THE ARCHITECTS' JOURNAL

standard contents

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

No. 3067] [VOL. 118

THE ARCHITECTURAL PRESS

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Registered as a Newspaper.

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

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

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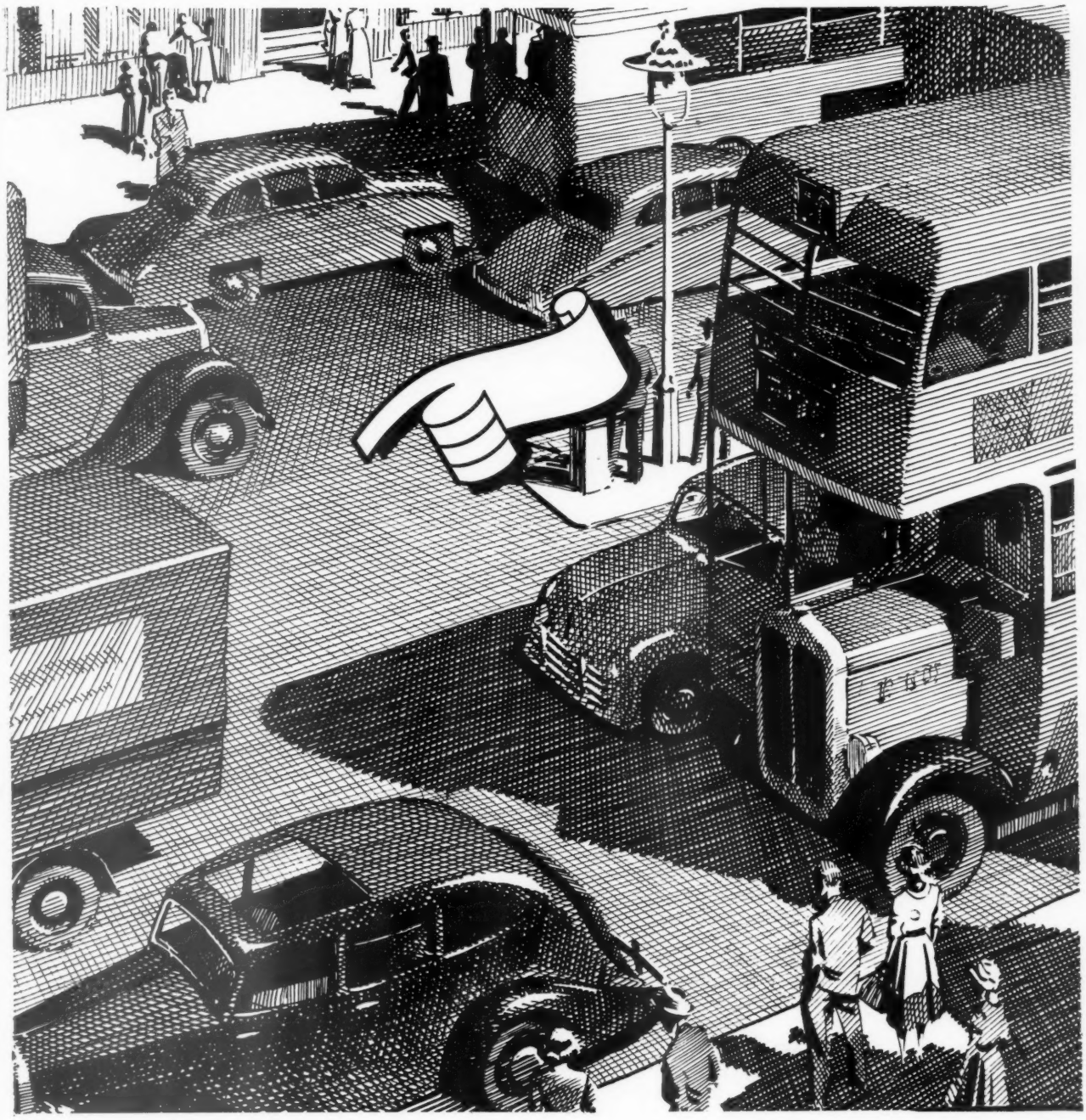

Let there be any hidden weakness in concrete on the modern highway, and pounding traffic will soon reveal it. Authorities and contractors alike are discovering that sound setting and long life for concrete is best ensured with an underlay of impermeable IBECO. Makes for faster work and lower cost, and maximum strength.

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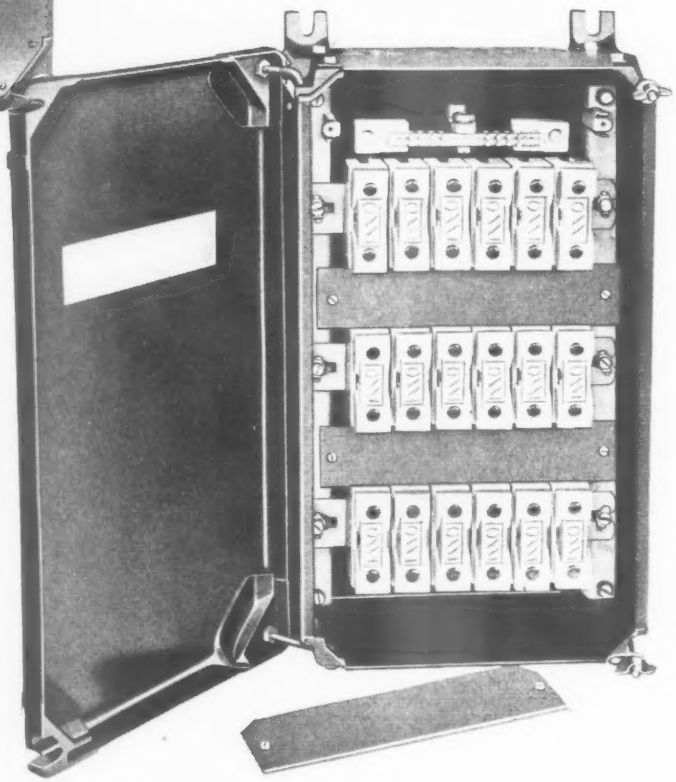
FUSEBOARDS



Here comes the latest addition to the MEM Fuseboard range—the new " Kantark-Major " fuseboards to give even better service, convenience and safety, plus better looks, lighter weight and greater strength and fitted with " Kantark-Major " fuses complying with BSS.88.

Streamlined Case. The use of a composite case of sheet steel with cast corners gives a strong rigid construction with minimum weight. Handsome finish in high quality wrinkle enamel.

Easier to instal because of reduced weight and provision of slotted external feet—two lower fixing bolts can be fixed to wall first, and board can then be supported on these whilst the top fixings are made.

Easier wiring—detachable endplates pierced for conduit entry. Increased wiring space at top, bottom and back of fusebanks, which can be easily removed to simplify wiring.

Triple Pole Boards may be easily converted to T.P. & N. Two mounts are provided on the top fusebank for attaching the neutral bar. By reversing the complete interior of the board the neutral bar can be fitted at the bottom.

Send for List No. 332 *giving full details of "Kantark-Major" Fuseboards for Triple Pole, Triple Pole and Neutral and Single Pole and Neutral applications.*

"Kantark-Major" Fuseboards are additional to the existing range of MEM Fuseboards.

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MIDLAND ELECTRIC MANUFACTURING CO. LTD., TYSELEY, BIRMINGHAM, 11

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Who is behindhand?

Are you sure YOU aren't?

How long is it since you made a thorough search on your premises for scrap iron and steel? Remember that wherever machines are used there will be scrap.

You can make bricks without straw — but not without steel. Practically every building material, from cement to wooden beams, is made with the help of steel — iron and steel machines. And the steel-makers cannot make enough new steel without scrap. Is *your* scrap going to help?

Obsolete machines and equipment, redundant buildings, in fact everything containing iron and steel which has outlived its effective purpose — all this is scrap and should be sent off to your local scrap merchant as soon as possible.

Search your works for it and turn it in. You will be doing yourselves a great service.

Issued for the STEEL SCRAP DRIVE by the British Iron and Steel Federation and the National Federation of Scrap Iron, Steel and Metal Merchants.

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Houses built for Droxford Rural District Council.

ARCHITECT: F. Lindley, Esq., M.R.San.I., A.M.I.S.E., M.S.I.A., Engineer and Surveyor to Droxford Rural District Council.

CONTRACTORS: Messrs. Faulkners, Waterlooville.

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Telephone: Holborn 8282. *Midland District Office:* Prudential Buildings, St. Philip's Place, Birmingham, 3
Telephone: Colmore 4141. *South Western District Office:* 11 Orchard Street, Bristol, 1. Telephone: Bristol 23004/5
Northern District Office: Gascoigne Street, Boar Lane, Leeds, 1. Telephone: Leeds 20771. LB24

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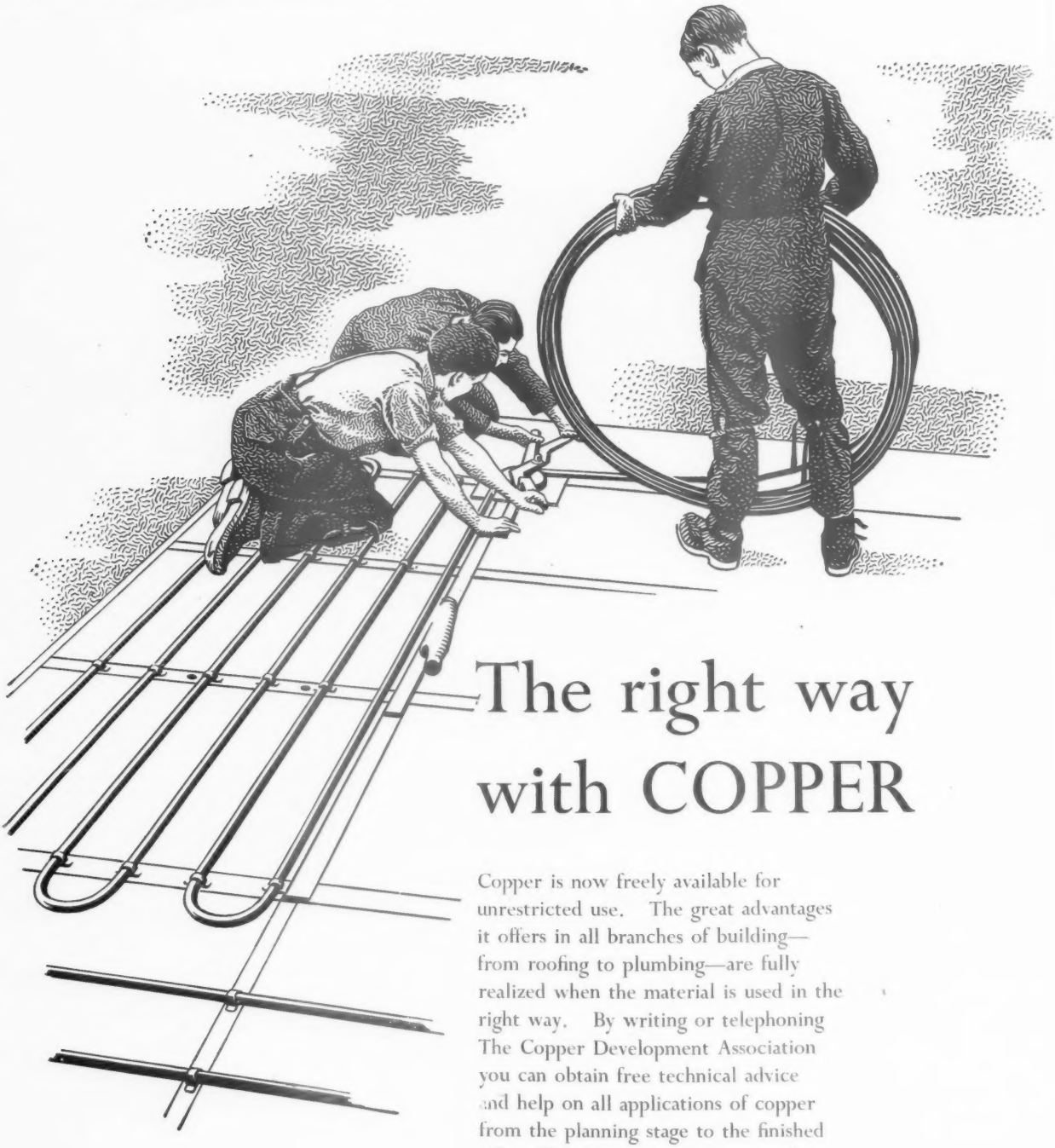

The right way with COPPER

Copper is now freely available for unrestricted use. The great advantages it offers in all branches of building—from roofing to plumbing—are fully realized when the material is used in the right way. By writing or telephoning The Copper Development Association you can obtain free technical advice and help on all applications of copper from the planning stage to the finished job. The Association is a non-trading organization, which exists solely to help copper to help you.

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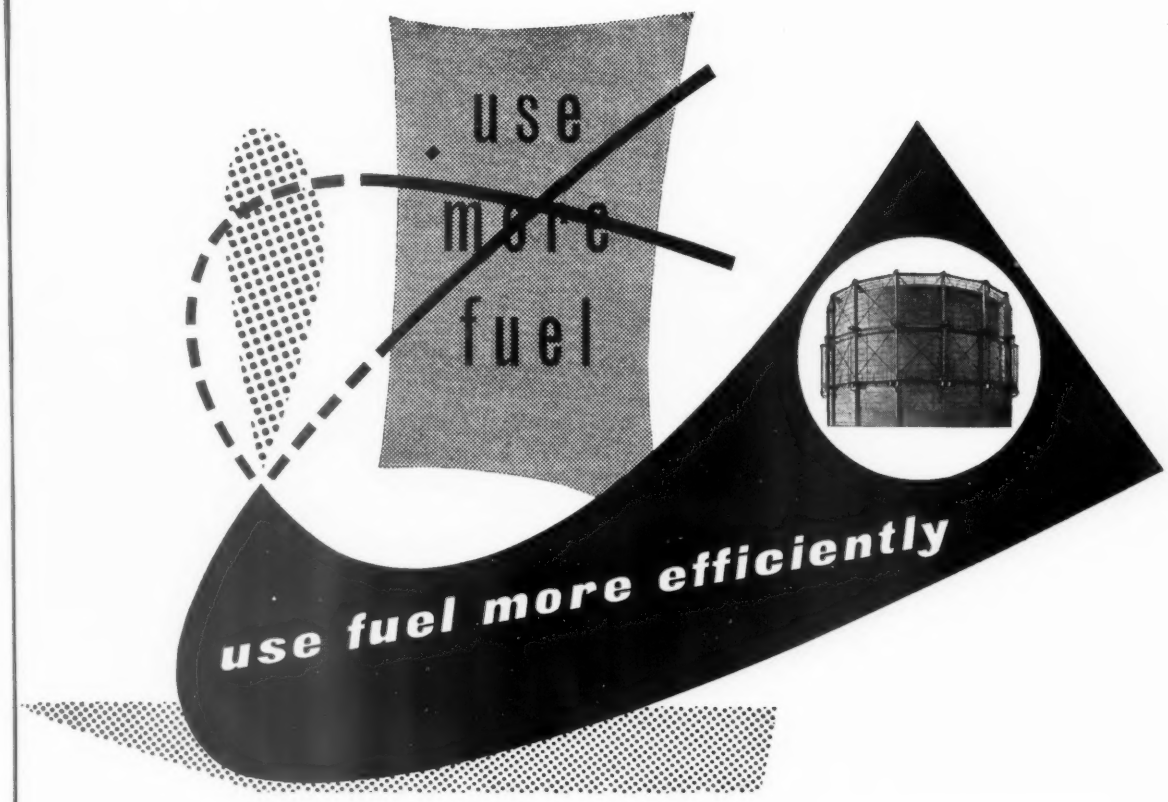

Cut-throat salesmanship has little relevance to present day publicity for a fuel industry. If there is to be any possibility of achieving the improved standards of heating visualised in post-war building studies and reports, the resources of each fuel industry must be used to solve those parts of the total problem of fuel usage to which they can make the most effective contribution.

The recommended uses of Gas in the domestic field are clear cut. It is normally complementary to solid fuel for general winter space heating and water heating, representing the greatest economy in fuel when used for supplementary and intermittent space heating, summer water heating, all-the-year-round cooking, clothes washing and drying, and refrigeration. Used for these purposes it makes the most efficient use of the coal required to produce it.

When it comes to larger buildings, the choice of fuel is inevitably decided to a greater or lesser extent by such factors as: the number of hours a day, and days a week, for which heating is required; the flexibility of control required; the amount of space available for fuel storage; and the importance which is attached to the question of labour-saving.

But, whether it is the heating of individual houses or large public buildings, Gas and Coke have their parts to play and the Gas Industry is anxious to co-operate to the full with those who desire to find the best way of achieving improved standards of heating with the most economical use of basic fuel resources.

Where to go for information about Gas

If you are considering the use of Gas, however tentatively, your first move should be to get in touch with the Gas Undertaking serving the area in which the job is situated. Through it you have access to the combined technical resources of the entire Gas Industry. The following list gives the addresses and telephone numbers of the Area Boards. Where there is any uncertainty as to which Area Board is concerned, The Gas Council will be pleased to give you the correct address.

Scottish Gas Board: 26, Drumsheugh Gardens, Edinburgh, 3. Edinburgh 34331/5. *Northern Gas Board:* 30, Grainger Street, Newcastle-upon-Tyne, 1. Newcastle-upon-Tyne 26101. *North Western Gas Board:* Bridgewater House, 60, Whitworth Street, Manchester, 1. Manchester Central 8121. *North Eastern Gas Board:* Bridge Street, Leeds, 2. Leeds 32571/8. *East Midlands Gas Board:* Beverley House, University Road, Leicester. Leicester 23201/5. *West Midlands Gas Board:* 6, Augustus Road, Edgbaston, Birmingham, 15. Edgbaston 3616. *Wales Gas Board:* 1 and 2, Windsor Place, Cardiff. Cardiff 28621. *Eastern Gas Board:* 2, The Abbey Garden, London, S.W.1. Trafalgar 1173/7. *North Thames Gas Board:* 30, Kensington Church Street, London, W.8. Western 8141. *South Eastern Gas Board:* Katharine Street, Croydon, Surrey. Croydon 4466. *Southern Gas Board:* 164, Above Bar, Southampton. Southampton 76362. *South Western Gas Board:* 9a, Quiet Street, Bath. Bath 60411/5.

Issued by The Gas Council, 1 Grosvenor Place, London, S.W.1. *Telephone: Sloane 4554*

GC.33

It's a good plan

to include

"Anolier" Indirect Lighting

For over forty years Benjamin have been in the forefront of all lighting development, and their knowledge in the field of indirect lighting is unsurpassed. Benjamin Anolier Lighting merits inclusion in all modern architectural design, it is pleasing in appearance and practical in use. Anolier fittings harmonise with the ceiling against which they are viewed, spreading an evenly distributed light over the required area, thus avoiding ugly dark patches.

Light is spread over a large area

Light distribution controlled by lower cap.

Attractive, long-lasting finish.

SPECIAL ANOLIER FEATURES

No bright spots to distract the attention or strain the eyes.

The bottom cap can be removed easily for cleaning and re-lamping.

Fittings can be spaced at a distance equal to five times the length from ceiling down to the lamp filament.

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Telephone: TOTtenham 5252 (5 lines) *Telegrams: "Benjalect, Southtot, London"*

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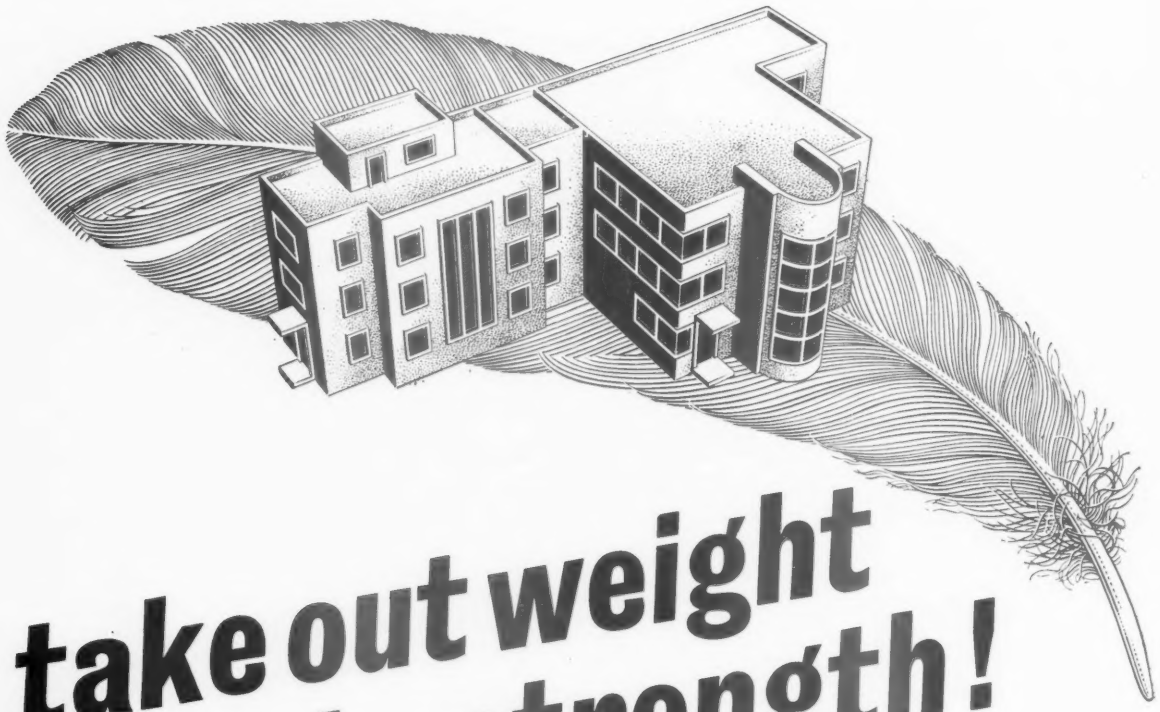
5, CORPORATION STREET, BIRMINGHAM. 2 Telephone: Midland 5197

LEEDS
49, BASINGHALL STREET, LEEDS, 1 Telephone: Leeds 25579

Smee's 253



take out weight keep in strength!

Weight, when you first think about it, doesn't seem to be a very important consideration in the construction and fitting out of a building. But consider the advantages that are to be gained when the weight of materials and components is reduced by the use of aluminium alloys. Transport costs come tumbling down. Handling and erection speeds up. And there's always the special occasion when it *is* vital to keep weight to a minimum. The addition of another storey to the Royal Society of Medicine's premises in London provides such an instance. There, five tons of aluminium saved the use of 70 tons of stone!

And if 'Kynal' aluminium alloys can do this in buildings, think what a vital contribution they can make to saving weight without loss of strength in *your* industry — whether it be aircraft, railway rolling stock or one of a hundred others. Our Technical Service staff will be pleased to help *you* work out how aluminium alloys can cut costs and increase efficiency.

In the building industry 'Kynal' wrought aluminium alloys are recommended for:—

Roof coverings
Claddings and facings
Plain, corrugated and profiled sheets
Glazing bars, roof lights
Ventilators and window frames
Gutters and drain-pipes
Structural framings and canopies
Partitions and panelling
Lighting and heating fittings
Locks, bolts, catches and plates
Domestic furniture, including chairs
Built-in cupboards
Lockers, meat safes and cabinets
Sections for picture rails
Skirting and architraves

'KYNAL' AND 'KYNALCORE' ALUMINIUM ALLOYS

IMPERIAL CHEMICAL INDUSTRIES LIMITED, LONDON, S.W.1.

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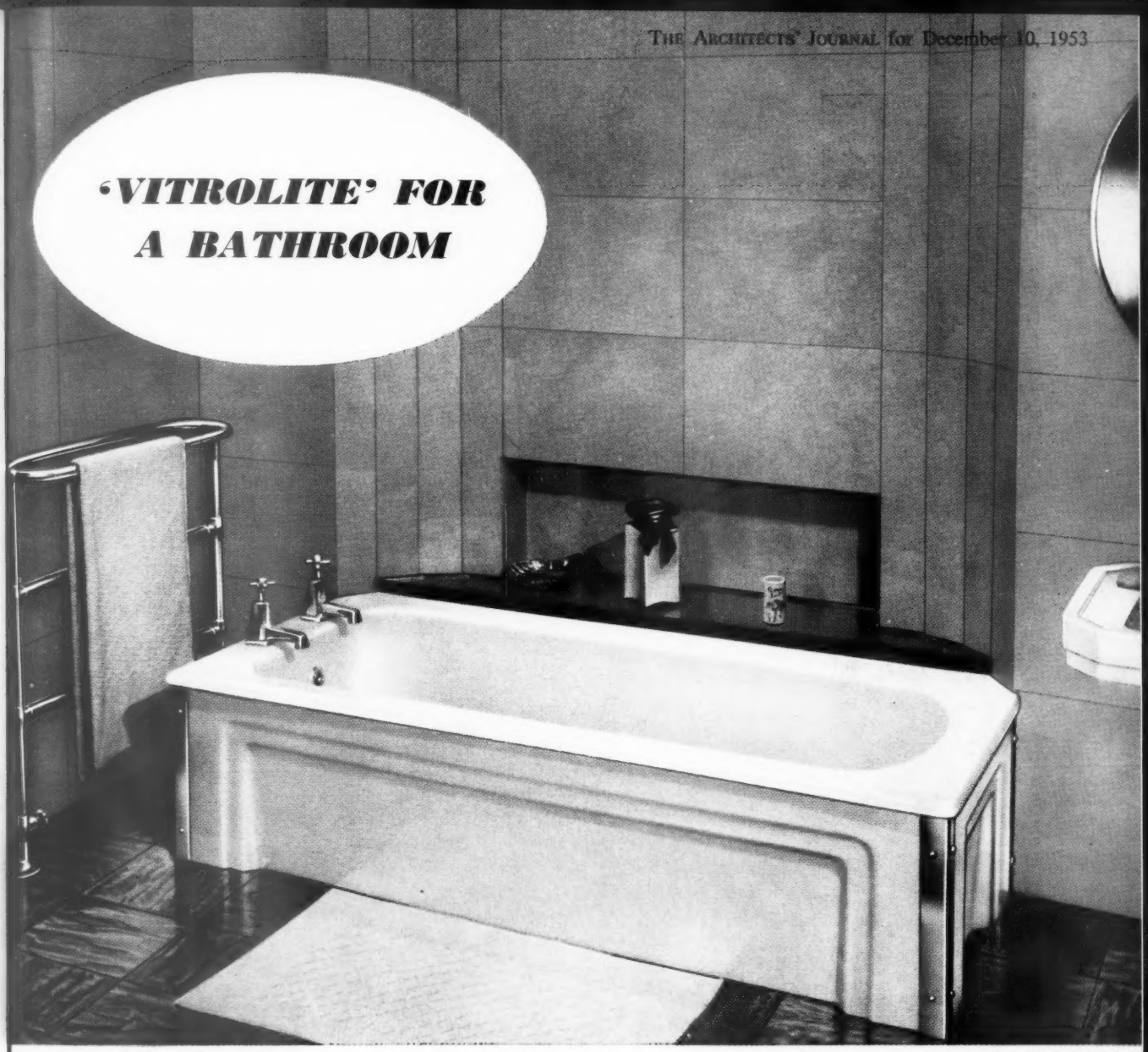
M.311

'VITROLITE' FOR A BATHROOM



Photographed at the showrooms of Shanks & Co. Ltd., London.

The walls are covered from floor to ceiling with Green Agate 'VITROLITE', creating an effect of cool cleanliness, perfectly in keeping with the character of the bathroom.

'VITROLITE' has functional qualities of the first importance. Non-crazing, non-fading, no upkeep—the opaque, fire-finished surface stays in perfect condition for ever. Colours available are: Pearl Grey, Primrose, Green, Green Agate, Turquoise, Eggshell, Cream, Ivory, Black and White.

"VITROLITE"

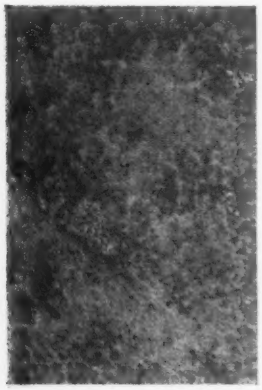
Consult the Technical Sales and Service Department at St. Helens, Lancs., or Selwyn House, Cleveland Row, St. James's, London, S.W.1. Telephones: St. Helens 4001, Whitehall 5672-6.

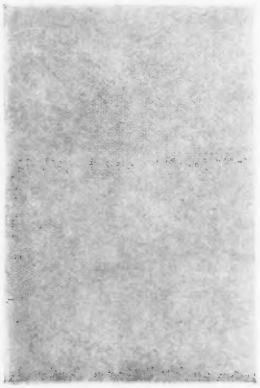
"VITROLITE" is the registered trade mark of Pilkington Brothers Limited. Supplies are available through the usual trade channels.

PILKINGTON BROTHERS LIMITED

ST. HELENS LANCS.

BRITISH GLASS P.B. V.2

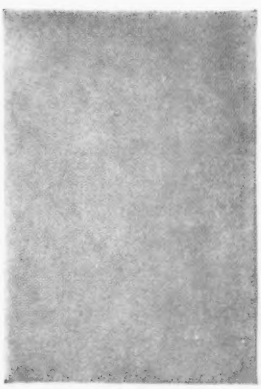




CARTER TILES for the Pub front

The choice of tiles for the pub front is usually for fairly sober colours and mottles, of which five popular examples are shown here in 12″ × 8″ sizes. The trend, however, is towards the 6″ × 6″ size: one of the reasons for the increasing preference for this smaller tile is that it can be hand printed thus giving added interest and colour.

The tiles illustrated are
Brown Mottled EMP. 870
Cream Speckled EMP. 867
and three shades of Grey,
EP. 5003, EP. 4775,
and below EP. 5017.



THE CARTER GROUP

CARTER & CO. LTD., Poole, Dorset. *Telephone: Poole 125*
CARTER & CO. LONDON, LTD. 29 Albert Embankment, SE11. *Telephone: Reliance 1471*
Manchester Office: 27 Brazennose Street, Manchester 2. *Telephone: Blackfriars 2098*
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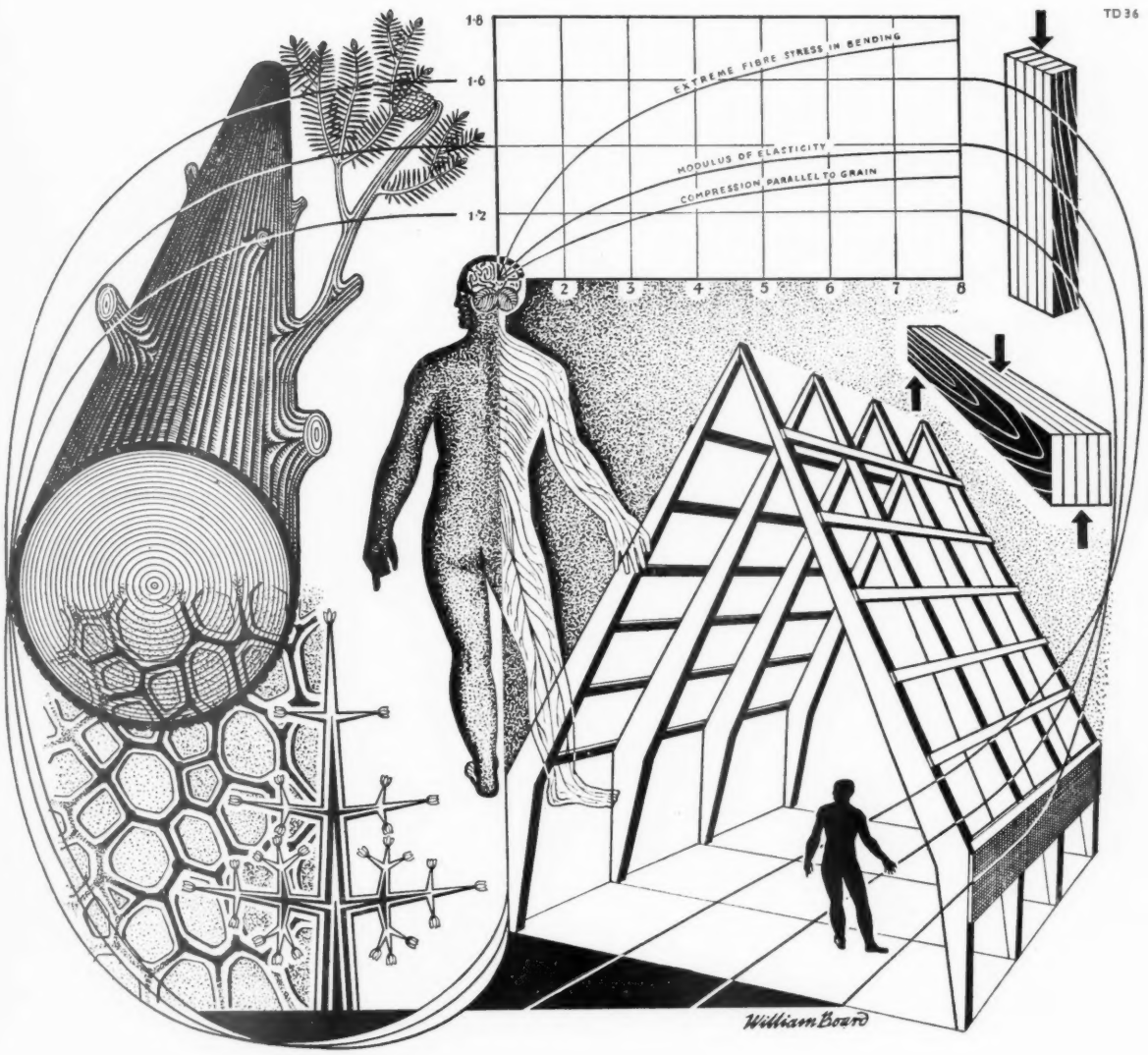
Associated Companies: Art Pavements & Decorations Ltd.
The Marbolith Flooring Co. Ltd. J. H. Barratt & Co. (1927) Ltd.



