ARCHITE



TACK

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contents

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

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Appointments Architectural Wanted Vacant and

No. 30931 [Vol. 119 PRESS ARCHITECTURAL 11 and 13, Queen Anne's Gate, Westminster, 'Phone: Whitehall 0611 W.I.

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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.

Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.

IHVE Institution of Heating and Ventilating Engineers. 49, Cadogan Square. Sloane 1601/3158 IIBD

Institute of Landscape Architects. 12, Gower Street, W.C.1. Museum 1783
Institute of Arbitrators. 35/37, Hastings House, 10, Norfolk Street,
Strand, W.C.2. Temple Bar 4071
Museum 7197/5176
Museum 7197/5176
P.C.3. Avenue 6851 ILA I of Arb

Strand, W.C.2. Temple Bar 4071 Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197/5176 Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851 Institute of Registered Architects. 47, Victoria Street, S.W.1. Abbey 6172 Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128 Inland Waterways Association. 14, Great James' Street, W.C.2. Chancery 7718 Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1. IOB IR IRA ISE **IWA**

LIDC Whitehall 7264/4175 LMBA MARS

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London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
Modern Architectural Research Group (English Branch of CIAM). Secretary:
Trevor Dannatt, 6, Fitzroy Square, W.1. Euston 7171
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MOT MOW NAMMC

94-98, Petty France, S.W.1. Abbey 1010 National Association of Shopfitters. 9, Victoria Street, S.W.1. Abbey 4813
National Buildings Record. 37, Onslow Gardens, S.W.7. Kensington 8161
National Council of Building Material Producers, 10, Princes Street, S.W.1. Abbey5111 NAS NBR **NCBMP**

NFBTE National Federation of Building Trades Employers. 82, New Cavendish Street, Langham 4041/4054 NFBTO

National Federation of Building Trades Operatives, Federal House,
Cedars Road, Clapham, S.W.4.
National Federation of Housing Societies. 13, Suffolk St., S.W.1. Macaulay 4451 Whitehall 1693 **NFHS** NHBRC National House Builders Registration Council. 82, New Cavendish Street, W.1.

Langham 4341 Molesey 1380 NPL NSA

National Physical Laboratory. Head Office, Teddington National Sawmilling Association. 14, New Bridge Street, E.C.4. City 1476 National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1. Abbey 1359 NSAS NT National Trust for Places of Historic Interest or Natural Beauty

42, Queen Anne's Gate, S.W.1. 16, Queen Anne's Gate, S.W.1. 94, Petty France, S.W.1. Whitehall 0211 PEP Political and Economic Planning. Whitehall 7245 Reinforced Concrete Association. Abbey 4504 RCA RIAS Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.

Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5721
Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.
Whitehall 5322/9242 Edinburgh 20396 RIBA RICS

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Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. W.
Society of British Paint Manufacturers. Grosvenor Gardens House,
Grosvenor Gardens, S.W.1. RFAC Whitehall 3935 Regent 3335 RS RSA Trafalgar 2366 RSI Sloane 5134 Wimbledon 5101 RIB

Victoria 2186 SCR Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.
Western 1571

Society of Engineers. 17, Victoria Street, Westminster, S.W.1.

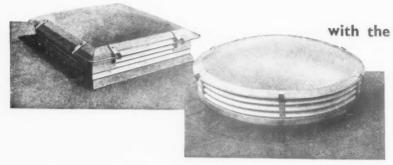
Abbey 7244
School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3. SE SFMA Mansion House 3921 STA Langham 7616

Structural Insulation Association. 32, Queen Anne Street, W.1. Society of Industrial Artists. 7, Woburn Square, W.C.1. Scottish National Housing. Town Planning Council. Langham 1984 Scottish National Housing. SNHTPC Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.
Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.
Holborn 2646 SPAB

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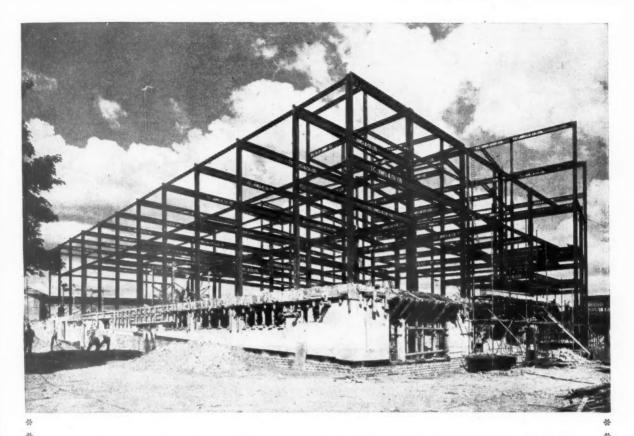
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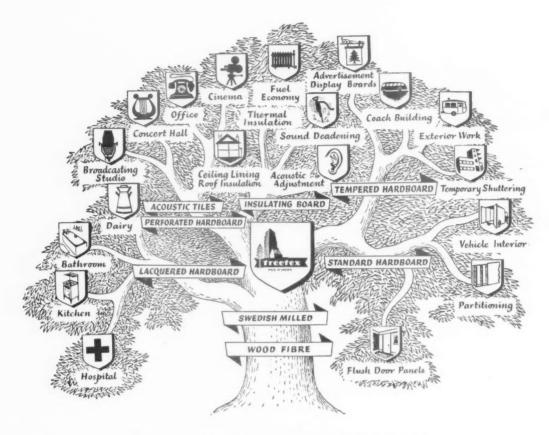
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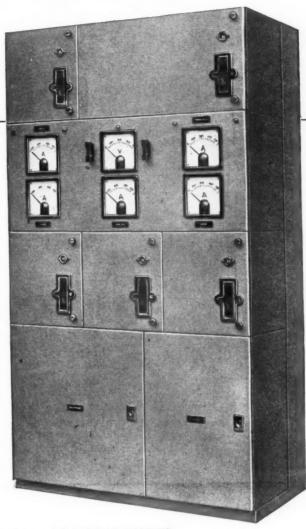
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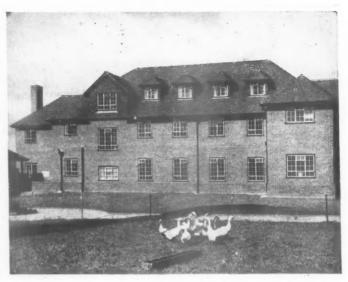
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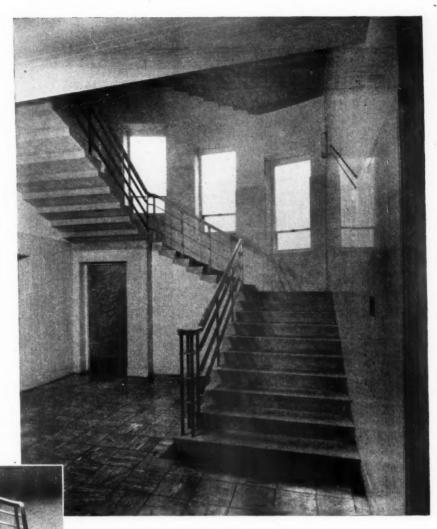
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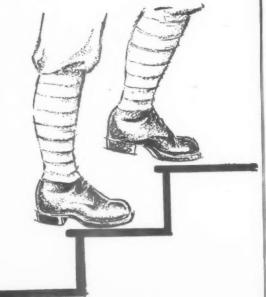
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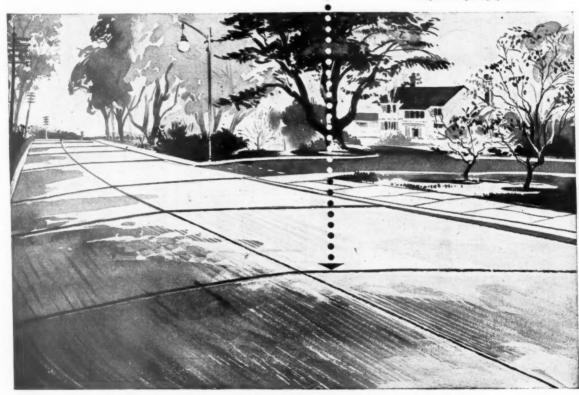


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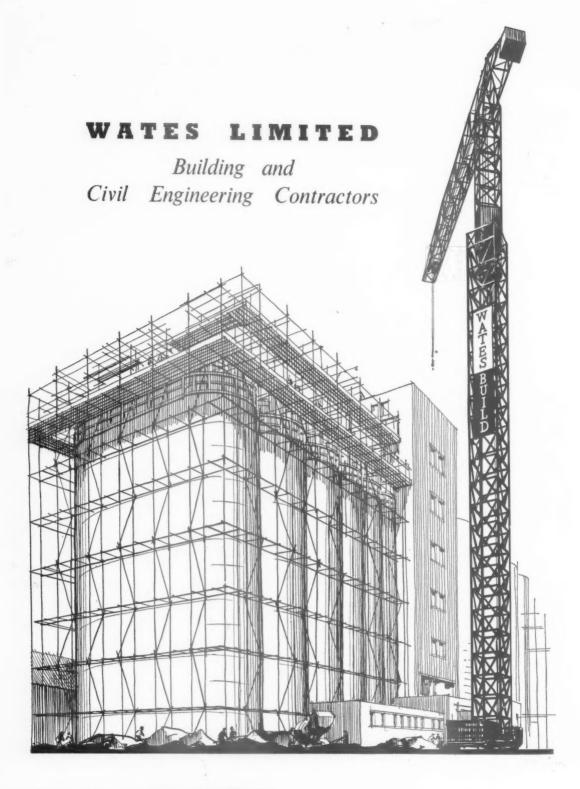
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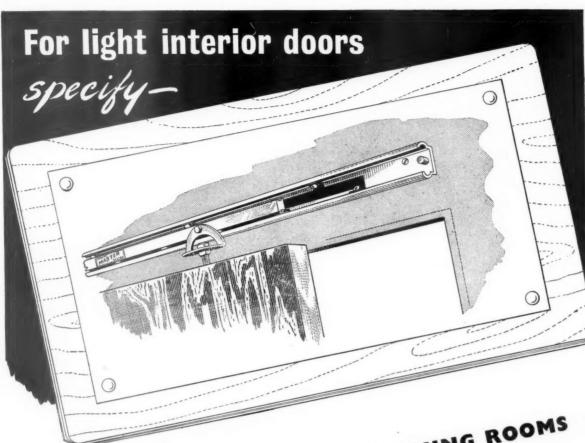


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FOOD STORAGE IN DOMESTIC KITCHENS

Storage space is required in the kitchen of any house or flat to accommodate two types of food—perishable and non-perishable. With the exception of fruit and vegetables, perishable foods should be kept in a refrigerator at a temperature of about 40°F.-50°F. although it is inadvisable to store them in this way for longer than four or five days. Ordinary cupboards, so long as they are dry and clean, are suitable for all other foodstuffs. When planning the kitchen the refrigerator should be considered with the food storage group, designed as a part of it and placed adjacent to the preparation counter or work table.

General Storage Requirements

Cupboards containing articles of food or groceries in frequent use, must be readily accessible without stretching or stooping or having to stand on a chair or steps. Any upper cupboards intended for food storage, should be well ventilated: jams and preserves, in particular, must not be placed where they are likely to get warm or moist.

Vegetable Storage

All vegetables should be kept separately, away from warmth or moisture and never in unventilated cupboards; air must circulate freely round them. Baskets or trays of wire mesh or perforated sheet metal (which may be arranged to slide like drawers) provide a satisfactory method of storage. Root vegetables are best kept at the bottom, otherwise movement of the trays will shake earth on to whatever is kept below.

Groceries and Dry Goods

For the accommodation of groceries and dry goods, narrow shelves close together are to be preferred to deep ones which must be set wide apart to allow for "reaching over" to get at articles kept at the back. Shelves $7\frac{1}{2}$ " from back to front will suffice for the great majority of groceries and packaged dry goods; they need never exceed 10", which will accommodate a large biscuit tin. A gap of $\frac{2}{4}$ " should be left between the edge of the shelves and the back of the cupboard to make cleaning easier. The storage capacity of this type of cupboard is much greater than is generally realised: a single 2' 6" wide cupboard, if accessible for the full height, will be found sufficient for the average family.

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Electric refrigerators are thoroughly efficient and reliable, and most economical in operation. The mechanism, guaranteed for five years, does not cause interference with radio or television reception. The storage capacity of domestic refrigerators varies from $1\frac{1}{2}$ to 10 cubic feet as shown in Tables 1, 2 and 3. Three cubic feet is usually considered the smallest convenient capacity for the use of a family household. If a smaller refrigerator is installed, however, it will be found advisable to provide a ventilated cupboard (an air-brick in an outer wall will give enough ventilation) for the accommodation of articles of food for which there is no room in the refrigerator. As a general rule it is better to select a refrigerator of ample capacity.

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The coldest part of a refrigerator is immediately below the evaporating unit at the top, and it is here that the ice-making trays are placed. A partly-enclosed space is provided beside the evaporating unit in several medium-capacity models to accommodate some packets of the frozen foods now generally available. The larger refrigerators have a frozen food locker in the upper part of the cabinet, providing increased space for this type of food or for the rapid cooling of jellies and other types of cold sweet. In some cases, deep plastic trays which slide under

TABLE 1 VERTICAL FREESTANDING

Capacity of refrigerator		Width	Depth min. max.
in cubic feet			ins. ins.
1.3 - 2.9		20 23	31 - 25
3.0 - 3.5	41 46	23 - 24	19 - 24
4.0 - 4.9		26 - 28	20 - 29
3.0 - 5.9	47 - 54	21 - 28	24 - 26
6.0 - 6.9A	48 = 60	24 - 31	22 - 29
7.0 - 7.9A		27 - 30	23 - 29
8.0 - 8.9A	56 - 58	28 - 29	27 - 29
90-994		20 - 21	25 - 25

A - Some models in this range have frazen food locker at the top of the refrigeration compartment.

TABLE 2 TABLE TOP FREESTANDING

	Height		Depth
of refrigerator			ins. ins.
1.5		21 + 22	21 - 22
2.0 - 2.9	31 - 37	20 - 24	22 - 25
3.0 - 3.9	33 - 38BC	21 - 32D	21 - 24
4.0 - 4.5		25	24 - 26

B - Includes skirting at back on top

C - Some models in this range have handled doors
D - Horizontal model, with drop-down door

TABLE 3 BUILT-IN

Capacity of refrigerator in cubic feet	Height min. maxi- ine. ins.		
1.5		21E	
3.0 5.0F		21 %E	
5.5FG			22

E—Dimensions of recess required in fitment: See Figs. 1 and 2. These models can also be obtained included in some proprietary ranges of kitchen cabinets.

F — These models are designed as part of a proprietary range of kitchen cabinets.

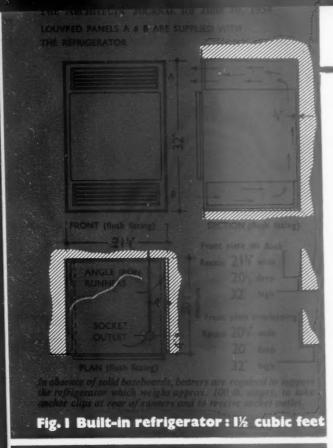
G - Horizontal models obtainable with or without lift-up top

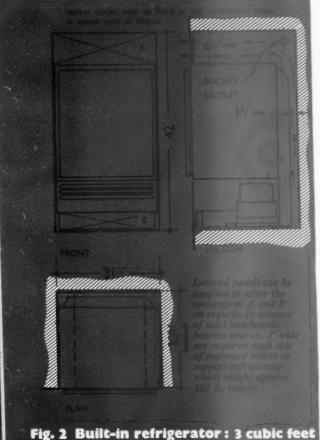
TABLE 4 HOME

Capacity of freezer in cubic feet		Depth ins.
4.05 9.5		

Both models have lift-up top.

R.I





glass shelves, are provided for green vegetables, fruit and salads, so that they will not dry out or get tough. Similar results can be obtained with smaller refrigerators which are not so equipped, by putting these items in separate plastic bags for storage in the lower part of the cabinet.

For the convenient storage of meat, fish and poultry a separate compartment or tray is provided immediately under the evaporating unit in a number of models. Other features to be found on some makes are automatic defrosting, internal lighting controlled by the door, and a special thermostatically controlled compartment in which about $\frac{1}{2}$ lb. butter may be kept ready for use at the correct temperature for easy spreading. Where drawers with external access are provided, they are outside the refrigeration compartment and should not be used for storing perishable foodstuffs.

Built-in Refrigerators

Some models are available as part of a proprietary range of kitchen fittings with which they are designed to be used; others are made for building-in to cupboards and other fitments in the kitchen which have been prepared to receive them. Details giving the leading dimensions and other relevant information regarding the latter are shown in Figs. 1 and 2. This type of refrigerator, though not of large capacity, has the advantages of neatness and compactness; more important still is the fact that it can be installed at the most convenient height for access and exactly where it is wanted. The bottom of the storage space should not be lower than 2' 6" or higher than 3' above the floor.

Home Freezers

The excellence and convenience of the many frozen foods now obtainable from the shops, has directed attention to this method of food preservation, and appliances are now available for the freezing and storing of home-grown produce or seasonable foods in the home. These home freezers, as they are called, are more than "refrigerators", they are a form of cold store and operate at much lower temperatures—about 5°F. or lower.

The larger sizes have been found particularly useful on farms, where surplus meat, poultry and vegetables can be frozen and kept in perfect condition for periods up to a year, instead of being disposed of at a loss or becoming waste. They are also suitable for households in the more remote situations, allowing a stock of food to be laid in when there are ample supplies and prices are low. See Table 4.

Installation

All refrigerators and home freezers give off heat during operation, and so should not be completely shut in. In the majority of freestanding models the heat is dispersed at the back, and a guard or similar projection ensures that sufficient space is provided between the back of the cabinet and the wall for ventilation. This is included in the overall depth figures given in Tables 1 and 2. Ventilation space has to be provided for built-in models as shown in Figs. 1 and 2. Home freezers have air inlet and outlet grilles; in some models they are in the sides and front, others have them at the back; but in all cases care must be taken to see that they are not obstructed.

Current can be supplied for all models of refrigerators and home freezers from a 5 amp. 3-pin socket-outlet, or 13 amp. socket-outlet if a ring circuit is installed. In the case of a built-in refrigerator this socket-outlet should be placed within the recess made to receive it, as shown in Figs. 1 and 2.

