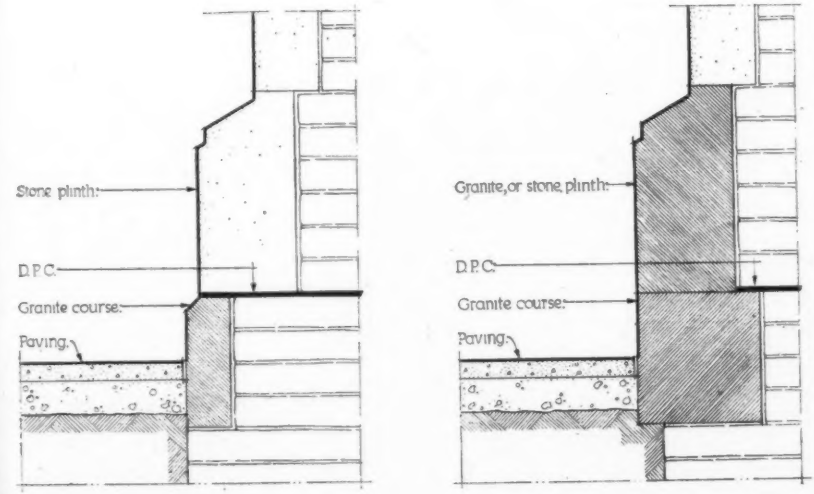
Valuable summary of causes of stone decay with useful advice on preservative measures.

The very considerable heritage of large and small stone buildings spread throughout the land inevitably means that there must be a constant flow of problems connected with the maintenance and preservation of stonework. This Digest should be valuable as a reference to all those who have to deal with such problems though those familiar with the subject will be aware of the fuller treatment given in the BRS publication "Building Stones," by R. J. Schaffer.

This present Digest, after brief notes on the classification of stone, deals with the factors affecting weathering and durability. These include atmospheric pollution, solubility of the stone, skin formation, maintenance by washing, "moisture rhythm," salt action, lack of damp courses or dampcourses incorrectly detailed, backing materials, sea salts and treatment to remove soluble salts.



Decay in masonry caused by soluble salts. Above left, from soil; above right, from clinker bedding below paving; right from concrete lintol. Below, preventative designs incorporating use of non-porous course. See 16.65.



16.66 materials: miscellaneous
STONE PRESERVATION AND MAINTENANCE

The Weathering, Preservation and Maintenance of Natural Stone Masonry (Part II.) (Building Research Digest No. 21. August, 1950.)

Continuation of Part I (see 16.65). Frost, thermal expansion and corrosion, vegetation, bacteria, staining, and excellent section on maintenance, restoration and cleaning.

This note, together with Part I, gives an excellent outline of the whole subject of weathering, preservation and maintenance of stone. The present note commences with a consideration of frost damage and it is clear that except in exposed conditions such as copings, cornices and the like, frost damage is likely to be very small. There are brief notes on thermal expansion and the real danger of damage from iron cramps and dowels or window bars is dealt with.

Damage from lichens and mosses is unlikely but a recipe is given for removing these where necessary. Virginian Creeper is not harmful but the roots of ivy may cause serious trouble if they secure a foothold in joints. In spite of much recent discussion there is no evidence that bacteria are harmful.

There are some interesting and useful notes on staining including recipes for removing various types of stains. The subject of maintenance and restoration is dealt with fairly fully and the very strong warnings about stone preservatives should be carefully noted by all who have to deal with old stone buildings. The value of cleaning is discussed and various methods are described in some detail. The restoration of old work is considered at some length including notes on the redressing of old stone. The use of new stone for replacements and the merits of plastic repair are discussed. The note includes details of how to carry out plastic repair where this is thought desirable. Altogether a most useful paper for all concerned with the maintenance of stone buildings.

18.57 construction: theory
PRESTRESSED STEEL STRUCTURES

Constructions en Acier Précomprimé. (Precompressed Steel Structures.) G. Magnel (L'Ossature Métallique [Belgium], June, 1950, pp. 300-313).

The idea of pre-stressing applied to steel construction. A lattice girder of 47 ft. span and 3 ft. depth tested to destruction. Promising development, also in the USA. 14 pp., 16 illustrations.

