THE ARCHITECTS' JOURNAL

standard contents

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

No. 2967] [Vol. 115
THE ARCHITECTURAL PRESS
9, 11 *and* 13, *Queen Anne's Gate, Westminster, S.W.*1. *'Phone : Whitehall* 0611

Price 1s. 0d.
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. 75, Eaton Place, S.W.1. Sloane 3158/1601
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. 11, Gower Street, W.C.1. Museum 9200
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
MARS	MARS Group (English Branch of CIAM). Secretary: Gontran Goulden, Building Centre, 9, Conduit Street, W.1. Mayfair 8641
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1. Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Mayfair 9400
MOH	Ministry of Health. 23, Saville Row, W.1. Regent 8411
MOHLG	Ministry of Health of Local Government Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C. Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural 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. Whitehall 9936
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5721
RICS	Royal Institution of Chartered Surveyors, 12. Great George St., S.W.1. Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1. Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1. Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8. Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3. Mansion House 3921
SIA	Structural Insulation Association. 14, Moorgate, London, E.C.2. Central 4444
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1. Langham 1984
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4. City 4771
TGC	The Gas Council. 1, Grosvenor Place, S.W.1. Sloane 4554
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815
TTF	Timber Trades Federation. 69, Cannon Street, E.C.4. City 4444
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1. Mayfair 8866
WEDA	Welfare Equipment Development Association. 74, Victoria St., S.W.1. Victoria 5783
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford. Oxford 47988

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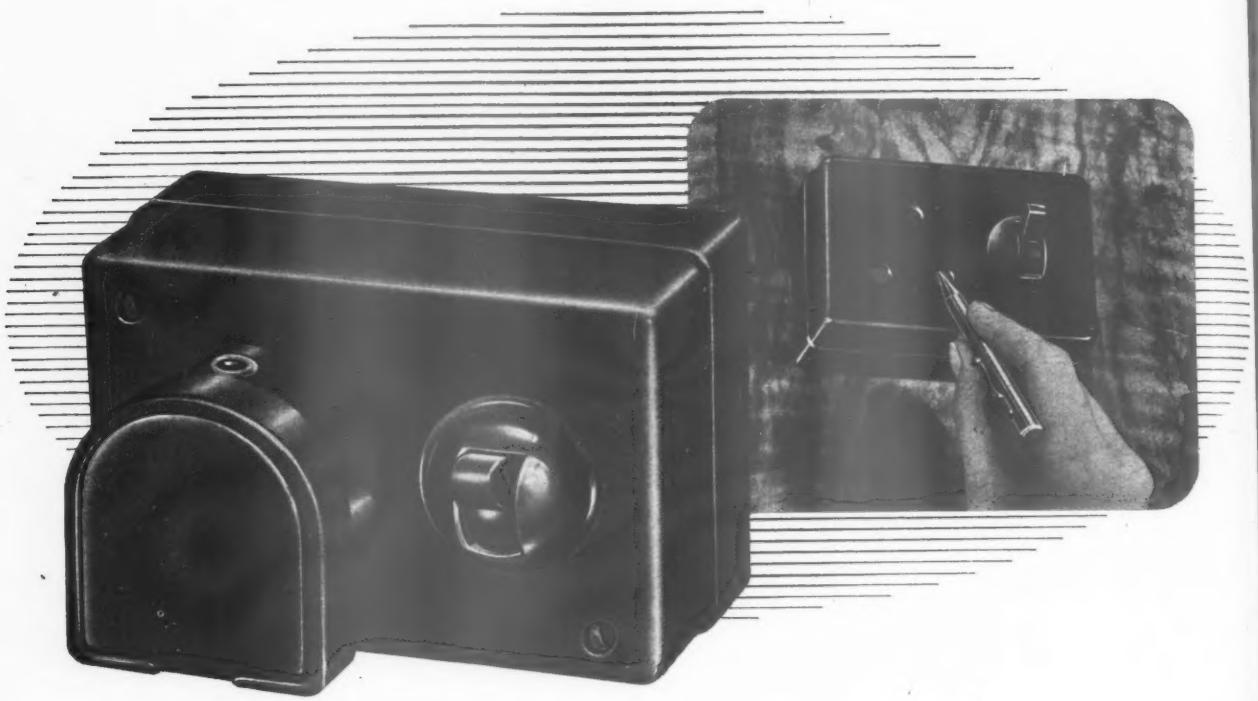

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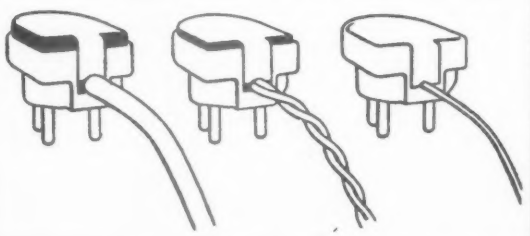

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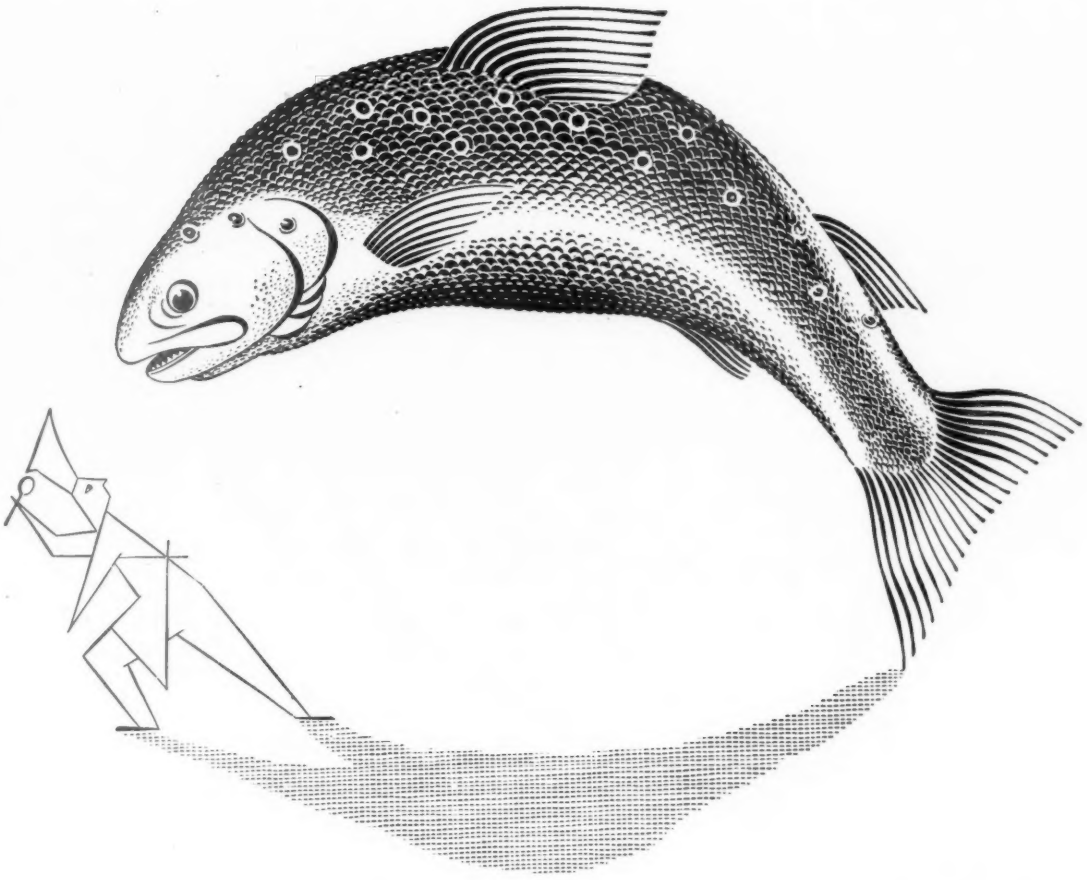

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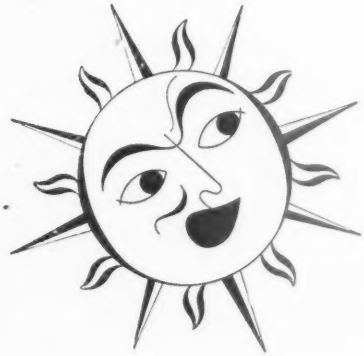

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How much do you spend on electricity for lighting your factory during the hours of daylight . . . the hours when I could be *giving* you all the light you want? And how much vital electricity do you waste? Eh? Well, then. For the same cost as a few months' electric light bills you can install corrugated 'Perspex' in the workshop roofs, and then I will light the whole place from sunrise to sunset, free, for ever.

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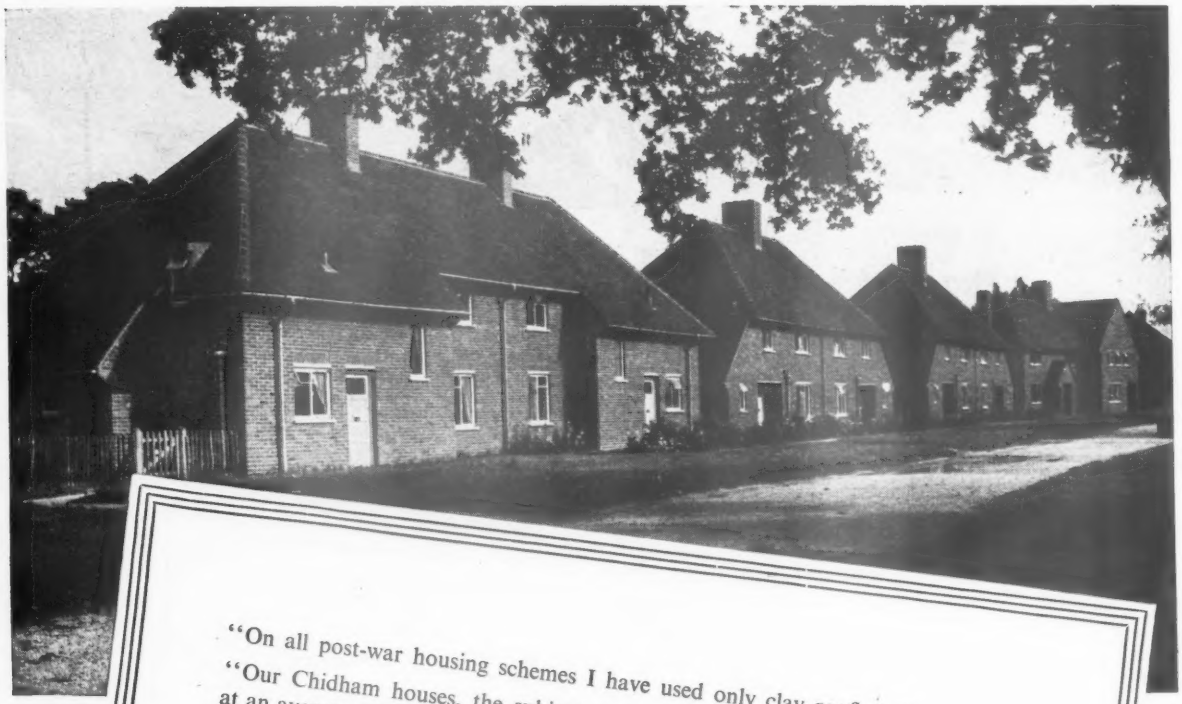

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Extract from a letter received from Mr. J. K. Lawson, F.R.I.C.S., A.M.I.S.E., Engineer and Surveyor, Rural District Council, Chichester.

* Ministry Housing Medal.

For information on Clay Roofing Tiles, please apply to The Secretary, The National Federation of Clay Industries, Drayton House, London, W.C.1. (Euston 2568)

Acknowledgements to Alex. Howden & Co. Ltd.

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Ekco **double-life** Fluorescent Lamps mean **double value!** The new 5,000-hour rated average life of all sizes shows a 50% reduction in both lamp costs and time of re-lamping, while the previous high efficiency is fully maintained. Here, then, is a further important economy to help reduce your overhead charges. Give the order now: ***Ekco double-life Fluorescent Lamps for all renewals!***

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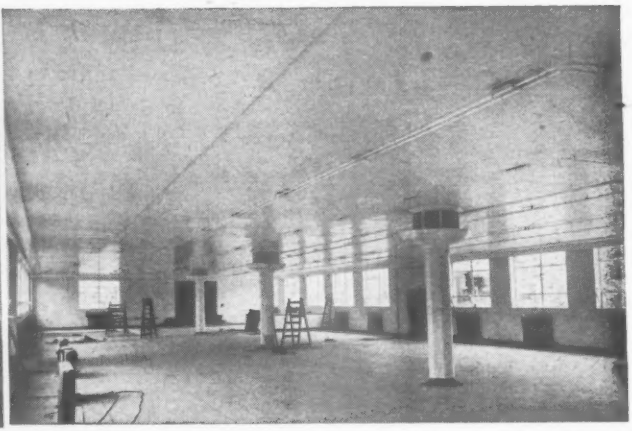
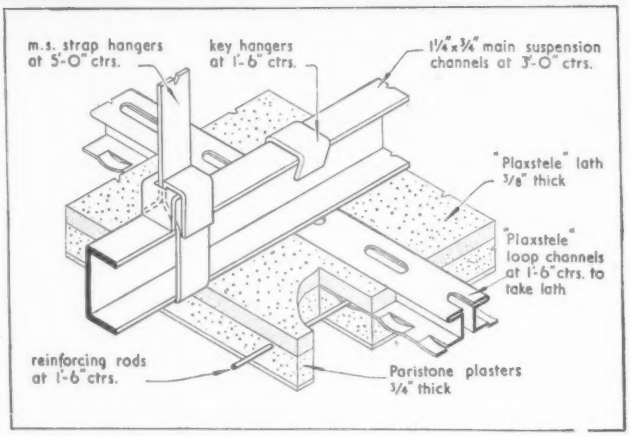
The "**Plaxstele**" suspended ceiling has a substantial plaster finish *with high fire resisting properties*



The "PLAXSTELE" ceiling system is adaptable to any type of building construction and can be suspended horizontally at any level below the main roof structure. It provides a suspended ceiling with a substantial, smooth plaster finish having high fire resisting properties.

The system combines the use of "PLAXSTELE" lath, specially designed for plastering with "PARISTONE" plaster, with metal patented suspension and jointing members which hold the lath rigid and at the same time anchor metal reinforcing rods in the plaster finish.

Advantages of the system include simplification of plastering work, saving of time, elimination of timber framing, superior strength, improved thermal insulation and high fire resistance (B.R.S. One hour. Grade D). Further information about this and other "GYPROC" products or systems will gladly be supplied.



The photographs show *a large area of* PLAXSTELE *ceiling before and after plastering, decorating and fixing strip lighting.*

The isometric sketch shows *the general assembly of the component parts.*

GYPROC PRODUCTS LIMITED

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G.P.5

Wheatly Quarry Tile Floor in the Cooling Room of the Uganda Breweries Ltd. at Port Bell

Architects: Radford & Hatton, Kampala. Uganda

Wheatly 6″ x 6″ x ⅜″ Blue Quarries supplied by McDonald Scales & Co. Ltd., London.

Specimens of Wheatly Tiling may be seen at the Building Centre, London. Wheatly products include Single-lap Roofing Tiles, Ridge Tiles (blue and red), Floor Quarries and Briquette Fireplaces.

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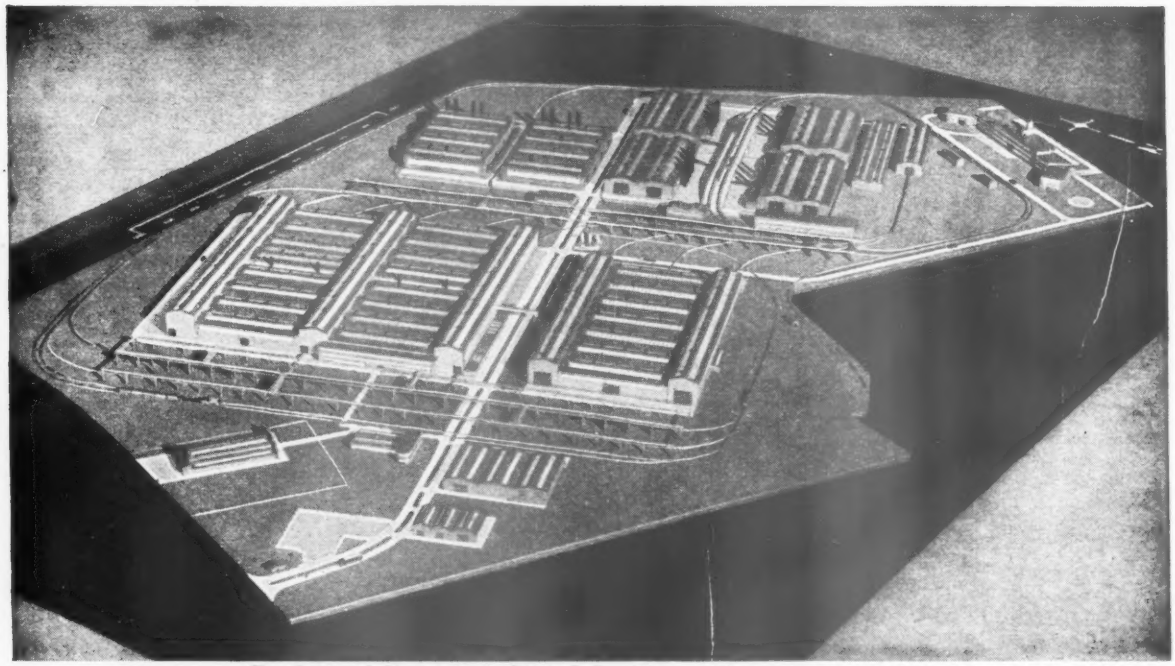
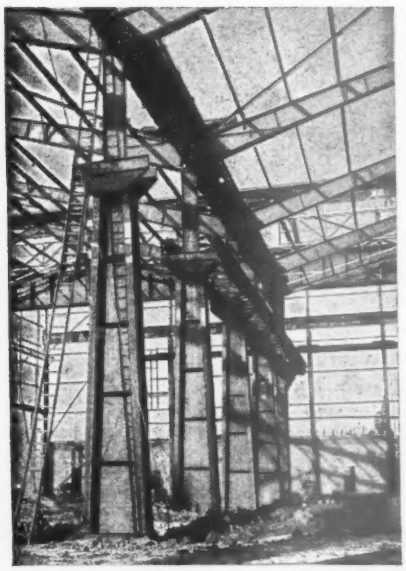


The Projected New "South Works" for Messrs. Ashmore, Benson, Pease & Co., Stockton-on-Tees.
(Consulting Engineers: Messrs. F. R. Bullen and Partners, Dacre House, Dean Farrar Street, Westminster, S.W.1.)

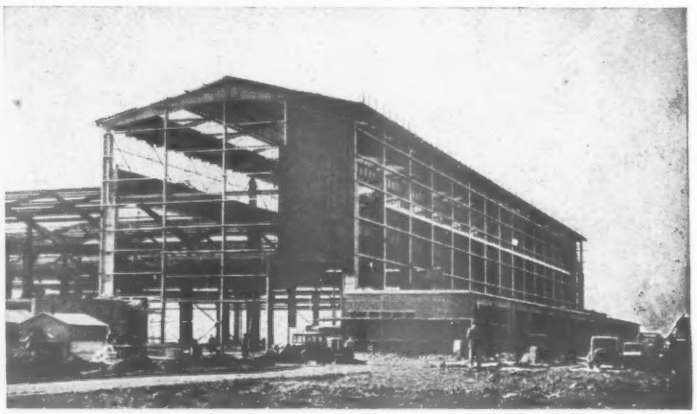
STAGE I — *Constructional Shop with ancillary services and buildings.*

STEELWORK BY CARGO FLEET

From start to finish you get sound planning, economical use of materials, and a high standard of workmanship on every contract undertaken by Cargo Fleet. This first phase of 132,000 square feet floor area of the extensive new factory for Messrs. Ashmore, Benson, Pease & Co. Gas, Chemical, Iron Works Plant and General Engineers, now nears completion at Stockton-on-Tees.



Stanchions of a transverse bay, 30 feet high to the crane track. Crane tracks of the low bays are cantilevered out beneath those of the high bays giving easy transfer of material from the high bays to the low bays and vice-versa.



The Shop consists of four transverse bays 85 feet wide by 250 feet long and 30 feet high to the crane tracks, and two longitudinal bays 65 feet wide by 340 feet long and 50 feet high to the crane tracks, served by twelve overhead cranes, the heaviest being 50 tons capacity.

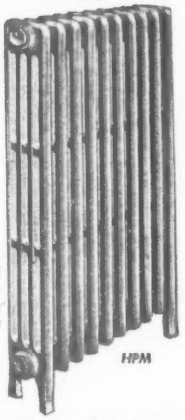
CARGO FLEET IRON CO. LTD., Constructional Dept: Malleable Works, Stockton-on-Tees. Tel: Stockton-on-Tees 66117

THIS COUNTRY'S CLIMATE CALLS FOR CRANE

Some citizens pin their faith to the official weather forecast, some to the Bartlett Brothers, and some have a piece of tame seaweed hanging up in the hall. England's weather always wants watching. But indoors the only thing worth pinning one's faith to is Crane equipment for heating. The name 'Crane' is always warmly thought of where central heating or hot water supply is wanted. Crane boilers and radiators are literally 'cast iron' for any heating specification.

DELIVERIES OF 'PALL MALL', HOSPITAL AND WALL TYPE RADIATORS HAVE RECENTLY IMPROVED.

CRANE EQUIPMENT FOR HEATING



PALL MALL RADIATORS
This four-column Pall Mall Cast Iron Radiator is of graceful lines yet of sound and sturdy construction.

HPM

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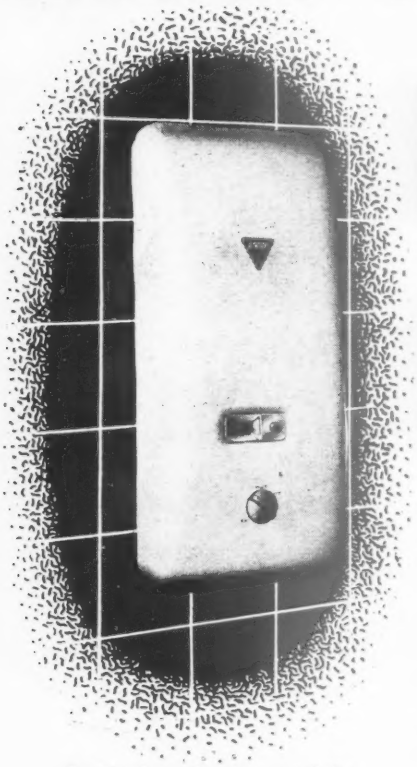
ASCOT PRODUCE FIRST BALANCED FLUE WATER HEATER



The new Ascot 715 multipoint is the first balanced flue gas water heater to go into production anywhere in the world. Once again Ascot leads the way! Once again Ascot helps the gas industry to maintain the position of gas as the best and most economical fuel for providing an instant, endless supply of hot water!

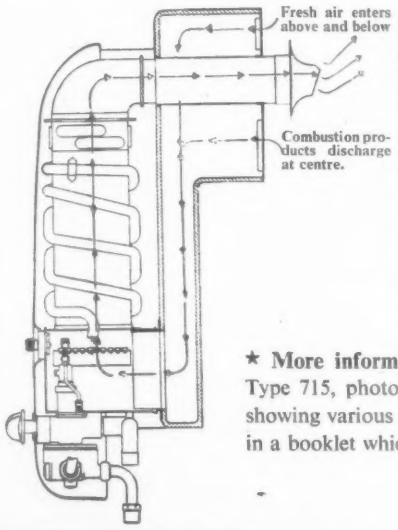
THE NEW ASCOT 715 is fundamentally different from any other water heater. The combustion chamber and flue are sealed off from the room in which the heater is installed. Enclosed ducts draw air to burn the gas from outside the building and carry away all the products of combustion.

A FULL INSTANTANEOUS MULTIPOINT SERVICE *similar to that of the popular Ascot 709 is given by the 715. It also has a stainless steel burner which has proved so successful in resisting corrosion and maintaining a high standard of efficiency.*

Particular advantages of the Ascot 715

1. Combustion chamber and flue sealed from the room. Vitiation of air in the room is absolutely impossible. No down-draughts.
2. Handsome but unobtrusive. Projects only 5 inches. No visible flue.
3. Can be fitted in a cupboard without regard to ventilation.
4. Ideal for multi-storied buildings. Can be installed on any outside wall even though the terminal may be in proximity to overhanging, or other projections.
5. Installation is simple. Full advantage can be taken of service ducts.
6. Smooth contours and hard enamel make cleaning easy. No crevices or dust traps. Particles cannot drop from the heater.

Supplies. As many municipalities have specified the 715 for their housing projects the needs of new buildings must have priority.



The terminal can be fitted even in proximity to overhanging, or other projections. There is no flue pipe or cowl.

★ **More information.** A detailed explanation of the Type 715, photographs, a specification and drawings showing various methods of installation, are contained in a booklet which will be sent on request.

ASCOT

ASCOT GAS WATER HEATERS LTD., 43 Park Street, London, W.1. Grosvenor 4491

AJ

THE ARCHITECTS' JOURNAL

No. 2967 10 JANUARY, 1952 VOL 115

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

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FESTIVAL HONOURS

Festival year has been suitably rounded off by the award of honours to a long list of people concerned with it in one capacity or another. That many of these are architects is gratifying, and only just. It is a recognition of the fact that, whatever may have been thought of the timing, the message and the contents of the various exhibitions, their architecture was a triumph. In years to come the South Bank exhibition in particular will be remembered first and foremost as an architectural achievement.

*

Hugh Casson's knighthood will please everyone. His was a job more liable than most to make enemies for the man who held it; no one but Casson could have emerged from the ordeal even more popular than he went in. He must be, by a long way, the youngest architectural knight ever. Howard Lobb, who began as the RIBA's nominee on the Festival's Architecture Council (and its chairman) and later took a job in the Festival office as controller of building construction on the South Bank, gets a CBE; so does Robert Matthew of the LCC, whose honour, it is specifically stated, is for his contribution to the Festival. His many other contributions to contemporary architecture will no doubt be recognized in due time.

*

OBE's go to James Holland and Ralph Tubbs, as members of the Festival presentation panel (Misha Black already had one), to Russell Page, landscape architect at Battersea Pleasure Gardens and to J. C. Ratcliff, Hugh Casson's assistant. Of individual designers employed on the South Bank, F. H. K. Henrion and Bronek Katz have been singled out for the award of MBE.

*

I am glad to note that the engineers (who had too little of the limelight when the exhibition was on) have been recognized as well as the architects—R. Freeman gets a CBE and R. T. James an OBE—so have several of the contractors' representatives. Other non-architects deservedly honoured are Cecil Cooke and Ian Cox (directors of exhibitions and science to the Festival) and B. C. Sendall (controller of administration) all of whom get a CBE, and Paul Wright, public relations officer, who gets an OBE.

*

So much for the Festival. There are a few other architectural awards in the Honours List to the recipients of which ASTRAGAL offers his congratulations: a knighthood to Liverpool architect A. E. Shennan, and OBEs to J. W. R. Adams (County Planning officer for Kent), G. H. Chettle (Inspector of Ancient Monuments, MOW) and J. Barber (head of London licensing department, MOW)—a deserved reward for pursuing so fairly what must be a most unpopular, though necessary, task.

