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

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	Sloane 3158/1601
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2450
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	Museum 1783
I of Arb	Institute of Arbitrators. 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197/5176
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
IWA	Inland Waterways Association. 14, Great James' Street, W.C.2.	Chancery 7718
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	Modern Architectural Research Group (English Branch of CIAM) Secretary: Gontran Goulden, Building Centre, 26, Store Street, W.C.1.	Museum 5400
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Saville Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers, 10, Princes Street, S.W.1.	Abbey5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington	Molesey 1380
NSA	National Sawmilling Association. 14, New Bridge Street, E.C.4.	City 1476
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Whitehall 9936
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House. Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Langham 1984
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4.	City 5051
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

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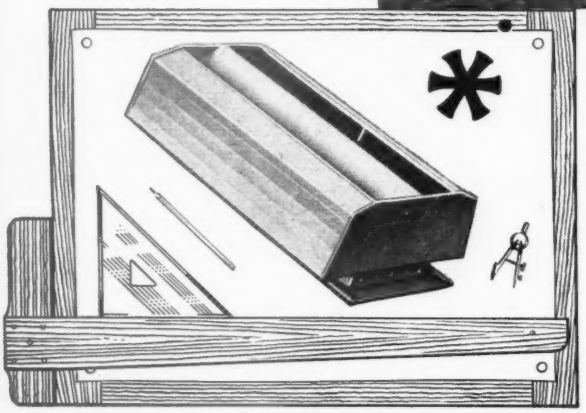

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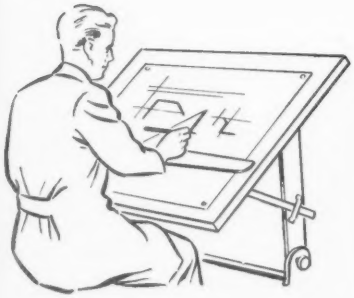

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A.15

New Sherry Bar for the Bush

Photograph by courtesy of Messrs. F. & A. Berni Brothers of Bush Hotel (Swansea) Ltd.

The new Sherry Bar in the Bush Hotel, Swansea, reconstructed by Gaskell & Chambers has a return on each end of the bar which increases the effective length from 19ft. to 27ft. The buttoned front, in wine coloured vynide, has a walnut bag shelf with " S " shaped wrought iron supports. The bar top is in maroon formica continued round to form the sideboard top of the backfitting, which has a central window flanked by two mirrors. Backfitting, soffit and shelves are supported by turned walnut pilasters.

A Town House Window

BY ANTHONY GROSS

One cannot mention all the advantages of metal windows, but this illustration shows that Crittall Windows with their strong yet slim build do ensure that there is absolutely no waste of the valuable London daylight.

CRITTALL WINDOWS

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A design for a lift to carry both personnel and materials. Construction of the lift shaft is most substantial, but the hoisting mechanism is perhaps a trifle sketchy.

By Jacques Besson, French mathematician and scientist, 1659.

Photo by courtesy of 'Picture Post'

Comfort laid on!

Meta-Mica plaster aggregate is a special grade of fine mesh vermiculite which, when mixed with gypsum plaster gives a light-weight crack-resisting plaster for application over all grounds, including masonry, concrete, plaster board, metal lath or vermiculite block. It is normally applied in two coats and to a finished thickness depending upon the amount of thermal and sound insulation required. It can be worked and trowelled in the usual manner, and produces a pleasing smooth finish. A textured surface can be obtained with a wooden float. Meta-Mica has remarkable powers of adhesion, thus brickwork, concrete, wall board, plaster board, can all be treated. One ton of Meta-Mica plaster aggregate has a covering capacity of nearly 1,000 sq. yards.

The finishes are thermal insulating and 'K' values in the range of 0.9—1.5 B.Th.U/sq. ft./hr./°F/in. can be obtained according to the mix used and the method of application. *The Meta-Mica finishes are completely fire-proof and possess a high thermal resistance, thus providing a barrier to fire.* The warm nature of these finishes combined with their low specific heat and highly porous character confers excellent *anti-condensation* properties. When cured and dry any of the finishes will stand prolonged 'steaming' without free moisture appearing, and from this point of view they are in a class by themselves. Paints or distempers which dry to an impervious surface should not, of course, be used where anti-condensation properties are required.

The weight of the finishes ranges from 30-48 lb. per cu. ft. according to type and this compares with approximately 100 lb. for normal plaster finishes. This reduction makes an appreciable saving in the dead weight of a structure. The resilient nature of Meta-Mica results in the absorption of strains and stresses which may occur during setting and drying and the risk of cracking is thereby reduced to a minimum. Nails and screws can be driven into the surface without difficulty and without causing cracking; if subjected to heavy impact Meta-Mica wall finishes do not crack or flake as do other types of finishes, and the only damage sustained is an indentation.

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V30

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R.P.M.

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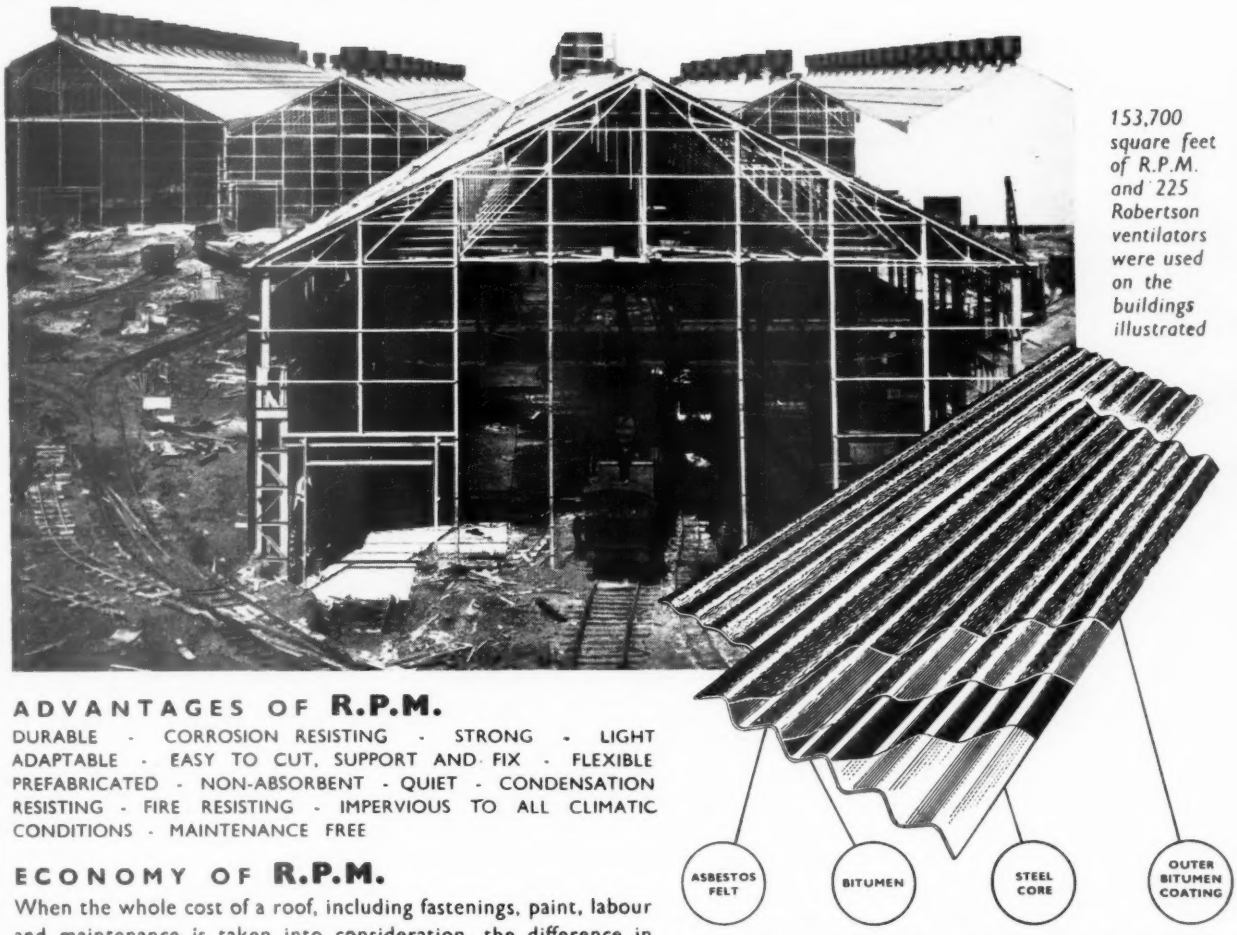

153,700 square feet of R.P.M. and 225 Robertson ventilators were used on the buildings illustrated

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When the whole cost of a roof, including fastenings, paint, labour and maintenance is taken into consideration, the difference in cost between an R.P.M. roof and one of less durable material is not great, while the difference in service is out of all proportion. R.P.M. does not require painting. Its corrosion resistance is unsurpassed and its insulating value higher than other forms of corrugated roofing materials.

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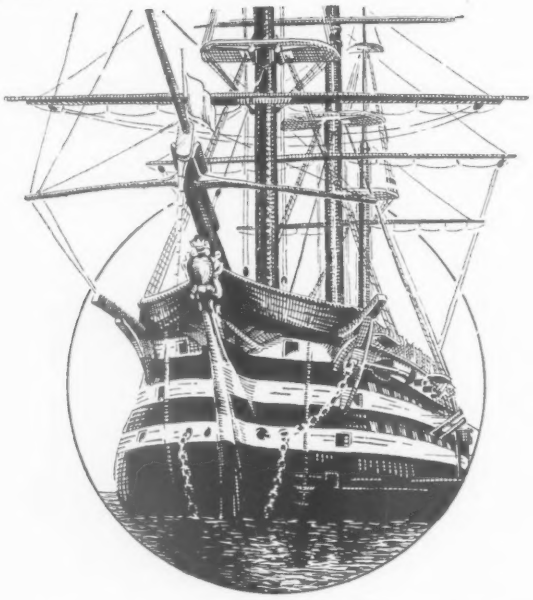

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T.A. 5436

Photograph by courtesy of the Architect:
Jack S. Thompson, Esq., A.R.I.B.A.
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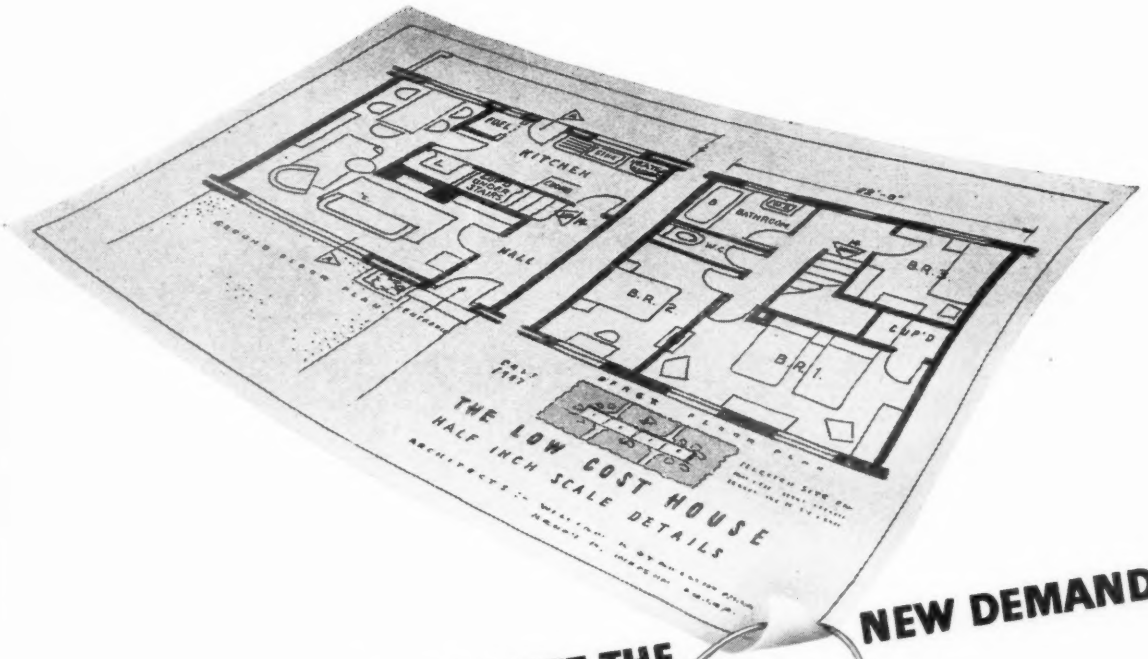
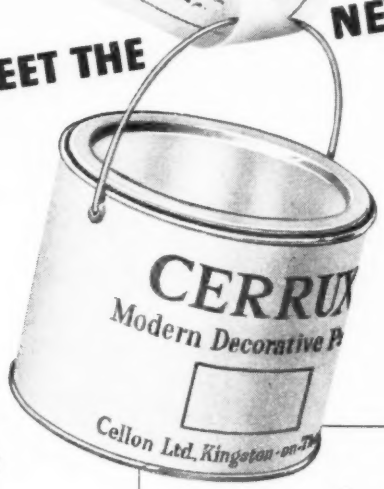


Hand in hand - TO MEET THE NEW DEMAND!



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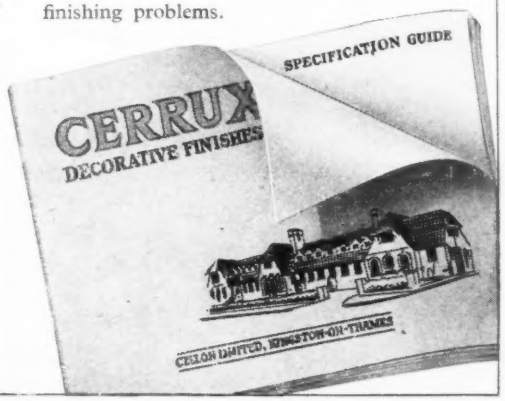

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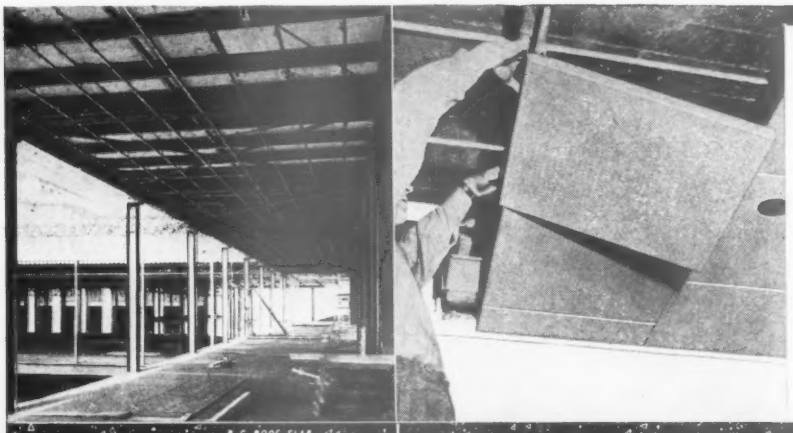

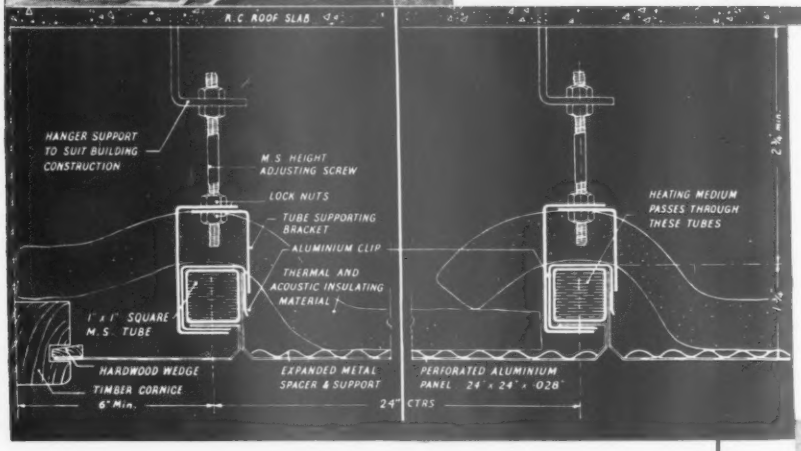

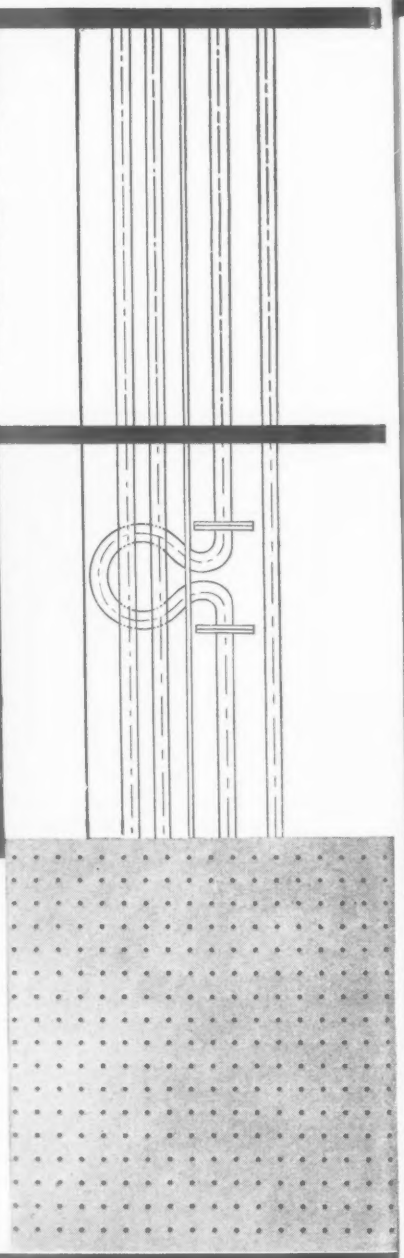

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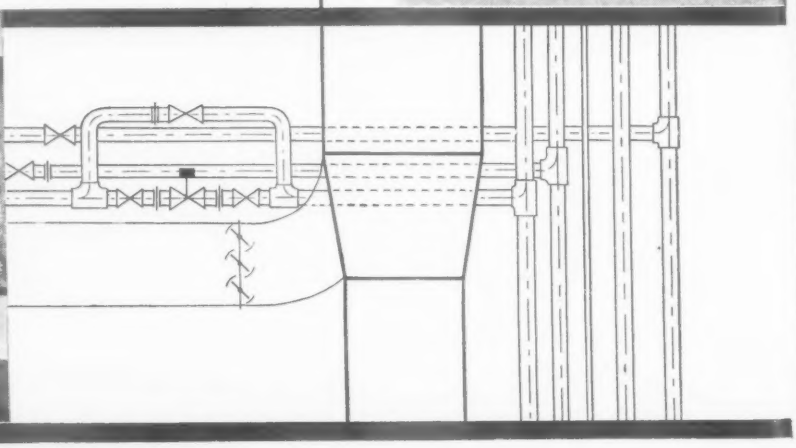

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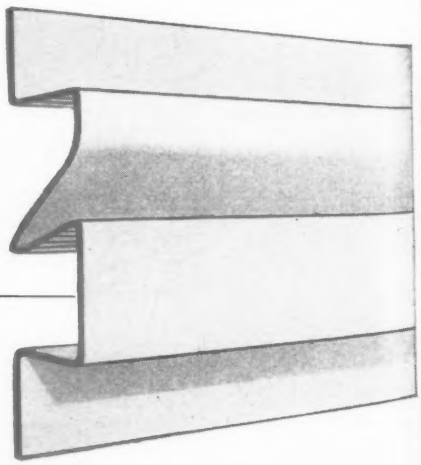

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The photograph below shows the gantry and bridge for the ash-disposal pipeline at North Wilford Power Station (Authority: B.E.A.)