The term "pre-stressing" has in recent years mostly been applied to concrete construction, but several other materials have been and are being used in a pre-stressed condition. In steel construction the idea of utilizing the shrinking stresses due to welding dates back at least to 1930. This report by Professor Magnel of Ghent University deals with actual loading tests where the bottom chord of a 47 ft. long lattice girder is put into pre-compression by 8 pairs of high-tensile steel wires anchored at the end of the girder and producing an upward camber of $\frac{3}{4}$ in. While the loss of pre-stress owing to shrinkage and creep is one of the main problems in concrete construction, such losses, according to this report, need not be taken into account in pre-stressed steel construction. Both chords and diagonals of the test girder consist of light

gauge steel plates pressed into trapezoid shapes and riveted at their ends. The verticals are 2½-in. diameter tubes. The results of these tests showed good agreement between calculated and observed stresses, measured by electric strain gauges. A scheme has been worked out for aircraft hangars of 500 ft. clear span, with main lattice girders at only 8 ft. 4 in. centres (this is an extraordinary figure, perhaps a printing mistake?). The latticed rafter is pre-stressed by parabolic wires and is only 15 ft. deep, *i.e.*, $\frac{1}{33}$ of the clear span, and looking extremely slender. Investigations in the USA follow rather different ideas of pre-stressing During the rolling process steel joists are provided with a number of grooves in the underside of their bottom flange. High-tensile wires are laid into these grooves and put into tension. The joists are re-rolled at 200° C. thereby closing the grooves with the tensioned wires permanently embedded. It is said that such girders can be cut at any point without loss of pre-stress, and a 37 per cent. increase of bending moment capacity is claimed. From the report before us such claims appear quite reasonable. Further developments are expected with great interest.

18.58 construction: theory
UNDERGROUND CAR PARKS

Precautions against Fire and Explosion in Underground Car Parks. Post-War Building Studies No. 28. (HMSO 1950. 1s.)

Report of authoritative committee. Essential reference for those concerned with underground car parks and of value in connection with all garage buildings.

This is a report of a Sub-Committee of the Joint Committee on Fire Grading of Buildings of the DSIR and the Fire Offices' Committee. It should be of interest to all authorities concerned with the formulation of safety regulations and is an essential reference for architects.

The Committee concludes that no practical amount of ventilation will reduce the effects of an explosion sufficiently to prevent serious damage and the result is to emphasize the need for reducing the risk of explosion.

Recommendations on structure refer to the grade of fire resistance, the use of special drainage channels in floor to deal with spilt petrol, the use of automatic fire doors and precautions designed to increase resistance to explosions. There are also recommendations on measures to avoid risk from nearby service stations.

Mechanical ventilation is required to be run in two parts with independent sources of electrical supply and there are also recommendations about natural ventilation and on electrical, heating and fire extinguishing equipment.

Though intended as a specialist report on underground car parks this is a document which might usefully be studied by those concerned with any form of garage building.

18.59 construction: theory
CORRUGATED CONCRETE ARCH

The Corrugated Concrete Arch. J. H. de W. Waller (Civil Engineering and P. W. Review, June and July, 1950.)

The true arch with compressive stresses only. Rapid construction of large floor area buildings at low cost. Interesting examples of structures actually built. 5 pp., 12 illustrations.

The weakness of concrete in tension makes concrete structures in pure compression the most economical types. The ideal arch shape for constant load per unit of arch length is the catenary. Geometrically it is the same curve as that formed by a completely flexible cable suspended between two points in space. Corrugations give a thin sheet higher resistance against bending and buckling, and wide use is being made of this fact, not only in the design of steel and metal products, but also in other materials. Shuttering problems, however, present certain difficulties in concrete construction.