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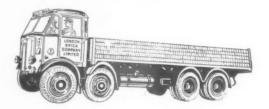
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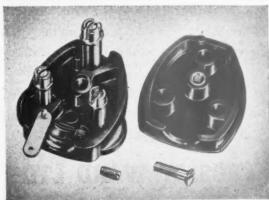
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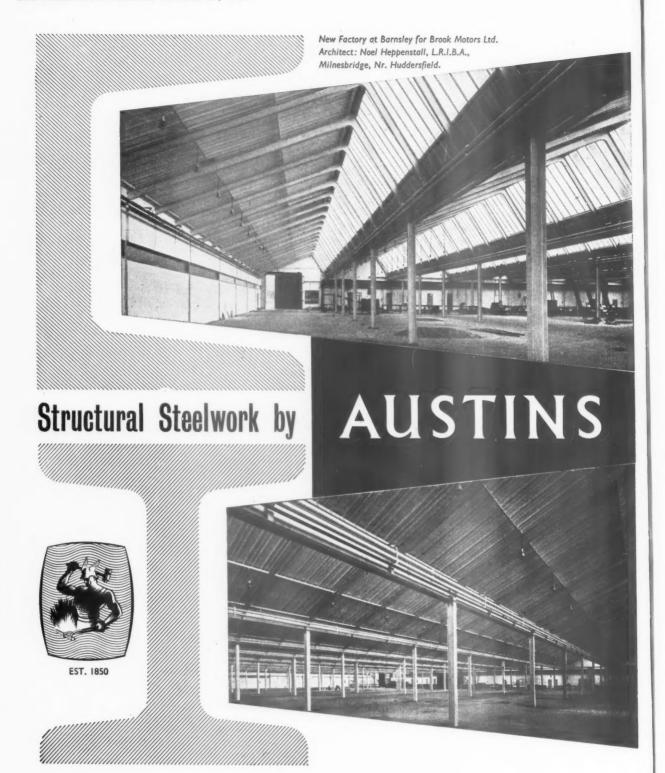
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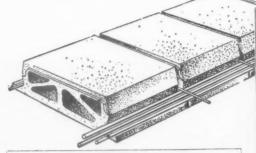
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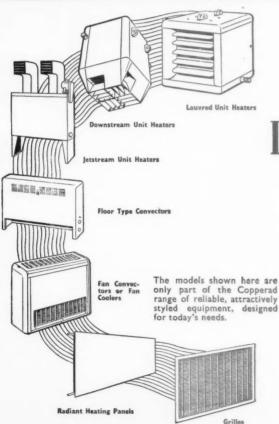
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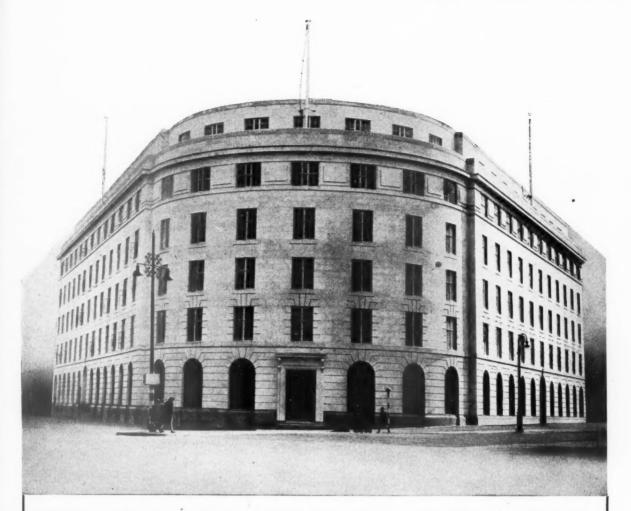
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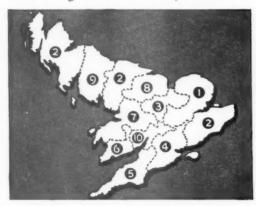
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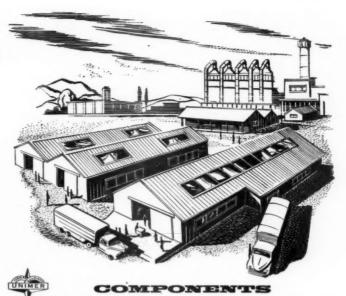
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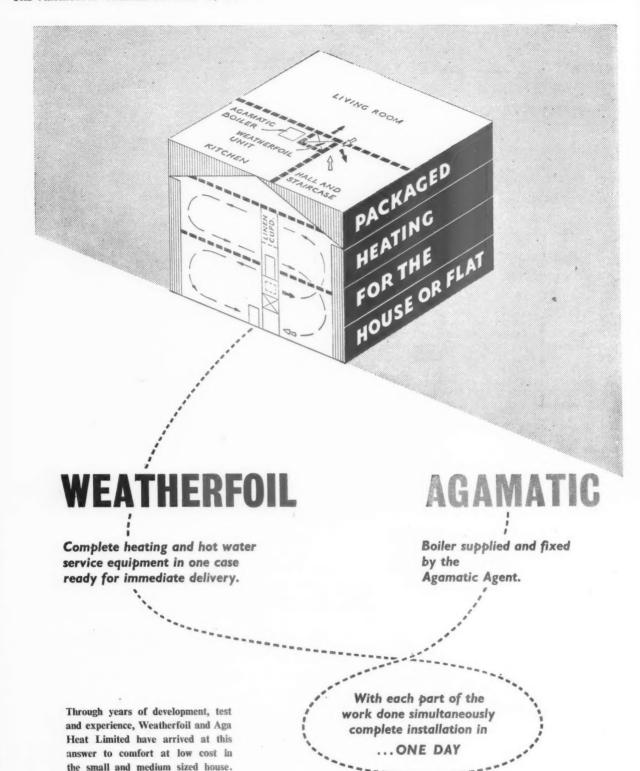
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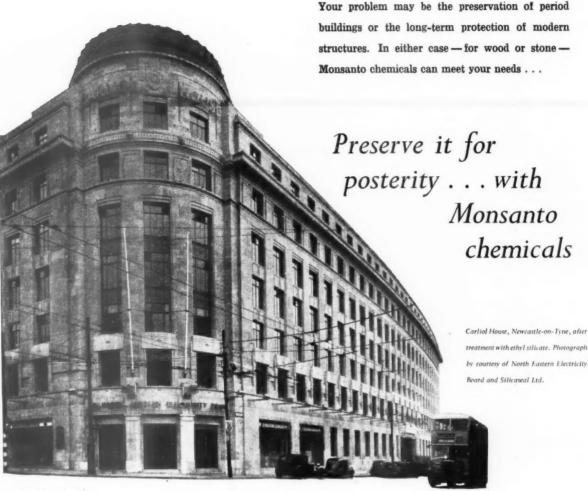
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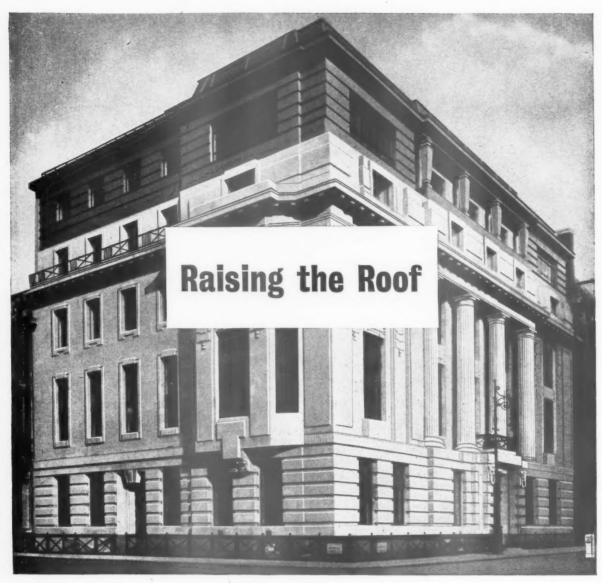


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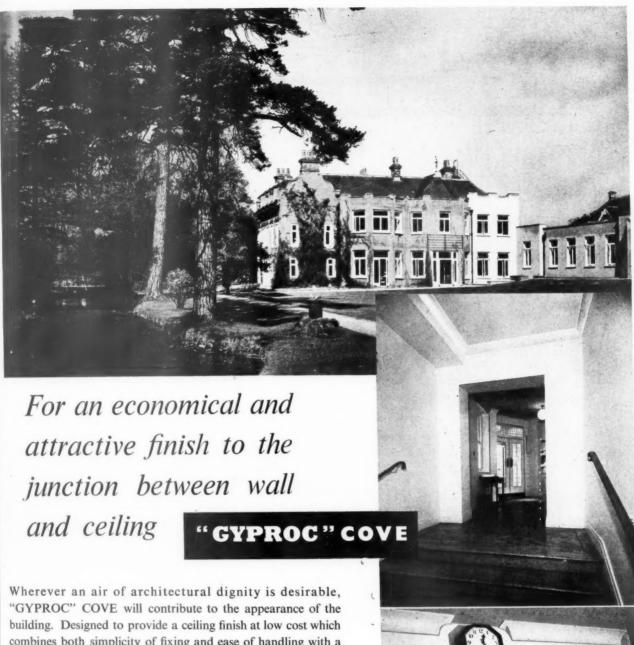
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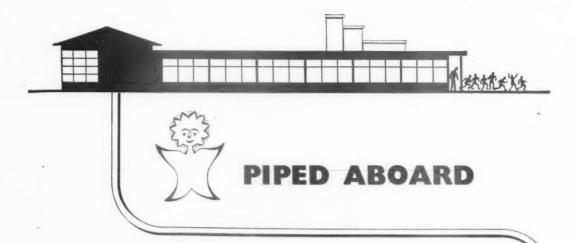
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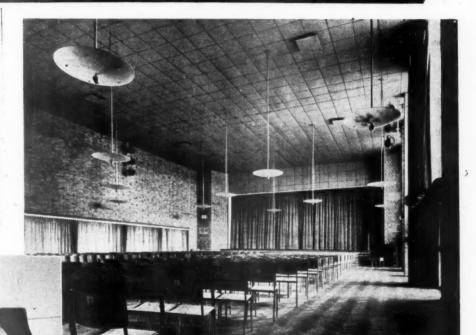
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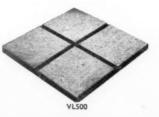
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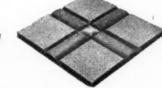
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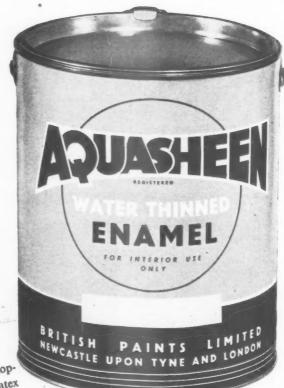
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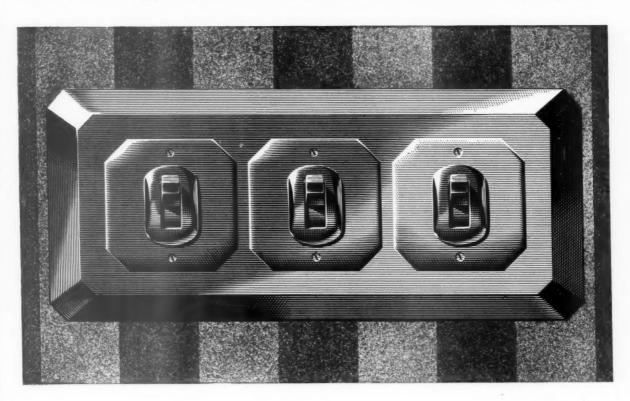
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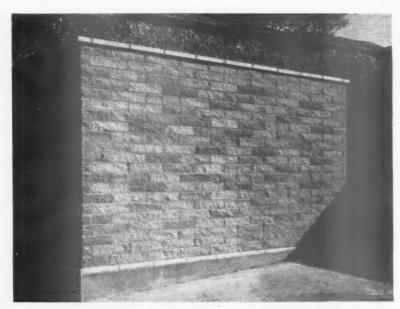
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A New Old Fashion

OT so long ago, when prefabrication was wished upon us as the solution to the Housing problem, the word "traditional" became almost a term of abuse, but at least it was used with a knowledge of its meaning.

Now what are we to make of a recent statement by our Parliamentary Secretary to the Ministry of Housing and Local Government? "A 'new tradition' house", he says, "is the new name for a non-traditional house".

What, indeed! Can method or design be both new and traditional? Either may find favour, but let us at least pay to each the compliment of distinguishing it from the other.

The new provides us with the excitement of a venture into what must be, to some extent, the unknown and the untried, for the new is necessarily the experimental. The satisfactions to be derived from the traditional are of a different order. Here we have the sense of

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security of the known and the well-tried. When we follow tradition (and how closely knit in our common speech are the verb and the noun) we tread in the firm steps of those who have toiled before us. It is of the essence of tradition that we do not have to make our own.

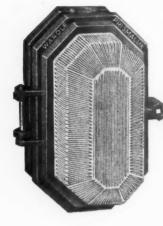
What was once new has made the tradition of today, yet not all new things become, in the fullness of time, secure traditions. Those which have value and meaning for us now are but a handful of the activities of the past, for most novelties fail to stand the test of time and the need for adaptability to changed conditions.

We can neither make the traditions of today, nor consciously mould the traditions of tomorrow. Only as those who come after us accept or discard, repeat or supersede, the new things of today, will traditions be established.

"New traditional"? Surely not.

(Reprinted from 'The Brick Bulletin')

For Every Situation



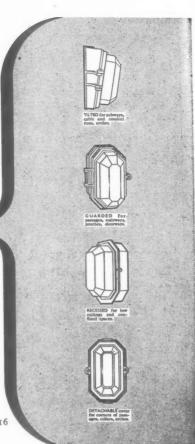
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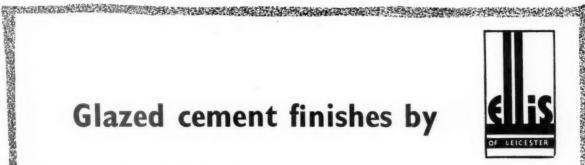
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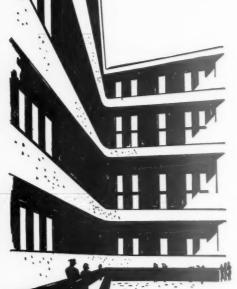
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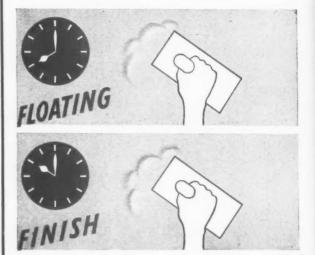
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WANTED-A NO-DRIVING DRIVE

The move to stop stopping by cars and lorries in a few central London streets may help to prevent jams in a small area, but it is only a tiny contribution towards the solution of a difficult problem. Surely it should be apparent to the Ministry of Transport that either we must have a large-scale road-widening scheme, together with an extension of the one-way street system, or we must have a ban on all private cars within two miles of Charing Cross. If the first of these alternatives would be too expensive, then let us have the second of them and enjoy the wrath it would provoke. ASTRAGAL, who motors needlessly into the centre of London every day, is quite willing to forgo that pleasure and leave central London for buses, lorries, taxis, bicycles (pedal or motor), and vehicles for the disabled. Managers and directors found driving in lorries would, of course, be gaoled for at least a month and disqualified from driving for six months.

ADVICE FOR BUILDERS

The NFBTE, which has been making spasmodic efforts during the past few years to increase the industry's productivity, is to organize an advisory service; this is to report, if requested, on any builder's problems, from site mechanization to the efficient running of an office. The chief problem, one suspects, will be to find a staff of experts to whom builders will listen, but the idea is a sensible one, and, since the operatives are represented on the management committee, it is possible that the advice given may be accepted without any noticeable labour troubles.

The service will probably not start until next year, and it is intended that builders shall pay for the advice they get; in the meantime the cost "for the first two or three years" will be met mainly out of Conditional Aid Funds. If the scheme succeeds in lowering costs, or even keeping them more or less stationary, the money will have been well invested. How about a similar study (and grant to pay for it) on architects?

HAPPY PAINT-SLAPPERS

Mention of cost reductions recalls the increasing amount of "Do it Yourself" noticeable in the house decoration business. ASTRAGAL guessed that it was the standard drill for income groups up to £2,000 a year, and this guess can't be far out, for a recent market survey by Odhams shows that today only 18 per cent. of interior

decorating work is done "by professional decorators" and, surprisingly enough, only 35 per cent. of the outside work is done by them. Bearing in mind the number of painter operatives who do odd jobs at week-ends, it looks as though *firms* must do only a very small proportion. And whose paint is the must popular? Odhams say Woolworth's.

VENICE BIENNALE

British Art at this year's Venice Biennale will consist principally of works by Ben Nicholson, Francis Bacon, Lucien Freud and Reg Butler -a reasonably orthodox 1st XI team. Less orthodox, however-and all the more welcome for that-is the news that the usual selection team (Rothenstein, Read, Hendy and Philip James) have this time been joined by a private collector-Roland Penrose. In the past there has been criticism-not entirely unjustified—that although the firstnamed selectors are all men of taste and reputation with a genuine love of art they have been together now—choosing art and sitting on juries judging art—for so many years that opinions were in danger of crystallizing, and that certain types of painting temporarily out of favour are not getting a fair show. There have even been mutterings about "closed shops" and "Taste Czars." (How would architects like it if almost every competition was judged by the same panel of assessors-however good? Not much, I suspect.)

ASTRAGAL therefore applauds wholeheartedly the appearance of a private collector—and would like to suggest perhaps even a dealer or two? After all they do study form, they do nose out

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This view of Corby market square, for which the new town's Develobment Corporation and its consulting architects, Sir William Holford and H. Myles Wright are responsible, shows the mural decoration by Keith Vaughan (bottom right-hand corner) which ASTRAGAL referred to on May 27. This delight-ful mural, on the wall of a bus shelter, has now been boarded up-as the Northampton County Architect points out in a letter on page 698 " pending a further decision on its ultimate fate." Someone, it would appear, has been offended by this work of art. ASTRAGAL looks forward to hearingand repeating—the inside



talent and they do back their fancy with their own money-always a significant task-and for these reasons their opinions might be worth listening toor is that smell of Profit and Business still unbearable to cultured nostrils?

COID IN CANADA

COID have been showing collections of British Products which are shortly to be sent for display in relatively farflung parts of the Empire. One of these parts is only geographically remote-Canada, to wit-and the goods are to be shown on the BOT stand at the Toronto Show in August and Sep-The products are all consumer goods for household and personal use, and although there are moments when ASTRAGAL is tempted to share the Manchester Guardian's genteel cynicism about "the kind of design the COID prefers," one must admit that the quality of this collection of pots and pans, china, clocks, carpets and cutlery, suitcases, shoes and shooting-sticks, while it contains nothing to set the Thames (or Lake Ontario) on fire, nevertheless sets an average standard of design which was not offered at the "Britain Can Make It" Exhibition, or even in the South Bank "Design Review," in 1951. The Council is really beginning to have some effect on design, or public taste, or both.

COUNTRY MATTERS.

Most of us still think of the countryside as the natural (in all senses of the word) background to human activity, and yet how little we know about it. One or two would-be clever characters -like ASTRAGAL himself-say knowingly "But it's all man-made, you know; eighteenth-century improvers and all that crush"; but the hearing of some important talks recently has made one realize that though it is, indeed, hand-made, we ought to be careful that we know whose hand is responsible. As Dr. Wibberley pointed out to the Institute of Landscape Architects, a slight change of policy in Whitehall, or a mild veering of the wind of agricultural opinion, can change the colour of the English countryside within a year, by bringing in different cropping patterns. Similarly the increasing mechanization of hedgetrimming is altering the standing of hedgerow timber, and the increasing mechanization of the farm-worker's transportation means that he can now work further from home, and therefore

tends to live in larger settlements and not in small villages, whose extinction can only be avoided, it seems, by mechanizing his wife up to the same level.

Even more interesting are the talks which Dr. Hoskins has been giving on the Third Programme. In the first talk, which you ought to have heard and must read in the Listener (April 29) if you did not, a very telling point was made against the assumption that agricultural legislation will simply have the effect you hoped it would. As Dr. Hoskins very neatly demonstrated from a variety of unexpected sources, including sporting prints and the poetry of John Clare, the immediate effect of the Enclosure Acts was to open up the countryside into dusty wastes of immense proportions, and its long term effect has been to settle the roadpattern of the greater part of southern England. ASTRAGAL strongly recommends a course of Hoskins; it has stopped one know-all from airing his views about eighteenth-century improvers, and it should stop a lot of others from thinking of the countryside as Nature unadorned.

Professor Myles Wright

A distinguished line of professors has made Liverpool University known throughout the world as a centre of progressive town-planning, and the JOURNAL is delighted to announce that one of its former editors, H. Myles Wright, has been chosen—wisely—to follow that distinguished line—Stanley Adshead, Patrick Abercrombie, William Holford and Gordon Stephenson. Mr. Myles Wright, who takes up his appointment as Lever Professor of Civic Design, on October 1, was trained at Kings College, Newcastle-upon-Tyne, and at

Cambridge University School of Architecture. Since the war he has been working with Sir William Holford as architect and town-planner. They were jointly responsible for the Cambridge plan and in addition to being the planning consultants of Corby New Town, they have been the architects for its first 500 dwellings and its market square (see page 695), as well as for a number of other buildings. Mr. Wright will be known particularly for one of his books, *The Planners Notebook*, which is published by the Architectural Press.

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The arrival of a large botanical wallchart, offset litho'd in green, a letter typed in green ink, and a quantity of what the advertising trade humorously calls "literature," served as a reminder that ASTRAGAL had promised to report back on the Plastic Plants situation. In fact, this material does not tell us a lot more than we knew already. It repeats the proud boast that Plastic Plants are washable, fireproof, pliable, plastic and authentic-though we now know that Plastic Plants received the Grand Prix at Cannes for the second time for the accuracy of their reproductions of rare foliage. Prices appear to be about as steep as one would expect-fifty dollars for a forty-inch Pandanus in Chartreuse and Cream-but not much steeper, it would seem, than ordinary non-plastic, non-fireproof natural alla-growing plants are, in the States.

A useful service to customers is that not only can given colour schemes be matched, but custom-designed plants can be supplied to client's specification—and at once there begins to rear up, deep in ASTRAGAL'S megalomaniac psyche, the desire to design and possess an enormous plastic man-eating orchid about fifty feet high. One could threaten to set it on to people like town-planning authorities, building societies, competition assessors, and finish the list yourself.

WHIT-LITTER

MOW has been testing again over Whitsun what it darkly calls the "devices" used over Easter to combat the litter problem in the Royal Parks.

Published statistics show that of the total of 36 cwt. of litter collected over Easter approximately two-thirds came out of the litter-baskets-a more encouraging proportion than one might have supposed, judging from visual evidence alone. ASTRAGAL'S flesh was made to creep somewhat by the information that analysis of this litter produced "valuable statistics about the differences between the types of litter left on the ground and put into baskets." Now what exactly? . . . Surely they couldn't mean? . . . But before your imagination becomes unchecked be warned by the conclusion of the Parliamentary Litter Committee that it is "unsafe to draw final conclusions at this stage."

ASTRAGAL

POINTS FROM THIS ISSUE

Corby New Town: the market square		page 695 and 698
ABT asks for improvement of architects status		page 699
Kirkcaldy crematorium competition: winning	designs	page 699, 700
		and 701
Secondary school planning		page 708

The Editors

TWENTY-FIVE MILLION DOOR-KNOBS

N the past nine years local authorities in Great Britain have bought about twenty-five million door-knobs from manufacturers. Those door-knobs were used by Arthur Ling, in a recent talk, to illustrate the effect that local authorities can have on standards of design. "If badly-designed door-knobs are rejected," said Mr. Ling, who was talking at the COID's Scottish Design Congress, "the influence of local authorities is clearly immense. And this is only one of the numerous items of equipment which go to make up a house."

But how can that important client of industry, the local authority, influence design standards by its choice if there is nothing good for it to choose from in manufacturers' catalogues? If the authority is large enough, it can buy several thousand pieces of specially-designed equipment. What if it is not large enough to put in an order that will prove economical? It can combine with another local authority, as Mr. Ling has suggested, and put in a joint order. The only way to get good design from manufacturers who lacks enterprise is, as Richard Llewelyn Davies told Congress members, to give those manufacturers an "informed demand."

Can we be sure that all local authorities are informed enough to make the right demands? Certainly we cannot speak with the confidence of W. C. T. Walker, who told the Congress about "the revolution in design standards that is taking place in local authority offices today." If Mr. Walker is to have his "revolution," then the status of the local authority architect, to whom he rightly gives the credit for generally improved design standards, must be equal in all counties and boroughs. In the words of a statement issued last week by the ABT (page 699), "there should be a statutory obligation on local authorities to place architects in full responsibility for all architectural work." That is something we must continue to ask for, not only to ensure that housing and public building shall be as well-designed as possible, but also-and we are not being flippant—to ensure that posterity gets the very best door-knobs.

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Peter L. Peri

A. N. Harris, F.R.I.B.A., County Architect, Northampton

F. E. Nicklin, A.R.I.B.A.

Astragalophobe

Mr. Peri Replies

SIR.—ASTRAGAL, in his criticism of my exhibition "Some new aspects of sculpture in relation to architecture and the home" at the AA, accuses me of adopting a "new line" by making "pictures in perspective by means of bas-relief and round."

This it seems to him "is perverse, as it uses a two-dimensional device to depict three-dimensions."

This "new line" is in fact a very old technique. There are scores of works of

this kind produced in Italy alone, between the 14th and 16th centuries.