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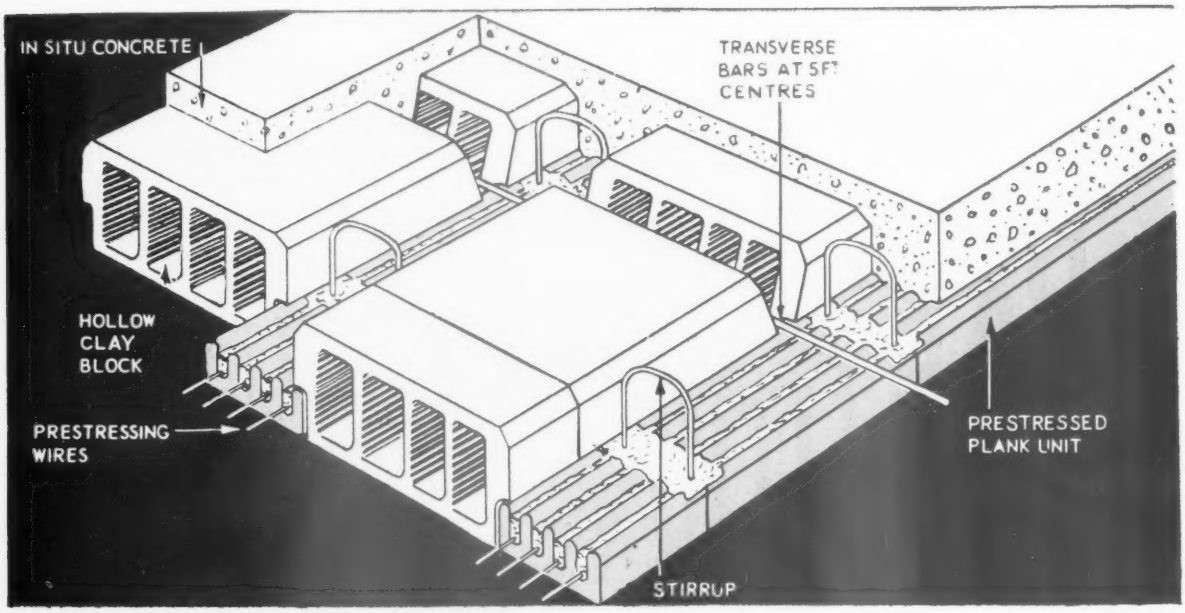

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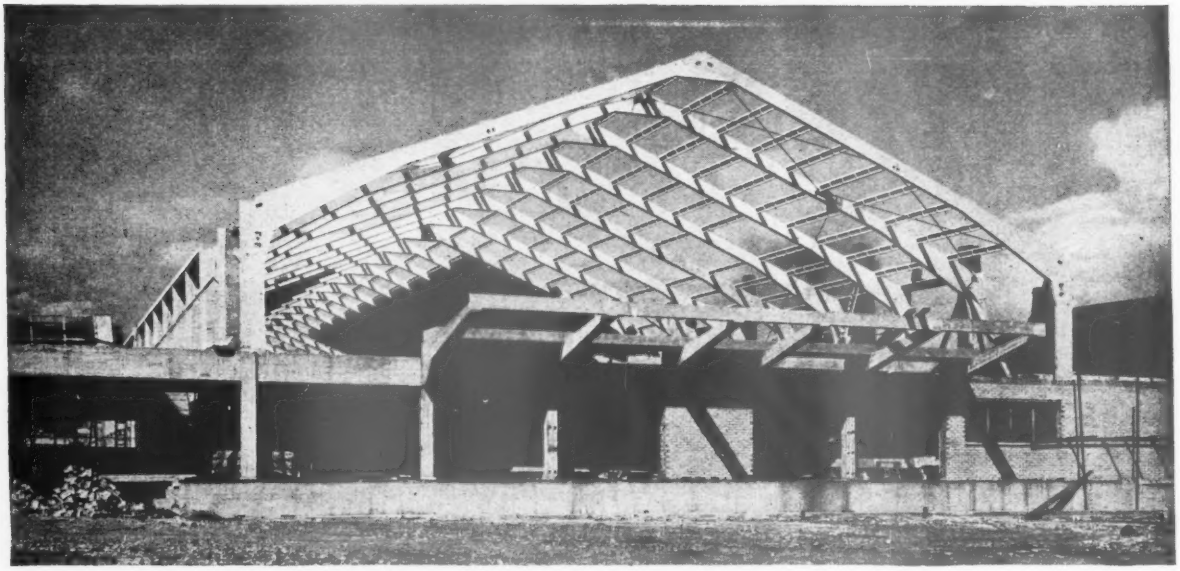

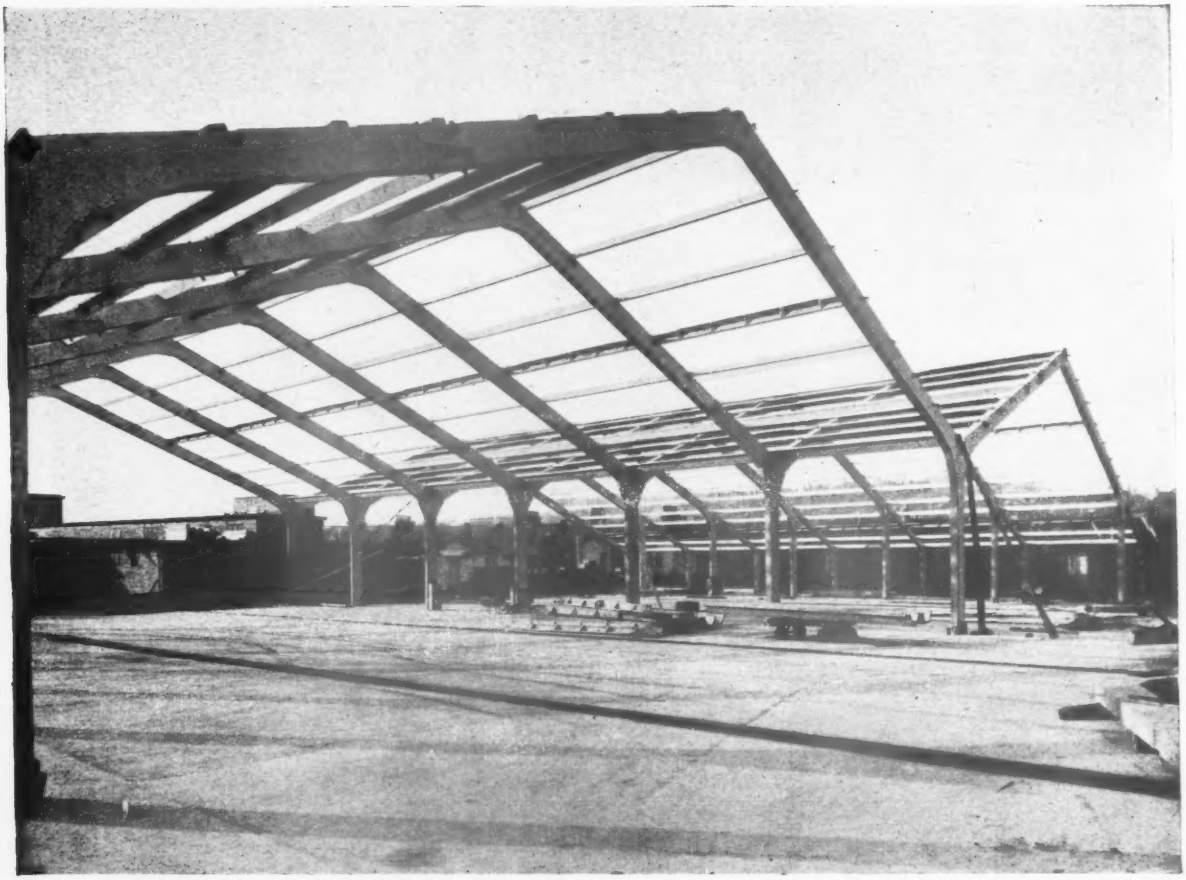

"PARISTONE" PLASTERS

were used extensively in this building

Above: Exterior of the Randolph Hotel, Oxford, showing new extension. Photos: Trust Houses Ltd.
Below: The Ballroom Foyer and Bar
Architect: J. Hopwood, A.R.I.B.A.
General Contractors: Hinkins & Frewin Ltd. Oxford

"PARISTONE" Plasters are obtainable in three browning plaster grades, namely, Haired, Unhaired and Metal Lathing, and also in a Wall Finishing grade. In the new extension to the Randolph Hotel, "GYPROC" HAIRED "PARISTONE" PLASTER and "PARISTONE" WALL FINISHING PLASTER were used on the walls and ceilings.

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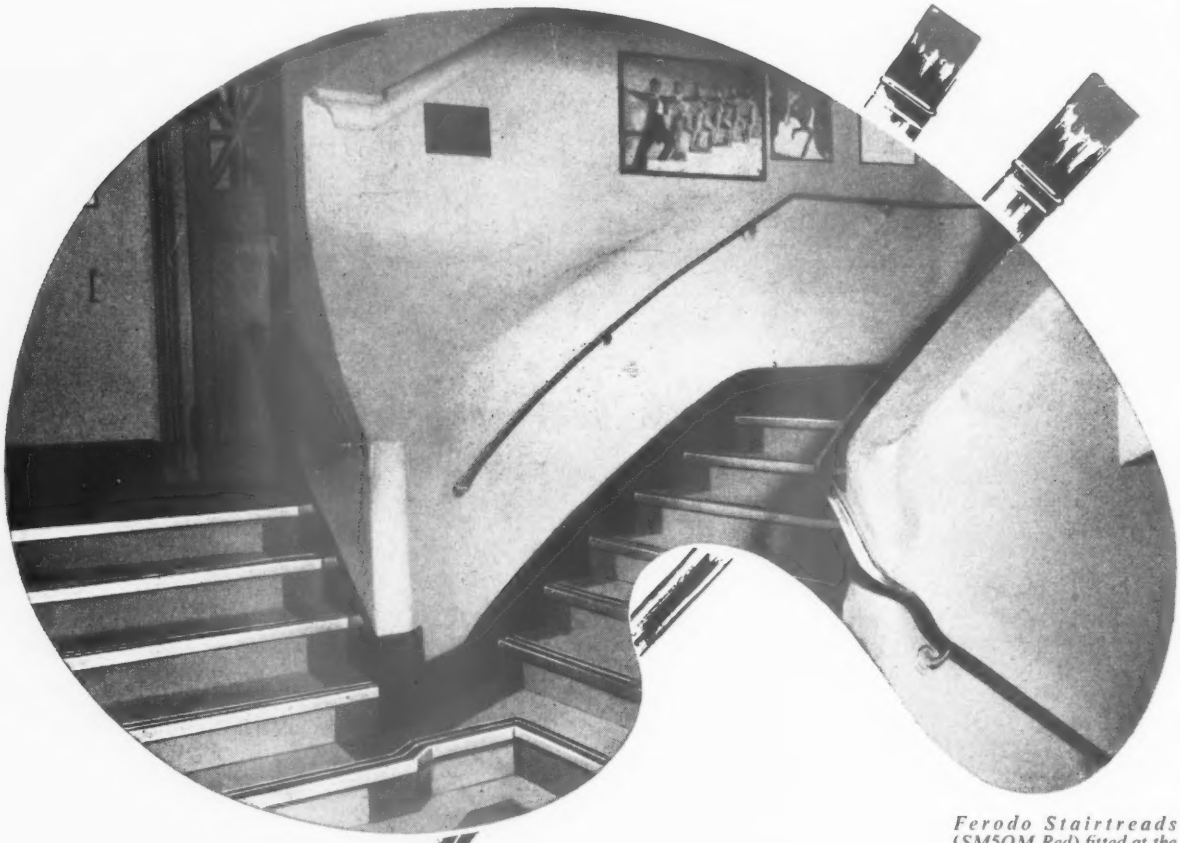

Ferodo Stairtreads (SM5OM Red) fitted at the Windmill Theatre, W.1. Flooring Contractors: Catesby Limited. (Photo by courtesy of Windmill Theatre Ltd.)

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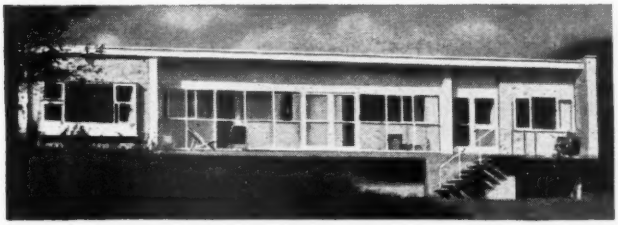

HOUSE AT LUCCOMBE, I.O.W. *View from South-west. Architect and owner—F. R. S. Yorke, F.R.I.B.A.*

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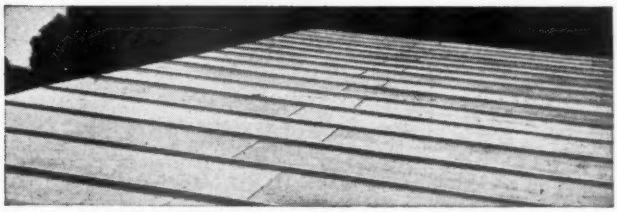

View of standing seam zinc roofing.

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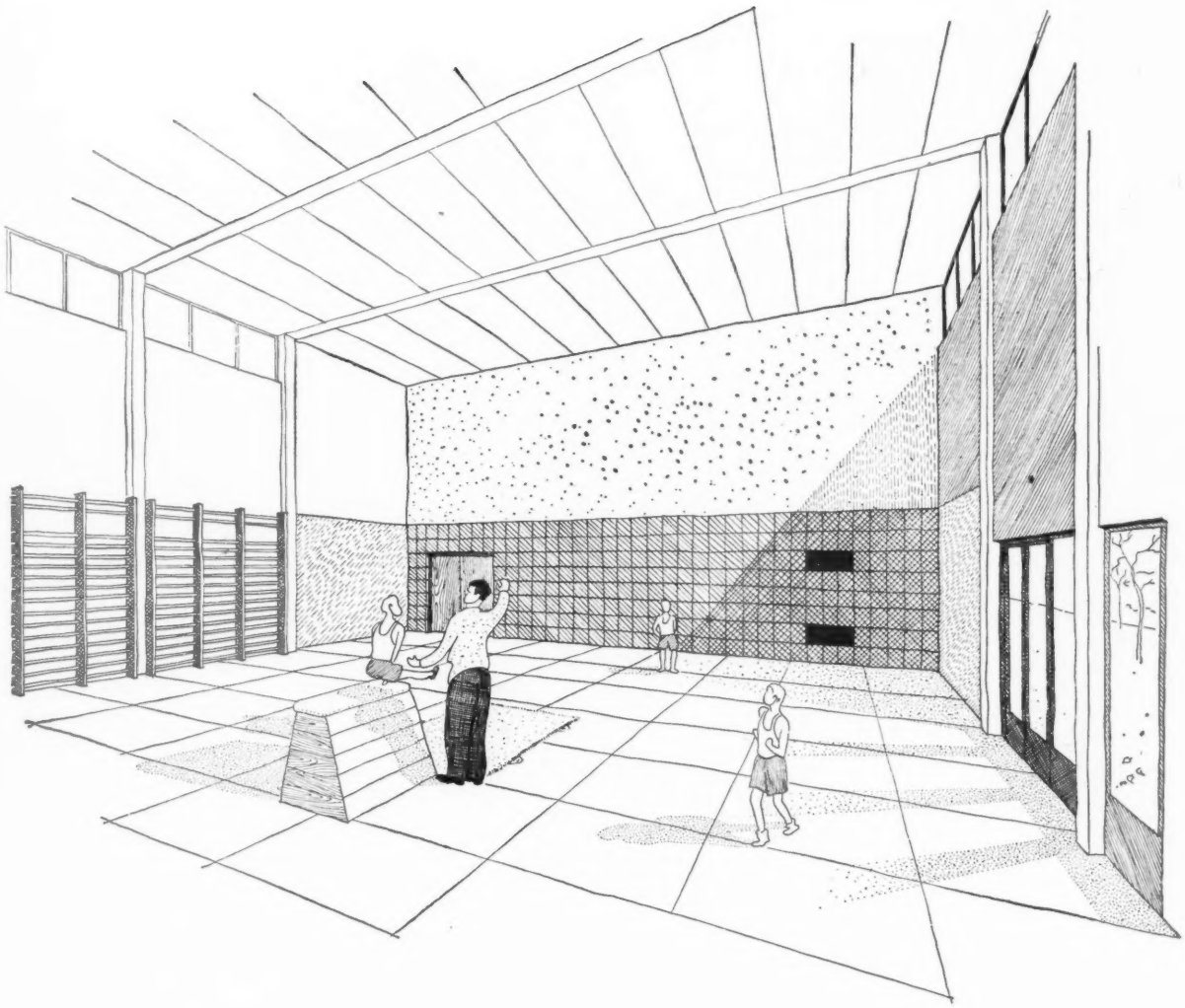

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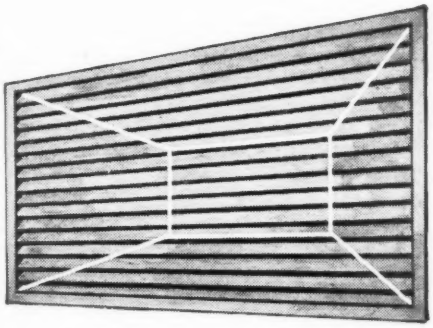

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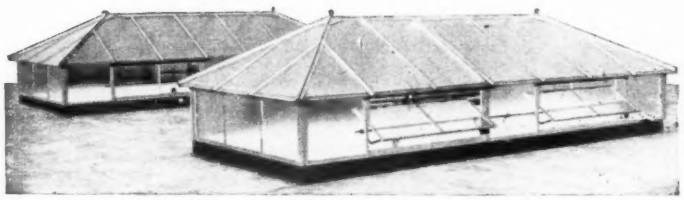

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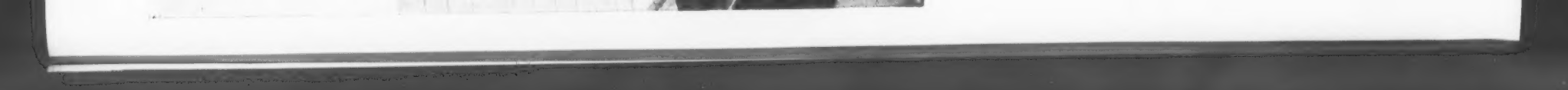

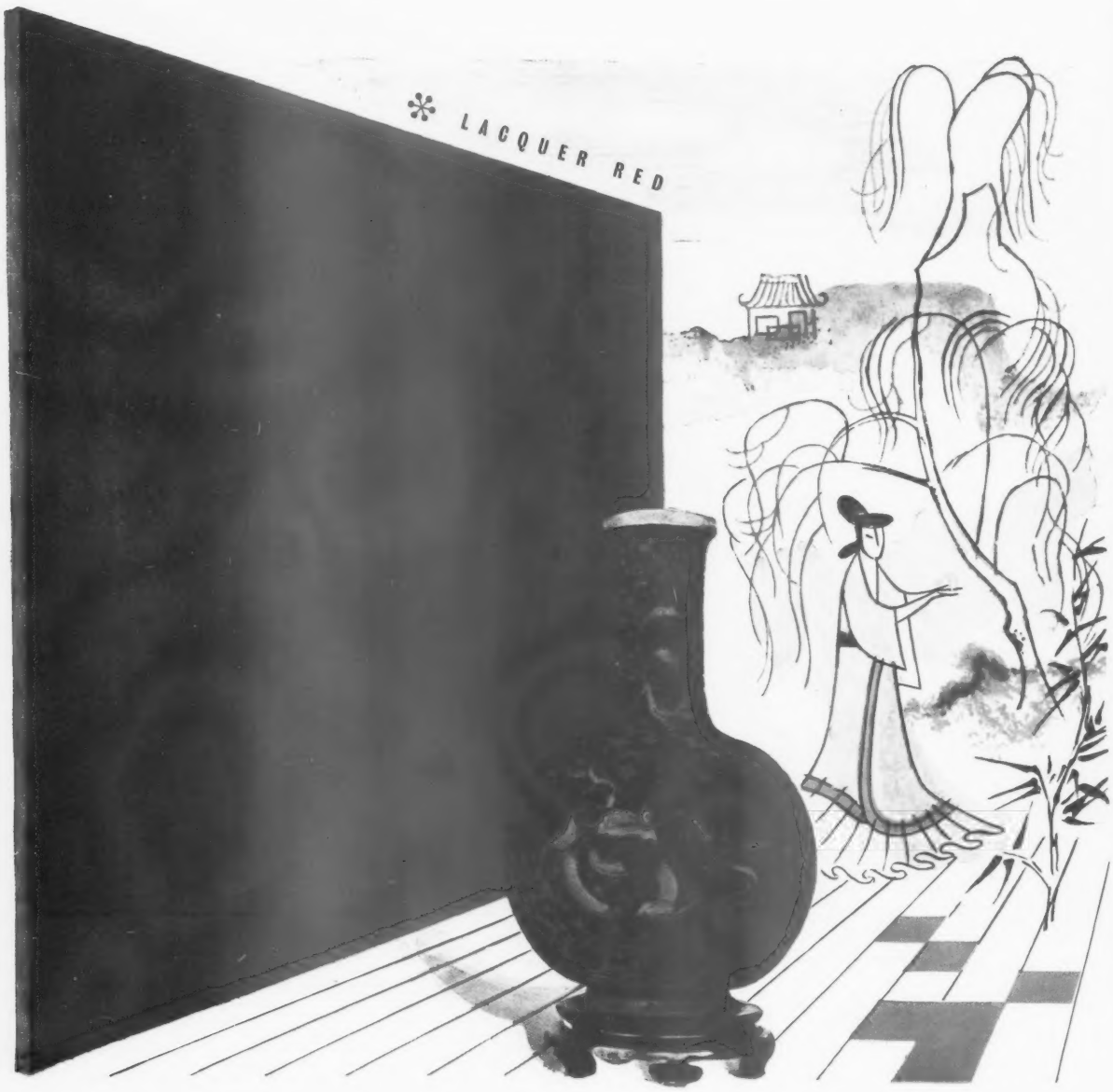

From the palaces of Emperors and the tombs of the noble dead the world has slowly gathered its precious heritage of Chinese porcelain and lacquer-ware — a wealth of fragile beauty that is beyond price. Among such treasure, in the Victoria and Albert Museum, is a superb vase of Cinnabar lacquer attributed to the reign of Ch'ien Lung. The colour of the Vinyl Tile illustrated is a Lacquer Red, standardised by the British Colour Council: it is based upon the brilliant red in Chinese lacquer-ware that is both an inspiration and a challenge to artists and designers of our Western civilization. The colours in the Semtex Vinyl and Semastic Decorative Tile ranges were chosen in collaboration with the British Colour Council.