The Great Arch of Ctesiphon, near Baghdad, built about 1,600 years ago, is a true or catenary arch, 112 ft. high and of 90 ft. span. It consists of low quality bricks, and sufficient is left of the rectangular building to prove the remarkable efficiency of the basic design. Since 1940 development work has been done on similar lines, and a number of corrugated concrete arch buildings have been erected. Ribs of tubular scaffolding at 3 ft. centres, were covered by sheets of light hessian. Two layers of 3 to 1 mortar were put on these sheets, resulting in about 1¼ in. thickness of the shell. Its corrugations are due to the natural sag of the sheets between the centering ribs when pouring the concrete. From small beginnings with huts for the Services, of 20 ft. and 40 ft. span, the dimensions gradually grew to 60 ft. span and 200 ft. length, with 6 ft. corrugations. Domed ends were used for an experimental structure of 60 ft. span built by the Ministry of Works, at the Field Test Unit, North London. Loading tests were carried out, simulating wind pressure and wind suction, and the horizontal and vertical deflection were measured. Ample rigidity was observed without signs of cracking. The design for a 300 ft. span arch of 125 ft. height is reproduced in detail and the erection procedure given. A grid of longitudinal and transverse steel rods of ⅜ in. diameter supports the sheets of hessian or other fabric. A coat is applied to the soffit with a cement gun from a travelling staging inside. The total thickness of concrete is 3½ in. Other designs refer to aircraft hangars, of 400 ft. span and 720 ft. long. In Southern Rhodesia factory buildings were erected on these principles, almost entirely by native labour. An example is given of native houses in the Belgian Congo, with a double skin for insulation. The illustration shows a building erected for storing grain in bags, as used in South Africa. The application of the ancient idea of the catenary arch, but stiffened by corrugations, may well lead to further progress in modern concrete construction.

18.60 construction: theory
GEOMETRY

Geometry III. George A. Hanby. (Pitman, 1950. 7s. 6d.)

Intended for the young building student. Relates subject to building problems. Might well be useful as reference for architectural draughtsmen, especially on solid geometry.

20.186 construction: complete structures
OCEAN TERMINAL, SOUTHAMPTON

Ocean Terminal at Ocean Dock, Southampton. (The Architects' Journal, August 10, 1950, and other journals.)

Full description of this large building, just put into service. Interesting details of construction. Internal finishes, heating, lighting, internal transport and loud speaker systems. 8 pp., 9 illustrations.

This large building is to serve the embarkation and disembarkation of passengers arriving by sea ("Queen Mary" and "Queen Elizabeth") and by road and rail, both of which extend right into the building. Internal lifts and escalators serve the first floor with its waiting and customs halls. This floor connects to the ships by means of telescopic gangways built in light alloys. A sightseers' balcony is on top of the building, which is about 1,300 ft. long and 111 ft. wide. While the architectural treatment of this structure may be open to argument, there can be little doubt about some interesting structural features. Some of the most modern types of design have been incorporated, both in steel and in concrete construction. Piled foundations support the steel framed building. Beam and column construction is used for the ground floor, forming a rigid entablature for the two-pin portal frames of 91 ft. 7½ in. span, spaced at 20 ft. 2 in. centres. These portals are welded, with the exception of three bolted and riveted site erection joints. They accommodate the first and second floor, taking advantage of the full headroom of the rigid portals. The basic section of these frames is a 24 in. by 7½ in. rolled steel joist (the deepest available), with flange plates welded on to suit the bending moment distribution. In view of the great length of the building, two expansion joints were provided, with slotted end connections in the floor beams and purlins. The joints in the concrete floors are covered by bronze sliding plates, and by flexible copper strips in the precast concrete block walls. Expansion joints in the roof glazing are covered by aluminium plates.

20.187 construction: complete structures
SHELL CONCRETE, CANADA

Novel Coliseum. (Engineering News Record [USA], July 20, 1950, p. 30.)

A coliseum building has just been completed at Quebec City, with a 240 ft. span thin shell concrete roof. Concrete piles take the horizontal thrust of the arch and the vertical loads, without horizontal ties. Frames of A-shape support the arch abutments. They are placed on 4 ft. thick RC slabs, which are supported by vertical and battered piles, some of which carry 60 tons compression, while others have to resist 25 tons uplift. Horizontal deflection of the roof had been limited to a design value of only 0·5 in. and the piles had to meet this severe specification. The old building had been destroyed by fire, and the new one was used for hockey games six months after starting excavations.

24.140 lighting
ARTIFICIAL LIGHTING TECHNIQUES

Engineering Aspects of Planned Lighting. A Symposium. (Illum. Engineering [USA]. May, 1950. Whole Issue.)

Artificial lighting, classrooms, factories, shops, indoor sports; useful review, illustrated, photographs.