Reliefs carved from wood or marble—or modelled for terracotta, telling a pictorial story, by making a very effective use of perspective.

Many of these reliefs were painted—looking at these painted reliefs it is difficult to tell which was carved in wood and which in marble, as the texture of the medium is hidden under the paint.

The technique which I have developed differs from that of these reliefs, in that, although I use colour, it is not painted on, but is part of the texture, and that the relief can be built up directly on the wall.

My "new line" is only an extension of an old technique applied to a contemporary medium, and in spite of ASTRAGAL'S dislike of the title of my exhibition, this technique does provide new possibilities for the use of sculpture in connection with architecture.

London.

Art in Corby

PETER L. PERL

SIR,—On reading ASTRAGAL'S comments in the JOURNAL for May 27, I made a point of visiting the Town Centre at Corby in order to view the "strong clear colours" of the mural by Keith Vaughan. Imagine my disappointment on finding that it had been firmly boarded up by order of the Development Corporation, pending a further decision on its ultimate fate.

A. N. HARRIS. Northampton. See picture on page 695.—Ed.

Warsaw's Eyesores

SIR,—ASTRAGAL'S notes on the Polish exhibition at the RIBA, entitled "From War sores to Eye sores," will undoubtedly be of interest to the Polish architects who sent over the exhibition—the first of its kind seen in this country since the war. They will no doubt be gratified to think that they provided the material for such

a masterpiece of schoolboy wit—one can just imagine them chuckling over it in Warsaw, even though "war sores" is really rather a euphemism, and "eye sores" a trifle sweeping. And maybe if it provokes them they will see their "depressing" works with a fresh eye and understand that ASTRAGAL would have them take a look at and learn from some of our heartening post-war efforts? Plymouth, perhaps, or central London?

It was a pity, however, that apart from the brilliant pun and the clever cracks about the crudely-lettered, ungrammatical captions and inferior photographs, he had no comments to make on the contents of the exhibition.

Poor ASTRAGAL has not much space, we know, and he has a vast field to cover. But are there not occasions, and is this not one of them, when it might be more appropriate for him to give just a little more serious thought to his notes, and resist the ever-present temptation to indulge his sixth-form sense of fun? After all, to judge by his other comments on May 27, he has not much trouble in finding grist for his breezy little mill—almost anything will do.

No exhibition of small-scale models and photographs can be expected to convey a real idea of the volume or quality of the Polish post-war work; nor can ASTRAGAL, who obviously has not seen it, be expected to understand the nature of the effort and the thought that is behind it. If he had, I very much doubt if he would have been so depressed by the exhibition, or inspired to use it as an opportunity to treat us to yet another dose of his incomparable witticisms.

ASTRAGALOPHOBE.

London.

Voting Made Easy

SIR,—Having just completed my ballot form for the RIBA election, may I say how very grateful I am for the help which your publication of candidates' views has given me in making my choice.

F. E. NICKLIN.

Coventry.

THE TORQUAY CONFERENCE





Members of the British Architects' Conference, Torquay, at the informal reception on the Wednesday evening before the Conference. Above, left to right: Arthur Newcombe, John Evans and Dawes Dingle. Above, right: J. P. Lovell of Fulham, T. E. North, West Ham, S. A. G. Cook of Holborn Borough, F. G. Southgate, of Walthamstow, and C. C. Shaw of Barking.

Below: Howard Robertson, President, giving his address at the inaugural meeting. On his right is the President of the Devon and Cornwall Society, Vyvyan Salisbury, and on his left, from left to right, William Spragg, Secretary of the RIBA, William Allen, chief architect to BRS, and Edward Mills.



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ABT

The Architect's Status

Last week the ABT issued the following statement on the architect's status:—

With the present increase of private house building and estate development there is a building and estate development there is a serious danger that many of the pre-war evils of speculative development could begin again. The principal reason for these evils, which did so much to destroy the beauties of our countryside between the wars, is the failure to employ the trained exhibited, who alone can ensure that all wars, is the failure to employ the trained architect who alone can ensure that all aspects of good planning and design are considered. The only way that these evils can be mitigated at present is when schemes are submitted to the planning authority. This occurs at too late a stage, is a negative rather than positive process, and is undertaken at the expense of the local authority's time and money. The ABT considers that the design of all private architectural work and estate development should be carried out by qualified architects and would like to see statutory provision made for this. vision made for this.

vision made for this.

A similar problem arises with many local authorities because the position of the architect has not been made a statutory appointment as is the case of the Clerk, the Engineer and the Medical Officer. Too many authorities have placed their architectural responsibilities in the hands of other professions. The ABT considers that architects should be responsible for architecture, just as engineers are responsible for engineering. There should, therefore, be a statutory obligation on local authorities to place architects in full responsibility for all architectural work.

The ABT considers that only when architecture were considered that the considers that only when architectural work.

The ABT considers that only when architects are given the full statutory responsibility for the design of both private and public architectural development will the best interests of the individual and the community be safeguarded in terms of heauty and economy. beauty and economy,

Officers Elected

T. E. North has been elected chairman, and L. A. Chackett vice-chairman, of the Professional Purposes Committee of ARCUK's council for the year ending March, 1955.

Ruling About Assistant Architects

In accordance with the directions of ARCUK's council, counsel's opinion has been taken on the position of assistant architects in relation to Section 1 of the

Counsel have now advised that the words in the Act "any name, style or title containing the word "architect" were not ambiguing the word "architect" were not ambigu-ous in relation to the term "assistant archi-tect" which did not constitute a separate and distinct title outside the Act. The term "assistant architect" includes the word architect and an offence would be com-mitted by anyone against whom it could be proved that he practised or carried on business under the style "assistant archi-tect" without being registered under the 1938 Act. 1938 Act.

COMPETITION

Winning Designs for Kirkcaldy Crematorium

As announced last week, Ronald Bradbury, the assessor of the competition for a crematorium, promoted by the Royal Burgh of Kirkcaldy, Fife, has made the following awards:-

awards:—
First prize (£300): Sanger and Rothwell chartered architects, Oldham. Second prize (£200): W. F. Howard, F.R.I.B.A., London. Third prize (£100): John A. Wells-Thorpe, A.R.I.B.A., of Lawrence Gotch and Partners. Commended: Lavender, Twentyman and Percy, Wolverhampton; John Peters, A.R.I.B.A., and Walter Scott, A.R.I.B.A., Kirk-caldy; Mrs. Heather Shipman, A.R.I.B.A., and S. G. E. Shipman, A.R.I.B.A. Cambus, By Alloa.
This week we illustrate the winning designs overleaf. Following are extracts

designs overleaf. Following are extracts

from the assessor's 2,500-word report: "The scheme recommended for the first premium," Mr. Bradbury writes, "is a very simple and straightforward solution of the problem imposed by the competition's conditions, both in plan, section and general massing. It will, however, in the opinion of the assessor, require certain minor amendments in detail before it can be regarded as wholly acceptable to the promoters, but he has satisfied himself that such adjustments can very easily be made before the working drawing are proceeded. before the working drawings are proceeded with and without any basic alteration in design. When such amendments are incordesign. When such amendments are incorporated the resultant crematorium, in the opinion of the assessor, will be a building achieving a very high degree of working efficiency and of an attractive architectural

character.
Unlike many of the solutions submitted, the winning scheme possesses a simplicity and directness in plan which is immediately apparent. The general layout and positioning of the scheme on the site is moreover straightforward and well-considered. straightforward and well-considered. The porte cochere and covered way at the main entrance are well handled and provide easy and direct access both for the coffin and mourners. The separation of the office, waiting room and public lavatories from the main building is ingenious and has much to commend it. The siting of the Waiting Chapel is excellent, as is the position of the Book of Remembrance in the adequate, but not over-generous entrance adequate, but not over-generous entrance hall. The chapel is attractively proportioned, and the opening out of the lower aisle-wall with a continuous range of windows to the garden will give the correct relationship between the garden and the interior of the chapel. The catafalque is well placed although further consideration will have to be given to the detailing of the organ and the means whereby the organist can keep in touch with the progress of the cortege. The working parts of the building are very well-handled both in plan and section, despite the somewhat indirect method of approach from the

indirect method of approach from the entrance hall.

Whilst the elevations are somewhat thin they are very pleasant. The general relationship between the various volumes of the building is good and the scheme is basically a quite simple one in mass, consisting as it does of three main elements. The first comprises the covered way, entrance hall, waiting chapel, etc., at the front; the second being the chapel itself,

Right: A general view of the garden party held in the grounds of Torre Abbey. In the background is the Spanish barn where was held an exhibition of local architects' work and exhibits referred to in the paper by William Allen and Edward Mills.



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The

Kirkcaldy, Fife.

which with its pitched roof dominates the composition; whilst the third main element, with flat roofs, consists of the cremation room, committal chamber and other workring parts of the building; the whole com-position is happily tied together by the tower. The scheme is thus essentially a simple one, a quality all too seldom found in the other schemes submitted. Moreover, this simplicity is reflected in the competi-tor's estimate of cost which, on checking, proves to be reasonable so that the promoters can be assured that the crematorium can be built well within the maximum figure of £63,500 which they have had in mind.

By comparison with the winning scheme, the second scheme is somewhat compli-cated and expensive. It is extremely doubtful whether in fact it could be built for the sum which the promoters have suggested. Indeed, a check by the quantity surveyors engaged by the promoters, con-firms this view. This is due in part to the fact that the author has over-elaborated his plan, particularly in regard to the attractive but expensive curved approach-wing. His chapel also, both in plan and section, is much more elaborate than that of the scheme placed first. Apart from these criticisms, however, the general arrangements are well worked out and the plan is direct with a simple ceremonial approach to the catafalque and beyond it into the committal chamber and cremation room. Elevationally, very considerable thought has been given to the scheme by its author, but, by comparison with the first design, it is perhaps over-ornate and not so fresh either in planning or general or architectural character. The author is, however, to be

congratulated on a workmanlike job.

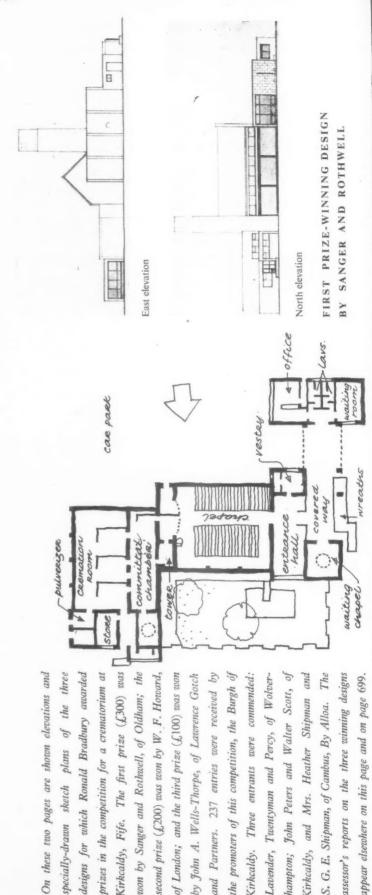
The third scheme is much more elaborate in many ways than either of the schemes already Again, however, it is a workman like effort particularly well-considered in its general massing and elevational character. Like the second scheme, the scheme placed third suffers from over-complication and perhaps lacks the freshness of approach of either of the others. The assessor was particularly impressed, however, with the chapel and the placing of the catafalque in the circular recess in which circular curtains would be used to screen it off from the congregation at the end of each service. The third scheme suffers, however, like many of the others submitted, from the inadequacy of the arrangements for both the cortege the mourners to enter the building. Unlike the first two schemes, the arrangements envisaged by the author of this third scheme in this regard are very restricted. This design is, however, a complete entity although the resultant building is perhaps of a character more suited to an open urban site. A check of the estimate of the cost submitted by the author of this scheme reveals that it would in fact, as in the case of the second scheme, cost rather more than the amount which the promoters have had in mind.

DEATRA

Discussion on Model Building Bye-Laws. Introduced by R. A. Simons, of the BRS. At the RIBA, 66, Portland Place, W.1. JUNE 15

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

Conference of Building Trades Employers.
At the Building Department, LCC S.E.
London Technical College, Worsley Bridge
Road, Lower Sydenham, S.E.26. 2.30 p.m. Bridge



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Three entrants Twentyman and

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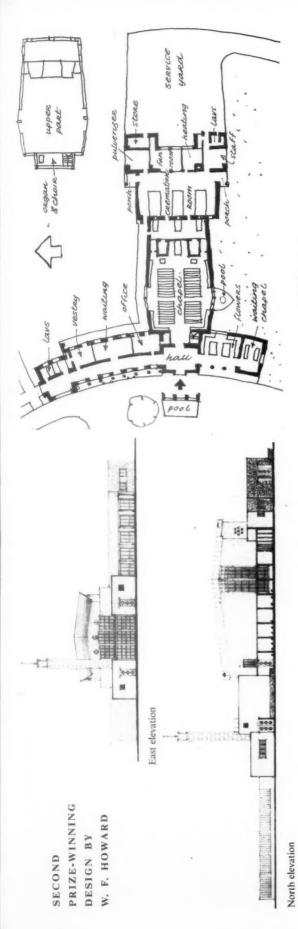
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Kirkcaldy, hampton;

waiting

assessor's reports on the three winning designs appear elsewhere on this page and on page 699.



entrance hall boiler room. covered walk pulverizer fan room THIRD PRIZE-WINNING DESIGN BY JOHN A. WELLS-THORPE

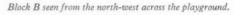
East elevation

South elevation

SECONDARY SCHOOL

on the LCC ESTATE, AVELEY, ESSEX
designed by DENIS CLARKE HALL; assistant architect, R. A. H. RUTH
in association with HAROLD CONOLLY, County Architect,
consultants (heating) J. ROGER PRESTON and PARTNERS, (electrical) BARLOW,
LESLIE and PARTNERS; quantity surveyors, E. C. HARRIS and PARTNERS

Ockendon Courts County Secondary School was designed as a four form entry school for 680 pupils from the LCC housing estate, the houses of which surround the school site (of 21 acres) on three sides. The site, which is just off the Aveley-Stifford Road, is virtually flat and the area to the west which is not used for buildings is part of the green belt. Most existing trees that were safe have been preserved. On page 708 the planning of this school is compared with the Secondary School, Cranford (pages 709-714).





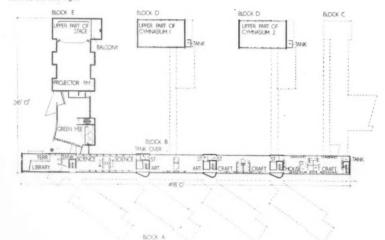




Above, main entrance on the south facade. The rear wall of the assembly hall is on the left.



Above, view across the south playground from the east. Assembly hall on the left and gymnasium centre.



First floor plan

from

sides.

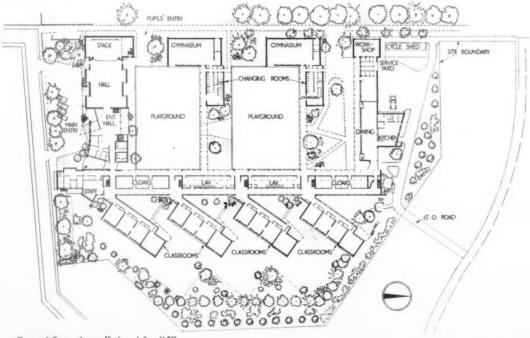
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round.

PLAN.—The main approach to the school is from the south and there is a secondary approach from the north, which serves the kitchen and workshops. The central spine block has a long corridor and lavatories and cloakrooms on the ground floor and staircase access, at 90-ft. intervals, to the first floor teaching rooms. The staircase units, one of which is illustrated in detail on page 706, form the main entrances and exits for pupils and are situated opposite the branch corridors leading to the four blocks of classrooms to the east, set at an angle to the main axis of the buildings. According to the standards in force in 1949, this school was planned with the lavatory and cloakroom areas

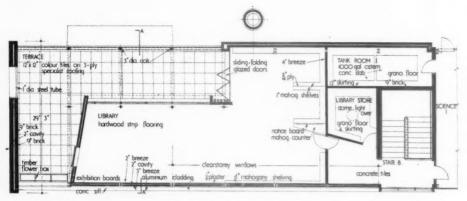


Ground floor plan [Scale: 125" = 1'0"]

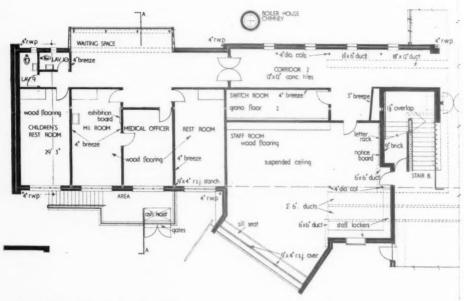
SECONDARY SCHOOL

at AVELEY, ESSEX

designed by DENIS CLARKE HALL



First floor plan



17,700 26.8 Teaching area Storage area... 4,600 Cloakrooms. lavatories 8,400 12.7 and changing Hall, gym. and dining 16,000 24.2 Administration and miscel-7,000 10-6

12,300

66,000

circulation

Total

18-7

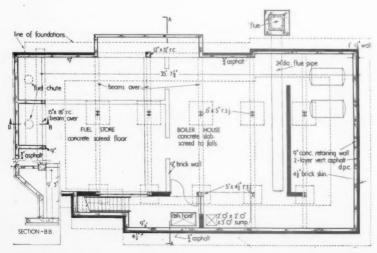
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ANALYSIS OF GROUP AREAS

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Ground floor plan [Scale: # = 1'0"]



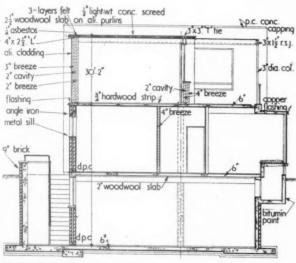
Basement plan, library and staff block

on the ground floor almost identical in size to the teaching areas above. This enables intermediate columns to be used on the ground floor to carry the first floor beams. The main entrance hall structure and staircase are designed to have additional rooms for further education on the first floor over the staff rooms and if necessary a second floor. The gymnasia and changing rooms, in two separate blocks, are on the west side of the site, near the playing fields, and are connected to the main building by covered ways.

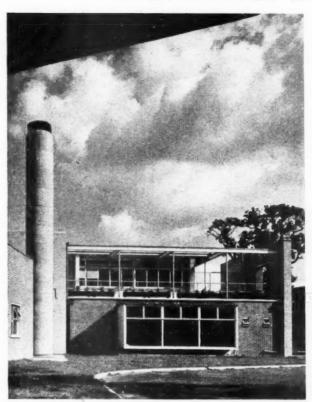
CONSTRUCTION.—The main planning is on a 3-ft. 4-in. module and the light welded-steel frames

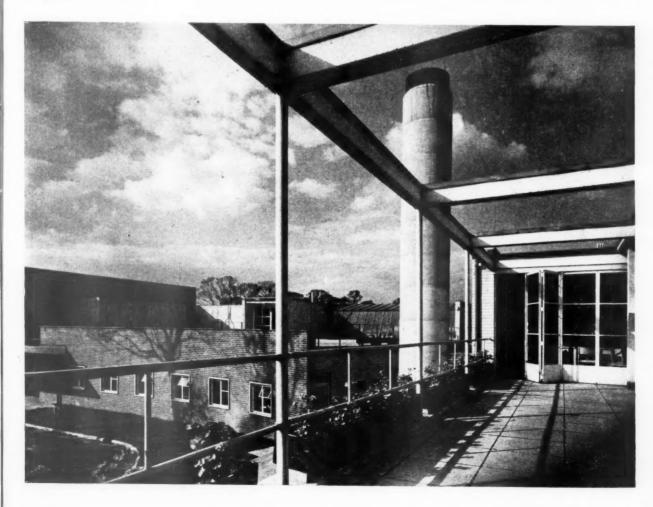
have r.s.j's at 10-ft. centres. The assembly hall and Right, view from gymnasia have solid load-bearing walls. The structure is carried on reinforced-concrete raft foundations with trimmer beams at the edges. The first floor is constructed of hollow blocks and there are expansion joints at each staircase.

under the entrance canopy, looking towards the lib-rary. Bottom, terrace outside the library, looking towards the boiler chimney and greenhouse.



Section A-A [Scale: 12" = 1'0"]





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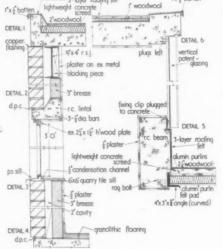
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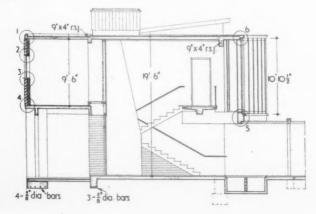
Above, typical staircase in twostorey teaching block B.

SECONDARY SCHOOL

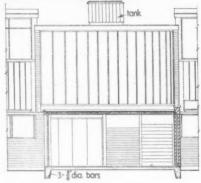
at AVELEY, ESSEX
designed by DENIS CLARKE HALL



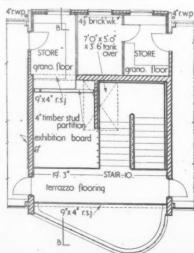
Details 1-6 From section below [Scale: ½" = 1'0"]



Section B-B [Scale: $\frac{1}{13}$ " = 1'0"]



East elevation of staircase window



First floor plan, typical staircase in block B

Below, a ground j and norm blocking B, through playgroung first flow window

Below, looking north down the ground floor corridor in block B and north-east down a corridor in block A. Bottom left, looking from corridor in block B, through cloakrooms to the playground. Bottom right, first floor landing and staircase window in block B.

FINISHES.—Roofs consist of woodwool slabs on aluminium purlins at 2-ft. centres spanning the main frame. Internally, walls are plastered and painted with emulsion paint in a wide variety of colours. Ceilings are of exposed woodwool spray distempered. Floors are of coloured concrete tiles in the corridors, cloakrooms and lavatories and of wood composition in teaching rooms. The total floor area is 66,000

sq. ft. (per pupil, 97 sq. ft.). The cost on tender was £197,773 (per cube ft. 3s. 1d. nett and 3s. 3d. gross, per sq. ft. 54s. 4d. nett and 56s. 11d. gross). The cost per pupil, according to MOE calculations, is £280, with the cost of external works, not included in MOE calculations, £7,000.