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THE ARCHITECTS' JOURNAL

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

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THE COUNTRY HOUSES DEBATE

Mr. Eccles's announcement in the House of Commons on Thursday about Government measures for saving country houses will have come as something of a disappointment to those who hoped for full implementation of the Gowers report. Half a million pounds spread over five years, which is the sum the Government is prepared to spend on buying historic houses that might otherwise be lost, won't go very far.

*

This is in addition to the quarter of a million which the Government had already announced was to be earmarked for repair and maintenance, but can still not be regarded, as Mr. Eccles admitted, as more than a beginning. Lord Waverley, in the debate on the same subject in the Lords, compared the amount with the astronomical expenditure on research into nuclear energy, and also pleaded for acceptance of the Gowers committee's suggestion that income tax relief should be granted to owners of historic houses who had to spend a lot of money on their upkeep. This is important because gradual deterioration is more of a menace in the long run than the occasional more spectacular cases of wanton destruction.

THE NEW EPSTEIN

With so many statues and other ornaments of the London scene going into Coronation retirement in wooden boxes and gilded cages, it is pleasant to have a new one in a public place—Cavendish Square, to be exact. Those interesting, renovated twins, the two eighteenth-century houses in the middle of the north side of the Square, have been siamesed by a bridge designed by Louis Osman (since both houses belong to the convent of the Holy Child), and on the blank wall of the bridge is Jacob Epstein's new Madonna and Child.

*

Architects may quibble about the sculpture's exact relationship to the building, but they must all be jealous of this commendable piece of architect-sculptor collaboration. And surely everyone will have to agree that this is the finest thing Epstein has done for a long time—it received a round of applause when it was unveiled last Thursday. ASTRAGAL was particularly pleased to see, for once in a while, a piece of contemporary religious sculpture which was neither sloppy nor morbid. It is cast in lead which came, incidentally, from the roof of the two houses during the remodelling.

POPULAR ART

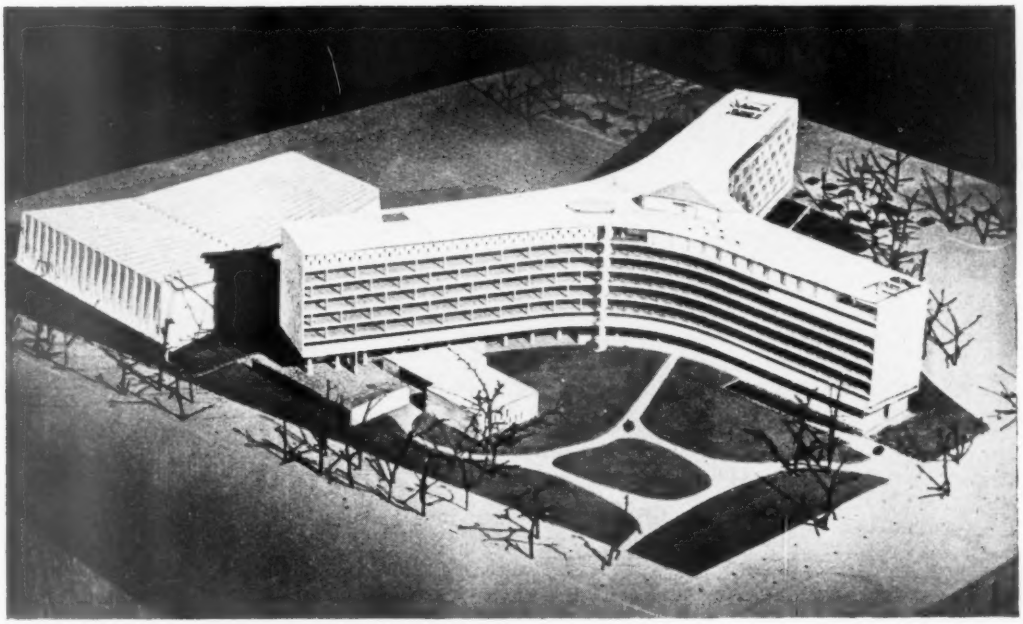
Now that every shop has tins of biscuits or canisters of tea with royal portraits in three or more colours, and head scarves, handbags and scent bottles are plastered with crowns, it is interesting to find out what other generations did on the same sort of occasion. One wonders if a percentage of Victorians laughed at their current efforts as much as some of us do now at many of our '53 whimsies.

*

There are plenty of examples, from Victoria onwards (plus a little Georgian), collected and very well displayed by Barbara Jones, on view at the Tea Centre, with a general title of "Royal Occasions." Most of the stuff—broadsheets, panoramas and suchlike, seems very well done, but some of the official invitation cards are deplorably dull. Some of it is just funny, like the full size crown and the model of Windsor Castle in that plaited and shiny bread which I believe used to be called Viennese, but which was promptly re-christened Swiss in 1914. You can marvel, too, at the virtuosity of the cakes for the Kent-Marina and Edinburgh-Elizabeth weddings.

*

It is years since ASTRAGAL went to an architect's wedding: what do the bright boys do nowadays about cakes? It would be fun to see something in the current idiom instead of Corinthian columns and Cupids: has any architect ever designed one for himself or does everyone nowadays pop round to the registry office and end up with sherry and Bath Olivers?



The revised design for the U N E S C O headquarters in Paris, which has been approved by the international panel of architects advising Unesco. The design is to be considered at a general conference of Unesco, opening on July 1. The site is behind the Ecole Militaire. The designers are Bernard Zehrfuss, Marcel Breuer and Pier Luigi Nervi.

CORB ON TV

Many readers may have missed Le Corbusier's television appearance last week, because it didn't appear in the BBC's printed programmes. Though not altogether satisfactory, it should encourage programme planners to present architects and architecture in this way again.

*

It was an admirable idea to set Corb to draw in front of the camera, especially as he speaks little English, and it was a treat to see sketches of Marseilles and Chandigarh in his inimitable style growing before our eyes. Wells-Coates skilfully filled the difficult rôle of the "feed," as it is called on the music-halls. But what, one wonders, did the non-architect viewers—the suburban dweller and the council house tenant—make of the programme?

PENGUIN HISTORICAL

There seems no end to the enterprise of Penguin Books under Sir Allen Lane's spirited leadership. The first two volumes of their newest production—the Pelican History of Art—were published on Friday. Its object is nothing less than to provide a definitive history of the whole field of art and architecture permitting, in the words of the editor's introduction, "all the available knowledge to be summed up afresh in a series of comprehensive surveys."

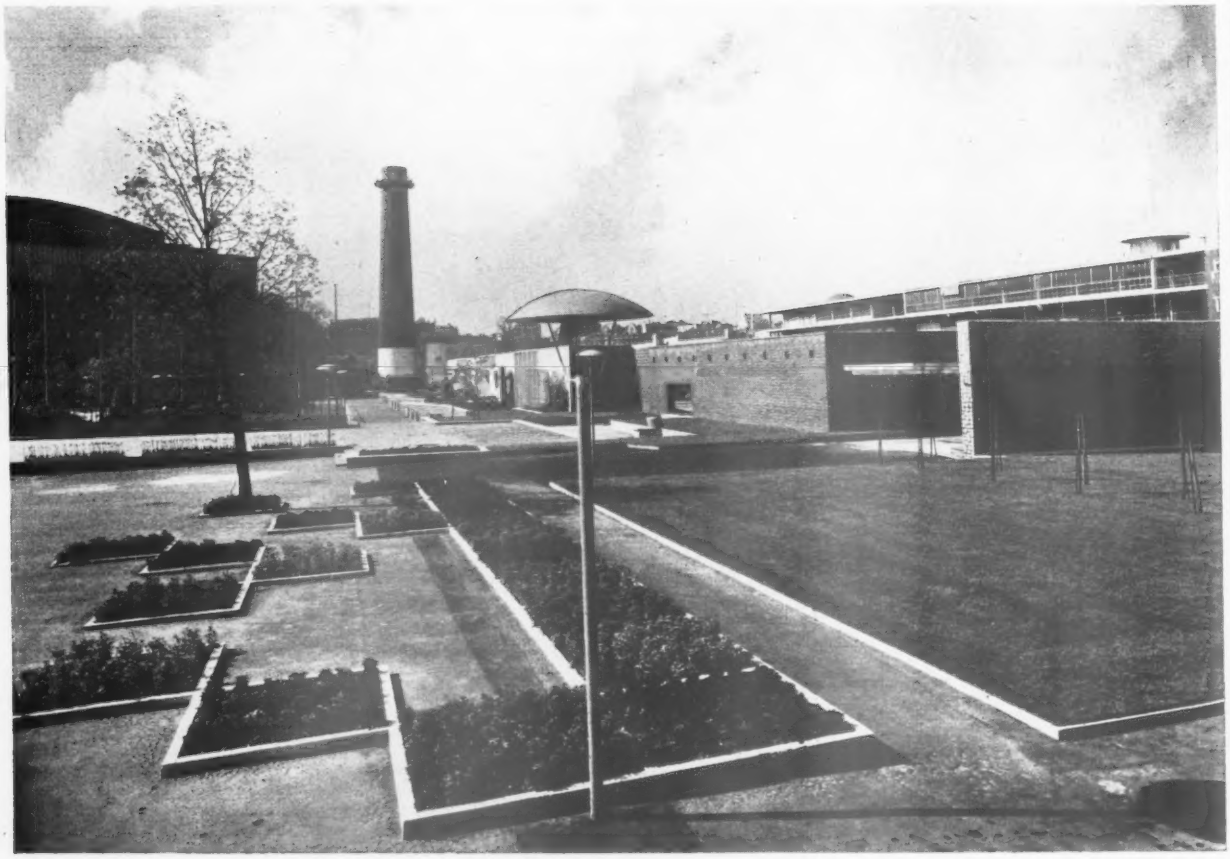
*

The editor is Nikolaus Pevsner, who has been working on the project for some years with his team of eminent contributors. The history will require 48 volumes. These will appear at the rate of four a year, and will cost two guineas each. The two just out are *Painting in Britain*, 1530-1790, by Ellis Waterhouse, and *The Art and Architecture of India*, by Benjamin Rowland of Harvard. Of the next two, due in October, one will be the first volume devoted wholly to architecture: *Architecture in Britain*, 1530-1830, by John Summerson. The other will be *French Art and Architecture*, 1500-1700, by Anthony Blunt.

*

Among the later volumes, those on *British Medieval Architecture*, by Geoffrey Webb, and *The Architecture of the 19th and 20th Centuries*, by Henry-Russell Hitchcock, will certainly

Lewis Mumford, the American architectural writer, who is on a visit to England, was entertained at a party in the JOURNAL'S *offices last week. He is here seen, in the centre of the picture, talking to Fello Atkinson. The others in the picture, reading from left to right, are Lionel Brett, Sir Gerald Barry and Gordon Cullen.*



South Bank, 1953

These pictures show progress made in the temporary development of the South Bank, downstream section, which has been carried out under the direction of Robert H. Matthew (now succeeded by Dr. J. L. Martin), Architect to the LCC, and L. A. Huddart, Chief Officer, Parks Department—both of whom had previously prepared a plan in collaboration with Sir Hugh Casson. The work is being done by the Parks Department, which has nearly completed a children's playground (right, top picture). The lower picture was taken outside the Telecinema.

be looked forward to by architects. ASTRAGAL has glanced at the first two, beautifully illustrated, red-bound quarto volumes, and is greatly impressed. Nothing like this has been attempted before in English. There are roughly equivalent histories in French and German, but both are now somewhat out of date, especially the French one (Michel's *Histoire de l'Art*), which was begun in 1905.

*

I hope it will be a comfort to Prof. Pevsner to feel, when in the midst of his responsibilities, that by the time the last volume is out in 1965 he will also, at the present rate, have produced 54 volumes in his "Buildings of England" series, and the back of that will at least be broken. But by then no doubt half-a-dozen more equally ambitious ventures will be under way.

PEASANTS AND POETS

The untutored mediæval peasant, according to an article in the *B.B.C. Quarterly*, "could neither weave a basket, make a pot, nor thatch a cottage in an ill manner." One would have thought that by now this celebrated piece of Ruskinian wish-thinking had worn so thin that it could be quietly forgotten.

*

However, this remark—made by one of ASTRAGAL'S idols among architectural writers, Robert Furneaux Jordan—was embedded in an article which maintained the highest level of sense and sensibility. It is fascinating to read the most pungent of radio expositors of the visual arts holding forth on his own trade.

*

The function of the radio expositor, Mr. Jordan asserts, is not to describe, nor to fill in the social and political background, but to make the listener *see* by conjuring up poetic images in words. He is himself a master of this technique, as is Prof. Pevsner, but one wonders whom he regards as *the* master of this peculiar art. ASTRAGAL suspects—gloomily, and rather disrespectfully—that it isn't anyone connected with the visual arts at all, but the soft-voiced Grimble with his tales of the Pacific Islands.

ASTRAGAL

POINTS FROM THIS ISSUE

The Editors

PRESERVING OUR PAST

DURING the next five years, half a million pounds—from the National Land Fund—is to be used for the buying of ancient buildings of outstanding interest. By making this decision* the Government is a step ahead of its predecessors—but only a very small step ahead. Such a sum of money will be of little use.

We do not seem much nearer to a solution to the problem of how to preserve our national heritage. And yet two good solutions were suggested in the 1950 report of the Gowers Committee. One recommendation of this Committee was that owners of historic houses should be given relief from taxation, so that they could maintain their property—provided that arrangements were made for the public to be admitted to the buildings. The other recommendation was that National Building Councils should be set up to supervise the maintenance of selected buildings—and thus to do work now done by several separate departments.

These proposals should be accepted. We cannot repeat too often that our family houses of architectural merit should be *lived in*, not preserved as museum pieces. But even museum pieces would be better than nothing. And it seems that nothing—or next to nothing—is what the government proposes to do in the immediate future.

Do not let us comfort ourselves by regarding the Government's action as "a move in the right direction." It is just this half-hearted sort of action that can be so dangerous, by taking us off our guard. We must not allow the Government to quieten its conscience—and our own—with such half-measures, or in five years' time—when half a million pounds have been spent—we shall have inherited considerably more unpleasing decay than we own at present.

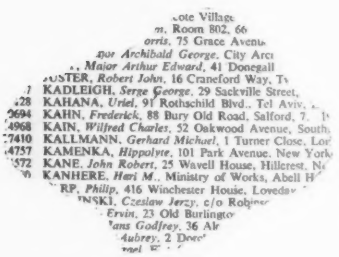
BUILDING RESEARCH CUTS

Although it contains a brief survey of the work of BRS and other organizations connected with building, the recently-published DSIR Report for 1951-52 (HMSO, 8s.) is too general to be of much value to architects. Mention must be made, however, of the deplorable fact that most of the Government's cuts in DSIR services have fallen on the building research programme.

This prompts a question. How much would be gained if the subsidy on houses were reduced by one shilling each, every year, and spent instead on building research ?

* See page 641.

FOCUS ON



YOU

In this article, Martyn Webb—senior member of the team assisting Professor Bowen, the JOURNAL'S *Guest Editor—continues to discuss post-war unemployment in the architectural profession. The title piece above is reproduced from a page chosen at random from the Architect's Register, and the names have no direct connection with the article.*

MARTYN WEBB

Post-War Unemployment in the Architectural Profession

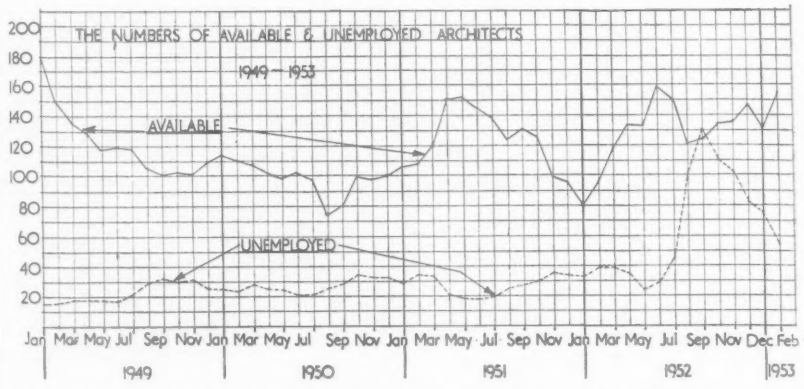
THE architectural profession can never hope to be absolutely free from unemployment; even so, the numbers of known unemployed architects during the period 1949-1951 was remarkably low—on average less than 30 per month. Thus, the sharp rise in unemployment in the latter half of 1952 came as a shock to the profession. By September the numbers involved were close on 140 and, in view of the difficulties associated with professional data,* possibly a great deal higher than that. Nevertheless, even if the September peak was, in reality, double the official figure, unemployment would have been less than 2 per cent. of the number of registered architects. Since then unemployment has fallen, but it is still running at roughly twice the monthly average for the period 1949/51.

How serious was last year's unemployment? The answer depends upon how one looks at the figures. It was serious unemployment when compared with previous years; no one can deny that an increase of something like four times the monthly average is alarming. Yet, viewed from another angle, it was relatively unimportant, affecting less than two architects in every hundred. In view of this conflict of opposite views, it would be wise to remind ourselves of what serious unemployment really means.