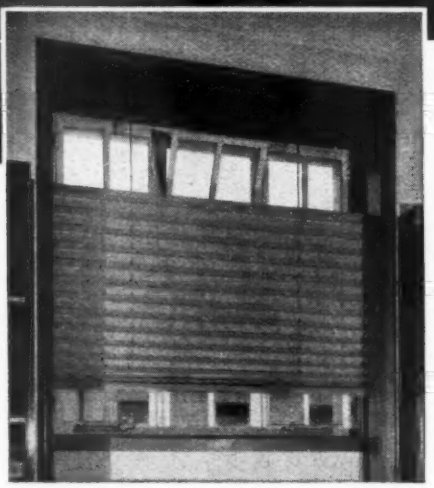
This is a series of short notes attempting a general analysis of advanced lighting practice. They will be reviewed here under their individual headings.

Why Design for the Best in Classrooms? By G. P. Wakefield. An advanced specification for classroom illumination, can be distorted and diluted in practice until it is little better than average. The article gives examples showing how architects' prejudice resulted in unintended glare due to polished marble cills and dark green window frames, how the builders' unfamiliarity with modern lighting needs led to dark brown lockers (costing 9 foot candles of reflected light to nearby desks), and darker floors than specified; and how the janitor varnished the deliberately matt desks because he thought post-war finishes bad! Then decoration and venetian blinds were left out to save money. The argument is that in the face of such difficulties you have to plan for the best to get the second best.

High-grade Lighting for High-priced Man-hours. By A. A. Brainerd. It is shown that although foot-candle requirements for offices and workshops are much the same, the requirements for quality (i.e., freedom from glare) are stringent in the workshop where the need is greatest, where production

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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actually occurs, and where the highest paid personnel are. The argument is for the same high-quality standards throughout, or if they are to be different, the best should go to the production end.

This applies to Britain as much as to America.

Basic Fundamentals. Answer to Supplementary Lighting Problems, by W. H. Kahler. The title is nearly meaningless, but the article is good. Perhaps the editor re-titled it. The author shows that local lighting is essential in many kinds of factory work, and gives good examples to illustrate general principles. Local lighting is a thing architects have to watch in factories; lighting engineers are prone to neglect it.

Indoor Sports Lighting, by C. J. Allen. Covers gymnasia, badminton, squash, table tennis and indoor bowling. Good discussion of practice in detail.

These are the most important articles. Others deal with Louverall (egg-crate) ceilings, indirect lighting, direct lighting from troffers embedded in suspended ceilings, cones and coffers. There are quite a number of good points in them, especially the descriptions of American practice. One article gives a comprehensive guide for the choice and care of fluorescent lamps, covering size, noise, maintenance, cost, appearance, and adaptability. It would be a very good idea if ELMA in this country would give us a British equivalent.

24.141 lighting

CLASSROOM ARTIFICIAL LIGHTING

Why 30 Foot Candles Minimum for Schoolroom Lighting. C. L. Crouch. (Illum. Engineering [USA]. June, 1950. p. 393.)

Critical visual task in school; evidence of illumination needed for it. Useful.

The author is the technical director of the American IES. In this article he gives what he describes as "supporting material" for the American recommendations for school lighting (i.e., artificial lighting). It consists of choosing what is called the most critical visual task in school—handwriting in pencil—and then working out by various techniques what the minimum desirable illumination is. All evidence points to 20-30 foot candles.

This may be a desirable level, but advanced views in the country would not accept handwriting in pencil as the critical factor, because it is not done for long periods. Probably the Building Research Station analysis by Hopkinson, studying various possible factors, and arriving at a value of 10 foot candles is more reliable if this kind of evidence is to be taken. But this may not be the right kind of evidence; and, as so often is the case, the quality rather than the quantity may be the important thing.

Incidentally this article gives current American recommendations, which are worth noting:

Classrooms (except as below)	30 foot candles
Classrooms for partially sighted	50 " "
Classrooms for drafting, sewing, typing	50 " "
Reception, gymnasia, swimming	20 " "
Halls, corridors with lockers, stairs	10 " "
Open corridors	5 " "

24.142 lighting

BAKERY LIGHTING

Lighting for Bakeries. A Report by the IES. (Illum. Engineering [USA]. June, 1950. p. 387.)

Natural and artificial lighting, germicidal lamps, decoration. Valuable specialist analysis; illustrated, photographs.

The report is a very full examination of bakery processes and plant, with recommendations on natural and artificial lighting, decoration, and the use of germicidal lamps. Review has little general interest, but the architect doing a bakery should consult it.