The general contractors were Leightons (Contractors), Ltd. For sub-contractors, see page 722.





ck B



Secondary School Planning

THE SPREAD-OUT AND THE COMPACT PLAN



The South Ockendon secondary school. An aerial sketch, looking towards the north-west.

The two secondary schools illustrated in this issue, the South Ockendon School in Essex on the preceding six pages, and the Cranford school in Middlesex, on the following six pages, provide interesting examples of a widely different approach to school planning by the same private architect, when interpreting the requirements of two clients, both County Education Authorities. Points of similarity between the two schools include, approximately the same number of pupils (680 at Ockendon and 550 at Cranford), the same floor area per pupil (97 sq. ft. and 95.75 sq. ft. respectively) and a cost per pupil of £280 at Ockendon, based on 1949 standards of accommodation and £268 at Cranford, based on 1950 standards. There the similarity may be said to end. The major difference in approach is found in the need of the Middlesex authorities to plan their schools on much smaller sites, due to the non-availability of land in the county. It was early in 1950 that Middlesex decided to experiment in a new type of plan; three separate private architects were briefed, as well as the County Architect's Department for four schools. The Cranford School was the first to be completed and the other three, which will be illustrated in the JOURNAL in due course, are at Ruislip, designed by F.R.S. Yorke, E. Rosenberg and C. S. Mardall; at Hornsey, by Richard Sheppard and Partners, and at Hendon by C. G. Stillman, County Architect.

The architects concerned were given a broad outline and then were left free to work out their own solution. Generally speaking, this outline consisted of placing as much as possible of the teaching accommodation in one block and keeping the school on two working levels. The object was to reduce the area of circulation space, while at the same time providing for quicker and easier movement of classes in changing over to different parts of the school. At Ockendon the teaching accommodation is on two levels; there are two gymnasiums and a separate dining hall. Cranford has a different arrangement. The architect decided that the type of

plan adopted at Cranford was the most suitable for the restricted site available (21·5 acres at Ockendon, 5·5 at Cranford) and a better solution than a multi-storey structure. Although the plan adopted provides a large number of economies, which are listed on page 710, the type of construction used is more expensive at Cranford than at Ockendon. The reduction in price per pupil must be considered in the light of a reduction of amenities, which are in line with the economies being practised in school planning throughout the country. For example, Cranford has no separate dining hall, which means a dual use for the crush hall and assembly hall, and no second gymnasium.

As the school must be considered largely experimental, and as it has been in occupation for only one term, it is thought to be too early for a review of the administrative success, or otherwise, of the school from an educational or architectural point of view. Problems have arisen, which is inevitable in an experiment, and one of these relates to the railings which protect pupils in the first floor classrooms when the large sliding panels are opened in fine weather. These consist of two horizontal tubular steel rails, the top one being at a height of 2 ft. 10 in. It was considered by the County Education Authority that these might be dangerous and the architect was asked to provide a system of netting to cover the openings. A compromise has been reached and vertical wooden members are now being fixed. These members are being strapped to the steel rails at 9-in. intervals and bring the overall height to 3 ft. 2 in. The architect, it must be pointed out, is still of the opinion that any upper floor window with a low sill height forms a potential source of danger and that the windows at Cranford were adequately protected for children of secondary school age particularly as all openings have additional protection by radiators beside the rails. It is hoped that a return to this school at a later date will enable a more close study to be made of the particular educational and architectural problems involved.



Left, an aerial view of the Cranford Secondary School model, seen from the south-east. As can be seen from the roof layout, all first-floor classrooms facing east and west have top lighting and all classrooms have clerestory lighting also. Normally the sun does not shine into the main windows of the west—facing classrooms until the day's teaching has finished.

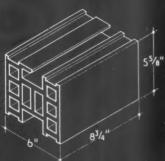
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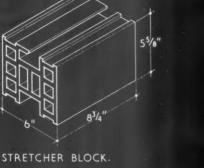
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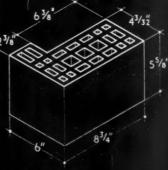
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ranford en from en from er classnave top is have formally he main assrooms finished.

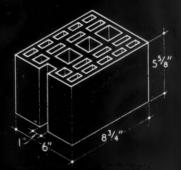




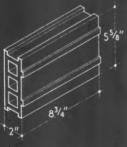




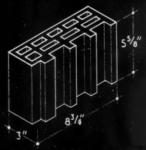
CORNER BLOCK.



FULL JAMB AND CLOSER.



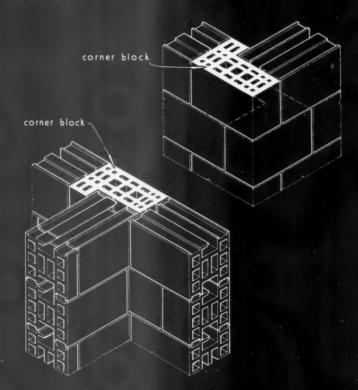
cut on site from stretcher block CUT CLOSERS.



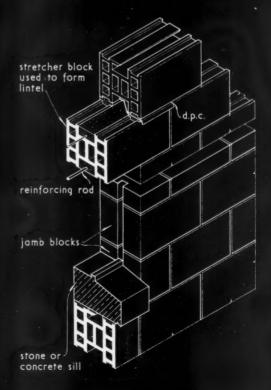
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HALF JAMB AND CLOSER.



TYPICAL APPLICATIONS OF CORNER BLOCKS. DETAIL OF WINDOW OPENING.



14.B2 'PHORPRES' HOLLOW CLAY BLOCKS FOR WALLS

This Sheet, together with Sheets 14.B1 and 14.B3, supersedes Sheet 14.B1 published 15.5.52, and describes Phorpres hollow blocks for walls. Sheet 14.B1 deals with Phorpres blocks for walls and partitions and Sheet 14.B3 with floor blocks.

Phorpres building blocks are manufactured from gault (buff in

Phorpres building blocks are manufactured from gault (buff in colour) and also weald clay (terra cotta in colour) the latter being a high quality engineering clay.

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

Design and Construction

Phorpres building blocks are designed strictly for the purpose to which they are to be applied. Every wall and web of its multi-cellular construction serves its purpose in securing the maximum strength of the unit with minimum weight. It will be noted that lintels may be formed for all types of opening by introducing reinforcement rods into the voids of the units and then filling with concrete as shown in the drawing on the lower then filling with concrete, as shown in the drawing on the lower face of the Sheet.

Sizes and Weights of Building Blocks

Size	Wt. of (lb. per		Yards	per ton
	Gault	Weald	Gault	Weald
8‡ in. × 5§ in. × 6 in.	226	258	10	81

* 24 blocks per sq. yd.

Crushing Strength

The mean strength of the individual blocks was 1,430/lb./sq. in. calculated on the gross area and 2,290/lb./sq. in. calculated on the minimum cross section.

Strength of Walls

For the purposes of test, wall panels 8 ft. high \times 4 ft. 6 in. wide \times 6 in. thickness were built in 1:1:6 cement/lime/sand mortar. When crushed with a concentric loading the failing load was 94 tons and with eccentric loading 47 tons. (Strain and deflection readings on both sides of the panel were recorded.)

Thermal Transmittance

The thermal conductance was measured on a 3-ft. square panel both faces of which had been treated with a skimming coat of neat hemi-hydrate plaster. The thermal conductance was 0.50 B.Th.U. per sq. ft. per hour for 1° F. difference in temperature between faces. Making the usual allowances for surface resistance, this indicates air to air transmittance of 0.33 B.Th.U. per sq. ft. per hour for 1° F. difference in air temperature. This is slightly higher than the value (0.30) for an unventilated 11-in. cavity wall which is now regarded (see Housing Manual 1944, p. 96) as the maximum for houses and flats. The introduction of an additional cavity, as for example by plastering on lathing over battens fixed to the wall, would bring the transmittance down to a satisfactory value. It is concluded that the Phorpres block will give a wall slightly inferior to an 11-in. cavity wall but superior to a 9-in. solid wall in heat insulation. The thermal conductance was measured on a 3-ft. square panel wall in heat insulation.

Thermal Insulation

The enclosed dead air spaces provide positive insulation against rapid changes in temperature. The "twin wall" or "double shell" design of the block, with its non-continuous mortar joints, together with the moisture stops at each end, acts as an additional barrier against the passage of cold, heat and moisture. Thus Phorpres building block construction gives balanced temperature conditions in winter and summer.

The sound insulation qualities of Phorpres building blocks are superior to most light-weight forms of construction.

Made of a raw material, clay, which is absolutely non-inflammable and exposed during the process of manufacture to 980° C., test results have proved the blocks to be fire-resisting beyond the spalling point of reinforced concrete. When heated to a temperature of 650° C. (1,200° F.) and plunged into water, the block does not disintegrate.

Moisture Penetration

The building block has been designed to provide in one skin all the advantages of cavity wall construction. There can be no capillary attraction through the mortar joints as they are not continuous.

not continuous. An unrendered panel 8 ft. high \times 4 ft. wide \times 6 in. thick was tested for resistance to rain penetration. It is considered that the Phorpres block provides a wall that is superior to an unrendered 9-in. brick wall in resistance to rain penetration (this standard is now regarded as a low one) and should normally give a dry interior, though dampness will sometimes appear after exposure to rainstorms of unusual severity.

A wall comparing favourably in performance to contemporary types of cavity construction can be laid in one operation. size of the blocks and the ease with which they may be handled reduces the amount of scaffolding required to a minimum. As the units are designed to suit brick dimensions, bricks can be the units are designed to suit brick dimensions, bricks can be used at any point in the construction to line and bond with the blocks. The blocks can be readily cut where special closers are required. The special units which are available are required only at corners and openings and may be applied to any design. First floor joists and roof timbers are provided with a bearing without the necessity for cutting the block.

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. Care should be taken to avoid bridging the gap between the two horizontal joints. The amount of water in the mix is reduced to a minimum owing to the texture of the material.

The standard block is manufactured keyed on both faces or with an external facing texture termed as "rug face," which does not require to be rendered. Should the blocks be required smooth faced, this can be arranged provided sufficient notice is given at the time of ordering.

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

Prudential Buildings, St. Philip's Place, Office: 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.

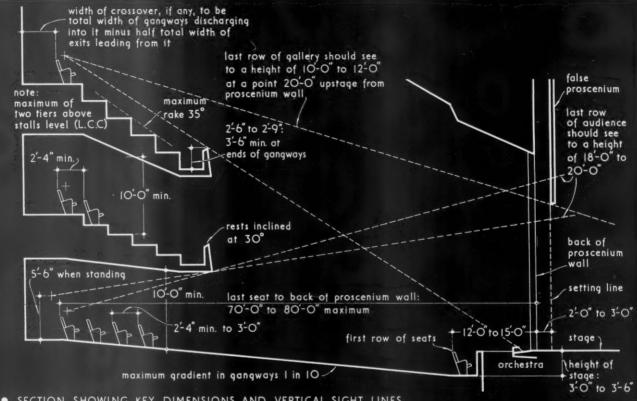
Telephone: Leeds 20771.



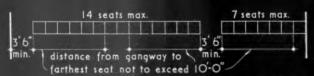


DESIGN DATA ENTERTAINMENT THEATRES

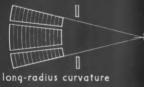
The Architects' Journal Library of Information Sheets 472. Editor: Cotterell Butler, A.R.I.B.A.



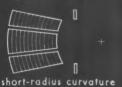
SECTION SHOWING KEY DIMENSIONS AND VERTICAL SIGHT LINES.



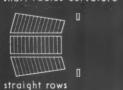
L.C.C. requirements; Home Office Manual; allow increase in row length if seating spacing back to back is increased (see reverse of Sheet) SEAT SPACING



advantages: good appearance at, intersection with aisles, seat rows more easily set out in alignment disadvantages: tends to concentrate reflected sound in front part of hall. lacks intimacy



advantages: greater sense of intimacy, concentrates attention on acting area disadvantages: not good acoustically, tends to give ragged appearance in aisles, difficulty of alignment.



advantages: reflected sound undistorted seats more easily set out in rows disadvantages: difficulty of aligning side and centre rows without reducing former in width. side blocks give ragged appearance in aisles

ALTERNATIVE ARRANGEMENTS OF SEATING.



seats 1-8" wide provide maximum number in straight rows in curved rows, to give even gangways, seat widths may vary between 1-7" and 1-10" or spaces between them may vary while seat widths remain constant

SEAT WIDTHS.



a. ideally the worst site line should not exceed angle of 10° to 15° to proscenium opening b. where large numbers are to be seated 'a' is not possible, angle of 30° should be considered absolute maximum. HORIZONTAL SIGHT LINES.

4.L3 THEATRE SEATING

This Sheet deals with the general planning and layout of theatre seating. The drawings show a section, giving key dimensions and vertical sight-lines, diagrams giving size and spacing regulations for seats and typical layout plans.

Key Dimensions and Sight-Lines

The dimensions for auditoria can only be arrived at by the careful balancing of various, often conflicting, requirements. In the legitimate theatre the tendency is now towards a reduction in scale and increase of intimacy. This involves bringing as many people as near as possible to the stage and affects the distance of the balconies from the curtain line, the amount they overhang the stalls and the rake of the seating. The distance from the curtain line to the last row of seats is given as 70 to 80 feet, as this is about the limit to which the human voice will carry unaided and at this distance it is difficult to see the small changes of facial expression and subtleties of performance required on the modern stage.

The width of the auditorium is generally determined by the sight-lines (except where it is restricted by the site) and the height is strongly influenced by acoustics; 200 cubic feet per person provides a rough guide to volume.

Seating

The width of seats and spacing of rows is obviously influenced by the numbers to be seated and the space available, together with the class of theatre and the standard of comfort expected. Whereas a seat width of 1 ft. 8 in. is comfortable, 1 ft. 9 in. provides a more desirable width, while anything over that is extrava-

gant. Similarly, the row spacing, seat-back to seat-back, although comfortable between 2 ft. 7 in. and 2 ft. 9 in., begins to be wasteful at 3 ft. 0 in. (except in balconies, where there is no advantage from the slope of the seat-back in the row in front).

Different seat manufacturers have various methods of spacing seats to line up with gangways and avoid unsightly "pockets," frequently using seats of different widths in one row to make up an exact row length. Seats with mechanical devices, such as arms that lift up with the seat or seats that slide back to avoid one person's having to get up to allow another to pass, are inclined to become noisy in operation after they have been installed for some time.

The L.C.C. Bye-laws state that no seat shall be further than 10 feet from a gangway, measured along the line of the seating, that is along the curve where the seats are not in straight rows. This bye-law may sometimes be relaxed if the distance between the front of the seats and the back of the next row is more than one foot.

Means of Escape

L.C.C. Bye-laws also state that "each tier or floor accommodating not more than 500 people to have two separate exits leading into different streets or ways, with an additional exit for every 250, or part of 250, over 500." Exit doors, corridors and stairs must be not less than 4 feet clear width for less than 300 people or 5 feet clear width for more than 300.

The Home Office Manual of Safety Requirements deals more fully and explicitly with means of escape, but, although the recommendations have been adopted as a basis for most provincial bye-laws, the L.C.C. retains its original requirements.

SECONDARY SCHOOL

in WOODFIELD ROAD, CRANFORD, MIDDLESEX designed by DENIS CLARKE HALL assistant-in-charge E. W. PRITCHARD in association with C. G. STILLMAN, County Architect consulting structural engineer, L. W. ELLIOTT quantity surveyor, WAKEMAN TROWER and PARTNERS



The secondary modern school at Cranford for the Middlesex County Council has been built on a site of five acres which lies between the Great West Road and the South-West Road to Staines and is on the eastern edge of London Airport. The ground is level and has access only from the east, The plan of this school, which is designed for 550 pupils, differs in every major respect to the South Ockendon school, illustrated on pages 702-707.

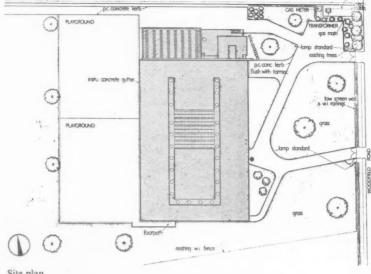
The main block from the south.



SECONDARY SCHOOL

at CRANFORD, MIDDLESEX designed by DENIS CLARKE HALL

Below, the main entrance on the east side. The flank wall is of Broughton Moor Westmorland green slate. Bottom, general view of the main block from the south-west.



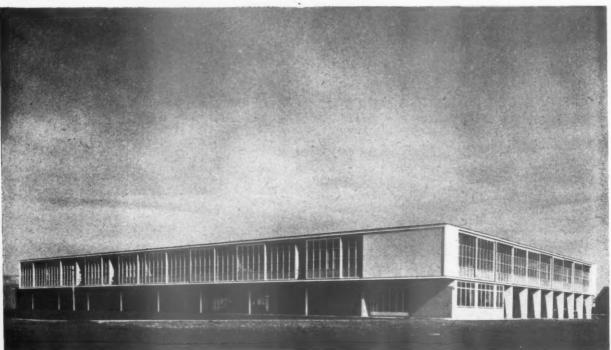
Site plan



PLAN.-The planning* of all the teaching areas is based on a first floor slab around a central assembly hall, crush hall and gymnasium, which rise the full height of the building and are top lit. Under the first floor slab, on the ground floor, are situated all the subsidiary rooms and one general-purpose room.

*Below is an analysis of this type of plan in comparison with an open planned secondary modern school for a similar number of publis showing the following savings:

subits showing the following	ig savi	ngs.				
Circulation area		***	***	***	24 pe	r cent
Circulation distances (for visit each room and re	r the	head o his o	teache	r to om)	30	**
Perimeter of external wa	lls	***	***		57.5	**
Length of soil drainage		***	***		53.3	9.5
Run of main heating pipe	15	***	***	***	50	9.0
Run of electrical sub-mai	ns		***	***	50	91
Floor ducts	***	***	*** ;	***	100	**
Total site occupied by bu	ilding				78	



KEY

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Ground Floor Plan

10. 11. 12. 13. 14. 15. 16.

17. 19. 20. 21. 22. 23. 24.

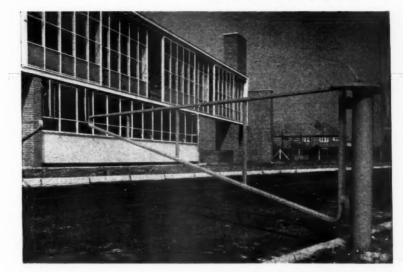
Staff room.
Stage.
Craft room.
Senior mistress.
Headmaster.
Secretary.
Stöck room.
Chair store.
Table store.
Assembly hall.
Dining hall.
Entrance hall.
Covered areas.
Kitchen.
Boys' shower room.
Boys' changing
room.
Instructor.
Vegetable store.
Office.
Larder.
Staff.
Dry store.
Girls' changing
room.
Girls' shower room.
Instructress.
Batteries.
Switch room.
Gas meters.
Gymnasium
Boiler room.
Boyne shower room.
Boys' changing
room.
Girls' shower room.
Instructress.
Switch room.
Batteries.
Gymnasium
Boiler room.
Fuel store

25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. ruel store
Games store.
Games entrance
Woodwork shop.
Stores.
Metalwork shop.

First Floor Plan

t Floor Plan
Library.
Class rooms.
Greenhouse.
Biology.
Cloaks and lockers.
Preparation room.
Science lab.
Art.
Housecraft.
Dinette.
Balconies.
Examination room.
Medical officer.
Waiting room.
Rest room.
Rest room.
Music room.
Music room.
Living room.
Living room.
Living room.
Kotchen.
Hall.
Bathroom.
Bedrooms.

10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24.

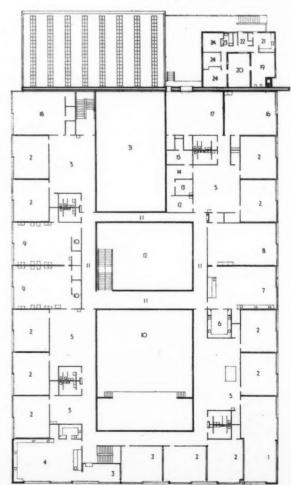


Above, part of the east facade. The barrier is to restrict cars to the car park during public performances. Right, the north-east corner of the school. On the first floor is the caretaker's flat, which is clad in hardwood boarding.

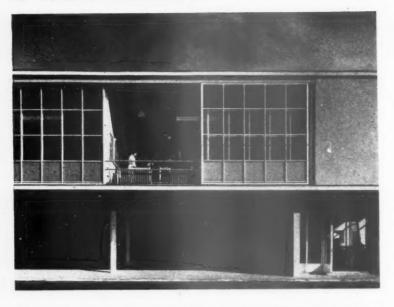




Ground floor plan [Scale: 1' 0']



First floor plan







Left, part of the west facade. One of the glazed sliding panels to first floor teaching rooms will be illustrated as a Working Detail in a later issue of the JOURNAL. Centre, the biology laboratory with the greenhouse beyond. Bottom, the assembly hall and stage.

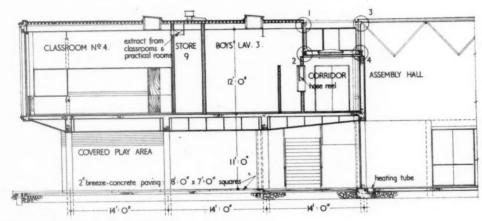
The latter is the only teaching space, except the metalwork and woodwork shops, forming a single-storey block to the north, which is not on the first floor. The first floor plan has been divided into four areas, each with cloakrooms and lockers, to allow for the division of the school into "houses" of pupils of different ages and intelligence. The workshops, which are planned outside the main slab perimeter, have a wide cavity-brick wall dividing them from the main block for sound insulation.