*

Finally, those who recall the controversies of a couple of years ago will note with some amusement that Robert Matthew's CBE is nicely balanced by the same award to Cyril Walker, LCC Director of Housing and Valuer. But the man of the hour is Hugh Casson. ASTRAGAL'S pleasure in his elevation is only marred by one sad thought: no more sly jokes about knighted architects.

ROYAL GOLD MEDAL

Grey Wornum's very many friends will be delighted at the award of the Royal Gold Medal. Strictly between ourselves I thought—in so far as I think about these things at all—that he had got it long ago. However, I congratulate him and only wish it had come sooner. It ought to have come sooner because his main job, for most of us—whatever he may have done since—will always be the RIBA building.

*

I don't altogether approve of cracks about "the Portland Plaza"—it was, so far as plan and section were concerned, a brilliant "win" in its day. But "in its day" are the operative words. We all know that it has dated—especially the decor—and for

the sake of the Institute's reputation Gold Medals should not be attached to things *after* they have dated. If the Institute makes these sort of awards they should be based on some sort of current architectural conviction; lots of good work dates in the end, and it is surely better to be wrong later than timid now.

*

That, of course, is the whole trouble with the Gold Medal. In spite of one or two outrageous awards—so outrageous as to be positively harmful—the real trouble is not *who* gets the medal, but *when*. Barry got it about ten years after the Palace of Westminster was finished, and the time-lag has not been getting any less. Lutyens 1921, Dudok 1935, Tengbom 1938, Lloyd Wright 1941, Perret 1948, Howard Robertson 1949, and so on—all ten to fifteen years after the "*floruit*" date. On this basis prophesy is cast iron: Gropius and Mies are almost due, with Le Corbusier following up in about 1955. But the main thing, of course, is that the medal should be an *architectural* award, not merely a seal set upon a successful career. That is why, this year, I am not altogether displeased.

Hugh Casson, who received a knighthood in the New Year honours list, at the wheel of his 1927 Rolls Royce, See Astragal's comment on page 31.

THE UNCONSCIOUS STONE

Just before Christmas I found myself stranded for a couple of hours in Northampton. How many architects know the interior of the Town Hall? It is really rather a staggering affair. Sufficiently so, at any rate, to make me spend Christmas afternoon by the fire with Dudley Harbron's "Unconscious Stone"—the biography of E. W. Godwin. Everyone knows of Godwin's life with Ellen Terry, of his association with Whistler and Wilde—both as clients—and of his pioneer work in designing for the stage. What an extraordinary case of dual inheritance Gordon Craig was! Godwin's work was, of course, all rather Chelsea *art nouveau* but crossed with a streak of something stronger, a genuine understanding of structure and materials.

*

Godwin just missed greatness; mainly, I think, because he had a very wide vision of the architect's function and consequently dabbled too much in too many of the arts. His appeal to all the more sensitive, talented and romantic members of Bohemian society in the 'eighties and 'nineties, shows that he was rather more of a personality than many of his better known professional colleagues. He wasn't born to it either; one of the most absorbing parts of the story is Godwin's early struggles in Bristol as a young and rather fanatical advocate of the Butterfield-Street phase of the Gothic revival. I would like to see "the Unconscious Stone" re-issued with many more illustrations.

ART AD INFINITUM

I wonder how many readers know of the International Faculty of Arts? It claims to be the only organization in the UK which embraces all the arts in one professional body. The membership is small, only 500 strong, but diverse in activities. There are sectional organizations for music, drama, painting, and commercial, industrial, religious and domestic art, and, for my *bête noire*, "civic architecture."

*

The new headquarters of this faculty are at 45, Park Lane, an enormous Edwardian mansion which they share with another organization: STAR Centres Ltd., the initials standing for Sport, Travel, Art, Recreation. (This is another institution with which I am ill acquainted—but, then, the number of societies concerned with the arts runs into several thousands.) The Faculty of Arts held an exhibition not so long ago consisting of two hundred and sixty-nine paintings and sculptures and one architectural design. The paintings are those competent creations of mediocre mentalities who provide the bulk of the exhibits at such places as the Royal Academy. Studies of flowers and Continental street scenes, still lifes by the score, and chunky chubby kittens, doggies, babies . . . all the comforting companions of nice living, at anything from £20 to £100 each.

*

At a time when we must have more artists and art schools in the country than ever before, the price of a competent painting—not a brilliant work of art—still seems unreasonably high.

ROUND WE GO

I've just been sent some photographs of the Newcastle (NSW)

New Home for the Building Centre

Few would recognize, in the carefully detailed entrance, above, the shabby facade of the new premises in Store Street for the Building Centre which was illustrated on this page exactly a year ago. Since then the elevation has been renovated and altered, and the interior redesigned to take the exhibits and many fresh displays of the manufacturers and, in addition, to provide a considerably enlarged exhibition space and a small lecture theatre. The result is a great improvement on the old, congested Building Centre in Conduit Street. The individual exhibits are more readily found and better presented, for which credit must be given to the architect Gontran Goulden, who is the Centre's Deputy Director and was responsible for the conversion of the premises, and his assistants Robin Dunn, Jean Conder and Martin Cavell. The photograph shows, beyond the glass doors, the main staircase with treads of prestressed concrete, and, behind the stairs, the display counter for the sale of official publications on building. The building, which is now open to the public, will be fully illustrated later and is commented on by ASTRAGAL opposite.

electricity showroom which has, not a revolving stage, but a revolving auditorium—much more fun, I should think, for the audience, who take 35 seconds to rotate through 180°, and can face any one of the three stages. I can imagine the LCC getting rather worried about fire risks. Over here, I suppose, we shall have to be content sitting still and watching a stage revolve, but I must say I rather fancy an auditorium which is half theatre and half Battersea Park Rotor.

The Building Centre is open and in full blast at its new home in Store Street off Tottenham Court Road—and very smart it is. The building, a classical stone-fronted reinforced concrete pioneer designed by Taperell & Haase in 1913, has been skilfully adapted by Gontran Goulden, the Centre's Deputy Director, assisted by Robin Dunn, Jean Conder and Martin Cavell. Sections are larger than formerly, while the lecture hall and cinema and an area of some two thousand square feet for temporary exhibitions are most welcome. One of the first of these exhibitions is to be on Swedish architecture and is being produced by the SAR to the designs of Alf Byden, lately on the staff of the AA School.

*

ASTRAGAL, always on the look out for snags, found few. True, there were some empty areas, but if there were not the Building Centre would soon be looking for larger premises. All the same, he lifted an eyebrow to see that the sections least ready were those of the nationalized industries, Gas and Electricity. On the other hand he found scope for hat-raising in a number of places, particularly in the entrance hall with its stair of almost uncomfortably thin prestressed concrete treads, and its welcome—though temporary—setting for the sale of Government publications on building.

*

The rest of the show, from basement to third floor, is better arranged and better shown than before, while the same pleasant and friendly atmosphere is retained. The moving of an exhibition is not the simplest of jobs, one imagines, but this result makes it look easy enough. Frank Yerbury has done it again.

ASTRAGAL

POINTS FROM THIS ISSUE

The Editors

HOUSES *AND* FLATS

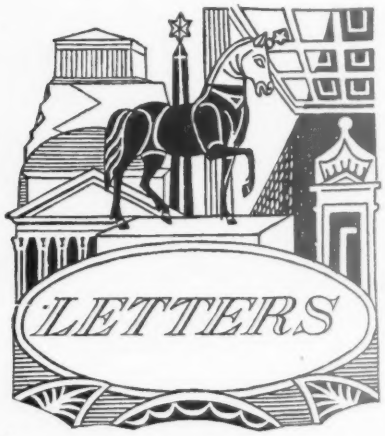
"Unity and character are best achieved in low-density areas by the use of terraces and semi-detached houses in contrast with blocks of flats and public buildings . . ."

(*Housing Manual*, 1949, para. 37.)

IN the recent circular which accompanied the issue to local authorities of new specimen plans for two and three bedroom houses (see JOURNAL, December 20), no reference was made to flats or maisonettes. Economies in circulation area are, admittedly, more easily made in houses than in flats, but is this the only reason for exclusive concentration on houses? Does it not also reflect a general tendency to think exclusively of houses and to neglect flats and maisonettes? We have heard disturbing news recently of pressure being put on private architects to substitute houses for flats in the new towns, presumably for economic reasons.

We note also with regret from the published plans of Stevenage an overwhelming concentration on houses to the exclusion of flats in the later phases of the town. Is there no social basis for building flats other than the exigency of high density areas? Sample surveys made for *The British Household*, a Government social survey in April, 1947, show that 56 per cent. of the family units surveyed had no children under 15 years of age. (The census figures in this respect will be awaited with great interest.) Even though a proportion of that 56 per cent. will be represented by newly married couples who might be expected to have children later, there remains surely a substantial proportion of the population for whom a flat or maisonette might well be the most appropriate form of dwelling.

The satisfaction of their needs will in any case be adequate to provide a sufficient percentage of taller buildings to give a degree of contrast, interest and architectural character (praise be to Harlow), which is so utterly lacking in many dreary suburban estates. The detailed analysis of flat design in the *Housing Manual* was, admittedly, always inadequate compared with its treatment of houses (and this of course still needs rectification), but the above quotation expresses a point of view which needs constant reiteration today, when architecture and amenity are threatened by short-term thinking and the economic knife.



Clifford F. Wilson

J. B. Singer

G. J. Shipman

George Peter Keleti

K. R. Herbert

A New Year Message

SIR,—Of all the professions, architecture has been the hardest hit by post-war restrictions. In addition to the economic situation with all its frustrations, the architect is faced with another problem which does not beset other professional men, namely, that the public has little knowledge of what he can and should be allowed to do and little appreciation of his function in a modern community. That does not apply to the lawyer, the doctor and the dentist.

The profession cannot do much about the critical economic situation but I suggest it can do a good deal to show the public that, so far from being a dispensable luxury, its services are vital to the health and happiness of the community. Within the limits of its resources, my Institute last year tackled this difficult problem—admittedly, in an experimental way—with quite gratifying results. I suggest that 1952 should see an extension of this public relations work in the mutual interests of the profession and the public.

"I visited your exhibition" wrote a member of the public "and picked up a copy of your pamphlet 'The Architect and You.' Early in the New Year I expect to receive a building licence and will, therefore, wish to engage an architect." That makes the engagement of the architect sound pleasantly inevitable but how many, one wonders, of the licence-holders under the latest relaxation will engage an architect as a matter of course? For the younger architect, whose opportunities have been so dreadfully cramped, this is a vital matter, for the small private house is, traditionally, the gateway through which they pass to bigger things.

Let all architects resolve that, in 1952, they will strive more energetically than ever before, to indicate, through their work, that the profession has an important contribution to make to the many problems which face the country at the present time.

CLIFFORD F. WILSON,
President, Institute of Registered Architects.

London.

Housing Subsidies in Northern Ireland

SIR,—The principle of housing subsidies in Northern Ireland is quite sound, as recent JOURNAL correspondence has shown, but I feel that there are circumstances, where their practical application justifies some criticism.

Some councils have their own architects, who apart from their official status, have private offices and are in the position to pass their own plans for subsidy purposes and bye-law regulations before submitting them to the MOH. Undoubtedly, it is a very convenient arrangement, provided the site happens to be in one's own "sphere of influence." A vague phrasing of the code of professional conduct and a multitude of subsidy regulations and local bye-laws, leave enough loopholes to perpetuate this state of affairs.

The most paradoxical and quite common situation arises (probably also applicable to England), when an architect is employed in his professional capacity by a builder. The local surveyor, who may also happen to be the same architect in question, will see the foundations and drains, and a MOH inspector will check that the house conforms to the submitted plans, but for the rest, a prospective owner of the property will be a victim of this example of lip-service and collusion.

Although the above mentioned cases are not frequent, the position would be greatly improved, if vested interests were divorced from official bodies and the MOH carried out their inspections more thoroughly.

J. B. SINGER.

Northern Ireland.

Should an Architectural Teacher Practice?

SIR,—In his read speech on the Third Programme on December 9, Mr. Gropius stated that he considered that the staff at architectural schools should be in practice, otherwise they would tend to lose touch with current trends, or words to that effect. It was noticeable that in the following discussion neither Messrs. Budden nor Jones commented on this point. It would be interesting to hear the opinions of any of your readers on what is surely a rather controversial matter. For if a year master is in practice he would be hard put to it to find enough time from his office to keep himself in sufficiently close contact with his students.

G. J. SHIPMAN.

London.

How Architects Can "Re-humanize" the Stage

SIR,—I cannot refrain from commenting on Astragal's evaluation of small scale theatrical productions *versus* larger ones made in connection with Bernard Miles' Elizabethan theatre.

Bach's Brandenburg Concertos should be performed in halls of the size and acoustical characteristics as the ones Bach anticipated to have them performed in. We might also find fanatics who would find it inspiring to have the *baroque decor* as a setting to make the emotional experience complete.

I would not want to be listed with the fanatics who require Elizabethan decor to make the setting of a Shakespeare play perfect. A Shakespeare drama, however, should be performed in a hall where the nearness of the spectator to the actor will allow the former to notice the subtleties of inflection and facial expression, all essential instruments in getting the perfection of Shakespearean psychology across.

The disastrous effects of large stage production on acting have passed unnoticed till the late advance of more intimate theatres. Today's miserable acting placed into the unpretentious small theatre where there is nothing to cover it up truly leaves us with a feeling of emptiness.

Actors have become mere incidentals on an impressive stage. Their voices are strong and rich, yet inexpressive. Their facial expressions are hidden by heavy layers of makeup. Their understanding of human nature seems to have vanished. So much so that but a few were specifically horrified by Sir Laurence Olivier reciting the monologue of restlessness "To be, or not to be . . ." in a rather relaxed repose, when the very tension of the concept should have sent him pacing up and down the stage with halting steps of hesitant distress.

Whatever the architectural glory of the scenery of a Wagner opera might be, the theatre is a place dedicated primarily to the sharing of experiences of human relationships and ideas of individuals. Our playwrights are conscious again of the subtleties of human existence. Maybe sometimes we will have actors who will stand up to these standards and will make it irrelevant whether their human reality is with or without the support of scenic illusions. The architect's contribution to the process of rehumanizing the theatre is to produce a setting where the success of the show depends solely on the actor's understanding of human nature and on his ability to express human nature as he sees it with all of its subtleties as the only reality that really matters.

GEORGE PETER KELETI.

Kansas City.

A Budding Architect's Misgivings

SIR,—As a budding architect who has yet to blossom forth, I find myself assailed by certain misgivings concerning the profession of my choice, and I ask myself whether the average architect of today fully merits that proud title of "Master Builder." For instance, can the product of our present system of architectural training feel entirely at ease when he is forced by lack of constructional design knowledge humbly to approach the Philistine engineer and beg of him to plumb the mathematical depths and by magical manipulation of the omnipotent slide rule to conjure up a barrel vault roof or prestressed beam (master builder for the use of).

Too often we hear that convenient argument advanced, that it is impracticable for an architect to master all the multifarious technicalities of present-day building, and that the specialist is a very necessary lackey of the architect's court. Admittedly, on secondary matters this is so, but when it comes to the very basic fundamental of building—construction—the means whereby his masterpieces stand or fall, surely that is the sacred province of the master builder, and his alone.

Let him recognize that the age of empirical formulæ is gone, and that of rational calculation firmly established, for only by accepting this rather unpalatable truth and equipping himself with the necessary means to deal with it, can the architect hope to maintain his position as a competent leader of the building team.

K. R. HERBERT.

Surrey.

COMPETITION

£1,500 for Service Station Designs

Shell-Mex and B.P. Ltd. invite architects to submit designs for petrol filling and service stations. The competition is in three sections:—(*i*) a country service station; (*ii*) suburban or neighbourhood service station; (*iii*) main motorway service station. The assessors will be David du R. Aberdeen, B.A., F.R.I.B.A., A.M.T.P.I., D. A. Birchett, A.R.I.B.A., and Frederick Gibberd, F.R.I.B.A., M.T.P.I. The premiums in each section are: To the author of the design placed first by the assessors, £300; to the author of the design placed second by the assessors £150. Two additional prizes of £25 each will be awarded to designs in each section of the competition if, in the opinion of the assessors, they contain features of special interest in design.

The last day for submitting designs is April 18, 1952. Conditions may be obtained on application to Publicity Department, Shell-Mex and B.P. Ltd., Shell-Mex House, Strand, London, W.C.2.

RIBA

Prizes and Studentships 1951

The Tite Prize, a Certificate and £100.—187 candidates took part in the preliminary competition; of these, 11 were allowed to proceed with their final drawings. Awarded to: "Dionysius."

The Soane Medallion and £120.—103 candidates took part in the preliminary competition; of these, 9 were allowed to proceed with their final drawings. Not awarded.

The Pugin Studentship, a Silver Medal and £80.—Two sets of drawings were submitted. Awarded to: E. Lloyd Hughes, A.R.I.B.A. Certificate of Honourable Mention awarded to R. W. Brunskill, A.R.I.B.A.

The Owen Jones Studentship, a Certificate and £100.—Four sets of drawings submitted. Awarded to: "Zodiac."

The Silver Medal for an Essay and £50.—17 essays submitted. Awarded to: "Angelo." Certificate of Honourable Mention awarded to "Ragbolt."

The RIBA Alfred Bossom Research Fellowships for Post-Graduate Research.—Six sets of drawings and testimonials were submitted. Awarded to Thomas Howarth, A.R.I.B.A.

The Arthur Gates Prize and £80. No entries submitted.

The Godwin and Wimperis Bursary.—Two sets of drawings submitted. Awarded to R. N. Guy, A.R.I.B.A.

The Grissell Gold Medal and £35.—Three sets of drawings submitted. Not awarded.

The Henry Saxon Shell Prize and Theakston Bequest.—Three sets of drawings and testimonials were submitted. Not awarded.

The Hunt Bursary and £75.—Two sets of drawings and testimonials were submitted. Awarded to D. A. W. Lovejoy, A.R.I.B.A.

The Banister Fletcher Medal for an Essay and £26 5*s.*—Seven essays were submitted. Awarded to "Columba."

RIBA Prizes for Public and Secondary Schools.

RIBA Prizes for Essays.—No essays were submitted.

RIBA Prizes for Sketches.—Sketches were submitted by two competitors. A prize of £7 7s. is awarded to Ian C. Thornton, The Grammar School, Manchester, for his drawings of Baguley Hall, Lancashire, and a prize of £3 3s. to J. Hendry, The Grammar School, Northampton, for his drawings of Kingsthorpe Church, Northants.

The Athens Bursary and £125.—Awarded to D. S. Paterson, A.R.I.B.A.

The Henry L. Florence Bursary and £350.—Awarded to C. I. Hobbis, A.R.I.B.A.

The Andrew N. Prentice Bequest (£150).—Awarded to Gordon E. Michell, A.R.I.B.A.

The new employment exchange in Aytoun Street, Manchester, designed by the MOW for the MOLNS, was begun in 1937 and only recently completed as work was suspended during the war. The pre-war building was planned and designed under the chief architect of the (then) Office of Works, David Thomson, and the post-war work was carried out under the supervision of E. H. Montague Ebbs, senior architect of the Chief Architect's Division, and A. M. Palmer, the senior engineer. The total floor area is 79,000 ft. super and the ground floor completely covers the site, which is roughly one-third of an acre. The ground floor storey facing Aytoun Street is faced with grey granite and black granite has been used for the main entrance on this facade and the frame of the long staircase window. The building is steel framed and the facing bricks generally are 2-in. multi-coloured rustic facings. The general contractors were P. Hamer, Ltd.

SCOTLAND

Move to Encourage Improvement of Property

Conversion and improvement of existing property can greatly help to solve Scotland's housing difficulties, says a circular which was issued recently to local authorities by the Department of Health for Scotland.

The circular is the first step in a move to encourage local authorities and private persons to tackle more vigorously the task of bringing Scotland's out-of-date houses up to present-day standards.

Accompanying the circular is a revised version of the Department's memorandum on the scheme of financial assistance for the improvement of housing accommodation. This assistance is given, subject to certain conditions, to local authorities, private persons, housing associations and new town development corporations. Grants to private persons may normally range from £50 up to £300.

This prestressed concrete cantilever foot-bridge at Shrewsbury was opened recently by the Mayor of Shrewsbury, Councillor A. H. Jones, J.P. The bridge spans the Severn and is 247 ft. long. It is pivoted on the piers of the old foot-bridge, which are 150 ft. apart, and has a centre 60-ft. suspended span supported on roller bearings. It was built by Taylor Woodrow Construction, Ltd., who designed it in collaboration with T. P. Bennett & Son, consulting architects, and the Prestressed Concrete Co., Ltd. (London), with L. G. Mouchel & Partners as consulting engineers.

NFBTE

President Nominated

J. Ian Robertson, of Burton-on-Trent, has been nominated by the council of the NFBTE to be president for the year 1952. For the other offices, the nominations were: Wilfred Horsfall for senior vice-president; H. G. Frost, E. W. Garrett and G. W. Grosvenor as junior vice-presidents.

MOHLG

Fifth National Park

The fifth national park—an area of approximately 225 square miles in the county of Pembrokeshire—has been designated.

The Chairman of the National Parks Commission, Sir Patrick Duff, has signed the Designation Order and this will be submitted in due course to the Minister of Housing and Local Government for confirmation.

POPULATION MOVES

A Survey is Published

About 4m. people migrate within the boundaries of England and Wales each year, in search of new jobs and homes. With only about 250,000 new homes being built it is thought that they move into houses vacated by others. The reasons for this ebb and flow of the population and the types and numbers of persons moving have been surveyed by the General Register Office, who has issued a report to assist planners.

The report states: "Though the majority of new houses today are built and filled by Local Authorities whose primary responsibilities are towards their present residents, the majority of existing houses, new and old, are still privately owned, and the rehousing of families in new Local Authority houses is likely to be accompanied by the vacation of numbers of privately-owned properties."

BATC

Awards to Apprentices

The Building Apprenticeship and Training Council has made awards to 524 apprentices in training, for outstanding ability in class and site work during the year. The awards—159 book tokens to the value of 30s. (first prizes), and 365 of £1 (second prizes), for the purchase of technical or cultural books relating to the building industry—were made on the joint recommendations of technical colleges, employers, and local apprenticeship committees. Every craft of the building industry is represented among the prize winners, and the awards cover England, Scotland and Wales.

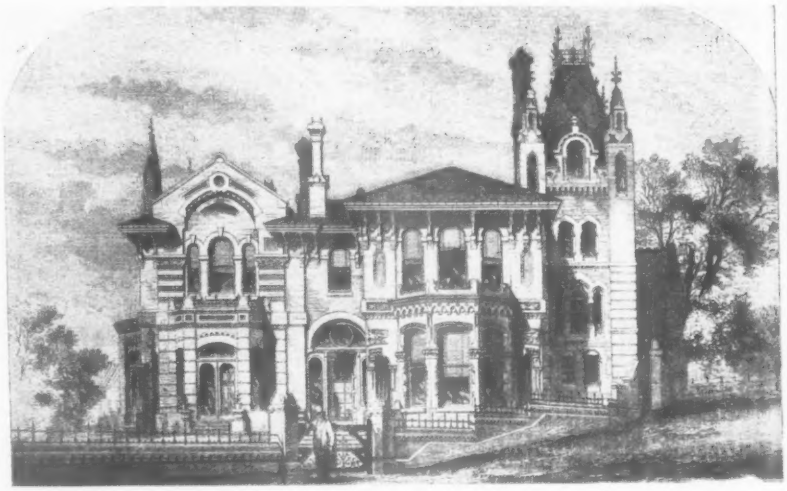
BRISTOL

Drastic Change in City's Housing Policy

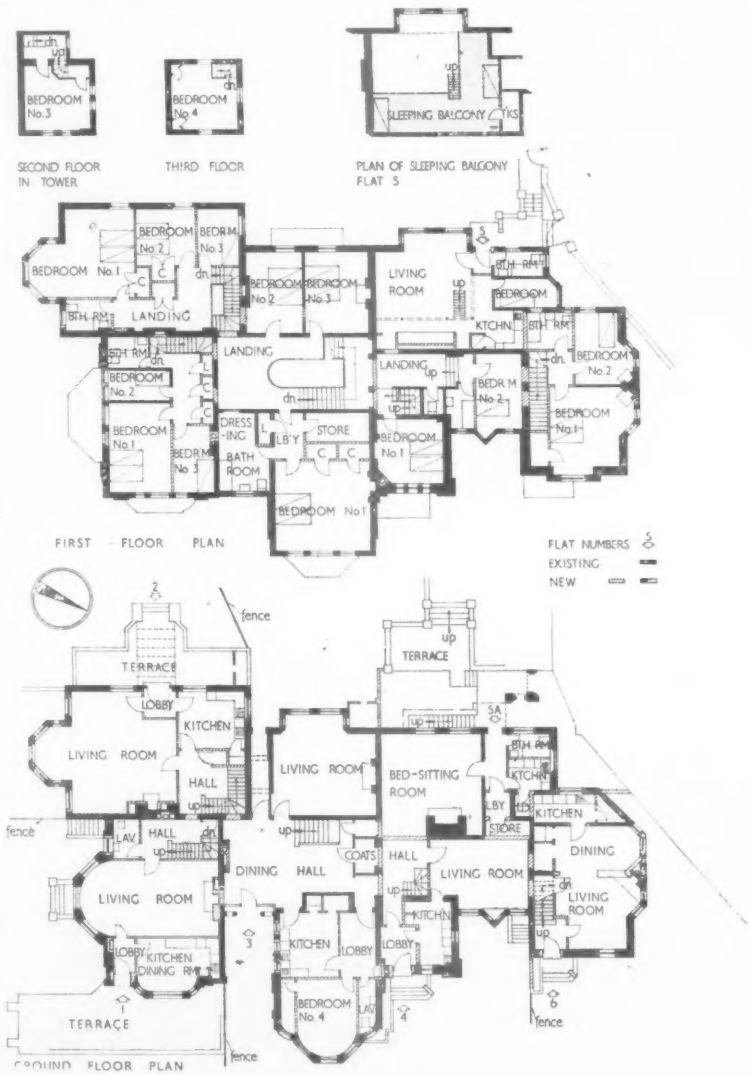
Faced with the problem of an expanding population and an increasing shortage of building land within the city boundary, the City Architect of Bristol, J. Nelson Meredith, has told the City Council that Bristol's housing programme will increasingly include multi-storey buildings—some of them up to nine storeys high—and that to meet this need he has re-organized his department.