Design in Timber

Of all materials that influence the free play of creative thinking, timber is the most versatile, setting no uncompromising boundaries to the architect's vision.

There's nothing like WOOD

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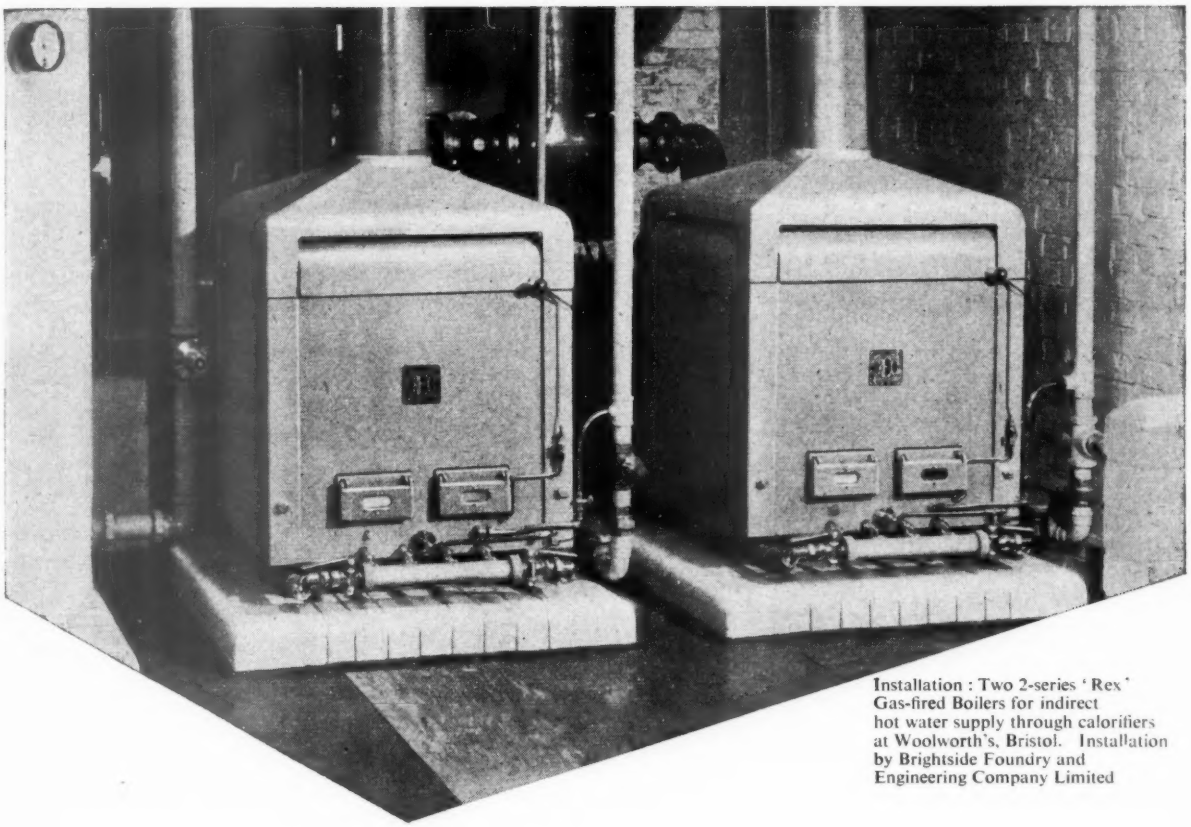


Installation : Two 2-series 'Rex' Gas-fired Boilers for indirect hot water supply through calorifiers at Woolworth's, Bristol. Installation by Brightside Foundry and Engineering Company Limited

Summer conditions called for *economical auxiliary equipment*

At Woolworth's new store in Bristol, hot water was needed all the year round in the restaurant, staff rooms and cloakrooms. But it was uneconomical to operate the main heating plant through the summer.

Efficiency called for *compact, reliable plant*

Space is at a premium in any store, labour costs are high. Dust and dirt were to be avoided. A clean, compact, easily-maintained installation was required.

The heating engineer called for

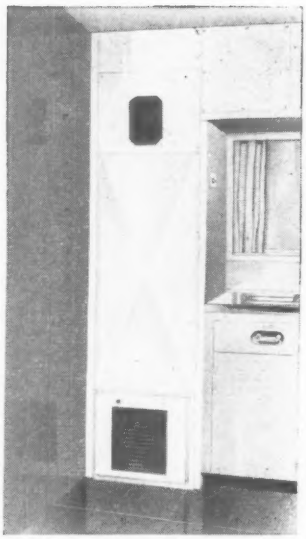
'POTTERTON' *Gas-fired* BOILERS

POTTERTON GAS FIRED BOILERS MADE BY DE LA RUE

Thomas De La Rue & Co Ltd (Gas Division)

Imperial House, 84/86 Regent Street, London W1

All 'Rex' Series boilers are now fitted with the 'Perfecta' Double Duty Device to ensure safe and efficient operation



The Gas Unit

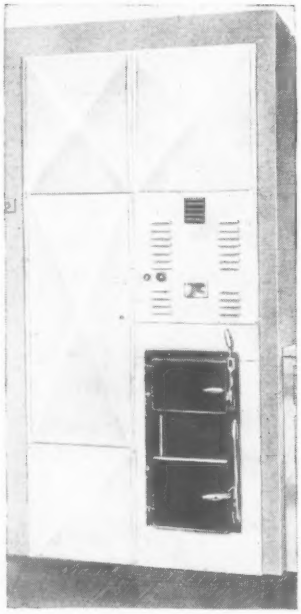
"I strongly advise Radiation Whole-house Warming"

More and more architects are specifying this method of space heating for its comfort, convenience and economy. By incorporating Whole-house Warming at the drawing board stage, architects also enjoy greater freedom in planning.

MAXIMUM COMFORT is provided by the circulation of warm air to every corner of every room and landing in the house. Thermostatic control enables room temperatures to be regulated according to the needs of the day and hour.

MAXIMUM CLEANLINESS in operation is assured by a compact fully automatic unit, normally installed in the kitchen. The solid fuel model incorporates a smoke-consuming, down-draught furnace which burns any household fuel—including off-the-ration fuels—at an average consumption throughout the year of about 1½ cwt. per week.

MAXIMUM HOT WATER supply for all domestic needs, and this regardless of whether the space heating system is in operation or not. The solid fuel heating unit incorporates a 40 gallon hot water cylinder.



The Solid Fuel Unit

Recommend Radiation Whole-house Warming and show your clients what 20th Century comfort with economy can mean.

The Radiation system of WHOLE-HOUSE WARMING

WRITE FOR FULL PARTICULARS TO: RADIATION GROUP SALES LTD. LANCELOT WORKS, WEMBLEY, MIDDLESEX. TEL: WEMBLEY 6221

By courtesy of Scottwood Factory Built Permanent Houses Ltd.

Permanent HOUSES OF *Plywood*

The use of Thamesply *phenol*-bonded AX 100 plywood for the exterior walls of these permanent houses shows the complete reliance that can be placed on this plywood not to delaminate under any weather conditions. The inner walls, floors and ceilings are also made from tough and lasting Thamesply.

The advantages of a plywood house

Construction time much less than for a comparable brick dwelling; can be assembled from factory-made sections.
Outer walls of plywood "stressed skin" construction have about twice the insulation value as that of a 13½" brick wall.
No "drying out" period required.
Overall weight much lower.
Floors are draught-proof and free from ridges.
Cost competitive with brick house.

THAMESPLY
Registered Trade Mark
AX 100 PLYWOOD

PHENOL-BONDED TO BEAT THE WEATHER

Thamesply AX 100 satisfies the test of being boiled for 6 hours without the glue line being affected. A sample of boiled Thamesply will be sent to you on request, which you can boil again to prove this claim. Write for a copy of our 36-page Brochure "Thamesply in the Service of Industry" and for Information Bulletins giving engineering data, etc.

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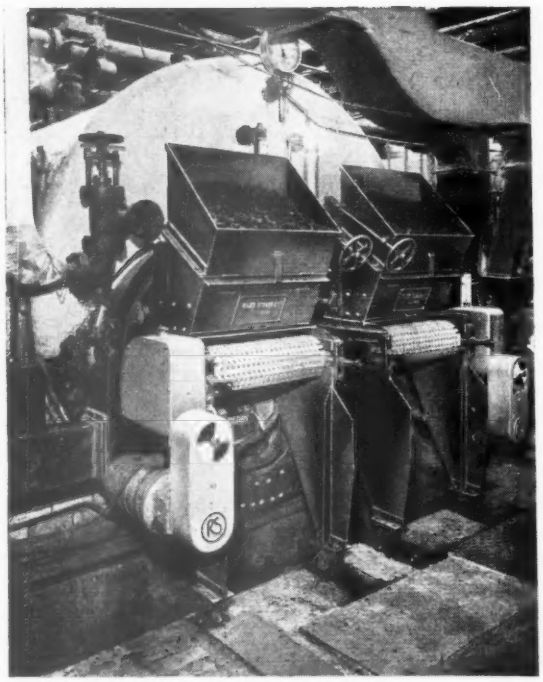

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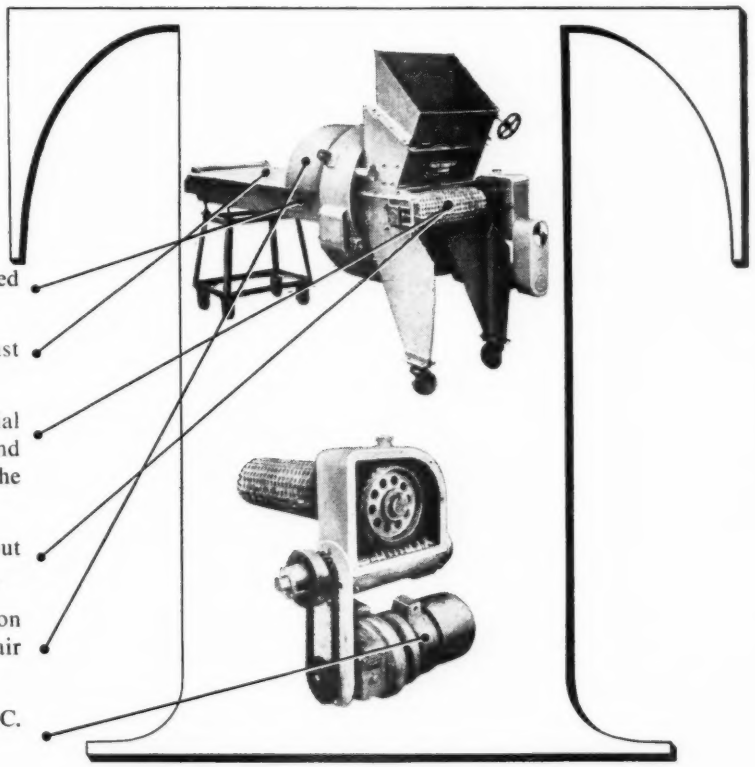

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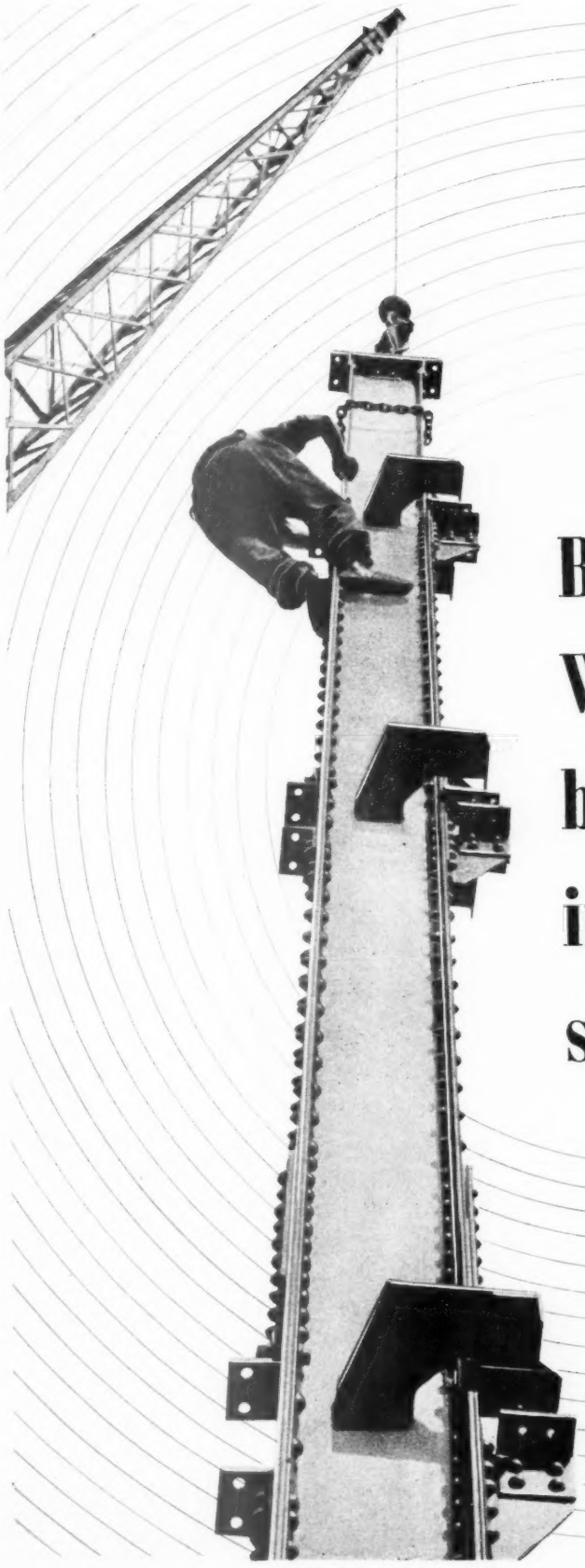

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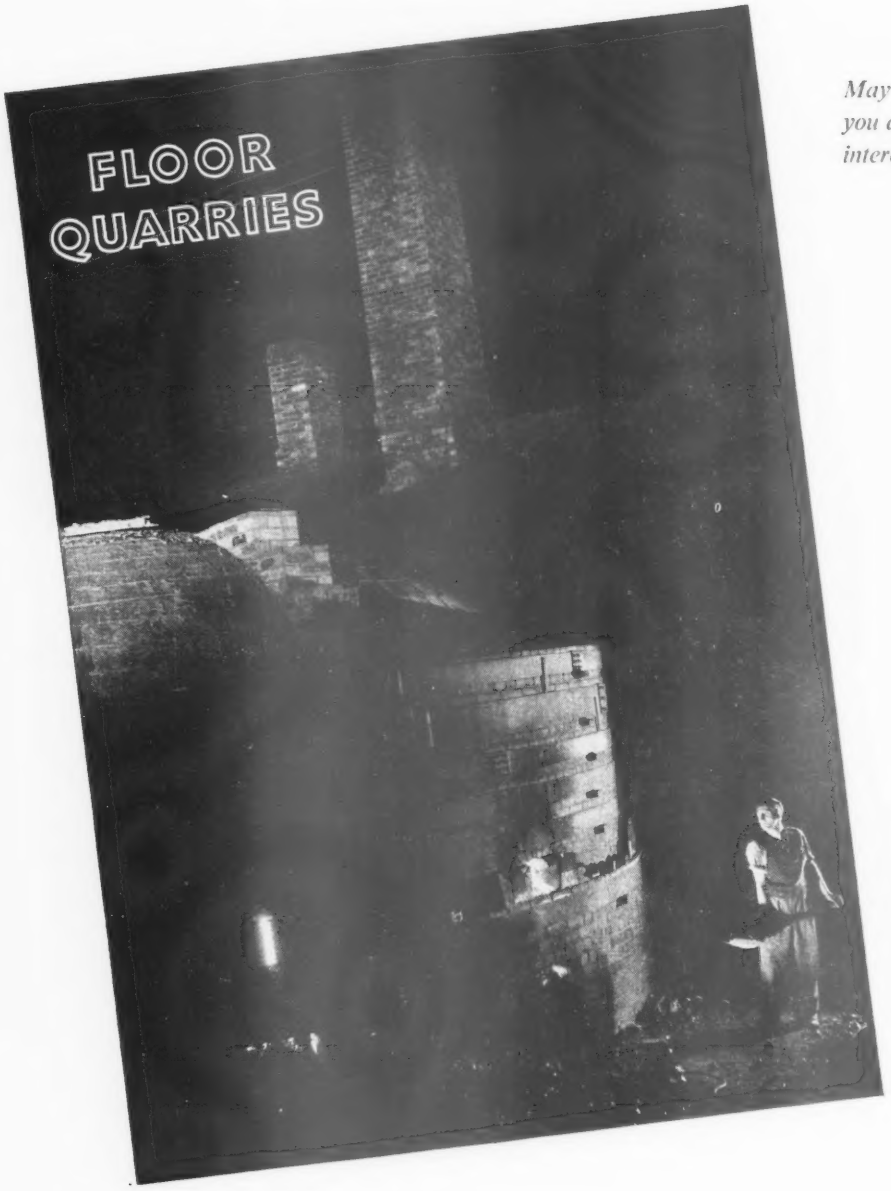

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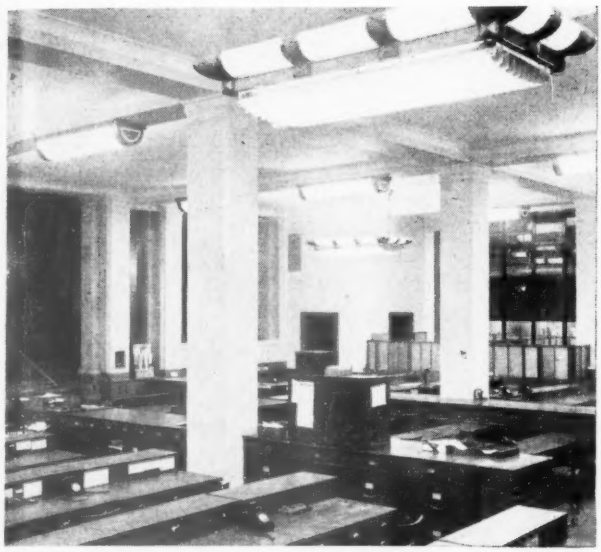

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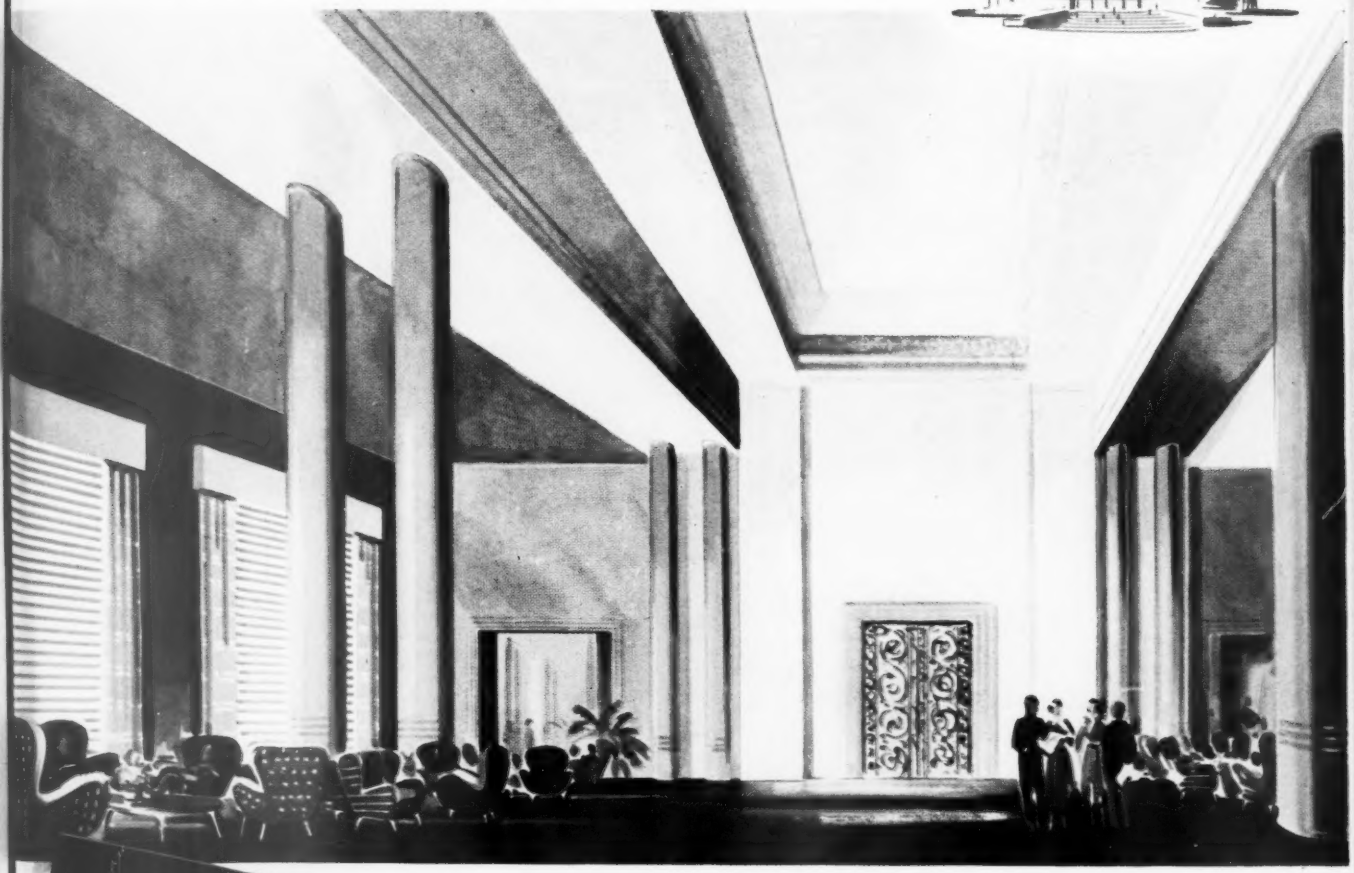

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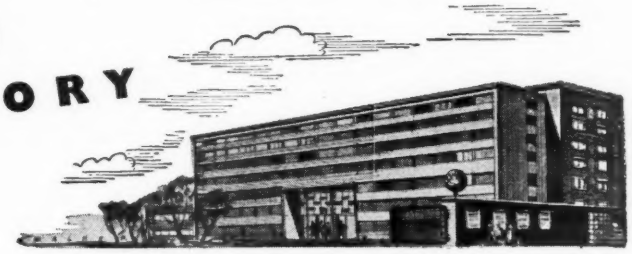

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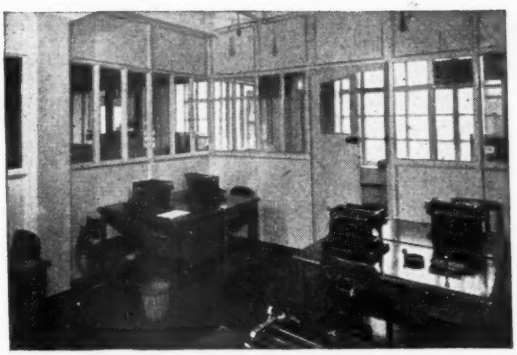

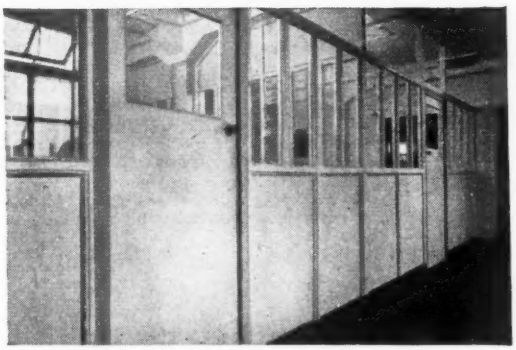

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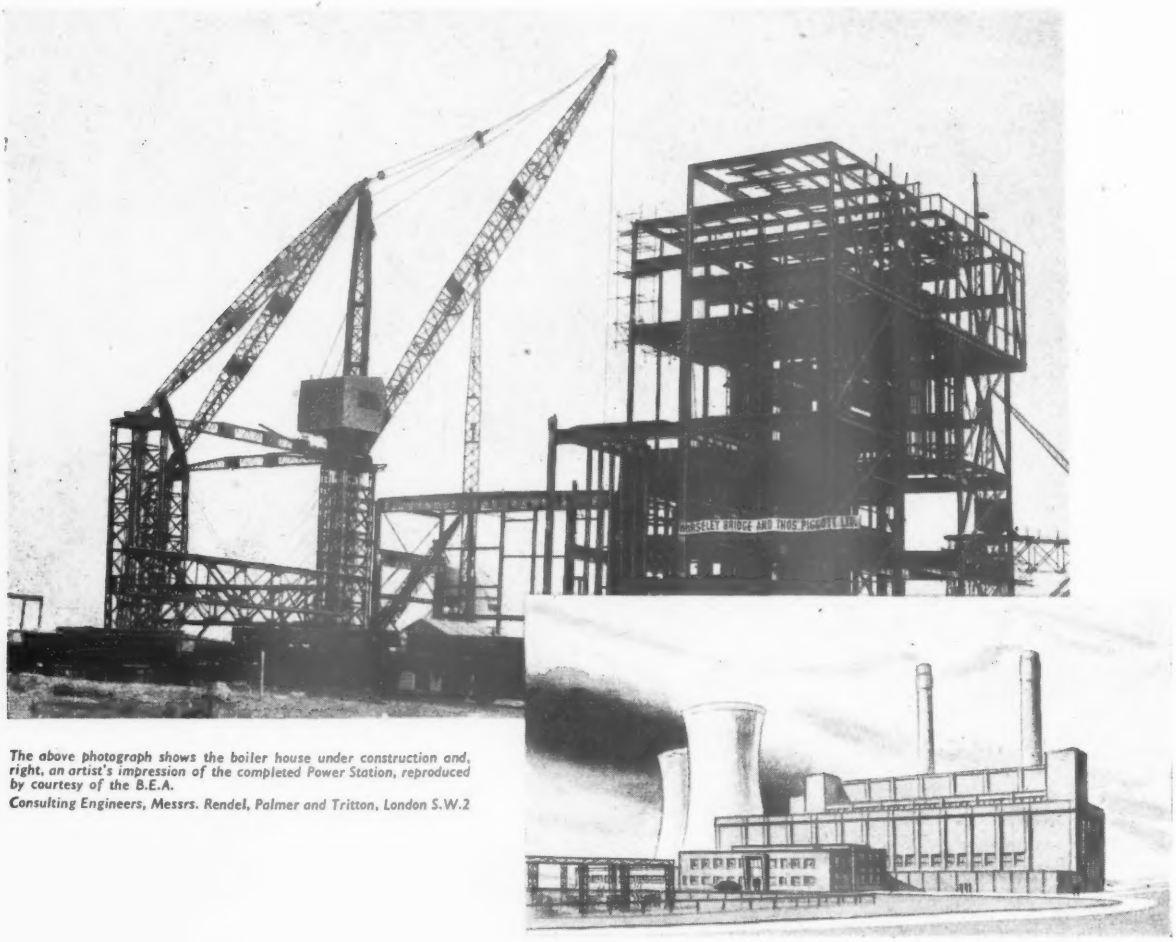

The above photograph shows the boiler house under construction and, right, an artist's impression of the completed Power Station, reproduced by courtesy of the B.E.A.

Consulting Engineers, Messrs. Rendel, Palmer and Tritton, London S.W.2

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Ince Power Station is one of several stations in the British Electricity Authorities' programme, the fabrication and erection of which have been entrusted to the Horseley Engineering Group.

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In addition to the Turbine and Boiler Houses, the administrative block and ancillary buildings are being constructed by the Group.

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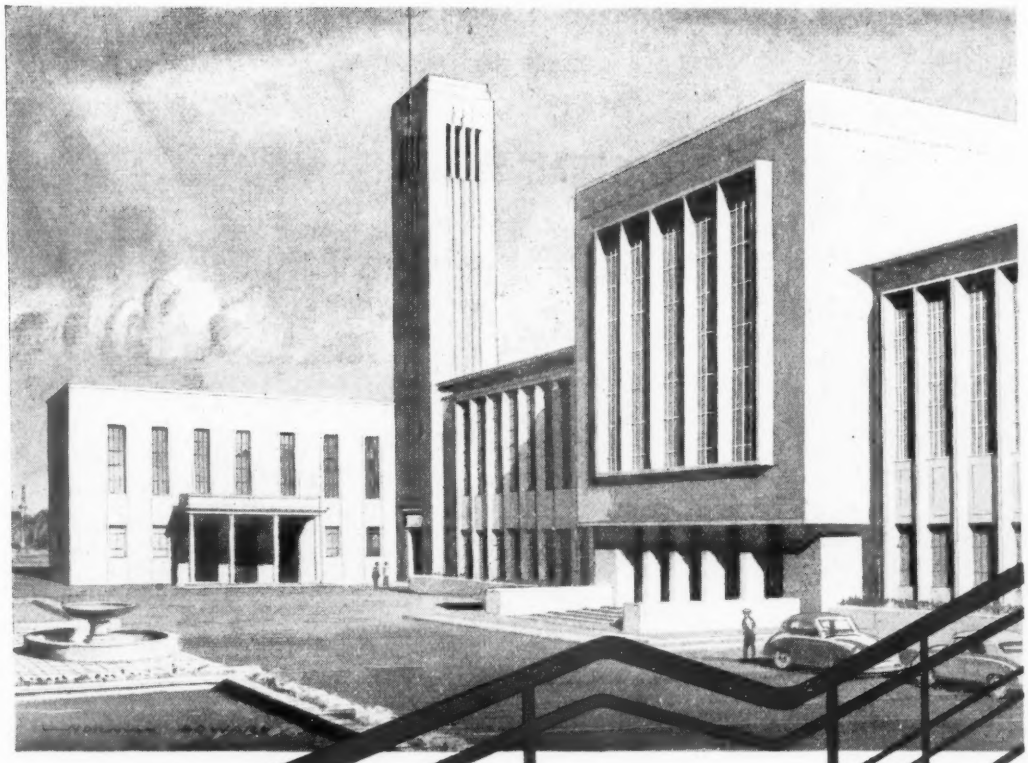

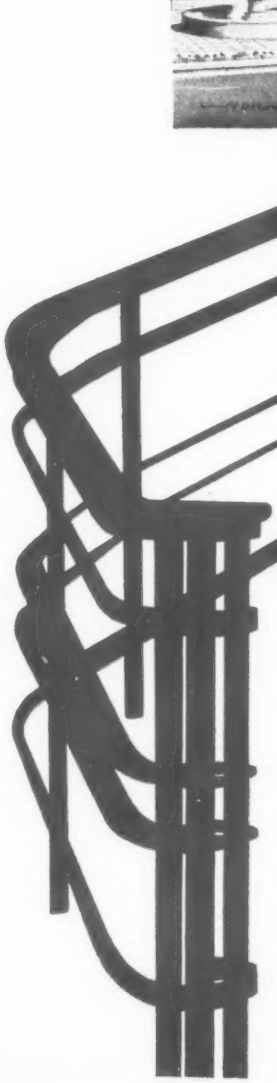

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THE ARCHITECTS' JOURNAL

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

No. 3067 December 10, 1953 VOL. 118

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MORE WORK

Architects ought to welcome the licensing limit relaxations which come into force next year. As you will have heard, the housing limit goes up from 1,000 to 1,500 square feet, while the local authority can allow up to 2,500 sq. ft. But the 1,500 licence is automatic. It is probably true that people for whom 1,000 sq. ft. is enough do not often employ an architect, but there must be plenty of people about who have been wanting to build something a bit larger for quite a number of years, and quite a proportion of this work ought to come to architects.

*

So far so good. Before you throw up your hands in horror at the automatic licensing of 50 houses at a time for the spec. builder, remember that this is about the minimum number for which proper site organization is worth while, while from the point of view of site layout and design the necessary control must be exercised by the local authority.