CONSTRUCTION.—The whole of the structure up to the first floor slab is of reinforced concrete with independent footings to three types of columns, based on a 25-ft. by 14-ft. module. The columns carry a grid of beams supporting the first floor. The brick walls to the assembly hall and gymnasium are built on independent footings and act as a sound barrier to the rest of the school. The roof is constructed of aluminium decking. In the assembly hall, entrance hall, gymnasium and workshops, roofs are carried on steel space frames. The assembly hall frame has an upper chord of 31 in. square by 1 in. angles, diagonal bracing of 1 32 in. diameter tubular members and lower chord of 23 in. diameter tube. The gymnasium frame is similar. The crush hall roof frame is inverted, having a top chord of 2% in. diameter tube, diagonal bracing of 1 82 in. diameter tube and bottom chord of 7 in. by 3½ in. angles. The workshop frame is similar, and was illustrated as a Working Detail in the JOURNAL for June 3, 1954.

FINISHES.—Externally, concrete and rendering is painted with pale grey, pale pink, white or blue-grey stone paint; facing bricks are hand-made red sand facings; cladding to the caretaker's flat at the northeast corner of the school is tongued and grooved vertical hardwood boarding, and the stone wall beside the main entrance from the east is of Broughton Moor Westmorland green slate and external paving is blue Yorkstone. Roofs are finished with three-ply felt. Internal floor finishes include semastic tiles in teaching rooms, hardwood blocks in assembly hall, staff rooms, medical rooms and library, hardwood strip for gymnasium and

bitumen-on-aluminium decking bitumen-on-aluminium roof decking aluminium drip-12 x 1" battens, screwed to decking at 1': O'cc. 4° enamelled gutter 4"enamelled gutter 4"x 3"x 1" angle; pressed aluminium closer ½ acoustic tiles 1½" x 1" battens screwed to decking 4" acoustic tiles screwed to battens 2" x 1" plate, screwed to angle ex. 4 1 x 1 fascia. 5" bolts b 3"enamelled r.w.p. DETAIL 3 I'x I' batten; screwed to timber plate ex. 4½ x l° plate : position of 24x7 x 95. r.s.j. over stage proscenium begm 4' 0" DETAIL . I 6 x 1 m.s. strap patent lathing & plaster pressed-steel sill pressed steel (profile B) 42 brickwork bitumen - on -aluminium __ decking · 3"x 3" fillet _ bitumen on aluminium roof decking 3"x 3"x 3" angle ; bolted to brickwork 3"x3" timber fillet $4^{8} \times 3^{9} \times \frac{1}{2}^{9}$ angle 4 breeze plaster ... patent lathing 2"x 1" plate. $l_{\overline{Z}}^{I''} \times l''$ battens patent lathing plaster DETAIL 2. DETAIL 4 plaster 4ci rwp

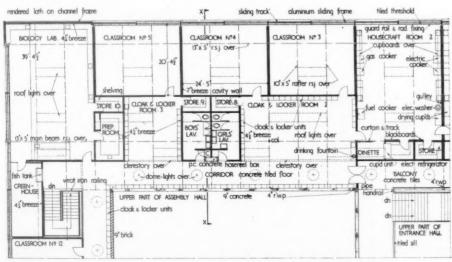
Details 1, 2, 3 and 4 from section X-X below [Scale: I" == I' 0"]



SECONDARY SCHOOL

at CRANFORD,
MIDDLESEX
designed by
DENIS CLARKE HALL

Section X-X of first floor plan below [Scale: 12" = 1'0"]



First floor plan, south-west corner [Scale: 24" = 1'07]

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The slab

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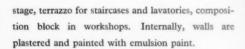
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Above and above right, staircase on the west side of the crush hall, which is lit by aluminium framed patent glazing carried on tubular steel space frames. The double-swing sliding doors between crush and assembly halls will be illustrated later as a Working Detail. Right, the craft room, which is the only teaching space on the ground floor of the main block. Bottom, cycle store on the south side of the school.



SERVICES.—The school is heated by a low-pressure hot water system with radiators and is ventilated with a mechanical extract system. All service pipes, etc. are suspended from the first floor slab. For warm weather use, half the glazed panels on the first floor are made to slide so that 50% of the window area can be open from floor to ceiling. The school is designed for 550 pupils which, with a total area of 52,670 sq. ft. (including 3,000 sq. ft. central area), allows 95.75 sq. ft. per pupil. The total teaching area is 22,478 sq. ft. (per pupil, 41 sq. ft.). Circulation areas are 3,000 sq. ft. (central area), 2,500 sq. ft. (dining area) and 9,480 sq. ft. (general circulation, including boys' cloaks). The estimated contract prices for first and second stages were £158,000 to £151,232 (first stage which included r.c. columns and beams and first floor slab, £,22,982 and second stage £128,250). The net cost (excluding site works) was £144,732. Cost per place, £268, per foot super, 54s. The total cube is 887,000 cu. ft., cost per ft. cube 3s. 23d. These figures are all based on nett cost.

The general contractors were J. Lawson & Co., Ltd. For sub-contractors, see page 722.







This v Specia

TECHNICAL SECTION

It is a lamentable fact that there is no tradition in the Building Industry of "writing up a job" in the way that a scientist writes up an experiment. Admittedly the situation is somewhat different: the building is the end product, not the record, whereas in science the record is often the only means of consolidating an extended frontier of knowledge. The scientist does not regard his work as complete until he has passed on the fruits of his experience to other workers in the field. Yet, in an industry where new techniques are constantly being evolved to deal with new situations and changed circumstances, the need is no less great to record the mistakes that one man makes so that others may avoid them. Building costs are a case in point. Compared with manufacturing industries (where processes and products are widely repetitive) the building industry has little detailed knowledge of how it spends If any account is kept by a public office of the man hours and money spent on the various components of its buildings as the work proceeds-foundations, ground floor slab, structures, floors, roof, etc., the JOURNAL would be pleased to publish it. A mass of evidence would thus be built up which could be of enormous value in producing more buildings in the right time and at the right cost.

This week's Special feature

8 ESTIMATING materials' prices

Current prices for measured work will appear on June 17. Prices of materials and measured work last appeared in the JOURNAL on Feb. 18 and March 4

1954, respectively.

Current rates of wages and market prices of materials prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors. Rates for measured work will be published in the JOURNAL for June 17.

Rates of Wages last rose on May 24, 1954 and are now as follows:— LONDON DISTRICT Craftsmen. Labourers. Within 12 miles radius ... 3s. 5d. 3s. 10½d. From 12-15 ., 3s. 10d. 3s. 41d. LIVERPOOL and DISTRICT 3s. 10½d. 3s. 5d. A^3 A^1 A^2 GRADE CLASSIFICATIONS A Craftsmen .. 3s. 9d. 3s. 8½d. 3s. 8d. 3s. 71d. 3s. 3½d. Labourers .. 3s. 3d. 3s. 2½d. 3s. 2d.

Prices vary according to quality and the quantity ordered.

Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit for the General Contractor.

CONCRETOR

Cements

| Portland to B.S. 12, 6 tons and over | per ton 96/6 |
|---|--------------|
| Rapid hardening to B.S. 12, 6 tons and over | ,, 104/6 |
| Aquacrete water repellant, 6 tons and over | ,, 129/- |
| Aluminous to B.S. 915, 1 ton lots | ,, 299/6 |
| Snowcrete, 1 ton lots | ,, 257/- |

Above prices include for delivery to Charing Cross in non-returnable paper bags or cotton sacks.

Aggregate and Sands, etc. (Full Loads)

| a" (Down) | Wash | ied, eri | ished | d and grad | ded sh | ingle | | |
|------------|--------|----------|-------|------------|--------|-------|---------------|-------|
| to B.S | 8. 882 | , Table | 2 | | | | per yard cube | 18/3 |
| 1½" Ditto | | | | | | **** | | 17/3 |
| 3 " Sharp | | ed sand | l to | B.S. 882, | Table | 3 | 11 | 20/10 |
| Brick hard | lcore | **** | **** | | | | 51 | 9/6 |
| Ashes | | | | | | | 2.9 | 8 6 |

(For Sands for Bricklaying and Plastering, see respective trades)

Floor Blocks

| | | | | 4" | 6" | 7" |
|------------------|------|-----|---------------|-------|-------|---------|
| Floor blocks, 12 | 2" × | 12" |
per 1.000 | 693/- | 936/- | 1.081/- |

Reinforcement

| Home trade maximum basis price for mild steel rods to B.S. 785, §" diameter and upwards, ex | | | |
|---|---------|--------|---|
| mills delivered to station or siding | per ton | £32 18 | 0 |
| T3 - 4 C | | | |

| Extras for :- | | | | | | | |
|---------------------------|------|------|------|-----|----|----|---|
| Under 5" to 7 diameter | | | **** | 7 * | £1 | 7 | 0 |
| Ditto 7 and over 3" diame | ter | | | 9.9 | £1 | 14 | 6 |
| | | | | 0.9 | £2 | 2 | 0 |
| 11 and over 18 diameter | | **** | | 9.9 | £2 | 9 | 6 |
| 5 and over 9 diameter | | | | 9.0 | £2 | 17 | 0 |
| and over 1" diameter | | | | 2.2 | £3 | 4 | 6 |
| 1" diameter | **** | | **** | 22 | £3 | 12 | 0 |
| Under 1" to 1 diameter | | | | 22 | £5 | 2 | 0 |

Fabric Reinforcement

| Steel wine much false to D.C. | 16.35 lb. | 9.32 lb. | 4.71 lb. | 1.83 lb. |
|---|-----------|----------|----------|----------|
| Steel wire mesh fabric to B.S.
1221, Part A. per vd. super | 7/103 | 4/75 | 2/33 | 1/4 |

BRICKLAYER

| | | | Com | mon Br | icks | | | |
|---------------------------|------|----------|------|--------|------|------|----------|--------|
| Third stocks | | **** | **** | **** | | p | er 1,000 | 127/4 |
| Rough stocks | **** | **** | | *** | **** | 4 | 32 | 163/4 |
| Mild stocks
Sand limes | **** | **** | | **** | | **** | 2.2 | 207/10 |
| Phorpres press | sed | Flettons | **** | | **** | | 99 | 110/6 |
| Belgian | | | **** | **** | *** | **** | 21 | 218/- |

Facing Bricks

| Hand-selected sand limes | **** | | **** | pe | er 1,000 | 145/9 |
|---------------------------|--------|---------|---------|------|----------|--------|
| Phorpres rustic Flettons | | **** | **** | | 22 | 138/- |
| Stocks, first hard | | **** | **** | **** | 9.9 | 254 10 |
| Stocks, second hard | | **** | | | | 238/10 |
| Southwater pressed sandfa | ced re | ds | | 4211 | | 297/6 |
| Dorking pressed sandfaced | multi | coloure | d facir | ngs | 2.9 | 242/- |

Engineering Bricks

| Lingfield engineering wirecuts.
Southwater engineering No. 2 | | per 1,000 | 221/- |
|---|---|-----------|-------|
| Plue pressed bricks to R S 120 | 1 | 11 | 285/- |

Glazed Bricks

| White, Ivory | or I | Brown. | 9" × 27 | " × 41" | delivered | | Best q | ual | ity. |
|--------------|--------|--------|---------|---------|-----------|----------|--------|-----|------|
| London | | | | 2 | | | £ | 8. | d. |
| Headers | | **** | | | | per 1,06 | 00 63 | | |
| Stretchers | **** | 1000 | **** | **** | | | 64 | | |
| Speende | 101:40 | ahorro | meioon | | | . ,, | | - | - |

BRICKLAYER (continued)

Limes and Sands

| | | | | l ton lots |
|-------------------------------|-------|-------|------------------|------------------|
| †Lime, greystone, to B.S. 890 | | | per ton | 114/6 |
| †Lime, chalk, ditto | | | 92 | 114/6 |
| *Lime, hydrated, ditto | | **** | 11 | 127/- |
| Washed pit sand to B.S. 1200 | **** | **** | per yard cube | 20/10 |
| * Including paper bags. | | | | |
| † Hire of jute sacks charged | at 1/ | 6 and | credited at 1/6. | If left, charged |

at 1/9.

Sundrica

| Dunantes | | | |
|---|---------------------|--------------------------|-------------------------------|
| 10 s.w. gauge galvanized butterfly type w
B.S. 1243 | | per 1,000 | 0 82/9 |
| Wall ties, galvanized, $8'' \times \frac{3}{4}'' \times \frac{1}{8}''$, to B. | | | |
| Damp proof course slates: | Imi | ported V | Velsh |
| Damp proof course slates: Size 14" × 9" | per 100 | 43/- | 78/3 |
| ,, $14'' \times 4\frac{1}{2}''$
Hessian base bitumen damp course to B.S | 9.7 | 21/- | 34/9 |
| Hessian base bitumen damp course to B.S. | | | |
| 743 | per yard
9" × 3" | 1 super $9'' \times 6''$ | 5/1
9" × 9" |
| Terra-cotta airbricks ea | ch 1/3 | 2/6 | 6/- |
| Galvanized east-iron airbricks , | 3/2 | 5/4 | 8/- |
| Galvanized cast-iron hit-and-miss | | | |
| ventilators | 3/2 | 6/2 | 8/- |
| Wall reinforcement supplied in standard \$2" wide black japanned \$2\frac{1}{2}\textit{"} wide black japanned \$\frac{1}{2}\textit{"} price, Discount for quantities. | rolls contai | ning 25 y | ards lineal
oll 3/4
4/2 |
| | | | |

Partitions, etc.

| CO: 1 | 2" | $2\frac{1}{2}''$ | 3" | 4" | |
|---|------|------------------|--------|------|------|
| Clinker concrete, solid to B.S. 492
per yard super | 3/7 | 4/2 | 5/- | 6/2 | |
| Hollow clay to B.S. | | | | | |
| 1190 (keyed) ,, | 4/3 | 4/6 | 5/- | _ | |
| | | | | | 41" |
| Moler (keyed) ,, | 13/- | 13/9 | 14/6 | 17/6 | 187- |
| Building blocks (keyed) : | | | , | , | 4" |
| 6 cavity | | per v | ard su | per | 6/7 |
| Normal quality woodwool slabs | 1 | " 11" | 2" | 21" | 3" |
| Minimum delivery, square yards, | 50 | 00 400 | 325 | 275 | 250 |
| per vd. super | | /- 6/6 | 8/- | 9/2 | 10/3 |

PAVIOR

| 2" coarse gravel for paths | | | | per yard cube | 22/3 |
|--|-------|----------------|-----|----------------|-------|
| I" fine ditto
Clean granite chippings | | | | ** | 23/9 |
| (in 5-ton loads) | | | | per ton | 44/9 |
| Red quarry tiles 6" × 6" | X | 7", to B.S. 12 | 286 | per yard super | 13/3 |
| Ditto 6" × 6" | X | ", to B.S. 19 | 286 | " | 11/- |
| Buff quarry tiles, 6" × 6" | × | 7", to B.S. 1: | 286 | ** | 16/6 |
| Ditto 6" × 6" | × | 5", to B.S. 13 | 286 | 99 | 14/- |
| Hard red paving bricks, | 2" | | | per 1,000 | 464/3 |
| Ditto | 11/2" | | | 99 | 438/3 |
| | | | | | |

DRAINLAYER

Clay Land Drain Pipes to B.S. 1196

| , | | | 3" | 4" |
|----------------------|------|-----------|-------|-------|
| Pipes in 12" lengths |
 | per 1,000 | 208/6 | 274/6 |

Salt Glazed Stoneware Pipes and Fittings

The following percentages to be added to the Standard List prices.

| Orders for
2 tons and
over | Orders under 2 tons 100 · 2 tons less pieces than 100 upwards pieces |
|--|---|
| $\begin{array}{llllllllllllllllllllllllllllllllllll$ | $97\frac{1}{2}\%$ less 15% $107\frac{1}{2}\%$ less 15% $97\frac{1}{2}\%$ $107\frac{1}{2}\%$ |
| British Standard Quality 671% + 10% | 971% + 10% 1071% + 10% |
| Tested Quality 671% + 371% | $97\frac{1}{2}\% + 37\frac{1}{2}\% 107\frac{1}{2}\% + 37\frac{1}{2}\%$ |
| British Standard Tested 671% + 471% | |

Cast Iron Drain Pipes and Fittings

| Socket | and s | pigot r | oines to | B.S. 437 | 1:- | | | |
|--------|-------|---------|----------|----------|--------|--------|--------|--------|
| | | | | 9 fts. | 6 fts. | 4 fts. | 3 fts. | 2 fts. |
| | | | | each | each | each | each | each |
| 1 | 1 | 17 | 4" | 61/3 | 44/6 | 34/11 | 26/9 | 21/5 |
| 2 | 0 | 1 | 6" | 91/- | 70/- | 55/1 | 43/11 | 32/11 |
| 3 | 3 | 21 | 9" | 167/- | 139/6 | 117/3 | 90/- | , |

BISON floors, beams and pre-cast frame structures are made by the largest flooring specialists in the country who are also by far the largest manufacturers of constructional prestressed concrete in the World



LONDON

arged

32/9 35/h 3 79 5/1 × 9"

lineal 3/4 4/2 of £7,

3 18/-4"

6/7 3" 250 10/3

23/9

13/3 11/-16/6

14/-464/3 438/3

ces. nder

00

10% 37½% 47½%

fts. ach 1/5 2/11 Green Lane Hounslow, Middlesex Hounslow 2323

LEEDS

Stourton Leeds, 10 Leeds 75421

CONCRETE LIMITED

combine speed with low cost through five strategically situated works...

LICHFIELD

Dovehouse Fields Lichfield, Staffs. Lichfield 2404

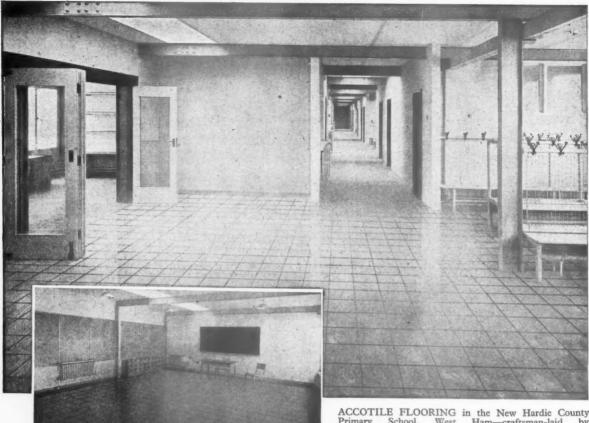
FALKIRK

Etna Road Falkirk Falkirk 1585

EDINBURGH

Sighthill Industrial Estate, Edinburgh Craiglockhart 1729

THE LOW-COST FLOOR WITH THE LUXURY LOOK



ACCOTILE* FLOORING

ACCOTILE FLOORING in the New Hardie County Primary School, West Ham—craftsman-laid by NEUCHATEL in all classrooms, as well as staff rooms, dining room, entrance halls, cloak-rooms, corridors, etc.—approximate area, 900 square yards. Main floors, with contrasting borders, in monochrome patterns:—D.417 Coral Beige; D.414 Carnelian Red; D.464 Sage Grey; D.416 Harvest Gold. Architect and Planning Officer to the County Borough of West Ham: Thomas E. North, Esq., O.B.E., F.R.I.B.A., Dis.T.P. Contractors: West Ham Corporation, Works Department.

CRAFTSMAN-LAID BY NEUCHATEL

This service is available in any part of the United Kingdom through Neuchatel's network of branches, for any type and size of building.

Technical consultation freely invited.



APPROVED LAYING SPECIALISTS FOR ACCOTILE THERMOPLASTIC FLOORING TILES

Also Specialists for 80 years in ASPHALTE for Tanking, Flooring, Roofing and Roads

*British Regd. Trade Mark No. 663698

DRAINI

Tonn

*Bends (a *Single ja *Intercep *Gullies *Extra fo *Grease

> Standard ware pip

> > Order

C.I. coa and f 497, C

Grad

Coated B.S. Galvan Coated B.S. Galvan

> Blocks Add fo

> MASO

Templ to 4 Templ Price per

Monk St. Al Delive

Whitl

Doult

4½" > gro 9" × 2" > thr 3" × 5" × 6" ×

SLA

16"

DRAINLAYER (continued)

| cm. | 4 21 | | |
|---------|------|---------|---|
| Tonnage | AL | owances | 2 |

| Orders up to 2 tons nett. | | | | |
|-------------------------------------|------|-------|------|-------|
| | | 4" | 6" | 9" |
| *Bends (short radius) as Fig. No. 4 | each | 6/3 | 13/- | 40/- |
| *Single junctions as Fig. No. 18 | 22 | 11/- | 22/6 | 69/- |
| *Intercepting traps as Fig. No. 33 | 99 | 30/- | 50/- | 123/- |
| *Gullies ordinary trapped "P" | 99 | 14/6 | | |
| *Extra for 4" vertical back inlet | 22 | 4/3 | | |
| *Grease gully trap | 97 | 121/- | | |

[•] These prices are subject to 127½% plusage.

Channels in Brown Glazed Ware.

Standard list + same discounts as "Best" quality salt-glazed Stoneware pipes.

White Glazed Channels

Orders under £30, makers list value. Standard list + 25%.