"This type of building involves problems of construction and considerably more architectural work than is the case with repetitive

CONVERSION OF HOUSE IN



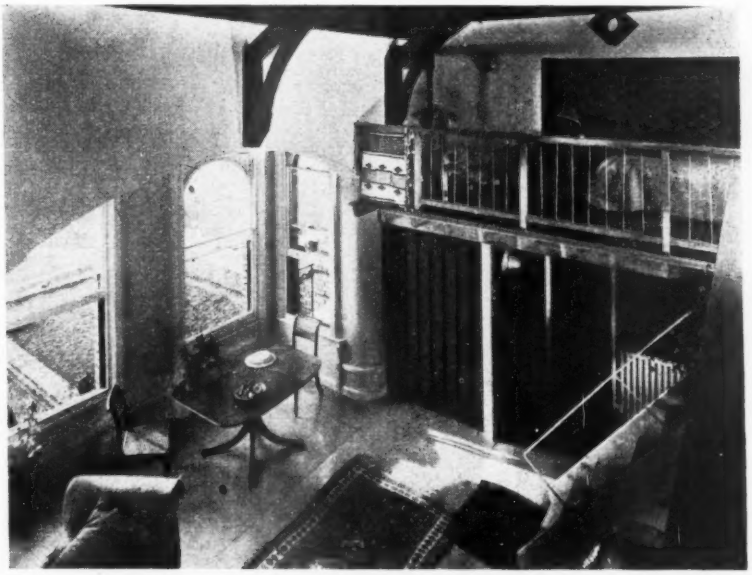
The conversion of the "Logs," Hampstead, into six maisonettes has been carried out to the designs of Alexander Gibson of the Design Research Unit. Work on the original house was begun in 1867, and a perspective drawing

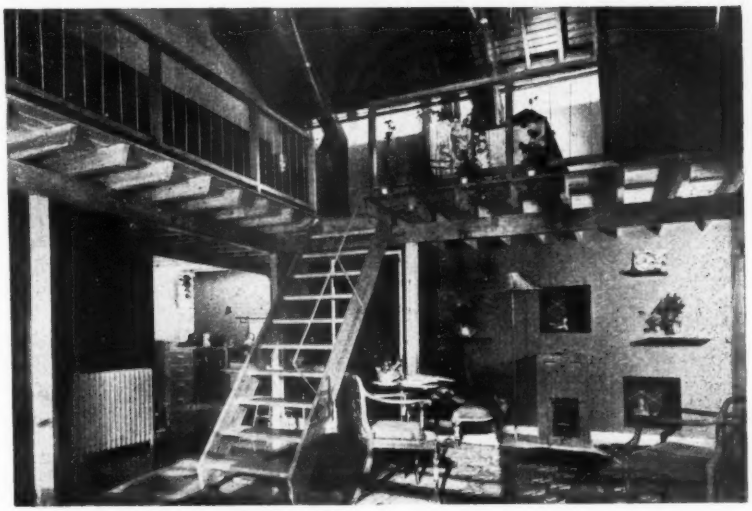


Plans of house after conversion [Scale: $\frac{1}{16}$" = 1'0]

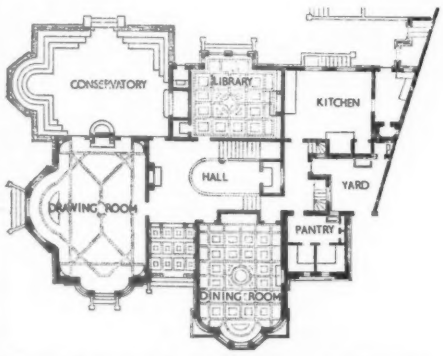
EAST HEATH ROAD, HAMPSTEAD, LONDON, N.W.3.

of the east facade shown on the left was illustrated in "The Builder" in October, 1868. The architect was J. S. Nightingale and the client an Italian sanitary engineer named Gotto. The cost was £9,000, and later additions increased the size of the house by about a third. Polished granite and red Mansfield stone were used externally, and Serpentine and Plymouth rock internally. The house was bought in 1950 with the intention of converting it into eight flats to be sold on a 99-year lease, but due to legal difficulties the subdivision was changed to six maisonettes. Nos. 5 and 5a are under one ownership, although there are separate approaches from the road. No. 5, which is illustrated in the photographs on the right, has been constructed almost entirely within the original billiard room. The ceiling is of varnished pitch pine supported on three trusses. The woodwork of the balcony is natural deal, cellulosed, and existing "Gothic" doors have been re-used for cupboards. The wall behind the stove, its continuation in the kitchen and above the balcony is geranium red, cupboards and the radiator wall are deep green and bay walls pale yellow green. The wallpaper on the gable wall is Edwardian damask in yellow green

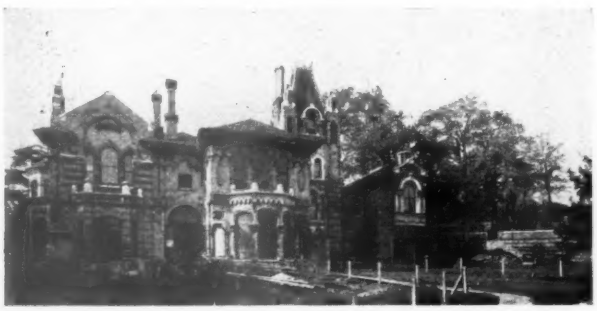


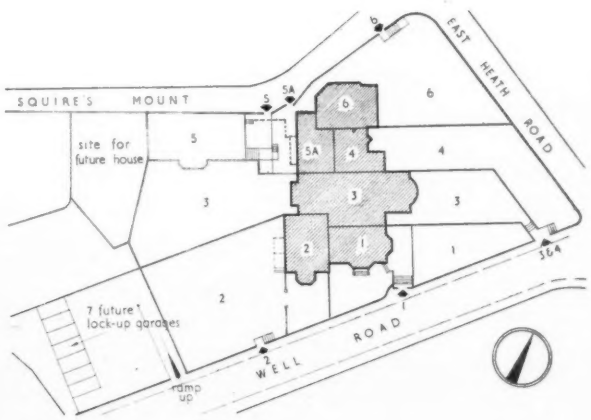


and in the bed recess and small recesses around the stove is a Georgian rope trellis design in deep green. Decorations were by Patience Gray. The photograph below, left, shows the east facade during conversion. The general contractor was Mark F. McFarquhar. For sub-contractors see page 60.



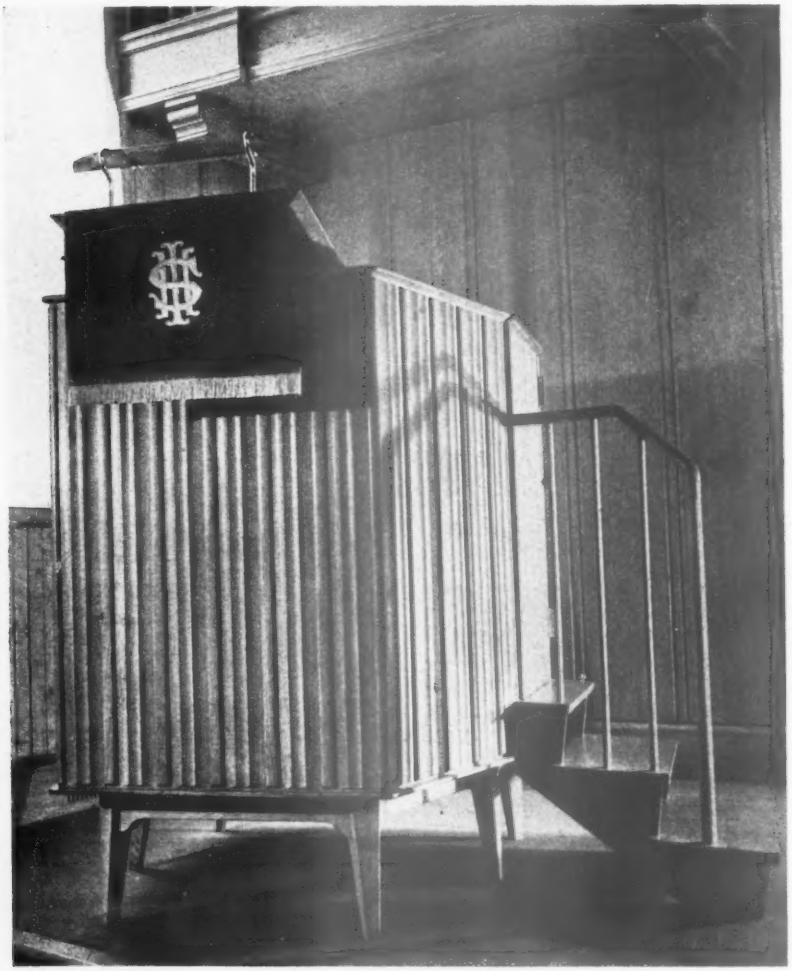
Ground floor plan from "The Builder" of 1868



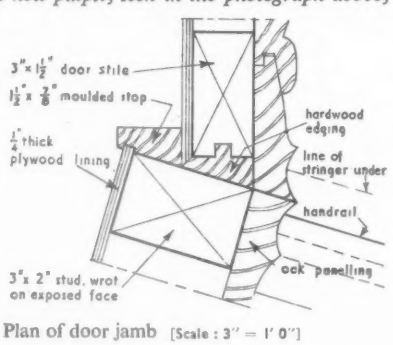


Block plan

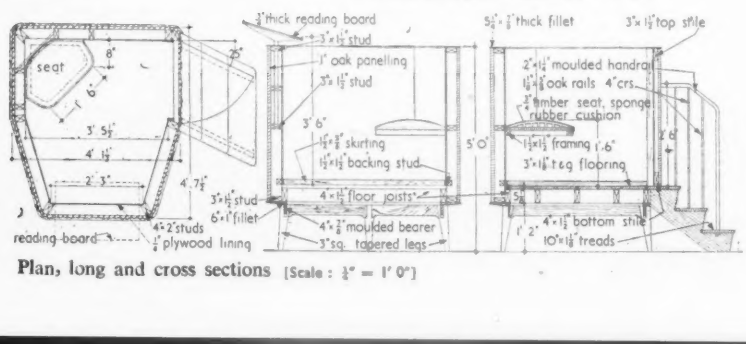
NEW PULPIT DESIGNED BY BASIL SPENCE



Renovations at the church at Crossford, Lanarkshire, were designed by Basil Spence and Partners and included the removing of the original Victorian pulpit and fitting new panelling below the east window. The new pulpit, seen in the photograph above, is constructed of oak with wax finish in keeping with the organ pipe cases flanking the east window. The walls of the church have been painted white and ingoes to windows yellow. The timber roof and all woodwork, including the pews, have been stripped and waxed. The contractors were Messrs. Scott Morton.



Plan of door jamb [Scale : 3" = 1' 0"]



Plan, long and cross sections [Scale : ½" = 1' 0"]

work of normal cottage development," said Mr. Meredith in his report. "To meet this new and growing demand the department has been re-organized and two sections formed to deal with housing work; one for multi-storey blocks and the other for normal cottage-type development.

"It is intended that there shall be flexibility in the movement of personnel between the sections as it is appreciated that during the next few years, as the emphasis on multi-storey development increases, the staff engaged on this type of work must also increase."

It was reported that the cost of the department for the last financial year was £85,932. The aggregate value of building work for which the department was responsible during that period was £3,081,682.

POLAND

1951 Building Programme completed Early

The Polish Ministry of Town and Country Planning and the Polish Central Office for Municipal Prefabricated Building report that both in the northern region of Poland and in Silesia the year's building programme was completed ahead of schedule.

NBR

New Chairman Elected

Sir James Mann has been elected chairman of the council of the NBR, in succession to the late Sir Eric Maclagan.

Reported Threats to Ancient Buildings

The tenth annual report of the NBR, published recently, covers the period ended April 12, 1951. In the review of the work accomplished the report states that a collection of 385,626 photographs and drawings has been formed. Recent plans of reconstruction and development, coupled with the economic distress of owners, have threatened many ancient buildings. The constant call on the officers of the NBR to record these buildings has hampered the methodical survey which is their chief object.

DIARY

15 *Young Sculptors.* Exhibition at 17-18, Dover Street, W.1. (Sponsor, ICA.) Daily, 10 a.m.-6 p.m. Sundays, 2 p.m.-6 p.m. Admission 1s. 6d.

UNTIL FEBRUARY 3

Neighbourhood Planning in the New Towns. Lecture by S. L. G. Beaufoy. At 13, Suffolk Street, S.W.1. (Sponsor: Housing Centre.) 6 p.m.

JANUARY 15

Water-colours, Etchings and Drawings. An exhibition of the work of W. H. Ansell. At 66 Portland Place, W.1. (Sponsor: RIBA.) Mondays to Fridays, 10 a.m.-7 p.m. Saturdays, 10 a.m.-5 p.m.

JANUARY 15-FEBRUARY 9

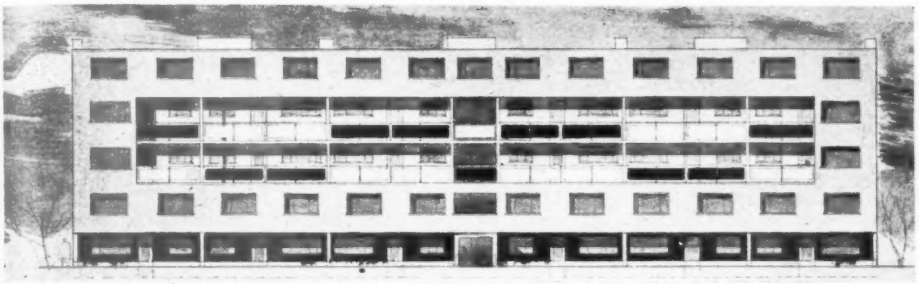
Modern Materials and their Uses. Lecture by G. I. Goulden. At the Building Centre, Store Street, W.C.1. (Sponsor: Incorporated Institute of British Decorators.) 6.30 p.m.

JANUARY 16

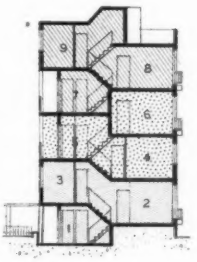
Civil Engineering Aspects of Hydro-Electric Development in Scotland. Lecture by A. A. Fulton. At the Institution of Civil Engineers, Great George Street, S.W.1. (Sponsor: ICE.) 5.30 p.m.

JANUARY 22

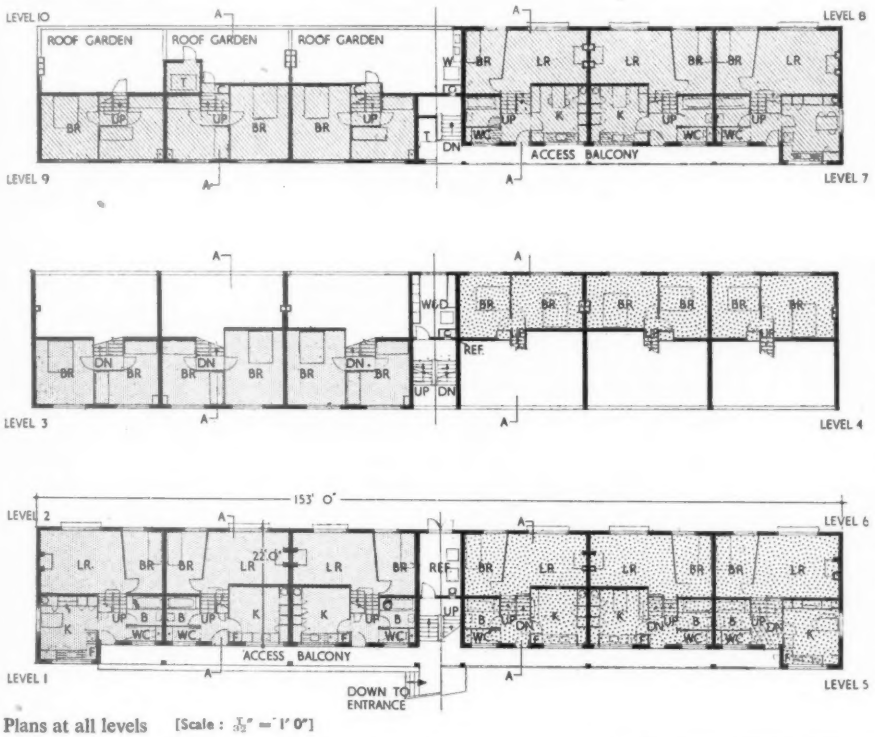
PROPOSED BLOCK OF THREE-LEVEL MEZZONETTES



Entrance elevation



Section A-A



Plans at all levels [Scale : $\frac{1}{32}$" = 1' 0"]

A three-level interlocking plan for a minimum dwelling with a total area of 754 sq. ft. has been designed by Christian Hamp (Collcutt and Hamp). The areas of all rooms are to Housing Manual standards and the mezzonette compares favourably with a minimum Council flat. This type of plan makes a saving on the number of access balconies, avoids long narrow corridors and the need for a lift, as the main staircase stops one and a half floors short of the top of the building. Bathrooms would be lit through a glazed panel above the w.c. partition and would have artificial ventilation. It is thought that a greater illusion of space would be achieved than in the average flat.

BSI

New Code on Wall Construction

The Council for Codes of Practice for Buildings has now issued in final form Code 121-201 (1951), Masonry Walls Ashlared with Natural Stone or with Cast Stone. The Code has been drawn up by a Committee convened by the RIBA on behalf of the Council, and is a revision, following comments received, of the draft code previously issued.

Recommendations are made on the selection of natural and of cast stone, and on materials suitable for damp-proof courses and for mortar. Consideration is given to various points affecting the design of the walling in relation to the exclusion of rain penetration, durability, sound insulation, thermal movement and bonding. Many details associated with the construction are also dealt with; for example, bearings, parapets and their protection, footings and surrounds to openings. An "Alignment" chart for the computation of thermal transmittance of various types of masonry walls with linings is included in the appendices. Some of the methods of construction recommended, and the positions of damp-proof courses, are illustrated in the diagrams. General notes regarding post-contractual maintenance, together with repair work to defective stonework, are included. Copies may be obtained from the B.S.I., 24-28, Victoria Street, London, S.W.1., price 6s. post free.

TIMBER

A Guide to Hardwoods

The use of hardwoods for purposes which were formerly served by softwoods has brought on to the market an unusually large variety of hardwoods. Many of the woods are of tropical origin and are on sale in this country for the first time. There has been little information generally known about the characteristics of these timbers and the uses for which they are best suited. A handbook, issued recently by the Department of Scientific and Industrial Research, Hardwoods for Building and General Purposes, has been published by HMSO, price 1s. 3d. It is intended for the guidance of builders, building contractors, furniture manufacturers, etc. The handbook gives in alphabetical order and tabular form the trade and botanical names of more than a hundred hardwoods together with particulars of their outstanding characteristics and uses. The principal sources of supply, dry weights and degrees of resistance to decay of the hardwoods are also given. Many of the trade names in current use are unfamiliar, and an index of the principal ones applied to the timbers is provided.

ABT

Forum on Productivity

First of the five speakers at the meeting organized by ABT recently at Dennison House, Victoria, entitled "Speed the Job: Whose to Blame for the Muddle?" was H. J. Whitfield Lewis, chief housing architect to the LCC. Mr. Lewis emphasized the importance of compiling the complete information for a job before it starts. This, he said, deters the client from making alterations. Variations were not even a blessing to the contractor or, if they were, they were a mixed blessing. Although they sometimes helped the contractor to make a "bit extra," they were often an embarrassment to him, they so disorganized his work. The only excuse, these days, for a variation

Mr. Lewis insisted, was a sudden breakdown in the supply of materials and the substitution of an alternative material.

The architect, said Whitfield Lewis, could not complete his working drawings until he had settled with the specialists; this should, therefore, be done as soon as possible. Rigid adherence to normal tendering procedure might make this more difficult, whereas in the USA, on a large contract, the building team—building owner, surveyor, consultants, main contractor and specialists, all under the direction of the architect—work together "from the word 'go'." It was often argued, of course, that the loss of competitive tendering meant a dearer job, but building owners in the USA were pretty hard-headed and realized that early completion saved them money.

Mr. Lewis suggested that *large* direct labour forces, with *small* administrative staff, in competition with private enterprise, could contribute much towards speedier and cheaper building. He recommended also the increased use of mechanical aids, particularly mobile tower cranes. These, he said, make possible the use of much larger building components (made on or off the site); but to ensure the best use of a crane, the architect must collaborate with his builder right from the start.

With regard to modular co-ordination and standardization. Mr. Lewis said that he welcomed the reports of the BSI modular co-ordination committee, but thought it a pity that these did not appear immediately after the war when factories were being converted back to civilian production. Instead, we were still cursed, for example, with two window dimensions—1 ft. 8 in. for metal and 2 ft. for timber—so that architects were unable to switch from one to the other.

Mr. Lewis also made some criticism of the way in which prefabrication had developed in this country. Instead of sponsoring a large number of firms each making a complete house, the Government, he suggested, should have turned over ordnance factories to the large scale production of components. There had been too much concentration on external shells, but he was pleased to know that at least one development—the Schindler system — concentrated on inner linings instead. There should be more standardization of small components, he concluded; in the USA, under the pressure of the rearmament drive standards were being reviewed and, for example, standardized bathroom layouts and even bathrooms prefabricated in one unit, had been devised. These developments were well worth emulating.

Whitfield Lewis was followed by D. E. Woodbine Parrish and D. H. Green, builder and sub-contractor respectively, who both repudiated the charge of muddle and incompetency, although Mr. Green admitted that there was room for improvement in the industry. Mr. Woodbine Parrish emphasized the importance of a continuous supply of the importance of a continuous supply of materials, goodwill and confidence between standard of efficiency as high as that of the best firms.

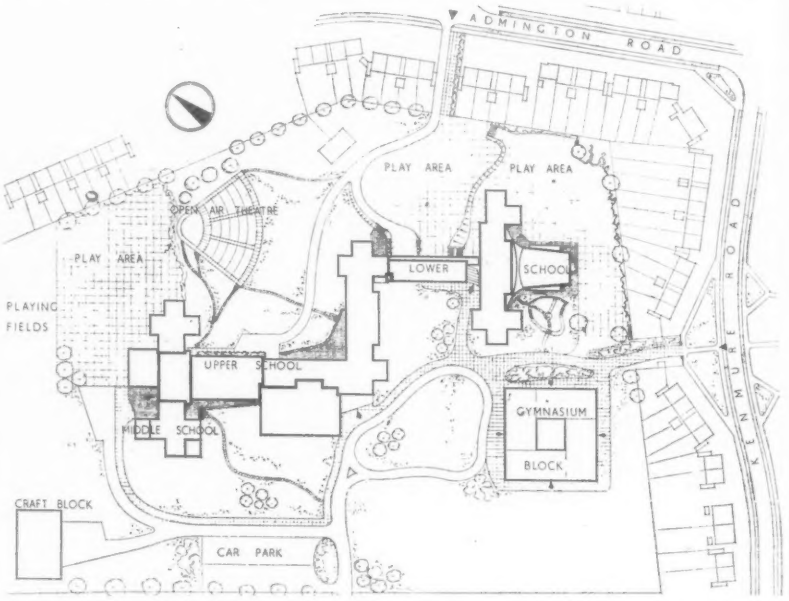
Mr. Green claimed that the output of men in each trade was, today, about half what it had been before the war. This, he said, was true not only of the operatives but also of the "men at the top."

Whether or not the fact that we worked less hard than pre-war was a good thing was a social question which he did not feel qualified to judge, but the fact remained that jobs now took twice as long.

In some industries, Mr. Green continued, you can compensate by mechanization, but he was of the opinion that in the building industry you could not.

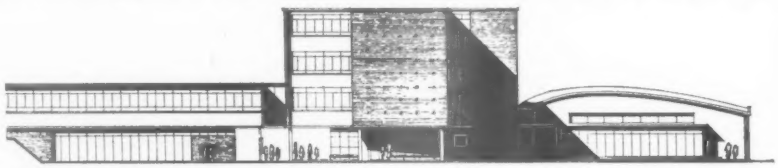
G. R. Millhouse, a clerk of works, endorsed Whitfield Lewis's remarks. Everybody to whom he had spoken thought that there was a muddle—but they all blamed "the other fellow." Mr. Millhouse suggested that each section of the industry should put its own house in order. As far as the clerks of works were concerned at present they had

PROPOSED COMPREHENSIVE



Site plan

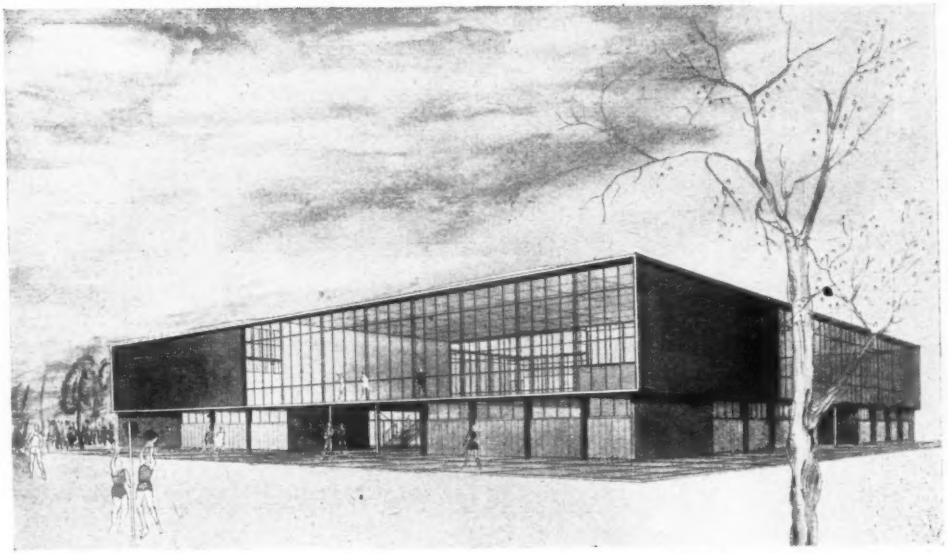
The proposed comprehensive secondary school at Garretts Green on the eastern boundary of Birmingham, has been designed under the direction of Alex Steele, Architect to the Education Committee, J. R. Sheridan-Shedden, Deputy Architect and S. G. V. Milligan, Chief Assistant. The perspective views show the lower school looking north (below) and the gymnasium block (opposite page). Work has already commenced on the site and this school will be the first to show the results of considerable research into various forms of planning and construction for multi-type schools. The site, which is in a rapidly developing housing zone, has an area of 17·18 acres, of which 14·20 acres are available for immediate development. There are two trench sewers running the whole length of the site 120 ft. from the south-west boundary and no building is allowed within 6 ft. of the centre line of these sewers; consequently the school buildings, which are for 2,010 pupils, are forced to the back of the site where

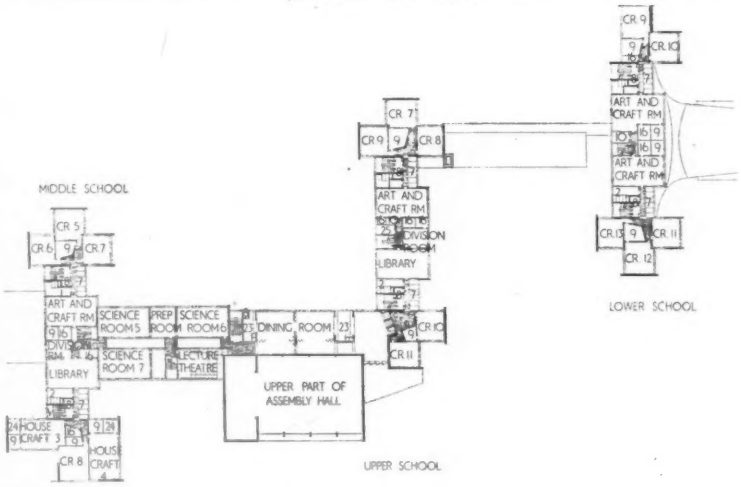


South west elevation of lower school

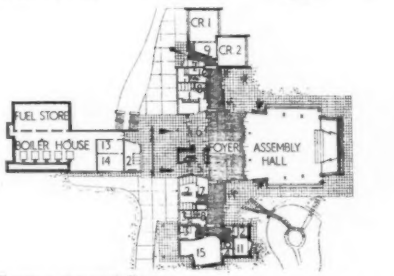
SECONDARY SCHOOL AT GARRETTS GREEN, BIRMINGHAM

there are considerable changes in level. Advantage of the sloping ground is being taken to connect the ground floor of the upper and middle schools to the lower school at first floor level. The building has been planned as three main blocks of 3 and 4 storeys with connecting links. The estimated cost is £550,000. The assistant architects are A. C. Bird, C.T. Percival and D. Smith.