*

A £25,000 limit for industry and for agriculture, as against the previous £2,000, is far more reasonable, at least as far as industry is concerned. We can be grateful to Sir David Eccles, for there seems a chance of a fair amount of additional work.

COUNTRY MATTERS

Farmers—like architects—are often seen in Bedford Square, for the National Farmers' Union stands almost cheek to cheek (or should one say rump to rump?) with the AA, and quite a number of them turned up to take part in the excellent symposium on farm buildings held in the AA library last week. As the president, Sir Hugh Casson, said, you could tell them by their pale haggard faces and lonely haunted air—for farmers, as anyone who has attended a farm sale or a weekly market will testify, are usually a morose, neurotic—I nearly said unfriendly—crew, whose worries are often so personal and individual that they cannot easily be shared with others. Nevertheless, there was plenty of good, sound sense and essential information in the papers presented, and the discussion was lively and spirited.

*

The architect's contribution to this field of design has, in the last decade, probably been very small indeed; nor have architects had much hand in the designing of many of the prefab buildings which now form the bulk of new work on farms. The choice of subject for the symposium, therefore, was both wise and timely, for if there was one thing upon which all were agreed it was that rising labour costs made planning essential on the farm. Even one thoughtlessly-placed gate might involve over a year many man-hours spent in getting down from tractors, opening and shutting and mounting again—hours that must not be wasted.

*

Here the architect surely can be of some help so long as he remembers—to quote the president again—that most farms in this country are very small, and change ownership (and therefore policy) very frequently, and that farming methods change more often than buildings. Any over-ingenious plan, over-elaborate circulation system, or one-purpose structure is doomed to failure.

SMALL HOTEL

Many architects will share ASTRAGAL'S gloom at the threatened disappearance of the Berkeley Hotel. Even the pleasant news that its reconstruction will be in the skilful hands of Howard Robertson does not wholly compensate us for the loss of this charming, little, whitewashed brick hostelry, with its domestic scale so admirably contrasted to the splendid monumentality of the Ritz.

*

The Berkeley has always, for some reason, been the haunt of the young and the country-dwelling (provided their bank balances are suitable), and ASTRAGAL—now a not-so-young townsman of shrunken income—does not often pass its brown-bowlered

" The Rocks," one of the exhibits on view at the RIBA headquarters, where some of the work of Charles Rennie Mackintosh is being shown on the occasion of the twenty-fifth anniversary of his death.

doorman in search of food or entertainment. He still, however, gets daily pleasure from its façade—who is the architect by the way?—and in his car as he passes sometimes echoes a faint trickle of " My Heart Stood Still " and other classics of his dancing days. To Mr. Samuel, no doubt, the Berkeley is just another piece of Real Estate—but let him tread softly for he touches here a tiny fragment of a British Institution.

OLYMPIAN END

Last week, on the closing day, ASTRAGAL, on twingeing, bandaged feet, treading more softly than Mr. Samuel ever could, padded for the final time round the largest, best-attended (up 20 per cent. on last time) and best-looking of the twenty-five Building Exhibitions so far held. Once more he listened to salesmen parroting their patter with glazed eyes, absent minds and automatic motions: " Yes, sir—guaranteed not to flake or crack or chip, fully impregnated double-bonded pressure-dried; mind how you hold it, sir; tut-tut, no that doesn't usually happen, must be the heavy handling its had. I'll fetch our technical chap—just a moment—he knows all about it, sir, I only sell it."

*

The very last visitor, the very last sales-talk (for a few days, at least) and in the final minutes the weary salesmen started to relax and come alive again and throw the out the odd indiscretion. Samples were tested with extra verve, in the knowledge that it couldn't matter less if they broke. A brisk and jubilant workman with a mechanical drill started cheerfully to demolish the more solid parts of his stand. The more fly of the exhibitors drained their bars and quietly stuffed plants and decorative odds and ends into brief-cases and hold-alls, while stand designers eyed with dismay the damage done in a fortnight to carpets and staircases destined, they hoped, for their own homes. No sour grapes here, for ASTRAGAL learns that the Architectural Press are profiting from this salvage operation to the extent of a very fine, undamaged, and much admired mural by Gordon Cullen, which, by some miraculous transfer process, appeared in full colour on Warerite panels at the back of their own stand.

*

And, finally, as a footnote to this exhibition, I learn that the domestic heat pump referred to in this column recently will be on sale by March at a cost of £100 installed (plus purchase tax, an, as yet, unknown sum). There may be snags, of course, but even if an immersion heater is needed as an occasional booster, £100 is not a great deal for a combined refrigerator and water heater.

RENNIE-SANCE

Today is the twenty-fifth anniversary of the death of Charles Rennie Mackintosh, and, very appropriately, the RIBA are holding a meeting tonight at which Thomas Howarth of Manchester University will discuss Mackintosh's work, and the audience will have a preview of an exhibition of his designs which was first shown at

Decimus Goes for a Burton

The wheel of history has rattled round full circle and Decimus Burton's Palm-house at Kew (above) is to be replaced by a new one whose chassis will be formed by the Mall Coronation arches, as below. There is a justice in this, for the Crystal Palace of 1851 was the undoubted off-spring of the great greenhouses of the eighteen-forties, while the chassis of the new Palm-house is the equally undoubted off-spring of the Festival of Britain which celebrated the centenary of 1851. One cannot but regret the disappearance of Burton's masterpiece after a mere century —a short life for cast-iron—but the existence of palms implies a damp, warm atmosphere which defies all attempts to resist corrosion. The new Palm-house will avoid this danger by having its aluminium-framed glazing hung *inside* the steel arches, which will thus be exposed only to the more manageable attacks of the English climate, and should thus maintain for many years a whiff of Coronation splendour in what is, for a nation of gardeners, one of our national shrines. (Sketch from MOW Architects Department).

the Edinburgh Festival in the summer. The Saltire Society and the Arts Council have sponsored the exhibition, and the London branch of the former body held a meeting last week at which John Brandon-Jones spoke on the relationship of the work of Mackintosh to that of Norman Shaw, Voysey and the English Arts and Crafts Movement.

*

With all the revival of interest there is today in Mackintosh, it is surprising that such a topical subject is not presented at a General Meeting instead of in the comparative obscurity of that erudite body the Library Group. Much of the renewal of interest is due, no doubt, to Dr. Howarth's excellent and well-illustrated book.* It is an outstanding contribution to the history of recent architecture. Very readable, it is based, nevertheless, on painstaking research. Howarth has hunted through dusty attics and old account books, ransacked cellars for his furniture, and followed every clue to the end. He records many interesting facts that might have been lost forever with the deaths of Mackintosh's few surviving friends and clients. The book makes it clear that Mackintosh taught his Continental contemporaries far more than he learned from them. He had a profound knowledge of the architecture of Scotland, especially the country buildings designed by anonymous masons and crofters. His originality was no exotic growth but the brilliant flower of a plant deeprooted in its native soil.

SCHOOL DESIGN

There have been very few really good books on schools since the war, and not one of them has been a comprehensive survey. Messrs. Godfrey and Cleary's book, *School Design and Construction*,† goes a long way to filling this gap. Not only does it give a neat history of the development of educational legislation and its effect on school planning, but it gives a very full picture of post-war schools. There is a large section dealing with the functional requirements, construction and equipment, and an extremely good bibliography. The authors are to be congratulated on writing a book which it will be difficult for anyone concerned with school design to avoid buying.

ASTRAGAL

* *The Architectural Press.* J. A. Godfrey and R. Castle Cleary. 36s.
† *Mackintosh and the Modern Movement.* T. Howarth. Routledge & Kegan Paul Ltd. £3 3s.

POINTS FROM THIS ISSUE

The Editors

BUILDING LICENCES

THE British economy has just received one more push along the road to freedom. The amount of building work that may be done without a licence, in any year from January 1, 1954, is to be £25,000, if it is an industrial or agricultural building, and £1,000 if it is any other type of building. Houses of up to 1,500 sq. ft. are to be licensed automatically, and discretionary powers are being given to local authorities to licence houses of up to 2,500 sq. ft. in size. Architects cannot but welcome the immense simplification of procedure made possible by these concessions. The smaller building owner will no longer, in effect, have to worry about building licensing at all. The owner wishing to put up a factory no longer requires a sponsoring department. The few remaining restraints apply only to the larger works, or to cases which may arise in areas where there is a severe overload on building resources.

Freedom is, indeed, attractive after twelve and a half years of control, but it has its uncertainties as well. The purpose of the controls was to limit demand to a level that would not outrageously exceed available supplies, and so to keep costs from rising too fast, and to ensure some social facilities in what was to be built. Costs can now rise more rapidly in any period when demand grossly exceeds the supply of building materials, labour and organization available. Relatively, " luxurious " or " unnecessary " buildings can take precedence over other building programmes, and to some extent must inevitably do so when longest purses get quickest results.

The new situation presents, then, a new opportunity and a new challenge. There will be scope for more building work to satisfy clients no longer hampered seriously by fear of breaking the law. Some clients will build at any cost ; others will be discriminating. The architect's function will become more important, in the sense that his skill in design and in business management will be tested in a more competitive world, and one in which there will be, for some time, considerable uncertainty as to the future of prices and costs. The first impact of the new freedom might be a rise in building costs, out of proportion to any upward movement in building materials' prices or labour costs. But such a rise, if it takes place, may well be somewhat self-defeating ; it will choke off demand, and hold up the extra private investment that the change is supposed to encourage. The more prudent building owners will in any case wait, if they can, for prices to settle down before they launch out on extensive plans.

The new challenge amounts to setting the stage for a revision of the much too lax control of costs that has prevailed in the building industry. Perhaps the ultimate goal of planning

detail, estimating cost, and building to a fixed price, has come a little nearer to realization. But with so much repair work, as well as new work, yet to be done, the immediate outlook is not favourable to a greater control of costs, and the Minister of Works himself seems still to be in some doubts as to how far the building industry is sufficiently well organized to resist the temptations of a boom. On any long view those temptations ought to be resisted ; and architects have now a better chance than before, in view of the freer hand that they now have over starting dates, to make sure the contribution of architectural planning to the costs problem is effective.

FOCUS ON

YOU

The JOURNAL'S *Guest Editor, Professor Bowen continues to give results of his enquiry into the state of the architectural profession. (The names shown in the headpiece above were taken at random from the Architects' Register, and are not related to this article.)*

Guest Editor :

Professor IAN BOWEN

Readers' Comments on Private Practice

ON the enquiry form sent by the JOURNAL to a " sample " of architects, space was provided for comments on progress in private practice, on the opportunities for advancement, and on the problems involved in changing from one form of architectural practice to another. These subjects were naturally seen from a different point of view, according to the experience and temperament of the architect filling in the form. Nevertheless, while there was not unity of view, the replies gave a fairly consistent picture of conditions in the profession.

DIFFERENCES OF EXPERIENCE

The nature of an architect's experience, rather than his age, seems to be the main factor determining whether or not he takes an optimistic view of the future of private practice. On the extremely optimistic side are those (ages 45 and 53 respectively) who hold that " prospects are still good for men of ability and personality," and that there are " still ample opportunities for the private architect, if competent, and not afraid to give sound advice even when unwelcome to clients." At the pessimistic extreme is the architect (aged 54) whose practice is stated to have been ruined by the war, and who blames the Labour government for preventing progress after the war, he himself still being wholly without work.

These appear to be the two extremes of view, and seem to be held roughly by the successful extroverts, on the one hand, and the unsuccessful (for whatever reason) on the other. In between there is a fine shading of opinion which defies detailed classification. Very broadly it may be summarized by stating that of those expressing views on the subject, two to one took either an unfavourable, or a heavily qualified, view of the prospects in private practice, the optimists not unnaturally being in a distinct minority.

This was to be expected, because in any profession only the few are chosen (or choose themselves) for success and leadership, and this must be specially pertinent to a competitive profession like architecture. Thus the "optimists" were composed either of those who had done well in private practice, sometimes in rather special conditions (*e.g.*, in Northern Ireland) and those on the threshold, or still near the beginning, of their careers (in the 35-44 age group) who stoutly believe that opportunities today are greater than they have ever been, who find greater freedom and opportunity in private practice than in working for a public board or authority, who have either become a partner in a firm or have expectations of a partnership, and for whom these expectations fully justify some sacrifice of security. Such is the minority outlook, and, as long as it is held, private practice will attract entrants.

ANXIETY ABOUT THE FUTURE OF PRIVATE PRACTICE

Even among the so-called "optimists," some anxieties were expressed for the future of private practice, and of course these were even more serious among the architects who have preferred to move into public employment. A quite general view might perhaps be presented as follows.

First, among many assistants (aged 35-38) who work in private offices out of preference there is a general feeling that the future is not bright; anxiety due to fear of overcrowding in the profession varies among its group from mild to acute.

Secondly, the absence of any form of pensions scheme is a powerful factor discouraging assistants without bright prospects from staying in private architectural employment.

Thirdly, even the man who has moved into government service and is irked by the conditions there, and whose chances of rapid promotion are problematical, feels that he cannot afford to return to private practice.

Fourthly, the private architect in small towns (indeed, in most towns outside the great urban centres) seems to be especially disfavoured by modern conditions. From these places come the most violent complaints of the hazardous character of the profession, of the crying need that more public contracts are put out to competition.

Fifthly (and on this there is a serious diversion of view), while some " optimistic " architects believe that the admission of salaried partners is an answer to the frustrations experienced by assistant architects, there is strong opposition to this view, and a belief that these appointments give status only, and fail entirely to improve prospects adequately, or raise incentives, since profit-sharing is rarely in question.

ADVOCATES AND CRITICS OF GOVERNMENT SERVICE

Among those in the majority (*i.e.*, the two to one with a very qualified view of private practice) is a small proportion who actively support the advantage of public employment. Promotion is admittedly by seniority, but this can be overcome by determined effort and efficiency. There are now unprecedented and " amazing " opportunities in Local Government service. Better pensions and better current salaries *plus* a greater security of employment are advantages that appeal

specially to architects in their forties who can remember the insecurity of private employment in the 1930's, and also to the younger man with family responsibilities. Indeed, one architect (aged 49) argues that in private practice little opportunity for advancement is given, and that assistants usually have to leave to better themselves; the same point can be made of public employment (in fact it is made in some of the comments), namely that advancement depends upon moving from one authority to another, but this is perhaps a less serious problem in public employment.

Some deplore the relatively high scale of salary paid by local authorities, and may deplore the obscurity of the future of private architecture, or the fact that, for instance, the private architect is exposed to competition by official architects working in their spare time. And again, the unwelcome fact is noted that some private offices are choked with work, and have become virtually extensions of government departments, while the majority of private offices suffer from this unequal distribution. But whether deplorable or otherwise, the trend in favour of public architecture has put the majority of those with views firmly against the relative desirability of private architectural employment.

LETTERS

W. J. Harvey, A.R.I.B.A.

Edward Procter, L.R.I.B.A.

Wanted: More Preaching to the Converter

SIR,—Without raising any political hares I think a more realistic approach should be made to the Government's White Paper, "Houses—The Next Step" than made by Professor Ian Bowen in his article in the JOURNAL of November 26. Professor Bowen has taken the lowest standard of houses to illustrate a very disparaging theme and to arrive at most discouraging conclusions. In my opinion the £70 or £80 which is all he considers a prudent landlord will spend, will prevent these sub-standard houses becoming entirely useless and so affording time for the slum clearance projects to proceed; this, after all is one of the main objects of the government's proposals.

Very few private architects will be affected by these proposals, but one statement in the White Paper, which will have a great affect on the profession, although it was generally ignored by the Press, refers to conversions and states:— "There must also be an adequate return on the money invested. Experience has proved that 6 per cent. is not enough to enable owners to undertake this sort of work. The government intend to raise the 6 per cent. to 8 per cent."

This is a fair solution to the problem of property investment, even if it is not yet sufficient for all investors, and is a very different proposition from ASTRAGAL'S statement in the JOURNAL (November 19) that a landlord will be satisfied with a three or four per cent. return on his investment.

Conversions have been the Cinderella of architectural work, but all architects who have been engaged on this type of work realize that the problems and solutions are entirely different from new work. The Architectural Press, therefore, would be performing a great service to the profession if they devoted more time to these problems and solutions than has been given in the past.*

W. J. HARVEY.

London.

[* It is our intention to do so in 1954. An announcement about our proposals will be made soon.—ED.]

Abolish Surcharges!

SIR,—It being common knowledge that the various architectural bodies are now revising their official charges, may one earnestly hope that the surcharge of 15 per cent. upon fees up to £1,150, which was imposed in 1947, may now be abolished?

Many builders openly confess that, owing to the very high cost of building, they are pricing themselves out of existence, and architects should seriously consider whether they may not be risking a similar fate by permitting their charges to eliminate the call for their services by the architect-employing public. This, I believe, is called, in commercial circles, "buyers' resistance."

It is officially admitted that building costs today are more than three times the pre-war level. There is little difference between the various trades with the possible exception of painting, which is out of all reason, with the result that large numbers of the general public are painting their own houses—being unable to afford to employ painters. Surely this is a development not without its significance!

As architects charges are based upon a percentage of the cost of the works they execute, it is a matter of simple arithmetic that they are now receiving three times their pre-war scale: in other words, their charges have increased 200 per cent.

A simple illustration shows that for a house built before the war for £1,500 the architect's fee would have been 7 per cent. on that sum, which amounted to £105. But that identical house today would cost £4,500 at least, and the fee thereon would be 6 per cent. of that amount—that is £270, to which is added the 15 per cent. surcharge of £40 10s., making a total fee of £310 10s. compared with £105 pre-war. Granting that an increase in fees might be justified in the future when the cost of building falls, which it will have to do, surely there is no justification today for imposing the 15 per cent. surcharge or any other revision of fees in the upward direction either.

High fees may suit the large firms and those in well established practices, but surely this is the time when the profession should very seriously concern itself with the wider interests of its future, threatened as it is from every direction.

Especially should it consider the young architect, hoping to launch out in practice—also the young practitioner, struggling hard to keep afloat.

The future of the profession calls for the protection of its younger members who will be called upon to maintain the existence and well-being of a great profession. It seems clear that the higher fees will adversely affect their position.

EDWARD PROCTER.

London.

MOHLG

Housing Returns

The number of permanent houses and flats completed in Great Britain during October was 30,031, compared with 28,516 in September and 23,291 in October, 1952. In the first ten months of this year 255,894 permanent dwellings were completed, as compared with 194,384 in the same period of 1952. The total number of permanent dwellings completed since the war is 1,512,165. If the Government is to reach this year's target of 300,000 units, monthly completions for November and December will have to average 22,053.

EDINBURGH

Work on Royal Mile

The Department of Health for Scotland has approved the Edinburgh Corporation's proposal to spend £120,000 a year for three years on rehabilitating the Royal Mile. Reconstruction work will be accelerated and the appearance greatly improved, it was announced by Sir James Miller, Lord Provost, at a council meeting last week. It has been agreed that the whole reconstruction scheme for the Royal Mile properties should be included in the first five-year period of the Edinburgh Development plan.

Speaking at the opening of the new Scottish Central Library in Lanarkshire recently, the Duke of Edinburgh said that he would look forward to the day when the Palace of Holyroodhouse got the approaches which it deserved. He also said he had been agitating for quite a long time for the Royal Mile to be tidied up.

BRS

Not Affected by DSIR Plans

No decision has yet been reached as to how the restoration of cuts made by the Government two years ago in the work of DSIR (announced in the JOURNAL last week) will affect BRS. DSIR as a whole will now be able to recruit 150 non-industrial and 50 industrial staff every year for the next five years.

LCC

Increase of Architectural Staff

Whereas the number of qualified architects employed by the LCC was 185 in 1938, the number employed at the present time is 541.

This was stated by Geoffrey Ripon, for the chairman of the LCC Establishment and General Purposes Committee, in reply to a question put at last week's council meeting.

COMPETITION

Awards for Designs of Storage Cabinet

The Furniture Makers' Guild have made the following awards in a competition for the design of a storage cabinet up to 3 ft. 6 in. high, to be used as a general purpose piece of furniture in the dining room, sitting room or bedroom:—First prize of £20 to P. S. T. Conrad, of Canterbury; two second prices of £10 to P. W. Tester, of Oxford, and P. J. Bradley, of High Wycombe; third prizes of £5 to A. C. Peters, of London, W. C. McCartney, of London, and G. A. Miles, of Canterbury. The entry submitted by D. N. Tonks, of Walsall, was highly commended. The assessors were Robin Day, J. C. Pritchard, Ernest Race and F. A. Silvester.

A House for Canada

McGill University School of Architecture, Montreal, Canada, is sponsoring a competition for a "Canadian House of Tomorrow," which is open to British, European and Canadian architects. A first prize of 5,000 dollars and prizes of 2,500 dollars for each of the best European and Canadian entries are being offered. There will also be ten honourable mentions. Further details are available from McGill University. The closing date for entries is February 1, 1954.

ARCUK

Architect and Publicity

Architects are permitted to offer information about their work to the professional Press, said Pembroke Wicks, registrar of ARCUK, in a recent letter to the *Builder*. They would not be considered guilty of soliciting for the purpose of increasing their practices, he added, unless there was evidence that they intended to interest the public outside the circle in which the professional papers were normally read.

Professional Conduct

The Professional Purposes Committee of ARCUK have received a memorandum from the National Association of British Chambers of Commerce in which strong representations are made against the decision of the committee in 1949, confirmed in 1951 and noted on both occasions by the council, that an architect should not allow his name to appear in a list of members of chambers of commerce classified into trades and professions.

As the matter has now been raised by the National Association as distinct from local branches the committee has asked the council to consider the matter in all its aspects and indicate their views. Some stress is made in the memorandum on the fact that solicitors are permitted by the Law Society to allow their names to appear in classified lists in the year books, provided that there is no general statement in the year books that "members would be well advised to consult or have dealings with other members of the chamber of commerce."

The committee have also been asked to advise on the appearance in a pamphlet called "The Case for Illuminated Signs," published by The Electrical Sign Manufacturers' Association, of letterpress by two well-known architects, accompanied by their portrait photographs. The committee have replied that in their opinion if the photographs of the architects concerned accompanied by their statements were published with the knowledge and consent of the architects, it savoured of advertising and was therefore undesirable.

UNO

Housing Sub-Committee Discusses Rent Policy

The most successful session in the history of the Housing Sub-Committee of the UN Economic Commission for Europe was held recently in the Palais des Nations, Geneva. After the opening address by Mr. Burinsky, the acting executive secretary of the UN Economic Commission for Europe, the sub-committee unanimously elected E. Humphreys (Ireland) and J. Gorynski (Poland) chairman and vice-chairman respectively.

European rent policies, an issue that has been the subject of considerable controversy in some countries, was thoroughly aired in the discussion which took up a good part of the session and in which practically every delegation took part. The examination of the subject, based on the secretariat's recent report* ended in the formulation and adoption of a set of general conclusions, on points of principle, as follows:

(*i*) Rent policy should be regarded as an integral part of housing policy closely related in particular to subsidy policy; the rate of interest on housing loans; measures to reduce the real cost of construction; and the level of wages;

(*ii*) it was desirable to equalize as far as possible the rents of houses of substantially similar characteristics and amenities;

(*iii*) in those countries where such equalization took the form of a progressive increase in the rents of old houses, it was essential to adopt social measures to enable all categories of the population to pay increased rent;

(*iv*) no general view could be expressed as to how proceeds of increased rents on old houses should be distributed. In some cases part of the proceeds could be used for the housing of the lowest income groups and for the compensation of those who would suffer hardship from an increase of rents, *e.g.*, large families; in others, it was appropriate that landlords should be compensated for the increased cost of repairs and maintenance; in others again, it might be useful to use part of the proceeds to reduce the burden of subsidies;

(*v*) there was still a general shortage of houses in a number of countries and as long as this was the case the abolition of rent control and of subsidies on housing could not be contemplated; moreover, the process of making such adjustments of rent policies as Governments considered desirable was necessarily a lengthy process;

(*vi*) in large measure, differences in rent policy reflected different approaches to housing policy in general and to the degree of emphasis given to private enterprise in building. Housing, however, cannot be regarded as a purely technical and economic problem but one which had also overriding social aspects which could not be disregarded by governments.

NEWCASTLE

CWS Architect Appointed

R. C. Steel has been appointed chief architect at the Newcastle office of the Co-operative Wholesale Society, in succession to D. A. Roberts, who retires this month. Mr. Steel was formerly senior architect in the London office of the CWS. The CWS offices at London, Manchester and Newcastle employ approximately 80, 60 and 8 architects respectively.

* *European Rent Policies.* UN (ECE) Geneva, Aug. 1953.

This week we publish the results of the competition for University buildings at Sheffield, and we take the opportunity of returning to a discussion of the advantages and disadvantages of competitions. The article below was written by Wilson Smith, who compares the competition system in this country with the one used in Sweden.

COMPETITIONS

How they are run in Sweden

THE announcement of the results of a number of architectural competitions in recent weeks has given considerable publicity to the competition system, and an editorial in the JOURNAL on October 17 drew attention to the advantages and disadvantages of the system at present approved by the R.I.B.A. Architectural competitions provide a much needed stimulus to the profession but it is essential that they are efficiently organized if they are to have the support of both sponsors and architects. The present system of the open competition is by no means faultless and a comparison with its counterpart in Sweden reveals a number of significant differences in organization. This article will indicate where these differences occur and will try to show how they may be used to improve the British system.

THE SWEDISH SYSTEM

Architectural competitions have played an important part in the Swedish architectural profession for many years and they still remain one of the most popular ways of obtaining designs, especially for public buildings. In 1951 there were fourteen and in 1952 ten competitions, as well as a number of limited and town planning competitions, and the types of buildings included churches, schools, hospitals, power stations, housing, baths and office buildings. All these competitions were organized in conjunction with Svenska Arkitekters Riksförbund, the approximate Swedish equivalent of the R.I.B.A., and in accordance with their Competition Rules. These Rules include the usual insistence on anonymity, the delivery of entries, etc., which are common to most countries, but differ on three important points:— the method of exhibiting the drawings after results have been announced, the treatment of entries which do not comply with the competition conditions, and the appointment of the assessing committee.

THE EXHIBITION OF DRAWINGS

> "All entries shall be publicly exhibited in the condition in which they were judged (*i.e.* anonymously)." S.A.R. Competition Rules.

It is in the interests of a sponsor that a competition should attract as many architects as possible, in particular those who have established reputations in the type of work which forms the subject of the competition. Yet these are the architects who do not as a rule compete. They know that if they enter a competition and do not obtain a prize, their failure is certain to be noted and remarked on by all people who attend the exhibition of drawings. It is impossible for them to remain anonymous—their drawings will be clearly named and displayed among the unsuccessful—and so

rather than risk their reputations as specialists they do not compete. It is to be regretted that so few competitions in England are won by prominent architects and this can only be interpreted either as a criticism of the competition system or of the profession as a whole.

In Sweden all drawings, except the prize winners and the entries which have been bought, are exhibited anonymously. This system involves no risk of loss of reputation and its success in attracting the most important architectural firms in Sweden can be seen by noting how many of their names occur in the lists of prize winners. The method of insuring anonymity which is adopted is as follows:— each competitor submits his design, on which is written a distinguishing motto, accompanied by two sealed envelopes, one containing his name and address and one containing an address to which the drawings are to be returned after they are exhibited. If the competitor is successful, the envelope containing his name is opened, but otherwise it is returned with the drawings, the seal unbroken.

THE RIGHT TO DIFFER

> "All designs which do not comply with conditions stated to be mandatory shall be excluded from receiving a prize. Such designs, can, however, be bought."
>
> S.A.R. Rules

The idea behind architectural competitions has been based on the assumption that if a number of architects attempt to solve a problem, the diversity of their solutions is likely to lead to the selection of a design that will give the sponsor a first rate building. The excellence is, in fact, a function of the diversity, for it ensures that all possibilities have been explored. Yet this diversity may be frustrated before the competition begins by a too rigid set of conditions. The fuller and more detailed the competition conditions, the more restricted are the competitors and the more likely are the designs to approach the uniform solution. The solution submitted can be only as good as the conditions allow them to be.

It seems likely that every competitor finds some specific requirement in a set of competition conditions which he finds restrictive and yet which he considers not absolutely necessary. In addition, there are occasions when some of the specific requirements appear incorrect in the light of specialized knowledge. The situation becomes intensified if the conditions, which have been drawn up by one expert in the particular field, are being studied by another expert. The competitor must then decide either to conform or to withdraw, for to disregard the conditions means disqualification. This difficulty can be reduced by a more carefully drawn up set of conditions which gives specific requirements only where they are absolutely necessary and which leaves the greatest possible freedom. However it is possible to remove the difficulty completely.

When a Swedish competition is advertised, it states the money set aside for prizes and, in addition, a sum for buying other designs submitted. The prizes are awarded in the normal way to entries which conform to the requirements of the competition conditions, but the other sum can be paid for one or more designs of sufficient merit, whether they do or do not conform to the conditions. Such a distribution of prize money allows every competitor to design the building he considers best suited to the requirements without fear of disqualification and it gives the sponsor the chance of obtaining a better building than foreseen by the conditions.

The architect who is commissioned to proceed with the work is not necessarily the first prize winner, but is selected by the assessors from amongst the designs awarded prizes or bought, so the selection can be made on the basis of architectural design instead of ability to conform to a programme. That this system does encourage architects to compete in spite of over-restrictive conditions is demonstrated by a recent competition in which a design not conforming to the conditions was bought for a sum equal to the first prize and it seems certain that this architect will receive the commission to proceed with the work. This instance shows that the right to differ has its part to play in architectural competitions.

THE ASSESSING OF ENTRIES

> "The number of assessors ought to be uneven with specialists in the majority. In any case, if the specialists are unanimous, their opinion shall prevail.
>
> "Architects shall be regarded as specialists in competitions for buildings . . .
>
> "The assessing committee ought preferably to consist of three or five persons."
>
> S.A.R. Rules

The appointment of only one assessor has been accepted as an integral part of British competitions for many years and is rarely departed from. Whether this was instituted to benefit the sponsors or the competitors is difficult to judge, but the real beneficiary seems to be the assessor, who can make decisions without having to justify them. Against this doubtful advantage there are many disadvantages. The most cogent and the most common criticism levelled against competitions is that the competitors are often trying to please the assessor instead of endeavouring to find the best solution. Similarly there are architects who will not compete because they know that the assessor has no sympathy with their design idiom.

When the subject of a competition is a complicated one, such as a power station or a hospital, or one where the economics are of vital importance, such as a hotel or an office building, it is unlikely that one assessor can be an expert on all aspects of the problem, aesthetic, technical and economic. This can be further complicated by the relation of the building to its neighbourhood, its city and its country, especially if that country has a body such as the Royal Fine Arts Commission. A single assessor can also be faced with the difficulty of a design being submitted which seems to satisfy the requirements of the problem brilliantly but which is an unorthodox solution that may be unacceptable to the sponsor. Examples of this sort are not difficult to think of, amongst them being the notable example of Le Corbusier's League of Nation's Building. It would be very instructive if it were possible to discover on how many occasions the winning design has not been built because it did not satisfy the sponsor.

The solution to this problem, the appointment of an assessing committee to replace the single assessor, is possible under the existing R.I.B.A. conditions, and is on occasions adopted. The only alteration which is needed is the withdrawal of permission to use one assessor. The basis of the Swedish rules governing the assessing committee is quoted above. It can be seen that although the emphasis is on the architectural aspect, the forming of a committee allows the sponsor and other interested bodies to be represented. Two examples of how these committees are constituted are:—

(a) Competition:	Secondary School
Assessors:	3 architects, 1 headmaster, 1 town councillor.
(b) Competition:	Hospital
Assessors:	1 city architect, 2 architects, 1 city planner, 1 doctor, 2 hospital administrators, 1 alderman, 2 laymen.

Should a member of the assessing committee find that he cannot agree with the majority decision in regard to the selected designs, he may submit a report giving reasons for his opposition to the selection, and this report added to the published majority report which contains the criticism of the entries. This preserves the same freedom of opinion for the assessors as is allowed to a single assessor.

THE IDEA COMPETITION

All the points previously dealt with in this article refer to the open competition system. In addition, Swedish architects have developed the Idea Competition to preserve the freedom necessary to architectural competitions and to encourage the submission of new ideas. In such a competition the basic facts and requirements are given and architects are asked to submit entries showing, in sketch form, their suggestions for solving the problem. These sketch designs are studied and a small number of competitors, perhaps five, are asked to develop their ideas fully in a limited competition. This method has proved very valuable in conducting competitions for buildings where a complicated set of circumstances has made it impossible to predict in which direction the best solution would lie. The limited competition is carried out under rules similar to the comparable R.I.B.A. conditions.

This article covers only those aspects of the British competition system which are dealt with comparably, but apparently more successfully, in Sweden. It is suggested however that a comprehensive survey may assist in bringing about the improvements necessary for the competition system to ensure that it retains its vitality.