Manhole covers and frames

| | Size of load | Unit
price |
|---|--------------|--------------------------|
| C.I. coated double triangular manhole cover
and frame, 22" dia, clear opening to B.S.
497, Grade A a.e each
C.I. coated circular manhole cover and | 35 tons | 175/5 |
| frame, 22" dia. clear opening to B.S. 497,
Grade B each | 5 tons | 93/5 |
| Size o | | Double seal
Flat type |
| Coated manhole cover and frame to B.S. 497, Grade C, $24'' \times 18''$ each 1 to | | 45/8 |
| Galvanised ditto, 24" × 18" each 1 to | n 57/6 | 80/9 |
| Coated manhole cover and frame, to | | |
| B.S. 497, Grade C, 24" × 24" each 1 to | n 48/11 | 73/- |
| Galvanised ditto, $24'' \times 24''$ each 1 to | n 89/2 | 126/6 |
| | | |

MASON

Yorkstone

| tone. |
|----------------------|
| 11/4 |
| 1- |
| 1/4 (each dimension) |
| 12/8 |
| 14/8 |
| 62/11 |
| |
| 6/10 |
| 7/10 |
| |

| | Portland | stone | in | random | blocks, | average | 20 feet | cube | |
|-------------|----------|-------|----|--------|---------|---------|---------|------|------|
| TT. 143 . 3 | | | | | | | C4 | l | P (P |

| Whitbed
Delivered on | rail at | Nine | Elms | Station. | **** | per foot | cube | 7/7 |
|-------------------------|---------|------|------|----------|------|----------|------|-----|
| | | | | | | | | |

| | | Somer | set ston | ie in ru | naom | Otocks | |
|----------|-----|-------|----------|----------|------|---------------|------|
| Doulting | *** | *** | *** | *** | | per foot cube | 7/10 |

| 1" × 4" Sill, sunk, | weath | ered, th | hroate | d and | | |
|--|-------|----------|--------|-------|--------------|----|
| grooved | **** | **** | **** | **** | per foot run | 3 |
| " × 3" Ditto | | 4000 | **** | **** | 99 | 4 |
| " \times 12" Coping, | weat | thered | and | twice | | |
| throated | **** | **** | | | 99 | 4 |
| " × 12" Ditto | 4274 | | **** | | 39 | 6 |
| $^{\prime\prime}$ $	imes$ 12" Saddleback | copi | ng, twi | ce thr | oated | ** | 9 |
| " × 12" Ditto | | | | **** | 59 | 10 |

SLATER, TILER AND ROOFER

| | | | | | | Slates | | | | £ | s. | d. |
|-----|---|-----|-------|--------|-----------|---------|------|--------|------------|----|----|----|
| 16" | X | 10" | Best | Bangor | Slates to | B.S. 68 | 30 | per 1, | 000 actual | 50 | 17 | 9 |
| 20" | × | 10" | Ditto | | | **** | **** | | . ,, | 79 | 10 | 6 |

SLATER, TILER AND ROOFER (continued)

Tiles

| Hand-made sandfaced 101 × 61 red roofing tiles | |
|--|---------|
| per 1,000 | 328/6 |
| Machine-made sandfaced best red tiles | |
| with continuous nibs, $10\frac{1}{4}'' \times 6\frac{1}{4}''$ | 294/3 |
| Bridgwater hand made red sandfaced | |
| pantiles, in 6 ton loads | 818/- |
| Bridgwater hand made red sandfaced | |
| Double Roman tiles, in 6 ton loads | 1,126/6 |
| Concrete plain tiles, $10\frac{1}{2}'' \times 6\frac{1}{2}''$,, | 159/- |
| Ditto interlocking tiles, $15'' \times 9''$ | 457/- |
| Ditto Double Roman Tiles ,, | 800/- |

Asbestos-cement

*6" corrugated sheets, grey per yard super 5/6

*Prices are for minimum two-ton loads, and are subject to 21% discount.

Felt

| Reinforced roofing felt to B.S. 747 p | er yard sup. | 1/7 |
|--|--------------|-----|
| Roofing felt (1-ply bitumen) to B.S. 747, Part I | ,, | 1/6 |
| Bituminous hair felt to B.S. 747, Part II | 99 | 2/9 |

CARPENTER AND JOINER

| | Wall boards |
|---|---------------------------|
| 1 Imported Fibre board | 5,000 to 15,000 sq. ft. |
| (per 100 sq. ft.) | 41/6 |
| "Imported Hardboard (per 100 sq. ft.) | 45/- |
| 3 "Imported Hardboard (per 100 sq. ft.) | 68/- |
| * 3 " Semi compressed asbestos cement | flat |
| building sheets, grey, size 8' × 4' | per yard super 3/1 |
| * 1" Ditto | 4/1 |
| *Prices are for orders of 2 tons and | over. Subject to 5% trade |
| J: | 70 070 |

discount.

| | Sun | aries | | | |
|-----------------------------|------|-------|------|-------------|-------------------|
| "Sisalkraft" standard grade | **** | **** | ре | r yard sup. | $-/10\frac{1}{2}$ |
| "Sisalkraft" subsoil grade | **** | **** | **** | 29 | -/61 |
| "Sisalation" single sided | | | **** | ** | 1/101 |
| "Sisalation" double sided | **** | **** | **** | 29 | 2/10 |
| * Fibre glass Bitumen-bonde | d | | | ., | 1/114 |

^{*} Price is for orders value £5 and over.

Timber

| Softwood for (| | | rice) | **** | per st | d. | £90 |
|----------------|---------------|---------|---------|---------|--------|---------|------|
| Softwood for J | | | **** | **** | 22 | | £100 |
| Tongued and | crooved Softw | ood Flo | oring (| ditto) | 9.0 | | £100 |
| *First Quality | European Oa | k | | per ft. | cube | 25/- to | 40/- |
| *Teak | | **** | **** | , | | 40/- to | 80/- |

^{*} Prices vary considerably depending on specification.

Standard Panelled and Glazed Wood Doors to B.S. 459, Pt. I

| Type 4 | | BiZe | 2 | 6" | X | 6 | 6" | × | 1 4" | **** | **** | each | 34/3 |
|-----------------|---|------|----|-----|---|----|----|---|------|------|------|------|------|
| Type 2 \times | G | size | 2' | 6'' | × | 6' | 6" | × | 2" | **** | **** | 99 | 41/6 |
| Type 4 \times | G | size | 2' | 6'' | × | 6' | 6" | × | 2" . | **** | **** | 99 | 47/6 |
| | | | | | | | | | | | | | |

In lots of from 1 to 11 inclusive.

Wood Windows

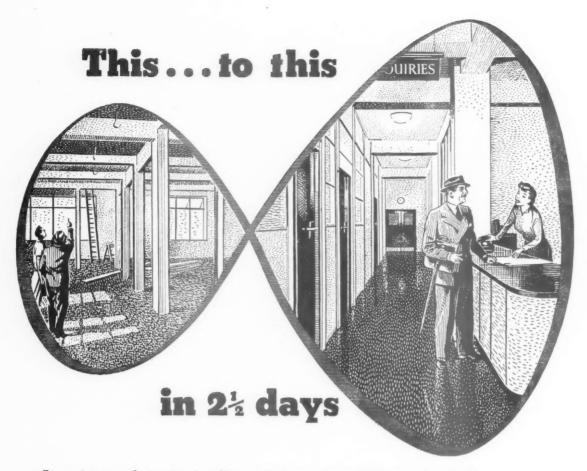
| N | 26 V | size 1′ $5\frac{1}{4}$ ″ \times 2′ $6\frac{1}{4}$ ″ | **** | **** | | each | 21/- |
|---|------------|---|------|------|------|------|-------|
| 2 | 26 V | size 4' $0\frac{1}{4}'' \times 2' 6\frac{1}{4}''$ | **** | **** | | 99 | 42/- |
| N | 40 V | size 1'5\\\\" × 4'0\\\" | **** | | **** | ,, | 23/11 |
| 3 | 40 V | size 5' 11\frac{1}{4}" \times 4' 0\frac{1}{4}" | **** | **** | **** | 99 | 74/4 |
| 4 | 40 V | size 7' 10\frac{1}" × 4' 0\frac{1}" | | | **** | 9.9 | 93/5 |
| | In lots of | from 1 to 20 inclusive | | | | | |

| | Auchen Units | |
|-------|---------------------------------|-------|
| No. 1 | size 3' 6" × 2' 8" × 1' 7" each | 161/5 |
| No. 2 | size 3' 6" × 2' 8" × 1' 7" ,, | 112/- |
| No. 4 | size 2'8" × 1'9" × 1'7" ,, | 99/- |
| No. 5 | size 3' 10" × 1' 9" × 1' 7" ,, | 86/- |
| No 7 | size 6' 6" × 1' 9" × 1' 7" | 199/6 |

Kitchen Maite

Prices include for tops and plinths.

In lots of from 1 to 15 inclusive.



For quick transformation in office or factory, choose "Compactitioning" —the new partitioning service that gives you these four freedoms:

FREEDOM TO CHOOSE—With "Compactitioning" you are not tied to any particular material. There's a choice of materials (and finishes) to suit the needs of your job. Materials used in "Compactitioning" include "Compactite", "Holoplast", "Plimberite", "Stramit", corkboard and plasterboard.

FREEDOM TO CHANGE—"Compactitioning" gives you solidity with mobility. It is easy to dismantle and re-erect to meet changed requirements.

FREEDOM FROM LICENSING—"Compactitioning" units are free of all licences and available by the foot or by the mile.

FREEDOM FROM TROUBLE—Your problem, big or small, can be solved in our drawing office. This tailor-made service costs no more because partitioning is built up from standardised components. This reduces site work and cuts down disturbance in occupied premises.

WHEN YOU DECIDE TO DIVIDE-USE

PARTITIONING BY COMPACTOM

COMPACTOM LTD., OXGATE LANE, CRICKLEWOOD, LONDON, N.W.2. PHONE: GLADSTONE 2600

STEEL

Basis pric

Extra for 9" × 7" 3½" × 3 × 8" 18" >

10" × 4" × 3" × 3 4" × 4 4½" × 4" × 3" ×

Basis pri

PLAST

Thistle (I Gypstone Paristone Ditto Sirapite Ditto Keene's Keene's Cullamiz

Sharp wa Cow Hai Expande mesh

%" Plast

Galvani: Hessian

The foll-Standar Cream g Eggshel

PLUM

3½ lb. a of 5 c Hot rol lots (Ditto Zine she

Rainwa Soil goo

Gutters Pipes a

The Sorde

2' 0" 1 3' 0" 4' 0" 6' 0" 8' 0" 10' 0"

| STEEL | AND | IRONW | ORKER |
|-------|-----|-------|-------|
|-------|-----|-------|-------|

| Basis price for ro | lled steel
in 10 ft. t | | | s | ex mills | per ton | £
29 | s.
10 | |
|--|---------------------------|-------------------------------|--------------------------|-------------------|----------|----------|----------|----------|---|
| Extra for sizes :- $9'' \times 7''$ $3\frac{1}{2}'' \times 3\frac{1}{2}'', 5'' \times$ | 4½", 6" × | 41, 10 | $0'' \times 8''$ | 12" | Add per | ton | | 5 | 0 |
| $\begin{array}{c} \times \ 8'', \ 14'' > \\ 18'' \times \ 7'', \ 18'' \\ 10'' \times \ 4\frac{1}{2}'', \ 12'' \end{array}$ | $' \times 8''$, 20' | $^{\prime} 	imes 61^{\prime}$ | ', 20" × | $7\tfrac{1}{2}''$ | 99 | ,, | | 10
15 | 0 |
| $4'' \times 2\frac{1}{2}'', 5'' : 3'' \times 3'', 4'' \times 3''$ | × 3", 22" | × 7", | $4\frac{1}{2}''$ $	imes$ | - | 99 | " | 1 | 0 5 | 0 |
| $4'' \times 4''$, $6'' \times 4^{3}'' \times 1^{3}''$, $24''$ | 3″ | | **** | **** | 29 | 99
99 | 1 2 | 10 | 0 |
| $4'' \times 1\frac{3}{4}''$ $3'' \times 1\frac{1}{2}''$ | | **** | **** | | 37 | " | 3 | 0
10 | 0 |
| Basis price for an | ngles
es | 3188 | * * * | | ex mills | per ton | 29
29 | 9 | 6 |
| 93 99 99 SC | olid steel c | olumn | s | | 22 | 33 | 31 | 9 | 6 |

All delivered Station or Siding.

PLASTERER

Plaster and Cement

| | 1-ton
loads | 4-ton to
5 ton 19 cwt
loads |
|---|----------------|-----------------------------------|
| Thistle (browning) to B.S.1191, Class B per ton | 152/6 | 135/- |
| Gypstone to B.S.1191, Class B | 152/6 | 135/- |
| Paristone (haired) to B.S.1191, Class B | 155/- | 137/6 |
| Ditto (unhaired) ,, | 152/6 | 135/- |
| Sirapite (coarse) to B.S.1191, Class C ,, | 149/- | 133/- |
| Ditto (fine) to B.S.1191, Class C ,, | 157/- | 141/- |
| Keene's Pink to B.S.1191, Class D ,, | 198/6 | |
| Keene's White to B.S.1191, Class D | 204/- | |
| Cullamix (Tyrolean Finish), 1-ton lots | | |
| and upwards per ton from | 184/3 | to 217/9 |
| | | |

Sundries

| Sharp washed sand to B.S.1198 | | per yard cu | ibe 20/10 |
|--|------------------------------|-------------|------------------|
| Cow Hair | | per cwt | 97/6 |
| Expanded metal lathing, 9' 0" × 2 | $' 0'' \times \frac{3}{8}''$ | | |
| mesh × 24 gauge | | per yd. sup | $2/7\frac{1}{2}$ |
| 25 to 149 | 150-299 | 300-599 | Over 600 |
| i" Plasterboard (base board) yards | yards | yards | yards |
| per yard super 2/9 | 2/5 | 2/4 | 2/3 |
| I" Insulating wallboard, | | | |
| per yard super — | 3/7 | 3/5 | 3/3 |
| Galvanized lath nails 14 G | | per cwt. | 118/- |
| Hessian Scrim cloth in 100-yard rolls, | | | |
| 3½" wide | | per roll | 7/9 |

Wall Tiles

| The following prices are subject to 221 per cent. addition :- | |
|---|------|
| Standard quality white glazed 6" × 6" × 3" per yard super | 18/6 |
| Cream glazed $6'' \times 6'' \times \frac{3}{8}'' \dots$,, | 20/6 |
| Eggshell or glossy glazed $6'' \times 6'' \times \frac{3}{8}''$ | 26/3 |

PLUMBER

Lead and Copper

| ı | $3\frac{1}{2}$ lb, and upwards milled sheet lead in quantities of 5 cwts, to under 1 ton in sheets to B.S.1178 | per c | wt. | 130 | 0/- |
|---|--|---------|-----|-----|-----|
| ı | Hot rolled copper sheeting in 1-ton | • | £ | 8. | d. |
| ı | lots (4' × 2' sheets), to B.S.899 23 wire gauge, | per ton | 327 | 0 | 0 |
| Į | Ditto 24 wire gauge, | | 330 | 10 | 0 |
| I | Zinc sheeting in 1-ton lots 14 gauge | | 110 | 17 | 6 |

Cast Iron Goods

| Percentage | Adjusti | nent on | List | No. | 3200 | A.B. | 1/5 | /52. |
|------------|---------|---------|------|-----|------|------|-----|------|

| | |
-1-1- | |
|-----------|---------------------------------|-----------|-----|
| Rainwat | er Goods (painted or unpainted) |
Plus | 10% |
| Soil good | ls (coated or uncoated) |
Plus | 10% |

Mild Steel Rainwater Goods

| ı | | | | | | Standard Lis |
|---|--------------------|--------|--------------|------|------|--------------|
| ١ | Gutters | (under | 100 lengths) | **** | | Less 25% |
| l | Pipes and Fittings | (,, | ") | | **** | Less 25% |

Asbestos-Cement Rainwater Goods

The following prices are subject to $12\frac{1}{2}\%$ trade discount. Orders over £30 are subject to $17\frac{1}{2}\%$ trade discount.

Rainwater Pipes.

| | | | | Diameter | | | | | | | |
|-----|----|---------|------|----------|-------|------|-------|------------|--|--|--|
| | | | | 2" | 21" | 3" | 4" | 6" | | | |
| 2' | 0" | lengths | | 3/9 | 4/- | 4/10 | 6/11 | 12/10 each | | | |
| 3' | 0" | 99 | **** | 4/10 | 5/4 | 6/2 | 8/7 | 17/2 ,, | | | |
| 4' | 0" | 99 | ** | 5/11 | 6/5 | 7/6 | 10/9 | 21/6 ,, | | | |
| 6' | 0" | 22 | **** | 7/6 | 8/- | 9/8 | 12/10 | 25/9 ,, | | | |
| 8' | 0" | 97 | **** | 9/8 | 10/5 | 12/4 | 17/2 | 34/4 ,, | | | |
| 10' | 0" | 19 | **** | 11/10 | 12/10 | 15/- | 21/6 | 43/- " | | | |

PLUMBER (continued)

Gutters.

| Half round gutters | | 3" | 4" | 41" | 5" | 6" | 8" |
|--------------------|------|-----|------|-----|-----|------|------|
| 6ft. lengths | each | 5/- | 5/11 | 6/1 | 7/2 | 10/- | 12/4 |

INTERNAL PLUMBER

| Lead pipe (basis, weights) in coil | | | | 9 | |
|------------------------------------|------|----------|-------|--------------------|---------|
| up to 4" bore to B.S.602 | | | | per cwt. | 131/3 |
| Light lead pipe ditto | | | 4710 | | |
| Polythene tubing, normal gau | | | | | /- |
| quantities of 500ft. to 999 ft. | | 1" | 3" | 1'' | 11." |
| per 100 ft | | 67/6 | 138/6 | $\frac{1}{173}$ /6 | 250/6 |
| Ditto, heavy gauge ditto | | | | | |
| per 100 ft | | 140/6 | 195 6 | 248 - | - |
| Drawn lead traps with brass screen | | | | | |
| to B.S.504 | | 11"-6lb. | 13 | "-6lb. | 2"-71b. |
| S. trap 13" seal | each | 6/8 | | 3/- | 13/7 |
| ,, 3" deep seal | | | | | 16/- |
| Drawn copper traps to B.S. | | 11" | | 11" | 211 |
| | each | | | 3/- | _ |
| 3" deep seal | | 22/5 | | /10 | 39/9 |

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

Fittings and tubes ordered in long random lengths are subject to the following trade discounts:—

| Tubes: | 1" to 4" | Fittings: | | |
|--------------------|-----------------|--------------------|----------|------|
| Class B | 18% | Lightweight |
plus | 4% |
| " C | 53% | Heavyweight |
plus | 111% |
| Galvanized Class B | plus 3% | Galvanized: | | 270 |
| " " C | plus 163% | Lightweight |
plus | 151% |
| Galvanized malleab | le fittings | Heavyweight |
plus | 231% |
| Less 46 | 1% plus 35% | | - | 470 |
| Conner tubing to B | S 659 and 1386. | Basic price per lh | | 9/37 |

GLAZIER

| Sheet G | lass, cut | to size | (ordinary | glazing | quality), to | B.S.952, | Section A |
|---------|-----------|---------|-----------|---------|--------------|------------|------------------|
| 18 oz. | | **** | **** | **** | per | foot super | $-/5\frac{1}{2}$ |
| 24 oz. | | **** | **** | **** | **** | 99 | $-/7\frac{1}{4}$ |
| 29 07 | | | | | | | 1/ |

Polished Plate Glass, ordinary substance, approximately \(\frac{1}{3} \)", to B.S.952, Section A.

| In plates not e | exceedin | | | Glazing quality | Selected
glazing | Silvering quality |
|-----------------|----------|---|----------------|-----------------|---------------------|-------------------|
| 2 ft. super | **** |] | per foot super | 3/7 | 4/3 | 5/1 |
| 5 ft. super | **** | | ** | 4/5 | 5/2 | 6/2 |
| *45 ft. super | | | 12 | 5/1 | 5/9 | 6/11 |
| *100 ft. super | **** | | 99 | 5/6 | 6/9 | 8/10 |

* Extra sizes, i.e., plates exceeding 100 ft. super or 160 in. one way, or 96 in., both ways at higher prices.

| † figured rolled and cathedral, to B.S.952,
Section B—standard patterns, white | per foot super | -/9 |
|--|----------------|------|
| 3" or 1" rolled plate, patterns, white | * ** | 1/- |
| 3 or 1" rolled plate, patterns, white 3" or 1" rough cast, patterns, white 1" Georgian wired cast, patterns, white | 99 | 1/- |
| i" Georgian wired cast, patterns, white, | | , |
| Section D | ,, | 1/21 |
| 1" Georgian wired polished plate, Section D | ** | 4/10 |
| 1" wired cast | ** | 1/2 |

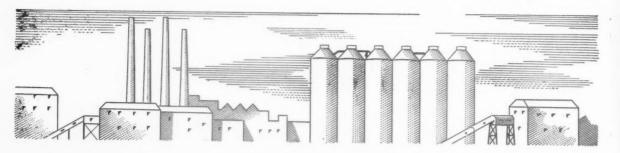
Attention is drawn to reductions in certain glass prices offered by manufacturers for acceptance of specified minimum quantities of one size and substance delivered to one address at one time.

PAINTER

| White ceiling di | istemp | er | | **** | **** | per cwt. | 29/- |
|------------------|--------|----------|------|------|------|---------------|-------|
| Washable dister | mper | **** | | | **** | per cwt. from | 112/- |
| Primer, general | purpo | 80 | | | **** | per gallon . | 33/6 |
| Ready mixed w | | | t | **** | **** | ,, | 58/- |
| Flat oil paint | | | **** | **** | **** | 91 | 39/- |
| Emulsion paint | **** | **** | **** | **** | | 99 | 44/- |
| Hard gloss pain | | | | | | | , |
| Undercoat | **** | | | **** | **** | 32 | 42/- |
| Finishing | **** | **** | **** | | **** | 99 | 44/- |
| White Portland | ceme | nt naint | | | | ner cwt. | 71/- |

Jawains

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



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The new Research Laboratories of the Associated Portland Cement Manufacturers Ltd., recently constructed by Richard Costain Ltd. to the design of the Architects, Westwood, Sons & Harrison, FF.R.I.B.A.

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INFORMATION CENTRE

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

8.38 surveying: specification ESTIMATING

Appendix to the 11th Edition of "How to Estimate for Building Work", by J. T. Rea, compiled by A. E. Baylis, published by B. T. Batsford, Ltd. Price 3s. 6d. net.

An appendix to be included in the remaining copies of the 11th Edition and on sale separately, containing a set of Cost Adaptation Tables and Percentages revised to July, 1953.