CURRENT TECHNIQUE

This feature appears from time to time to bring to readers' notice new constructional ideas, worthy of more widespread adoption.

"KEYING-UP" BRICKS FOR UNDERPINNING

Repairs and alterations to existing buildings frequently involve the pinning up of brick or concrete foundations, walls, or columns, to existing work. In such cases the avoidance of any subsidence at the point of pinning is important but by no means easy to ensure. Recently a patent wedging brick has been successfully used for this purpose in a number of buildings. The brick consists of two parts, as shown in Figure 1. The lower part "A" is recessed to take the wedge shaped upper part "B," which has a frog on the underside. The bottom of the recessed part of "A" is grooved and perforated to take the mortar in which the wedge is set. Driving the wedge up the inclined face of the recess effects a tight bearing under the work to be underpinned and forces the cement mortar into the grooves and other spaces. The bricks are generally made of stiff Staffordshire blue clay and of standard sizes, but they could be made of concrete and of any reasonable dimensions. Figure 2 shows the method of using the bricks for underpinning an old footing, and it should be noticed that they can be used for side pinning as well as overhead pinning. Figure 3 shows a simple application for pinning up to an RSJ and Figure 4 their use when a new opening has to be inserted in an existing wall. When the keying bricks are to be inserted, the top of the masonry upon which they are to be placed should be covered with a layer of cement mortar. Part "A" having been placed in position and its interior filled with cement mortar, the nose of the wedge portion (frog underneath) should then be inserted in the middle of the cement mortar lying within the base and pushed in with the fingers as far as it will go. It should then be driven into position up the wedge path by means of a wooden implement until completely wedged up to the soffit above. The mortar is thus forced into the crevices of the composite keying-up brick. The angle of the wedge is about 15 deg. from the horizontal and the brick is capable of sustaining a considerable load during the setting of the mortar. It has been suggested that these bricks might also be used as a means of rapid filling of brick panels in framed structures. The bricks would be placed in the panel with only one horizontal mortar joint in about every six courses, with the keying-up bricks inserted just under the soffit of a frame member. The exterior could then be cement gunned and the interior plastered on the dry, though tight, unmortared brickwork. It should be noted that these bricks are patented by the inventor—H. Mason. (Pat. No. 544382.)

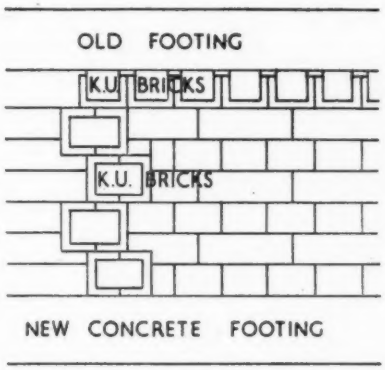

Fig. 2, underpinning an old footing.

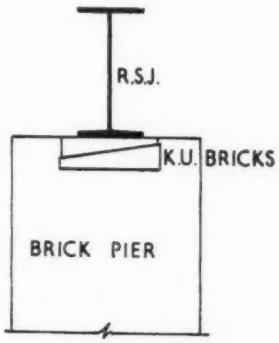

Fig. 3, pinning up to an R.S.J.

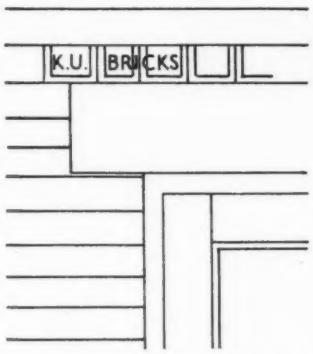

Fig. 4, inserting a new opening in an existing wall.

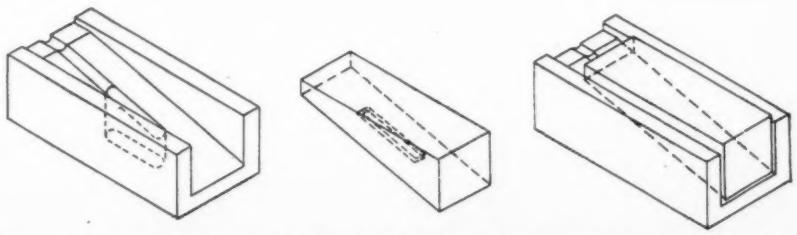

Fig. 1, left, part "A"; centre, part "B", the wedge; right, the complete brick, parts "A" and "B" assembled.