DIARY

Students' Work. Exhibition at the Hammersmith School of Building and Arts and Crafts, W.12. Weekdays, 10 a.m. to 8 p.m. UNTIL DECEMBER 16

Charles Rennie Mackintosh. Exhibition at the RIBA, 66, Portland Place, W.1. (Sponsor: Saltire Society and Arts Council.) Weekdays, 10 a.m. to 7 p.m.; Saturdays, until 5 p.m. UNTIL DECEMBER 23

Contemporary Lighting Fittings. Exhibition at the BC, 26 Store Street, W.C.1. Weekdays, 9.30 a.m.—5 p.m.; Saturdays, until 1 p.m. UNTIL JANUARY 7

Charles Rennie Mackintosh. Dr. Howarth. At the RIBA, 66, Portland Place, W.1. (Sponsor: RIBA Library Group.) 6 p.m. DECEMBER 10

The South Bank Project. Dr. J. L. Martin. At the AA, 36, Bedford Square, W.C.1. 6.15 p.m. DECEMBER 10

The Pimlico District Heating Undertaking of the City of Westminster. G. C. Carrothers, Bryan Donkin and A. E. Margolis. At the ICE, Great George Street, S.W.1. 5.30 p.m. DECEMBER 15

Proportion and Symmetry in Relation to Modular Co-ordination. Sergei Kadleigh. At the RSA, John Adam Street, W.C.2. (Sponsor: The Modular Society.) 7.30 p.m. DECEMBER 16

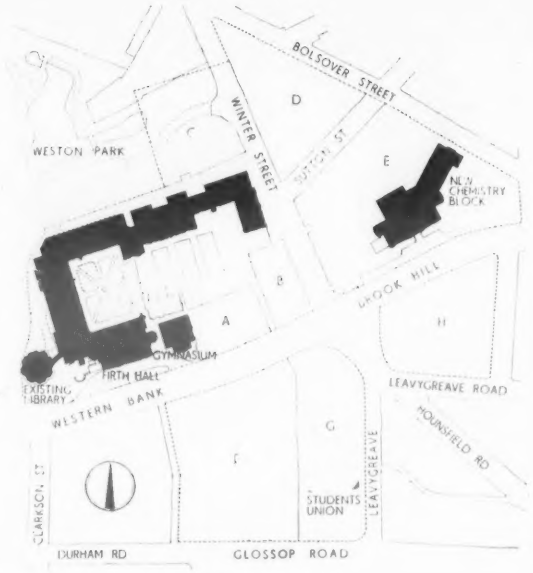
Some Structural Uses of Aluminium Alloy with Special Reference to Domes. W. Hamilton and G. P. Manning. At the ISE, 11, Upper Belgrave Street, S.W.1. 5.55 p.m. DECEMBER 17

WINNING AND UNPLACED DESIGNS IN COMPETITION FOR

SHEFFIELD UNIVERSITY BUILDINGS

Edmund Ward, Frank Gollins and James Melvin.

Following the descriptions and illustrations of prize-winning designs are four designs mentioned specially by the assessors for having considerable merit and presenting interesting solutions. The assessors said that these designs failed to attain the standard of the three premiated designs because of faults of planning, excessive volume, or lack of architectural quality. The site, which is intersected by several roads, lies to the south, east and north of the existing main university building. The competition conditions called for designs of a library, arts departments and administration buildings, as well as a layout showing these and the positions and heights of the following buildings :—physics department, medical school, refectories and staff house, union of students, central boiler house and extensions to the chemistry department. The assessors were Sir Percy Thomas, F. R. S. Yorke and Gerard Young, pro-chancellor of the University of Sheffield.



Site plan issued with competition conditions

FIRST PRIZE-WINNING DESIGN By F. GOLLINS, J. MELVIN AND E. F. WARD

DESCRIPTION OF SCHEME

Following is part of the first prize-winners' report on their scheme. The assessors' report appeared in our issue for November 26.

In preparing our scheme we have regarded it as all important that the new and old buildings taken together should reflect the character of a major University, and it has been our endeavour to relate the proposed to the existing departments, and to ensure that their siting and detailed planning allows full advantage to be taken of Weston Park and the commanding views over Sheffield.

The individual buildings have been planned for quiet, aspect, correct relationship between one department and the other, ease of administration and circulation and their height, shape and siting have been governed by the necessity of their being co-ordinated in an architectural conception embodying all the units of the scheme.

Congested planning and enclosed courtyards have been avoided, and to the north of Western Bank the major buildings are free-standing in a setting of parkland and are approached from the University Campus which links with Weston Park and forms a communal open space in the heart of the University precincts. Particular attention has been paid to the siting and layout of the campus, which we have regarded as one of the main features of our scheme and which is envisaged treated with a variety of paving textures blending naturally into the park.

The tall free-standing Arts Department Block is the focal point of the plan, with the low square Library its foil and the combined Administration and Physics Building is the link between the existing University and the Chemistry Block. Magnificent views would be obtained from the campus and their impact will be all the greater for their being suddenly seen when approached through the open ground floor of the Physics Building.

The main entrance is combined with the existing entrance to Firth Hall where the students now enter; subsidiary entrances at each end of the campus are also proposed. The service entrance to the boiler house will be from Bolsover Street at the back of the existing Chemistry Building.

SECTIONS OF WORK

Winter Street will be left undisturbed during the first phase building operations and would only need to be diverted when the Physics Department is started, though its earlier diversion would have the advantage of allowing the campus to be developed sooner.

Site "E" at the rear of the Chemistry Block will be left open except for the Boiler house and on Sites "F" and "G" will be sited the Medical School, Refectories and Staff House and the Union of Students. We suggest that site "H" be left unallocated for the time being.

LIBRARY

The Promoters' recommendation that the Library be placed on Site "C" has been followed and it has been planned as a low square block with the main entrance slightly above the level of the campus and the reading rooms on the first floor. This plan type has allowed the reading rooms to be all on one level and has insured that there should be no obstruction to the view of the park from the adjoining and much higher Arts Department Building.

The General Reading Room looks south and west over Weston Park and on the same floor lie the Catalogue Hall, the Catalogue and Labelling Rooms, and the Post Graduate Reading Room. The Reading Room Book Store has space for over 160,000 volumes on two tiers on the north side of the General Reading Room which it is proposed should be top as well as side lit; to avoid intermediate supports parallel steel roof trusses would span from side to side, allowing the void between roof and ceiling to be used for the air-conditioning ducting.

On the entrance floor are the Control Desk, the Voucher Counter, the Inter-Library Loans Office with the entrance to the Stack, the Periodical Reading Room which is directly accessible from the main entrance and the Administrative Offices. The covered unloading bay for lorries adjoins the Unpacking and Binding Rooms.

The Book Stack for over 850,000 volumes is on four tiers in the basement and can be built section by section as required; the Folio Store is on tier 2 and forms part of the stack.

Three lifts are provided, and though each is planned for a particular service, they connect all floors of the Library and there would, therefore, always be one available in case of breakdown or when out of commission for overhauling.

Lift "A" connects the two tiers of the Reading Room Book Store and the four tiers of the Book Stack below.

Lift "B" connects the four tiers of the Book Stack, the Inter-Library Loans Office, the Folio Store, and the Supervisor's Office and General Reading Rooms on the first floor.

Lift "C" connects the unloading dock on the ground floor, the Labelling and Catalogue

a setting of parkland and are approached from the University Campus which links with Weston Park and forms a communal open space in the heart of the University precincts. Particular attention has been paid to the siting and layout

the first phase building operations and would only need to be diverted when the Physics Department is started, though its earlier diversion would have the advantage of allowing the campus to be developed sooner.

tiers on the north side of the General Reading Room which it is proposed should be top as well as side lit; to avoid intermediate supports parallel steel roof trusses would span from side to side, allowing the void between roof

Stack, the Inter-Library Loans Office, the Folio Store, and the Supervisor's Office and General Reading Rooms on the first floor.

Lift "C" connects the unloading dock on the ground floor, the Labelling and Catalogue

Rooms on the first floor, and the Book Stack tiers below.

The Men's and Women's Cloakrooms are planned on the mezzanine immediately below the Administrative Offices and can be easily approached from the main entrance. Women Cleaners and Porters' accommodation adjoins the service entrance and unloading bay.

It is realized that the placing of the Book Stack in the basement will require a certain amount of excavation in shale, but in our experience its laminated structure raises little difficulty, and in any case excavation has been kept to the minimum and the building is some way away from the trial holes where rock was found. The advantages of vertical planning for the Stack were investigated, but when considered in conjunction with the Promoters' desire for the planning of the Reading Rooms on one floor were found to be outweighed by the basement planning proposed, even though some excavation in shale becomes necessary.

ARTS DEPARTMENT

The great difference between the requirements of the Architecture Department on the one hand and the General Pool on the other, together with the note in the Conditions that these buildings need not be planned together has led us to suggest that they should be quite separate, thereby allowing them to be designed to fulfil their purpose to the greatest possible degree.

Architecture Department. The studios, together with their ancillary rooms, have been planned as a single-storey, top-lit building, set in the courtyard between the existing University and the new Administration Building at mezzanine floor level. This position ensures quiet, as well as suitable natural light, and allows freedom of movement between all the studios. The Building Science Laboratory, Criticism Room and Lecture Room are planned immediately below the Studios and with the Administration and Students' Rooms in the adjoining four-storied building form a self-contained unit grouped around a small open courtyard with direct access from the campus. The Entrance Hall and staircase connect directly with the north east wing of the existing University, enabling staff and students to pass under cover from the central cloakrooms and Administration Building.

Site plan of first prize-winning design

General Pool. The great number of rooms of similar area and similar purpose in the General Pool indicated to us that they would best be planned in a tall building of thirteen storeys where the accommodation could be largely repeated on each floor. The shape of the building, which is the focal point of the architectural design of the scheme, contrasts with the low Library opposite and ensures that all rooms, except the tiered Lecture Rooms, look either west over Weston Park or east over Sheffield. This arrangement also allows a series of staff rooms to be used in conjunction with particular lecture rooms and has been chosen in preference to a plan type where the Lecture Rooms and Staff Rooms are rigidly separate.

The two largest tiered Lecture Rooms are planned on the ground floor and the others above each other at the north end of the block, one large or two small on each floor. The Lecture Rooms with flat floors and the Staff Rooms lie on either side of a short corridor joining the main staircase and lift hall to the secondary escape staircase. The floor to floor height has been taken at 11 ft., though this is adjusted to allow greater height in the larger Lecture Rooms.

The Administrative Offices are planned on the first floor, and lavatories on each floor are allocated to either staff or students. The Staff lavatories are those required in the Schedule of Accommodation under the General Pool and the Students' lavatories are part of the complement required under Administration.

ADMINISTRATION

The accommodation required under this heading has been grouped in a seven storied building in the natural focus of the layout, completing, in fact, the unfinished plan of the main existing University buildings. To avoid developing the site with many small units and to free as much ground around the buildings as possible, it is suggested that the Physics Department be regarded as the second half of the Administration Building. A long and comparatively low building, sufficiently heavy in weight to act as a centre to the existing University and Chemistry Buildings on each wing, will thus be ensured.

The main entrance is on the first floor which, due to the fall of the site, is at that point at ground level and adjoins the existing main entrance to Firth Hall. Two car parks, one at the front and one at the rear, are provided with a total capacity for over fifty cars.

On the first floor (entrance floor) also lies the Appointment Board Offices and the Communal Lavatories and Rest Room for both staff, students and visitors. The second floor is occupied by the Vice-Chancellor's suite and the Meeting Rooms, which look south and on the third, fourth and fifth floors, respectively, are the Registrar's, Bursar's and Surveyor's Departments and rooms for extra-mural studies. The main staircase and lifts are grouped at the west end of the building and a link corridor is provided at Firth Hall level to the adjoining existing building. The secondary staircase at the east end of the block acts both as the private staircase required by the Conditions and as a fire escape.

The students' cloakrooms, locker rooms and lavatories are planned on the mezzanine floor immediately below the main entrance floor, and can be approached either from the main entrance or by the ramp leading to the covered way under the Architecture and Physics Departments.

The cloakrooms, which are to be looked after by an attendant, have been planned on the basis of a double row of coat hangers at 3 in. centres and the lockers, each 12 in. × 12 in. × 72 in., are in rows, back-to-back. The number of fittings for the students' lavatories are based on a slightly increased Ministry of Education Scale for Technical Colleges and approximately half are provided in this building and half split in small units in the General Pool of the Arts Department.

PHYSICS DEPARTMENT

The majority of the accommodation required for this department is provided on the five upper floors at the east end of the block facing Western Bank which, at its west end, forms the Administration Block. The building has been kept well behind the Western Bank building line to reduce interference from vibration, and it is suggested that the large laboratories should be planned on the north side of the block to ensure good light and quiet.

The large Lecture Theatre is placed on the ground floor near the main entrance and the stores are in the basement. The greater part of the ground floor is open and provides, approximately on the old line of Winter Street, both access to the campus and space for Students to congregate on their way from the cloakrooms to the various departments.

Two staircases are suggested, the main one with lifts at the east end and a secondary one at the west end which can be combined with the secondary escape from the Architectural Department.

FIRST PRIZE-WINNING DESIGN BY F. GOLLINS, J. MELVIN, E. F. WARD AND PARTNERS

MEDICAL SCHOOL:

The greater part of sites "F" and "G" has been reserved for this accommodation which, it is proposed, should largely be provided in two multi-storied blocks, the lower of six floors running roughly parallel to Western Bank and the higher of ten floors at right angles near the west boundary of the site. Lecture Theatres would form a subsidiary wing.

The open court to the south could be developed part as a car park, part as a garden, as circumstances require, and the main entrance at the west end of the lower block would be reached from both this court and from Western Bank.

The chimney stack is incorporated in the south end of the Arts Block and no hardship should be caused by fumes or smoke.

REFECTORIES AND STAFF HOUSE

It is suggested that these departments should be grouped with the Union of Students and form, with the Union Hall, a six-storey building adjoining and to the north of the existing Union of Students. The Refectories and Staff House would be on the upper three floors and would be approached by two staircases and lifts at either end of the Union Hall which is on the ground floor and approximately eight feet above natural ground level.

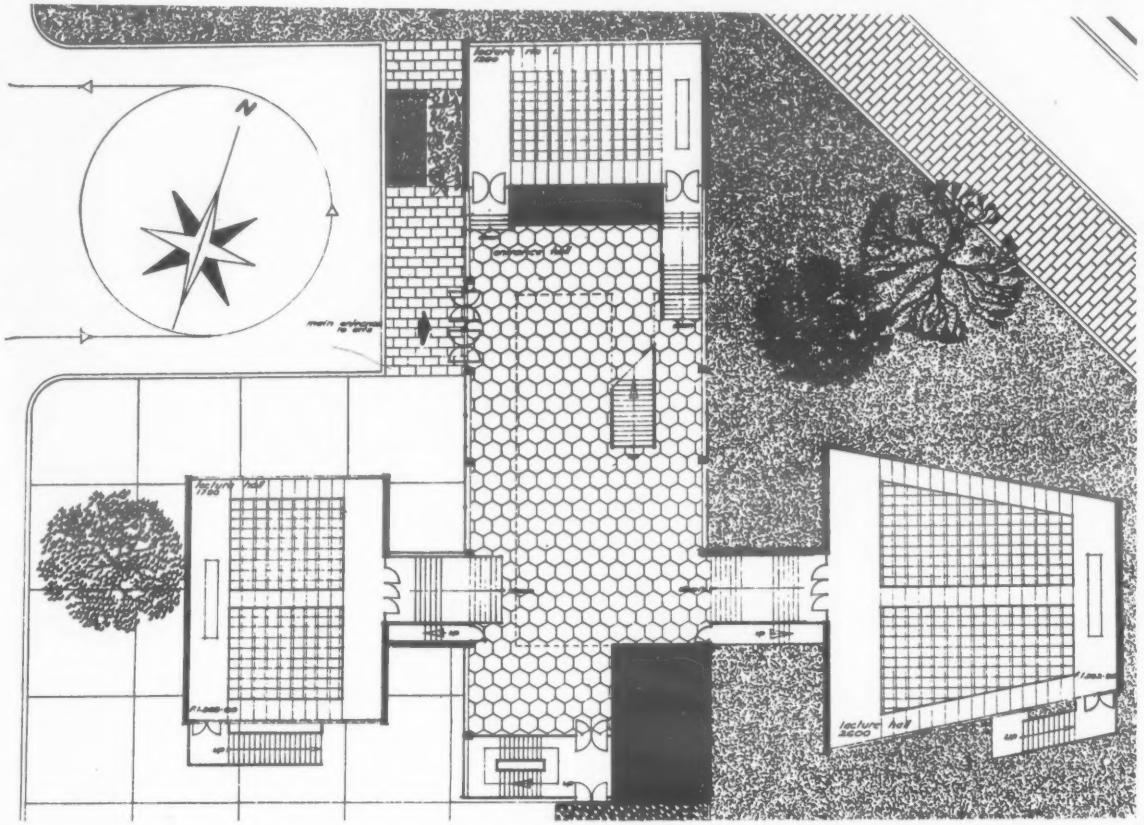
UNION OF STUDENTS

This accommodation forms part of the multi-storied building which also contains the Refectories and Staff House, and is on the lowest floor immediately below the Union Hall. Direct covered access at ground and lower ground floor level is provided to the existing Union Building by way of an entrance hall common to both buildings.

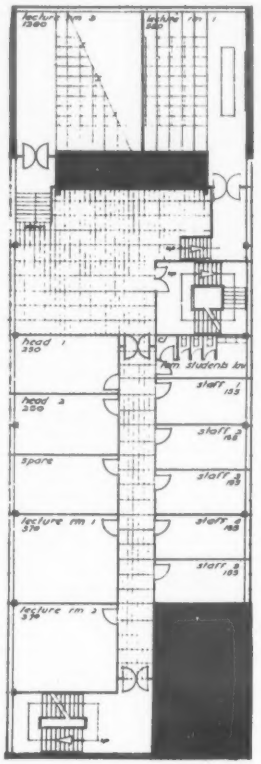
CENTRAL BOILER HOUSE

It is envisaged that it will be necessary to build the Boiler House at least simultaneously with the first stage of building, and possibly earlier, and a site has, therefore, been chosen which is both central to the whole scheme and readily available. It has been placed on Site "E" immediately behind the Chemistry Block with its service yard at the same level as the lower ground floor of the Chemistry Department directly approached from outside the University precincts in Bolsover Street.

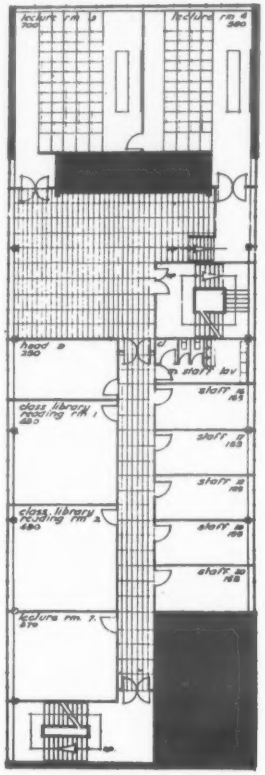
The calorifier and pump room with the tank room over is placed beneath the campus immediately to the west of the boiler house and the ancillary accommodation (workshops, etc.) is on the two floors, part under the campus and part under the extreme east end of the Physics Block.



Arts—general pool. Ground floor plan



Second floor plan

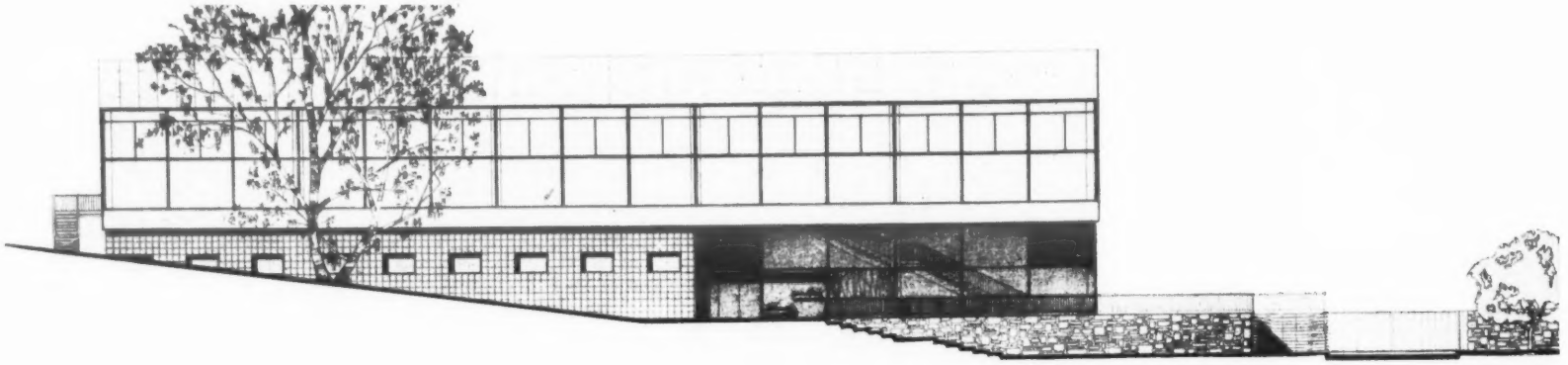


Fifth floor plan

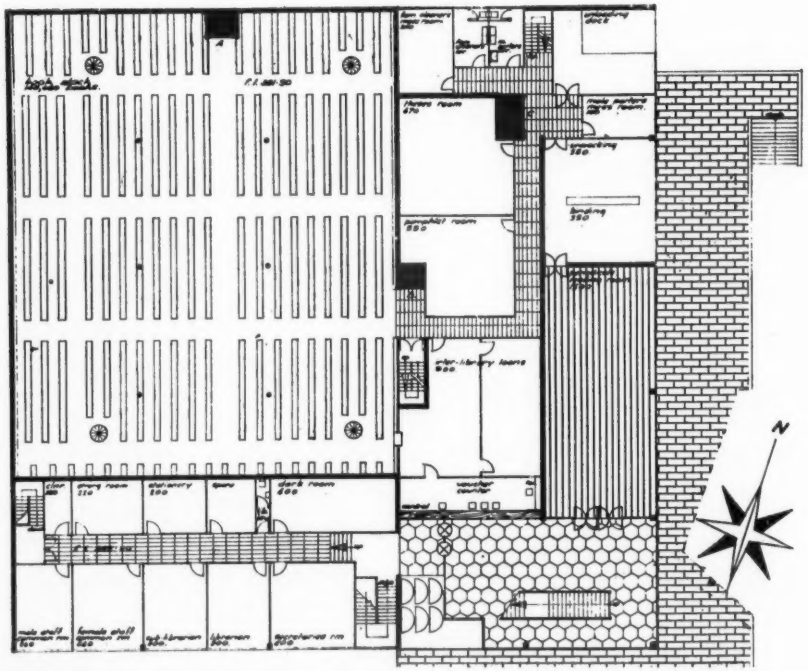
Arts—general pool. Ground floor plan

Second floor plan

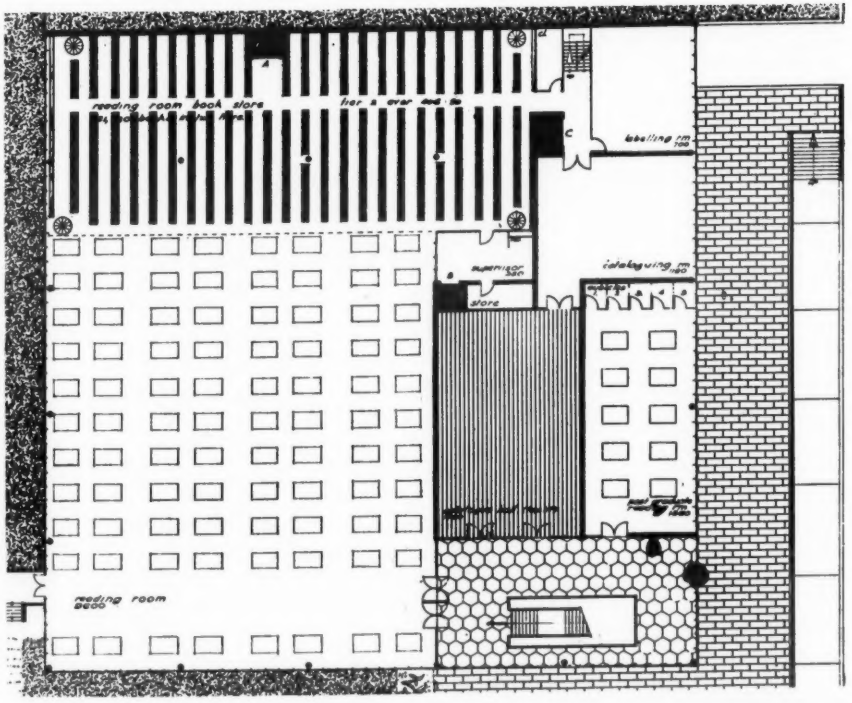
Fifth floor plan



South elevation of library.

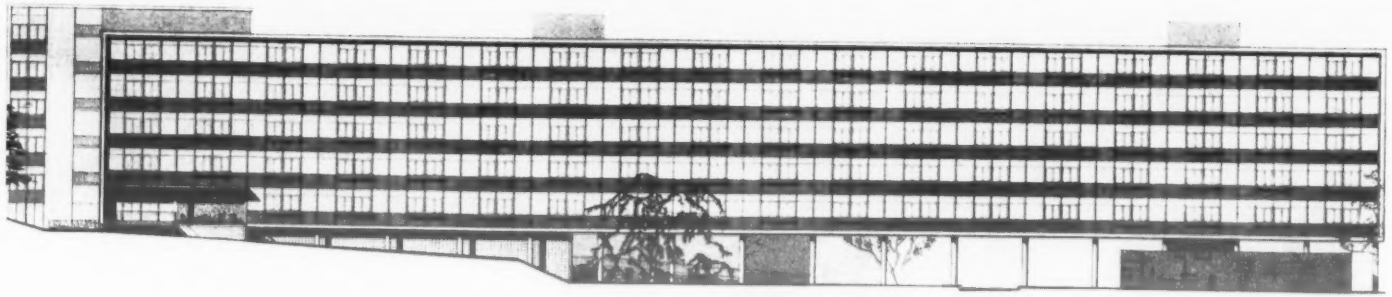


Library. Ground floor plan

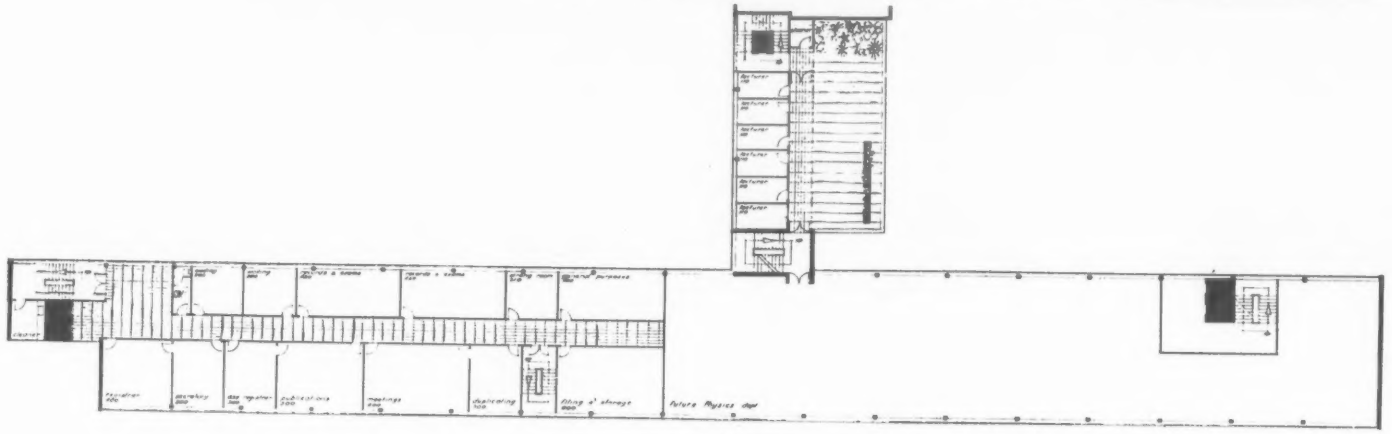


First floor plan

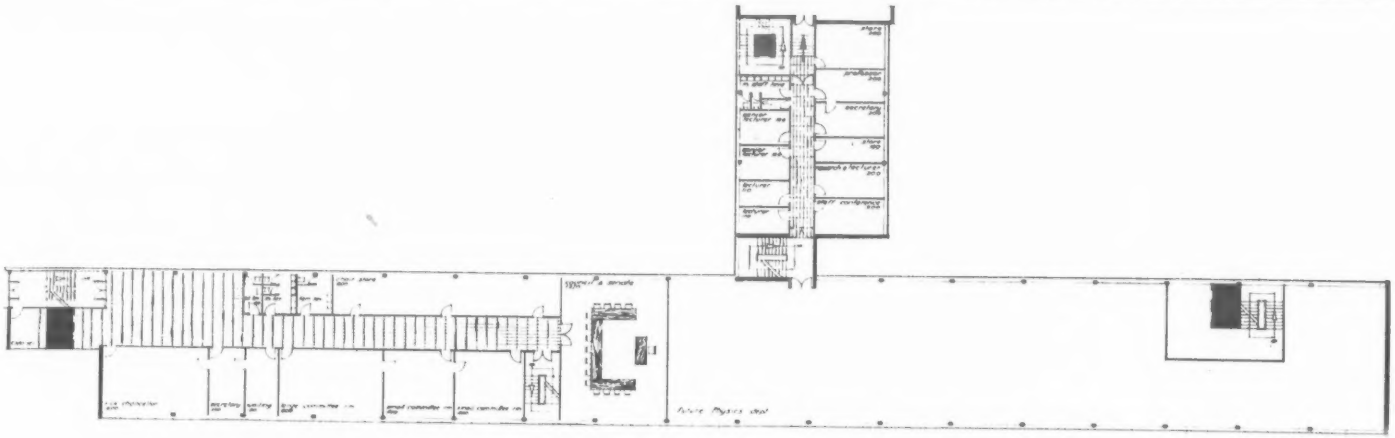
FIRST PRIZE-WINNING DESIGN BY F. GOLLINS, J. MELVIN, E. F. WARD AND PARTNERS



South elevation of administration and physics building.