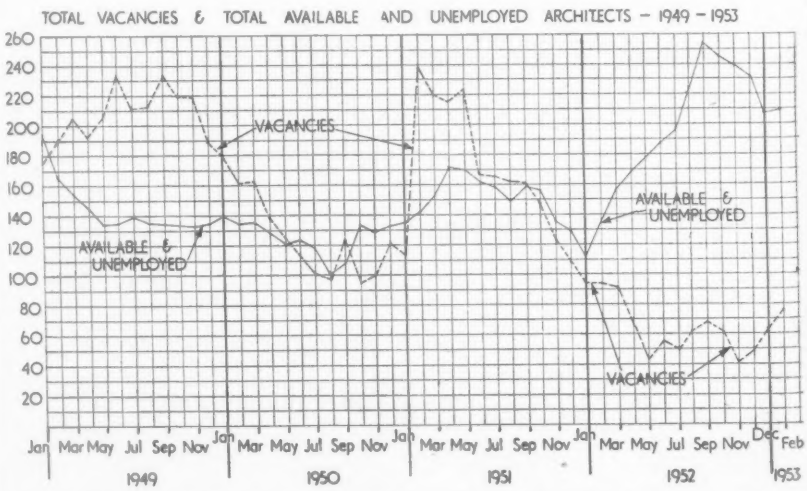
In such times, architects would find great difficulty in obtaining employment, may face long periods of idleness, will often be forced to seek frequent changes of employment and large numbers might even be forced, through no fault of their own, to accept positions which were financially below that which was in keeping with their qualifications and experience. In the end, architects may even have to leave the profession altogether.

This, quite clearly, did not happen last year; indeed, to have it happen at all, and to have it go as far as forcing architects out of the profession, one would require severe slump conditions. This is, of course, little comfort to those who were—or have been—unemployed during the past few months. The fall in the number of vacancies provides some indication of their difficulties. But their position was made all the more difficult by the fact that the unemployed represent only one section of the total demand for work. The unemployed are usually outnumbered by the so-called *available* architects (some of whom are admittedly unemployed); a group which includes the student approaching finals, employed architects seeking either a change or promotion, or even a principal in private practice wanting a salaried appointment. It is true that many available architects will create a vacancy as they move on, but to assume that this will happen in every instance would be wrong. In any case, such vacancies are often covered from within the office concerned by promotion; if any vacancy results, it will be for an office boy direct from school and *not* for a qualified architect.

The problem of unemployment is not, therefore, simply a question of finding jobs for the workless; their needs must



Above, a graph showing the numbers of unemployed architects, and architects who are registered as available for work, i.e. architects registered as seeking work, but not officially "unemployed". Note that the total numbers of unemployed and available architects during 1952 reached a higher level than in any previous year.



In this graph, prepared after study of official records, the JOURNAL'S *Guest Editor's research team shows the number of job vacancies notified and outstanding in each month from 1949 to 1953, and the number of available and unemployed architects.*

* See previous articles on unemployment for the reasons why professional unemployment data are not precise.

be fitted into a general pattern of a demand for work, the full force of which can only be truly estimated by employers seeking labour and in a position, therefore, to know the response to their advertisements.

There are, however, signs that last year's peak unemployment was of a particular kind and because of that provided peculiar difficulties for those concerned. As recent correspondence in this JOURNAL has shown, the problem largely affected the newly qualified architect direct from a recognized school or university. The reason usually given for their difficulty in finding employment is lack of practical experience. But full-time students have always lacked such experience; why should this *now* become of special difficulty?

10 *PER CENT. GROWTH OF PROFESSION*

Reference to previous articles in this series will show that over recent years the profession has absorbed new entrants at a higher rate than at any time during the previous twenty years, and that, as a consequence, the profession has grown by something like 10 per cent. Yet, it was not until 1952 that new entrants experienced any serious difficulty in obtaining employment and prior to last year the demand for architects was apparently so high that lack of experience was no bar to employment.

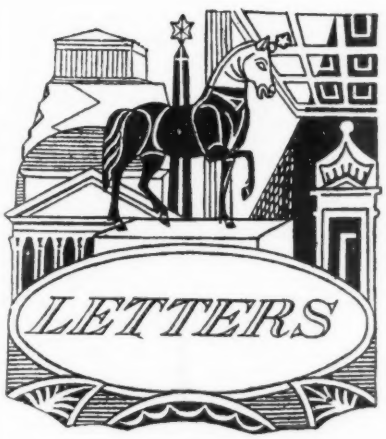
Nothing can be done now about last year's unemployment, it is already past history.

What is important is the fact that the numbers of full-time students now undergoing training and likely to qualify within the next few years is only a little lower than the peak of a few years ago. It is almost a misnomer to refer to the peak of 1949 as a "bulge": the fall in the number of vacancies over the past 18 months or so has not yet been accompanied by a corresponding fall in the numbers of newly qualified architects. The attitude of employers has hardened, and experience, which after all must be gained partly at their expense, has become a necessity.

THIS YEAR'S PROSPECTS

One must conclude (if the estimates as to the numbers of architects likely to qualify during the next few years are correct) that the last year's unemployment has a special significance for the full-time student. For if, during the coming months, the numbers of vacancies does not double, then it is almost certain that there will be a sharp increase in unemployment this coming autumn. Further, since there is little possibility of the numbers now undergoing training being reduced, there are signs that this situation might recur for a number of years to come.

(To be continued)



280 Architects from 13 offices

Harry A. Lee, Secretary, Southampton and District Association of Building Trades Employers.

R. H. D. Park, A.R.I.B.A.

Sainsbury and Chamberlain, L. F.R.I.B.A.

The RIBA: A Letter from 280 Architects

SIR,—The RIBA council nomination list and the annual report of the council of the RIBA have again been circulated, and very shortly the elections for 1953-54 will be held. It is now opportune to consider the RIBA as a professional body.

A letter published in your JOURNAL a year ago expressed dissatisfaction with the RIBA; the criticisms levelled then are still pertinent. They are:—

(1) The council of the RIBA is not representative of the profession as it exists today; 2,059 Fellows are now represented by 27 council members (or 49 if local society and co-opted members are included), 10,403 associates are represented by 9 or 19, and 2,614 Licentiates are represented by 3 or 7.

It must also be noted that 51 out of 75 council members appear to be principals in private practice, whereas the majority of members of the RIBA are salaried employees, working in central or local government offices, or employed by industrial undertakings and private architects.

Until Professor Bowen's analysis of the profession has been completed it will not be possible to estimate the exact discrepancy.

(2) In spite of the efforts that a subcommittee of the Salaried Architects' Committee have been making it remains a fact that the RIBA does not function as a true professional body concerning itself with the day to day interests of all its members.

The creation of the ARCUK and the preparation and revision of the scale of professional charges hardly fall within the limited scope laid down by the Royal Charters, which are claimed to restrict the function of the RIBA to that of a learned society. These acts show that action is possible when the council considers it desirable, yet, at the moment, salaried architects have no alternative to ABT or NALGO if they wish to have action taken in their day to day affairs.

(3) Representatives of local societies form 33 per cent. of the full RIBA council. As the RIBA council governs the whole profession, all corporate members in the different regions, irrespective of membership of the local society, should be entitled to nominate and vote for their local representative; nomination and voting should be by post and, perhaps, at the same time as the council election. The elected local representatives should be automatically members of the local society council.

This system would, for example, avoid the situation which now exists in the Birmingham and Five Counties region. There a member of the RIBA must pay an additional £1 or £2 per annum in order to vote for the officers of the society, who nominate his representative on the RIBA Council.

Local societies should have complete freedom of action in their areas and should govern their local affairs, but election to membership of the governing body of a professional organization should be the direct concern of all its members.

Many architects are aware of these facts and wish to rectify them in a constitutional manner. Rectification is possible, but will take time. The election results of the last year were most encouraging. Salaried architects in private offices and elsewhere should continue the policy they adopted and vote only for salaried council nominees again if they wish the RIBA Council to reflect their views, to attempt to carry out the reforms so obviously necessary, and to make the RIBA a truly professional organization.

280 ARCHITECTS
FROM 13 OFFICES

Is this Lack of Co-operation?

We are happy to print this detailed account from the secretary of the Southampton and District Association of Building Trade Employers of their relations with the Corporation housing committee, which speaks for itself.

SIR,—My attention has been drawn to an article in your issue of April 16, entitled "Southampton—a Survey by D. Rigby Childs and D. A. C. A. Boyne," and in particular the paragraph stating "as a result of this political change local builders were more co-operative."

I have no desire to enter into any protracted correspondence or political controversy, but the members of my association take very grave exception to this statement, in which there is not a vestige of truth.

The facts are that from the early part of 1946 onwards, my association was in constant touch with either the chairman of the corporation's housing committee or the borough architect, expressing the members' desire to assist with the re-building of corporation-owned "cost of works" houses and in the permanent housing programme—in the latter connection proposals being made for a negotiated contract scheme to harness the labour forces of the many medium and small sized firms in the district. The result of this was that at the end of 1946 it was decided to experiment with 80 houses on the Romsey Road and Coxford Road sites. It was not until the end of June, or early July—six months later—that a bill of quantities was made available. This was priced and submitted. In September the specification was revised and an amended price submitted. There then followed another six months of argument and negotiations, but agreement was reached and I venture to suggest that these several contracts were carried out to the entire satisfaction of the local authority.

Early in 1950, further approaches were made by my association and a reasonable price was submitted which the chairman of the housing committee flatly refused even to bring before his committee unless certain reductions were

made. His point of view was met and we then offered our services on a joint deputation to the ministry. This was rejected. This contract was for 54 houses and my association went to the expense of employing an independent surveyor to price the bill. The 54 houses ultimately went out to public tender and it eventually transpired that the accepted figures were comparable with those submitted by the association.

Is this lack of co-operation? It is quite evident that your contributors have no more than a superficial knowledge of their subject and my association feels most strongly that their statement, which is felt to be an entirely unwarranted reflection on the local builders, should be unequivocally withdrawn.

HARRY A. LEE.

Southampton.

Misplaced Patriotism?

SIR,—I wonder if George T. Mills (May 7) could explain what "economic necessity" compels every rural petrol station to erect enormously out of scale and garish advertisements for branded fuels, and why nearly every Cotswold (and other) motor garage should be decked out in red, white and blue stripes.

If this is so economically sound, could we not still further boost our standard of living with red, white and blue pubs, purple spotted transport cafés, sky-blue-pink telegraph poles, etc. We should then be able to use some of our abundant leisure in touring through the countryside, bumper to bumper, in our luxury cars, gazing with dumbstruck satisfaction at our . . . red, white and blue striped pubs, purple spotted transport cafés, sky-blue-pink telegraph poles, etc.

R. H. D. PARK.

Essex.

Gas Board Architecture

SIR,—A. J. Gordon's letter in your issue of April 30 on architectural work for the Welsh Gas Board prompts us to add similar comments apropos of our appointments in connection with work for the Central Division of the Southern Gas Board.

We also have prepared designs for new constructional and alteration work, and on all projects every encouragement has been given to the architect to make his contribution in the good and economical design of the building, in conjunction with the plant layout.

It is evident to us that with the closing down of many of the former smaller producer stations, every effort is being made by the Board to "tidy up" the holder stations remaining.

Restriction in government expenditure has inevitably controlled the extent of new works by the Gas Board, but we feel that architects are being given opportunity and encouragement to play their part in this important work of a nationalised undertaking.

SAINSBURY & CHAMBERLAIN.

Reading.

RIBA

Proposed Mackintosh Exhibition

The RIBA Council at its meeting earlier this month approved in principle a recommendation of the Public Relations Committee that a small exhibition of drawings, paintings and photographs by Charles Rennie Mackintosh should be shown at the RIBA at an appropriate time during the autumn of 1953, after an exhibition of his work at the Edinburgh Festival.

TCPA

Dr. Garbett: "90 per cent. want Houses—not Flats"

Dr. Garbett, the Archbishop of York, in his presidential address to the annual general meeting of the TCPA last week, paid tribute to the progress that had taken place in the new towns during the past year. He stressed the need for more community centres, in order that the tenants might enjoy a real corporate life. He welcomed the Town Development Act, 1952, as another step forward, in that it provided facilities for existing country towns to accept people from congested areas. If this Act were used it would do something to counteract the tendency of large towns to continue to spread to such an extent that those who lived in them became almost completely separated from the health and beauty of the countryside.

"The tendency to encourage the building of flats as against separate houses with gardens," said Dr. Garbett, "is causing the Town and Country Planning Association considerable anxiety. . . . There is no doubt that the majority of people want houses. Survey after survey has made it plain that possibly 90 per cent. would rather have a house than live in a tenement."

Planning, said Dr. Garbett, was likely to lose popular support if it became associated in the public mind with unsatisfactory standards of density and dwellings which were often barrack-like in appearance. If family life was to be preserved in England it should be encouraged by the provision of a sufficient number of separate houses.

LCC

New Site for Sculpture Exhibition

The LCC's 1954 open-air sculpture exhibition will be held not at Battersea Park as in 1948 and 1951, but at the new Holland Park, which is to be formally opened in that year. An advisory committee has inspected the site and recommended the use of an area to the west of the main lawn flanking the ruined mansion on its northern side.

Proposed Bye-Law Amendment

The LCC proposes that the present maximum height of buildings in the London area—80 ft., exclusive of two storeys in the roof—should be raised to 100 ft. (the reference to the two additional storeys would be omitted).

The Town Planning Committee reported to the Council at its meeting on Tuesday that there had been a tendency in recent years to set back any storeys over 80 ft. high from the main building face with vertical faces instead of sloping roofs; the terraces so formed at these upper levels had a use for fire fighting, rescue, and means of escape. The proposed revision would enable this to be done without special permission.

SCOTLAND

"Off-Peak" Electricity will Heat new Health Centre

The Sighthill Health Centre, Edinburgh—the first to be built in Scotland—is to be heated by "off-peak" electricity. Electric floor and wall panels will be switched on automatically during "off-peak" hours and heat up the fabric of the building, which will radiate this stored heat during the remainder of the day. Floors are of solid concrete; partitions and the inner leaf of the external cavity walls are of 4-in. foamed slag concrete blocks. Wall panels are backed by heat-reflecting material.

During cold weather, it will be necessary to give the heating a "boost" in the middle of the day.

The hot-water supply, including that for the sterilizing equipment, will also be heated by "off peak" electricity and stored in the calorifiers.

The centre was designed by the Department of Health for Scotland (former chief architect, Robert Gardner-Medwin), in consultation with the Edinburgh Corporation.

RSA

1953 Competition Particulars

The Council of the Royal Society of Arts has decided to hold a further Competition in 1953, on the same lines as that in 1952. Bursaries, of £150 each in value, will be offered for the design of: domestic electrical appliances, men's wear fabrics, electric light fittings, furnishing textiles, domestic gas appliances, PVC plastics sheeting, domestic solid-fuel-burning appliances, Perspex, carpets, footwear, dress textiles (three bursaries), furniture, and wallpaper.

In addition to the above bursaries, the

Continued on page 641.

The Sighthill Health Centre, Edinburgh. See note above

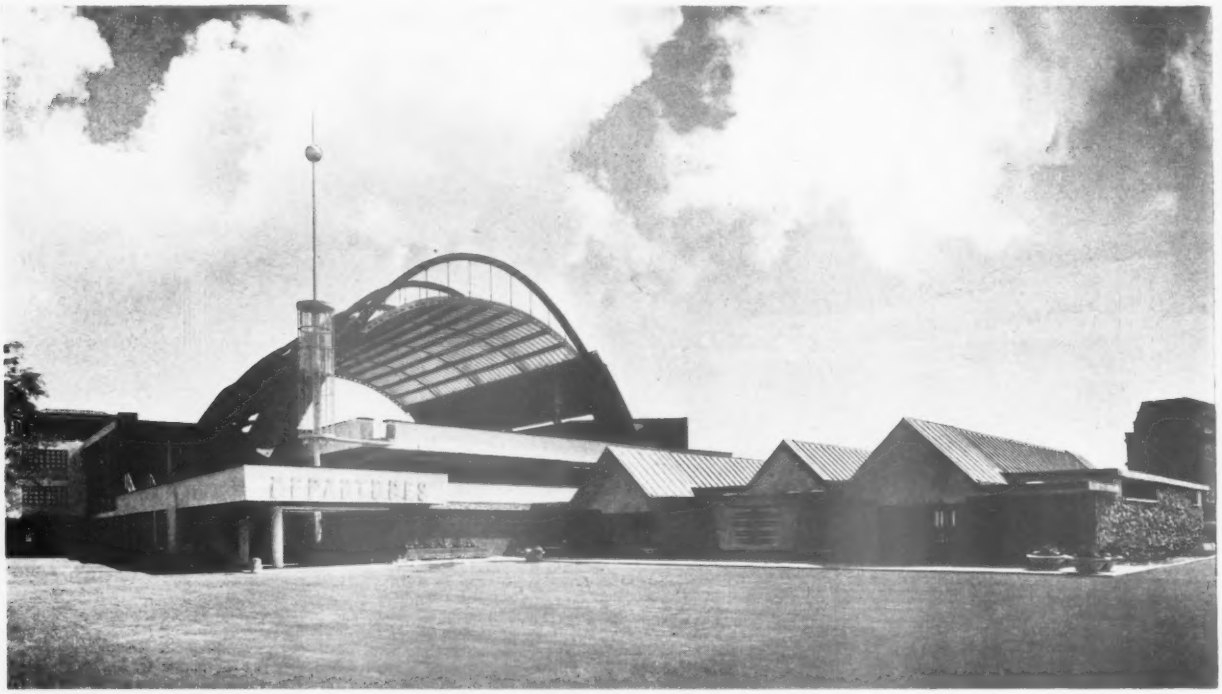
Pub at Stevenage. *"The Twin Foxes," a public house, was opened in the Stevenage New Town, Herts., last week. It was designed by Clifford Holliday, former chief architect, Stevenage Development Corporation; Leonard G. Vincent, deputy chief architect; Oliver Carey, group leader; assistant architects, P. Halliwell, H. Blake, Tony Pilcher and Michael Cotton.*

BUILDINGS IN THE NEWS

Showroom in Berkeley Square.

Below, the export reception area in the basement of Standard Motors' new showrooms and offices at Berkeley Square. Architect, Hector Hamilton; interior decoration, Elizabeth Eaton, assisted by Sylvia Chalmers (textiles) and Moira Patterson (furniture).