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Announcements

Mr. Andrew Gray, A.R.I.B.A., is now practising at Barn Close, Lower Slaughter, Cheltenham, Glos., and will be pleased to receive trade catalogues.

The companies of Mosers Ltd. and Nettlefold & Sons Ltd. have amalgamated and are now known as Nettlefold & Moser Ltd. Their address is 170-194, Borough High Street, London, S.E.1.

Mr. George C. Oldham, L.R.I.B.A., A.N.Z.I.A., of 465, Childers Road, Gisborne, New Zealand, would be glad to receive Information Sheets, catalogues and trade literature.

Since the death of Mr. S. J. Stainton in February the firm of Cherrington & Stainton, architects, 2, Augustus Road, Edgbaston, Birmingham, 15, has been reorganized. Business is being carried on under the former name. The following are the partners in the firm:—H. Cherrington, F.R.I.B.A., K. V. Norrish, A.R.I.B.A., C. R. A. Smart, L.R.I.B.A., M. S. Stainton (son of the late S. J. Stainton).

Mr. James Scott, B.E., Architect and Civil Engineer, also practising as James V. T. Scott, DIPL.ARCH(LIVERPOOL), A.R.I.B.A., DIP. T.P. (EDINBURGH), A.M.T.P.I., Architect and Planning Consultant, has returned from his temporary wartime address to 22, Lombard Street, Belfast (Tel.: Belfast 23243).

Dr. Kurt Billig, DIPL. ING., DR. SC., A.M.I.C.E., M.I.STRUCT.E., M.AM.SOC.C.E., has been appointed Professor of Civil Engineering at the University of Hong Kong. Previously he was a partner in the firm of Waller and Billig, Consulting Engineers, Westminster.

S. H. Wright & Co. Ltd., incorporated practitioners in advertising, of 44, Bedford Row, London, W.C.1, have closed their Manchester sales office and opened a new sales office at State Insurance Buildings, 14, Dale Street, Liverpool 2.

Buildings Illustrated

Parklands County Primary School at Seacroft, Leeds. (Pages 308-312.) City Architect: R. A. Livett, O.B.E., A.R.I.B.A. Deputy City Architect: P. B. Haswell, B.A., A.R.I.B.A. Chief Assistant Architect (Education): A. R. Peadon, B.A., A.R.I.B.A., A.M.T.P.I. General Contractors: William Nicholson & Sons (Leeds) Ltd. Sub-contractors: Steelwork, Edward Bidgood & Co. Ltd.; plumbing, J. H. Shouksmith & Sons Ltd.; heating and hot water supply, Modern Heating Co. (Button) Ltd.; convector heater units, C. A. Dunham Co. Ltd.; boilers and radiators, Ideal Boilers & Radiators Ltd.; electric pumps, Holden & Brooke Ltd.; electrical and radio installation, B.C.S. Electrics Ltd.; electric light fittings, Hailwood & Ackroyd Ltd.; aluminium windows, pressed steel door frames and entrance screens, Gardiner Sons & Co. Ltd.; roofing, Robertson Building Service; bituminous roofing, Roy (Roofing) Ltd.; flooring, Protheroe & MacNab Ltd., Semtex Ltd., Granwood Flooring Co. Ltd.; pre-cast concrete floors and roofs, Concrete Ltd.; pre-cast stonework, Kingston Concrete Products Ltd.; concrete roof lights, Girlings Ferro-Concrete Co. Ltd.; insulation board ceilings, Sundeala Board Co. Ltd.; plasterers, James Phillips (Plasterers) Ltd.; tiler, A. Andrew & Sons (Marbles & Tiles) Ltd.; sanitary fittings, Associated Clay Industries Ltd.; glazed block partitions, Leeds Fireclay Co. Ltd.; glazed cement, Modern Surfaces Ltd.; timber doors, John Sadd & Sons Ltd.; ironmongery, Joseph Kaye & Sons Ltd., James Gibbons Ltd.; cloakroom fittings, James Haigh (Engineers) Ltd.; kitchen extract fan and canopy, Air Treatment Engineers Co. Ltd.; painting and decorating, Wm. Latimer & Co. Ltd.; paints, Robert Bowran & Co. Ltd.; facing bricks, Crossley & Sons Ltd.; playgrounds and roads, James Brook Ltd.; furniture, Wake & Dean Ltd., Smith & Co. (School Furnishers) Ltd., T. H. Wilson Ltd.; blackboards, North of England School Furnishing Co. Ltd.