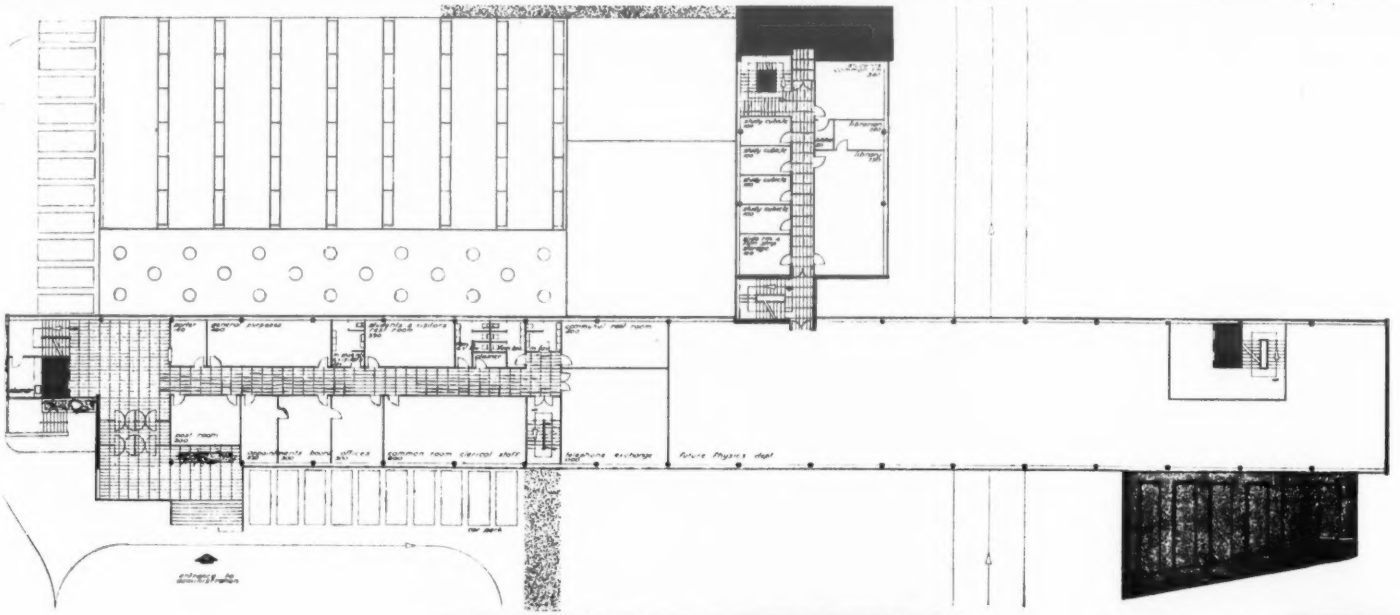


Third floor plan

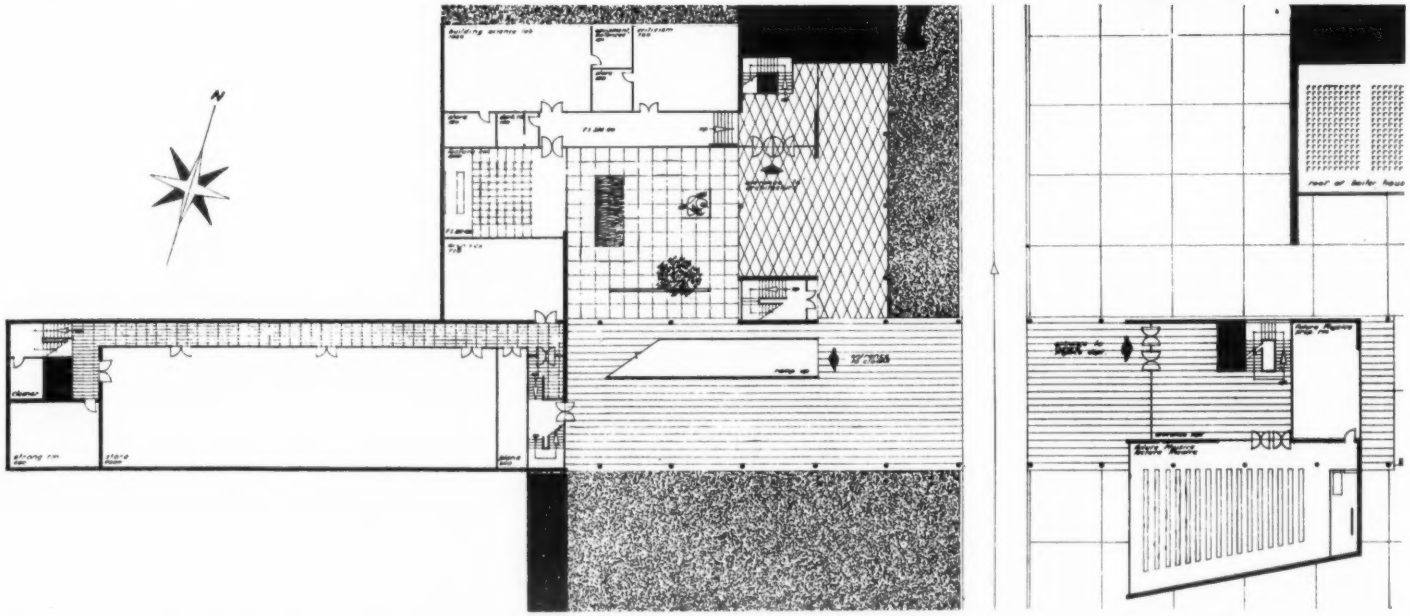


Second floor plan

Second floor plan

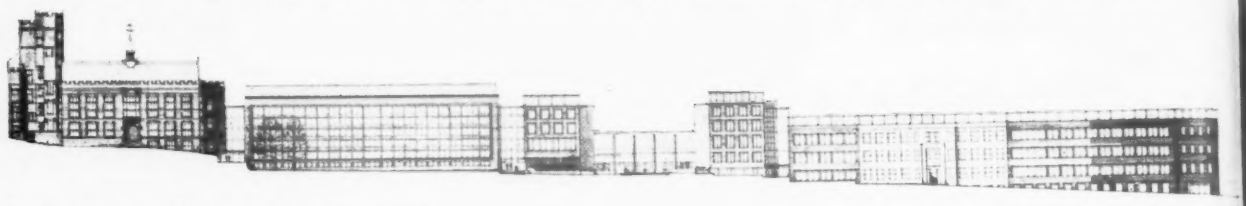


First floor plan



Ground floor plan of administration and arts-architecture building

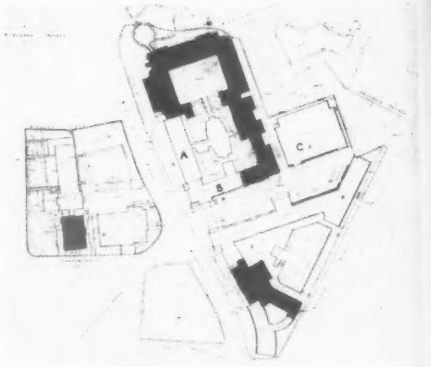
SECOND PRIZE-WINNING DESIGN BY J. MANSELL JENKINSON AND SON



South elevation to Western Bank and Brook Hill.

West elevation of administration building and library.

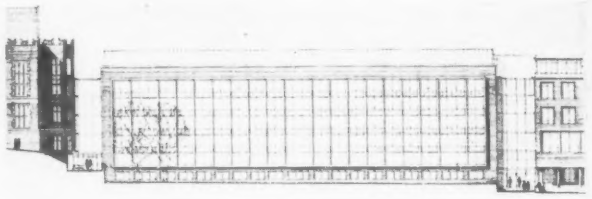
East elevation of medical school and physics department facing administration building and library.



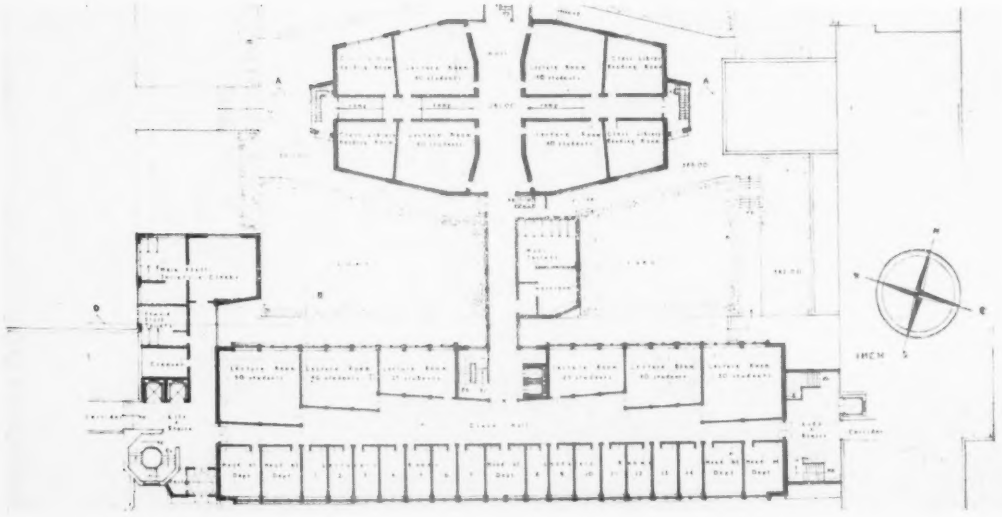
Site plan

KEY
A. Arts building
B. Administration building
C. Library

The assessor's report is as follows: — The lay out and disposition of units is excellent, although criticism could be made against the effect of the large lecture room block in the courtyard on the light of adjoining buildings. In this scheme the library is placed on the Weston Park site but the medical block is placed on the north-east triangle. The library provides for the book stacks being erected partly in the basement and partly in a building on the north side, which has the advantage that this portion of the accommodation could be added at a later date. The reading room is on two floors facing Weston Park. The arts building, which faces Western Bank, has most of its lecture rooms on the north side away from the noise of traffic, with the large lecture rooms in a separate block in the quadrangle. The department of architecture is on the top floor of the arts block. The elevational treatment is, we feel, uninspiring and does not reach the level of the design placed first. The author makes his total cubical content 3,269,650 cubic feet and estimates the total cost at £679,618; we consider that the rates per cubic foot upon which he has based his estimates are quite inadequate for buildings of this character.



The south elevation of the arts building.



Ground floor plan of arts building.

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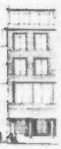
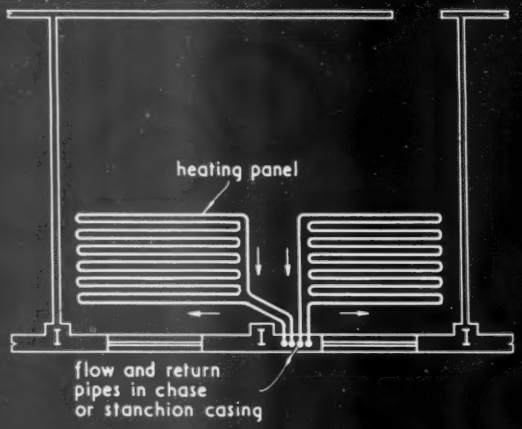
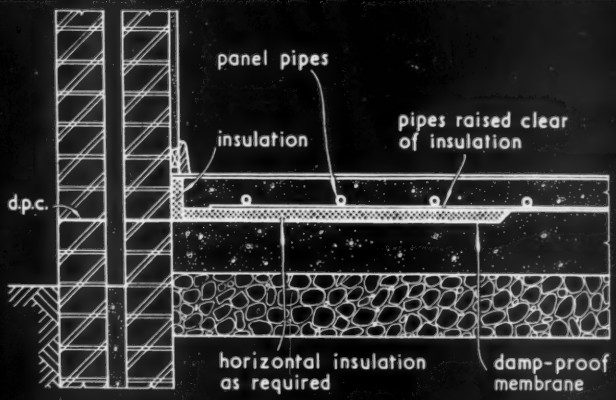


SPACE HEATING | HOT WATER

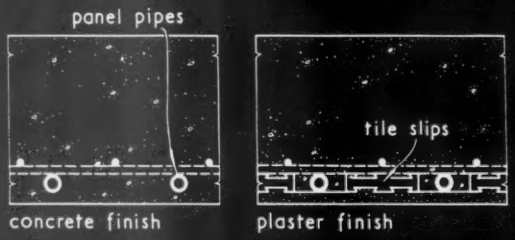
The Architects' Journal Library of Information Sheets 445. Editor: Cotterell Butler, A.R.I.B.A.



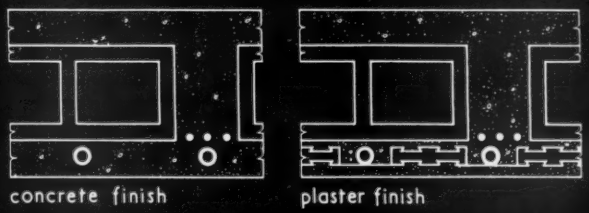
TYPICAL LAYOUT OF CEILING PANELS.



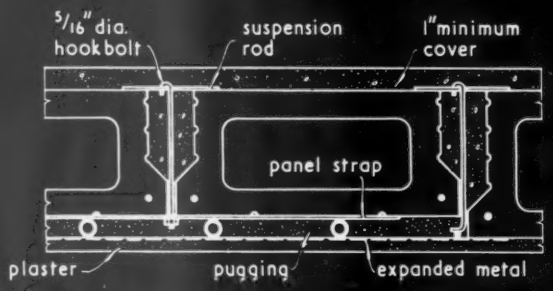
SOLID CONCRETE FLOOR.
HEATING PANELS IN FLOORS.



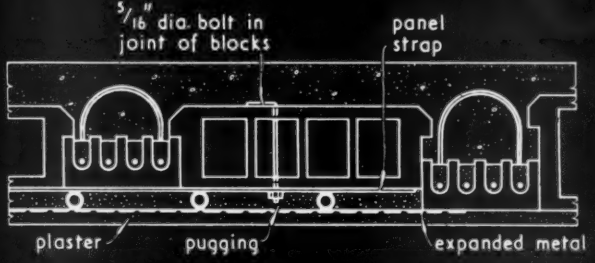
SOLID CONCRETE FLOOR.



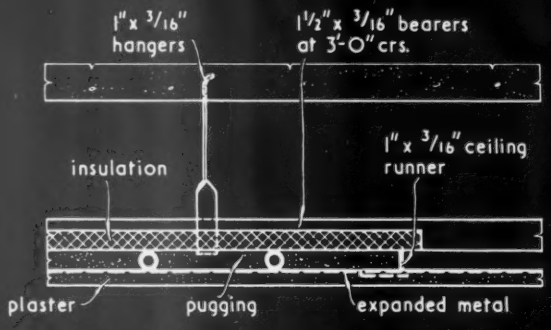
HOLLOW CLAY BLOCK FLOOR.



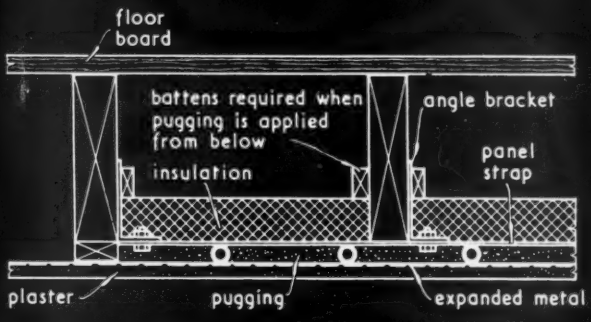
PRECAST CONCRETE BEAM FLOOR.



PRESTRESSED CLAY BLOCK FLOOR.



SUSPENDED CEILING.
HEATING PANELS IN CEILINGS.



WOOD JOIST FLOOR.

HEATING PANELS FOR FLOORS AND CEILINGS.

Compiled from information supplied by The Invisible Panel Warming Association.

29.H2 HEATING PANELS FOR CEILINGS

This Sheet describes the invisible panel system of central heating using pipe coils embedded in floors and ceilings. A typical panel layout is shown on the face of the Sheet together with some methods of incorporating ceiling panels in different forms of construction, and one example of underfloor heating.

General

Tubes usually of ½-in. bore are coiled to form rectangular panels and are embedded beneath the finished surface. The panels are invisible and no change of level occurs in the surface of the covering material. Vertical pipe runs between panels are concealed in chases or are cast in the concrete surrounding stanchions. All pipes and joints are rigorously tested shortly before they are encased.

Boiler plant may be of the same type as for other heating systems but is usually 10 to 15 per cent. smaller.

Principles

The surface adjacent to the panels is warmed by direct conduction. The warmth is radiated from these surfaces, providing comfort with an air temperature of only 64° F. or less at breathing level.

There are no hot convection currents to cause marking of decorative finishes. The embedded panels take up no floor space and provide no harbourage for dirt; with ceiling panels there is complete freedom for positioning furniture, benches and partitions.

The pipe coils are usually placed close to the external walls or round the perimeter of the room where there is the greatest need for warmth. Systems are operated at temperatures which do not set up undesirable stresses in the pipes and structure.

Ceiling panels: Panel systems in ceilings are designed to avoid uncomfortably warm floors above the panels and objectionable radiation at head level below. By confining pipes to a narrow panel round the edge of the ceiling, it is possible to warm rooms satisfactorily which are only 8 ft. in height. With rooms of normal height and exposure the panel heating covers about 30 per cent. of the total ceiling area.

Floor panels: Floor panels have long been in general use for the heating of churches, schools, lofty rooms and entrance halls. They are now being applied to an increasing extent in factories, where the maintenance of dry conditions for the storage of various types of goods and equipment near the floor is important. Floor heating may also be used for drying sensitive materials such as clay products and for the utilization of low grade heat.

Wall panels: Wall panels are mainly used for checking down-draughts from tall windows or for supplementing floor or ceiling panels. They have been incorporated in walls with various finishes including marble, tile and plaster.

Fixing Notes

Floor panels: To prevent loss of heat along the bottom edge of the building, a horizontal strip of insulation may be provided above the damp-proof membrane and a vertical strip against the wall. The screed should not be less than 2 in. thick, measured from the underside of the pipes.

Cast-in-situ slabs: With solid concrete or hollow pot floor slabs, ceiling panel coils are placed on the shuttering, with slip tiles or other provision for plaster key, and are hydraulically tested before the concrete is poured. When the soffit is not to be plastered the panel coils are supported ½ in. or so clear of the shuttering.

Precast beam and prestressed clay block floors: With beam or plank construction, recesses and hangers may be provided and the panels fixed from below. Pugging, with expanded metal reinforcement, is applied to embed the pipes and maintain the same soffit level throughout.

Suspended ceilings: Panel pipes take the place of ceiling runners for the part of the ceiling concerned. When access allows, pugging is applied from above, or from the perimeter of the panel, on ¼-in. mesh expanded metal lathing, which serves as permanent shuttering. Loose fill or semi-rigid insulation is placed on top of the pugging or across the bearer bars.

Alternatively pugging may be applied from below. In this case the insulation is in board form, as it also serves as the backing for the pugging, and the lathing is fixed in after instead of before pugging. The render coat on the lathing is well scratched to provide key for plastering which is done only when the pugging is quite dry.

Wood joist floors: The panel coils are fixed to well seasoned wood joists. Otherwise the procedure is practically the same as for suspended ceilings.

Plastering: Lime plaster gauged with plaster of Paris has long been used. For satisfactory results expert supervision is imperative.

Acoustic Treatment

Acoustic plaster has an absorption coefficient of 0·37 at 500 cycles per second and 0·6 at 2,000 c/s. The satisfactory use of this treatment on ceiling panels has been proved by over 20 years' experience on many important buildings. The maker's advice on redecoration should be carefully followed.

Acoustic tiles with an absorption coefficient of 0·6 at 250 c/s and above are often used with a plaster surround, with or without ceiling heating.

Relevant Publications

The following can be obtained on application to the Invisible Panel Warming Association:

Panel Heating: Some Practical Applications	*Booklet* A.7
Heated Ceilings and Comfort	*Leaflet* A.8
Heating of School Classrooms	*Leaflet* A.9
Floor Finishes	*Booklet* FP.1
Plastering	*Leaflet* FF.50
Pugging and Rendering	*Leaflet* PR.50
Suspended Ceilings	*Leaflet* SC.1a
Panels in In-situ Slabs	*Leaflet* CP.1
Installation of Panels	*Leaflet* CP.2
Starting up Panel Systems	*Leaflet* CP.4
Prestressed Plank Floors	*Leaflet* CP.5
Wood Joist Floors	*Leaflet* CP.6
Panels in Hollow Beam Floors	*Leaflet* HB.1

Compiled from information supplied by:

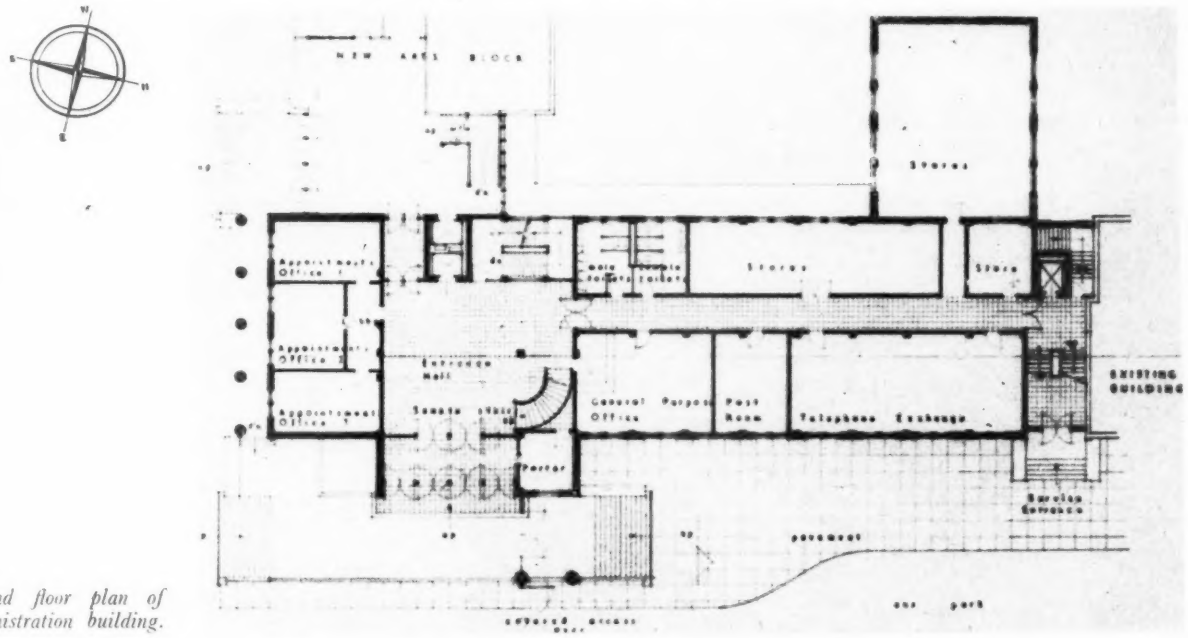
The Invisible Panel Warming Association

Address: Grand Buildings, Trafalgar Square, London, W.C.2.

Telephone: Whitehall 4060

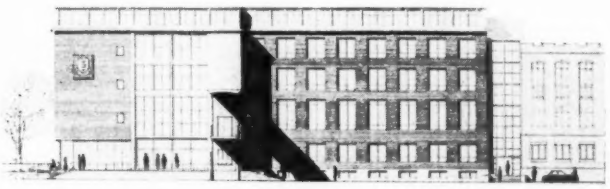
46.Z (A-F) ALPHABETICAL INDEX TO DEC. 24, 1953

SECOND PRIZE-WINNING DESIGN BY J. MANSELL JENKINSON AND SON

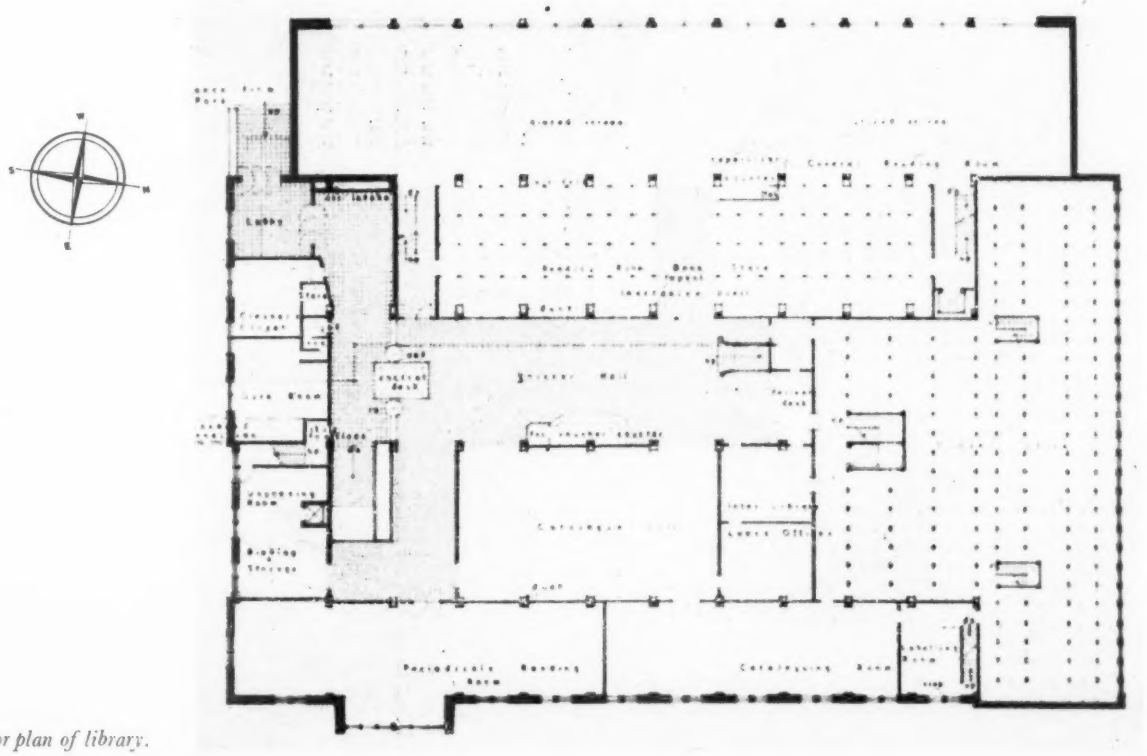


Ground floor plan of administration building.

Library from Winter Street.

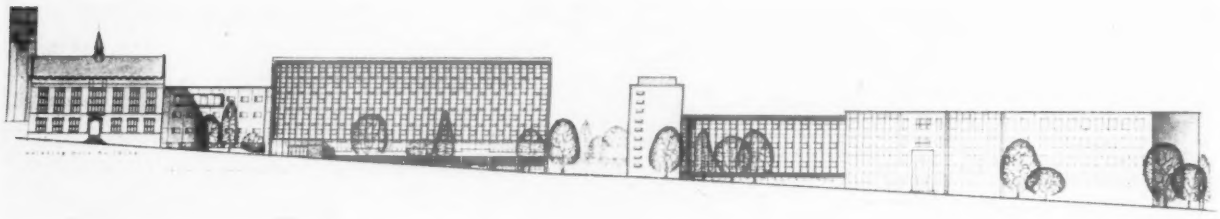


Administration building from Winter Street.

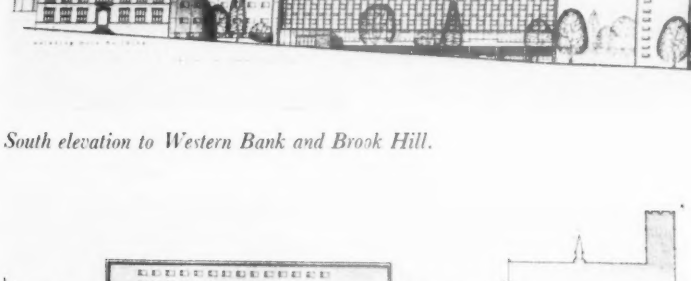


Main floor plan of library.

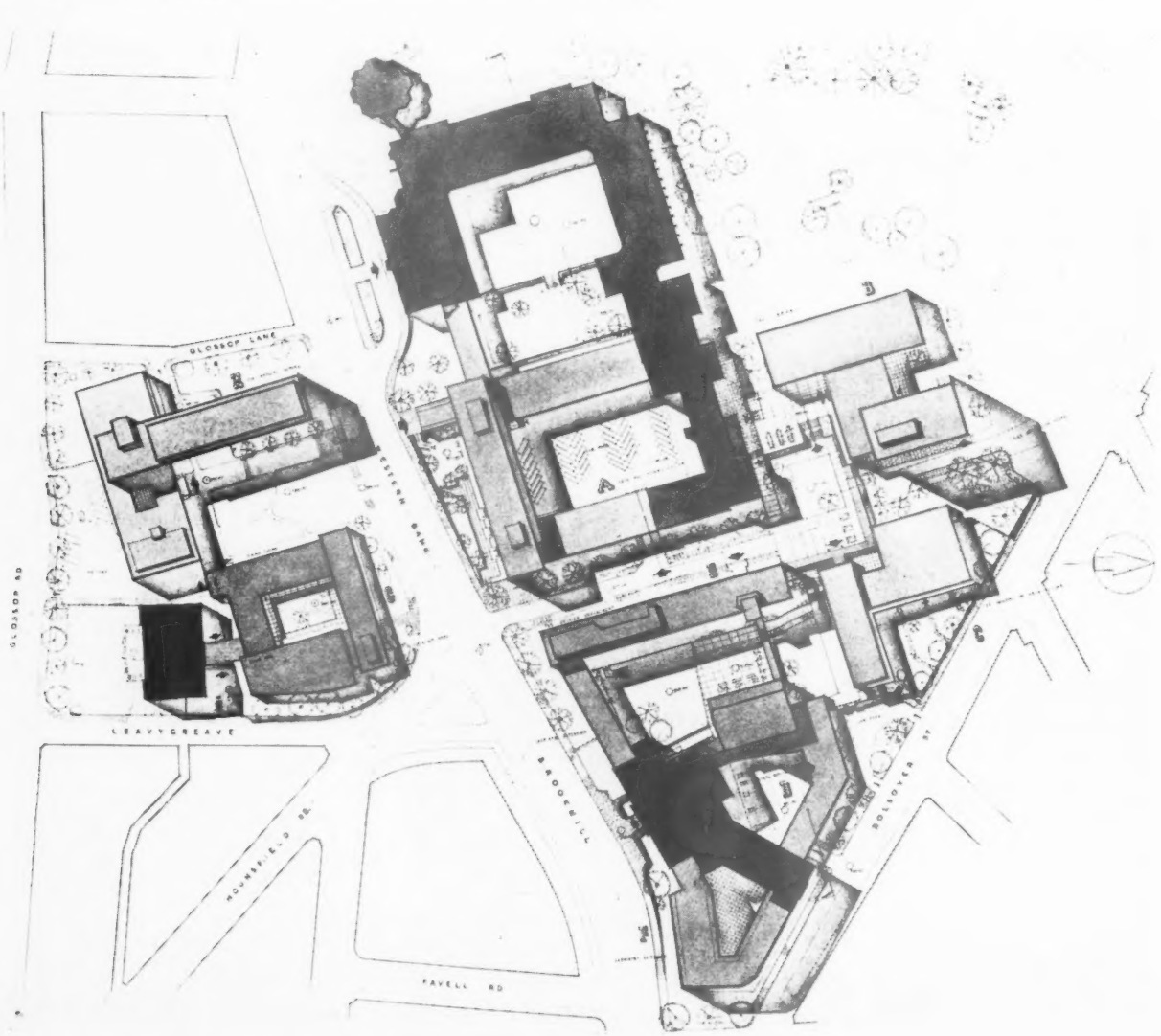
THIRD PRIZE-WINNING DESIGN BY CRUICKSHANK



South elevation to Western Bank and Brook Hill.



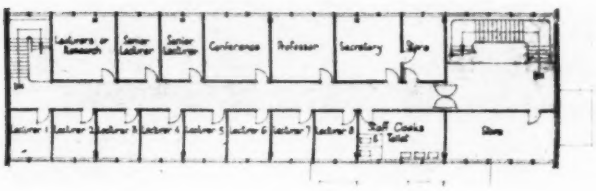
Part of section XX, showing north elevation of arts and administration building.



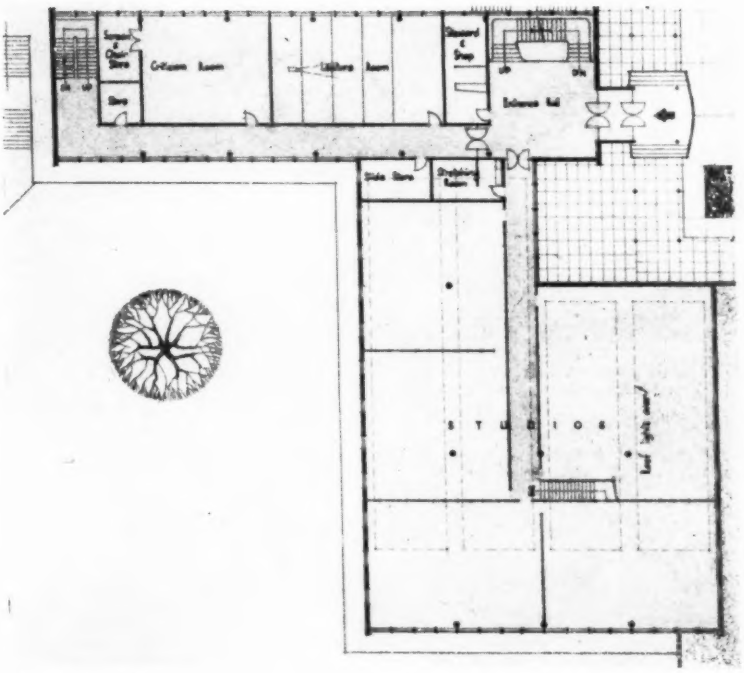
***Site plan** (letters identify areas on plan issued with competition conditions. See page 718).*

AND SEWARD

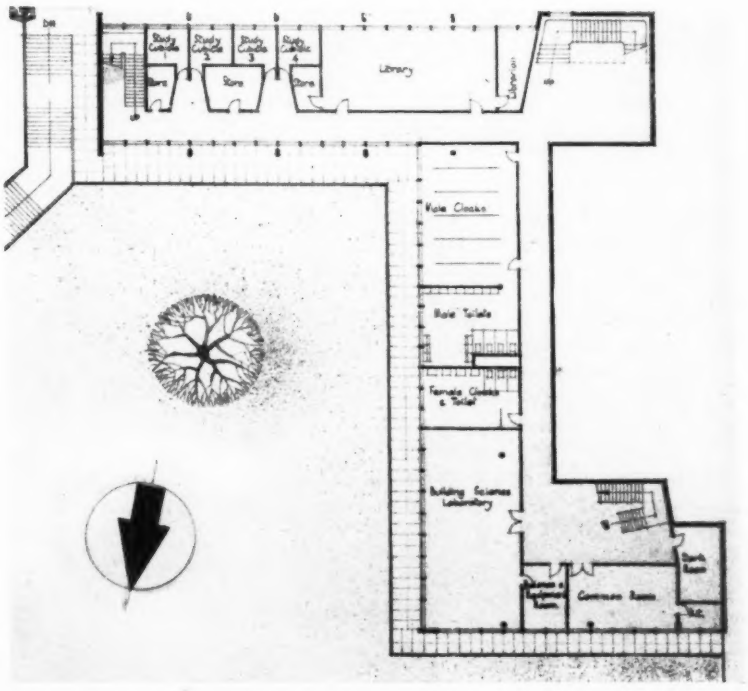
The assessor's report is as follows:—In this scheme the arts and administrative blocks are placed adjoining the existing building on sites A and B and the library in Weston Park on site C, but the Department of Architecture is housed in a separate building opposite the library on site D. The Departments of Physics and Chemistry are placed on the east side of Winter Street and the medical school, nine storeys high, together with Refectory and Staff House are grouped to the south of Western Bank. The library has a high, vertical book stack. Points of criticism of this scheme are the rather congested planning, the fact that many of the lecture rooms face the traffic noise on Western Bank and the placing of the car park in an internal quadrangle. The elevational treatment is simple and straightforward, but the $\frac{1}{8}$th scale drawings do not bear out the promise of the $\frac{1}{16}$th scale sketches. The author estimates that the building will contain 3,656,280 cubic feet and the cost is estimated at £958,609.