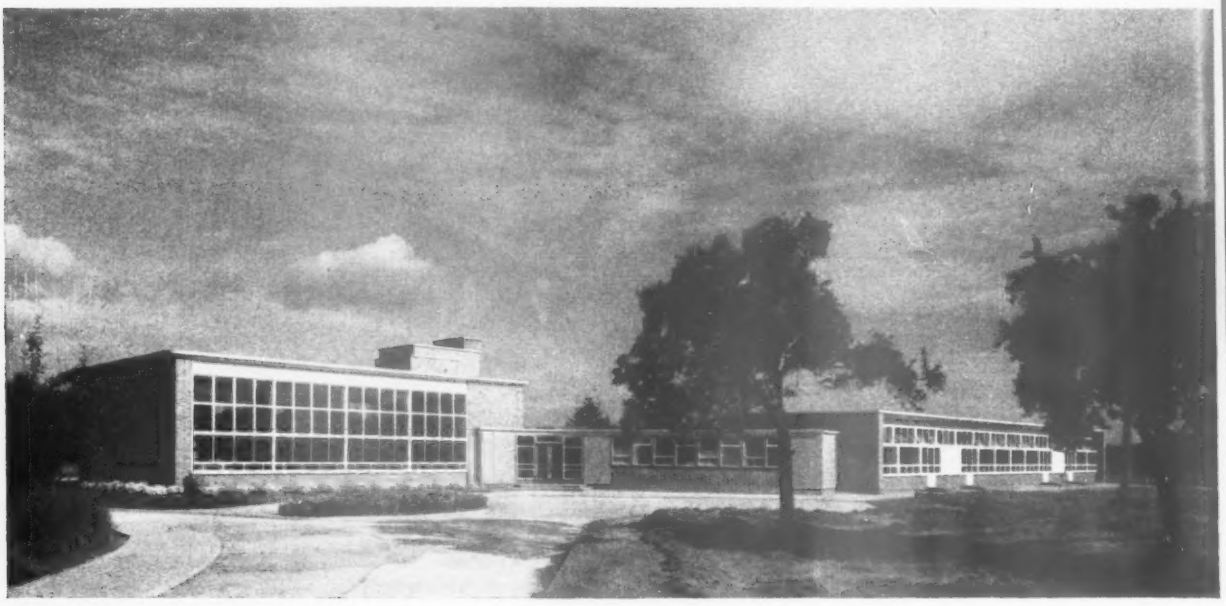
BEA WATERLOO AIR TERMINAL, SOUTH BANK : ADAPTED FEST



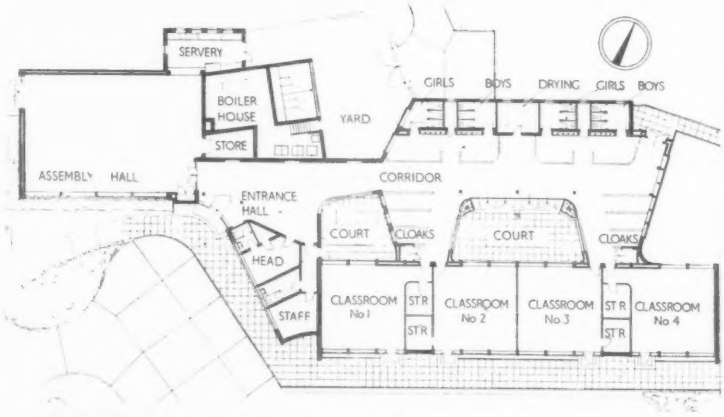
The BEA Waterloo Air Terminal, South Bank, which is an adaptation and extension of the Waterloo entrance to the 1951 *Festival of Britain Exhibition, is being opened today. The architects were Sir John Burnet, Tait and Partners, who designed the original building. In the foreground of the exterior views is a new building for the handling of luggage. Opposite page : top, the new staircase leading to the "Rocket" restaurant—now a buffet for the public, as well as for passengers ; bottom, an enquiry and ticket counter.*

FESTIVAL OF BRITAIN BUILDING OPENS TODAY

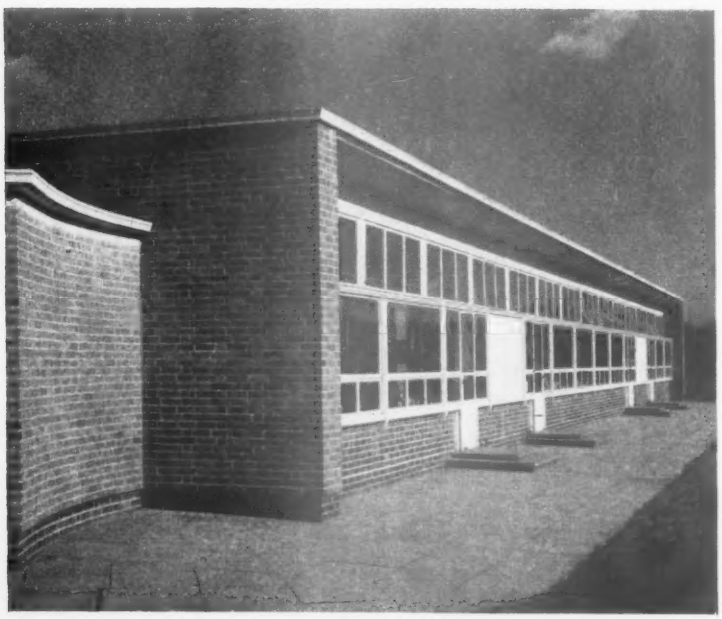
ST. LEONARD'S PRIMARY SCHOOL AT BRIDGNORTH, SHR



The infants' department at St. Leonard's School, Bridgnorth, for the Shropshire County Council, is the first part of a group of school buildings on a site in Innage Lane, which will eventually comprise nursery, infants and junior schools, with joint dining facilities. The architects are Jackson & Edmonds (assistant-in-charge P. B. Corney) and the structural engineer S. Willis. Above is a general view of the infants' school from the south ; below, the classroom block from the south-west ; on the opposite page, top, the corridor leading towards the entrance hall, with the open courtyard on the left and cloakroom space on the right ; bottom, the assembly hall from the south-west. The infants' school is entirely a single storey building, consisting of assembly room, four classrooms, lavatories and cloakrooms, and staff rooms. A temporary servery is attached to the assembly hall for the school dinners, which will be supplied from a central kitchen until the kitchen block is built. The school is planned with a central open paved space giving sunlight to the cloaks area and lavatories and the windows can be opened along this side in fine weather. The courtyard also allows full-height windows on the north side of classrooms and permits a lower ceiling height than usual while still giving adequate standards of daylighting. The construction is partly of load-bearing 11-in. cavity brickwork and partly steel frame. The total cost of building and site works was £35,448. This



Plan of infants' school [Scale : 1/16" = 1' 0"]



SHROPSHIRE

Site plan

is £176 per place, which is £4 less than the MOE net cost per place limit in force at time of tender (July, 1949). There are 61 sq. ft. per place. General contractors, McKeard Smith & Co., Ltd. Sub-contractors, page 658.

(continued from page 636)

Council of the Society may provide supplementary awards from the Art Congress Studentship Trust Fund in any Section of the Competition. Candidates under 21 and above 18 years of age who are awarded a bursary in the competition will be entitled to free associate membership of the Society until they reach the age of 25; bursary winners who are under 18 qualify for associate membership as soon as they reach that age.

Candidates must be between the ages of 17 and 30 on Sept. 1, 1953. Except in the domestic gas and solid-fuel-burning appliances sections, candidates must have studied, as full-time, part-time, or evening-class students, for not less than one full term since Sept. 1, 1952, at an art, architectural, technical or other school or college approved by the Bursaries Board for this purpose.

Candidates must seriously intend to take up industrial design as a career, and must be recommended as having sufficient ability to compete in a national competition by the principal of their school or, if not a student, by a responsible officer of the industry concerned.

Candidates may enter one or more sections. An entry form, which may be obtained from the Secretary, The Royal Society of Arts, John Adam Street, W.C.2, or principals of schools, should be completed by each candidate for each section entered. It must be returned to the Secretary by Oct. 12, 1953.

All candidates will be required to enter for a set test and to submit examples of their work. Full particulars of the competition can be obtained from the secretary of the Society.

An exhibition of last year's winning and commended designs is open at the Society's headquarters until tomorrow.

MOW

Extra Half Million for Preservation

David Eccles, the Minister of Works, announced in Parliament last week that the Chancellor of the Exchequer had agreed to make £500,000 available from the National Land Fund, over a period of five years, for the purchase of outstanding buildings which would otherwise be lost. This was additional to the £250,000 a year which would be available for repair and maintenance grants. "It is hoped," said Mr. Eccles, "that the National Trusts will be willing to participate in the administration of this work."

Mr. Horobin (M.P. for Oldham, East) suggested that, in view of the fact that the National Trust had alone prepared a list of something like 100 houses, either to be demolished or in imminent danger, the sum to be allocated was inadequate "to stem the havoc to a national heritage." And Mr. Greenwood (M.P. for Rossendale) pointed out that the amount of money to be made available represented less than one per cent. of the National Land Fund.

Mr. Snow (M.P. for Lichfield and Tamworth) suggested that the Minister might consult the President of the Board of Trade, with a view to determining whether industrial interests could be given lists of historic buildings which might be used instead of new ones.

In the House of Lords, Lord Methuen said that the sum of £250,000 which would be set aside for maintenance seemed trivial and short-sighted, when one considered what the Exchequer drew by way of death duties. "Should not some of this money be ploughed back to preserve at least some part of our heritage of fine buildings?" he asked.

It was not generally realized, continued Lord Methuen, that it was at present perfectly legal to demolish an historic house, provided it was not scheduled by the MOW or listed under the 1947 Town and Country Planning Act. A preservation order might come too late. He did not think that any public authority or any private individual had a moral right to demolish a building of historic character without reference to the appropriate authority in the first place.

Lord Silkin estimated that about 200 of the 2,000 historic houses might be used for alternative purposes. If the others could not be so used, or would be too costly to maintain, there was beauty in ruins. [A point made recently by Osbert Lancaster in his paper to the RIBA on this subject.]

The Earl of Wemyss complained that, under the present system, the owner had to perform "some act of ruination" in order to avoid paying rates. He begged the Government to help and suggested that local authorities be given discretion to exempt owners from rates.

Lord Mottistone made an even more revolutionary proposal: he suggested that each new building should contribute, say, £1 in every £1,000 spent in its erection to a fund for the preservation of buildings of architectural and historic interest. "How could a man who wants to build a small house costing £1,500 begrudge the 30s. he would contribute to this great preservation?" he asked.

BSI

First BS for Polythene Pipes

Two important British Standards were published last week.* They are the first standard specifications for polythene tubing—incidentally, a British invention. The use of this plastic for cold water mains and supply pipes has a number of advantages: it is flexible and can be bent to a radius eight times the outside diameter cold, or three times the outside diameter if immersed in hot water or warmed with a blowlamp. It is heat insulating, so that water in it is less likely to freeze. If it does, the flexibility of the material prevents "bursts."

Of particular importance when used for installations in flats—it is less sound conducting than metal. It is light—a man can carry a 500-ft. coil. It is highly resistant to corrosion. It is less susceptible to furring in hard water districts. And, in spite of all these advantages, it is cheaper per ft. run than lead or copper. Installation costs are lower, too.

It is available with nominal bore from ⅛ in. to 12 in., in normal gauge and heavy gauge. At present, it is recommended that for the normal gauge pipes, patent compression joints should be used; for the heavy gauge pipes a screwed joint is a satisfactory alternative. Manufacturers are in the process of developing a plastic joint.

* *Polythene Tube for Cold Water Services.* BS 1972 :1953. (BSI. 3s. 6d.) *Polythene Tube for General Purposes.* BS 1973 :1953. (BSI. 4s.)

DIARY

Coronation Charivari. A. D. Hippisley Coxe. At AA, 36, Bedford Square, W.C.1. 8 p.m. MAY 27

Coronation Decorations. Sir Hugh Casson. Chairman, J. M. Richards. At ICA, 17-18, Dover Street, W.1. 8.15 p.m. MAY 28

The Christian Theme in Contemporary Arts. Exhibition at Park Lane House, 45, Park Lane, W.1. (Sponsor: International Faculty of Arts.) 10 a.m. to 10 p.m. Sundays 2 p.m. to 10 p.m. (closed June 1, 2 and 3). UNTIL JUNE 18

HOUSE

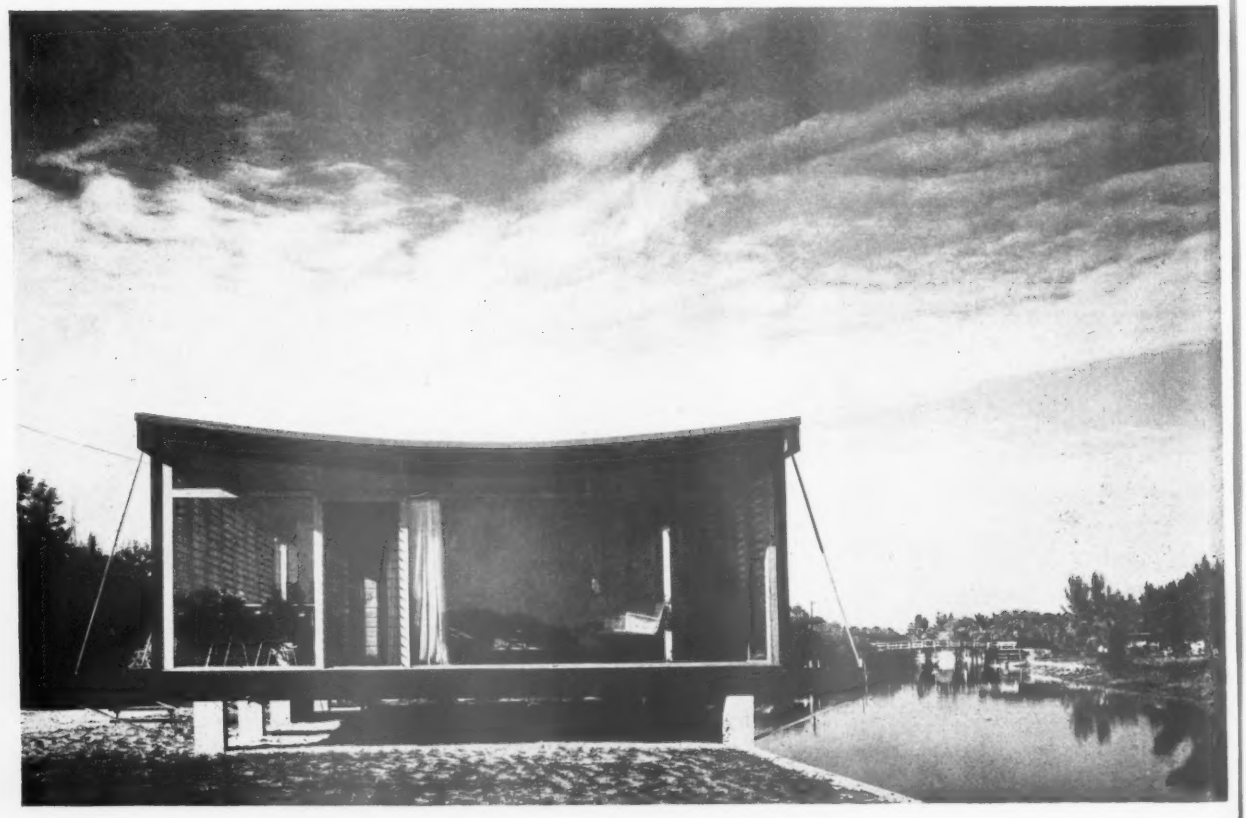
at SARASOTA, FLORIDA, USA

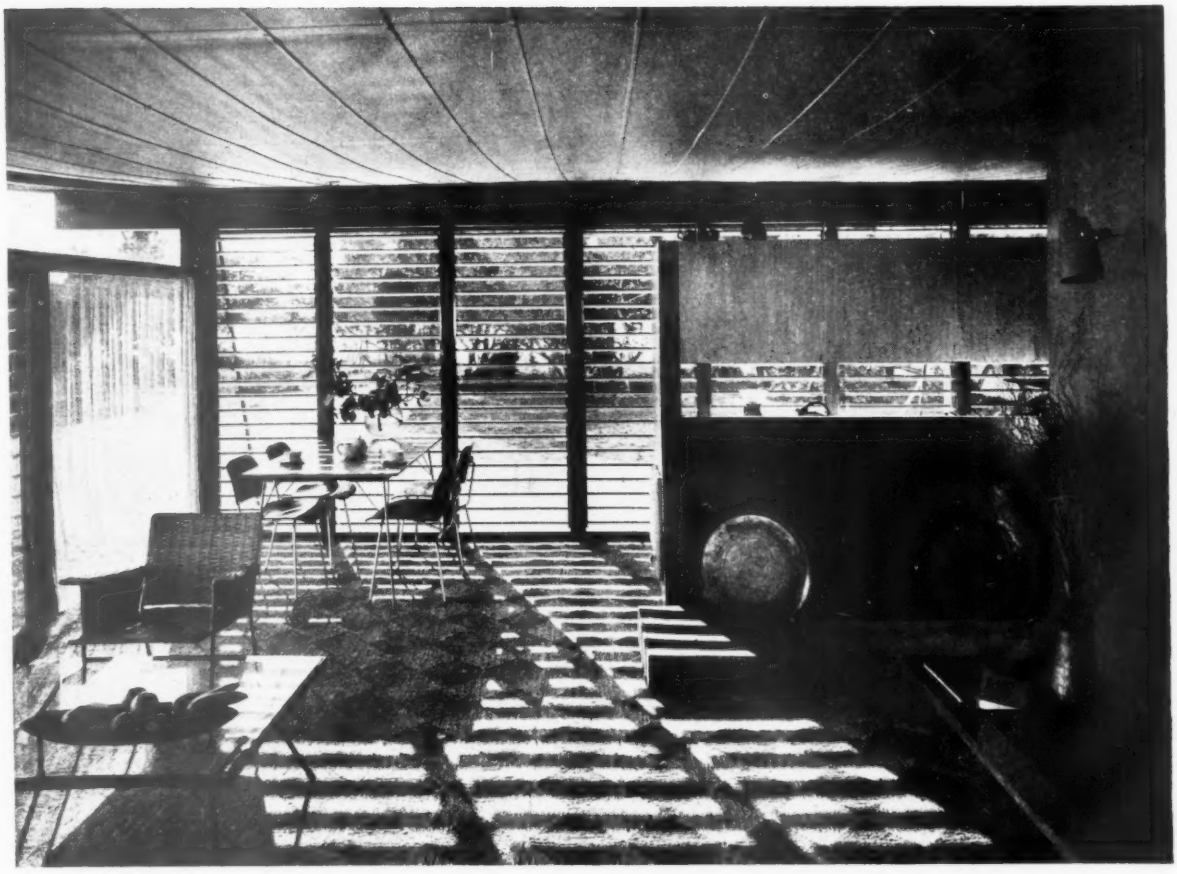
designed by TWITCHELL and RUDOLPH

From the south-west.

The unusual roof construction of this American house consists of $\frac{1}{2}$-in. by $\frac{1}{8}$-in. cold rolled steel flats at 12-in. centres spanning 22 ft. between posts in a catenary curve. Fibreboard and 2 in. of flexible insulation are clipped on top, then a cocoon is formed by spraying roof and ceiling with a mixture of saran and vinyl plastics with a final coat of clear vinyl.

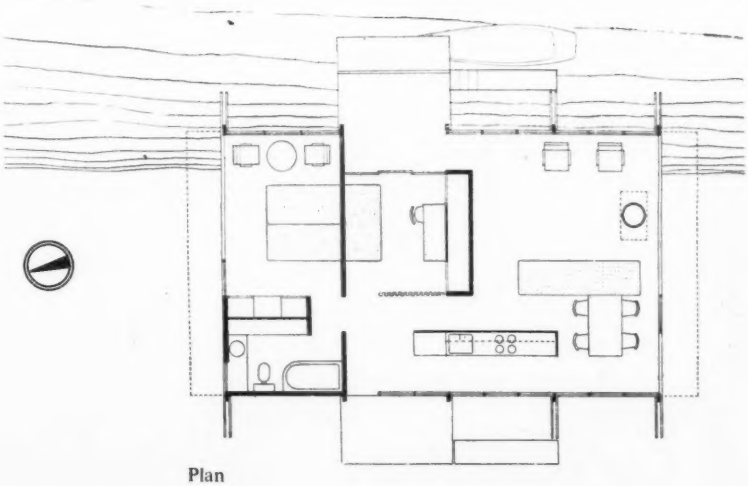
View from the south.





Above, the living room looking westwards. Right, view across the water from the north-east.

GENERAL.—The post and lintel system of construction used on the east and west sides of the house is mostly filled with wood jalousies for sun control, ventilation and privacy. At the north and south ends a light steel truss is used to stiffen these areas and enable glazing to be used without danger of cracking due to roof movement. Rainwater drains off the roof because the catenary curves are 2 in. shallower at the centre than at the ends. The roof is intended to be flexible and the cocooning is sprayed on the underside of the "sandwich" which forms the roof so that the ceiling surface is also free to move and stretch. This cocoon system is similar to that used to protect warships in storage. The ceiling is coloured slate blue. Partitions are of 4-in by 2-in. studs with birch plywood covering. The area of the house is 735 sq. ft., of which the living area is 315 sq. ft., first bedroom 118 sq. ft., second bedroom 85 sq. ft. and kitchen 65 sq. ft. Heating and hot water are by electricity.