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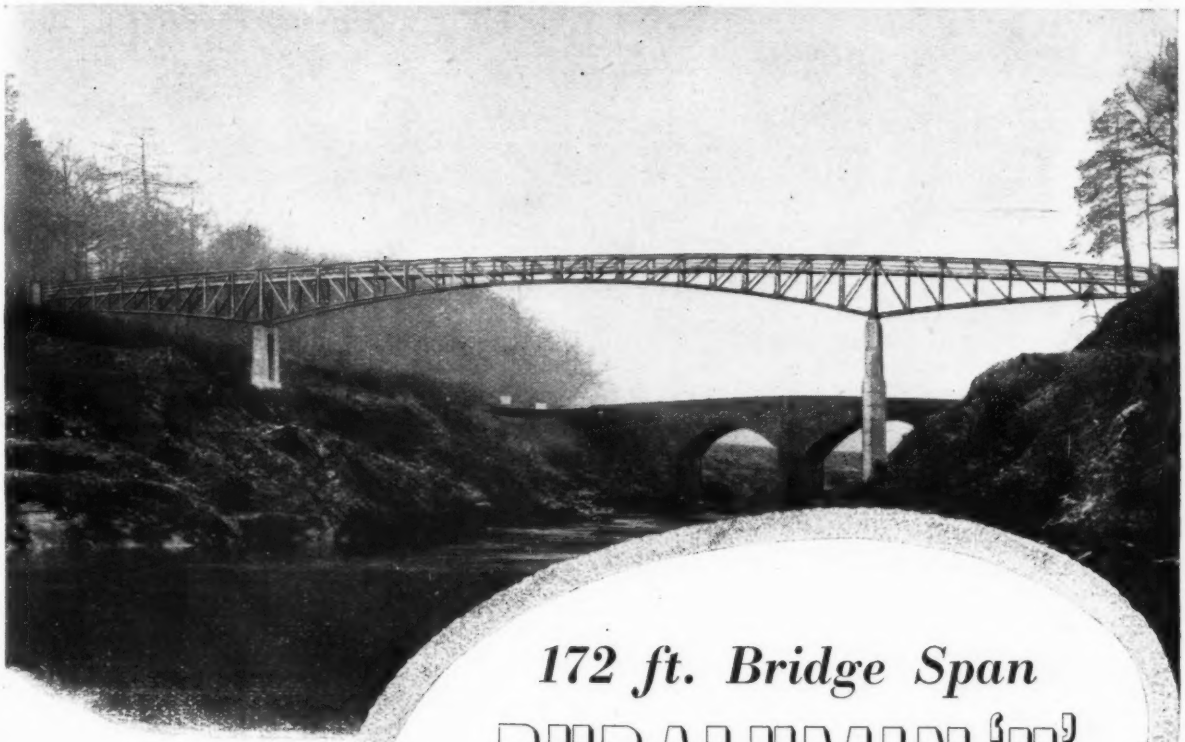

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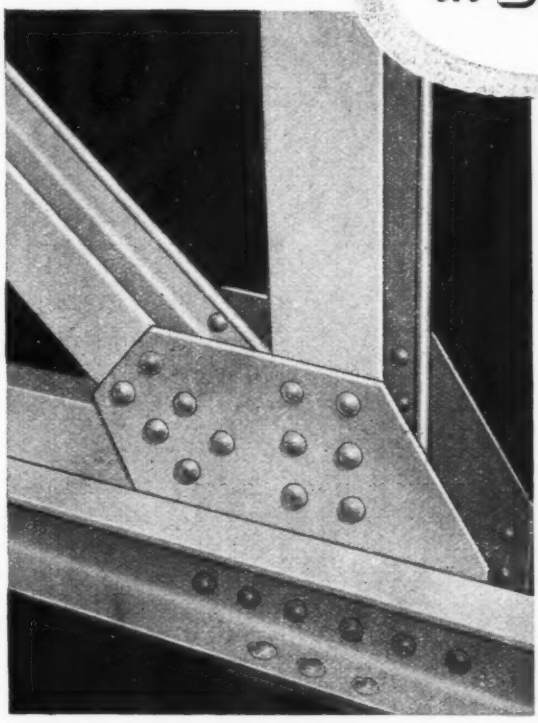

Constructional details, showing beaded 'I' beams for compression members. All rivets are in 'MG5' alloy, driven cold by ordinary percussive means.