First floor plan.

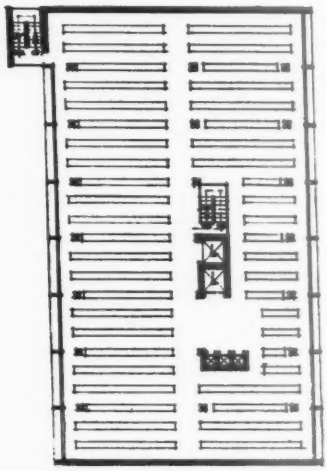


Ground floor plan.

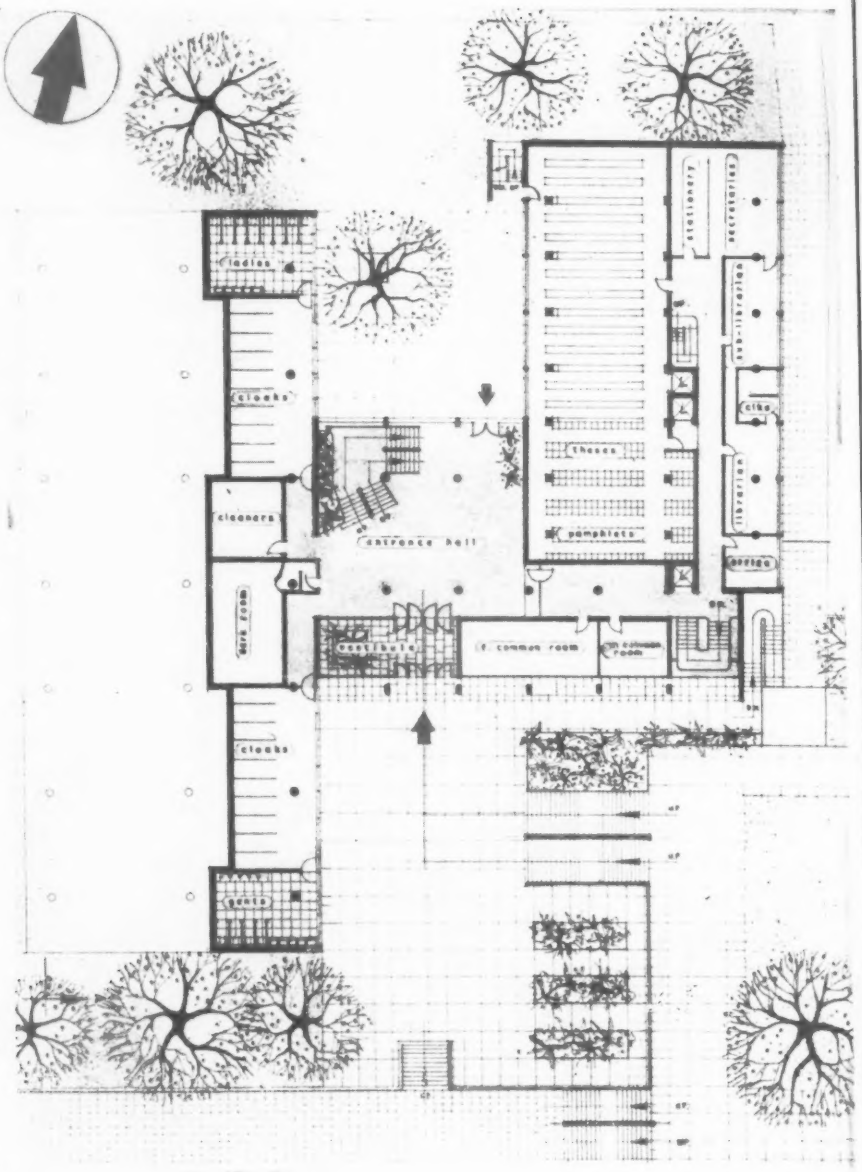


School of architecture. Basement plan.

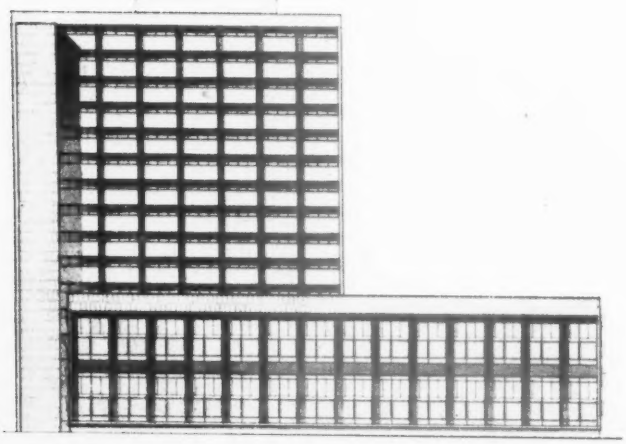
THIRD PRIZE-WINNING DESIGN BY CRUICKSHANK AND SEWARD



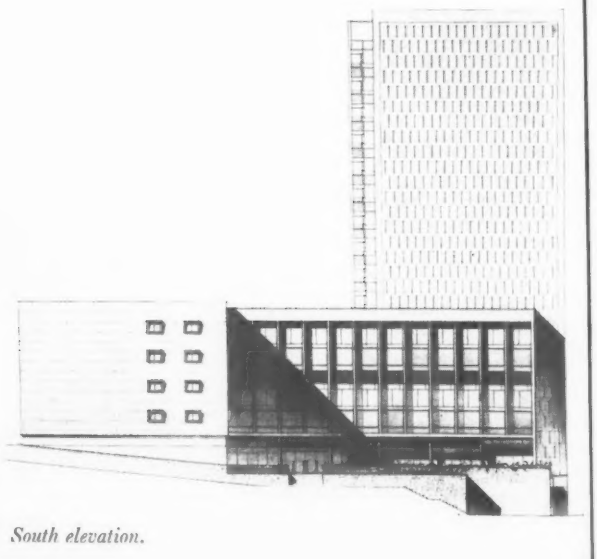
Plan of floors two to thirteen, stack tower



Ground floor plan of library

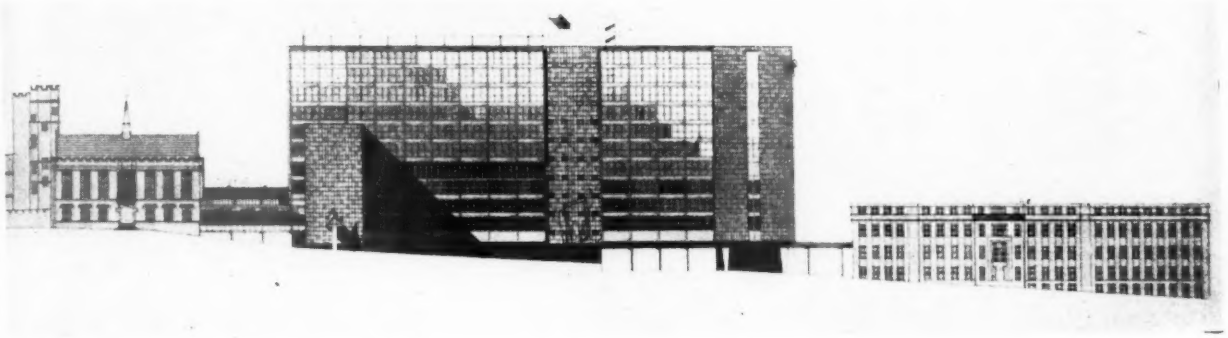


West elevation.

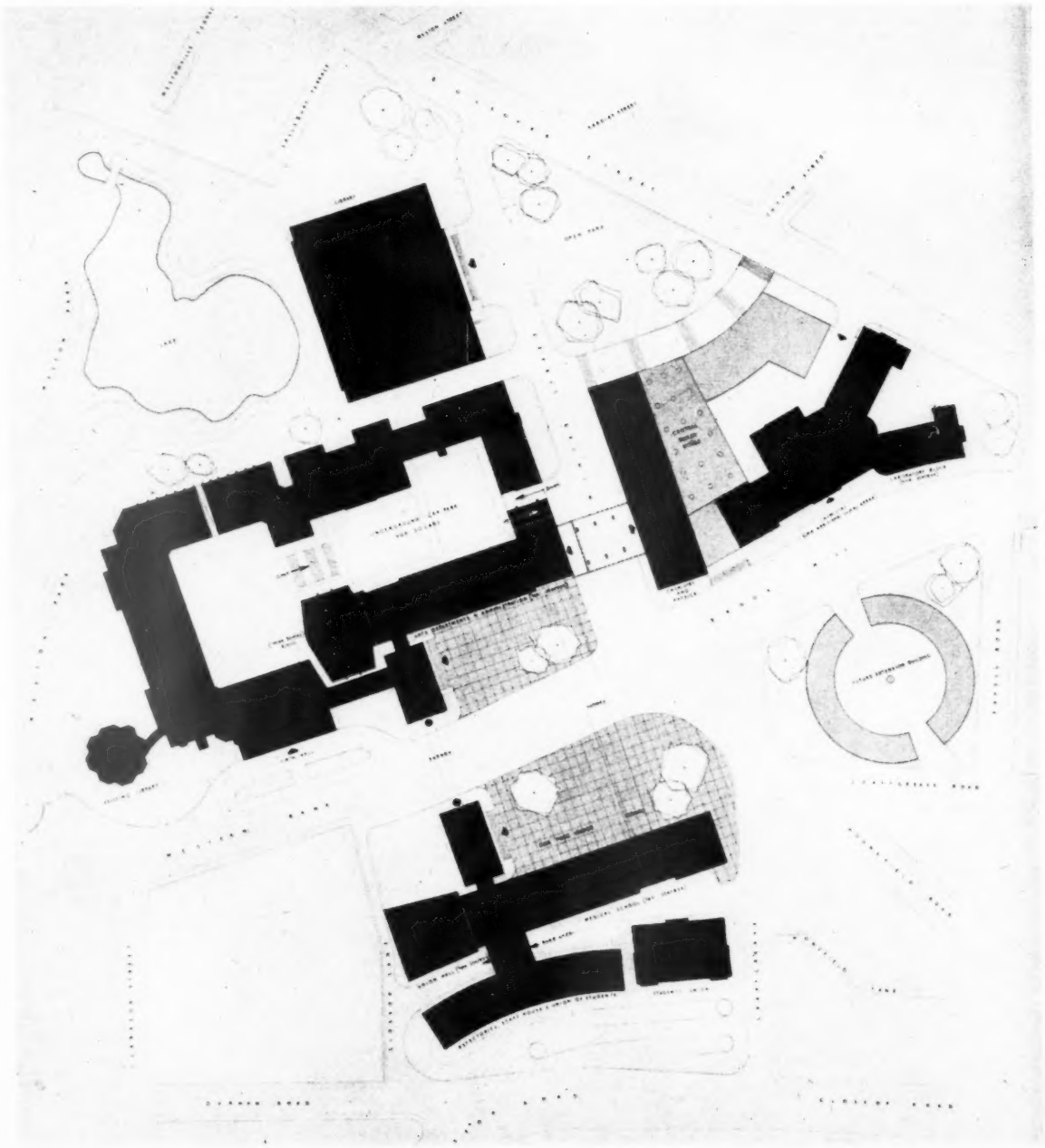


South elevation.

COMMENDED DESIGN BY S. W. MILBURN AND PARTNERS

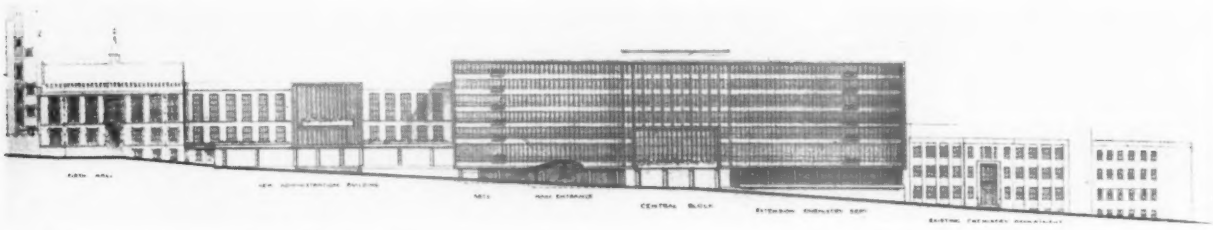


South elevation to Western Bank and Brook Hill.

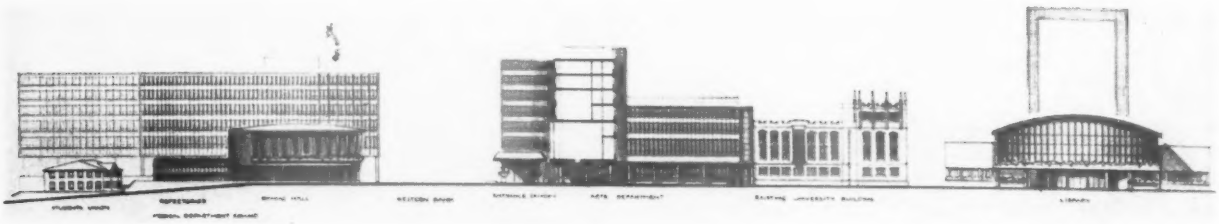


Site plan.

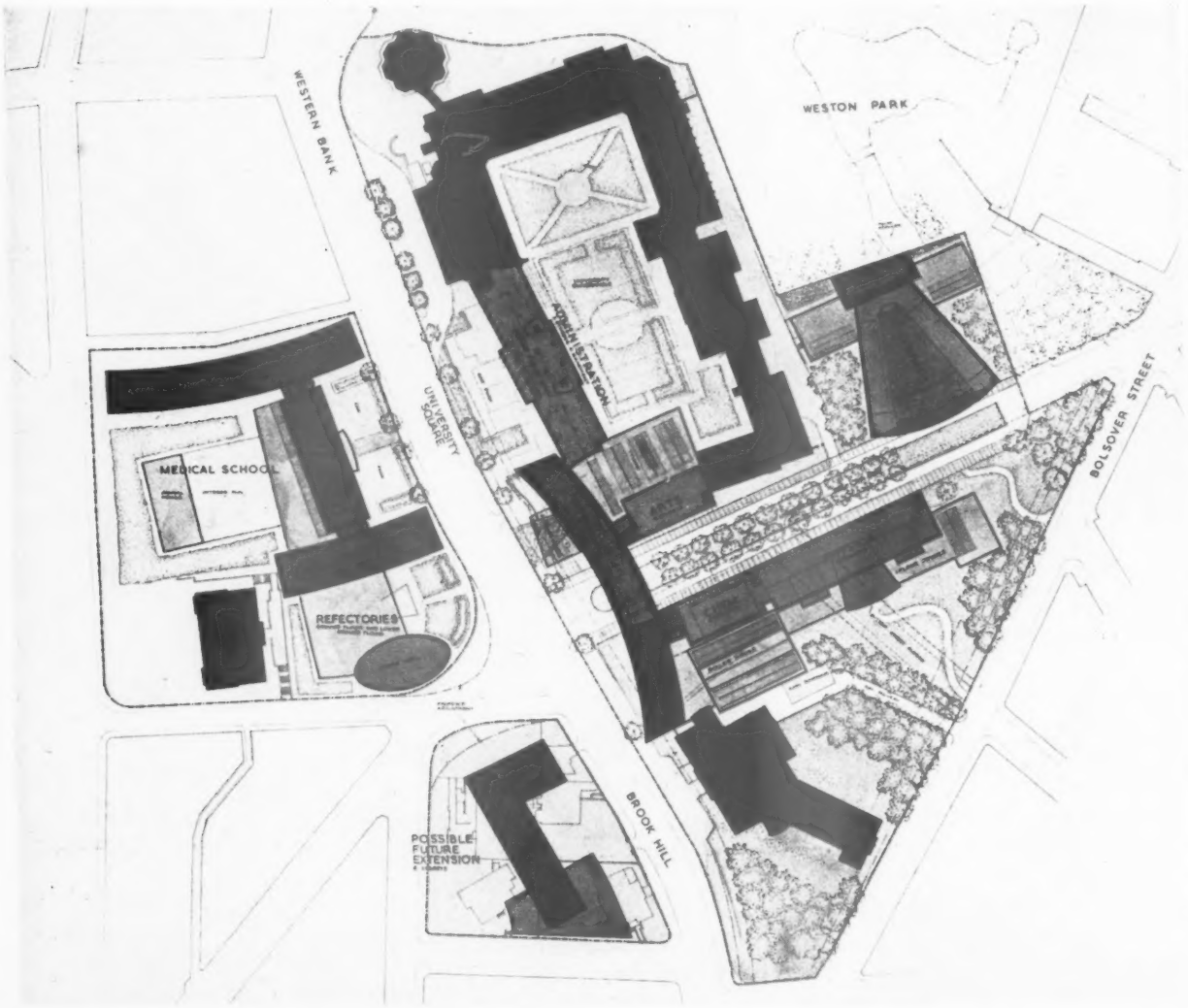
COMMENDED DESIGN BY DR. C. FRANCK



South elevation to Western Bank and Brook Hill.

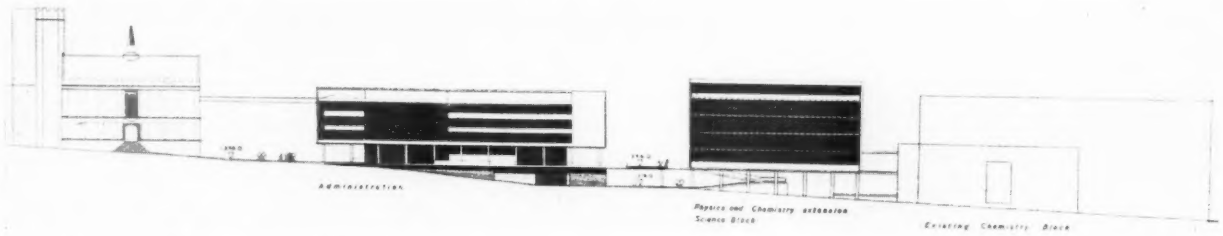


West elevation, showing medical school (left), arts department and existing building (centre) and library (right).

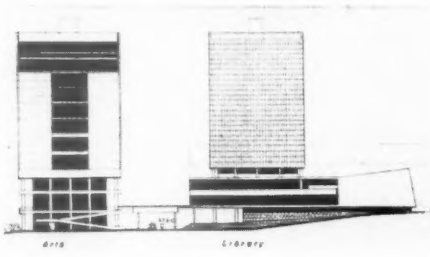


Site plan.

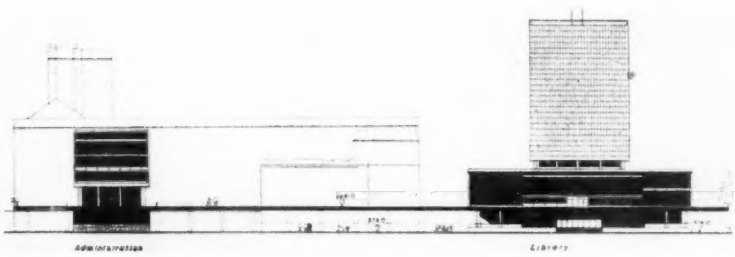
COMMENDED DESIGN BY GEORGE SUBIOTTO



South elevation to Western Bank and Brook Hill.



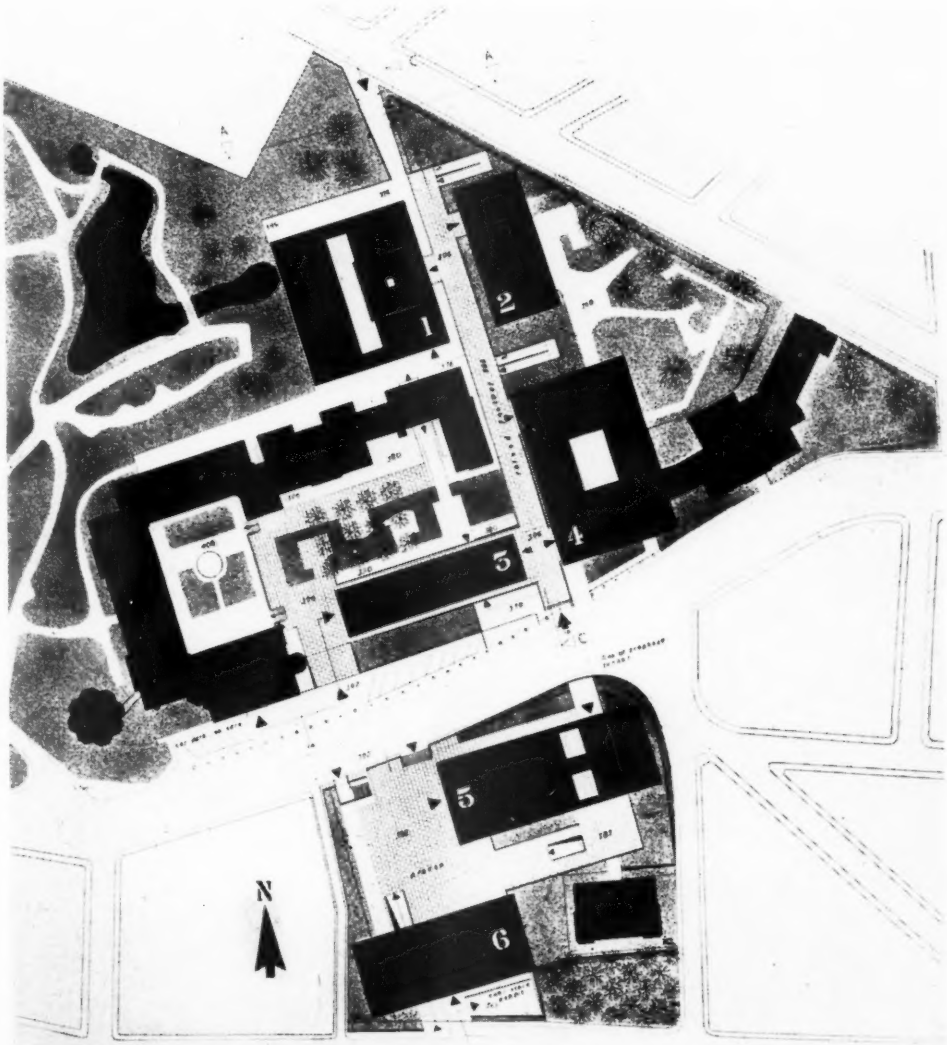
Section A-A.



Section C-C.

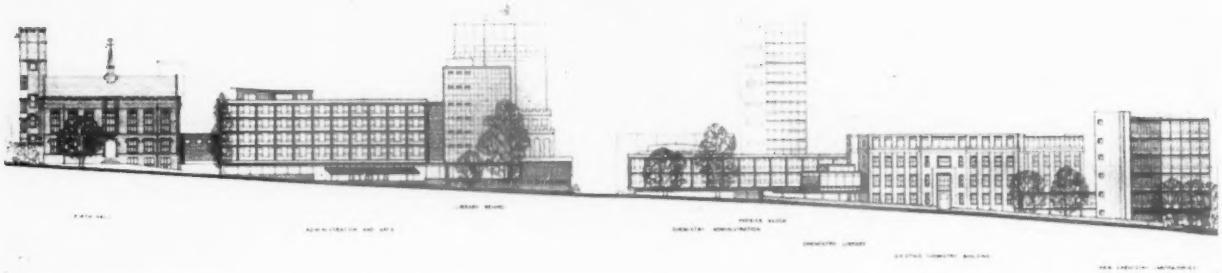
KEY

1. Library and bookstack
2. Arts building
3. Administration building
4. Physics and chemistry extension
5. Union Hall and refectories; students' union below
6. Medical block



Site plan.

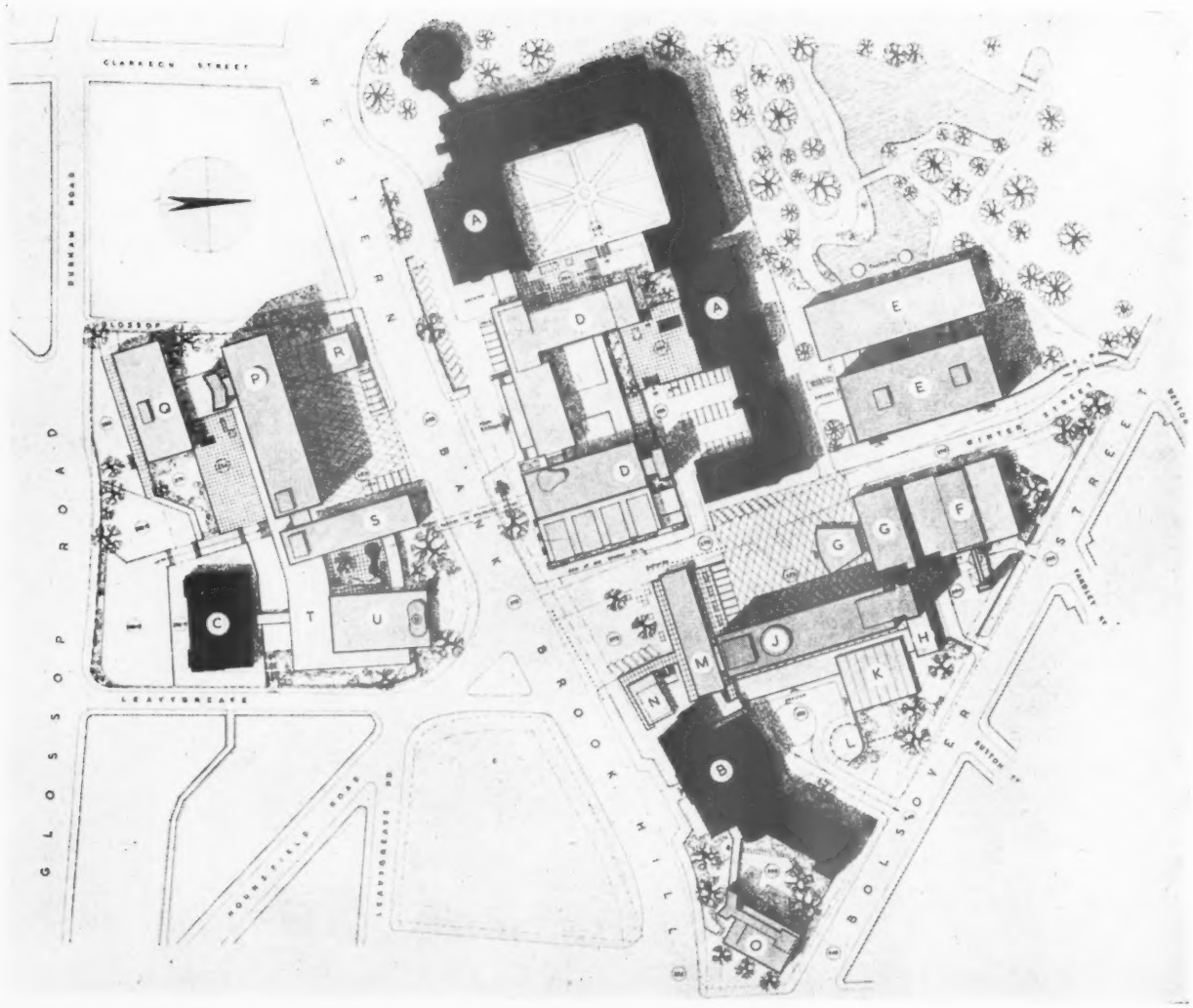
COMMENDED DESIGN BY A. M. GEAR



South elevation facing Western Bank and Brook Hill.

KEY

A. Existing Firth Hall
B. Existing chemistry block
C. Existing students' union
D. Arts and Administration
E. Library and architecture
F. Boiler house
G. Physics entrance
H. Physics and engineering
J. Physics and chemistry
K. Physics workshops
L. Nuclear-fission laboratories
M. Administration, chemistry
N. Departmental library (chemistry)
O. Chemistry laboratories
P. Medical school
Q. Medical school (animals)
R. Administration, medical school
S. Refectories
T. Students' union extension
U. Union Hall



Site plan.

TELEPHONE MAIDSTONE 4084-7

S. H. LOWETH, T.D., F.R.I.B.A., M.I. STRUCT. E. COUNTY ARCHITECT

ADMINISTRATION OF THE COUNTY OF KENT

BUILDINGS DEPARTMENT

Please quote my reference A/19.

SPRINGFIELD MAIDSTONE

5th May, 1953.

Chislehurst & Sidcup St.Paul's Cray Leeson's Hill County Primary School. New Buildings. PA/19/3.

Dear Sir,

The major portion of these two schools, infants' and junior departments, were occupied after the Easter holidays this year, which was a date considerably in advance of the contract completion date.

I am assured by Mr. Braddock, the Private Architect working in collaboration with me on this scheme, that this is in no small measure due to the excellent co-operation of your goodselves with the general contractors, Percy Bilton Ltd.

Will you please accept my thanks for your part in the successful completion of this work, as the effect of being able to occupy the school at such an early date, has been of considerable assistance to the Education Authorities.

Yours truly,

County Architect.

The Secretary, Concrete Ltd., Green Lane, HOUNSLOW, Middx.

TECHNICAL SECTION

The recent publication of a new edition of the British Standards Handbook Number 3 shows how the work of BSI continues to prosper in terms of the number of Standards issued. It is possible, however, that there is another, less satisfactory, side to the picture. There are 268 Standards included in the Handbook ; how many of them can actually be used ?

A somewhat depressing report recently reached us : On a job near London, an architect specified that sand for brickwork mortar was to be in accordance with BS 1200. For four weeks the contractor (a reputable firm) tried, unsuccessfully, to get a suitable sand. The architect then made his own enquiries, only to find that his insistence on the fulfilment of the specification in the Standard was both very unusual and very inconvenient. Apparently, the owners of most sandpits are not interested in supplying sand in accordance with the BS, partly because it is more trouble, partly because they are seldom asked to do so. Local merchants told the architect that " everyone around here builds with ' X ' sand."

It seems clear that architects and builders are not in the habit of specifying sand in accordance with the BS, or, if they do, they do not bother to see that they get it. It seems also that suppliers are quite satisfied to go on providing inferior material and that they are making no efforts at all to encourage the use of proper quality sand. Yet much has been said, both in BS Codes of Practice and by BRS to suggest that sand of BS quality is an important factor in making good mortar and is almost essential when certain types of brick are used.

It would be interesting to know whether this apparent apathy is confined to one area or whether it is general. Alternatively, if there is some difficulty in producing material to the present specification, the matter should be investigated. We hope that these remarks do not apply to other Standards, and we hope too that before further efforts are put into the production of yet more Standards, a survey will be made in order to discover to what extent the present wide range is used.

This week's special article

17 CONSTRUCTION : GENERAL
sub-floors for thermoplastic tiles

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

In the recently published BRS Digest No. 57 it was pointed out that, although thermoplastic floor tiles have been used in this country for only about six years, output is already between 8 and 10 million square yards per annum, making them the third most widely used form of flooring. The following article, by F. L. Brady, technical director of one of the firms that make these tiles, deals with the preparation of concrete bases to receive these tiles.*

When thermoplastic tiles were first introduced it was the practice to smooth and level the surface of the site concrete or structural floor with a cement and sand screed. It has, unfortunately, come to be assumed that this is the only proper treatment. Manufacturers recommended a screed 1 in. thick, composed of cement and sand in the proportion of 1 : 3, finished with a steel float after preliminary levelling and straightening with a wood float. In this connection the BRS quite properly remark, in the above-mentioned Digest, that " there is

* *Thermoplastic Flooring Tiles.* (HMSO. 3d. Aug., 1953.)

some difference of opinion about the optimum thickness of a screed laid on a hardened base and there is no theoretical basis for selecting one thickness rather than another."

From the point of view of the thermoplastic floor tile contractor, the thickness of the screed is quite immaterial; in fact, it is not directly his concern whether a screed is used at all. What does concern him is the *finish* of the concrete, or the screed. His requirements can be briefly stated: The surface should be plane, level, smooth and hard. One method of achieving such requirements is to finish with a steel trowel the concrete or screed, after it has been levelled with a wood float.