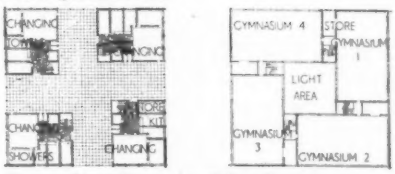




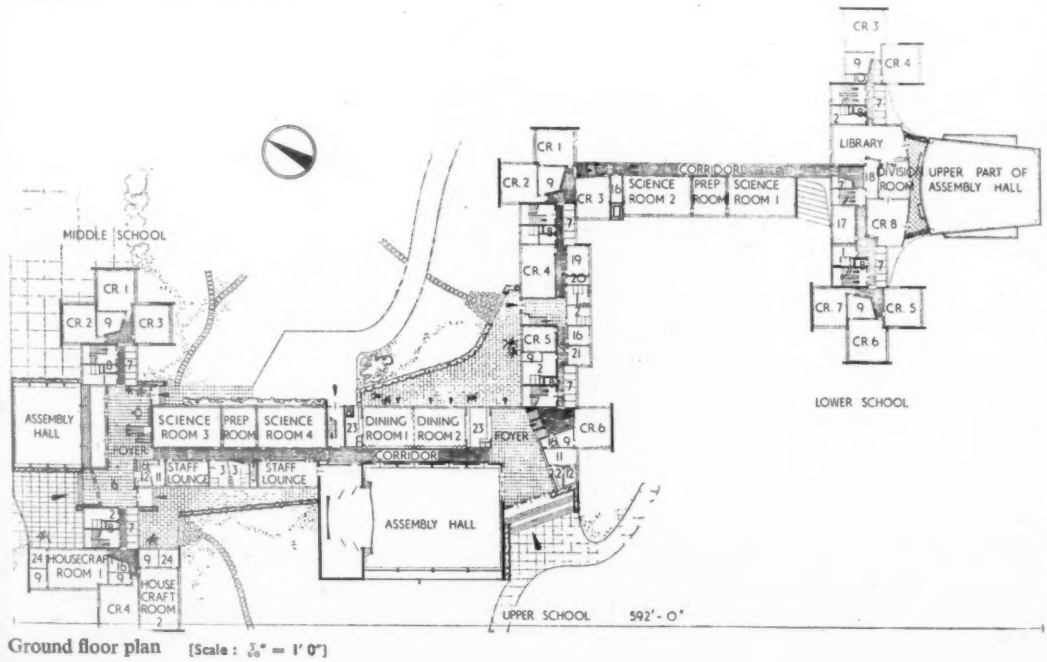
First floor plan [Scale : $\frac{1}{16}$" = 1' 0"]



Lower ground floor



Gymnasium. Ground and first floor plans



Ground floor plan [Scale : $\frac{1}{32}$" = 1' 0"]

Key

1 Boys' lavatory
2 Girls' lavatory
3 Staff lavatory
4 Staff kitchenette
5 Staff entrance
6 Main entrance lobby
7 Cloak space
8 Lift
9 Classroom stores
10 Cleaners' stores
11 Head
12 Secretary
13 Electric meters
14 Electric sub-station
15 Staff common room
16 Evening store
17 Prefects' room
18 Book store
19 Medical inspection room
20 First aid room
21 Evening warden
22 Waiting space
23 Servery
24 Housecraft room larder
25 Caretaker

no legal standing but if they were to play their full part in forwarding the industry they should have a definite grading, standard and status. Mr. Millhouse deplored the fact that a "crowd of financiers" had crept into the building industry, who knew nothing about building but wanted only to "turn over money."

The last speaker was J. Ryan, who spoke for the operatives. He, too, agreed with Whitfield Lewis's remarks. Whilst admitting that one of the problems was a "renegade element" of operatives, not recognized by the trade unions, he accused the employers of "criminally wasting" manpower. "How could an industry with over 120,000 firms, averaging 3 or 4 men per firm, be efficient?" he asked. He pointed out that 40 per cent. of fatal industrial accidents (excluding mining) were in the building industry. "Craft training," he continued, "has been slowly murdered in this country." The apprenticeship intake was little more than half what it should be.

The operative, he said, always got blamed (presumably he finished up kicking the tea boy) yet, on LCC jobs, productivity had risen 40 per cent., and, whilst the cost of houses was rising, labour costs were falling. It was the cost of building materials which was going up and, no wonder, continued Mr. Ryan, for conditions in the materials' producing industry were "scandalous."

The operative, said Mr. Ryan, was still afraid that "speed the job" would mean "speed the day when he is out of a job." Already his union had "no jobs on their books" and, if present conditions continued, there was likely to be much unemployment in the industry. From the operatives' point of view, it was no good speeding the job unless the building programme was expanded.

The building industry, said Mr. Ryan, was a "social" industry. To increase productivity, he concluded, we should eliminate "the insensate drive for profits"; provide an adequate labour force, better safety measures, more generous compensation, and a continuous supply of materials; and give higher pay to the skilled men.

TRIAL ARBITRATION

Builder v Employer

A builder was awarded damages for an extension of contract time and the expense caused by the delayed issue of a final certificate, in a practice arbitration staged in the large lecture hall of the RIBA recently. The Arbitration was arranged by the Institute of Arbitrators and the LMBA. Many more persons than the hall could accommodate had wished to hear the "case" between a builder, the claimant, and his employer, the respondent. The cast was as follows:—

Arbitrator, Sydney Tatchell; claimant, A. W. Yeomans; counsel for the claimant, J. Fox-Andrews; respondent, Marcus Aurelius (of Rome and the Mediterranean); architect, F. Scarlett; quantity surveyor, E. H. Palmer; counsel for the respondent, L. Harrigin.

The arbitration concerned an RIBA Form of Contract which was entered into by the employer and the builder to recondition a large block of flats after war damage and the occupation by a detachment of the special services assault group. The contract sum was £52,000 for work to be carried out in accordance with the architect's drawings and the quantity surveyor's bills of quantity. Some dry rot was known to exist in the floors and £3,350 was set aside to cover the cost of its removal. But, soon after work commenced, dry rot, unexpectedly found in the back wall, was so serious that the whole wall had to be rebuilt. The approximate estimate for a supplementary licence to cover this was £15,000.

The counsels' arguments turned upon the question of whether the builder was right to cease all work on the back wall until he had received a supplementary building licence. He maintained that it would have been illegal for him to work on the wall because it had not been mentioned in the original contract and was not, therefore, covered by the licence. On the other hand, the architect maintained that to keep the work going, pending the receipt of the supplementary licence, would not be acting contrary to the law. The required licence was not issued until two months after the builder's application for it because the quantity surveyor's report was delayed. This disorganized the work on the building and caused the builder to claim for an extension of contract time. The architect refused to consider this until the completion of the job, when he allowed an extension of two months. But, because of (*a*) the delay when waiting for the supplementary licence and (*b*) the extra work which the wall entailed, the work was not completed until four months after the completion date.

The architect further delayed the issue of a final certificate because he was unable to contact his client and obtain his approval of the work done. The builder claimed damages for this also.

Contrary to usual practice the learned arbitrator gave reasons for his judgment. He disallowed the builder's third claim that he should receive damages for the expense of running an overdraft at his bank. But he held that the other claims were valid.

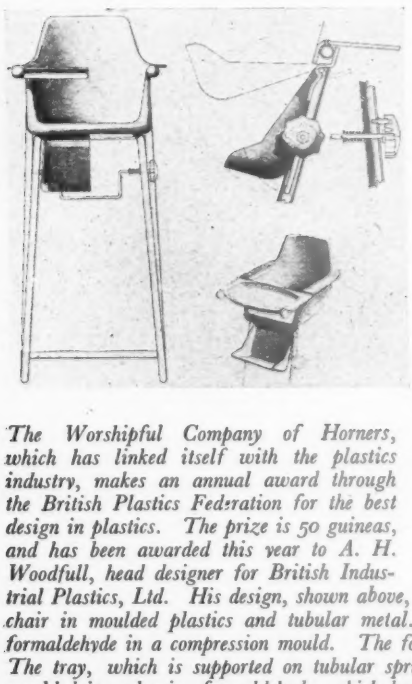
In his article below, Ernest Watkins comments on two recent judgments, both of which may have repercussions outside the particular cases involved. The first concerns "point" blocks of flats; the second, the National Trust.

ERNEST WATKINS

Two Important Judgments

An appeal tribunal has upheld an objection made oy the owner of a house adjoining an LCC estate at Wimbledon, to the Council's plan to build an eleven-storey "point" block of flats within 48 ft. of his boundary fence. Eleven-storey blocks of flats still being rare in London, the hearing and the decision received a great deal of publicity. This was a pity, for, superficially, what would seem to have been stopped in this case is no more than the erection of one particular block. It is difficult to believe that the council is not itself largely to blame. It was claimed (although Sir Patrick Abercrombie did not agree) that the site for this block so close to the site boundary, was chosen in order to landscape properly the whole layout. But it does appear that the site planners worked on their plans without an adequate picture in their minds of the site's immediate physical surroundings.

In fact, the appeal, and the decision of the tribunal that heard it, were unusual and of limited application. The only circumstance that give the owner recourse to this



The Worshipful Company of Horners, which has linked itself with the plastics industry, makes an annual award through the British Plastics Federation for the best design in plastics. The prize is 50 guineas, and has been awarded this year to A. H. Woodfull, head designer for British Industrial Plastics, Ltd. His design, shown above, right, in "mock up" form, is for a child's chair in moulded plastics and tubular metal. The seat could be formed from urea-formaldehyde in a compression mould. The foot-rest could be moulded in the same way. The tray, which is supported on tubular spring-loaded telescopic metal arms could be moulded in melamine formaldehyde, which has a hard surface to resist abrasion. The drawing, above, left, shows the footrest and lifting mechanism. There are few corners and crevices, and the chair could be easily cleaned. The chair can safely be tipped to 30 deg. without overturning.

tribunal was the fact that the land is within the County of London and the projected building was to be over 80 ft. in height. The London Building Acts apply only to the geographical county (which explains why "High Point," Highgate, London's best-known point block of flats, is a quarter of a mile outside London, in Middlesex) and, so far as I know, no other building code lays down so exact a limitation on height. The tribunal considered only the siting of one block in relation to the existing surrounding properties, but, only too easily in the public mind, this may be translated into a condemnation of "point" blocks of flats as such. Hence the dangers of this incident. One may criticize, for instance, the LCC plans for Roehampton, recently shown in detail but not, I think, in conception. My impression was that it should be sufficient that they are good enough to attract Swedish architects all the way from Stockholm. Yet, in local authority building, "point" blocks are still rare enough to be suspected by many. What a pity it is that the LCC had not sufficient foresight to say to themselves, "We must see that all possible objections to the plans are smoothed out before we start." Instead, there was a suspicion of the attitude: "We are the council and this is what we intend to do."

Another decision which has aroused wide interest has been the action by the National Trust to require the Midland Electricity Board to put their transmission lines over a section of the Malverns underground. The National Trust, as owners of Midsummer Hill, claimed that certain restrictive covenants, given them by the Church Commissioners as owners of an adjoining common, prevented the erection of poles carrying the board's supply lines. Mr. Justice Vaisey has refused to grant the injunction which the National Trust sought.

The case has two main points of interest. Firstly, it was a direct trial of strength between those who would, if possible, bury every overhead cable visible from a national park or trust property and those who say that to do so would be an extravagance for which the consumer should not be asked to pay. Secondly, it was a test also of the efficacy of the restrictive covenants which the National Trust have used to obtain restrictive control over land which they do not own. Mr. Justice Vaisey's comment on the first point was that it is necessary to preserve a sense of proportion, and I should imagine that the argument between the "Friends of the Underground Cable" and the "Friends of the Consumer's Pocket" will be resumed with renewed vigour as a result of this decision.

Mr. Justice Vaisey's decision on the second point is the more serious of the two for the National Trust. He held that the covenant given to the National Trust for the benefit of the land they own at Midsummer Hill was "void for uncertainty and vagueness and therefore unenforcible." This covenant, and its form of wording, was agreed by the landowners in 1936 and it is fairly safe to assume that the same form of wording as used in this case has been used by the National Trust in other cases where it has been given this sort of promise. In other words, the decision may mean that many other restrictive covenants, in other areas, on which the National Trust relies, are, in the eyes of the law, equally ineffective. There may, of course, be an appeal from this decision; it is certainly too early to regard this whole system of restrictive covenants as useless. But, as matters stand now, the National Trust has been given a considerable headache.

The restrictive covenant is not an ideal form of planning control. It is too rigid, and the technical difficulties in the way of its enforcement have always been recognized, but it is still used, by local authorities and by the Forestry Commission as well as by the National Trust. It is to be hoped that it has not been crippled irrevocably by its misadventure on the Malvern Hills.

STAND AT THE MEDICAL EXHIBITION

The stand for Roche Products, Ltd., at the recent London Medical Exhibition was designed by Ian Bradbery. The site was 16 ft. by 12 ft., open on three sides, and consisted of a space frame, seen in the photographs above and below, five display walls and a wall storage unit. The frame was 12 ft. wide, 2 ft. deep and 11 ft. high, divided into 2-ft. cube units, largely open but also containing panels painted red, yellow and pale blue and transparency boxes in polished mahogany. The display wall seen above was covered with mahogany slats at ¾-in. centres, tapering from ½ in. at the back to ¼ in. at the front. The wall carried three spun-aluminium light fittings and a square panel with the client's trademark. The floor was covered with natural coconut matting. The general contractors were the City Display Organisation.

NURSES' HOME

in CLEWER HILL ROAD, WINDSOR, BERKS

designed by HUGH ROBERTS and DAVIES

assistant architect R. W. ARNOLD

The Princess Christian Nursery Training College required new living and sleeping quarters for 21 student nurses. Each individual bed-sitting room is provided with running water and built-in furniture. Due to the downward slope of the site to the east, the first floor of the new building coincides with the ground floor of the old house. The bathroom and kitchen block is placed to form a buffer between the nursery and the students' quarters.

The south and east facades.

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WATER HEATING | UNITS | ELECTRIC

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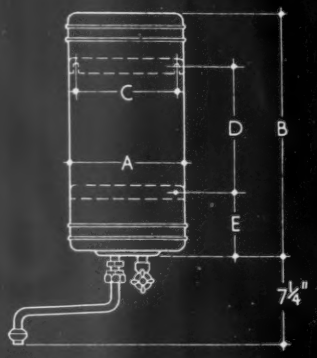
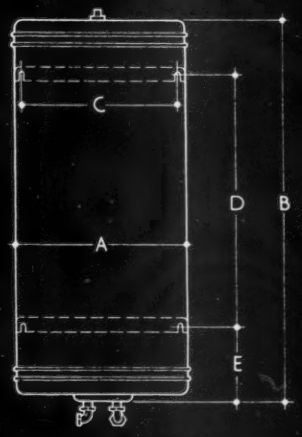
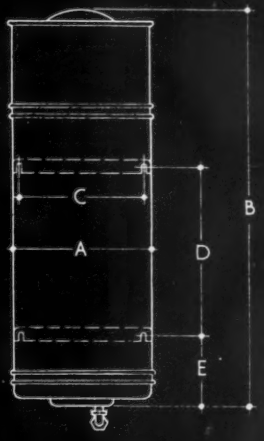


FREE OUTLET TYPE



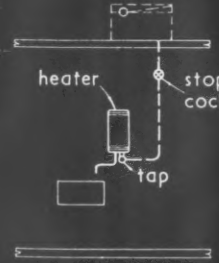
FREE OUTLET OR PRESSURE TYPES



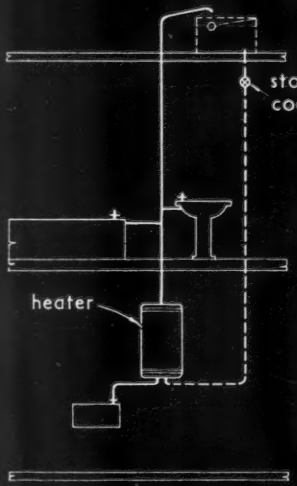
CISTERN TYPE

type		capacity (gallons)	A	B	C	D	E	water connections inlet	water connections outlet	loading (watts)
free outlet	G	1½	9½"	1'-7½"	9"	1'-0"	4¼"	½"	spout	500 or 750
	H	3	11"	2'-2"	9"	1'-0"	7½"	½"	spout	500, 750 or 1000
free outlet or pressure	B	5	1'-0½"	2'-6"	1'-0"	1'-4"	7½"	½" or ¾"	½" or ¾"	500 or 1000
	L	7½	1'-0½"	3'-4½"	1'-0"	2'-0"	8¾"	½" or ¾"	½" or ¾"	750 or 1000
	C	12	1'-4"	3'-3½"	1'-3"	2'-0"	8"	½" or ¾"	½" or ¾"	1000 or 1500
	D	15	1'-4"	3'-11½"	1'-3"	2'-11½"	6¾"	½" or ¾"	½" or ¾"	1500
cistern	BBT	5	1'-0½"	3'-2¾"	1'-0"	1'-4"	6"	½"	¾"	500 or 1000
	LBT	7½	1'-4"	3'-1¾"	1'-3"	1'-8"	4¾"	½"	¾"	750 or 1000
	CBT	12	1'-4"	4'-1"	1'-3"	2'-0"	5½"	½"	¾"	1000 or 1500
	DBT	15	1'-4"	4'-9"	1'-3"	2'-11½"	6"	½"	¾"	1500

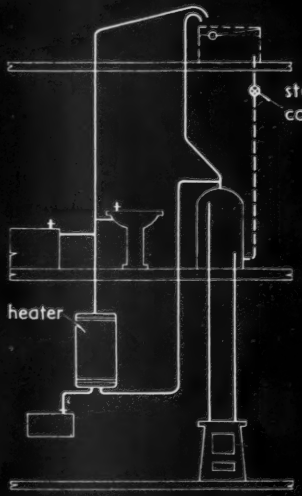
CAPACITIES, DIMENSIONS AND LOADINGS.



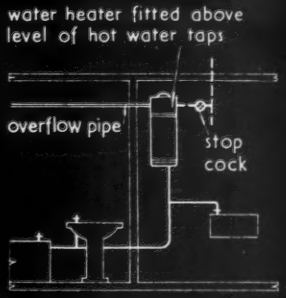
1. free outlet heater



2. pressure type heater



3. pressure type heater with solid fuel boiler



4. cistern type heater

TYPICAL INSTALLATIONS

SADIA AUTOMATIC ELECTRIC WATER HEATERS: FREE OUTLET, PRESSURE AND CISTERN TYPES.
Manufacturer: Aidas Electric Ltd.

32.D8 'SADIA' AUTOMATIC ELECTRIC WATER HEATERS : FREE OUTLET, PRESSURE AND CISTERN TYPES

This Sheet supersedes Sheet 32.D8 published 10.11.49, and is one of a series on automatic electric water heaters. It illustrates the wall-mounted water heaters of free outlet, pressure and cistern types. The free outlet water heaters are manufactured in 1½, 3, 5, 7½, 12 and 15 gallon capacities; they supply hot water at one point only. The pressure and cistern type water heaters are manufactured in 5, 7½, 12 and 15 gallon capacities and are designed to supply hot water at a number of taps.

Design and Construction

Each type of water heater consists of a heavy gauge copper container with copper welded seams, tinned by immersion in pure molten tin and twice tested at a pressure of 100 lb. per sq. in. The outer casing is made of silver sheet steel specially treated to prevent rust or corrosion. It is finished in oven-dried white enamel, which under normal conditions will neither chip nor scratch. The joints of the case with the top and bottom covers are trimmed with blue bands. The space between the hot water container and the outer casing is packed with re-granulated cork as heat insulator.

The heating elements and the thermostat fit into tinned copper tubes, which are mounted on an element plate and can be taken out without emptying the container. Each heating element consists of a spiral of the highest quality nickel-chromium alloy completely enclosed in porcelain insulators; working at dull heat it is practically indestructible. The element plate of tinned manganese bronze is fastened to the container by eight bolts and can be unscrewed with an ordinary box spanner. A drain plug is provided for emptying the container before unscrewing the element plate.

The cistern type water heater contains in addition a built-in cold water storage tank, which is automatically controlled by a ball valve. This ball tank is insulated from the water container by re-granulated cork. To prevent heat losses, the internal vent pipe is air lagged where it passes through the ball tank. An internal feed pipe leads from the ball tank to the cold water inlet at the bottom of the hot water container.

Operation

The cold water enters at the bottom of the inner container displacing the hot water which is drawn off from the top of the container through the flow tube or, in the case of pressure type, from the top outlet also. The entering cold water is prevented from mixing with the hot water by a baffle dome and all the hot water in the container can be drawn off before there is an appreciable fall in temperature.

When the hot water is drawn off and replaced by cold water, the difference in temperature causes the thermostat to switch on the electricity. When the water is hot again, the thermostat switches off the current and the hot water is stored for later use practically without cost.

Application

The 1½ and 3 gallon water heaters are intended for kitchen sinks and hand basins in cloakrooms, bedrooms, and surgeries and can be connected direct to the water mains.

The 5 and 7½ gallon water heaters are suitable for kitchens and cloakrooms with two or three sinks or hand-basins.

The 12 gallon Sadia provides sufficient hot water for a small household of three to four persons. It will supply the normal domestic requirements for washing up during the day and one small bath in the evening.

The 15 gallon Sadia supplies one large morning bath, normal domestic requirements during the day, and two more baths in the evening with an interval of two or three hours between.

The cistern type water heaters are particularly suitable for installation in flats as they do not require expansion pipes. The existing down service pipes to the cold water taps can be used for feeding the water heaters and no new pipes need be carried through the intervening floors.

Installation

Typical installation arrangements are shown in the illustrations.

1. This installation shows an arrangement for a free outlet water heater. The flow of water is regulated by a tap on the inlet; the outlet spout must never be closed or connected to a tap.

2. This installation shows a pressure type water heater supplying hot water to both kitchen and bathroom. A separate cold water pipe is provided from the storage tank and is fitted with a stop cock. A vent or expansion pipe leads from the highest point in the draw-off pipes to above the cold water tank. The Sadia is fixed near the sink tap where hot water is drawn most frequently.

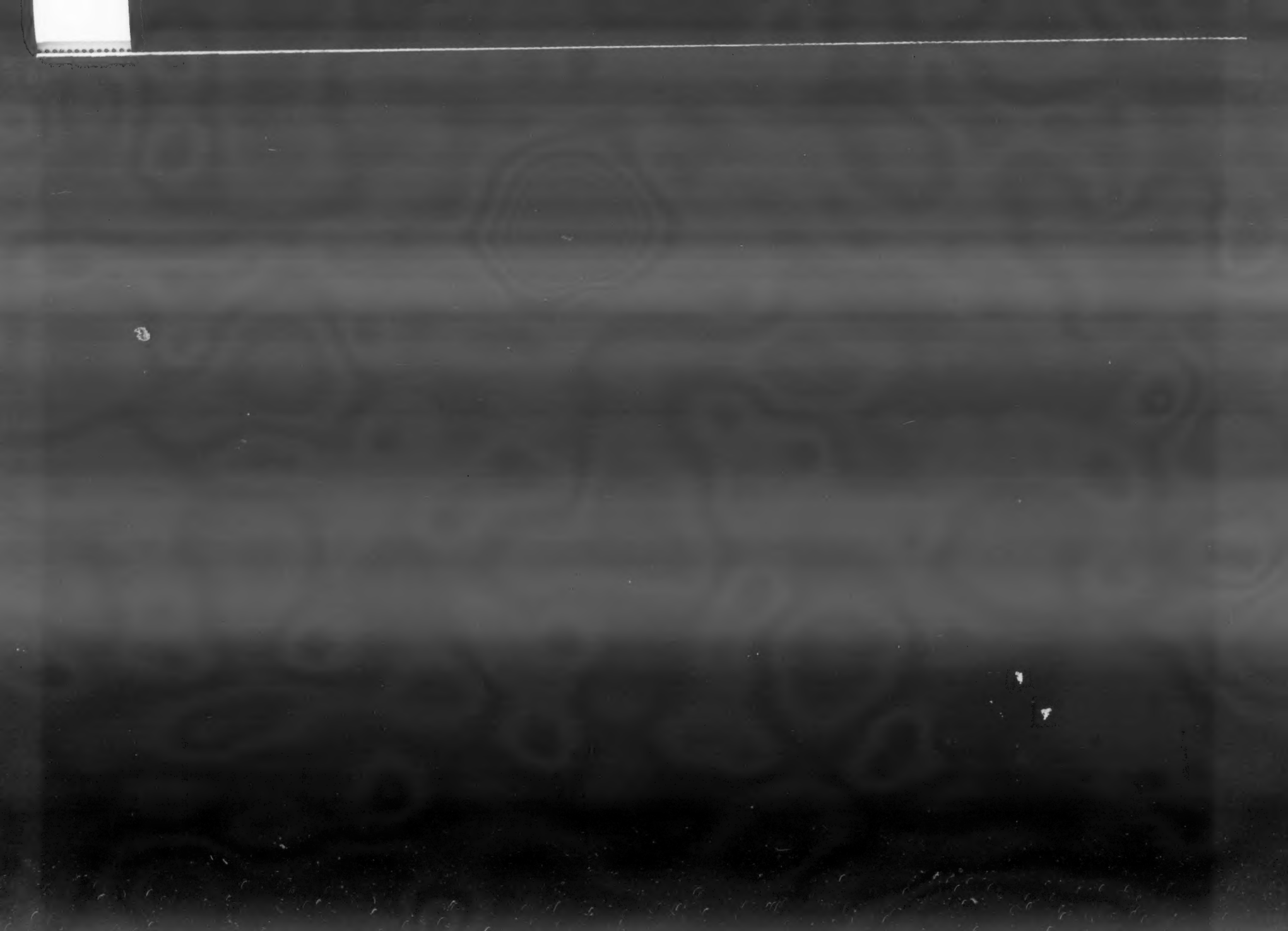
3. This installation shows a pressure type water heater working in conjunction with a solid fuel boiler, all the hot water passing through the Sadia. An additional vent or expansion pipe is fitted. No other system of working in conjunction is practicable nor is there any satisfactory way of utilising only one expansion pipe.

4. This installation shows the arrangement for a cistern type water heater. All hot water taps must be at a lower level than the water heater. It should, therefore, be fitted as high as possible, leaving about 6 in. between the top of the heater and the ceiling for access to the ball valve.