The new Clunie bridge across the river Tummel — built in connection with the giant Tummel - Garry hydro-electric scheme — is entirely of Duralumin 'H'. The centre span measures 172 ft. 6 ins., and the side spans each 69 ft. The lightness of 'Duralumin' — which is as strong as steel, but only one third as heavy — greatly facilitated erection, and its well-known resistance to corrosion will considerably reduce maintenance costs. 'Duralumin' is one of a series of light alloys manufactured and marketed solely by James Booth & Co. Ltd. of Birmingham.

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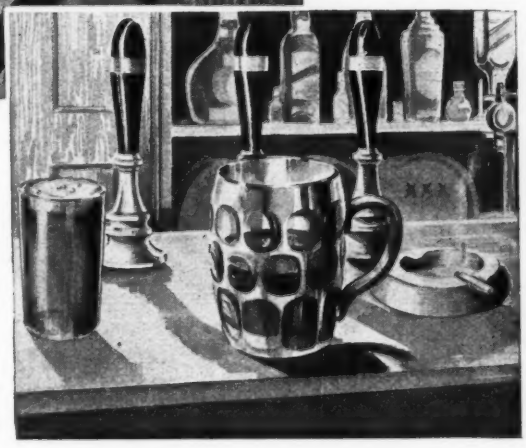
Contractors: Fullers (Builders) Ltd.

Photo: J. W. Mellish & Co.



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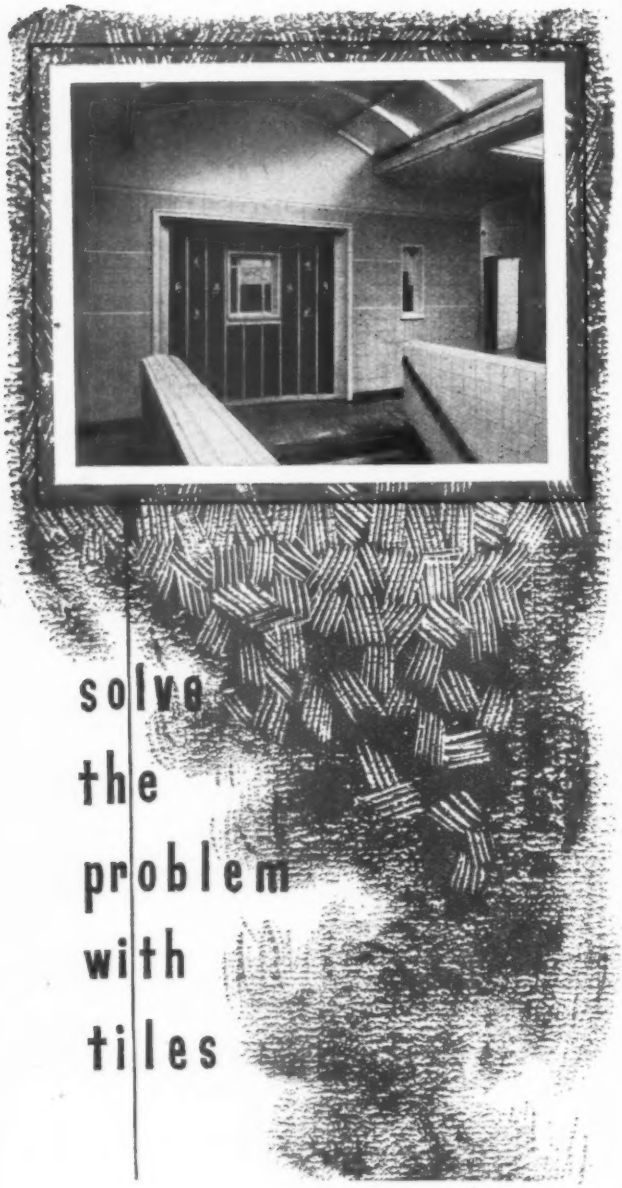

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