"How to Estimate" was a standard reference book for many years; the revised edition promised in about two years time will be very welcome, and few of the owners of the present edition should begrudge the small sum asked for the new

appendix.

Briefly the ten pages of the Appendix comprise tables showing wage rates and the prices of important materials over the years with the increases expressed as percentages; the average yearly increase in cost of materials since 1946; the Building and Civil Engineering & House Building Materials Price Indices (as published in the Board of Trade Journal) and a list of the commodities included in them; the average percentage cost of building work from 1920 to 1953 compared with that in 1914 and a short section on the Controls and Regulations affecting the building industry. Little of the information is new and many people may disagree with the editor's indices for the cost of building which show present day costs to be 175 per cent. above those in 1939. It is to be hoped that they will receive further consideration when the book is completely revised.

9.47 design: general INDUSTRIAL WELFARE

Welfare, Health and Safety in the Electrical Supply Industry. (National Joint Advisory Council of the Electricity Supply Industry, 1954.)

120 pp. book which sets out as a guide for the Electricity Supply Industry good practice in provision, planning and design for welfare, etc., in all the industry's buildings. Although prepared for this particular industry, the information is very largely applicable to factories and offices of all kinds and forms a useful collection of reference material.

Car and cycle parking, cloak and lavatory arrangements, medical services and catering are all dealt with, as also are many more general aspects such as overcrowding, noise and vibration, lighting, colour, lettering for notices, etc. Statutory requirements are quoted and appendices contain useful information ranging from a list of buildings which for statutory purposes are definable as Factories to a list of all equipment required in a

PRE-CAST FLOOR CONSTRUCTION

We show on this page a series of progress photographs illustrating the use of prestressed concrete beams on a block of 10 shops with maisonettes over at Aveley in Essex. The contractors, Concrete, Ltd., who are specialists in laying precast floors, have had occasion to carry out a large number of similar jobs in which they have used a variety of different constructional methods. They report that even for jobs of this modest scale the use of prestressed beams is the most economical construction. The beams were placed at approximately 12-ft. centres. The heavier beams carrying the outside walls are hollow beams, stirruped and castellated on the top to receive an in situ top flange to form an inverted "L" beam in conjunction with the precast flooring slabs (top). A lighter beam, carrying only the centre span of the maisonette floors and light partition loading, is a light prestressed trough unit which is converted into a "T" beam when high-grade concrete is placed in the trough and in the channel left by the notched ends of the flooring units (middle). The in situ concrete was poker-vibrated (bottom). The job was completed in under two weeks, using a 4-ton mobile crane. (Designed by LCG Architects' Department: Architect to Council, Dr. J. L. Martin).









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. is that the Avon Range of A.C. Switches has been designed with considerable thought. For instance when fitted in their plaster depth boxes they have a simple method of adjusting the switch depth whilst the switch is in position.

Points like these mean a great deal to chaps like me. They also show that apart from producing a jolly good switch at a very competitive price Ediswan Designers have given quite a lot of thought to making them simple to install.

Publication CE. 1693A. gives full details of the Avon range. We'll be pleased to send a copy on request.

ELECTRICAL RANGE ACCESSORIES

A catalogue and price list of the complete range of Ediswan electrical accessories is available on request.

THE EDISON SWAN ELECTRIC COMPANY LIMITED 155 Charing Cross Road, London, W.C.2, and branches. Member of the A.E.I. Group of Companies canteen kitchen with approximate dimensions. The book is well produced and illustrated with attractive sketches.

15.119 materials: finishes FLOOR FINISHES

Floor Finishes Based on Polyvinyl Chloride (P.V.C.) and Polyvinyl Acetate (P.V.A.). B.R.S. Digest No. 65. (HM Stationery Office, April, 1954. 3d.)

An important note on the several different kinds of P.V.C. and P.V.A. floor finishes.

Life gets more and more difficult for the architect and the multitude of new floor finishes recently introduced is one of the more perplexing of the subjects to be mastered. As this Digest describes, there are already three fairly distinct classes of P.V.C. material as well as the still more recent P.V.A. type. The P.V.C. types are: sheet and tile (rather like rubber sheet and tile), the fabric backed sheet and tile (rather like linoleum) and the thermoplastic vinyl tiles (somewhat similar to the well-known thermoplastic tiles). They differ considerably and their characteristics and laying problems are well described in this Digest. Because of the cost of the ingredients, the finishes are usually thin, sometimes very thin. This makes a very smooth sub-floor necessary with some types. The biggest problem in laying seems to be to get good adhesion and the precautions mentioned in the Digest should be carefully studied. Wear properties seem to be adequate for domestic usage, but experience of harder wear is limited and caution is needed. Colour range is not restricted.

The P.V.A. floor is laid in situ as a series of very thin coats (at least three).

All types are rather apt to be damaged by excessive water, so, although they will stand washing, they should not be used where likely to get very wet. The P.V.A. type is likely to be permanently marked if lighted cigarettes

to get very wet. The P.V.A. type is likely to be permanently marked if lighted cigarettes are stubbed out on it, but all types seem to be fairly resistant to damage from grease and oil and staining.

oil and staining.

A most useful reference to a new range of floor finishes on which reliable written information is otherwise very scanty.

18.150 construction: theory FOUNDATION DESIGN

Foundations—Civil Engineering Code of Practice, No. 4 (1954.) (Institution of Civil Engineers, 1954. 15s.)

Code of Practice for foundation works of interest to both architects and engineers.

Few works have been devoted to foundations and in view of the part played by the experience of the authors, they are often un-satisfactory. This Code of Practice is a step satisfactory. This Code of Practice is a step forward as a reference book, as each section represents the collective view of several of our most experienced engineers. Nevertheour most experienced engineers. less, it must be appreciated that interpretation of the principles of this Code as affecting bearing capacity, safety factor and type of foundation is essentially an experienced engineer's job. It is equally important, however, that architects should have knowledge of the problems involved and an appreciation of the ratio of cost of the foundations to the structural frame; in fact, just one more pointer to early consultation between architect and engineer.

The Code is divided into ten parts. Part 1 deals with the general principles of design. Parts 2, 3, and 4 are concerned with more detailed considerations of the design and installation of the main types of foundations, i.e., spread foundations, driven piles of concrete, timber and steel construction and castin-place piles and caissons. The most used pile is the driven precast concrete pile, and for this it is proposed that a modified Hıley formula be used. It is unfortunate that the Appendix C, which tells how to determine the really important part of the denominator

of the formula, is illustrated incorrectly and the dimension quoted as the quake of the earth is actually the set of the pile. Parts 5 to 9 relate to site operations involved in construction in foundation engineering. Demolition, shoring, underpinning, dewatering, tide work, underwater concreting and diving are covered. The section on underpinning is particularly recommended to architects. Part 10 provides an interesting description of how concrete, timber and steel may be expected to deteriorate in different circumstances and indicates some of the steps which may be taken to prolong their life.

18.151 construction : theory

PRESTRESSED CONCRETE DESIGN

Prestressed Concrete Design and Construction. F. Walley. (HMSO. 1954. 30s.)

New reference book on prestressed concrete recommended to both architects and engineers.

Mr. Walley is a member of the Directorate General of Works, MOW. It will be remembered that the Ministry did much pioneer work in its Field Test Unit and Mr. Walley has drawn upon his experience and development work obtained therein. This book contains 279 pages, 125 figures, 29 tables, and 45 photographic illustrations, and does not introduce too many symbols to frighten away the potential designer. It pursues the familiar pattern of the pre-stressed textbook of history and develop-ment, choice of method, design, incorporat-ing pre- and post-tensioning with plenty of examples and design of end blocks. Chapters are given on the materials, allowable stresses and losses in prestressing, prestress ing in practice and experimental work. The Freyssinet and Magnel systems receive thorough treatment and an interesting feature is the detailed comparison of the enabling the reader to draw his own conclusion for the particular design prob-lem. The Lee McCall system is described, but a few diagrams and details of the end plates, nuts, etc., would have been helpful. The more recent Gifford-Udall system is not mentioned but may have arrived on the market too late for inclusion. Chapter Nine contains some special design problems such as composite members and differential shrinkage therein, two-stage prestressing and circular members. Continuity is mentioned but no attempt at design is made. Then Then follow a series of most useful tables refer-ring to position of wires, centre of gravity

and modulus of section of asymmetrical sections. The book would have benefited by an alphabetical index, but is well worth the price of 30s.

19.177 construction: theory LIGHT-WEIGHT FLOOR CON-STRUCTION

More office space for the motor city. (Engineering News Record [USA]. Aug. 6th, 1953, pp. 30, 31.)

New City-County building in Detroit saved over 10 per cent. of structural steel estimate and simplified foundation problem by using lightweight floors. Interesting to Architects and Engineers.

With higher and higher buildings in the news the matter of dead loads from floors and cladding becomes an increasingly important problem. Little use has been made of steel decking in this country for structural forms other than roofs but with greater numbers of floors per building the extra cost of the supporting structure may well prove light gauge steel floors to be the cheaper answer.

The City-Council buildings has floors designed for 150 p.s.f. The use of a steel deck, lightweight concrete screed and lightweight plaster to underside for fireproofing resulted in a saving of 80 p.s.f. over ordin-

ary concrete construction.

The illustration shows the type of decking used. The hat shaped section is 10 in. wide by 3 in. deep and is spot welded to the top plate with the male and female interlocking longitudinal joint. Units span 8 ft. 6 in., a 6 in. wide splice plate being tacked over the longitudinal butt joints. All members are 16 g. Flexibility of electric or telephone wiring is provided by the cellular floor. Handholes can be installed in the units at any point to serve present or future services.

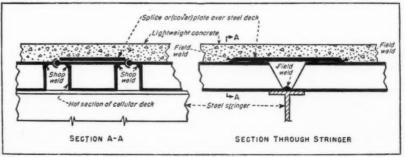
A light weight floor screed $2\frac{1}{2}$ in. thick is used on the metal deck.

20.219 construction: complete structures TIMBER CONSTRUCTION

T.D.A. Leaflets Nos. 2, 3, 4 and 5. Bus Shelters, Stockyard, Garage. (T.D.A., 1954.) These four leaflets show straightforward simple designs and give timber design with sizes, a timber cutting Bill, list of ironmongery and summary of lengths of timber of each size.

Detail of Steel Decking. See section 19.177 above.





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

ENQUIRY FORM

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

Please ask manufacturers to send further particulars to:—

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PROFESSION or TRADE

ADDRESS

AJ 10.6.54

Buildings Illustrated

Ockendon Courts County Secondary School on the L.C.C. Housing Estate, Aveley, Essex, for the Essex County Council Education Committee (Pages 702-707). Architect: Denis Clarke Hall, F.R.I.B.A., assistant architect, R. A. H. Ruth, A.R.I.B.A., in association with H. Conolly, F.R.I.B.A., County Architect: Consultants: (heating), J. Roger Preston & Partners: (electrical), Barlow, Leslie & Partners. Quantity Surveyors: E. C. Harris & Partners. General Contractor: Leightons (Contractors) Ltd.; Clerk of Works: H. R. Linn; General Foreman: N. Barnstone. Sub-contractors: asphalt, Asphaltic (London) Ltd.; artificial stone, The Marley Tile Co. Ltd.; patent glazing, Williams & Williams Ltd.; woodblock flooring, S. Bennett & Sons Ltd.: patent flooring, Semtex Ltd. (Semastic flooring), Marriott & Price Ltd. (concrete tile paving); central heating, Deane & Beal Ltd.; electric work, Essex Electrical Installations Ltd.; antify Co. Ltd.; iron staircases, D. Rowell Ltd.; metal windows, Crittall Manufacturing Co. Ltd.; iron staircases, D. Rowell Ltd.; metalwork (balustrades and handrailing), The General Construction Co. Ltd.; blackboard units, R. Cattle Ltd.; library shelving, G. Hammer & Sons; tiling, Carter & Kernahan Ltd.; textiles, Gerald Holtom; cloakroom fittings, Cloakroom Equipment Ltd.; railings and gates. B. Finch & Co.

Secondary Modern School, Woodfield Road, Cranford, Hounslow, Middlesex, for the Middlesex County Council (Pages 709-714). Architect: Denis Clarke Hall, F.R.I.B.A., assistant-in-charge, E. W. Pritchard, in association with C. G. Stillman, F.R.I.B.A., County Architect. Consulting Structural

Engineer, L. W. Elliott, A.R.I.B.A., A.M.I.C.E., A.M.I.STRUCT.E. Quantity Surveyors: Wakeman Trower & Partners. General Contractors: J. Lawson & Co. Ltd.; Sub-contractors: structural steelwork, Sanders & Forster Ltd.: tubular spaceframes, balustrading and railings, Scaffolding Great Britain Ltd.; roofing, windows, patent glazing, William Briggs & Sons Ltd.; heating and hot water, Comyn Ching Ltd.; electrical work, William Steward & Co. Ltd.; Semastic flooring, Semtex Ltd.; coloured concrete tiles, Hall & Co. Ltd.; Terrazzo, Mosaic & Terrazzo Precast Concrete Co. Ltd.; hardwood floors, Hollis Bros. Ltd.; metal lath suspended ceiling, Bracketing, Centering & Lathing Ltd.; sanitary fittings, B. Finch & Co. Ltd.; ironmongery, A. J. Binns Ltd.; entrance doors to Assembly Hall, D. Burkle & Son; library and cloakroom fittings, R. Cattle Ltd.; dome lights, T. & W. Ide Ltd.; acoustic tiling, May Acoustics Ltd.; chainlink fencing, Fencing (Shepperton) Ltd.

Correction

In the issue of May 27 the factory for Corona Ltd., at Marsh Barton, Exeter, was attributed soely to Lucas Roberts & Brown. This was incorrect. The original building on the right of the photograph was designed by Keith P. Roberts for Messrs. Beacon Precast Ltd., in 1949. Messrs. Lucas Roberts & Brown were responsible for adapting the building for the manufacture of mineral water and for considerable extensions when the property was taken over by Messrs. Thomas & Evans Ltd.

Readers are specially requested, when sending in enquiry forms, to ensure that the date of issue is not obliterated or cut off, as considerable delay in tracing the advertisements concerned may be occasioned when dealing with enquiries.

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wooden floor in shocking condition. Renovation with lino could be a cheap answer—but it could be pretty expensive in the long run if it is not done by very skilled people. This is the sort of job we are doing every day. Make no mistake—it is highly skilled work—but after 60 years in the lino business, you get to know the snags and how to overcome them. If you've got a floor like this to put right, Catesbys and lino will do a good job for you. Why not let them.

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Hawk plastic cisterns are available for high, medium and low level suites with or without the Hawk flush pipes for standard and corner fittings. Install with Hawk plastic non-corrosive flush pipes and save painting and repairs.



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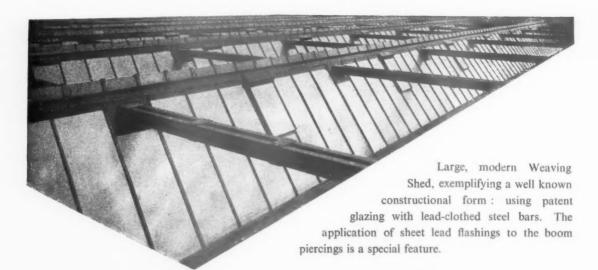
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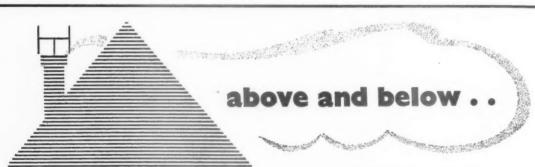


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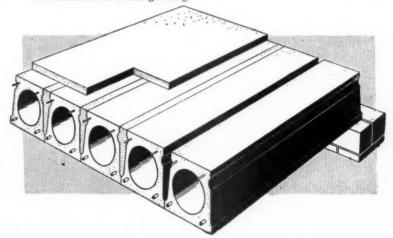
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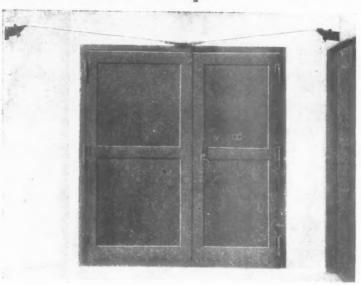
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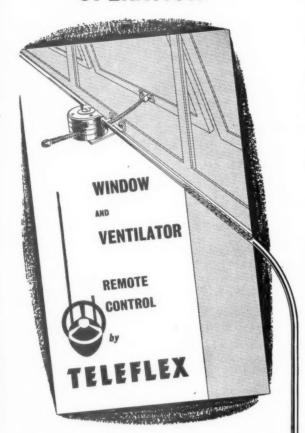
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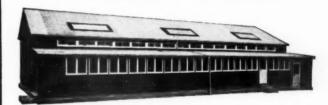
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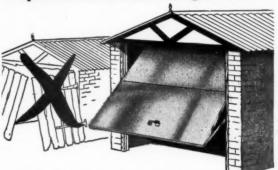
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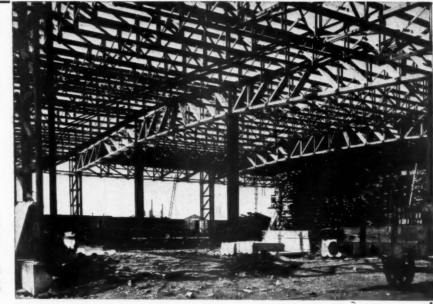
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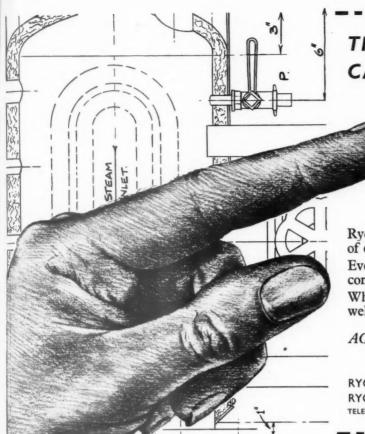


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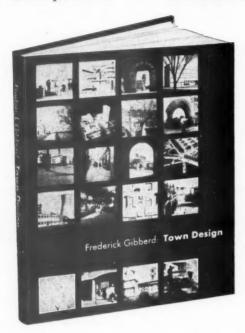
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CLASSIFIED **ADVERTISEMENTS**

Advertisements should be addressed to the Advt. Nanager, "The Architects' Journal," 9, 11 and 3, 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 care of "The given above.

Public and Official Announcements

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

The engagement of persons answering these edertisements must be made through a Local Uffice of the Ministry of Labour or a Scheduled Supployment Agency if the applicant is a man eged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacanies Order, 1962.

BUCKS COUNTY COUNCIL.

APPOINTMENT OF DEPUTY COUNTY
ARCHITECT.

Applications are invited from Fellows or Associate Members of the Royal Institute of British Architects for the appointment of DEPUTY COUNTY ARCHITECT, at a salary of 21,500 per annum, rising by annual increments of 550 to 21,750 per annum.

The appointment is superannuable and subject to medical examination.
Further particulars and forms of application may be obtained from the undersigned, to whom applications must be delivered by 3rd July, 1954.

GUY B. CROUCH.

Clerk of the Bucks. County Council.

CORPORATION OF HARROW.

CORPORATION OF HARROW.
BOROUGH ENGINEER & SURVEYOR'S
DEPARTMENT.

Applications are invited for the appointment of TECHNICAL ASSISTANT (MAINTENANCE), A.P.T. Grades II/III (£520-£595 per annum plus London "weighting") in the Department of the Borough Engineer and Surveyor.

Applicants should have had experience in property surveys, preparation of specifications and scale drawings, supervision of works and checking accounts for maintenance and repair work. Duties will be in connection with the maintenance of schools and municipal buildings generally, and preference will be given to holders of recognized technical qualifications. The successful applicant will be required to provide a motor car, for which an allowance will be paid.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, the passing of a medical examination, and the National Joint Council's Scheme of Conditions of Service.

the National Joint Council's Science of Service.

The Council is unable to assist in obtaining of housing accommodation. Canvassing will be a disqualification.

Forms of application may be obtained from the undersigned to whom they should be returned not later than Friday. 25th June, 1954.

D. H. PRITCHARD, M.A...

Town Clerk.

Town Clerk's Office, Harrow Weald Lodge,

Harrow, Middlesex.

Middlesex.

THE CORPORATION OF GLASGOW.
ARCHITECTURAL AND PLANNING
DEPARTMENT.
PLANNING ASSISTANTS.
Applications are invited from Planning Assistants with general experience. Scale £490—£870 with placing according to age, qualifications and experience. Posts are superannuable, subject to medical examination. Form of application may be obtained from the Principal Administrative Officer. 20, Trongate, Glasgow, C.1.

A. G. JURY,
City Architect and Planning Officer.
2832

MINISTRY OF WORKS, MANCHESTER.
Temporary ARCHITECTURAL ASSISTANT
required.

required.

Salary range £410 to £655 p.a.
Qualifications:—Minimum age 21 years. At least
three years' Architectural training, plus experience in an Architectural training, plus experience in an Architect's office. Able to carry out
working drawings from prepared sketch plans and
elevations under supervision.

Apply to:—Establishment Officer, Ministry of
Works, Warwick Road South, Manchester, 16.

SENIOR ARCHITECTURAL ASSISTANTS required by Designs Branch. Air Ministry. Salary range for men: 2780 to 2950. Appointments are for temporary service, in London. Opportunities after two years for further service if willing to accept posting to provinces or overseas, and opportunities to compete for established posts may occur. Candidates should be Registered Architects, with satisfactory experience in all branches of architectural profession, and have sound knowledge of design and familiar with use of modern materials. Duties include preparation of sketches, working drawings and details for permanent and semi-permanent buildings, and supervision of junior Assistants. Apply M.L.N.S. Technical and Scientific Register, 26, King Street, London, S.W.1, quoting reference J109/54A.

CITY OF SHEFFIELD.

APPOINTMENT OF SENIOR ASSISTANT ARCHITECTS.