The methods of installation shown in the diagrams have proved to be reliable and safe and should be followed closely. In particular, the draw-off pipes must be run as dead legs and not as a circulating system. These water heaters cannot be used in place of a boiler for circulating hot water through towel rails or radiators or to maintain any form of circulation.

Compiled from information supplied by :

Aidas Electric, Ltd.
Address : Sadia Works, Rowdell Road, Northolt, Middlesex.
Telephone : Waxlow 1607
Telegrams : Aidaselect, Greenford, London.

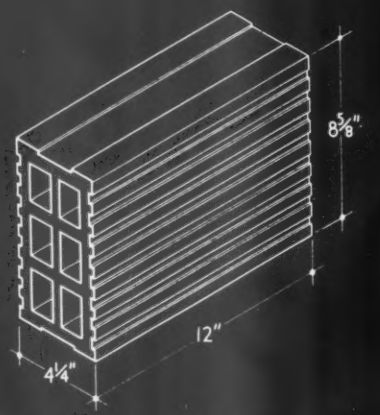


BUILDING BLOCKS | HOLLOW CLAY | GENERAL DATA

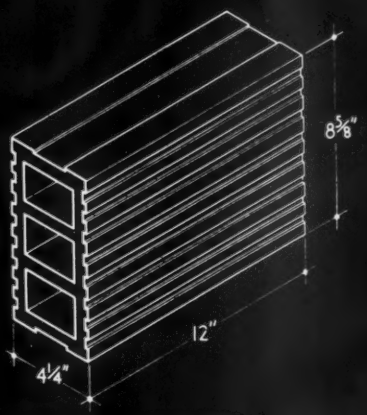
14.B1

The Architects' Journal Library of Information Sheets 346. Editor: Cotterell Butler, A.R.I.B.A.

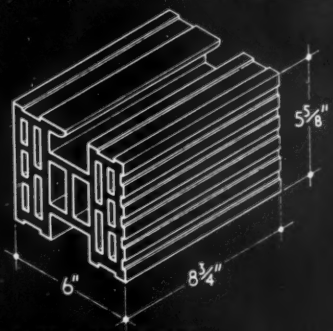
REVISED 10.1.52



standard six-cavity block

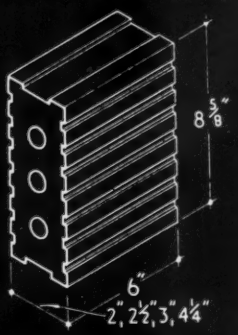


standard three-cavity block

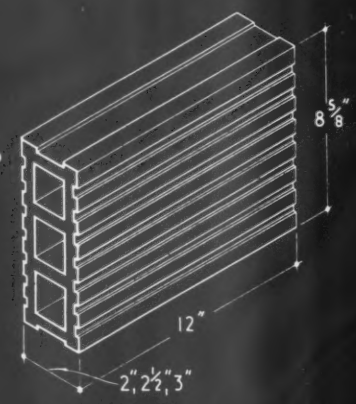


BUILDING BLOCK: RUG-FACE OR KEYED.

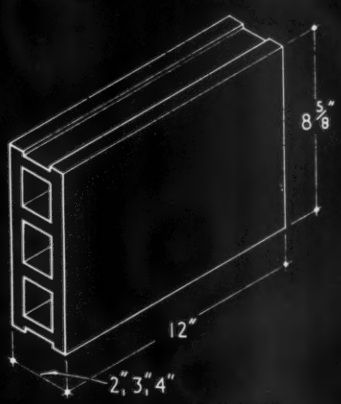
BUILDING BLOCKS: KEYED. (half blocks also available)



FIXING BLOCKS.

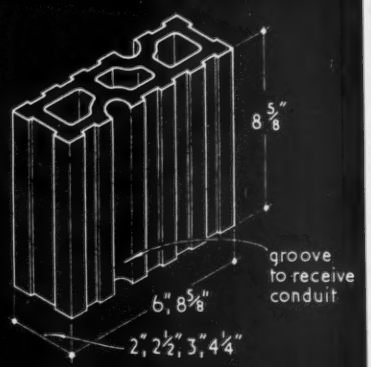


standard keyed block

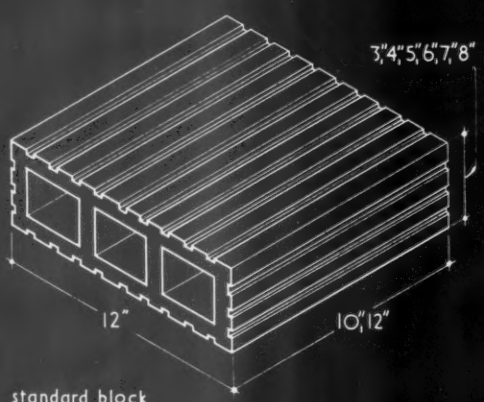


standard smooth-faced block

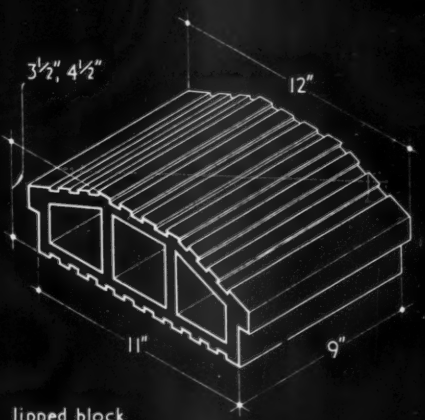
PARTITION BLOCKS: KEYED AND SMOOTH-FACED. (half blocks also available)



CONDUIT BLOCKS.

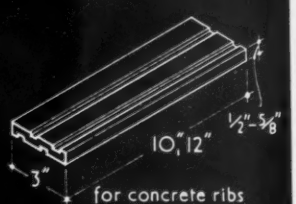


standard block

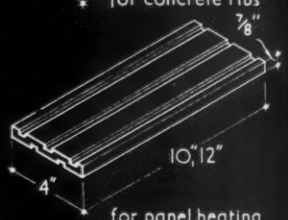


lipped block

FLOOR BLOCKS.



for concrete ribs



for panel heating

FILLER TILES. (supplied in blocks of ten)

PHORPRES· HOLLOW CLAY BLOCKS FOR WALLS, PARTITIONS AND FLOORS.

Manufacturer: London Brick Company Limited.

14.B1 'PHORPRES' HOLLOW CLAY BLOCKS FOR WALLS, PARTITIONS AND FLOORS

This Sheet supersedes Sheet 14.B1 published 10.3.49 and describes Phorpres hollow clay blocks for walls, partitions and floors.

Materials

Phorpres blocks are manufactured from gault (buff in colour) and also terra cotta (weald clay) which are high quality engineering clays.
The clays are extensively tempered and extruded into hollow blocks which are then entirely mechanically handled throughout a strictly controlled drying and burning process. The clays contain no lime or other injurious salts, and the burning process renders the material entirely inert, minimizing the occurrence of shrinkage or cracking in the finished plastered surface. The finished product is uniform in size and shape and free from excessive winding and bowing (see B.S. 1190:1944 for tolerances) ensuring minimum laying and plastering costs.

Sizes and Weights of Building and Partition Blocks

Type of block	Size	Wt. per sq. yd. of blocks*		Yards per ton	
		Gault	Terra cotta	Gault	Terra cotta
Partition blocks	12″ × 8½″ × 2″	88	92	26	24
	12″ × 8½″ × 2½″	94	101	24	22
	12″ × 8½″ × 3″	101	109	22	20
Building blocks	12″ × 8½″ × 4½″ (3-cavity)	134	142	17	16
	12″ × 8½″ × 4½″ (6-cavity)	148	168	15	13½
	8½″ × 5½″ × 6″	—	296 (24 blocks)	—	7½

* 12 blocks per sq. yd. except where otherwise stated.

Crushing Strength

Type of block		Crushing strength (lb. per sq. in.)
Loadbearing building blocks	4½″ (6-cavity) ..	600* (B.S. requires 500)
Non-loadbearing partition blocks	3″	500* (B.S. requires 250)
	2″	750* (B.S. requires 250)
Floor blocks (terra cotta)	10″ × 12″ × 4″ ..	3080 (B.S. requires 2500)

* Average crushing strengths of individual blocks (terra cotta and gault) tested on edge

Strength of Walls

For the purposes of test, wall panels 9 ft. high × 4 ft. 6 in. wide were built in 1:3 rapid hardening cement and the following results were obtained:—

Load tests on wall panels		
	2″ blocks	3″ blocks
Failing load—tons	44·1	65·0
Failing load per ft. run—tons	9·53	13·91
Failing stress—lb. per sq. in.	890	866
tons per sq. ft.	57·2	55·7
Failing stress in wall of blocks—lb. per sq. in. ..	1420	1890

Applications

Walls and partitions: Phorpres hollow clay partition blocks are adaptable building units for all types of partition work, internal linings to brickwork and party wall construction. They are manufactured to comply with the crushing strength tests laid down in B.S. 1190:1944 and can therefore take a full structural and loadbearing part in building construction. Their strength is combined with lightness in weight and high fire-resisting qualities.

The course height of 8⅝ in. enables the block to be bonded perfectly with 2⅝ in. brickwork.
Constructional floors: Phorpres hollow clay floor blocks are also manufactured to comply with B.S. 1190:1944 and the requirements of local authorities for the construction of structural floors and roofs.
Key for plaster: The bond or physical adhesion of a rendering or plaster is dependent upon the inherent porosity of the backing material, and in this respect Phorpres blocks possess a balanced absorption or suction value. This is further assisted by the mechanical keying provided by grooves of definite dovetail form. This mechanical key is of first importance in the early stages of drying and setting, when cracking may result from vibration, inevitable during construction. Such vibration without the support provided by mechanical keying may also interfere with, or even prevent, the development of the necessary physical adhesion.

Laying Instructions

The general practice is to lay Phorpres hollow blocks in 1:1:6 cement lime sand. This mix can, of course, be varied to suit particular conditions but too rich a mortar and thick joints should be avoided. Elasticity of joint is of great importance in all partition work and for this reason also partitions should not be pinned up too tightly under beams. The amount of water in the mix is reduced to a minimum owing to the texture of the material.

Thermal Transmittance "U" of Double-Skin Cavity Walling

4½ in. brick + 4½ in. block (unventilated)* = 0·17 to 0·20
4½ in. brick + 3 in. block (unventilated)* = 0·25
4½ in. block + 4½ in. block (unventilated)* = 0·17

* Plastered internally.

It should be noted that 11″ brickwork (unventilated) plastered internally has a "U" value of 0·30.

Conduit Partition Blocks

These blocks have been specially designed to eliminate chasing for electrical conduits in finished work and to bond in with main partition walls.
The groove in each block coincides with that of the blocks above and below it to form a continuous channel. In this way a conduit can be provided for on one or both sides of the partition.

Fixing Blocks

These are manufactured for use with the standard partition blocks, to be built in where fixings for skirtings, picture rails, etc. are known to be required.

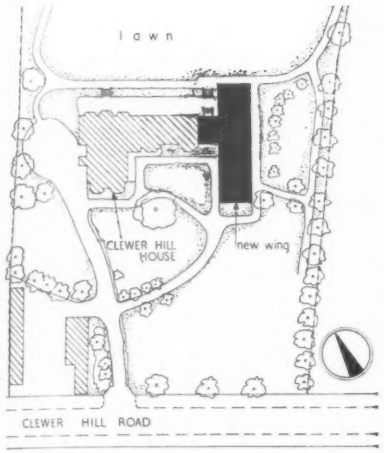
Patents

Conduit partition blocks: The manufacturers are the patentees of these blocks.

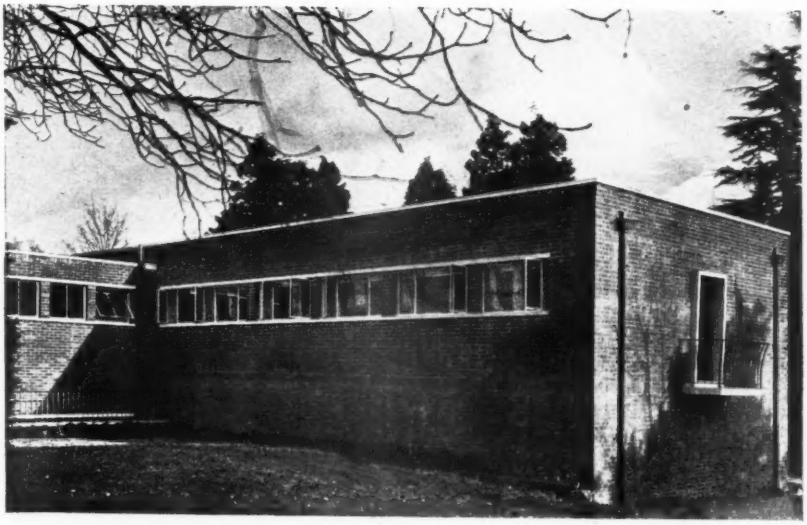
This Series of Sheets on bricks and brickwork covers general data on, and applications of, common, facing, cellular and keyed bricks, hollow walling, partition and floor blocks.

Compiled from information supplied by:

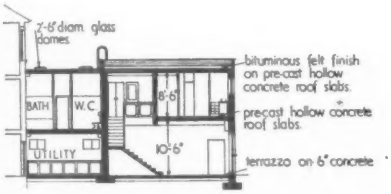
London Brick Company Limited.
Head Office: Africa House, Kingsway, London, W.C.2.
Telephone: Holborn 8282.
Telegrams: Phorpres, Westcent, London.
Midland District Office: Prudential Buildings, St. Philip's Place, Birmingham, 3.
Telephone: Colmore 4141.
South Western District Office: 11, Orchard Street, Bristol, 1.
Telephone: Bristol 23004-5.
Northern District Office: Gascoigne Street, Boar Lane, Leeds, 1.
Telephone: Leeds 20771.



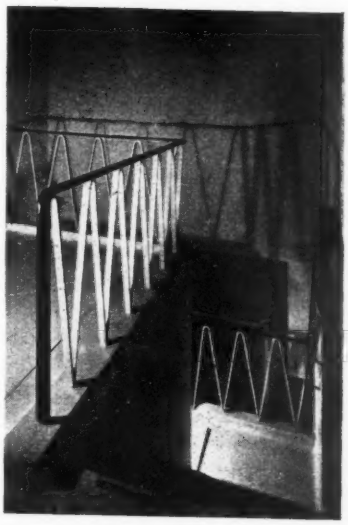
Site plan



Above, south and west facades. Below right, looking down staircase in new wing. Bottom, staircase from lower ground floor.

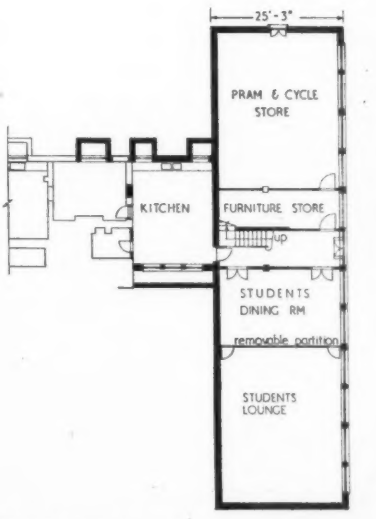


Cross section through new wing and link



CONSTRUCTION.—The new building has a reinforced concrete frame, with 13½-in. external brick walls and floors and roofs in a patent precast concrete system, with secondary beams and filler slabs. Internal walls are generally 9-in. and 4½-in. brickwork and internal partitions are 3-in. breeze.

FINISHES.—Facing bricks are Sussex multi-coloured sand faced bricks with flush, rubbed joints. Roofs have 3-ply bituminous felt built up on a foamed slag screed for insulation. Floors are screeded and finished with terrazzo or linoleum. Wrought iron railings to balconies and areas are painted grey, green and white. Walls of cubicles are distempered in different colours and in halls, corridors and the staircase the walls are light grey above a white terrazzo dado. There is a similar dado in the kitchen and walls are painted honey colour with a hard gloss paint. Walls of public rooms are distempered cinnamon colour. The floor of the lounge is of 2-in. oak strip, suitable for dancing and in halls, landing, staircase, bathrooms and lavatories the floor finish is white terrazzo. A special dressing table fitment is built in beside the lavatory basin in each cubicle and a desk and bookshelf is also provided.



Lower ground floor and ground floor plans
[Scale : 1/32" = 1' 0"]

Above, balcony at end of corridor on south facade.

SERVICES.—Central heating by radiators and hot water is provided by solid fuel boilers and background heating in the bedsitting rooms is by means of coils.

The contract price was £14,619, i.e., 4s. 2¼d. per ft. cube.

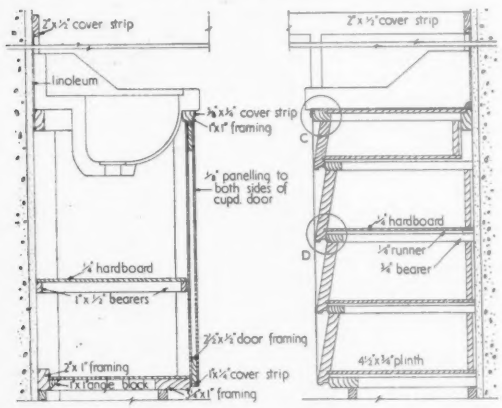
The general contractors were W. Varney, Ltd. For sub-contractors, see page 60.

Below right, corner table in a typical nurses' cubicle. Bottom, basin and dressing table fitment.

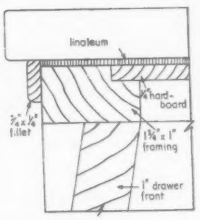
NURSES' HOME

in CLEWER HILL ROAD, WINDSOR, BERKS

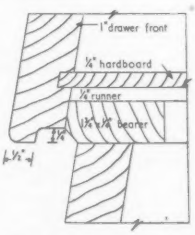
designed by HUGH ROBERTS and DAVIES



Sections A-A and B-B [Scale : ½" = 1'0"]

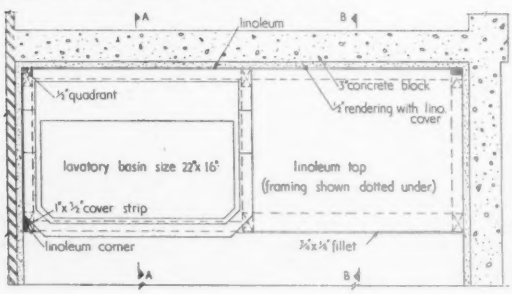


Detail at C



Detail at D

[Scale : 4" = 1' 0"]



Plan of basin and dressing table fitment

OLD PEOPLES' HOME

on the LANSBURY NEIGHBOURHOOD, POPLAR
designed by BOOTH and LEDEBOER
consulting engineers, ANDREWS, KENT and STONE

The home, which is part of the new Lansbury neighbourhood, was erected for the LCC Welfare Department to provide accommodation for 49 old persons of both sexes. The building is designed to avoid a suggestion of an institution by an intimate and domestic character, while at the same time it is regarded as important that the residents shall not feel segregated from the life of the neighbourhood. The site is at the junction of New North Street, which is to become a pedestrian way, and Grundy Street, the latter being the main east-west traffic route through the neighbourhood.

The south and west facades seen from Grundy Street.

The south facade with the main entrance on the left.

OLD PEOPLES' HOME

on the LANSBURY NEIGHBOURHOOD, POPLAR

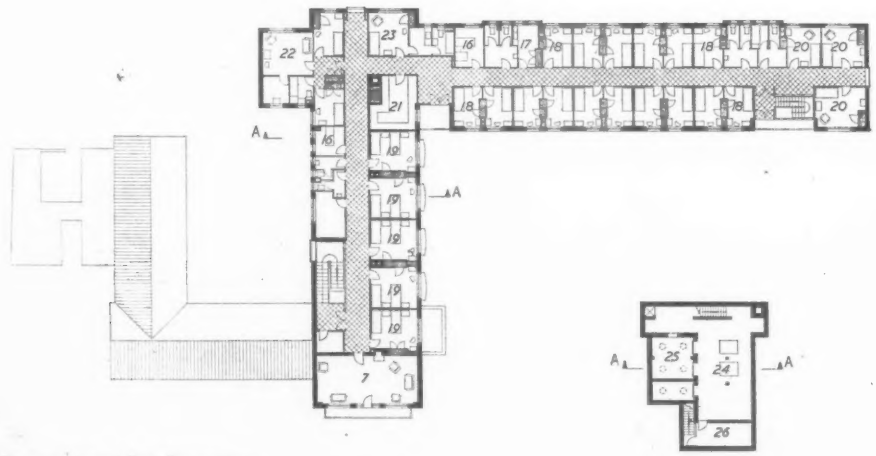
designed by BOOTH and LEDEBOER

SITE.—The site falls slightly from north to south and the length of the building necessitated some cutting away at the north end and building up at the south. Stepping of floor levels was not permissible because of the risk of accidents to wheel chairs. LCC proposals for street improvement provide for the replacement of the present junction by a small traffic roundabout. The main entrance is from Grundy Street and a service yard at the rear is accessible from Ricardo Street.

PLAN.—The accommodation consists of 33 single and 8 double rooms, and there are five sitting rooms of varying sizes, a dining hall, kitchen, flats for matron and deputy matron and accommodation for resident and non-resident staff. Living rooms are kept small to help to create the domestic

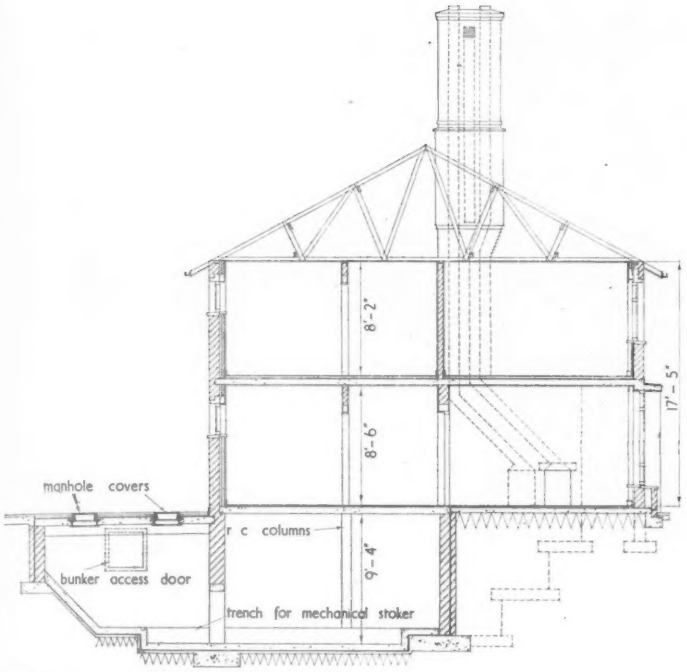
KEY

1. Gardener
2. Kitchen
3. Staff dining room
4. Dining hall
5. Staff sitting room
6. Canteen
7. Sitting room
8. Matron's office
9. Visitors
10. Ash store
11. Wheel chair store
12. Doctor
13. Sick bay
14. Linen store
15. Ironing room
16. Bathroom
17. Sluice room
18. Single bedroom
19. Double bedroom
20. Staff bedroom
21. Blanket store
22. Matron's flat
23. Deputy matron's flat
24. Boiler room
25. Fuel bunkers
26. Workshop

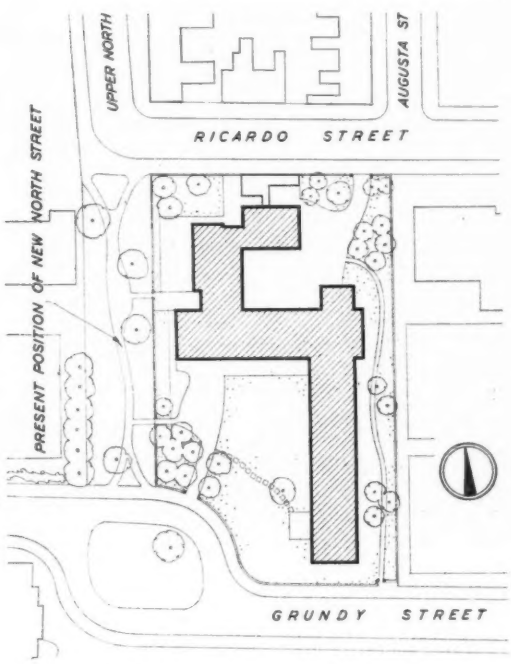


Basement and first floor plans

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



Section A-A (Scale: $\frac{1}{16}$" = 1'0")



Site plan

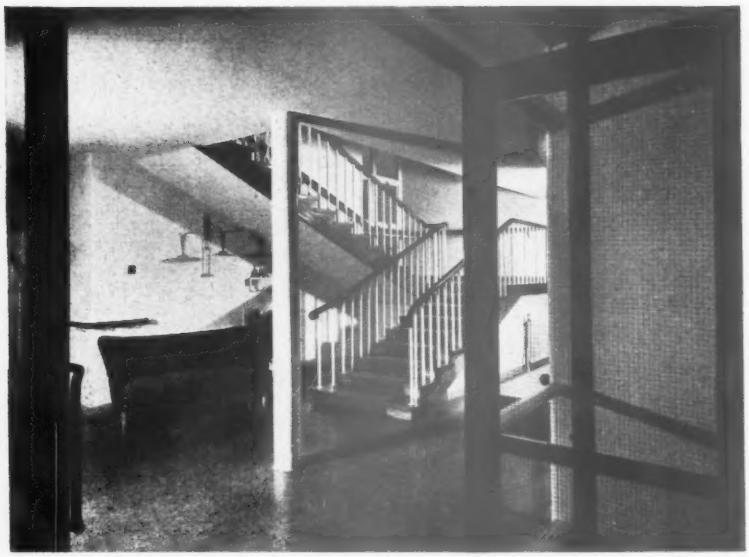
character of the home. In order to make the main staircase easy for old people, the treads are 12 in. and risers 5½ in. and handrails are provided on both sides of all corridors. Steps are omitted at changes of level at principal entrances and replaced by ramps.

CONSTRUCTION.—External walls of 9-in. load-bearing brickwork with 3 in. of hollow clay blocks as insulation separated from the brickwork by a 1½-in. cavity. There is a reinforced concrete first floor slab and a roof of light timber trusses with bolted connections.

FINISHES.—The building is faced with stock bricks and roofed with Penrhyn grey slates to meet the LCC recommendations, which were based on consideration of the traditional early 19th century housing in the locality. There are prominent chim-

ney stacks to relieve the horizontal lines of the building and as a feature which has associations with traditional almshouses. Sound insulation to first floor is by 1-in. glass silk quilt laid on the R.C. slab and 2-in. fine concrete screed; roof insulation is with similar quilt on first-floor ceiling joists. All windows are metal in wood frames. Floor finishes

Below, looking west from the lobby at the junction of the two main wings. Below left, one of the large sitting rooms which faces west.



Left, principal staircase looking through main entrance doors. Above, one of the small south-facing sitting rooms. Below, the secondary staircase at the south end of the bedroom wing. Below left, the entrance hall showing glazed doors to the loggia on the left and canteen servery on the right.