Plan

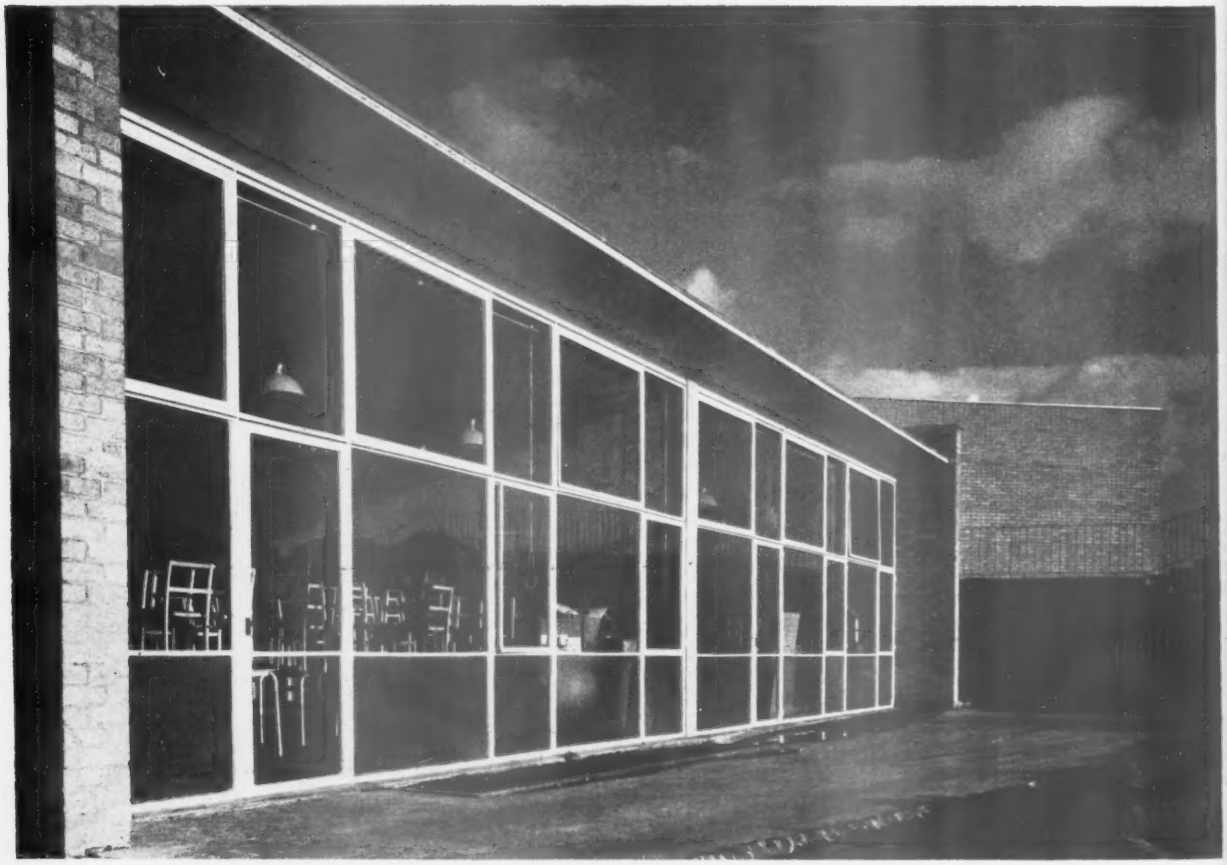
PRIMARY SCHOOL

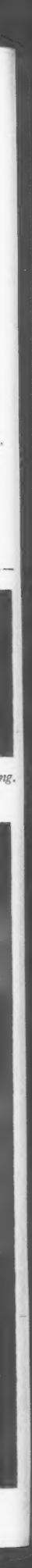
at OLDBURY, WORCESTERSHIRE
designed by F. R. S. YORKE, E. ROSENBERG and C. S. MARDALL
in association with F. W. B. YORKE and H. M. BARKER
associate-in-charge T. R. EVANS, assistant-in-charge J. G. FRYMAN
structural consultants, CLARKE, NICHOLL and MARCEL
heating consultants, OSCAR FABER and PARTNERS
quantity surveyor, OSWALD WAINWRIGHT

The Causeway Green County Primary School at Oldbury is a 2-form entry school for 240 infants and, when the scheme is completed, 360 juniors. The site is a difficult one with changing levels and includes two disused mine shafts and a marl pit. Also parts of the area were covered with spoil and waste from an old brickyard. As the surroundings of the site are not attractive, the school is mainly planned to enclose a central garden.

The administrative wing.

Infant classrooms 5 and 6 from the south-west.





WORKING DETAIL **WATER SUPPLY AND SANITATION: 2**

CHIMNEY STACK AND WATER TANK: SCHOOL AT OLDBURY, WORCESTER

F. R. S. Yorke, E. Rosenberg and C. S. Mardall in association with F. W. B. Yorke and H. M. Barker, architects

The stack and tank are of concrete construction and the outside of the latter is faced with frostproof tiles

WORKING DETAIL **WATER SUPPLY AND SANITATION : 2**

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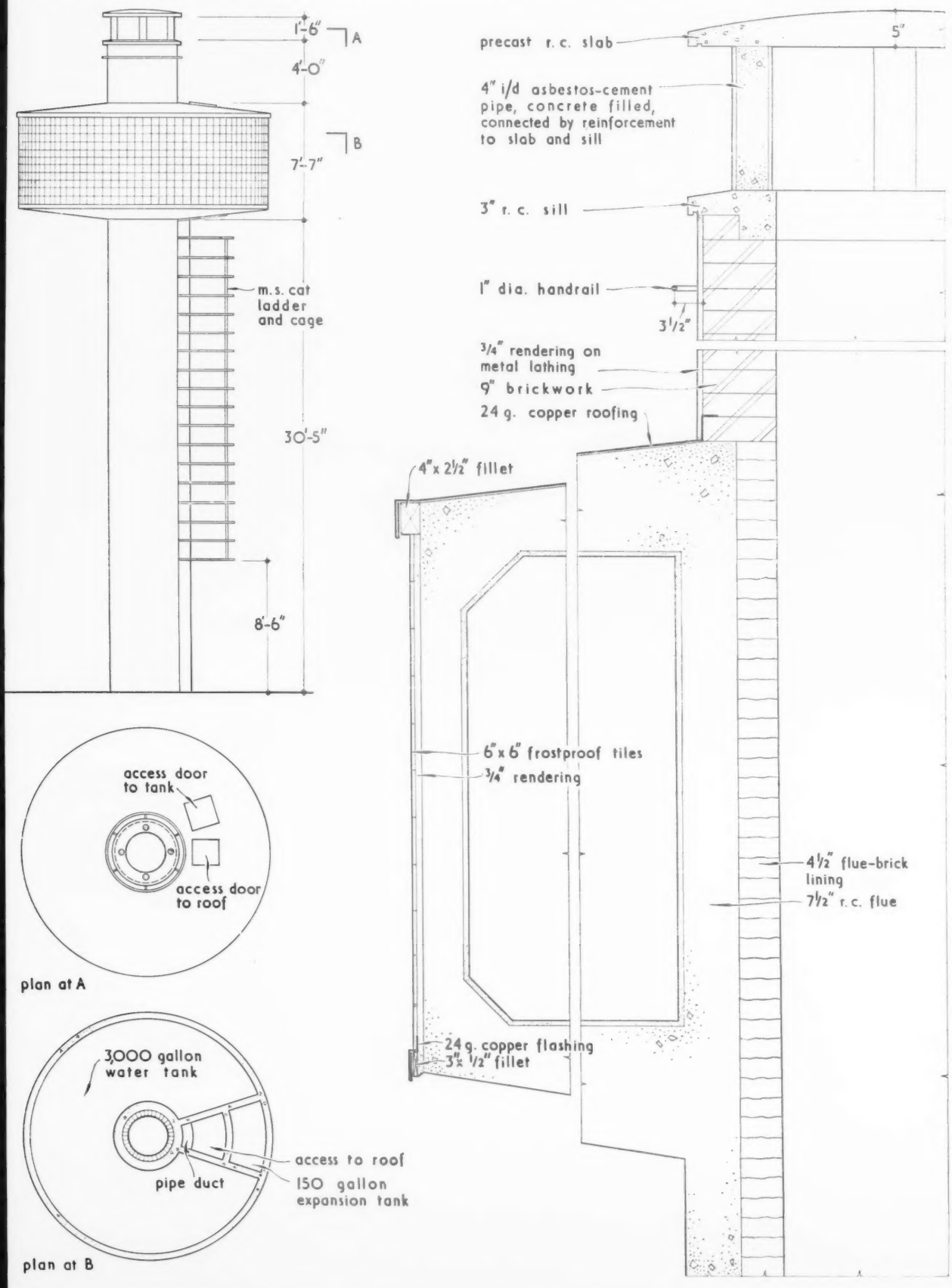


PLANS AND ELEVATION. scale ⅛" = 1'-0"

SECTION THRO' TANK. scale ¾" = 1'-0"

WORKING DETAIL

FURNITURE AND FITTINGS: 35

GEOGRAPHY ROOM FITTING: TECHNICAL COLLEGE AT HATFIELD

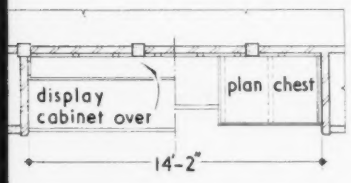
Easton and Robertson, architects

The drawers for maps and charts are in mahogany with the fronts shaped to provide continuous handgrips

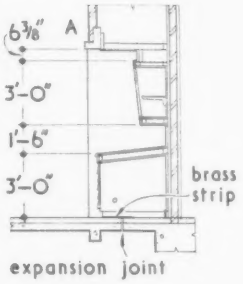
WORKING DETAIL **FURNITURE AND FITTINGS: 35**

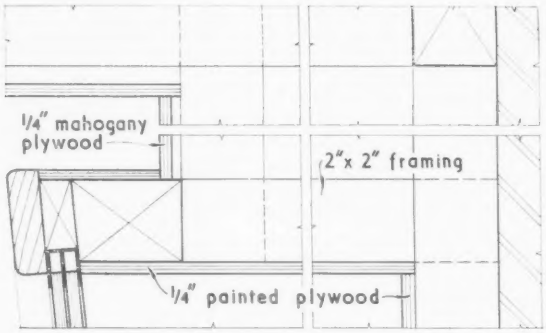
GEOGRAPHY ROOM FITTING: TECHNICAL COLLEGE AT HATFIELD

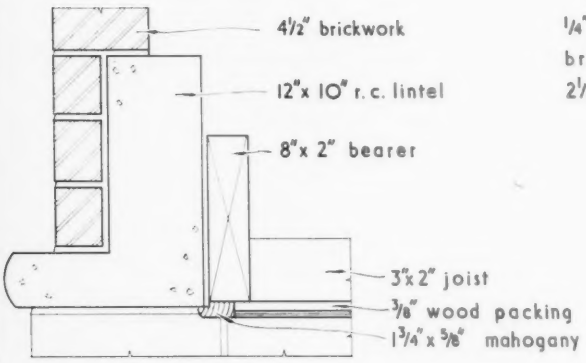
Easton and Robertson, architects



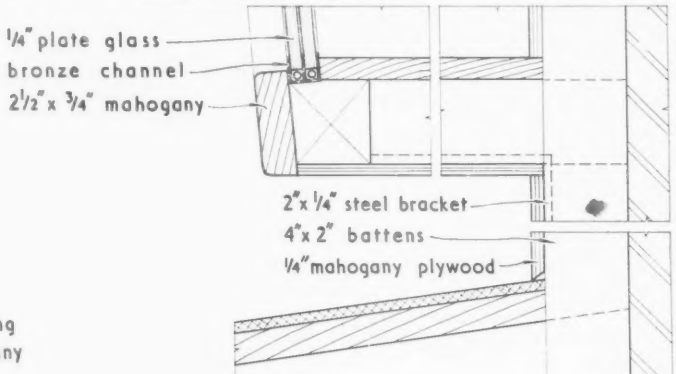
PLAN AND SECTION THRO' CENTRE OF FITMENT.
scale 1/8" = 1'-0"

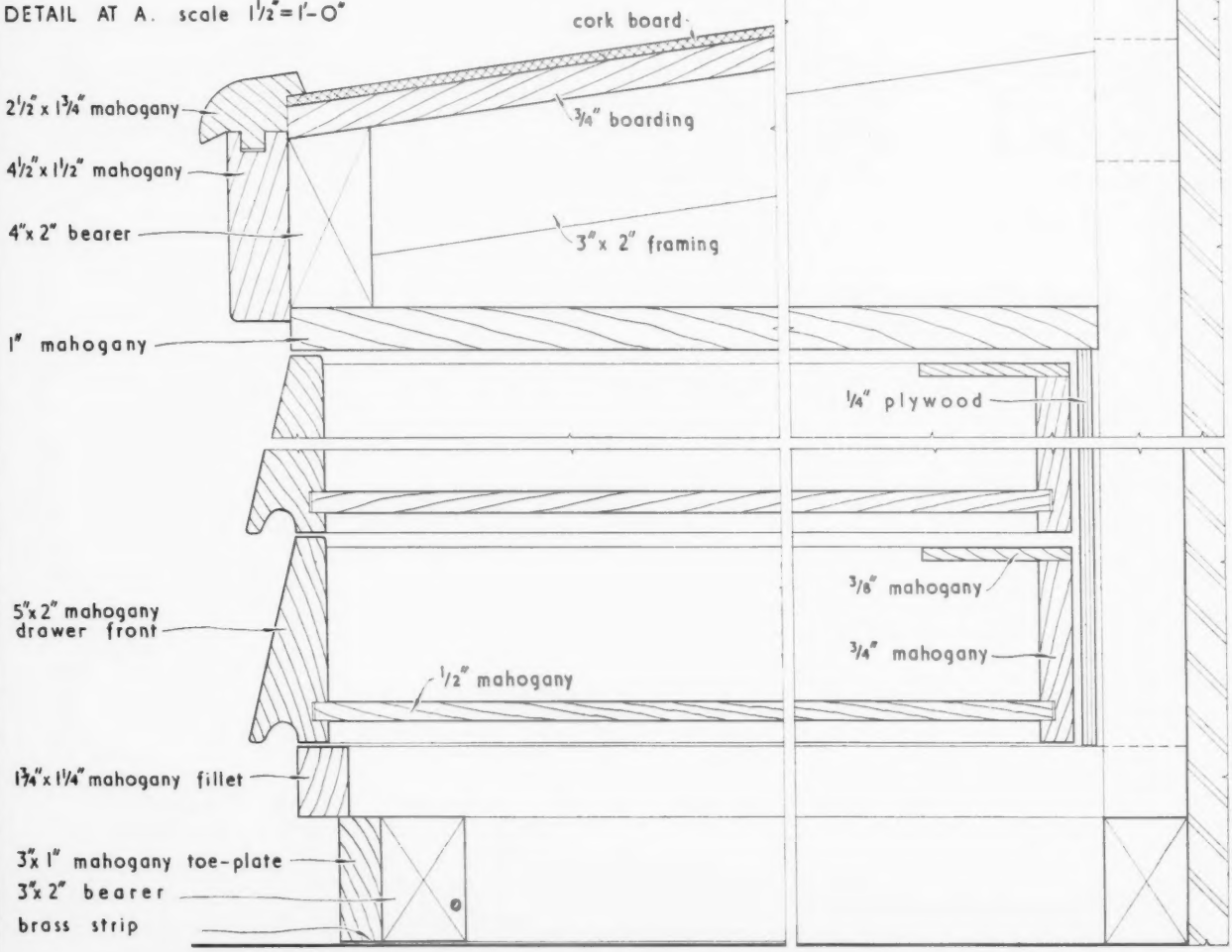






DETAIL AT A. scale 1 1/2" = 1'-0"





SECTION THROUGH FITMENT. scale 1/4 full size

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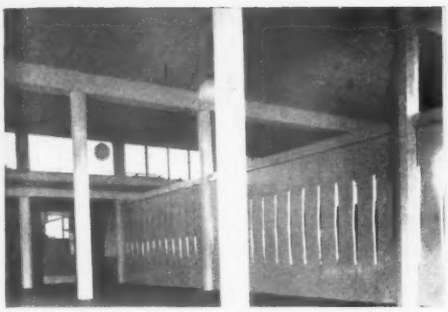


Top left, the combined tank tower and boiler flue from the south (see Working Detail between pages 644 and 645). Above left, screen between junior and infants' dining areas. Above, the infants' assembly hall and dining hall.

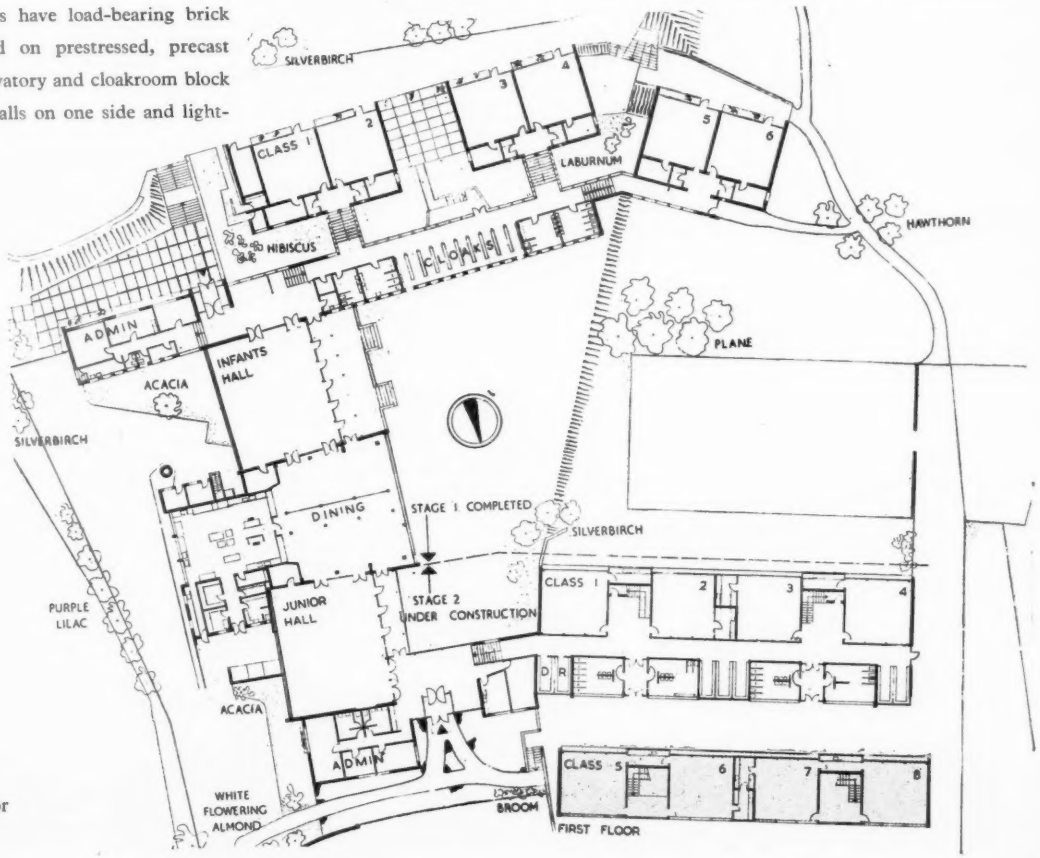
PRIMARY SCHOOL

at OLDBURY, WORCESTERSHIRE

designed by F. R. S. YORKE, E. ROSENBERG and C. S. MARDALL

PLAN.—The infants' school, which is a single storey building, is placed where the bearing value of the ground is poor and the junior department, which has two storeys and is now under construction, is planned on the only part of the site suitable to take its load. The assembly and dining halls are grouped centrally between infants and junior departments.

CONSTRUCTION.—In the infants' school the three pairs of classrooms have load-bearing brick walls with roofs carried on prestressed, precast concrete beams. The lavatory and cloakroom block has load-bearing brick walls on one side and light-weight steel beams carried on hardwood window sub-frames on the other side, with intermediate support from wooden posts. The assembly hall has a lightweight steel frame with precast concrete roofing slabs and the dining room has a RC frame.