Applications are invited from suitably qualified architects for appointments in the following grades on the staff of the City Architect, Mr. J. L. Womersley, A.R.I.B.A., A.M.T.P.I.

(a) A.P.T. VII—Salary £695-£760.

The posts, which are superannuable and subject to medical examination, are in the Education and General Section, which has an interesting and varied programme of Schools and other public buildings work.

Applications stating grade applied for, age, education and training, qualifications, present and past appointments (with dates and salaries), experience and the games of two referees should reach me by the 21st June, 1954.

Town Utils Shefeld 1.

Town Hall, Sheffield, 1.

27th May, 1954.

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

BUCKS COUNTY COUNCIL.

BUCKS COUNTY COUNCIL.

Applications are invited from qualified ARCHITECTS to fill the following permanent posts on the staff of the County Architect, and to work on a large and interesting building programme, including traditional and new building techniques:

TWO ASSISTANT ARCHITECTS

including traditional and new building techniques:—
TWO ASSISTANT ARCHITECTS, A.P.T.,
Grade V (£620-£670 p.a.).
Applicants should have outstanding design ability.
A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.
Applications on forms, giving further particulars of the appointments, are obtainable from Mr. F. B. Pooley, County Architect, County Offices.
Aylesbury, and returnable by 28th June, 1954.
MINISTRY OF WORKS.
ARCHITECTURAL ASSISTANTS are required for drawing office work in London and various Regional Offices. Candidates must have had at least three years' architectural training, some experience in an architect's office, and be of Intermediate R.I.B.A. standard.
London salary scale per annum: £420 (at age 21) to £670 (slightly less in the provinces). Starting rate up to £580, according to age and experience. Although unestablished, these posts have long-term possibilities and promotion prospects, and competitions are held periodically for establishment.
State age, nationality, and full details of train-

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

of Works, Abell House, John Islip Street, London, S.W.1.

METROPOLITAN BOROUGH OF CAMBERWELL.

DEPARTMENT OF DIRECTOR OF HOUSING AND BOROUGH ARCHITECT.

JUNIOR ARCHITECT (TEMPORARY).

Grades A.P.T., III/IV (£580-£655, inclusive of £30 London weighting). Qualification: R.I.B.A. Intermediate Examination or its equivalent, with a minimum of one year in an Architectural office. Possibility of appointment to permanent staff in Grades A.P.T., V/VI, on completion of qualification. No housing provided. Application form from Town Clerk, Town Hall, Camberwell, S.E.5. Closing date: Saturday. 26th June. 1954. 2859

KENSINGTON B.C. require ARCHITECTURAL ASSISTANTS. Salary: (a) £695-£860 n.a., plus L.W. allowance; (b) £580-£625 p.a., plus L.W. allowance, Applicants for (a) must have Final Examination of recognised professional body. N.J.C. conditions. No housing provided. Applications. stating age. qualifications, experience, etc., with names of two referees, to reach Town Clerk, Town Hall, Kensington, W.8, by 19th June. 1954.

CORPORATION OF GLASGOW.

1954. 2860

CORPORATION OF GLASGOW.
ARCHITECTURAL AND PLANNING
DEPARTMENT.
ASSISTANT ARCHITECTS.
ASSISTANT QUANTITY SURVEYORS.
Applications are invited from persons having general experience and holding the A.R.I.B.A. qualification or the A.R.I.C.S. qualification. Scale £590-£870 with placing according to age and experience. Posts are superannuable, subject to medical examination. Form of application may be obtained from the Principal Administrative Officer. 20, Trongate, Glasgow, C.1.

City Architect and Planning Officer. 2885

CITY OF ROCHESTER.

SENIOR ARCHITECTURAL ASSISTANT.
Applications are invited for the above appointment in the City Surveyor's Department, at a salary in accordance with Grade VI (Administrative, Professional and Technical Division), of the National Scale of Salaries, viz.: £695 per anaum, rising by three annual increments to £760 per annum. Candidates should be Associates of the Royal Institute of British Architectural Section, and administrative ability is essential in addition to a good general experience, particularly in the preparation of drawings and specifications for Municipal Housing Schemes. A knowledge of quantities would be an advantage.

In an appropriate case the City Council will provide the successful applicant with suitable housing accommodation.

The appointment will be subject to:—
(1) The Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services.

(1) The Scheme of Control of the Control of the Control of Control

Guildhall, Rochester. 31st May, 1954.

JIST May, 1994.

LONDON ELECTRICITY BOARD.
SENIOR DRAUGHTSMAN.
Applications are invited for the above position in the Design and Planning Branch of the Northern Sub-Area at Aldersgate, London, E.C.I.
Applicants should have had training and experience in building construction and the design of steelwork and reinforced concrete structures, and be capable of preparing drawings and making calculations for the alteration of existing premises and the conversion of basements into sub-stations and transformer chambers. Experience in the layout of electrical equipment up to 11 kV., whilst not essential, would be an advantage.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 5—2595 7s. to 2704 11s. per annum, inclusive of London allowance.

£595 7s. to £704 11s. per annum, increase allowance.
Application forms obtainable from Personnel Officer, 46, New Broad Street, E.C.2, to be returned completed within 14 days of the publication of this advertisement. Please enclose addressed envelope and quote ref. V/1692/A. on all correspondence.

2862

MOUNTAIN ASH URBAN DISTRICT
COUNCIL.

APPOINTMENT OF ASSISTANT ARCHITECT.
Applications are invited for the above appointment. Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects or its equivalent and have had at least two years' experience in an Architect's Office, preferably on housing work. The conditions of employment will be in accordance with the National Scheme of Conditions of Service and the appointment will be remunerated in accordance with Grade A.P.T. IV (£580 × £15-£625). The appointment will be superannuable and will be terminable by one month's notice on either side. The successful applicant will be required to pass a medical examination.
Applications stating age, qualifications and experience, together with names of two persons to whom reference may be made, must reach the undersigned not later than WEDNESDAY, the 50th June. 1954. Housing accommodation will be provided if required.

BERNARD M. MURPHY, Clerk of the Council.
Town Hall, Mountain Ash.

Town Hall, Mountain Ash. 3rd June, 1954.

LONDON COUNTY COUNCIL.

Temporary SURVEYING and ARCHITECTRAL ASSISTANTS (up to £721) required in
Building Regulation Division for work under
London Building Acts and Bylaws. Particulars
and application forms returnable by 8th July,
from Architect, AR/BR/2, County Hall, 8.E.1.

SHIPLEY URBAN DISTRICT COUNCIL.
ARCHITECTURAL ASSISTANT required,
A.P.T. Grade Va (£650-£710), commencing according to experience and qualifications. Position superannuable and subject to the provisions of the National Scheme of Conditions of Service.
Applications giving age, details of training, qualifications and experience, together with the names and addresses of two referees, to the Engineer and Surveyor, Town Hall, Shipley, Yorks., by 10 a.m. on Monday, 21st June. 1954.
HOUSING ACCOMMODATION will be provided if required.

ERNEST PEARS, Clerk and Solicitor. Town Hall, Shipley. 2nd June, 1954.

2888

NORTHUMBERLAND COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
(a) SENIOR PLANNING ASSISTANT, A.P.T.
Grade VI (£695-£760).
(b) PLANNING ASSISTANT, A.P.T. Grades
I-IV (£496-£625).
Applications are invited for the above appoint-

Applications are invited for the above appointments.

Candidates for post (a) should be Associate Members of the Town Planning Institute and the duties of the successful candidate will relate chiefly to the preparation of Town Maps.

The successful candidate for post (b), for which planning and/or architectural experience is required, will be graded according to qualifications and experience. (This is a re-insertion of a previous advertisement and previous applicants need not re-apply.)

Both appointments (which are whole-time ones) will be subject to the National Scheme of Conditions of Service, to the provisions of the Local Government Superannuation Act, 1937 (or 1953) and to one month's notice on either side, and the successful candidates will be required to pass a medical examination to the Council's satisfaction.

Applications on forms obtainable from the undersigned should be completed and returned not later than 18th June, 1954.

J. B. ROSS, A.R.I.C.S.,

County Planning Officer.

CIVIL SERVICE.

43. Side, Newcastle-upon-Tyne, 1.

CIVIL SERVICE.

QUANTITY SURVEYORS and ASSISTANT QUANTITY SURVEYORS required throughout the United Kingdom by Admiralty, Air Ministry, War Office and Ministry of Works, occasionally overseas by War Office. Although unestablished, these posts have long term possibilities. In London, salaries for those suitably qualified and experienced over 25 years of age, range from 4702 to £1,425 per annum. Slightly lower in the provinces. Vacancies also exist for QUANTITY SURVEYING ASSISTANTS and others, having some experience of quantity surveying at salaries ranging from £350 per annum upwards.

Write quoting reference J.Q.S. to room 403.

M.LN.S., Technical and Scientific Register, 26, King Street, London S.W.I.

King Street, London, S.W.1.

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

VACANCY FOR ARCHITECT.
Applications are invited for a permanent and
pensionable post of ASSISTANT ARCHITECT in
the Chief Architect's Branch. The successful
candidate will be given a substantive appointment as Assistant Architect Class II with acting
rank of Assistant Architect Class is £940 rising to
£1,156 and commencing pay will be the minimum
of the scale.
Candidates must be Registered Architects by
examination.

Candidates must be Registered Architected by examination.

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

Application forms may be obtained from the Secretary, Civil Service Commission, Stormont, Belfast, and should be returned with copies of two recent testimonials so as to reach him not later than 5th July, 1954.

EAST ANGLIAN REGIONAL HOSPITAL

later than 5th July, 1954.

EAST ANGLIAN REGIONAL HOSPITAL
BOARD.

Applications are invited for post of ARCHITECTURAL ASSISTANT. Applicants must have
passed Intermediate Examination of R.I.B.A.
Commencing salary, within grade £440-£625 per
annum, will depend on applicant's age and practical experience since passing Intermediate Examination, but will not exceed £525. Architectural training and practical experience necessary.
Applications, stating age, qualifications and
experience, and names of three referees, to Secretary of Board, 117, Chesterton Road, Cambridge,
by 21st June, 1954.

tary of Board, 117, Chesterion Road, Cambridge, by 21st June, 1954.

By 21st June, 1954.

GOVERNMENT OF NORTHERN IRELAND.

MINISTRY OF FINANCE—DIRECTORATE OF WORKS.

ARCHITECTURAL ASSISTANTS.

ARCHITECTURAL ASSISTANTS.

APPLICATION OF THE TOWN OF THE COUNTY OF THE COU

COUNTY BOROUGH OF BURTON-UPON-TRENT.

APPOINTMENT OF QUANTITY SURVEYOR—
GRADE VI.

Applications are invited for the appointment (subject to satisfactory medical examination) of a QUANTITY SURVEYOR on the established staff of the Architectural Department of the Borough Surveyor. Salary Grade A.P.T. VI (1695/1/260). Preference will be given to candidates who are professionally qualified.

Housing accommodation available for successful candidate if married.

Applications giving age, education, qualifications, experience, appointments held and present salary, and the names of two referees, to be delivered to the Borough Surveyor. Town Hall, Burton-upon-Trent, not later than Saturday, 26th June, 1954.

H. BAILEY CHAPMAN, Town Clerk.

Town Hall. Burton-upon-Trent. 1st June, 1954.

1st June, 1954.

CORPORATION OF LONDON.
Applications are invited for two appointments of ARCHITECTURAL and SURVEYING ASSISTANTS.

(a) With good office experience and knowledge of general construction and have passed or be preparing for Final R.I.B.A. or R.I.C.S. Scale of pay £500 by £22 158, to £758 158, (including cost of living addition) commencing salary subject to age, experience and qualifications.

(b) For dilapidations, contracts of repair and preparation of plans, age 20-25 years, studying for appropriate professional examinations. Salary £306 58, to £468 158, (including cost of living addition) according to age, rising to maximum of £586 58.

2366 5s. to £468 15s. (including cost of living addition) according to age, rising to maximum of £536 5s.

Appointments subject to medical examination and contribution to Superannuation Fund.

Applications, giving full personal details, age, particulars of qualifications, experience and appointments held, with the names of two referees, to the City Surveyor, 55-61, Moorgate, E.C.2, by MONDAY. 21st June, 1954.

COUNTY BOROUGH OF BOURNEMOUTH.

Applications are invited for the following established post:—ARCHITECTURAL ASSIYANT, A.P.T. III (£550-£595 p.a.).

Applicants must have had one year's experience after passing R.I.B.A. Intermediate Examination. Successful candidate will be appointed at, present salary if within the incremental scale.

Appointment subject to medical examination, National Conditions of Service, Superannuation Scheme and one month's notice. No housing provided.

Application forms and further particulars from Borough Architect, Town Hall, Bournemouth. Completed applications with copies of three recent testimonials must reach me by 10 a.m. 26th June, 1954.

A. LINDSAY CLEGG, Town Clerk

BOROUGH OF WILLESDEN.
APPOINTMENT OF ARCHITECTURAL
ASSISTANT.
GRADE A.P.T. VA.
Salary £650 ~£70 per annum, exclusive of
London Weighting.
Applications are invited for the above appointment on the permanent staff of the Borough
Engineer and Surveyor from suitably experienced
persons who are Associates of the Royal Institute
of British Architects or who hold an equivalent
qualifications.
Commencing salary will be

of British architects of the gradient of the gradient of the successful candidate.

The Council is unable to assist with housing. Full details and form of application may be obtained from the Borough Engineer and Surveyor Town Hall, Dyne Road, Kilburn, London, N.W.6. and should be returned to the undersigned, not later than 10 a.m. on Monday, 28th June, 1954.

R. S. FORSTER,
Town Hall, Dyne Road, Kilburn.

Town Hall. Dyne Road, Kilburn, London N.W.6.

Tenders for Contracts
6 lines or under. 12s. 6d.; each additional line, 2s.
CITY AND COUNTY OF NEWCASTLE-UPONTYNE.
The Corporation is prepared to receive tenders

The Corporation is prepared to receive tenders for:

RESTORATION AND PRESERVATION OF STONEWORK.

TO TOWER OF CATHEDRAL CHURCH OF ST. NICHOLAS.

NEWCASTLE-UPON-TYNE.

Contractors desirous of tendering for this work are requested to send their names in to the City Estate and Property Surveyor. Town Hall, Newcastle-upon-Tyne, 1, not later than 14th June, 1984.

No tender will be received except in the official envelope provided for that purpose, and such envelope shall not bear any mark indicating the sender.

envelope province envelope shall not bear any mark indicates envelope shall not bear any mark indicates sender.

Sealed tenders to be sent in on or before 10 a.m. on 5th July, 1954.

The Corporation does not bind itself to accept the lowest or any tender.

By Order.

JOHN ATKINSON.

Town Clerk.

2894

CITY AND COUNTY OF NEWCASTLE-UPON.

The Corporation is prepared to receive tenders

for:
RESTORATION AND PRESERVATION OF
STONEWORK,
EARL GREY MONUMENT,
NEWCASTLE-UPON-TYNE.
Contractors desirous of tendering for this work
are requested to send their names in to the City
Estate and Property Surveyor, Town Hall,
Newcastle-upon-Tyne, 1, not later than 14th June,

No tender will be received except in the official envelope provided for that purpose, and such envelope shall not bear any mark indicating the

sender.
Sealed tenders to be sent in on or before 10 a.m. on 5th July, 1954.
The Corporation does not bind itself to accept the lowest or any tender.
By Order,
JOHN ATKINSON,
Town Clerk.

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ADVERTISEMENT FOR POLESWORTH
COMMUNITY ASSOCIATION.
To Builders & Contractors.
The Association proposes to carry out the undermentioned scheme at an early date and contractors wishing to tender for this work are asked to submit their names to the undersigned not later than 14th June, 1954.
A limited number of contractors may be selected and asked to tender but the lowest or any tender will not necessarily be accepted.
A MEMORIAL HALL, being the first stage of the Community Centre for the Village and Parish of POLESWORTH.
The Hall will be to seat 600 persons and will include cloakrooms, Committee rooms, projection room, foyer, etc.
In addition there will be involved the construction of a car park to accommodate at least 40 cars, the construction of carriageways and footpaths together with sewers for foul and surface water.
The scheme will be carried out under the

water.

The scheme will be carried out under the direction of the Association's Architect, Mr. E. J. Holdam, F.I.A.S., M.Inst.R.A., and tender documents will be ready for issue to Contractors by about the end of June, 1954.

S. MURDEN.

"Fairlight," Dordon Road, Dordon, nr. Tamworth, Staffs.

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

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

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

Please state experience and salary required. Day 2137.

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

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

PPLICATIONS are invited for the following appointments:—

(a) ASSISTANT ARCHITECTS, of Intermediate and Final R.I.B.A. standard (salary range: £320-£680 per annum, according to age and experience), for work on varied and interesting projects.

(b) SHOPFITTING DRAUGHTSMAN, Applicants should have wide experience in store planning and design.

The appointments are permanent and pensionable, and offer prospects of up-grading. Applications, stating age, experience, qualifications and salary required, to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London, E.I.

RCHITECTURAL ASSISTANT required in

A RCHITECTURAL ASSISTANT required in Old Established expanding busy country practice. Office experience essential. £500 p.a. or according to ability. Write Box 2858.

SENIOR ARCHITECTURAL ASSISTANTS required at once for busy London office. Experienced and capable of taking responsibility. Salary £800-£900 or according to ability. Full details to Box 2855.

SENIOR ARCHITECTURAL ASSISTANT required by multiple company in London. Full experience of surveys, working drawings, detailing and supervision of jobs. 5-day week, canteen facilities. Permanent and pensionable post. Apply in writing stating age, qualifications, salary required and experience to Box 2848.

JUNIOR ASSISTANTS urgently required. Good draughtsmen with some experience. Excelent prospects in busy office. Salary by arrangement. Write fully to Bowden Son and Partners, 3, Adelaide Terrace, London, N.L. 2856

YOUTH required for private Architect's office in Sevenoaks, who is keen to become an ARCHITECTURAL DRAUGHTSMAN. Working hours adjusted to allow time for attending evening classes. Box 2855.

TUNIOR ARCHITECTURAL ASSISTANT

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classes. Box 2853.

JUNIOR ARCHITECTURAL ASSISTANT required in private Architect's office in Sevenoaks. Box 2854.

QUALIFIED ASSISTANT ARCHITECTS and/ or SURVEYORS (BUILDING) required for Bristol office with extensive and varied practice. Also Intermediate R.I.B.A. or R.I.C.S. (Building) assistants required. Write giving full particulars of experience and salary required to W. H. Watkins, Gray, FF.R.I.B.A. and Partners, 1, Clare Street, Bristol, 1. 2852

A SSISTANT urgently required for busy and varied practice Hampstead Heath area. Intermediate Standard, contemporary outlook preferred. Please apply by letter giving age, experience, salary required and date when free to Box

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

A RCHITECTURAL ASSISTANT, Intermediate or Final standard, required for busy contemporary London office. Previous office experience an advantage. 2895

A RCHITECTURAL ASSISTANTS required by City office for town and country work. 3.I.B.A. Inter. and Final standard. 2400 to 2750, according to age and experience. 'Phone for interview, City 1639.

Interview, City 1639.

2896

SENIOR and JUNIOR ARCHITECTURAL
ASSISTANTS required at once in busy
Southampton office. Previous office experience
essential for senior post, and some office experience
of advantage for junior. Salaries according
to ability. Write, giving experience and present
salary. Box 2898.

ENIOR ARCHITECT required to take over large job. Ring Liberty 8181; or write:
George Watt, A.R.I.B.A., 146, Mostyn Road,
Merton Park, S.W.19.

JUNIOR ASSISTANT required in Architect's Office in Ruthin, North Wales. Details and salary required to Box 2879.

INDUSTRIAL Architects, S.W.1, require ASSISTANTS up to 30 years of age, Intermediate standard. Salary: £400 to £500, according to experience. Apply Box 2880.

A RCHITECTURAL ASSISTANT required. Experienced, good draughtsman, capable of preparing working drawings, details and specification. Apply, stating qualifications, experience and salary required, to Geo. H. Herring, 21, Milton Road, Harpenden, Herts. 2881

SENIOR ARCHITECTURAL ASSISTANT required (office experience essential) by a large and busy office in the South-West, with a varied practice. Car driver, preferably with own car. Write, giving age, qualifications, experience, and salary required. Box 2882.

and salary required. Box 2882.

CHIEF ASSISTANT required for Architect's Department of a large firm of Building and Civil Engineering Contractors. Applicants must be quick and accurate draughtsmen, have a sound knowledge of building construction, and a flair for design in both the domestic and industrial field. The appointment is permanent, and a pension scheme is in operation. The Department has a large and interesting variety of work in hand in the development of their own estates. Apply in writing, stating age, qualifications, and details of experience and posts heid, in chronological order, and present salary, to Messra. George Calverley & Sons (Contractors), Ltd., Evington Valley Road, Leicester.

EXPERIENCED ASSISTANT required immediately. Should be quick, accurate draughtsman with sound knowledge of construction and detailing. Please write giving full particulars and salary required to Box 2620.

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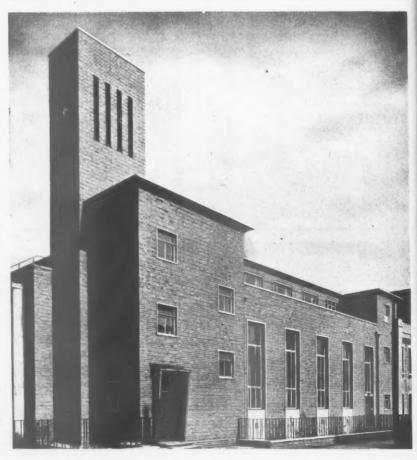
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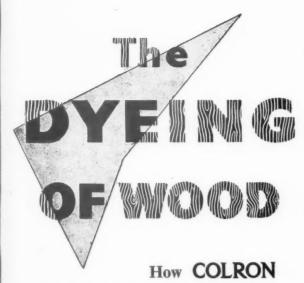
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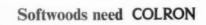
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