OLD PEOPLES' HOME

on the LANSBURY NEIGHBOURHOOD, POPLAR

designed by BOOTH and LEDEBOER

were chosen for their non-slip qualities : in corridors, cork ; lavatories and bathrooms, rubber ; dining hall and sitting rooms, wood block ; bedrooms, asphalt tiles ; staircase, carpetted. Walls are plastered with a flat finish, except sitting rooms, which are papered.

SERVICES.—Central heating with radiators in recesses under windows and pipes in trenches and ducts. The basement boiler room is equipped with two sectional boilers for heating and hot water, fed by automatic stokers below floor level and communicating direct to basement level bunkers, filled from the service yard. There is a hand-operated ash hoist from the boiler room to ash store opening on to the service yard. There are solid fuel fires in sitting rooms for domestic atmosphere.

The general contractors were C. Miskin & Sons, Ltd.

For sub-contractors, see page 60.

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QUESTIONS AND ANSWERS · CURRENT TECHNIQUE
THE INDUSTRY · PRICES · TECHNICAL ARTICLES

TECHNICAL SECTION

In the paper (summarized below) which he gave at the RIBA last month L. W. Elliott emphasized the part which architects in the USA play in increasing building efficiency. He recommended, as did H. J. Whitfield Lewis at the ABT's recent forum on productivity (see page 41), that the contractor's assistance should be obtained at the earliest possible stage.

THE INFLUENCE OF DESIGN ON PRODUCTIVITY

By L. W. Elliott

I was extremely fortunate in being able to visit the United States recently and was particularly interested in the extent to which the actual design of buildings affected productivity; I felt that however much efficiency one had on the constructional side, the largest single factor contributing to efficiency was design. The average American architect is imbued with the highly competitive spirit of the country, and he knows that he is a member of a team charged with producing an efficient building.

Apart from the architect there is another factor influencing productivity in the States, and that is the operative. As one architect put it to me, "Labour is expensive, partly because of high wages and also because it is a variable factor, so that the aim is to use as little as possible and to use it efficiently. It is much more reliable to use a machine, and, if labour is used, to make it as foolproof as possible. The use of bricklayers on straight runs, plasterers on clear areas and carpenters on repetitive work is essential for speed."

Every project I saw was extremely well thought out constructionally, and one was never aware of any complicated detailing which was likely to delay progress. Trades were never intermingled—each man could start on his job knowing that he would have uninterrupted progress, which as we all know is not the case in this country. This principle, however, is the key to speedy building—one cannot hope to organize a building job using differing methods and materials to any great extent, because that does not permit labour or plant to be used efficiently.

EARLY CONSULTATION WITH CONTRACTOR

One great advantage in America was that on the majority of important projects the contractor was consulted at the beginning, and, in fact, became a member of the team responsible for the execution of the building. I often came across cases where the architects had designed a system of construction which was not in any sense orthodox. In some cases these jobs were sent out to limited tender, and invariably prices were far too high in the architects' estimation. It was only when a contractor was approached directly, and the whole scheme was explained to him and advantages or savings in construction time were argued out, that the job went on at all; and in most cases costs were much lower than when tenders were called for. The majority of jobs where this occurred consisted of those where new systems of cladding, or—for example—the use of welding, was called for. In some congested sites, such as New York, it was absolutely essential that the contractor be appointed at the commencement of the design, because it was due to his foresight and knowledge that the whole sequence of operations was planned so that obstruction of traffic or storage of materials on the site was minimized. I am afraid that in this country we are never going to build quickly unless we overcome this problem of joining up with the contractor at the sketch plan stage of the job. It is all very well that an architect sets out an interesting system if it is eventually described in the bill of quantities in a quantitative way. Such items in a bill of quantities, as "so many yards of concrete floor" or "so many feet super of brickwork," are not always related to the actual way in which the items are to be built, and the contractor cannot tell very often whether he can use plant or some movable system of formwork.

If it is difficult for contractors to be consulted in this country, then we must try to find a way to make them realize how the job can be organized. This might be done by the architect and quantity surveyor in the following way:—

The architect can prepare diagrammatic erection drawings, apart from the normal contract drawings. This has to be done on many occasions, especially where prefabricated or standardized systems of construction are used. This will enable the architect to plan the construction and to see that sections of the work can be carried through without too many trades being dependent on one another. Perhaps these erection drawings ought to be made at sketch plan stage, as this will enable working drawings to be done with the erection problem always in mind. These erection drawings should be sent to the contractor at the tendering stage, together with enough working drawings and a full descriptive specification to enable him to price the job, bearing in mind the methods of erection. Each contractor should then be required to submit with his price a report on the actual way he proposes to carry out the work. This would give the contractor a much greater chance to use his ingenuity and also to plan the operations more precisely.

THE ROLE OF THE QUANTITY SURVEYOR

The quantity surveyor should also be consulted on matters more directly concerned with the economy of building. It is my view that the present bill of quantities should be modified, especially since there is now a greater tendency to use specialist sub-contractors. The actual P.C.'s and provisional sums now seem to be about half the value of the job and are usually dealt with by the architect, so that the quantity surveyor is only responsible for the work actually carried out by labour on the site and measured in accordance with the standard method of measurement. The contractor merely translates these measurements into costs in a fairly uniform way by an estimator on his staff. This estimator is not directly concerned with possible methods of building, but is only familiar with current prices of materials, wages and the contractor's overheads and profit. The American method relies on the contractor taking off his own quantities from drawings and specifications, and has much to commend it, because the contractor's skill, knowledge and organizing ability are brought fully into play.

I should not like to see the bill of quantities disappear in this country, but it can be made a more realistic document and the quantity surveyor should be used much more and consulted on methods and costs of carrying out the work. As a vast amount of work today is concentrated in the hands of local authorities and is concerned with housing and schools, it should be possible to appoint contractors for programmes of construction to enable work to be planned over a period of several years and to build up balanced labour teams, provide adequate plant facilities and to progress the supply of materials and components. Much delay is being caused

by specialist sub-contractors not having their orders placed until the main contract is signed, and one is constantly seeing a job started and then held up for windows or steelwork.

It is also becoming important to use alternative methods of construction even if the cost appears higher than traditional work, because the longer a job takes the more prices are increased, especially now that the trend is for the cost of both labour and materials to rise constantly. Perhaps still greater specialization is the answer, so that the contractor is left free to progress the job and supervize the sub-contractors. A sub-contractor carrying out excavation work only would have adequate plant and be interested in carrying out this work quickly, as he would not be able to use his men on the work in any other sphere. Again, a firm carrying out reinforced concrete work would be in a better position to obtain uniformity in workmanship and to use the best and most efficient plant, including ready-mixed concrete.

THE INFLUENCE OF AMERICAN EDUCATIONAL METHODS

In the course of my investigations I examined the educational system of American architects, and visited a wide range of schools and talked with the students and teaching staff.

I felt, on the whole, that the training of an architect in America is rather better than in this country. The student seems, from his earliest studies, to be taught how to build efficiently. In many cases, courses in structural engineering and construction are taken in those departments by the architectural student, and valuable experience is gained by this. Case studies are made on specific subjects, such as the relationship between cost and height, the amounts of steel required for various column grids, the effect of structure on elevations, the effect on economy of stiff joints or pin joints and the costs of various systems of construction. This sort of study is, to my mind, a basic necessity, but I should think that very few schools can undertake this work, partly because there is no text-book on the subject of the economics of structure, and also because the work involved is enormous. At Harvard this basic research is usually undertaken as a preliminary to the design of a major project, and students work in teams and collaborate with other departments to gain specialized assistance.

MAXIMUM FLOOR AREA FOR MINIMUM EXTERNAL WALLING

The shape and size of a building unit has an important bearing on economy—not only on constructional costs, but also on operating and maintenance costs. Generally speaking, the smaller the unit the more costly it is. For example, the detached house is more costly than the terraced house for the same amount of cubic content. In the case of schools, the immediate post-war type consisting of loosely connected class-rooms cannot be built very easily within the limits of cost allowed, and schools are now being built with the circulation space cut to the minimum within a tight plan.

It is all a question of maximum enclosure for the minimum of external walling. This would normally mean less area available for windows and natural ventilation, but there are many ways by which this problem can be overcome; for instance, by roof lights and mechanical services.

In the United States the impact of mechanical services has had a tremendous effect on planning. Buildings are mechanically equipped to a much higher degree than here, and the proportion of building costs devoted to services is so high that investigations have been made to see whether savings can be made in the structure. In the case of elevators, complete reliance is placed on them, and only an insignificant fire escape staircase is normally provided in offices and blocks of flats. Such a staircase does not affect the structure in any way as it is not an integral part of the framework but is normally a standard pressed metal self - supporting staircase, passing through a void in the slab.

The high standard of American heating has resulted in savings in planning, especially in the field of housing. The open plan with its saving of corridors, entrance halls and circulation space can only be realized with an even temperature throughout the house or apartment. It saves up to 20 per cent. of the plan area. Although by our standards the average American house is small the effect is not noticeable.

The latest office buildings are usually mechanically ventilated and, since the services are so complex and have to be accessible, suspended ceilings are usually used. Lighting is usually recessed into this, together with plumbing, heating and ventilation equipment, so that the thickness between the ceiling and structural floor is used to the full.

There has recently been much development in America to free tall buildings from the restriction of the external frame. The latest development appears to be to free the outer wall structure entirely from the main structure, so that the building consists of an inner core of structural columns and beams with the external column grid broken down to provide a structure which will make the external wall self-supporting in a completely standardized way. This development has meant that standardized spandrils and windows made either of aluminium or stainless steel can be used. They can be made in a factory or otherwise off the site, and the use of brickwork or other *in situ* materials is avoided completely.

STANDARDIZATION AND ECONOMY

As I mentioned earlier, the American architect designs his buildings so as to use as little site labour as possible. He achieves this not only by using dry methods of construction but also by not caring about the amount of material used in the job. For example, in the case of reinforced concrete, buildings are often erected up to 15 storeys in height and not one single variation is made in the column sizes the whole way up the building. In other words, the maximum loads which occur at ground floor level are used to determine the economic section of the concrete. This section is then carried the full height of the building and only the reinforcement is varied, although additional variation is provided by adjusting the concrete mixes so as to have a strong mix at the bottom and a weaker mix at the top.

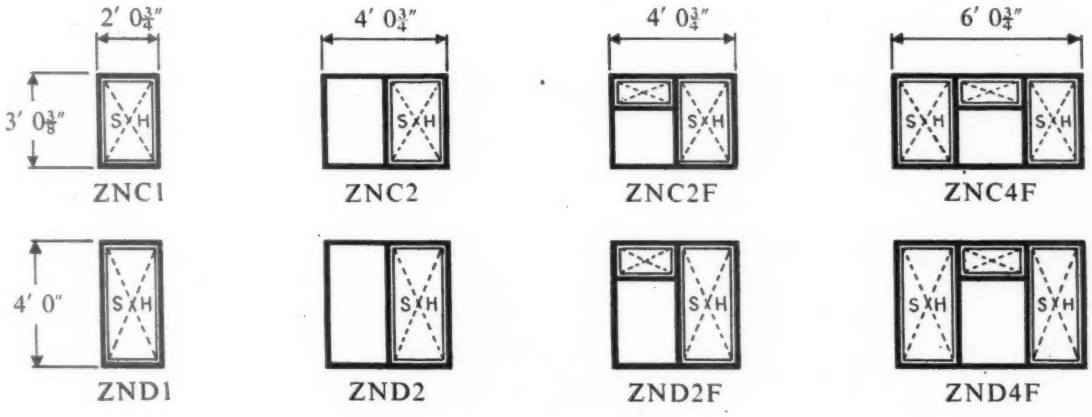
Furthermore, all beams are standardized from floor to floor in the same way. This seems to me a logical thing to do, as the saving in form work is enormous. It also enables the shuttering to be made off the site, and since it is completely standardized many uses can be made of it. Once a piece of shuttering is designed for a great number of uses then it is possible to obtain absolutely smooth formwork. This has been exploited to cut down plastering as much as possible.

This question of standardizing the sizes of members and simplifying the shuttering has led to the widespread adoption of beamless floors (flat slabs), and I saw many buildings where the floor slab, although probably over-thick in some parts, was designed to resist the maximum moments around the column heads. The thickness generally averaged about 10 in. An occasional refinement was the reduction of the weight of this concrete membrane where bending moments were small by the insertion of clay tiles, but this does not invalidate the general principle of creating a flush ceiling over the whole of the job. This has meant that the heights of partitions can be completely standardized and determined by the module sizes now prominent in the American building industry.

Where it was necessary to provide floor beams, these are usually designed as a thickening of various areas of floor. For example, the width of a beam might extend over the whole of a corridor.

This waste of actual material, whilst resulting in a saving of time, might not be thought very highly of in this country, where materials are scarce. Labour, of course, is cheaper here, and the cost of materials tends to outweigh the cost of labour; but, on the other hand, we are short of building workers, so really we have the same problem in a different way.

HOPE'S 'Z' STANDARD WINDOWS



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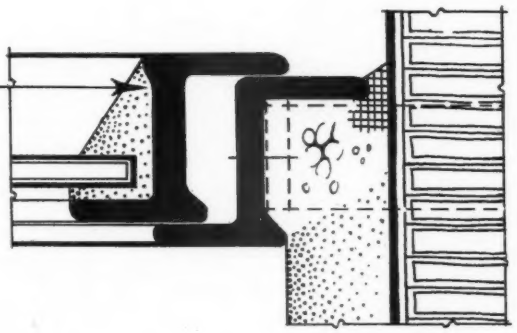

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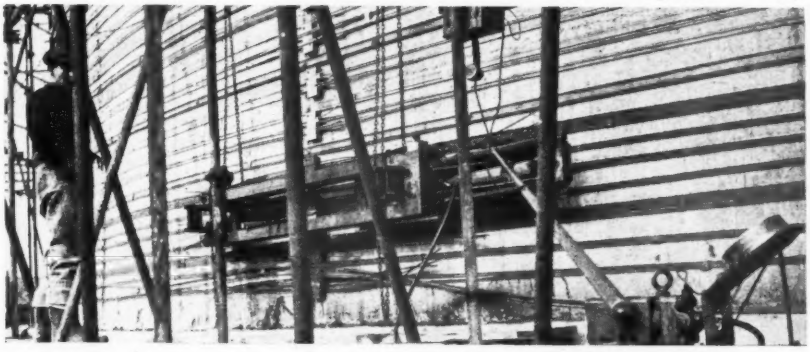
It is becoming increasingly clear that the applications of prestressing are very wide indeed. We are publishing, therefore, as a supplement to the three articles on prestressed concrete which appeared in the JOURNAL *last October, the following article describing a novel use of this technique—for tanks.*



PRESTRESSED CONCRETE TANKS AT HARTLEPOOL AND CRAWLEY

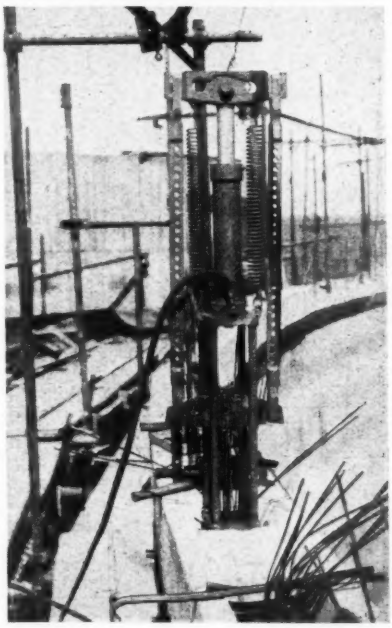
Five tanks at the Pallister Works (Hartlepool) of the British Periclase Company for the Ministry of Supply, two of them with a capacity of two million gallons each, are claimed to be the first ever to be constructed in this country in prestressed concrete. The Magnel-Blaton system of prestressing was employed. The two largest tanks, each have a diameter of 106 ft. and a depth of 41 ft.

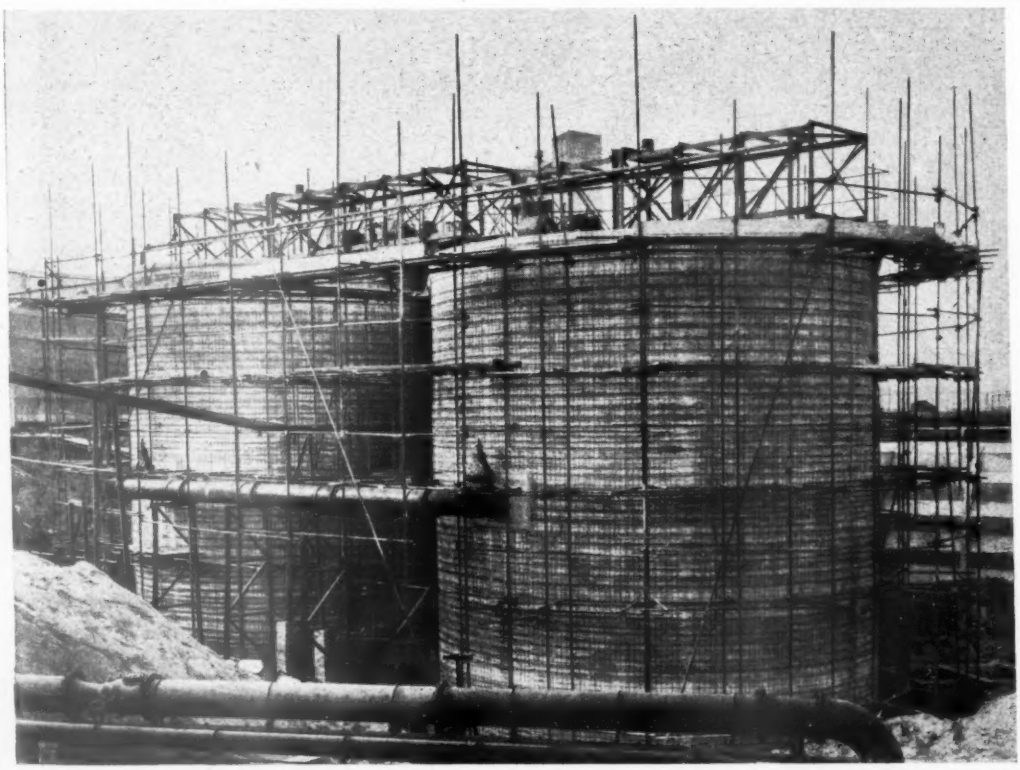
Because these were the first prestressed concrete tanks to be built in this country it was, at the time, considered desirable to make the tank walls thicker than actually required from considerations of working stresses in the concrete, in order to permit the concrete to be easily and properly placed and compacted. Thus the stresses in these tank walls are much lower than are generally used in prestressed concrete design.

The walls of the tanks are prestressed both horizontally and vertically to such a degree that under all conditions of loading not only can no tensile stresses occur in the concrete but, on the contrary, there always remains a compressive stress at all points. The sequence of prestressing was to tension first the vertical cables and then the horizontal ones.

When the horizontal cables had been tensioned a light steel reinforcing mesh was fixed to them and a one-inch thick coat of mortar was applied pneumatically over the whole outer surface of the tank walls as a protective covering to the high tensile wires and their anchorages. This mortar also serves to bond the wires to the prestressed shell.

The vertical prestressing was carried out with ordinary Magnel-Blaton cables, consisting of sixteen 0·20-in. diameter wires, which were located at mid-thickness of the walls. These cables were placed in position prior to concreting and the lower anchorage was then cast in with the first lift of the wall. From 1 ft. 6 in. above the lower anchorage the cables are in a formed duct which was made by a tubular former through which the cables passed. After each lift of concrete had been completed the former was withdrawn and raised to the correct position for the succeeding lift—thus the cables are in a continuous duct. After the cables had been tensioned colloidal grout was pumped in to fill the space surrounding the wires, the pump being powerful enough to force the grout the full height of the tank wall.





Left, two of the tanks at Hartlepool; prestressing completed, reinforcing mesh fixed to the horizontal cables and ready for the protective coat of mortar. Top, tensioning the horizontal cables. (Note the field telephone, by which the men communicated with those operating the jack on the opposite side of the tank.) Above, tensioning the vertical cables with a standard Magnel-Blaton jack.

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Because of the number of large pipes which pass into the storage tanks at floor level it was decided to design the base and the bottom 6 ft. height of the wall in ordinary reinforced concrete. At the top of the stub wall, which is 3 ft. thick, a 4-in. deep groove was formed. In this groove the prestressed concrete shell rests. The lower surface of the groove was steel trowel finished and then given a coat of hot bitumen, thus forming a sliding joint between the prestressed wall and the stub wall.

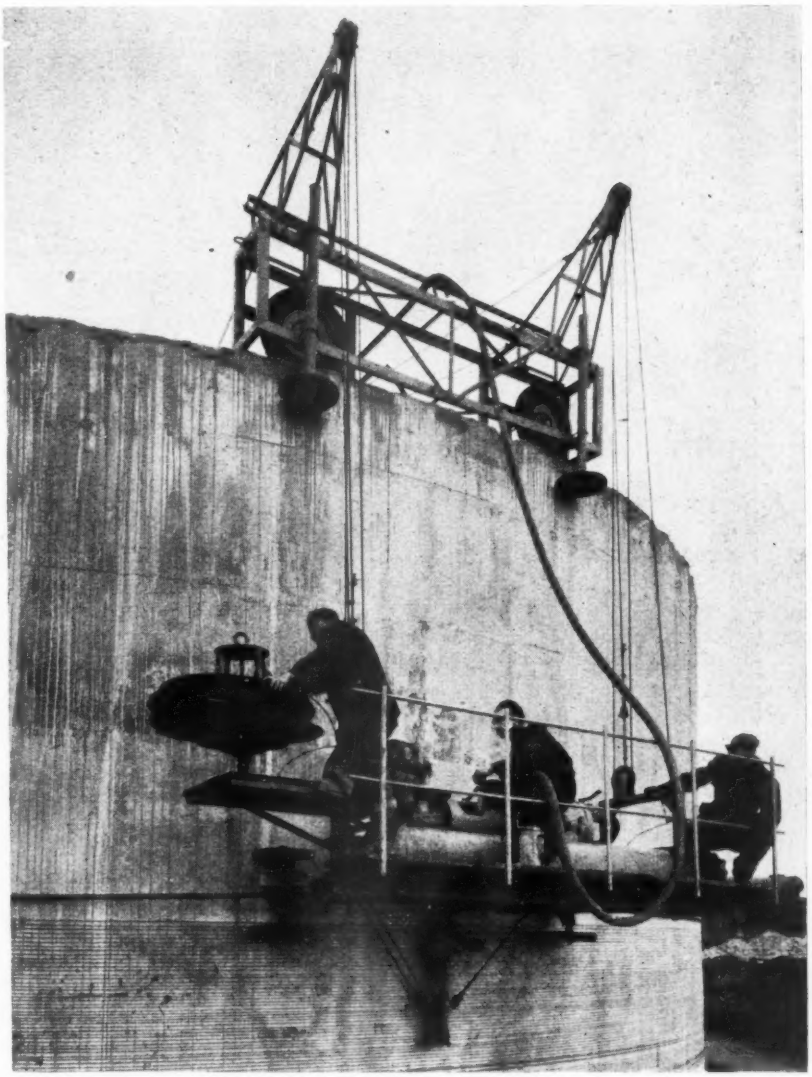
The prestressed shell tapers in thickness from 11½ in. at the bottom to 6 in. at its junction with the top rim. The taper is provided in a series of steps on the inside surface—the outer surface being flush and vertical throughout. The inner surface of the prestressed concrete in all the tanks constructed is without protective coating of any kind, and is in direct contact with the contents of the tank.

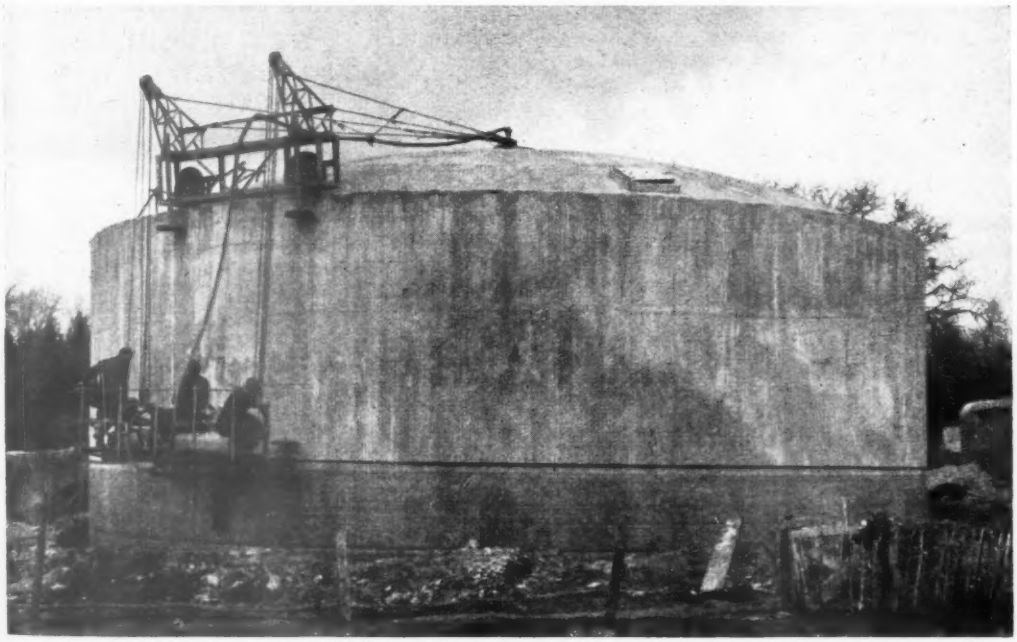
Tensioning was carried out by the Magnel-Blaton tank jack, which straddles the sandwich plate and simultaneously pulls two wires from each direction around the tank. When the calculated extension had been induced in the wires the wedges were placed and they were secured in the grooves of the sandwich plate. The number of tensioning points in the full circle to give the most economical result depends upon the relative cost of labour, high tensile wire and anchorages. Only near the bottom of the large tanks was four-point tensioning employed; in all other cases the wires were tensioned at two points, 180 degrees apart.

The concrete mix specified was a nominal 1 : 1½ : 3, with a water-cement ratio of 0·45. Shutter vibrators were employed to compact the concrete in the prestressed walls, immersion vibrators being used for the reinforced concrete stub walls and bases.

Normal Portland cement was used, and throughout the contract the average 28-day test cube strength was approximately 6,500 lb. per sq. in. The prestressed shells were cast in lifts of 4 ft. Each lift being cast full circle in a continuous operation and completed before the succeeding lift was commenced.

At Crawley New Town, a prestressed concrete reservoir was completed recently as part of a scheme for water supplies to the town. This reservoir, which is the first constructed in this country on the "Preload" system was built by Preload (Great Britain)





Prestressed concrete reservoir at Crawley New Town. Left, the circumferential stressing being carried out by the self-propelled "merry-go-round". Above, close-up of the "merry-go-round".

Limited to the instructions of the Chief Engineer to the Crawley Development Corporation (A. J. W. McIntosh, B.SC., M.I.C.E.). It has a capacity of 250,000 gallons.

The reservoir is a cylindrical structure of 50-ft. diameter, with a wall height of 21 ft. and a domed roof rising 6 ft. 3 in. The wall has been prestressed circumferentially and vertically so that under all conditions of loading there is a residual compressive stress in the concrete.