TILING DIRECT ON CONCRETE SLABS

A great deal of thermoplastic tiling has been laid, and is being laid, directly on to concrete slabs, without any screed. This was done in 2,000 prefabricated bungalows erected recently in Northern Ireland. The concrete slabs were cast in the open, levelled and steel-floated, ready to receive the tiling, which was laid immediately after the bungalows were erected. The work was entirely successful, although unfavourable weather—rain and frost—damaged some of the slabs. At first, difficulties were experienced in organizing the casting of the slabs so that the concrete could be brought to a finish during daylight, and some of the slabs had imperfections which, by arrangement with the general contractor, were made good by the tiling contractor, but these were never considerable and, as experience was gained, the imperfections declined to a negligible number.

In the work mentioned above, the conditions for finishing the concrete were ideal, since the prefabricated bungalows were of dry construction and there were no mortar droppings to deface the finished concrete. Also, the design called for a concrete mix of good quality which was capable of being "self-finished." However, the finishing of a structural concrete mix is more laborious than that of a screed, and the use of a power float greatly expedites the work and reduces the cost, particularly on large jobs or where there is an extensive repetition of small buildings, such as on large housing estates. Where there is only a small area of flooring a screed is generally more economical.

THIN TOPPINGS ON FRESHLY CAST SLABS

A compromise deserves consideration: a fine dry concrete can be added to the surface of the structural concrete to facilitate the final trowelling. Except where a central concrete batching plant is used, site concrete tends to be wet and often of poor quality. If, after the concrete has been levelled with a screeding board, it is sprinkled with a mixture of dry cement and coarse sand, grit or granite chips, the dry mix soaks up the excess water from the concrete and can immediately be brought to a satisfactory finish. The use of neat cement for this purpose is expressly excluded—it produces a glass-hard surface to which adhesive will not bond and which may lift and flake, due to expansion. The use of a 1:2½ or 1:3 mixture of cement and aggregate is satisfactory and gives an inexpensive finish with no risk of parting or lifting.

LIGHTWEIGHT AGGREGATES

The surface of lightweight concrete is usually too rough to receive tiling direct. It needs closing with cement and sand (1:2½ or 1:3). The thickness of this smoothing coat does not matter and, since the texture of lightweight concrete is rough, the bond between smoothing coat and concrete is usually good.

VERMICULITE CONCRETE

The surface of vermiculite concrete is smooth, but resilient. It is necessary, therefore, to use a screed sufficiently thick to ensure that point loads cannot act locally on the vermiculite concrete and cause permanent compression. Screeds 1 in. thick are reported to have been used with success. It is surprising, perhaps, that trouble has not been experienced due to lifting, since there seems some risk that vermiculite concrete might be insufficiently strong to restrain the movements of the strong screed. This danger exists whatever floor covering is used.

EXPANDED CONCRETE

Expanded concrete has a smooth surface; its hardness depends on its density. It is essential that the density of the expanded concrete shall be such that it provides adequate support for the thermoplastic tile. A minimum density of 90 lb. per cub. ft. should be sufficient.

INFORMATION CENTRE

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.

2.132 planning : general
INDUSTRY

Industry in Towns. Gordon Logie. (George Allen & Unwin Ltd. 1952. 60s.)

Too often in discussions on town planning the term "industry" is used as a vague generalization to gloss over the intricacies of this infinitely many-sided part of modern life. Gordon Logie's book is based largely on personal research and survey, and its publication will help to counteract this tendency. He begins by discussing the pattern and nature of industrial location and its effects on town planning and architecture. This leads to the major portion of the book—a survey of individual industries. A book to remember. 375 pp., including index; illustrated.

2.133 planning : general
INDUSTRIAL LOCATION

The Planning of Industrial Location. Peter Self. (University of London Press. 1953. 2s. 6d.)

Peter Self's pamphlet, sponsored by the TCPA, considers the location of industry in this, the most highly industrialized country in the world. A good re-statement of arguments in favour of a national policy for the location of industry in relation to the development of town and countryside. 47 pp.

6.40 planning: social and recreational
UNITÉ

The Marseilles experiment. Donald Tomkinson. (The Town Planning Review. Oct., 1953. pp. 193-214.)

One of the best reviews published of Le Corbusier's Unité building, giving a good account of the æsthetic and social background to it and the history of its development. The author sums up the scheme "as a statement of ideals, rather than a final solution. Future projects may yet show that these ideals can be put into practice at a more rational price." Illustrated.

7.40 practice
PROFESSIONAL PRACTICE

The Architect in Practice. 1st Supplement. Arthur J. Willis and W. N. B. George. (Crosby Lockwood & Son Ltd. 1953. 6d.)

The publishers of this book (see Information Centre Item 7.37:27.11.52) announce the issue of a first supplement to it. The supplement gives corrections and amendments to bring the book in line with new regulations up to August, 1953.

9.38 design: general
BUILDING RESEARCH

Report of the Building Research Board for 1952. DSIR. (HMSO. 1953. 3s. 6d.)

Usual brief report by the Board, followed by 50-pp. report by the director of building research on the work of BRS in 1952.

Although some of the items covered have already been the subject of fuller reports, in lectures, articles and official publications, there are brief notes on many phases of BRS work which have not yet been reported in full. Though the descriptions given in the report are not long enough to give the full facts, they are valuable in letting the industry know on which subjects work is being done and on which subjects further inquiry might be profitable. The range of subjects covered is very wide indeed and a glance through this report ought to provide something of interest to every architect or builder.

19.169 construction: details
VAPOUR BARRIERS

Water Vapor Can Damage Built-up Roofs. Part 2. C. E. Lund. (Architectural Record. Sept., 1953.)

Although written with American conditions in mind, parts of this article are of some general interest, particularly a discussion of the conditions that necessitate the use of a vapour barrier, if roof blistering is to be avoided. Whether a barrier is used or not, one thing which is essential is that the roof finish should not trap moisture in a damp insulation layer immediately beneath it. Lack of sufficient attention to this point may well have been the cause of some of our roofing troubles.

20.218 water supply and sanitation
CAST IRON PIPES

Cast Iron Flanged Pipes and Flanged Fittings. BS 2035:1953. (BSI. 1953. 6s.)

A companion to BS 78, this standard supersedes that part of BS 78 which deals with flanged pipes and fittings. Testing methods changed. Number of types reduced, though others, at present in production, will probably remain so for some time.

22.62 sound: insulation-acoustics
ATTENUATION OF SOUND BY AIR

The Attenuation of Sound Propagated Over the Ground. J. D. Hayhurst. (Acustica. Vol. 3, No. 4. 1953.)

The article describes a series of measurements made at London Airport of the attenuation of aircraft sound with distance over concrete runways and grassed areas. The attenuation varied with frequency and was considerably influenced by wind speed and direction. Attenuation over concrete was about 10 db. per 1,000 ft. in still air and at mid frequency. The attenuation over grass was found to be greater, but conditions prevented the exact determination of the amount of the difference.

22.63 sound: insulation-acoustics
VIBRATION

Vibrations of Plates Covered with a Damping Layer. Van Itterbeek and Myncke. (Acustica. Vol. 3, No. 4.)

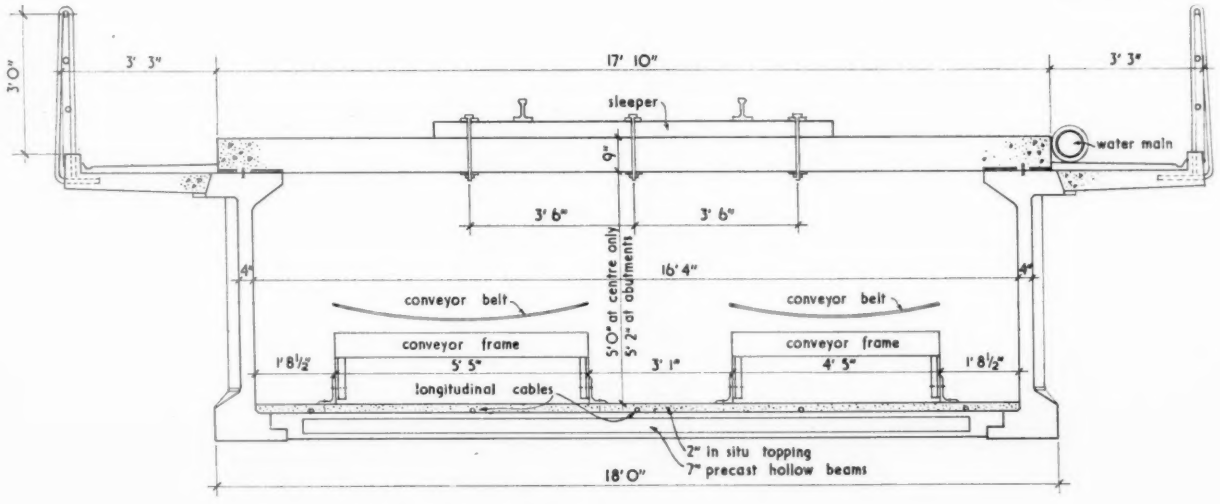
The authors describe experiments carried out to evaluate the sound damping of steel plates by bitumen emulsion paint containing a proportion of powdered schist. It was found that this treatment is effective at all temperatures up to 100°F. Above this temperature, the softening of the paint destroys its damping effect.

To check the practical use of this method of insulation a cement mill was treated. The mill was constructed of steel plates about 1-in. thick, which were coated with a layer of paint about $\frac{1}{10}$-in. thick when dry. This reduced the overall noise level from 95 db. to about 89 db. and, in addition, gave good

PRESTRESSED CONCRETE RAILWAY AND CONVEYOR BRIDGE AT CALVERTON, NOTTS.

A 74-ft. span combined railway and conveyor bridge in prestressed concrete (cross section, below) has been constructed for the East Midlands Division of the National Coal Board, in connection with the new colliery at Calverton, Nottinghamshire. The local planning authority would not permit a separate overhead conveyor structure and it was decided, therefore, to utilize the space between the deck and the soffit of the bridge to accommodate the conveyors. To do this, a minimum height of 5 ft. was required between the underside of the upper (railway) deck and the lower floor which is to carry the conveyors, and the thickness of the railway deck and the conveyor floor has, therefore, been kept to a minimum. In order to minimize also the interruption of traffic using the road during construction, as much of the work as possible was precast. The bridge has two precast, prestressed main girders at 16 ft. 8 in. centres. These are 77 ft. long, and 5 ft. 9 in. deep, with a web thickness of 4 in. at the centre of the span, increasing to 7 in. at the ends, and a camber of 2 in. Each girder was precast in three sections in a products works, lifting hooks being incorporated in the precast sections so that on arrival at the site each section could be lifted into position on bearings and temporary timber towers which were ready to receive them. Once the complete girders had been lifted into position six Freyssinet cables of twelve 0·2 in. diameter wires were threaded through ducts which had been formed in the units during casting. The $\frac{3}{4}$-in. joints between the sections of the girders were filled with a dry mortar of cement and sand in equal proportions. Stressing was carried out from both ends of each beam and after stressing the cables and ducts were grouted under pressure. The conveyor floor, which forms the soffit of the bridge, consists mainly of hollow precast units

(continued on page 737)



subjective reduction in annoyance value of the noise by a marked change in the frequency spectrum.

23.187 heating: ventilation
HOUSE INSULATION

House Insulation. MOW Advisory Leaflet No. 34. (HMSO. 1953. 3d.)

Methods of insulating roof spaces and ground floors. Prevention of draughts and excessive ventilation. Tank and pipe lagging. Useful, simple notes on domestic heat insulation. One or two good points about details of application.

23.188 heating and ventilation
DOMESTIC APPLIANCES

Recommended Domestic Solid Fuel Appliances. List No. 7. (CUC. July, 1953.)

Latest revision, cancelling list No. 6, of Jan., 1953. This now well-known publication includes all types of appliance approved by the Ministry of Fuel and Power for local authority housing and some other appliances approved by the CUC as suitable for other and larger houses.

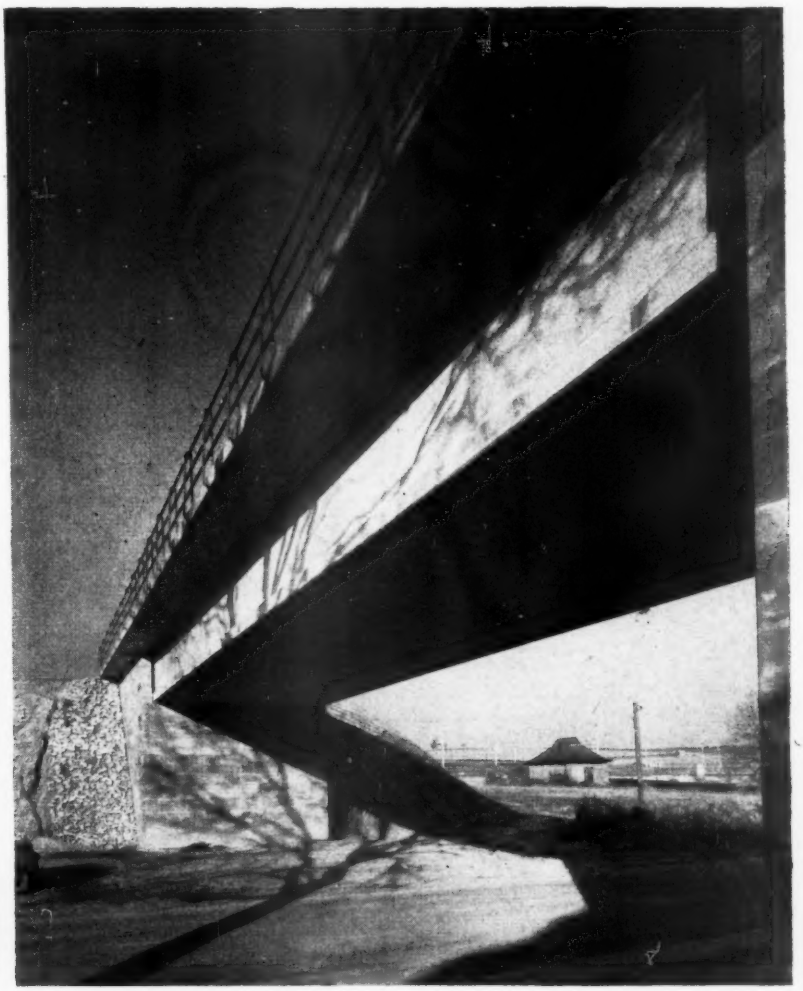
25.102 water supply and sanitation
PLUMBING AND DRAINAGE

Modern Plumbing and Its Background. G. Lloyd Ackers. (Journal RSI. Sept., 1953.)

Good, thought-provoking, 8 pp. article in which the author asks why certain common practices are accepted. Should be read in full by anyone interested in improving plumbing and drainage design.

PRESTRESSED CONCRETE BRIDGE AT CALVERTON, NOTTS. (continued)

spanning between the girders. Longitudinal sheathed cables, located in the 2-in. concrete screed on top of the precast units, afford considerable assistance to the main girders. The top deck was cast in situ. *Post-tensioned, transverse cables in the lower (conveyor) floor and in the top deck tie these elements of the bridge to the main girders, thereby forming a monolithic whole. The top deck rests on hinged supports in order to avoid transmitting bending moments to the webs of the main beams. The footways are cantilevered. The reinforcement for them was left protruding from the top flange of the main beams. The concrete mixes used in the construction of the bridge were as follows: Prestressed work,* 1 *cement:* 1½ *fine aggregate:* 3 *coarse aggregate; ordinary reinforced work;* 1 *cement:* 2¼ *fine aggregate:* 3¾ *coarse aggregate: topping over precast units,* 1 *cement:* 3 *fine aggregate. All concrete was vibrated,* in situ *concrete being vibrated both internally and externally at the same time. A minimum crushing strength of* 4,000 *lb. per sq. in. was required in the concrete at the time of stressing and a minimum of* 6,000 *lb. per sq. in. before the bridge was used. Cube tests gave results in excess of these requirements. The maximum design compression, due to the train load, is* 1,472 *lb. per sq. in. The design does not permit tension to develop in the concrete under any conditions. Below, completed bridge; left, stressing the Freyssinet cables.*



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

ENQUIRY FORM

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

.....

.....

.....

Please ask manufacturers to send further particulars to :—

NAME .....

PROFESSION or TRADE

.....

ADDRESS .....

.....

10.12.53

Announcements

Hills (West Bromwich), Ltd., announce with deep regret, the death of their chairman, R. S. Dyball, who died on Wednesday, November 18.

William Kilvington has been appointed Borough Surveyor to the Borough of Morecambe and Heysham in succession to R. B. Savage. Mr. Savage retires in February next after 44 years in local government and 22 years with the Morecambe Borough Council. Mr. Kilvington has been his deputy for the past five years.

The Institution of Heating & Ventilating Engineers have moved to 49, Cadogan Square, S.W.1. (Tel.: SLOane 1601 and 3158.)

John Liversedge & Associates, Civil & Structural Consulting Engineers have moved to new offices at 42, Portland Place, W.1. (Tel.: LANgham 7881-3.)

The United Steel Companies, Ltd., have appointed Commander K. H. S. Cohen, C.M.G., as their European adviser. For some time the Company has wished to make a closer study of the trends in European industry and economics and Commander Cohen is to undertake this work on their behalf.

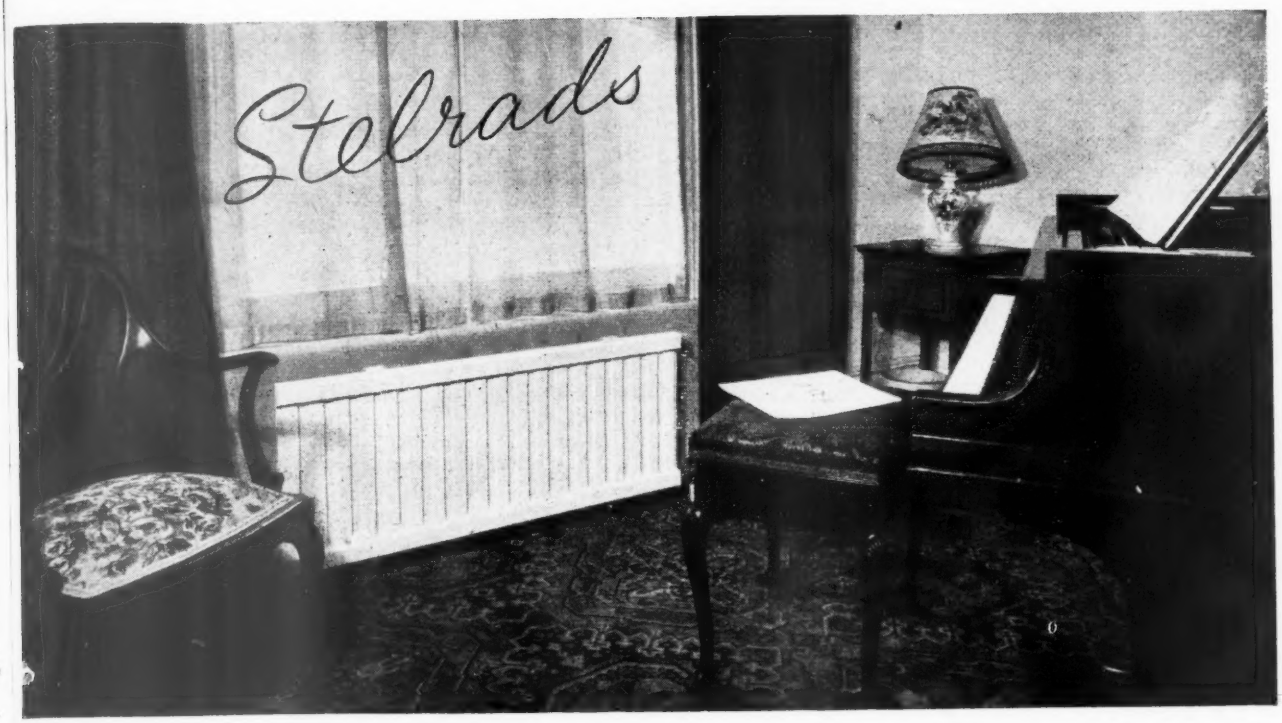
Owing to the resignation of T. B. Dodson from the vice-chairmanship of the Building Board Manufacturers' Association, Cedric Ford, director and secretary of the Sundeala Board Co., Ltd., has been appointed in his stead.

The Rt. Hon. the Earl of Feversham, D.S.O., D.L., succeeds The Rt. Hon. the Earl of Dunmore, V.C., D.S.O., M.V.O., as President of the TDA This was announced after a meeting of the Council of the TDA in London.

J. F. Dowsett has completed 50 years of service to the LCC School of Building at Brixton and, to mark the occasion, the president of the Students' Union is asking for contributions to a presentation to be made to Mr. Dowsett at the Students' Annual Dinner and Dance to be held at Wingfield House, Stockwell (tickets 14s. each), on December 16. Donations should not exceed two and sixpence and should be sent to D. A. G. Reid, M.I.C.E., at Brixton School of Building, Ferndale Road, S.W.4.

The British Plastics Exhibition, now established as a biennial exhibition, is to be held at Olympia, London, from June 1 to 11, 1955. As in former years, a convention will be held concurrently with the exhibition. This will be the third British Plastics Exhibition and will represent all sections of the industry, including raw material suppliers; manufacturers of moulding powders, synthetic resins, plastics sheeting; the moulders and fabricators; manufacturers using laminated plastics and reinforced plastics; the manufacturers of moulding plant and other essential equipment.

A deputation representing voluntary organizations in the fourteen New Towns was received last week by Sir Thomas Sheepshanks, Permanent Secretary to the MOHLG, on behalf of the Minister. A representative of the MOE was also present. A meeting, held in London, on October 10, and attended by more than 200 representatives, had drawn the Minister's attention to the lack of community buildings and playing fields. The deputation last week urged that the New Towns should be treated as a special case since the amount of finance needed from the Government to ensure such provision was relatively small and could be spread over many years as the towns grew. Sir Thomas Sheepshanks said these representations would be reported to the Minister, who would send a reply when full consideration had been given.



Photograph by courtesy of Ideal House Magazine

STEEL RADIATORS LTD

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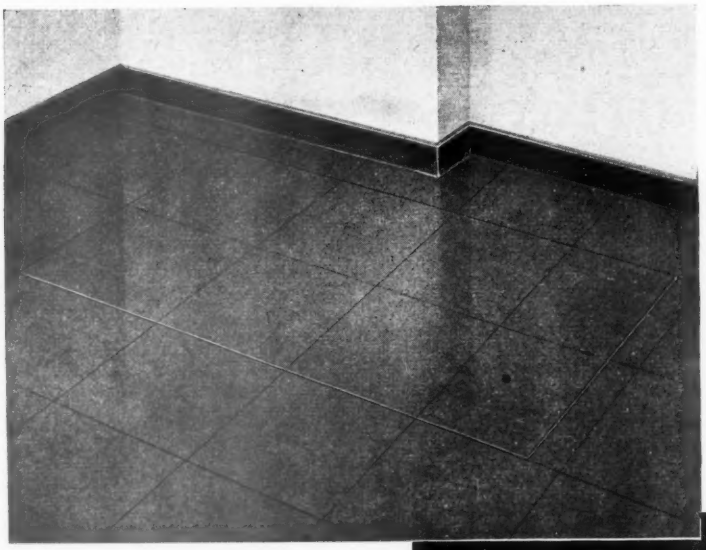


BROADSTEL COVERS

PATENT No. 606014

After a period of acute shortage of sheet steel the BROADSTEL COVER is now readily available for prompt delivery.

Designed for filling on site to match the surrounding floor or paving. Highly resilient to impact and almost invisible when installed.

Detailed Brochure sent on request.

for paved surfaces

BROADS

MANUFACTURING CO. LTD. 4 SOUTH WHARF, PADDINGTON, LONDON, W.2 • Tel: PAD 7061 (20 lines)

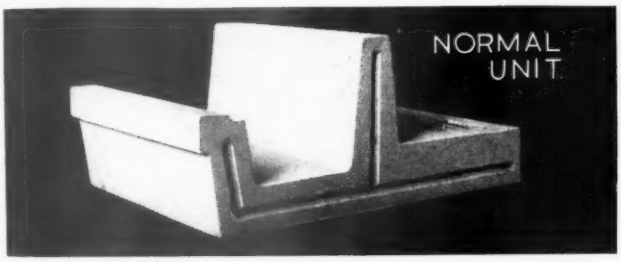
EAVES GUTTERS

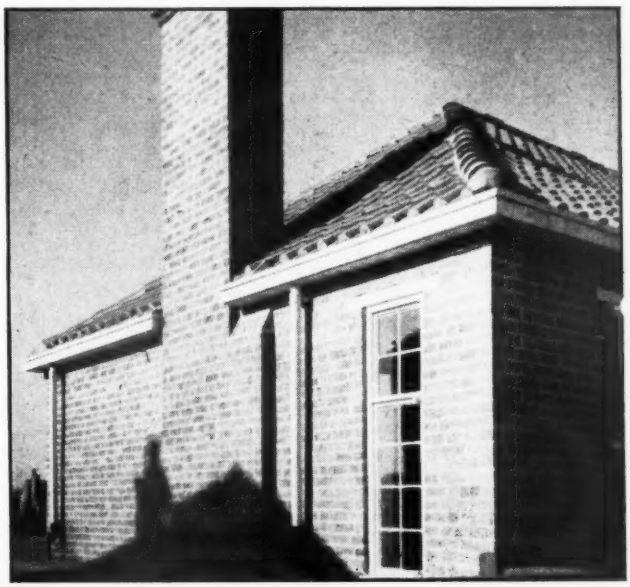
The "M-M" Precast Concrete Eaves Unit. (*Patent No. 576004.*)

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

Standard Units	Overall sizes	Weight each
Normal Units	1′ 1¾″ by 1′ 8″	84 lbs.
Outlets (for 3in. R.W.P.'S.)	1′ 1¾″ by 1′ 8″	82 lbs.
External Angles	1′ 8″ by 1′ 8″	150 lbs.
Internal Angles	2′ 0″ by 2′ 0″	165 lbs.
Butt Ends	1′ 8″ by 1′ 8″	125 lbs.
Return Stop Ends (for pitched roofs)	1′ 8″ by 1′ 8″	154 lbs.
Closers from 7in. to 1ft. 1in.	—	—

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





TARMAC LIMITED
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ANY LENGTH. The wide range gives maximum freedom in design. Gulf Radiators may be supplied in any length to fit the space and heating requirements exactly. The Wall Panels may also be styled as Ray Type Units or Convectors.

CURVED FORMS. Gulf specialise in producing radiators for unusual and exacting requirements. Gulf Column can be supplied in curved form, and Gulf Wall Panels in both curved and angled form.

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Some BOOKS on English architecture and social life

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

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

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

A Miniature History of the English House by J. M. Richards. Specially written for those who need a small inexpensive handbook on the English house, this is a complete outline history of our domestic architecture from primitive hut to present-day house. Many illustrations are drawn from the late Mr. Nathaniel Lloyd's standard work (described above); but Mr. Richards' text is entirely original and, moreover, continues beyond the early 19th century, tracing the subsequent development of the house down to the nineteen-thirties. Size 8¾ ins. by 5⅝ ins. 72 pages with over 90 illustrations. Seventh impression. 4s. 6d. net, postage 3d.

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

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

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

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

Overseas: U.S.A.: The British Book Centre, Inc., 122 *East 55th Street, New York*, 22,, *N.Y., U.S.A.*
Canada: The British Book Service (Canada) Ltd., 1068 *Broadview Avenue, Toronto, Canada.*
South Africa: E. Maxwell Arnot, P.O. Box 275, *Capetown, S.A.*

CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

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

LONDON COUNTY COUNCIL.
ARCHITECTS and SURVEYORS, Grade III (£685-£862 10s.), required for building regulation work under London Building Acts and Bylaws. A.R.I.B.A. or A.R.I.C.S. essential. Particulars and application form (to be returned by 8th January, 1954), from Architect (AR/EK/BR/3), County Hall, S.E.1. (1309) 1102

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
Vacancies for TECHNICAL ASSISTANTS (up to £721) in Structural Engineering Division. Work includes steelwork and reinforced concrete design and detailing for Council's building, and checking structural designs and calculations under London Building Acts.
Application forms from Architect (AR/EK/SE/5), County Hall, S.E.1. (1270) 1057

BLACKWELL RURAL DISTRICT COUNCIL.
ARCHITECTURAL ASSISTANT.
Applications are invited for the appointment of Architectural Assistant, at a salary of £555 per annum, rising by annual increments of £15 to £600 (Grade A.P.T., IV).
Applicants should have passed the R.I.B.A. Intermediate Examination, or its equivalent, at one of the recognised Schools of Architecture, and have worked in an architectural office for a period of two years.
Applications stating age, experience and training, and giving names and addresses of two persons to whom reference may be made, should be sent so as to reach the undersigned not later than 14th December, 1953.

R. EVANS,
Clerk to the Council.
" Dale Close," 100, Chester Road South,
Mansfield. 1073

BOROUGH OF RAMSGATE.
APPOINTMENT OF QUANTITY SURVEYOR.
Applications are invited for this appointment at a salary not exceeding Grade VI (£670-£735) according to qualifications and experience. Housing accommodation will be made available to the successful applicant, if required.
General Particulars of the appointment are obtainable from the undersigned to whom applications must be submitted by 18th December, 1953.

K. F. SPEAKMAN,
Town Clerk.
Municipal Buildings, Ramsgate.
1097

METROPOLITAN BOROUGH OF WOOLWICH.
BOROUGH ENGINEER'S DEPARTMENT.
SENIOR ARCHITECTURAL ASSISTANT required. Grade VIII (£760-£835) plus London Weighting. A.R.I.B.A. or equivalent essential. Superannuation Scheme. Medical Examination.
Experience in all types of architecture undertaken by local authority.
Application forms from Borough Engineer, Town Hall, Woolwich, S.E.18, to be returned to Town Clerk by 19th December, 1953.
Canvassing disqualifies. 1089

DEPARTMENT OF MUNICIPAL AFFAIRS & SUPPLY.
PROVINCE OF NEWFOUNDLAND, CANADA.
CITY OF ST. JOHN'S
Applications are invited for the following appointments in the Joint Planning Office of the above two Authorities, at St. John's:—
TWO SENIOR PLANNING ASSISTANTS within a salary range in accordance with prevailing Canadian rates.
Duties include the preparation of plans for the development of communities throughout the province and a Development Plan for the City of St. John's and its environs. Both appointments offer scope for independent and responsible work to applicants with energy and initiative.
Applicants must have considerable practical planning experience, preferably in a Local Government Office, and should possess professional qualifications, A.M.T.P.I. and/or A.R.I.C.S.
Appointments are on contracts for 3 years in the first instance. Passage will be paid for the selected officers.
Please reply by Air Mail to the undersigned with details of age, experience, present salary and qualifications together with recent testimonials or references. Selected applicants will be interviewed in the United Kingdom. These appointments are open until 26th December, 1953.

STANLEY H. PICKETT, A.R.I.C.S.
City Planning Officer.
City Hall, St. John's,
Newfoundland. 1086

MANCHESTER MUNICIPAL
COLLEGE OF TECHNOLOGY.
(Faculty of Technology in the University of Manchester.)
Appointment of
LECTURER IN STRUCTURAL ENGINEERING.
The Governing Body invites applications for a Lectureship in Structural Engineering in the College with the title and status of Lecturer in the University of Manchester.
Candidates should be graduates in Science or Technology and should possess a good knowledge of Theory and Structures. The person appointed will be required to undertake research work on Structures and to assist in lecturing and laboratory work in Structural Engineering.
Salary: £650 per annum, rising by annual increments of £50 to £1,200 per annum. Commencing salary according to qualifications.
Conditions of appointment and form of application may be obtained from The Registrar, College of Technology, Manchester, 1. The last day for the receipt of applications is Wednesday, 20th January, 1954.
Canvassing, either directly or indirectly, will disqualify a candidate for appointment.

B. V. BOWDEN,
Principal of College.
1127

COUNTY BOROUGH OF READING.
TO BUILDERS AND CONTRACTORS.
SHOPS AND FLATS.
The Corporation of Reading invite tenders for the erection of five shops with ten flats over in traditional construction in Southcote Farm Lane on the Bath Road Estate, Reading.
The General Conditions of Contract and Drawings may be inspected at the office of the Borough Architect, Town Hall, Reading, and the Bills of Quantities, Form of Tender and endorsed envelope may be obtained on application to him accompanied by a cheque for £2 2s. 0d. (made payable to the Reading Corporation) which will be refunded upon receipt of a *bona fide* tender not subsequently withdrawn.
The documents for tendering purposes will be ready for despatch on Friday, the 18th December, 1953.
Tenders must be delivered to the undersigned not later than Wednesday, the 13th January, 1954.
No tender will be considered unless enclosed in the endorsed envelope provided which must be sealed and not bear any name or mark indicating the sender.
The Corporation do not bind themselves to accept the lowest or any tender.