Ground and first floor plans
[Scale : $\frac{1}{64}$" = 1' 0"]

E

A view of the infants' assembly hall, with the dining hall beyond.

PRIMARY SCHOOL

at OLDBURY, WORCESTERSHIRE

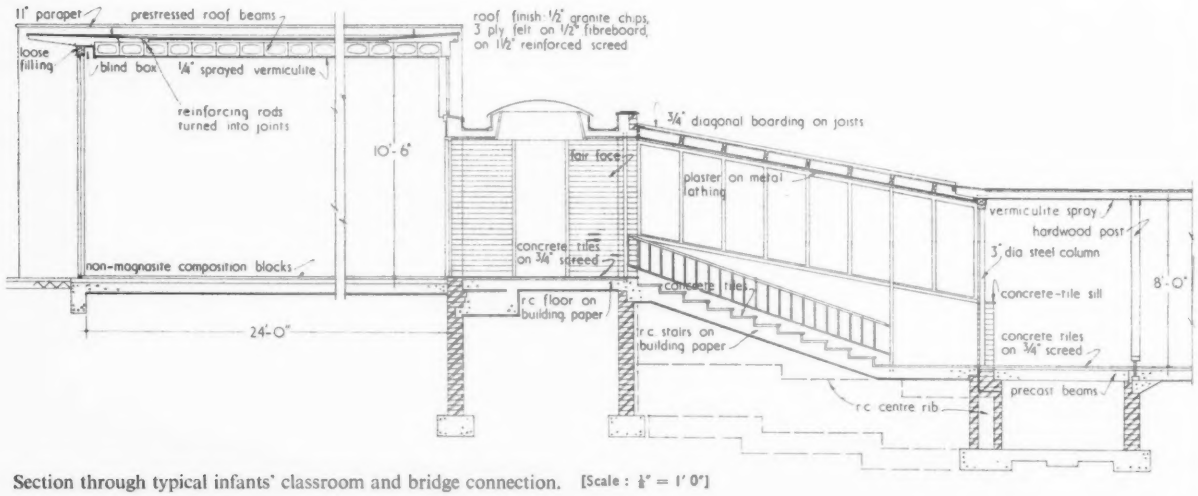
designed by F. R. S. YORKE, E. ROSENBERG and C. S. MARDALL

FINISHES.—Roofs are covered with built-up bituminous felt on a layer of insulating board. Floors are finished with wood composition blocks in classrooms, Hornton stone in the entrance hall, beech blocks in the assembly hall and administrative rooms, coloured concrete tiles in corridors, cloakrooms and lavatories. Materials have been chosen with a view to low maintenance cost and the natural materials used form the basis of the colour scheme throughout. Plywood panelling, fair-faced brickwork and coloured tiles are used extensively, hence painted areas are relatively small and are brightly coloured. There are large areas of pin-up space and each classroom has a sink with hot and cold water supply in a cupboard unit against the blackboard wall. The junior school will have similar construction to the infants' school except for the classroom block.

SERVICES.—A central boilerhouse provides water for heating by radiators and by embedded pipe panels under classroom floors.

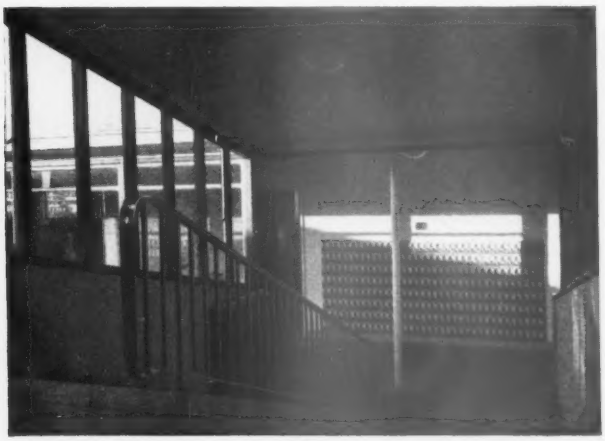
The general contractors are Edgar Crowder, Ltd.

For sub-contractors see page 658.



Section through typical infants' classroom and bridge connection. [Scale : ⅛" = 1' 0"]

Interior of bridge connection between infants' classrooms and cloakrooms.



Typical bridge connection from the west.

TECHNICAL SECTION

The export of prefabricated structures is rapidly increasing and is likely soon to become one of Britain's most important export industries. Although last year's total fell £1 million short of Mr. Eccles's estimate of last September, it was, nevertheless, over 50 per cent. above the total for 1951, and more than double the total for 1950.

Of the hundreds of systems of prefabrication that have been developed since the end of the war, few have really established themselves. Amongst those that have, however, can be discerned two clear trends. Ronald Wates, in his recent paper to the RICS (see last week's Technical Section), mentioned the four systems which he thought had been found most successful for the construction of houses in this country—in all of them, concrete was the principal material used. This represents one trend.

Obviously, one doesn't export concrete, and most of the prefabricated structures now being exported have light frames of timber, aluminium or pressed steel with hollow timber-framed in-fill panels faced with thin lightweight sheet materials.

This type of prefab. has never been a great success in this country, but somehow we must " cash in " on this development, for, as exports increase, the benefits of mass-production will begin to be felt, and the components used will, we hope, get cheaper and cheaper.

A possible line of development was suggested by Powell and Moya's experimental houses at Highworth, Wilts. (see JOURNAL for Nov. 22, 1951). The use of brick or concrete cross walls, which, if virtually unpierced by openings, can be erected very rapidly, coupled with prefabricated front and rear walls or in-filling panels, might prove to be an economical method of building both 2-storey and multi-storey dwellings.

This week's survey

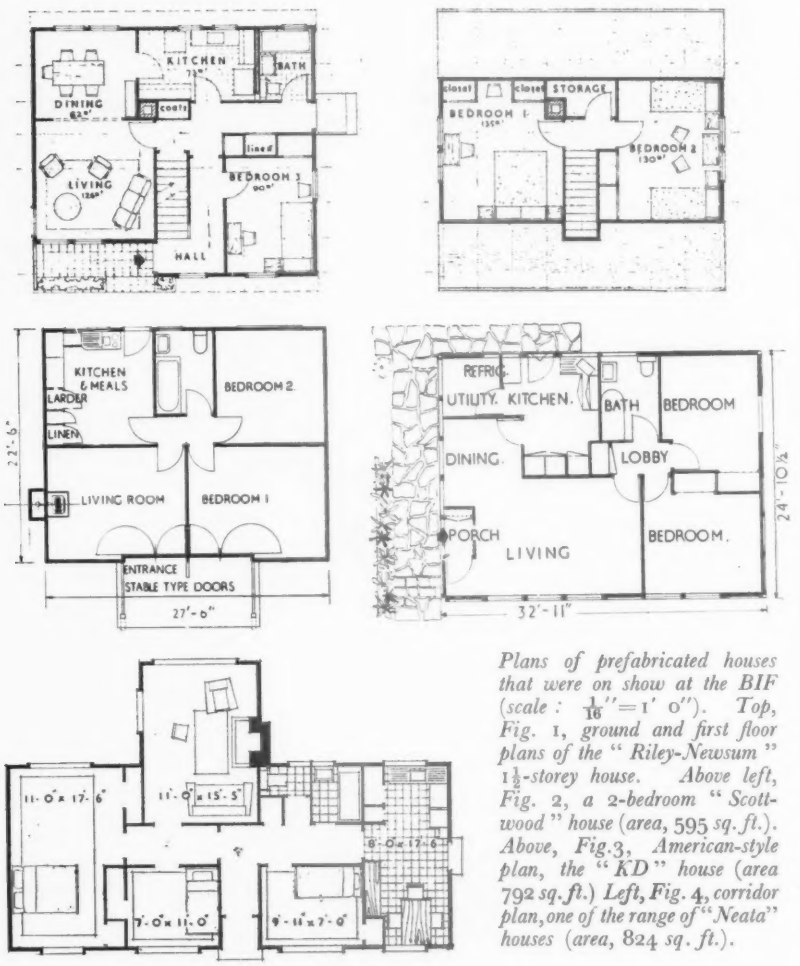
17 CONSTRUCTION : GENERAL
prefabrication

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

Over 20 firms exhibited prefabricated structures at this year's BIF. To describe each in turn would be to confuse the reader; Editor No. 24 has, therefore, in the following article, attempted to describe the various exhibits in groups, according to the type of construction used and the market aimed at. The article will be continued next week.

All the prefabricated houses which were on show at the BIF were of one storey only, except the 1½-storey " Riley-Newsum " house (Fig. 1). This has two bedrooms and some good cupboards in the steeply-pitched roof, there being a third bedroom on the ground floor, together with the living room, kitchen, bathroom, etc.

One or two of the smaller houses have an extremely simple plan, as Fig. 2—a two-bedroom house with a floor area of 600 sq. ft. Most of the plans are of the " American type," with the entrance direct, or through a small lobby, into the single living room, a small internal lobby giving access to the bedrooms and bathroom (see Fig. 3). The entrance lobby is vital, of course, in cold climates, but it is omitted in the houses designed for hot countries and is generally replaced by



Plans of prefabricated houses that were on show at the BIF (scale : $\frac{1}{16}$" = 1' 0"). Top, Fig. 1, ground and first floor plans of the "Riley-Newsum" 1½-storey house. Above left, Fig. 2, a 2-bedroom "Scottwood" house (area, 595 sq. ft.). Above, Fig. 3, American-style plan, the "KD" house (area 792 sq. ft.) Left, Fig. 4, corridor plan, one of the range of "Neata" houses (area, 824 sq. ft.).

a verandah, either open or enclosed by fly screens.

The corridor type of plan, which more closely resembles the English bungalow, is used by some firms; fairly typical is Fig. 4—the "Neata" house.

Floor areas vary from 595 sq. ft. to 1,250 sq. ft. for two-bedroom houses, and from 824 sq. ft. to 1,850 sq. ft. for three-bedroom houses.

CONSTRUCTION ; LOAD-BEARING PANELS

The most simple system of construction used comprises storey-height, timber-framed, load-bearing panels faced externally with resin-bonded plywood (the "Scottwood" house), or with t. and g. boarding, backed by bitumen paper and diagonal boarding (the "Scotia" house), backed by bitumen paper and plasterboard (the "Riley-Newsum" house) or backed by bituminous felt (the "Neata" house).

Various materials are used for the inner face of the panels, including plywood, plasterboard (in some cases, skim coated with plaster) or hardboard.

Glass wool is the most common material used for thermal insulation; but cork and wood-wool are also used; U values for the various panels being between 0·2 and 0·09.

The framing of the panels is of softwood, ex. 3½ × 1½, 3 × 2, or 3 × 1½ in. The panels are either skew nailed

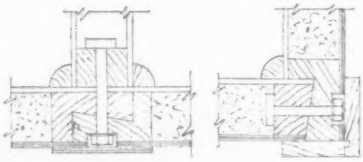


Fig. 5, patent bolted joint between load-bearing panels (the "Scottwood" house).

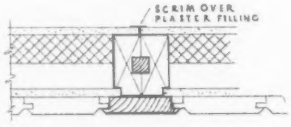


Fig. 6, scrimmed joint between load-bearing panels ; cover fillet externally (the "Riley-Newsum" house).

or bolted together, the form of joint being, in several cases, patented. (See Fig. 5.) The joints are covered with fillets (quadrants in the internal corners) or, when plasterboard is the lining material, the joint is filled with plaster and scrimmed. (See Fig. 6.)

The load-bearing panels of the "KD" house are sometimes framed with timber, sometimes steel, according to where they are to be erected. When necessary they are faced externally with steel, in lieu of the asbestos or timber normally supplied.

Some firms make all, or at least most, of their panels of one standard width —between 3 ft. and 4 ft.—some solid, some incorporating windows or doors (*e.g.*, the "Scotia" and "Riley-Newsum" houses and the "Seco" system of construction); other firms manufacture a range of panels, up to about 12 ft. in width, which can be fitted together to form a given number of plans (*e.g.*, the "Scottwood" house and the "Neata" house). The number of panels required varies from 8 to about 16.

The former system is claimed to be the more flexible, but it produces a certain degree of monotony; for example, all windows must have mullions (usually rather thick ones) at the grid centres. Advocates of the latter system claim that it is by no means inflexible, and that the architect using one firm's standard range of panels can design any number of alternative types of building without feeling that he is in a straitjacket.

FRAME AND PANEL CONSTRUCTION

Most of the other houses are constructed on the frame and panel principle, with timber, aluminium or steel frames which carry the roof trusses, or with portal frames. The "Overseer" house has 24-ft. span portal frames of stressed-skin plywood (⅛ in.) at 6-ft. centres. In-filling panels, approximately 3 ft. wide, have a honeycomb core of kraft paper filled with vermiculite and faced externally with asbestos-cement sheeting and internally with plasterboard. Between each pair of panels there is a T-shaped timber post.

The "Supalite" house has an aluminium frame with the extruded members unusually close together—24½-in. centres. Trusses, also aluminium, are at 4-ft. 1-in. centres. Timber-framed infilling panels (of an asbestos-cement/woodwool/fibreboard sandwich) are 2 ft. wide. Special panels containing doors are 4 ft. 1 in. wide. Altogether about 20 different extrusions are required but the main vertical members consist of a tee and a flat which are bolted together by a patented method

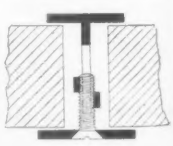


Fig. 7, patent joint between panels and 2-piece vertical component of aluminium frame (the "Supalite" house).

so that they do not actually touch (see Fig. 7).

The "New Departure" house—the only true prefab at the BIF, in the sense that there is virtually no site work—has a steel frame, mounted on steel "skids" and designed so that it can safely rest on the ground without foundations or a site slab. It is transported to the site in two halves on special trailers and simply bolted together. For the cost of a caravan—£750—it provides a small two-bedroom home (area 400 sq. ft.), with an estimated minimum life of 30 years.

ROOFS

Most of the houses have shallow-pitched roofs, consisting of light steel, aluminium or timber trusses and purlins, covered with a variety of materials, including corrugated asbestos-cement sheeting, aluminium sheeting, bituminous felt tiles (the "Riley-Newsum" house) and cedar shingles (the "Neata" house). One version of the "Scottwood" house has a flat roof, consisting of insulated panels of stressed-skin plywood, similar to the wall panels. The "lean-to" extensions to the "Bristol" prefabricated buildings have flat roofs, and some of the "Trusteel" structures have flat roofs. Several firms produce "folding" trusses for ease of transport.

Trusses are at centres varying from 18 in. (the "Neata" house) to 6 ft. (the "Scottwood" house and others). With framed buildings, the trusses must bear on the vertical members of the frame; sometimes on each post, sometimes on alternate posts. With buildings with load-bearing panels, the trusses can bear at any point.

Ceilings are of plasterboard, hardboard or plywood, the upper surface, in several houses, being covered with aluminium foil and/or glass wool. The "Supalite" house has a ceiling of insulation board - woodwool - aluminium foil-airspace-woodwool, giving a U value for the roof of 0·08.

All types of window are used, mostly double-glazed, and, when necessary, fitted with fly screens. Double-hung sashes are popular for the houses designed for the Canadian market, and one house (the "KD") has horizontally-pivoted double-glazed sashes.

In almost every house, both the plumbing and the electrical installations are prefabricated; the pipe runs and taps, and the conduit, junction boxes, switches, etc., being incorporated in the prefabricated components.

SPECIAL REQUIREMENTS

A number of other special features designed to satisfy the requirements of overseas buyers are of interest since they affect the detailed planning of the houses. For example, larders are sometimes omitted, suitable space being provided for a large refrigerator; a utility room for home laundering is often required; the shape of the bathroom is affected by the type of fittings used—in N. America, for example, small, deep LB's and short, narrow baths are invariably expected, and a shower is often required as well.

Although most of the houses are designed to be placed on a concrete site slab, those for Canada (where basements are invariably required) and for countries where there are ants have suspended ground floors, usually covered with hardwood strip flooring in most of the rooms. Where the house is to be built over a basement, space must be provided for the staircase down to it. Where there are ants to be kept away from the structure, special "caps" must be placed round all structural members, pipes, etc., that connect the superstructure with the ground. Another precaution against insects is the termite-proofing of all timber, required in houses intended for countries where this pest resides.

OTHER TYPES OF BUILDING

Several of the systems of construction described above can be used for buildings other than houses; the same components being suitable for other single-storey buildings, such as offices, schools, hospital wards, dormitories, etc.

Several firms, however, specialize in larger prefabricated structures, most of them using steel or aluminium frames. The "Arcon" structures (40-in. module) have steel framing (spans between 20 and 50 ft.), with trusses mainly of tubular steel, supported on RSJ's, with diagonal wind bracing of ½-in. steel rods. Most "Arcon" structures are designed to have external walls built of local materials, but the Arcon Group of companies manufacture their own patent form of aluminium cladding.

The "Trusteel" building system, which can be used for buildings of one or two storeys, consists of a frame of open-web members, made of light-gauge cold-rolled sections, at 2-ft. 9-in. centres, with diagonal wind bracing of angle members in the corner bays (see Fig. 8). Roofs can be of open-web rafters with an open-web tie beam (22½ deg. pitch), or tapering roof beams can be used to give a flat (4 deg.) roof. The firm supplies and erects the frame only, for houses, hospitals, schools, etc.; the cost being about 7s. per sq. ft. erected.

The "Apee" building system also makes use of open-web members, but in the form of portal frames of 40, 50 and 60 ft. span. These are placed at 12-ft. 6-in. centres. Steel angle is used for purlins and for diagonal wind bracing; cladding and roofing may be of asbestos-cement or aluminium corrugated sheeting.

The "Bristol" system consists of an aluminium frame at 4-ft. centres, with infilling panels of various materials. So far, only single-storey buildings can be supplied, up to a height of 14 ft. 7½ in. Roof trusses (12½ deg. pitch) are at 4-ft. centres. The superstructure, erected, costs between 30s. and 35s. per sq. ft., excluding site works, services, fittings, etc.

OTHER SYSTEMS OF PREFABRICATION

Four other building systems that were on show at the BIF are difficult to classify. The first, the system on which the "Precut" house is based, is a load-bearing system, but instead of having storey-height panels, the load-bearing part of the structure consists of "courses" of 6 in. × 2½ in. t. and g. and interlocking solid planks of timber. These are reinforced by ½-in. diameter bolts which pass through the entire height of the walling. No frame is used, stability being ensured by a patented corner joint consisting of 6 in. long metal channels which are driven into grooves in the solid timber planking. The external face of the walling is weathered, and mastic strips laid between the "courses" eliminate capillary attraction.

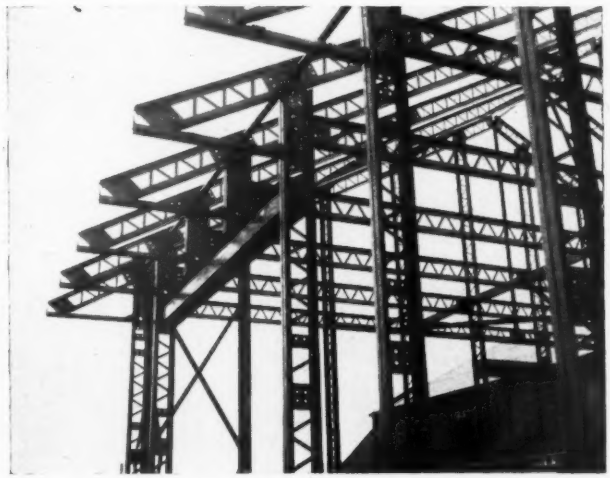


Fig. 8, the "Trusteel" building system; a frame of light-gauge, cold-rolled, open-web members at 2-ft. 9-in. centres. Stanchions, rafters, tie beams and diagonal wind bracing can be seen in this photo.