The circumferential method of prestressing is one developed by the Preload Corporation of America and consists of continuously wrapping high tensile steel wire round the wall under a high tension.

Wall, floor and roof were all concreted in pneumatic mortar applied with a cement gun. The mortar used was a machine-made mixture of dry sand and cement which was carried in suspension in a stream of compressed air through a flexible hose to a nozzle approximately at the point of deposit. The amount of water injected was such that the surface of the material when placed had a rich smooth appearance. Where the placing was on vertical surfaces the amount of water used was adjusted so that the material adhered to a thickness of approximately ¼ in. without support.

The tank floor consists of 2 in. of monolithic pneumatic mortar, reinforced with standard wire mesh and laid on a rough 3-in. base of 1:8 concrete.

There is no expansion joint between the floor and wall—the two are rigidly tied together by ½-in. dowel bars at 12-in. centres—but to minimize differential shrinkage between them, the floor was kept continuously moist until the wall was complete.

The wall consists of a 4-in. pneumatic mortar core, of approximately 1:3½ cement and sand, with a ¼-in. thick pneumatic mortar layer added outside to give cover to the circumferential prestressing wires.

Formwork, which was used only to the outer face of the wall, extended for the full length and height. The mortar was placed from the inside so that the outside surface had a smooth finish which facilitated the placing of the circumferential prestressing wires.

The wire used for all the prestressing was 0·2 in. diameter high tensile steel. For the vertical prestressing the wires were grouped in units of four and placed into keys preformed in the concrete—keys which extended the full wall height and occurred at 2-ft. intervals on the outer face. When the concrete had reached a sufficient strength and the wires had been tensioned the keys were filled with pneumatic mortar which gives the wires protection and bonds them finally to the structure. The hydraulic jack used for the vertical stressing was of a pattern developed by the Ministry of Works.

After vertically prestressing the wall, the formwork for the dome was erected and the dome itself cast. This consists of a 2-in. layer of pneumatic mortar of the same mix as that used for the wall; in this case reinforced with normal wire mesh.

After casting the dome, the circumferential stressing of the wall was carried out. It was done by a self-propelled machine, known as a "merry-go-round," which wound the wire round the wall in a continuous operation, at the same time accurately stressing it within specified limits and spacing it correctly.

The "merry-go-round" consists of a cradle, slung from a trolley which runs round and round the tank on the top edge of the wall. A motor, mounted on the cradle, picks up a continuous chain which encircles the tank and propels the cradle along. The prestressing wire which is fed from a coil on the cradle itself, passes through a specially hardened steel die which pays it out at a pre-determined tension. As the "merry-go-round" circulated round the tank it was gradually raised by the supporting trolley so that the wire formed a continuous helix on the surface of the concrete. At the top of the wall 17 circumferential wires were placed close together in a 10 in. deep ring to provide an inward thrust at the base of the dome.

Winding commenced from the bottom. After attaching the end of the wire firmly to the wall with a special anchorage, the winding proceeded steadily upwards. In case the wire should break during the winding process, it was attached at set intervals to the tank wall by special anchorages. In this way breakage of the wire would not involve rewinding the whole tank, but only a small portion of it.

When stressing was complete, the dome formwork was stripped and the cover coat applied to the outer face of the wall. All exposed surfaces were treated with cement paint. No special finish was required on the inside.

This week the Information Centre commences with a long review, by the JOURNAL'S *retiring guest editor — Frank Russon — of the NFBTE'S book on costing. In this Mr. Russon describes some American methods of contracting which we might do well to copy in this country.*

INFORMATION CENTRE

8.29 surveying and specification

COSTING

Accounting and Costing Systems for Small and Medium-sized Builders. Prepared by NFBTE, foreword by Stephen Hudson. ("The Builder" Ltd., 1951, 5s.)

The NFBTE is to be congratulated on introducing to the building trade this small and compact yet complete guide to accounting and costing systems.

In part I is set out a simple system of book-keeping which should be a great help to small builders with little, if any, knowledge of costing or keep-keeping.

However, with regard to the Accounts Rendered Day Book (Sales), one improvement would be to take carbon or typed copies of the sales invoices and file them in a separate "Sales" file; one extra book would thereby be eliminated.

Paragraph 148 deals with Purchase Orders, but no specimen is given. This is a pity, as there is some disagreement amongst builders as to how purchase orders should be issued and what clauses they should contain—this applies especially to orders placed with nominated suppliers or sub-contractors.

Paragraph 149 refers to the Weekly Goods Received Sheet. A firm would have to be very small indeed to have a weekly sheet; most contracts require at least one sheet daily.

Pages 45 to 48 deal with principles of costing and touch on some aspects of management. It is suggested in one paragraph that a builder, having ascertained from his costs that a trade is not profitable, should place this type of work with a specialist sub-contractor. Many builders would not agree with this suggestion, but the modern tendency is towards greater specialization.

In America and Canada specialist firms are more widely used than in Great Britain; so much so, in fact, that specialist firms are even employed to fix ironmongery, supply transit-mixed concrete, fix and remove concrete formwork, etc., and sub-contracting bricklayers do not necessarily point the bricks which they have laid, for often a specialist "brick-pointer" is engaged for this work.

Another important factor in America is that most builders do not purchase capital equipment, such as excavators, concrete mixers, concrete formwork, compressors, cranes, scaffolding and other machinery for building work. Most of these items can be hired from specialist firms. In consequence, there is no large purchase of plant in an American builder's annual balance sheet, and most builders in this country would find that hiring plant on the lines suggested might make it easier to finance their work, especially in these days of restricted credit.

In chapter III, entitled "Estimating and Pricing the Bills of Quantities," it is suggested that the bill of quantities should first be examined "in order to see that the work to be done is set out without ambiguity, etc. . . ." There are many pitfalls in this suggestion, good as it undoubtedly is, for, unfortunately, the quantity surveyor's quantities are often far from ideal. Frequently they are not prepared in accordance with the "Standard Method of Measurement." One often finds a clause in the preliminaries which says that the quantities have been prepared in accordance with the S.M.M., but "should a difference of opinion arise at a later date, the quantities, as prepared, shall prevail;" a clause, which, in effect, cancels out the S.M.M.

There are many more snags, such as omnibus clauses in the preliminaries of all trades, attendances on specialist sub-contractors inadequately described or measured, and a host of similar pitfalls for the unwary builder. Bills of quantities have improved considerably since the introduction of the S.M.M. nearly 30 years ago, but the RICS could assist the building industry tremendously by suggesting greater standardization of preliminary and other clauses, free from ambiguity, to its members.

In chapter IV, which deals with the compiling of bills of quantities and schedules, there are some excellent suggestions, but builders do not have sufficient staff to prepare their schedules in such detail as is suggested, in the time allotted by architects for the submission of tenders.

Builders are generally allowed about a fortnight to submit tenders and to obtain prices from specialists. Often prices of materials can be obtained only two or three days before the tender is due, and there is seldom more than one estimator in a small- or medium-sized builder's office (although the numerous mathematical calculations are usually done by other members of the builder's staff).

However, if builders would use the model form (No. 13) as soon as their tenders are accepted (or, at the latest, before the job starts), they would have much better control over labour, materials and plant costs.

A simple suggestion, which I have advocated before, especially for costing and incentive payments, is to have at least three pricing columns in each bill of quantities (four is even better), and to price out nett labour, materials, specialists and sub-contractors' prices and mechanical equipment separately. This method could help firms to produce really competitive tenders and to ascertain easily the "man weeks" required for each trade for the whole contract. Its use for any length of time could bring about much more exact tendering. The percentage for overheads and profits could be added to the summary page, and the builder with lowest overhead costs and

rate of profit would, in most cases, submit the most favourable tender.

Although the question of bonusing is mentioned, no book on builders' costing is complete without a detailed chapter on this subject. Without incentives there can be no proper control of labour costs, but the book does not bring this out clearly enough.

Chapter 7, deals with materials and is interesting. An "Excess Quantities Requisition Form" is illustrated. Builders are, doubtless, awaiting the time when contracts can be carried out in accordance with the original bills, so that the materials can be taken off before the work is commenced and quantities properly controlled. The use of a "Shortages Requisition Form" is mentioned, and builders must learn that wasting materials is as important as wasting labour. Now that incentives schemes are working reasonably well, builders tend to control their materials less efficiently than their labour.

Accounting for non-mechanical plant is glossed over in five short paragraphs (200 to 204). If steel scaffolding is included (and it should be) the value of non-mechanical plant may approach that of mechanical plant. Far more should have been said about this difficult subject. I cannot agree with the suggestions made for charging a weekly rate for an item such as a ladder; the pricing of non-mechanical plant, apart from steel scaffolding, is a complete waste of time; it does not eliminate wastage and can only result in making a profit out of oneself. All that is necessary is to keep a detailed quantity record of every item of plant going to each contract, and accounting for its return in due course.

The joinery job costs system is summarily dealt with in nine short paragraphs (220-228) and a model form (No. 33). This subject is not dealt with in sufficient detail; it should have included a specimen Mill and Joinery Sheet, and further details.

The Contract Cost Ledger (page 123) is good, but it could do with further columns recording running totals of expenditure and the amount of accounts rendered, in addition to cash received. With regard to the heading of Site Overheads, it would be very difficult to arrive at an accurate total, in practice, as it would mean analysing all wages paid on the site, and increased overhead costs.

Chapter 8, which deals with plant and transport, is interesting, but it is doubtful whether it is either necessary or essential to keep detailed costs of the running of each item of plant. Who would want to know that one concrete mixer had cost a little more in repairs than another? Surely all that is necessary is to keep records of the total cost of the repairs to each group of plant?

This is an excellent book—the best on the subject that has yet been written and one which the industry has been needing for many years. The majority of model forms in it deserve studying, and will be useful to every builder and his staff. The book contains a wealth of good advice, and will encourage students, especially those studying for the Institute of Builders and similar examinations. It may also be of some assistance to those architects who do not have up-to-date costing and book-keeping systems.

FRANK RUSSON

●

12.55 materials: metal

COPPER ROOFING

Copper Coverings for Roofs. BS, C of P 143.104 (1951). (British Standards Institution. 4s.)

Definitions, type of material, design and fixing. 34 pp. 20 diagrams.

Copper roofing appears to be increasing in popularity again. This code contains most of the information usually given in textbooks, together with a few useful warnings not yet sufficiently understood and not mentioned in most other publications. Among these are notes of possible corrosion trouble both by direct contact of copper with other metals and also by the run off of water from copper on to other metals. It is mentioned that copper should not be used in contact with breeze concrete, but one wonders whether this *means* breeze or includes clinker. Plumbers not familiar with copper roofing should be taught that the technique required is not the same as that for lead. When copper sheet is worked it hardens, so shaping must be done quickly by means of a few decisive blows—not by repeated tapping as with lead.

13.80 materials: timber

FLOORING

Timber Flooring. BS, C of P 201 (1951). (British Standards Institution. 3s.)

Materials and methods of laying for board and block, plywood and parquet flooring, in softwoods and hardwoods.

Much of the information given is common knowledge to those with reasonable experience of building work, but the diagrams of and notes on the methods of water-proofing solid ground floors are important. A small point which might have been mentioned is that the tendency to noisiness of thin plywood floors laid over boarding can be partially overcome by using a thin felt underlay between the plywood finish and the board floor.

This feature answers any question connected with building confidentially and free of charge. Questions to the Technical Editor, The Architects' Journal.

QUESTIONS AND ANSWERS

3051 COMPULSORY PURCHASE

Q *Clients of mine own property which was damaged during the war and which is subject to a "Cost of Works" claim. Permission to reinstate has been refused by the local planning authorities because of a road improvement scheme, but it would appear that permission might be granted to reinstate up to the proposed new building line and a temporary bungalow front might be permitted out to the old building line. The existing building is three-storeyed and of narrow depth and the planning authorities' proposals are therefore, impracticable.*

My clients have now instructed me to serve a purchase notice on the Corporation. As I have had no previous experience of this I should be glad if you would advise me of the correct procedure.

A The service of a purchase notice is made under section 19 of the 1947 planning act. It is served on the local authority, *i.e.*, the county borough or county district council. The authority then forward the purchase notice to the Minister for confirmation.

The conditions justifying the service of a purchase notice are:—

(1) That the land has become incapable of reasonably beneficial use in its present state.

(2) That if planning permission was granted with conditions, such conditions would prevent the claimant from bringing the land into reasonably beneficial use.

(3) That the claimant will be similarly prevented by any planning permission which has been promised.

The Minister cannot confirm the purchase notice unless he is satisfied that the conditions set out above are fulfilled.

If the Minister is so satisfied he can confirm the purchase notice and the council must then acquire the land on compulsory purchase terms, or he may rescind or modify the decision of the local planning authority, or he may require the local planning authority to grant permission for some other form of development which will make the land capable of reasonably beneficial use. If the Minister takes no action within 6 months the purchase notice is deemed to have been confirmed in its original form. The Minister must hold an inquiry before taking action on a purchase notice if required to do so by interested persons or authorities. The compensation for compulsory puchase would be assessed under Part 5 of the Act.

The purchase notice must be served on the local authority within 6 months of the decision of the local planning authority.

The form of purchase notice should be drawn up under legal advice so that the grounds for requiring purchase are properly stated.

E

Buildings Illustrated

House in Beechwood Avenue, Little Chalfont, Bucks. (Jan. 3, pages 10-11.) Architects: Stillman & Eastwick-Field, A./A.R.I.B.A. General contractors: Gullett & Sons Ltd. Sub-contractors: damp-courses, George M. Callender & Co. Ltd.; bricks from Matthews yard, Chesham (supplied by E. H. Smith (London) Ltd.); wood-block flooring. The Philip Flooring Co.; tiles, Roberts Adlard & Co. Ltd.; patent flooring (in kitchen), Armstrong Cork Co. Ltd.; central heating, Hobdell Engineering Co. Ltd.; grates, Broad & Co. Ltd.; boilers (Agamatic), Aga Heat Ltd., fixed by Dodwell & Hinton Ltd., electric light fittings, "M.K." Electric Ltd.; plumbing, rain-water goods (vitreous enamelled steel), Vitreflex Ltd.; sanitary fittings, John Bolding & Sons Ltd., Tylers of London Ltd.; door furniture, Nettlefold & Moser Ltd.; casements, P. H. Barker & Co.; window furniture, Comyn Ching & Co. (London) Ltd.; paint, Fleetwood Paints Co. Ltd.; door frames, Henry Hope & Sons Ltd.; kitchen fitments, John Sadd & Sons Ltd.; stonework, (Hornton stone to fireplaces) London & Sussex Merchants Ltd.

*Conversion of "The Logs," Hampstead, London, N.W.*3. (Pages 38-39.) Architect: Alexander Gibson, A.R.I.B.A., of the Design Research Unit. General contractor: Mark F. McFarquhar. Sub-contractors: boilers, Ideal Boilers & Radiators Ltd.; fireplaces, Richard Baxendale, Grangemouth Iron Co. Ltd.; stoves, Smith & Wellstood Ltd. (Esse), Pitters Ltd.; sanitary fittings, B. Finch & Co. Ltd.; floor tiles, Marley Tile Co. Ltd.; kitchen fittings, John Sadd & Sons Ltd., Messrs. Huniker; electrical installation, E. Steer & Co. Ltd.; wallpapers, Cole & Son (Wallpapers) Ltd., Arthur Sanderson & Sons Ltd., John Line & Sons Ltd.

The Princess Christian Nursery Training College, Clewer Hill Road, Windsor, Berks., for the Children's Society. Architect: Hugh Roberts & Davies F./A.R.I.B.A. Architectural assistant: R. W. Arnold. General contractor, W. Varney Ltd. Sub-contractors: reinforced concrete, Limpus & Son Ltd.; bricks, E. B. Reed & Co. Ltd.; special roofings, The Neuchatel Asphalte Co. Ltd.; partitions, Esavian Ltd.; glass, Johnson & Clarke Ltd.; wood-block flooring, Viger Bros. Ltd.; patent flooring, Hajnal & Myers; central heating, Harold Eldred Ltd.; electric wiring, Barlow & Young Ltd.; electric light fixtures, Troughton & Young Ltd.; sanitary fittings and door furniture, W. N. Froy & Sons Ltd.; casements, Crittall Manufacturing Co. Ltd.; metalwork, C. E. Welstead Ltd.; tiling, Carter & Co. (London) Ltd.

Home for the Aged, Lansbury Lodge, Poplar. (Pages 49-52.) Architects: Booth & Ledeboer, F./A.R.I.B.A. Quantity Surveyors: Wakeman, Trower & Partners. Consulting Engineers: Andrews, Kent & Stone. General contractors: C. Miskin & Sons, Ltd. Sub-contractors: sanitary fittings, Shanks & Co. Ltd.; plumbing installation, W. H. Earley, Ltd.; heating and hot water installation, Earley & Noon Heating Co. Ltd.; electrical installation (including lighting, fittings and panel fires), Troughton & Young Ltd.; gas installation, North Thames Gas Board; landscape gardening, William Wood Ltd.; ash hoist, Bennie Lifts Ltd.; kitchen equipment, Falkirk Iron Co.; facing bricks, Gremer Whiting & Co.; terrazzo cills and floors, Art Pavements & Decorations Ltd.; wood-block and tile floors, Hollis Bros. Ltd.; cork tile floors, Armstrong Cork Co. Ltd.; rubber floors, E. J. Elgood Ltd.; artificial stone, Enfield Stone Co. Ltd.; slate cills, shelves and roofs, E. F. Williams Ltd.; flush doors, Gliksten Doors Ltd.; metal windows, James Gibbons, Ltd.; carpets and matting, Russell Furnishings Ltd.; steel roller shutters, Haskins Iron Works; glazed wall tiling, Carter & Co. (London) Ltd.; pressed steel cills, G. A. Harvey & Co. (London) Ltd.; ventilation grilles, Colt Ventilation Ltd., British Trane Co. Ltd.; signwriting and name plates, The Lettering Centre; railings, Clark, Hunt & Co. Ltd.; common bricks and partition blocks, London Brick Co. Ltd.; paint, Screenton, Paintmaker; fireplaces, Bratt Colbran Ltd.; ironmongery goods, A. J. Binns Ltd., Dryad Metal Works Ltd.; rainwater goods, Vitreflex Ltd.; automatic stokers, Ashwell & Nesbit Ltd.; radiators, Stelcon Ltd.

Announcements

Owing to the large expansion of the business of Keith Blackman Ltd. (mechanical and electrical engineers) during the past few years, and to share the increased duties devolving upon the present managing director, Montague Burningham, the board has appointed D. S. Woodley, A.M.I.MECH.E., M.I.H.V.E., to act as Joint Managing Director. Mr. Woodley joined the company in 1916 and in 1925 was placed in charge of the Leeds branch office. Returning to head office in 1931, he was appointed chief engineer, and in 1938 elected to a seat on the Board. In 1950 Mr. Woodley was appointed deputy chairman. Consequent upon this new appointment, S. E. Nelson, B.A.CANTAB., will succeed Mr. Woodley as chief engineer of the company.

The Armstrong Cork Company Ltd. has opened a further office in the Birmingham area at the following address: Westminster Chambers, 93A, Corporation Street, Birmingham. This firm's Dublin office moved recently; it is now at 54, Middle Abbey Street.

The telephone number of Messrs. William Mallinson & Sons Ltd., timber and veneer merchants and plywood manufacturers, of 130-150 Hackney Road, London, E.2., has been changed to Shoreditch 7654 (10 lines).

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Alphamstone, near Bures, Suffolk. 'Phone: Twinstead 229

Dorset, S.W. Hants and S. Wilts.
W. E. MASTERS, Brick Manufacturer, Lytchett Minster, near Poole, Dorset. 'Phone: Lytchett Minster 291/2

Oxon, Berks, N. Wilts and N. Glos.
THE COTSWOLD BRICK AND TILE CO. LTD.,
Standlake, near Witney, Oxon. 'Phone: Standlake 284

East and West Ridings, Yorkshire
DUNBRIK (YORKS) LTD., Stanley Ferry, near Wakefield, Yorks. 'Phone: Wakefield 3694

Counties of Notts, Lincs, Leicester, Rutland, Derby.
THE HOVERINGHAM GRAVEL CO., LTD.
Hoveringham, Notts. 'Phone: Bleasby 242

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SCOTTISH DUNBRIK LTD., 250, Alexandra Parade, Glasgow, E.1. 'Phone: Bridgeton (Glasgow) 1818; Dundee 81673

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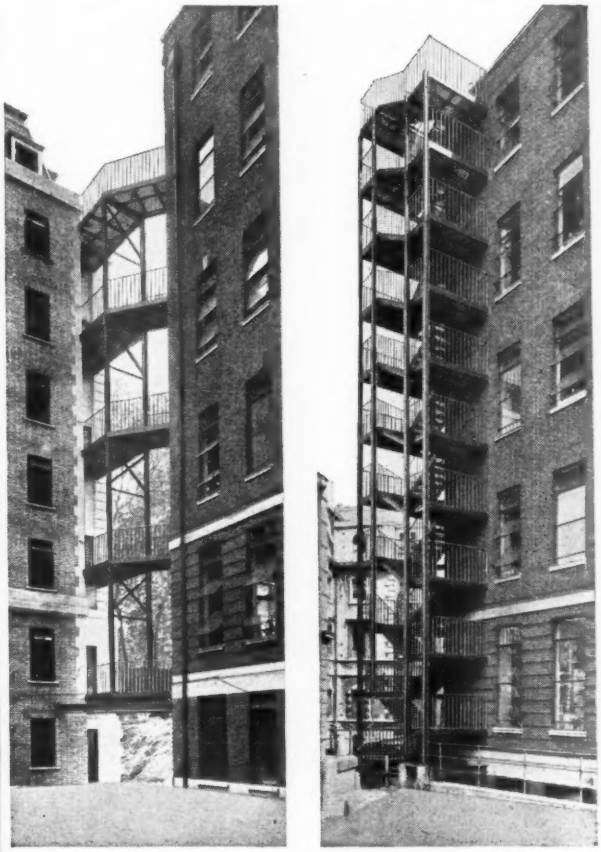

Stair and gangways at St. Bartholomew's Hospital, London. Architects: Lanchester & Lodge, F./F.R.I.B.A., 19 Bedford Square, W.C.1.

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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.

COUNTY OF DERBY
and
PEAK DISTRICT NATIONAL PARK.

Applications are invited for the under-mentioned appointments:—

(*a*) DEPUTY PLANNING OFFICER to the Peak Park Planning Board. A.P.T., Grade IX (£790-£910).

(*b*) PLANNING ASSISTANT. A.P.T., Grade VI (£645-£710).

(*c*) PLANNING ASSISTANT. A.P.T., Grade IV (£530-£575).

(*d*) CHIEF CLERK. A.P.T., Grade V (£570-£620).

The Officer appointed will be required to carry out planning duties in the Peak District National Park and in certain county areas (including the boroughs of Buxton and Glossop) outside the national park but adjacent thereto.

The area planning office and the planning office of the Board are situated in Bakewell.

Applications, which must be made on forms obtainable, together with further particulars of the appointments, on request to the undersigned, will be received up to and including 26th January, 1952.

D. G. GILMAN,
Clerk of the County Council and Clerk of the Peak Park Planning Board.

22nd December, 1951. 5137

NORTH THAMES GAS BOARD.

A JUNIOR ARCHITECTURAL ASSISTANT is required in the Architectural Section, Chief Engineer's Department, Westminster.

Applicants should be studying for, or have passed the Intermediate Examination of the R.I.B.A. and have had at least three years' practical experience in an Architect's office.

Starting salary, depending on age and qualifications, will be within the range of £415-£555 per annum. The appointment is of a permanent nature and pension arrangements will be discussed with short list candidates.

Applications, giving age, qualifications and experience, should be sent to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference number 666/6. 5134

COUNTY BOROUGH OF DERBY.
BOROUGH ARCHITECT'S DEPARTMENT.

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

(*a*) ONE JUNIOR QUANTITY SURVEYOR, GRADE III/IV/V (£500-£620). Commencing salary £500 per annum. Applicants should be of R.I.C.S. Intermediate Examination standard, and be fully experienced in abstracting and billing, measuring on site, preparation of final accounts and taking-off quantities for small building works.

(*b*) TWO JUNIOR ARCHITECTS, GRADE I/II (£440-£515). Commencing salary £440 per annum. Applicants should be not less than 21 years of age and should have passed the Preliminary Examination of the R.I.B.A. and have had experience in general architectural work.

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

Forms of application may be obtained from The Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed together with a copy of one testimonial and the names of two persons to whom reference may be made, to arrive not later than Monday, 21st January, 1952.

Canvassing directly or indirectly will be a disqualification.

E. H. NICHOLS,
Town Clerk.

5141

METROPOLITAN BOROUGH OF WANDSWORTH.
BOROUGH ENGINEER, SURVEYOR AND ARCHITECT'S DEPARTMENT.

Applications are invited for the established appointment of one SENIOR ARCHITECTURAL ASSISTANT, at a salary in accordance with A.P.T., VII, of the National Scheme of Conditions of Service, at present £715-£790 per annum.

Applicants should be Associates of the R.I.B.A. and have had considerable experience in the design and planning of housing estates, particularly multi-storey blocks of flats and/or other framed buildings, and in the supervision of their erection.

Application forms, obtainable from the Borough Engineer, Surveyor and Architect at the undermentioned address, must be returned to me by 23rd January, 1952.

R. H. JERMAN,
Town Clerk.

Municipal Buildings, Wandsworth, S.W.18.
28th December, 1951. 5165

CAMBRIDGESHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

ARCHITECTURAL ASSISTANT required on Miscellaneous III Division (£355×£15—£415). Particulars to be obtained from the Clerk of the County Council, Shire Hall, Cambridge, not later than 17th January, 1951. 5136

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of QUANTITY SURVEYING ASSISTANT, Grade V, at a commencing salary of £570 per annum, rising by annual increments of £15/£20 to a maximum of £620 per annum, plus London allowance of up to £30 per annum, according to age.

Preference will be given to applicants who are Members of the Royal Institution of Chartered Surveyors (Quantities Sub-Division) and who have an adequate experience in the preparation of Bills of Quantities, site measuring, and in settlement of final accounts.

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-upon-Thames, not later than 18th January, 1952.

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

The Council will be unable to provide any housing accommodation, and the successful applicant will be expected to make his own arrangements in this direction.

T. W. W. GOODERIDGE,
Clerk of the Council.

County Hall, Kingston-upon-Thames. 5133

DEVON COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the undermentioned appointments on the permanent staff. Conditions of service and salaries are in accordance with the National Joint Council Scheme for Local Authorities:—

ASSISTANT ARCHITECTS. Grade A.P.T., VI (£645-£710 per annum).

ASSISTANT ARCHITECTS. Grade A.P.T., III (£500-£545 per annum).

DRAWING OFFICE JUNIORS. G.D. (M) (£220 at 20, £335 at 25, £425 at 30).

JUNIOR SURVEYING ASSISTANT. Grade A.P.T., I (£440-£485 per annum).

"REPAIRS" ASSISTANT. Grade A.P.T., II (£470-£515 per annum).