G. F.DARLOW,
Town Clerk.
Town Hall, Reading.
11th December, 1953. 1176

BRITISH ELECTRICITY AUTHORITY.
EAST MIDLANDS DIVISION.
Applications are invited for the following positions within the Division.
CIVIL ENGINEERING DRAUGHTSMEN, Construction Department. (Vacancy No. 22/53.)
Candidates should have experience in design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., for general building construction drainage and sanitation schemes, associated with office and administrative buildings.
The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.
ENGINEERING DRAUGHTSMEN (MECHANICAL), Construction Department. (Vacancy No. 44/53.)
Senior Draughtsmen are required in the Mechanical Section of the Construction Department at North Wilford Power Station. Candidates should have experience in one or more of the following:—
(i) Design and layout of Power Station equipment, including turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries
(ii) H.P. and L.P. steam and feed pipework. Condensing plant and feed heating systems.
(iii) Conveyor plant, coal handling systems and material handling of station auxiliary equipment.

Salary and conditions of service will be in accordance with the national Joint Board Agreement Grade 5 (£567-£671 per annum) and Grade 6 (£433-£567 per annum) of Schedule D according to experience.
ENGINEERING DRAUGHTSMEN (ELECTRICAL), Construction Department. (Vacancy No. 61/53.)
Candidates should have experience in the preparation of layouts and diagrams for the installation of E.H.T. and L.T. Switchgear, transformers, E.H.T. and L.T. cables; knowledge of protective gear systems would be an advantage.
The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.
The above positions will be pensionable within the provisions of the British Electricity Authority and Area Board Superannuation Scheme.
Applications should be submitted on the official form which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, and should be returned to the undersigned by the dates stated. Please quote Vacancy Number.

L. F. JEFFREY,
Divisional Controller.
1125

LANCASHIRE COUNTY COUNCIL.
DEPUTY COUNTY ARCHITECT.
Applications are invited for the appointment of Deputy County Architect at a salary of £2,000 rising to £2,350.
The establishment of the department is a large one and first class administrative as well as architectural ability is required. The appointment will be terminable by three months' notice.
Application forms, obtainable from G. Noel Hill, F.R.I.B.A., M.T.P.I., County Architect, County Hall, Preston, must be returned not later than Monday, December 21st, 1953.
1076

CO-OPERATIVE WHOLESALE SOCIETY LTD.,
ARCHITECT'S DEPARTMENT, LONDON.
ASSISTANT ARCHITECTS required of Intermediate R.I.B.A. standard, capable of preparing sketches, working drawings and details under supervision of Senior Architects; and
JUNIOR SHOPFITTING DRAUGHTSMAN, must have completed National Service. The appointments are permanent and offer prospects of up-grading.
Successful candidates will be required to undergo medical examination for compulsory superannuation scheme.
Applications stating age, experience, qualifications and salary required to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 99, Leman Street, London, E.1.
1149

NORTHERN POLYTECHNIC,
HOLLOWAY, LONDON, N.7.
The Governing Body invite immediate applications for appointment as full-time LECTURER in the School of Architecture. Candidates must be Associates of the Royal Institute of British Architects by examination, and have had professional experience after qualifying. The teacher appointed will be required to undertake duties as a Studio Master in the Intermediate Course and to lecture on technical subjects associated with Architecture in which he has particular interest and experience. Salary scale: £940×£25—£1,040, plus London allowance.
Form of application, together with full particulars, will be forwarded on receipt of a stamped, addressed foolscap envelope.

R. H. CURRELL,
Clerk.
1160

CITY OF CARDIFF.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.
Applications are invited for the following appointment in the City Surveyor's Department, viz:—
Architectural Assistant (Education) A.P.T. Grade 5 (£595-£645 per annum).
Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities' Administrative, Professional Technical and Clerical Services for posts in the above mentioned grade.
General Conditions of Appointment may be obtained from the undersigned.
Applications accompanied by the names and addresses of three referees and endorsed "Architectural Assistant (Education) Grade 5" should be delivered to the undersigned not later than the 19th December, 1953.

S. TAPPER-JONES,
Town Clerk.
City Hall, Cardiff.
25th November, 1953. 1132

CITY OF BIRMINGHAM EDUCATION COMMITTEE.
Applications are invited for the following appointments to the Architect's Branch of the Education Department.
SENIOR ASSISTANT ARCHITECT. Salary: A.P.T., VIII (£760×£25—£835).
Applicants must be registered and chartered architects, and must have had considerable experience in the design and erection of large buildings, preferably of schools, and must offer evidence of high ability and iniative in design.
ARCHITECTURAL ASSISTANTS. Salary: A.P.T., IV (£555-£600).
Applicants should have reached the R.I.B.A. Intermediate standard, and should be capable of preparing working details for major contracts.
CLERK OF WORKS. Salary: Miscellaneous, Grade VI (£525×£15—£585).
Applicants should have a thorough technical training in building construction and materials, and experience of large building contracts.
TECHNICAL ASSISTANT. Salary: General Division (£180-£450, according to age).
Applicants should be good draughtsmen with experience of the preparation of drawings in an architect's office.
Application forms, which may be obtained (stamped addressed envelope) from the undersigned, must be returned not later than 28th December, 1953.

E. L. RUSSELL,
Chief Education Officer.
General Purpose Branch, Education Dept.,
Margaret Street, Birmingham, 3. 1161

LANCASHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the following permanent appointment:—
Assistant Architect A.P.T. Grade VI (£670-£735)
Application forms, to be returned by 21st December, obtainable from the County Architect, County Hall, Preston 1126

COUNTY BOROUGH OF DUDLEY.
QUANTITY SURVEYORS.

Applications are invited for the following appointments:—

(*a*) CHIEF QUANTITY SURVEYOR, Grade VI (£670-£735).

(*b*) ASSISTANT QUANTITY SURVEYOR, Grade IV (£555-£600).

Applicants for (*a*) should have passed the final Examination of the Royal Institute of Chartered Surveyors, or should possess equivalent qualifications, and should be experienced in all stages of the preparations of Bills of Quantities, and the settlement of accounts.

Applicants for (*b*) should have passed the Intermediate Examinations of the Royal Institute of Chartered Surveyors or should possess equivalent qualifications, and should be experienced in taking off, abstracting and billing, preparing interim certificates, measuring variations, etc.

The appointments will be subject to the Local Government Superannuation Act, 1937 and to the passing of a medical examination.

In the case of (*a*) housing accommodation will be offered to a successful married applicant, should he require it.

Applications stating age, qualifications, present appointment, and experience together with names of three referees should reach me by Friday, 18th December, 1953.

P. D. WADSWORTH,
Town Clerk.

The Council House, Dudley.
28th November, 1953. 1144

CITY OF WAKEFIELD.
CITY ENGINEER'S DEPARTMENT.
PRINCIPAL ARCHITECTURAL ASSISTANT—GRADE A.P.T., VII.

Applications are invited for the above superannuable appointment on Grade A.P.T., VII (£710-£785), commencing at £710 per annum.

Applicants, who must be A.R.I.B.A., will be required to take charge of the Education Architects' Section of the Department, and there is an extensive Education Building Programme.

Applications, endorsed "Principal Architectural Assistant," stating age, qualifications, appointments and experience, with the names of two referees, to be sent to me not later than Saturday, 19th December, 1953.

THE COUNCIL WILL CONSIDER THE PROVISION OF HOUSING ACCOMMODATION.

W. S. DES FORGES,
Town Clerk.

Town Hall, Wakefield. 1159

BOROUGH OF OLDBURY.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
AMENDED ADVERTISEMENT.

Applications are invited for the following appointments in the Architects Section of the Borough Surveyor's Department:

(*a*) SENIOR QUANTITY SURVEYOR, Grade A.P.T. VII (£710/25/785).

(*b*) ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. V (£595/15/15/20/645).

Salary will be paid within the above grades in accordance with the experience and qualifications of the successful candidates.

The Corporation's building programme comprises mixed development of houses, maisonnettes and flats shopping centres, the development of a central clearance area and general building works.

Candidates for appointment (*a*) should be qualified quantity surveyors with a thorough knowledge of local government building contract procedure, the preparation of bills of quantities and settlement of accounts.

For appointment (*b*) applicants should preferably be qualified quantity surveyors with practical experience in the preparation of bills of quantities.

The appointment will be superannuable, subject to the National Conditions of Service and to the selected candidate passing a medical examination.

Applications, giving particulars of age, qualifications and experience, with the names of two referees, should be delivered to the undersigned, not later than Thursday, 31st December, 1953.

Housing accommodation will be available to married applicants if this is required.

KENNETH PEARCE,
Town Clerk.

Municipal Buildings, Oldbury.
30th November, 1953. 1152

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of QUANTITY SURVEYING ASSISTANT, Grade III, commencing salary £525 per annum, rising by annual increments of £15 to a maximum of £570 per annum, plus London Allowance of up to £30 per annum, according to age.

Applicants should have experience in taking off and working up Bills of Quantities and of site measuring.

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-on-Thames, not later than the 19th December, 1953.

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

W. W. RUFF,
Clerk of the Council.

County Hall,
Kingston-on-Thames. 1151

CITY AND COUNTY OF KINGSTON UPON HULL
CITY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF SENIOR ASSISTANT QUANTITY SURVEYOR.

Applications are invited for a Senior Assistant Quantity Surveyor in Grade IX A.P.T. Division (£815 × £40—£935 per annum).

The City's Building Programme comprises a mixed development of houses, flats and maisonnettes, primary and secondary schools and building schemes of varied types for all Committees.

The person appointed will be required to take charge of the Quantity Surveying Section of the Department and candidates should possess a thorough knowledge of the preparation of Bills of Quantities and of building contract procedure, sound administrative ability and considerable experience in handling large scale contracts, including valuations for interim certificates and the settlement of final accounts.

The appointment is superannuable and subject to the Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, and to the successful candidate passing a medical examination.

Application forms, obtainable from the undersigned, should be returned completed on or before Monday, 21st December, 1953.

A. RANKINE, A.R.I.B.A.,
City Architect.

Guildhall, Kingston upon Hull. 1128

BOROUGH OF KETTERING.
APPOINTMENT OF ASSISTANT BUILDING INSPECTOR.

Applications are invited for the appointment of Assistant Building Inspector in the Borough Engineer and Surveyor's Department. The salary will be in accordance with Grade V of the Miscellaneous Division of the National Scale of Salaries (£480 per annum × £15—£540 per annum) subject to satisfactory service. Applicants should have a practical experience of building work and a knowledge of Building Byelaws. A knowledge of the regulations governing civil building control is also desirable. Preference will be given to applicants holding the Building Inspector's certificate of the Institute of Municipal Engineers or similar qualifications.

The appointment will be subject to the provisions of the Local Government Superannuation Act and to the National Scheme of conditions of Service for Miscellaneous Classes of officers. The successful applicant will be required to pass a medical examination.

The Council will consider the provision of housing accommodation if necessary. Applications, stating age, qualifications, experience, past and present appointments and the names of three referees, must be delivered to the undersigned not later than the 14th December, 1953.

D. DUNSFORD PRICE,
Town Clerk.

Town Clerk's Office,
High Street, Kettering.
November, 1953. 1129

STEPNEY M.B.C. require Three Architectural Assistants (Unestablished). Experienced in preparation of design, lay-out, working drawings, detailed specifications for housing schemes, etc. Must hold appropriate professional qualifications. Salary, according to qualifications and experience, up to Grade A.P.T. VI (£670-£735 plus L.W.A.). Apply Borough Engineer, at Nos. 227/233, Commercial Road, E.1. 1130

NEWCASTLE REGIONAL HOSPITAL BOARD.
REGIONAL ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for two permanent (superannuable) Architectural Assistant appointments on the Headquarters Staff of the Regional Architect in Newcastle. Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects.

The commencing salary, within the grade £440 × £25(1) × £20(8) to £625 per annum, will depend upon the applicants' age and amount of practical experience since passing the Intermediate Examination but will not exceed £525.

To architectural assistants who wish to gain experience of hospital planning and construction the posts offer an excellent opportunity for doing good-class work of an interesting and widely varied nature in an architectural department which is being expanded to deal with a considerable work-programme.

Applicants must have had a sound architectural training and some practical experience in a practising architect's office is essential.

Evening-study facilities for the R.I.B.A. Final Examination are available at King's College of the University of Durham in Newcastle.

The terms of appointment and conditions of service will be as set out in the Whitley Council Circulars P.T.B. 19 and 20 relating to professional and technical staffs of Regional Hospital Boards. The successful candidates will be required to pass a medical examination.

Applications giving all relevant particulars including training and experience, whether married, present appointment and salary, war service (if any), date available and the names of three referees are to be received by the undersigned not later than 31st December, 1953.

R. DOBBIN,
Secretary.

"Dunira," Osborne Road,
Newcastle upon Tyne, 2.
3rd December, 1953. 1185

LONDON COUNTY COUNCIL.

ARCHITECTURAL ASSISTANTS, SURVEYING ASSISTANTS AND LANDSCAPE DESIGNERS for the preparation of surveys, sketch schemes, working drawings and specifications for buildings and ancillary work in parks and open spaces, and the laying-out of new parks, sports grounds and garden areas to housing estates, schools, etc.

QUANTITY SURVEYOR AND JUNIOR ASSISTANT for the preparation of bills of quantities and estimates and measurement of final accounts for new lay-outs, maintenance works and buildings in parks.

Salaries up to £673 according to experience and qualifications. Application forms from Chief Officer, Parks Department, Spring Gardens, S.W.1. (1276). 1151

WARWICKSHIRE COUNTY COUNCIL.

Applications are invited for the post of PLANNING ASSISTANT, Grade A.P.T., VI (£670-£735 per annum).

The person appointed will be engaged on the Development Plan and will be one of a team dealing with part of the County. He will be stationed at Warwick and should have sound experience of Development Plan work together with a professional qualification.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination. He will be required to provide and maintain a motor car and travelling and subsistence allowances will be paid in accordance with the National Scale.

Applications, together with the names and addresses of two persons to whom reference may be made, should be sent to J. J. Brooks, County Planning Officer, Northgate, Warwick, not later than Monday, 28th December, 1953.

Canvassing will be a disqualification.

L. EDGAR STEPHENS,
Clerk of the Council.

Shire Hall, Warwick.
3rd December, 1953. 1186

COUNTY BOROUGH OF SOUTHAMPTON.

Appointment of ASSISTANT PLANNING OFFICER, Grade II (£495-£540 p.a.). Application forms from Borough Architect, Civic Centre, Southampton to be returned by 21st December, 1953. 1175

COUNTY OF LINCOLN—PARTS OF KESTEVEN.
COUNTY ARCHITECT'S DEPARTMENT.

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

2 QUANTITY SURVEYING ASSISTANTS, Grades III/IV (£525-£600).

1 QUANTITY SURVEYING ASSISTANT, Grades II/III (£495-£570).

1 ACCOUNTS CLERK, Clerical Division (£470-£515).

1 JUNIOR ARCHITECTURAL ASSISTANT, General Division (£160 at age 16 to £450 at 30).

Commencing salary for the first four appointments according to experience.

The appointments will be subject to the Local Government Superannuation Act, to satisfactory medical certificates, and to one month's notice on either side.

Applications, giving full details of age, qualifications and experience, together with names and addresses of two referees, and stating clearly which post is applied for, should be addressed to the undersigned not later than the 19th December, 1953.

J. E. BLOW,
Clerk of the County Council.

County Offices, Sleaford, Lincs.
30th November, 1953. 1174

PEAK PARK PLANNING BOARD.

Applications are invited for the following appointments under N.J.C. Service Conditions.

(i) PLANNING ASSISTANT. Salary A.P.T. Grade IV (£555-£600). Intermediate Town Planning Institute Examination or equivalent standard. Required to assist with development control.

(ii) PLANNING DRAUGHTSMAN. Salary A.P.T. Grade I (£465-£510). Previous experience of preparing development plan maps required.

Apply on forms obtainable together with further particulars from undersigned. Forms to be returned by 4th January, 1954. Canvassing disqualifies.

JOHN FOSTER,
Acting Planning Officer.

Bath Street, Bakewell, Derbyshire. 1173

NORTHERN IRELAND HOUSING TRUST.
ASSISTANT ARCHITECT.

The Trust has a vacancy for an Assistant Architect, Grade I, on the salary scale of £800 × £25—£875. Candidates must be Associate Members of the Royal Institution of British Architects and should have experience of housing projects.

Preference will be given to ex-service candidates.

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

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

Forms of application, which should be returned not later than 9th January, 1954, may be obtained from the General Manager, Northern Ireland Housing Trust, 12, Hope Street, Belfast. 1170

MIDDLESBROUGH EDUCATION COMMITTEE.

Applications are invited for the following new appointments in the Education Offices (Education Architect: P. R. Middleton, Dipl.Arch., A.R.I.B.A.):—

(*a*) SENIOR ASSISTANT ARCHITECT, Grade VI.

(*b*) ASSISTANT ARCHITECT, Grade V.

(*c*) JUNIOR DRAUGRHSWOMAN, Mics., Grade III.

Housing accommodation may be available for post (*a*) as above.

Forms and particulars obtainable from the Director of Education, Education Offices, Woodlands Road, Middlesbrough, to whom completed forms should be returned not later than Wednesday, 30th December, 1953. 1171

YORKSHIRE ELECTRICITY BOARD.
AREA BOARD HEADQUARTERS.
ARCHITECTURAL DRAUGHTSMAN.

The duties include the preparation of working drawings and details of substations, etc. Applicants should have a sound knowledge of Industrial and Commercial Building Construction.

Salary—N.J.B. Schedule D, Grade 6, £433/567 per annum.

Applications, giving full details of age, qualifications and experience, together with the names of two referees, should be forwarded to the Secretary, Yorkshire Electricity Board, Wetherby Road, Scarcroft, Leeds, not later than 23rd. December, 1953. 1169

Tenders for Contracts

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

BOROUGH OF BASINGSTOKE.
ERECTION OF 12 SINGLE PERSONS' DWELLINGS.

Tenders are invited for the erection of one block of Single Persons' Dwellings in 3 storeys.

Bills of Quantities and Form of Tender may be obtained from the Borough Architect, Eric Almond, Dipl. Arch., A.R.I.B.A., Municipal Buildings, Basingstoke, on payment of a deposit of £2 2s., returnable on receipt of a *bona fide* tender.

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

Tenders are to be received by the undersigned not later than the first post Monday, 28th December, 1953.

MEIRION O. JONES,
Town Clerk.
Municipal Buildings, Basingstoke. 1113

CAMBRIDGESHIRE COUNTY COUNCIL.
CAMBRIDGESHIRE TECHNICAL COLLEGE EXTENSION.
FIRST INSTALMENT.

CONTRACTORS wishing to tender for the above work are invited to submit their names to the undersigned not later than 16th December, 1953. The building consists of a three-storey steel-framed classroom block, with single-storey workshops of a total cubic capacity of about 331,700 cu. ft., with minor alterations to the existing College.

CLERK OF THE COUNCIL,
Shire Hall, Cambridge. 1078

MONTGOMERYSHIRE EDUCATION COMMITTEE.

Proposed Modern and Technical School at Newtown.

To Builders and Contractors.

Tenders are invited for the erection of a new Modern and Technical School at Newtown, in accordance with the plan, specifications and Bills of Quantities prepared by H. Carr, F.R.I.B.A., F.R.I.C.S., County Architect.

Applications to tender must be accompanied by a deposit of £5 5s. 0d. which will be refunded upon receipt of a *bona-fide* tender. Application should be made not later than Saturday, December 12th 1953, on which date drawings and Bills of Quantities will be forwarded to applicants.

Tenders must be enclosed and sealed in the envelopes provided and delivered to the Education Offices, Newtown, not later than the first post on Monday, January 4th, 1954.

Contractors will be required to provide proof that they have the necessary labour and organisation to carry out the work.

The lowest or any tender will not necessarily be accepted and the Contractor whose tender is accepted will be required to enter into a Bond for the due performance of the Contract.

T. GLYN DAVIES,
Director of Education.
County Offices, Newtown.
1st December, 1953. 1172

Architectural Appointments Vacant

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

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

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

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

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

HILLS (WEST BROMWICH), LTD., Albion Road, West Bromwich, Staffs., can offer a 12 months' experience engagement to young ARCHITECTS in their West Bromwich Estimating and Drawing Offices. Excellent salaries and expenses paid. Apply Personnel Manager. 9968

ARCHITECTURAL ASSISTANT required in small busy office in Westminster. Must be quick and neat draughtsman, with at least 3 years' experience in private practice. Salary according to capabilities. Write with full particulars to Michael Brashier, A.R.I.B.A., 11, Gayfere Street, S.W.1. 1115

ARCHITECTURAL DRAUGHTSMEN, up to Inter R.I.B.A. standard, required; Westminster area. Write, stating experience and salary, to Box 1116.

SENIOR ASSISTANT required by busy N.E. London office. Experience of Commercial and Industrial buildings essential. Write age, experience, and salary required. Box 1094.

ARCHITECTURAL DRAUGHTSMAN required, capable of carrying out working drawings and specifications. Applicants should apply in writing, giving details of experience, age., etc., to Personnel Department, Albert E. Reed & Co., Ltd., Aylesford Paper Mills, Larkfield, near Maidstone, Kent. 1080

SENIOR ARCHITECTURAL ASSISTANT required in Architects' Department of a large London financial organisation, to work on projected new office buildings and conversions. Please write, giving particulars of age, experience and salary required, to Box 1082.

ARCHITECTURAL DRAUGHTSMAN required for the Building and Services Division of the Metal Box Co., Ltd. Applicants must have sound knowledge of building construction and experience of detailing for industrial buildings. Good draughtsmanship essential. Apply in writing stating age and salary required to ref: BS/16, Staff Division, The Metal Box Co. Ltd., The Langham, Portland Place, London, W.1. 1178

ARCHITECTURAL ASSISTANT of Intermediate standard required immediately; previous office experience essential. Apply in writing stating age and experience; salary £300-£400 according to experience. Antony Lamb, A.R.I.B.A., A.M.P.T.I., Ottery, St. Mary, Devon. 1177

ARCHITECT'S SENIOR ASSISTANT required Write giving full particulars of experience and salary required. Francis W. Keyworth, L.R.I.B.A., 28, Nottingham Street, Melton Mowbray, Leics. 1183

ASSISTANT ARCHITECT. Reema Construction, Ltd., Designers, Producers and Constructors of buildings in the Reema system of construction, require an Architect with proven experience of private enterprise, estate development and housing. Knowledge of prefabrication methods preferred, aptitude in this sphere essential. Location Salisbury. Good salary. Reply to Company at Milford Manor, Salisbury, Wilts. 1181

EXPERIENCED ARCHITECTURAL ASSISTANT, not necessarily qualified, required immediately in small St. Albans Architect's Office. Apply stating experience and salary required to Taylor, Son & Bracken, 20, London Road, St. Albans. 1182

RONALD WARD & PARTNERS require four Architectural Assistants, intermediate standard. Apply 17, Lowndes Street, Sloane 8291. 1179

SENIOR and JUNIOR ASSISTANTS required for interesting new projects. Salary in accordance with qualifications. Reply, giving details, to J. Brian Cooper, F.R.I.B.A., Coleridge Chambers, 177, Corporation Street, Birmingham, 4 1154

ARCHITECTURAL ASSISTANTS required immediately, senior and intermediate standards, to take charge of preparation of full working drawings for major schemes and to assist in supervision. Apply in writing to J. Stanley Beard, Bennett & Wilkins, 101/3, Baker Street, W.1, stating age, qualifications, experience, and salary required. 1155

ARCHITECTURAL DRAUGHTSMAN required, senior, for interesting and varied practice in the Home Counties. Write, giving full particulars and salary required, to Box 1133.

JUNIOR ARCHITECTURAL DRAUGHTSMAN required in Maidenhead office. Ample scope for advancement for keen applicant. Salary: £400-£800, or according to abilities. Write, with full details, stating salary required, to Box 1134.

ASSISTANT required in Architects' office, with extensive and varied practice. Apply, with full particulars of experience and salary required, to Box 1135.

ARCHITECTURAL ASSISTANT, experienced senior, required immediately. 5-day week. Write to Messrs. J. M. Sheppard & Partners, 38, Bedford Place, W.C.1, giving particulars of age, qualifications, experience, and salary required. 1139

FULLY qualified ARCHITECT required by North-East Brewery Company. Age 30-40. Must have had experience of Brewery work. Commencing salary: £1,000, plus free house or housing allowance. Pension and bonus schemes. Apply Box 1103, Smiths Bookstall, West Hartlepool. 1140

ARCHITECT.—Qualified man required by large firm of Building and Civil Engineering Contractors in the Midlands for their estate development department, and to take charge of the Drawing Office. The position offers scope for a man with ideas and personality, capable of dealing with complete housing communities, shopping centres, and industrial estates. The position is permanent and pensionable after a satisfactory period, and carries an attractive salary, according to qualifications. Assistance will be given with housing accommodation, if required. Apply, stating age, present salary, experience and where gained, in confidence, to Box 1141.

ARCHITECTURAL ASSISTANT wanted immediately in small office at Potters Bar, Middx., for work largely on housing. Quick, neat draughtsman required, about Intermediate stage, with office experience. Brief details of age, experience and salary, to Box 1145.

THE GRENFELL BAINES GROUP.—ARCHITECTURAL ASSISTANTS required in Preston and Rugby offices; at least 4 years' office experience. Reply, stating particulars of experience, and salary required. For Preston, to Grenfell Baines & Hargreaves, 12, Guildhall Street, Preston; for Rugby, to Douglas J. Oliver, 10, St. Matthew Street, Rugby. 1137

EXPERIENCED ARCHITECTURAL DRAUGHTSMAN, not necessarily qualified, required in busy Sheffield office. Please apply in writing, stating age, experience, and salary required, to Box 1146.

JUNIOR ARCHITECTURAL ASSISTANTS and DRAUGHTSMEN required for interesting work in the London office of Multiple Retail Co. Experienced in preparation of working drawings, detailing and surveys. Salaries up to £450. Staff canteen, 5-day week. Write, giving experience, age, salary required, to Chief Architect, Box 1147.

JUNIOR ASSISTANT, about Inter. standard, required for varied Architectural and industrial design work. Must be a good draughtsman, but personality more important than previous experience. Salary by arrangement. Apply in writing to John Reid, A.R.I.B.A., M.S.I.A., 20, Kings Avenue, S.W.4. 1150

JUNIOR ARCHITECTURAL ASSISTANT wanted in private office, Worcester. Full details of education, training, religion, salary required. Box 1165.

LONDON Property Company, having several small development schemes in prospect, would be glad to hear from able young ARCHITECTS seeking commissions. Box 1164.

AN old-established firm of Architects in the West Riding have a vacancy for an ARCHITECTURAL ASSISTANT, who would be prepared to train for a short time in the firm's office with a view to him taking over complete charge of the firm's London office. Qualifications should be as follows:—(*a*) At least Intermediate R.I.B.A. standard; (*b*) some office experience; (*c*) keen on hard work, plenty of initiative, and anxious to get on in the profession. Box 1163.

SENIOR and JUNIOR ARCHITECTURAL ASSISTANTS required by Midlands Brewery Company. Permanent position, pension scheme in operation. State experience, age, and salary required, to Box 1162.

SAMUEL MORRISON & PARTNERS require ASSISTANTS for interesting contemporary work (housing, schools, industrial design, etc.). Details of experience and salary required to "Derwent House," 39, Full Street, Derby. 1168

Architectural Appointments Wanted

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

CHIEF ASSISTANT (45) seeks post London, S. or S.W. England. Thoroughly experienced every branch architecture, including surveys, quantities, specifications, etc. Can organise, control and administer branch office. Available one month from appointment. Salary required: £800 per annum. Box 1021.

ARCHITECT (49) seeks responsible post in London office whereby 15 years' administrative experience gained in handling fair-sized contracts could be utilised. Present salary £825. Box 1119.

FINAL R.I.B.A. (27), school trained with contemporary outlook, seeks responsible position in City or West End of London general practice. Experienced sketch scheme to complete working drawings, site supervision etc. Industrial, domestic and conversions. Own car. Salary commencing £650. Please reply to Box 817.

A.R.I.B.A., A.M.T.P.I., (27, Dipl.Arch., Dip.C.D.Liv'l) with over 4 years varied experience in private and public offices, seeks responsible post where enthusiasm and vigour are appreciated. Box 823.

ARCHITECTURAL and SURVEYING ASSISTANT (30) requires post in Architects' office. Experience in working drawings, detailing, surveys, etc. Box 819.

A.R.I.B.A. (37), Dip.Arch. (Polytechnic), 10 years' experience good general practice, London and country, seeks post in Edinburgh office. Salary by arrangement. Box 820.

A.R.I.B.A. (age 43) seeks appointment/partnership. Excellent all round experience. Testimonials, experienced car driver. Small capital available. Box 821.

A.R.I.B.A., A.A.Dipl., at present working in W.1 district, seeks an interesting temporary job in the New Year prior to going abroad. 3 years' post graduate experience London area. Box 1153.

SENIOR, or partnership, appointment required by A.R.I.B.A., A.M.I.Struct.E. (42). Many years' experience on large scale Metropolitan housing developments, and later partner with well-known London Architect, resently retired. Several years in own practice, industrial and housing works. London area preferred. Free January, 1954. Box 1157.

BACHELOR of Architecture, Sydney University 2 years' office experience in domestic and church work, requires temporary or permanent position in Architect's office. Miss J. Hill, 46a, Clanricarde Gardens, London, W.2. 822

ARCHITECTURAL ASSISTANT, 31, school trained (Qualifying shortly) seeks position in London Office. Four years general experience with West end firm including site supervision, negotiations and final accounts. Box 1184.

Other Appointments Vacant

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

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

DRAUGHTSMEN for Industrial Heating and Ventilation Plants. Must be able to prepare scheme and detail drawings without supervision. Salaries commensurate with experience. Only first-class applicants considered. Write Visco Engg., Co., Ltd., Stafford Road, Croydon. 1099

THE BRITISH OXYGEN CO. LTD., have a vacancy for a female Tracer at their Head Office in the West End of London. Applicants should have at least six years' practical experience. Please reply giving full details of age, qualifications and experience to Dept. 0882, British Oxygen Co. Ltd., Bridgewater House, Cleveland Row, St. James's, London, S.W.1. 1180

DRAUGHTSMAN required, having a desire to interest himself in prefabricated building design and construction, and preferably already having some experience in that class of work. Barnard & Smith, 50, Knightsbridge Court, S.W.1. SLOane 0351. 1158

DRAUGHTSMAN required for design office; to be mainly concerned with interiors and stores; experience essential. Please write, giving particulars, Charles Kenrick Associates, Designers and Architects, 20, Fitzroy Square, London, W.1. 1138

Services Offered

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

TYPING AND DUP. SPECIFICATIONS, SCH. OF DILAPS promptly executed. Moderate charges, enquiries welcomed. N.W. LONDON TYP. BUREAU, 148, STRAND. COV. 2968. 1007

QUALIFIED SURVEYOR will undertake survey of Buildings and Sites, Levels, Preparation of Drawings, Specifications, Schedule of Repairs, Quantities, etc. LIV. 1839 or Box 9356.

TYPEWRITING/DUPLICATING.—All kinds undertaken by experts. Specifications, etc. Usual office staff supplied. Miss Stone, 446, Strand, W.C.2. TEM. 5984. 1024

EXPERIENCED London ARCHITECT will undertake Surveys, Working Drawings, ½ inch and F.S. Details, Specifications and Perspectives. Box 1065.

SURVEYING AND LEVELLING. "Site Surveys," 483, Blackfen Road, Sidcup, Kent. Bexleyheath 2728. 1156

"ARCHITECTURAL MODELS" to scale: Houses, Hospitals, Schools, Factories, Bridges, etc. Block layouts. Brian Sharp & Partners, 114, Buckingham Road, Heaton Moor, Stockport. Tel.: HEA. 2094. 1136

EXPERIENCED ARCHITECT offers services, evenings and week-ends, to Architects in central and N.W. London. Box 1142.

Partnerships

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

ASSOCIATE (37) seeks post as CHIEF or SENIOR ASSISTANT, together with small partnership. South of England, London area or Home Counties preferred. Wide contemporary experience. Box 1166.

For Sale or Wanted

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

R.I.B.A. Inter. Mechanics and Final Structures. Model answers to current papers. £1 1s. per set; postal tuition, £5 5s. Structures, BM/DHWS, London, W.C.1. 9971

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos. Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 2948. 6803

WANTED.—100 yards of Iron Hurdles, 3 ft. 9 in. high. Secondhand. Reply Box 1123.

WANTED. — 6-drawer secondhand Plan Cabinet, in fair condition. Offers and prices to Tresises (Printers), Ltd., Bank Square, Burton-on-Trent. 1143

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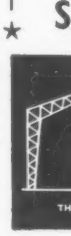

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