Application forms, with full particulars of qualifications and experience required for the various posts, are obtainable from the County Architect, 97, Heavitree Road, Exeter, and must be returned to him by Monday, the 21st January, 1952.

Canvassing, directly or indirectly, will disqualify.

H. A. DAVIS,
Clerk of the County Council.

The Castle, Exeter.
20th December, 1951. 5132

AIR MINISTRY WORKS DEPT.

ARCHITECTURAL DESIGNER/DRAUGHTSMEN required in Designs Branch by Air Ministry Works Department. Applicants should have had several years' experience in the preparation of working drawings, details and layouts for permanent and semi-permanent buildings. Vacancies are mainly in London, but there are some in the provinces. Salaries are on ranges up to £675 per annum, with starting pay dependent upon age, qualifications and experience. Applications, stating age, qualifications, previous appointments (with dates), should be sent to Air Ministry (C20) Directorate-General of Works (W.9), Bush House, S.E. Wing, Strand, London, W.C.2, from which address further details may be obtained. 5162

STAFFORDSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments:—

(*a*) SENIOR PLANNING ASSISTANT (FORESTRY), Headquarters Office, Stafford. Applicants should hold an appropriate forestry qualification. The duties will include Tree Preservation Orders, surveying areas of woodlands, estimating values, consulting local authorities, and advising on general care of woodlands. Experience in the restoration of derelict areas would be an advantage.

(*b*) SENIOR PLANNING ASSISTANT, Eastern Area Office, Lichfield. Applicants should be qualified in Planning and in another of the professions usually associated with it. The person appointed will be required to act as deputy to the Area Planning Officer.

The salary for both these appointments will be in accordance with A.P.T., Grades VII-VIII, ranging from £685 to £810 per annum.

Canvassing, directly or indirectly, will be deemed a disqualification, and relationship to any member or senior officer of the Council must be disclosed.

Applications should give details of age, education and training, qualifications, present and previous appointments and experience. Copies of two recent testimonials should be included, together with the names of two other persons to whom reference could be made. Applications should be sent to D. W. Riley, County Planning Officer, 41a, Eastgate Street, Stafford, not later than 17th January, 1952.

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

5166

CITY OF LIVERPOOL.
ARCHITECTURAL AND HOUSING DEPARTMENT.

Applications are invited for the following appointments:—

GENERAL ARCHITECTURAL SECTION:

(*a*) TWO SECOND ASSISTANT ARCHITECTS. Salary: £735-£810 per annum (A.P.T., Grade VIII).

(*b*) ONE ASSISTANT ARCHITECT. Salary: £570-£620 per annum (A.P.T., Grade V).

(*c*) ONE ARCHITECTURAL ASSISTANT. Salary within the range £440-£575 per annum (A.P.T., Grades I/IV, according to qualification and experience).

(*d*) ONE ASSISTANT STRUCTURAL ENGINEER. Salary: £570-£620 per annum (A.P.T., Grade V).

HOUSING SECTION:

(*e*) THREE ASSISTANT ARCHITECTS. Salary: £645-£710 per annum (A.P.T., Grade VI).

(*f*) ONE ASSISTANT ARCHITECT. Salary: £570-£620 per annum (A.P.T., Grade V).

(*g*) ONE JUNIOR ARCHITECTURAL ASSISTANT. Salary: £470-£515 per annum (A.P.T., Grade II).

QUANTITY SURVEYING SECTION:

(*h*) TWO SENIOR ASSISTANT QUANTITY SURVEYORS. Salary: £735-£810 per annum (A.P.T., Grade VIII).

(*i*) ONE ASSISTANT QUANTITY SURVEYOR. Salary: £570-£660 per annum (A.P.T., Grade V/Va).

Candidates for:—

(*a*) and (*b*) must be Registered Architects, preferably qualified A.R.I.B.A., with experience in modern design and construction of all types of public buildings, particularly schools; (*c*) and (*g*) must have had a good architectural training and preferably have passed the R.I.B.A. Intermediate Examination; (*d*) must be able to assist in design and detailed construction of structural steelwork and reinforced concrete as required in modern buildings, and preferably possess an appropriate qualification; (*e*) and (*f*) must be Registered Architects, preferably qualified A.R.I.B.A., with experience in housing development; (*h*) must hold an appropriate professional qualification and be experienced in preparing Bills of Quantities, interim valuations, and final accounts for all types of Building and Road and Sewer Works; (*i*) should be experienced in taking off for Building and Road and Sewer Works, interim valuations and settlement of final accounts, and preferably have passed the Final Examination of an appropriate professional body.

Application forms, obtainable from the City Architect and Director of Housing, Blackburn Chambers, Dale Street, Liverpool, 2, must be returned to him by 26th January, 1952.

The appointments are superannuable and subject to the Standing Orders of the City Council. Canvassing disqualifies.

THOMAS ALKER,
Town Clerk.

Municipal Buildings, Liverpool, 2.
January, 1952. (JA2803) 5161

WESTMORLAND COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of SENIOR ASSISTANT ARCHITECT. The appointment will be made either within A.P.T., Grade VI (£645-£710) or on the minimum of A.P.T., Grade VII (£685), according to experience.

The main qualification for the appointment will be sound general architectural training and experience; a knowledge of modern school design and construction, and previous local authority experience will be an advantage but are not essential.

The appointment will be subject to the terms and conditions of service of the National Joint Council, the Local Government Superannuation Act, 1937, and one month's notice on either side expiring at the end of a calendar month. The successful candidate will be required to pass a medical examination.

Applicants should state whether they are married or single, and should give particulars of age, education, technical training, qualifications, previous appointments, present salary and appointment, and full details of experience, in that order.

Applications should be forwarded, together with a copy of one recent testimonial and the names of two referees, to R. H. Crompton, A.R.I.B.A., A.M.T.P.I., County Architect, County Hall, Kendal, to reach him not later than 22nd January, 1952.

K. S. HIMSWORTH,
Clerk of the County Council.

County Hall, Kendal.
28th December, 1951. 5156

ABERDEEN HARBOUR COMMISSIONERS.
HARBOUR ENGINEER'S DEPARTMENT.

Applications are invited for the post of ARCHITECTURAL ASSISTANT or BUILDING SURVEYOR in the Harbour Engineer's Office, Aberdeen. Applicants should have experience in structural steelwork, reinforced concrete and general building design and construction. Preference will be given to candidates with some experience of property procedure and the preparation of reports. The salary, £435-£620, according to qualifications, rising by annual increments of £15. Applications, stating age and qualifications with full details of experience, together with copies of recent testimonials, should be lodged with the Harbour Engineer, 15, Regent Quay, Aberdeen, not later than 19th January, 1952.

Harbour Engineer's Office,
Aberdeen.
12th December, 1951. 5103

AMENDED ADVERTISEMENT.
PONTYPRIDD URBAN DISTRICT COUNCIL.
APPOINTMENT OF QUANTITY SURVEYOR.

Applications are invited for the appointment of a Quantity Surveyor, at a salary in accordance with Grade VII of the A.P.T. Division of the National Scales of Salaries, *viz.*, £685, rising by three annual increments of £25 to a maximum of £760. The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the passing of a medical examination, and the giving of one month's notice on either side for termination.

Applicants must be Associate Members of the Royal Institution of Chartered Surveyors (Quantity Section) and have had considerable experience, and be competent to take off and prepare Bills of Quantities for all types of buildings.

Form of Application is obtainable from the Council's Architect, Mr. W. C. Evans, Municipal Buildings, Pontypridd, Glam., and should be obtained by intending applicants.

Applications must be delivered, appropriately endorsed, to the undersigned, not later than the 31st January, 1952.

Canvassing will be a disqualification, and candidates must disclose any relationship to members or senior officers of the Council.

A Council house will be available for the successful candidate, if required.

JOHN HILTON,
Clerk to the Council.

Municipal Buildings, Pontypridd, Glam.
1st January, 1952. 5176

BOROUGH OF SLOUGH.
BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the permanent appointment of an ASSISTANT ARCHITECT in the Architectural Section. Applicants must be Registered Architects. Commencing salary, £570, on Grade A.P.T., V, of the National Scales.

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

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

Applications in sealed envelopes, endorsed "Assistant Architect, Grade V." must reach the undersigned not later than noon on Monday, 28th January, 1952.

The Council is unable to assist the successful candidate with housing accommodation, but a subsistence allowance of 25s. per week and train fare home every two months may be paid in approved cases for six months to a married officer unable to secure housing accommodation within reasonable travelling distance of Slough.

Canvassing, either directly or indirectly, will disqualify.

NORMAN T. BERRY,
Town Clerk.

Town Hall.
10th January, 1952. 5186

AMENDED ADVERTISEMENT.
CITY OF WAKEFIELD.
SENIOR QUANTITY SURVEYOR, GRADE A.P.T., Va-VI (£600-£710).

Applications are invited for the above appointment from persons who are Members of the R.I.C.S. (Quantities) or the I.Q.S.

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

Applications, stating age, qualifications, present and previous appointments and details of experience, and whether they are to their knowledge related to any member or senior officer of the Council, together with the name of two referees, should be sent to me by the 1st February, 1952. Canvassing will disqualify.

Favourable consideration will be given to the provision of housing accommodation to the successful applicant if married.

W. S. DES FORGES,
Town Clerk.

Town Hall, Wakefield.
2nd January, 1952. 5181

NORTHERN IRELAND HOSPITALS AUTHORITY.
APPOINTMENT OF TECHNICAL STAFF.

Applications are invited from suitably qualified persons for Architectural and Engineering staff in the following grades:—

(*a*) SENIOR ASSISTANT ARCHITECTS and SENIOR ASSISTANT ENGINEERS (MECHANICAL AND ELECTRICAL). Grade I and Grade II.

Salary scales:—

Grade I: £900 per annum, rising by annual increments of £30 to £960, and thence by one increment of £40 to a maximum of £1,000 per annum.

Grade II: £800 per annum, rising by annual increments of £30 to £860, and thence by one increment of £40 to a maximum of £900 per annum.

(*b*) ASSISTANT ARCHITECTS AND ASSISTANT ENGINEERS (MECHANICAL AND ELECTRICAL). Grades I, II and III.

Salary scales:—

Grade I: £720 per annum, rising by annual increments of £25 to a maximum of £800 per annum.

Grade II: £650 per annum, rising by annual increments of £25 to a maximum of £725 per annum.

Grade III: £550 per annum, rising by annual increments of £25 to a maximum of £650 per annum.

(*c*) ARCHITECTURAL ASSISTANTS AND ENGINEERING ASSISTANTS (MECHANICAL AND ELECTRICAL). Grades I, II, III and IV.

Salary scales:—

Grade I: £525×£20—£570 per annum.
Grade II: £450×£20—£525 per annum.
Grade III: £375×£20—£450 per annum.
Grade IV: £300×£15—£375 per annum.

(*d*) (i) QUANTITY SURVEYOR.

Salary: £800 per annum, rising by annual increments of £30 to £860, and thence by one increment of £40 to a maximum of £900 per annum.

(ii) ASSISTANT QUANTITY SURVEYOR.

Salary: £650 per annum, rising by annual increments of £25 to a maximum of £725 per annum.

Qualifications:—

Posts at (*a*). Architectural Appointments.—Must be Associates of R.I.B.A. or possess a University Degree in Architecture or other qualification accepted by the Authority as an equivalent. Some experience of hospital design and work would be an advantage.

Mechanical Engineering Appointments.—Must be of professional standing, with wide experience in the mechanical engineering services required at hospitals.

Electrical Engineering Appointments.—Must be of professional standing, with wide experience in all electrical engineering services required at hospitals.

Posts (*b*). All Architectural, Mechanical Engineering and Electrical Engineering grades.—Must be of professional standing with experience, but not so wide as specified for Senior Assistant grades.

Posts (*c*). Architectural and Engineering Assistants.—Candidates must have had suitable training and experience.

Posts (*d*). Quantity Surveyor.—Must be Fellows or Associates of Royal Institute of Chartered Surveyors, and should have considerable experience in quantity surveying.

Assistant Quantity Surveyor.—Must be Fellows or Associates of Royal Institution of Chartered Surveyors, with proved experience in quantity surveying.

A number of vacancies at (*b*) and (*c*) will be on a temporary basis in the first instance.

Applications on the prescribed form (which is obtainable on application) in envelope marked "Technical Staff" on top left-hand corner, to be addressed to the Secretary, Northern Ireland Hospitals Authority, Friends' Provident Buildings, 58, Howard Street, Belfast, to arrive not later than 12 o'clock noon on Saturday, 23rd February, 1952.

The persons appointed will be officers of the Northern Ireland Hospitals Authority, and their salaries will be subject to deductions for superannuation under regulations made under the Health Services Act (Northern Ireland), 1948.

It is the Authority's policy to give preference to candidates who have served in His Majesty's Forces in war-time.

Canvassing, either directly or indirectly, will be an absolute disqualification. Any approach to a member of the Authority or a member of a Committee of the Authority, in writing or otherwise, by or on behalf of any applicant, will be regarded as canvassing. 5175

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

ARCHITECTS required for construction programmes, schools, housing and general. Starting salaries up to £638, according to experience. Applicants should have passed Final R.I.B.A. Particulars and application forms from Architect, The County Hall, S.E.1, enclosing s.a.e. quoting AR/EK/A.2.(12b6) 4893

UGANDA ELECTRICITY BOARD.

Applications are invited for the appointment of an ARCHITECTURAL DRAUGHTSMAN in Uganda. Applicants should have had at least five years' experience in an Architect's office and have obtained good experience in the preparation of perspective, layouts and working drawings for domestic and light industrial buildings.

Preference will be given to candidates who have passed the Intermediate Examination of the Royal Institute of British Architects.

Salary scale: £580×£40—£780 per annum. Commencing salary within the grade will be determined in accordance with experience and qualifications. In addition, free partly-furnished accommodation or an allowance in lieu will be granted.

The initial contract will be for a period of three years. Free passages to and from Uganda will be provided, plus three months' leave on full salary on the termination of the contract (or six months if contract is renewed).

Application forms and further information as to conditions in Uganda may be obtained from the Board's London office, 129, Grand Buildings, Trafalgar Square, London, W.C.2.

Applications, addressed to the Chairman, Uganda Electricity Board, P.O. Box 559, Kampala, should reach Kampala not later than the 15th February, 1952.

31st December, 1951. 5164

CANNOCK URBAN DISTRICT COUNCIL.
APPOINTMENT OF DEPUTY ARCHITECT.

Applications are invited for the above-named appointment. Salary within Grades A.P.T., VII (£685-£760) or VIII (£735-£810), according to qualifications and experience of the selected candidate.

Favourable consideration will be given to the provision of housing accommodation for the successful applicant, if required.

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

Closing date: 9th February, 1952.

W. C. SPEEDY,
Clerk of the Council.

Council House, The Green, Cannock, Staffs.
3rd January, 1952. 5178

BOROUGH OF NEWPORT (I.W.).
ARCHITECTURAL ASSISTANT (TEMPORARY APPOINTMENT).

Applications are invited for the temporary appointment of Architectural Assistant, at a salary in accordance with A.P.T., Grade VIII (£735-£810), of the N.J.C.'s scale, commencing between the limits mentioned, according to the qualifications and experience of the person appointed.

Candidates must be Associates of the Royal Institute of British Architects or hold an equivalent qualification, and although the appointment is temporary subject to satisfactory service of the successful candidate, in the first instance the appointment will last for a period not exceeding two years and thereafter by agreement between the Corporation and the candidate, otherwise the appointment is terminable by not less than one month's notice on either side.

General conditions attaching to the post may be obtained from the undersigned. Canvassing will disqualify, and applicants must state whether to their knowledge they are related to any member or senior officer of the Corporation.

Applications, in sealed envelopes endorsed "Architectural Assistant," should be received by the undersigned not later than 22nd January, 1952.

FRANCIS H. W. BUXTON,
Town Clerk.

Town Clerk's Office, 17 Quay Street,
Newport, Isle of Wight.
2nd January, 1951 5147

NATIONAL COAL BOARD SCOTTISH DIVISION. The following vacancies exist at Headquarters in Edinburgh, and suitable applicants should forward their applications, giving details of age, qualifications, experience (in chronological order), present post and salary, together with a copy of two recent testimonials, to the Establishments Officer, 1, Eglinton Crescent, Edinburgh, within 7 days. The posts are superannuable, and applicants should show clearly the post applied for. The point of entry into the relevant salary scales will depend on the qualifications and experience of the successful applicants, who will be required to pass a medical examination.

ARCHITECT, Grade I. Salary scale: £800 × £35 to £1,000. Required qualification: A.R.I.B.A., with considerable experience.

ARCHITECT, Grade II. Salary scale: £525 × £25 to £850. Required qualification: A.R.I.B.A.

ARCHITECTURAL ASSISTANT, Grade I. Salary scale: £450 × £25 to £600. Should have passed the Inter. R.I.B.A., and have had more than three years' subsequent practical experience.

ARCHITECTURAL ASSISTANT, Grade II. Salary scale: £360 × £20 to £460. Should have passed or be working for Inter. R.I.B.A. 5158

BOROUGH OF EALING.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following permanent appointments:—

(*a*) ENGINEERING ASSISTANT, in accordance with Grade III of the A.P.T. Division of the National Scheme of Conditions of Service, commencing at £500 per annum and rising by annual increments to £545 per annum, plus London weighting. Candidates must have completed their professional training and have passed the Intermediate or equivalent examination of the Institution of Civil Engineers and/or the Institution of Municipal Engineers.

(*b*) DRAUGHTSMAN, in accordance with Grade IV of the National Scheme of Conditions of Service for the Miscellaneous Classes of Officers, commencing at £400 per annum, rising by annual increments to a maximum of £470 per annum, plus London weighting. The successful candidate will be engaged on work in connection with a survey of sewers.

The Council are unable to provide housing accommodation for the successful candidate.

Forms of application, together with conditions of appointment, may be obtained from the Borough Engineer and Surveyor, Town Hall, Ealing, W.5, and must be returned to me not later than the 28th January, 1952.

E. J. COPE-BROWN,
Town Clerk.

Town Hall, Ealing, W.5.
2nd January, 1952. 5177

HUNTINGDON COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
A SENIOR ARCHITECTURAL ASSISTANT (GRADE IV, A.P.T.).

Applications are invited for the appointment of a Senior Architectural Assistant, at a salary in accordance with Grade IV, A.P.T., of the National Joint Council's scales, £530 × £15 to £575 per annum.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications, experience, present position and salary, together with copies of two recent testimonials or the names of two persons to whom reference could be made, should be delivered to S. J. Hands, A.R.I.B.A., County Architect, County Buildings, Huntingdon, by Friday, 25th January, 1952.

JOHN KELLY,
Clerk of the County Council.

County Buildings, Huntingdon.
10th January, 1952. 5180

NATIONAL COAL BOARD—NORTH-WESTERN DIVISION.

Applications are invited for the following posts in the Divisional Architectural Branch:—

(*a*) QUANTITY SURVEYOR, Grade I. Salary scale: £700 × £25—£875 per annum.

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

(*b*) QUANTITY SURVEYOR, Grade II. Salary scale: £450 × £25—£700 per annum.

Applicants should be Members of the R.I.C.S. (Quantities Section), with experience in the preparation of Estimates, Bills of Quantities, measuring up, and adjustments of Final Accounts.

(*c*) QUANTITY SURVEYING ASSISTANT, Grade I. Salary scale: £410 × £20—£550 per annum.

Applicants should be up to the Intermediate standard of the R.I.C.S. and should have had at least five years' office experience.

(*d*) QUANTITY SURVEYING JUNIOR ASSISTANT. Salary scale: 38s. 6d. to 130s. per week.

Applicants must show promise of becoming good Quantity Surveying Assistants. Previous experience in a Quantity Surveyor's office is desirable but not essential. Preference will be given to applicants intending to adopt Quantity Surveying as a career.

Appointments will be made within the salary scales, according to the applicants' experience and qualifications.

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

Applicants should state clearly the appointment for which application is made. 5159

BOROUGH OF ROMFORD.
APPOINTMENT OF SENIOR ASSISTANT ARCHITECT.

Applications are invited for the above appointment on the permanent staff of the Borough Engineer and Surveyor's Department. Salary within Grade VI of the A.P. and T. Division of the National Salary Scales (£645-£710 per annum).

Applicants must be Registered Architects and the possession of an additional qualification will be an advantage. Consideration will be given to the provision of housing accommodation for the successful candidate.

Particulars and conditions of the appointment may be obtained from the undersigned, who should receive applications by the 26th January, 1952.

J. TWINN,
Town Clerk.

Town Hall, Romford.
2nd January, 1952. 5179

Competition

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

RURAL INDUSTRIES BUREAU are holding a FURNITURE DESIGN COMPETITION. Entries are invited from rural furniture makers, but other makers and designers are eligible for the Open Class. For full particulars write R.I.B., 35, Camp Road, London, S.W.19. Closing date for receipt of entries: 28th January, 1952. 5182

Architectural Appointments Vacant

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

A WEST COUNTRY ARCHITECT with a progressive practice has a vacancy for an ASSISTANT ARCHITECT. The post would lead to a partnership for the right man. The assistant must be fully qualified, preferably A.R.I.B.A., and accustomed to taking jobs through from sketch plans to completed structure in a most thorough manner. The practice is young and healthy with a contemporary outlook. Kindly write stating the fullest details on age, qualifications, training, experience, married or single and present salary. Box 5142.

ARCHITECTURAL ASSISTANT required by professional firm in Westminster. R.I.B.A. Final standard. Knowledge of construction, preparation of working drawings and details in respect of industrial buildings desirable. Salary £450-£650, based on experience and qualifications. Box 5171.

IMPERIAL CHEMICAL INDUSTRIES LTD., General Chemicals Division, require one or two ASSISTANT ARCHITECTS in the Architectural Section of their Chief Engineer's Department, Runcorn. Applicants should have had good experience in design and the preparation of working drawings. Other factors being equal, preference will be given to those who have passed the Final Examination of the R.I.B.A. Salary dependent on age and experience. Membership of pension fund. Apply in writing, quoting E/81, to Staff Manager, Imperial Chemical Industries Limited, General Chemicals Division, Cunard Building, Liverpool, 3. 5092

ARCHITECTURAL ASSISTANT required in City office, up to Inter. R.I.B.A. standard. Interesting work. Omnibus Garages, Offices, Stations, etc. Reply, stating details and salary required, etc., to Alan A. Briggs, F.R.I.B.A., Chartered Architect, 10, Fleet Street, London, E.C.4. 5172

ARCHITECT'S ASSISTANT required for busy Tyneside office. Salary £600-£650, according to experience. Write Box 5146.

ARCHITECT'S ASSISTANT required for London office. Must be a good draughtsman, with experience of commercial office practice, have a good knowledge of building construction and be capable of preparing ¼ in. scale and working drawings. Salary range up to £555 10s., according to age and qualifications. Apply: Civil Engineer, Southern Region, British Railways, Waterloo Station, London, S.E.1. 5160

ARCHITECTURAL ASSISTANT, of Inter. R.I.B.A. standard, required. Good draughtsmanship and general knowledge of construction. Salary to be mutually agreed. Write or 'phone Walker, Harwood & Cranswick, FF./A.R.I.B.A., 21, Suffolk Street, S.W.1. 5184

Architectural Appointments Wanted

STUDENT R.I.C.S. (Building), aged 23, requires position as ASSISTANT. Good draughtsman, with 3 years' general experience. Box 337.

YOUNG woman ARCHITECT, A.R.I.B.A., A.M.T.P.I., requires position. Enthusiastic and hard working. Practical experience more important than salary in first instance. County town preferred, but will go anywhere. Car driver. Box 338.

A. R.I.B.A. (35) seeks senior and responsible position. 17 years' experience in private practice and Local Government. Any area considered. Pullin, 201, Green Lane, Coventry. 335

A. R.I.B.A., A.A.Dip., requires position as CHIEF or SENIOR ASSISTANT. 12 years' office experience, less war service. Box 336.

A. R.I.B.A. (25) seeks post with firm of Architects engaged in general practice. Preferably where there is a possibility of helping an elderly principal. Would like Buckinghamshire, Hertfordshire or London area. Owner of small car. Box 333.

ASSOCIATE (28), office trained, 9 years' experience housing and industry, wants job in Devon. Box 334.

ASSISTANT (33), 15 years' experience, seeks position in office, London (L.C.C. area) or Dublin. Salary about £600 per annum. Box 341.

A. R.I.B.A. (23) desires position, with prospects in West Country. Box 340.

A. R.I.B.A. (28), school trained, with office experience, seeks position in progressive London firm, with opportunity for contemporary design. Box 339.

DRAUGHTSWOMAN (28), 10 years' varied experience, requires post in Chichester (Sussex) area. Box 5185.

SENIOR ARCHITECTURAL ASSISTANT (34), Final standard R.I.B.A., with 12 years' comprehensive experience, seeks appointment in London Architect's office. Present salary received. £650 p.a. Box 342.

ARCHITECT (aged 32), A.R.I.B.A., A.M.T.P.I., seeks occupation giving scope for imaginative and practical abilities. Additional qualifications: City and Guilds Final Carpentry and Joinery, R.I.B.A. Prizeman, University Lecturer in Civic Design (part-time). 9 years' comprehensive Architectural and Planning experience. Box 343.

Other Appointments Vacant

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

CHIEF QUANTITY SURVEYOR required for London Architect's office. Experience of Industrial and Commercial work an advantage. Write, stating age, qualifications, experience, and salary required, to Box 5167.

Services Offered

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

QUANTITY SURVEYOR. Many years experience in the profession offers part-time services. Hourly or agreed rate. Taking-off, site measurements, bills, etc. Box 5127.

TRACINGS, Layouts and Perspectives. Prompt service, moderate fees. Turner's, 3, George Street, Croydon; 2930 and 85, Queen's Road, Brighton, 27938. 5168

CHARTERED ARCHITECT, own office and staff, Midland area, offers service to Architects. Surveys, Working and Detail Drawings. Box 5163.

F. R.I.B.A. offers whole or part time services; wide experience with own practice in all kinds of architecture, especially hospitals. London or Home Counties preferred. Box 5169.

A. R.I.B.A., situated North Kent, experience Schools, Hospitals, Commercial and Domestic, offers assistance to practising Architects for preparation of Sketch Designs, Working Drawings, Details and Specifications, etc. Reply Box 5170.

ASSOCIATE, on special course of study, anxious to undertake survey or any other part-time work. Reply Box 5183.

Miscellaneous

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

A. J. BINNS Ltd., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 99-107, St. Paul's Road, N.1. Canonbury 2061.

WINKFIELD MANOR NURSERIES, ASCOT, lay out Rock and Formal Gardens and Labourless "Allweather" Tennis Courts. Eight Chelsea Gold Medals since 1947. Contractors to the Festival of Britain. Winkfield Row 393. 1716

FENCING FOR ALL PURPOSES. Supplied and erected; established 100 years. Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham, 1. Telephone: Midland 5001.

SHARE Drawing Office Accommodation, etc. Available immediately. Bedford Square, W.C.1. Write Box 5173.

Educational Announcements

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

R.I.B.A. and T.P.I. EXAMS.—Stuart Stanley (Tutor Sch. of Arch., Lon. Univ.) and G. A. Crockett, M.A./B.A., F./A.R.I.B.A., M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.) prepare Students by correspondence tuition. 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

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