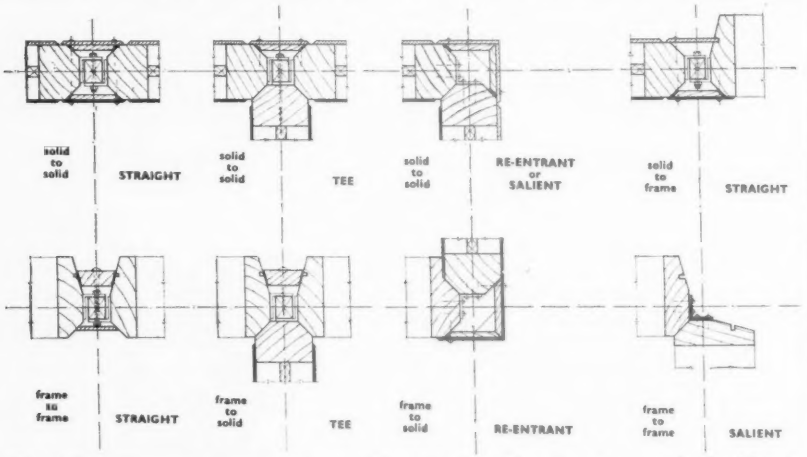
The roof is of normal hipped construction, with 6-in. by 1½-in. rafters at 4-ft. centres. It is normally covered with aluminium sheeting. Ceiling panels of 2-in. strawboard, hung from 6-in. by 1½-in. ceiling joists at 4-ft. centres give the roof a U value of 0·19.

The external walls are lined internally with 2-in. strawboard, which, together with a 1-in. cavity, gives the walls a U value of 0·13.

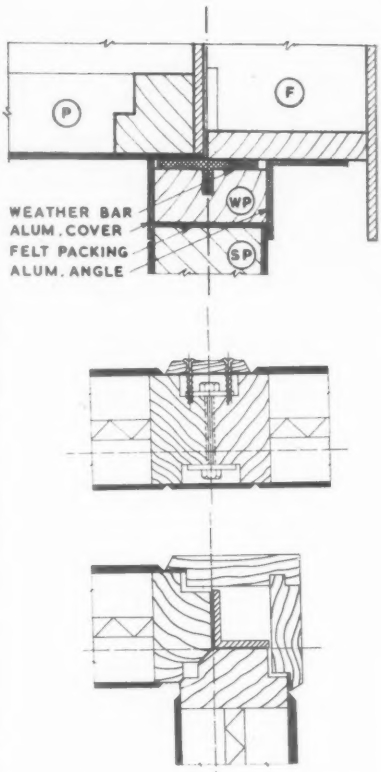
THE "PUNT" SYSTEM

Two versions of the "Punt" system have now been developed. In both the principal structural element is the stressed skin plywood "punt"—a 1-ft. 4-in. deep box made of two plywood webs, a plywood top 3 ft. 4 in. wide, and a plain or perforated hardboard soffit. The box is stiffened by light timbers glued to the sides and by timber strips in the corners. In the first version of the system, the ends of the boxes are shaped to fit over special plywood beams, at from 10-ft. to 23-ft. 4-in. centres, so that the beams are completely concealed. The beams can span up to 20 ft. and are supported on solid timber columns. The system of construction is designed on a 40-in. module, but the beams and columns are placed not on the grid lines but on the centre lines of the grid, so that the structural elements are kept free from the cladding panels.

The "punts" are placed at 6-ft. 8-in. centres, leaving 3-ft. 4-in. gaps between them that are filled with non-structural roof and ceiling panels which rest on ledges provided on the sides of the "punts," making a flush ceiling and roof. Half-modular units fill in the edges of the roof and plywood edge beams and fascias complete the system.



The "Punt" system of construction. Above, details of junctions between the load-bearing wall panels of the Mark II system. Below, the Mark I system; 2 men about to place a ceiling panel between 2 "punts." On the beam in the foreground can be seen the ledge on which the "punts" are supported.



Above, Fig. 9, details of the Mark I "Punt" system of construction. Top, eaves detail (P—"punt"; F—fascia; WP—wall plate; SP—solid panel). Centre, normal joint between 2 panels. Bottom, joint at corner; note extra machining of panel frames, aluminium angle and cover mould.

The panels are timber framed. They are bolted together, with a cover fillet to take up tolerances and to weather the joint. Panels for corner junctions have their frames specially machined; those for re-entrant corners are slightly shorter than the remainder. For typical junctions see Fig. 9.

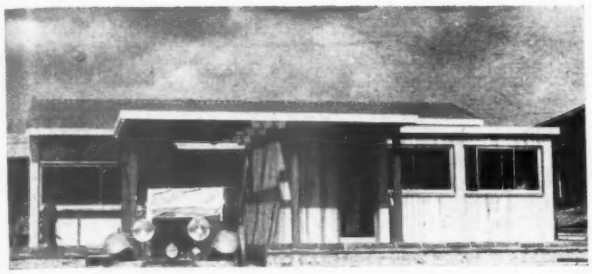
The roof is covered with felt, and thermal insulation is provided by a 1-in. blanket of glass wool.

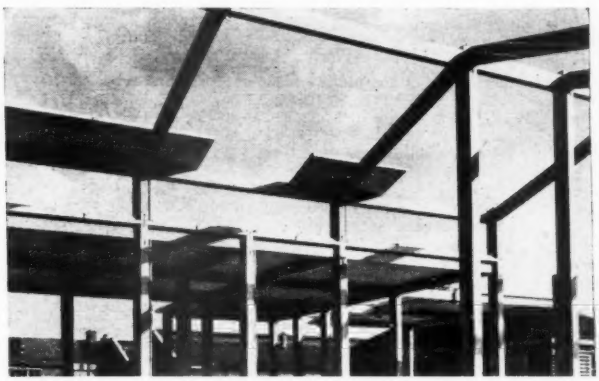
In the second version of the "Punt" system, the "punts" are supported on load-bearing panels or, where desired, brick walls; thereby eliminating columns and beams, but, admit the manufactuers, to some extent limiting the freedom of planning.

The "Punt" system has been designed primarily for schools, but it is also being developed for house construction.

THE "MOD-X" SYSTEM

Like the "Punt" system, the "Mod-X" system of construction is designed on a 40-in. module and uses stressed-skin plywood roof panels. These panels are mostly 3 ft. 4 in. square. They are supported on a grid of beams at 6-ft. 8-in. centres, being centred on the beams, so that at the centre of each





The "Mod-X" prototype bungalow. Above, nearing completion; right, during construction. In the background is a flat roof; in the foreground can be seen the half-width edge panels which will form part of a pitched roof.

6-ft. 8-in. square, a roof panel is carried on the adjacent panels. In this way the joints between the panels occur at the points of contraflexure (where bending moments are at their smallest). Half-width edge panels and 1-ft. 8-in. square corner panels complete the roof system. Pitched roofs can be constructed on the same principle, and an alternative system using light-weight concrete panels instead of stressed-skin plywood is being developed.

The beams and the cruciform-shaped columns (6 in. by 6 in.) that support them may be of pressed steel, aluminium alloy, timber or prestressed concrete. The "secret" of the system is a patented aluminium alloy jointing component used to connect the beams to each other and to the columns. A ½-in. bolt running down the centre of each column connects the jointing component with the ground slab.

By using tensioning wires and struts (see sketch), standard beams can be used to span up to 40 ft.

Cladding panels are timber-framed, with a core of cork, and faced with various materials. Alternatively, internal and external cladding may be of horizontal boarding, with a 3-in. cavity filled with insulating material.

One of the advantages claimed for this system is that a shortage of one or more of the materials used for beams and columns would not hold up production, as one of the other materials could be substituted without any changes in design.

It is not intended that the components for the "Mod-X" system should necessarily be produced in this country (except for the jointing components); they could be produced, under licence, in the country where they are to be used, or

(Continued on page 657)

8 ESTIMATING
measured rates

Current prices for measured work prepared by Davis, Belfield and Everest, chartered quantity surveyors. Prices are for work executed complete and are for an average job in the London area. All prices include overhead charges and profit for the general contractor. Current prices of materials and rates of wages last appeared in the JOURNAL *for April 30.*

PRELIMINARIES

To all valuations for measured work add for Preliminaries, Water and Insurances, according to the nature of the job (say)		10%

EXCAVATOR

Excavation

N.B.—The following prices are applicable to hand excavation in heavy soil.

Surface digging, 6" deep	per yard super	1/–
Ditto, 12" deep	,,	1/11
Excavating not exceeding 10' 0" deep to reduce levels	per yard cube	7/9
Excavating not exceeding 5' 0" deep to form basement	,,	8/8
Ditto, exceeding 5' 0" and not exceeding 10' 0" deep ditto	,,	12/7
Excavating not exceeding 5' 0" deep to form surface trenches	,,	10/7
Ditto exceeding 5' 0" deep and not exceeding 10' 0" deep ditto	,,	14/6
Excavating not exceeding 5' 0" deep to form basement trench, commencing 10' 0" deep	,,	20/2

EXCAVATOR—(*continued*)

Disposal

Returning, filling and ramming around foundations	per yard cube	3/5
Wheeling excavated soil not exceeding 100 yards and depositing	,,	3/10
Ditto and spreading and levelling	,,	5/–
Ditto, ditto, and consolidating to make up levels under floors and pavings	,,	6/4
Filling into lorries and carting away	,,	12/1

Planking and Strutting

Planking and strutting to sides of surface or basement excavation not exceeding 5' 0" deep	per ft. super	–/6½
Ditto not exceeding 10' 0" deep	,,	–/8
Planking and strutting to sides of surface trenches not exceeding 5' 0" deep (both sides measured)	,,	–/2
Ditto not exceeding 10' 0" deep (ditto)	,,	–/3

CONCRETOR

Concrete (Basic Prices)

Portland cement concrete 1 : 3 : 6 with 1½" coarse aggregate in foundations and masses exceeding 12" thick	per yard cube	66/–
Ditto 1 : 2 : 4 with ¾" coarse aggregate ditto	,,	66/8

CONCRETOR—(*continued*)

Add to Basic Prices for :—

Working around rod or mesh reinforcement	per yard cube	3/10
Being in beds less than 12″ thick (6″-12″)	,,	1/11
Ditto less than 6″ thick (4½″-6″)	,,	5/10
Being in small quantities not exceeding 3′ cube	,,	15/5
Being in suspended floors and roofs....	,,	11/7
Being in walls not exceeding 6″ thick	,,	19/4
Ditto exceeding 6″ but not exceeding 12″ thick	,,	13/6
Ditto exceeding 12″ thick	,,	9/8
Being in lintels, beams, etc., not exceeding 72 sq. in. sectional area	,,	28/11
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	23/2
Ditto exceeding 144 sq. in. sectional area	,,	19/4
Being in columns not exceeding 72 sq. in. sectional area	,,	36/8
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	28/11
Ditto exceeding 144 sq. in. sectional area	,,	23/2

Formwork

Close boarded formwork and supports to soffites of floors not exceeding 12′ high	per yard super	14/11
Ditto to vertical faces of walls (both sides measured)	,,	15/–
Ditto to sides and soffites of lintols and beams	per foot super	2/2
Add to any of the above for wrot formwork and rubbing down concrete	per yard super	2/6

Reinforcement

⅜″ to 1″ diameter mild steel rod reinforcement, hooked, bent and tied at intersections as required and fixing in concrete	per cwt.	52/6
½″ diameter ditto	,,	56/6
¼″ diameter ditto	,,	69/5
Steel wire mesh fabric reinforcement to B.S. 1221, weighing 4·71 lb. per yard super, well lapped at joints and embedded in concrete	per yard super	3/4
Ditto weighing 9·32 lb. per yard super ditto	,,	6/3

BRICKLAYER

Common Brickwork

		Flettons	Rough stocks
Reduced brickwork one brick thick in cement-lime mortar (1 : 3 : 9)	per yard super	28/5	33/10
Add to the above :—			
If in cement mortar (1 : 3)	,,	–/2½	–/2½
If circular on plan to flat sweep	,,	4/7	4/10
Ditto to quick sweep	,,	9/1½	9/8
Half brick wall in cement lime mortar (1 : 3 : 9)	,,	15/5	18/1
Ditto built fair and pointed both sides with a neat flush joint	,,	17/4	20/–
One brick wall built fair and pointed both sides with a neat flush joint	,,	33/6	38/11
11″ hollow wall with 2″ cavity and galvanized iron twisted ties	,,	33/6	38/10

Engineering Brickwork

		Lingfield Engineering Wirecuts	Blue Pressed bricks
Reduced brickwork one brick thick in cement mortar (1 : 3)	per yard super	42/–	74/–
Half brick wall in cement mortar (1 : 3)	,,	22/8	38/11
Ditto built fair and pointed both sides with a neat flush joint	,,	24/7	41/6
One brick wall built fair and ditto	,,	46/4	78/10

Sundries

Extra for internal fair face and flush pointing	per yard super	1/1
Horizontal damp-proof course of two courses of slates and bedding and pointing	per foot super	3/6
Ditto of hessian base bitumen well lapped at joints	,,	–/9½
Fixing only metal window, size 1′ 8″ × 4′ 0″, including cutting and pinning lugs to brickwork, bedding frames and pointing in mastic one side	each	7/11
Ditto, 3′ 3″ × 4′ 0″ ditto	,,	12/4
Ditto. 6′ 6″ × 4′ 0 ditto	,,	21/9

BRICKLAYER—(*continued*)

Partitions

		2″	2½″	3″	4″
Clinker concrete solid partition blocks to B.S. 492 and setting in cement mortar	per yard super	7/5	8/9	10/2	12/7
Hollow clay partition blocks to B.S. 1190, keyed on both sides and ditto	,,	8/7	9/6	10/10	–
Moler hollow partition blocks, keyed on both sides and ditto	,,	18/1	19/6	21/–	25/4

Facings

		Ordinary facings, p.c. 231/6 M.	Ordinary facings, p.c. 249/4 M.	White glazed facings p.c. 1,360/– M for stretchers 1,260/-M for headers and pointing with white cement
Extra over common brickwork built with bricks p.c.108/– M for facings as described, and pointing with a neat weathered joint :—				
To solid wall in Flemish bond	per yard super	13/11	14/10	78/8
To cavity wall in stretcher bond	,,	11/4	12/–	63/–
To ditto in Flemish bond with snapped headers	,,	13/5	14/4	—
Half brick wall in facings in stretcher bond built fair and pointed one side with a neat weathered joint	,,	25/7	26/3	—
Ditto pointed both sides	,,	26/7	27/3	—
One brick wall in facings built fair and pointed one side	,,	47/11	49/3	—
Ditto pointed both sides	,,	48/11	50/2	—
Brick on end flat arch in facings 4½″ on soffite and 9″ high and pointing	per foot run	2/11	3/–	—
Brick on edge coping to 9″ wall with two courses plain tiles under, laid breaking joint, two cement angle fillets and pointing	,,	5/–	5/1	—

ASPHALTER

Tanking

		To B.S. 1097	To B.S. 1418
Horizontal asphalt tanking in three thicknesses on brick or concrete	per yard super	20/–	31/–
Vertical ditto	,,	24/8	34/8

Roofing

		To B.S. 988	To B.S. 1162
½″ asphalt flat in two thicknesses on and including felt underlay	per yard super	14/5	24/2
½″ asphalt skirting 6″ high with angle fillet at bottom and rounded top, turned into groove	per foot run	2/4	2/11
½″ asphalt fascia 6″ high with solid water check roll at top and undercut drip at bottom	,,	4/3	4/9

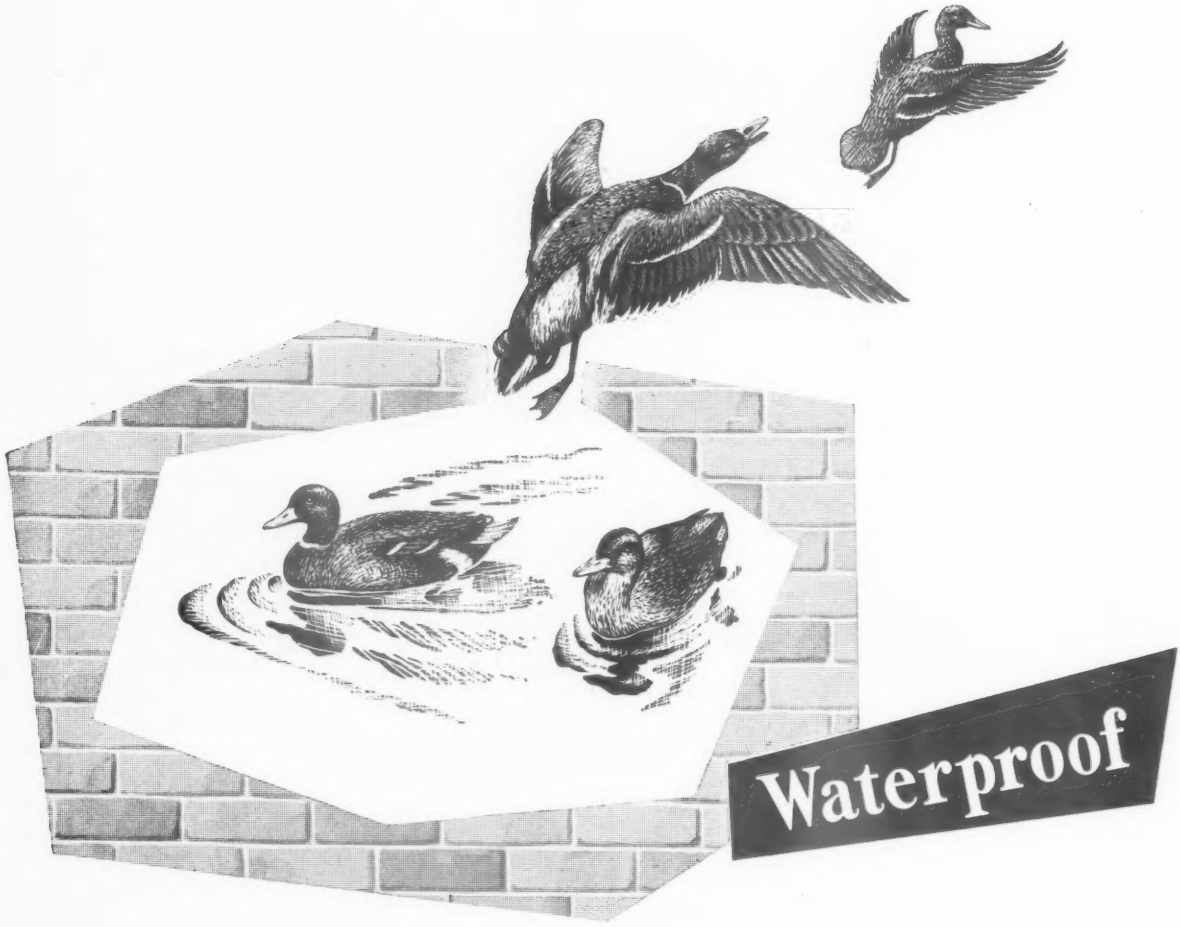
DRAINLAYER

Trenches and Beds

N.B.—The following prices are applicable to hand excavation in heavy soil, only requiring planking and strutting for depths of 3′ or more.

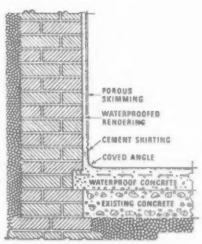
Excavate trenches for 4″-9″ pipes, including planking and strutting, filling in and ramming, and wheeling and spreading surplus :—		
For each 12″ in depth, for trenches not exceeding 3′ 0″ deep	per yard run	3/1
Ditto fer trenches exceeding 3′ 0″ and not exceeding 5′ 0″ deep	,,	4/5
Ditto for trenches exceeding 5′ 0″ and not exceeding 10′ 0″ deep	,,	7/2

		4″	6″
6″ concrete (1 : 3 : 6) bed and benching for pipes	per yard run	8/10	10/4
6″ ditto. and surround	,,	14/5	17/4



The mallard remains dry even when in water! From the under-layer of the skin the first feathers are developed; they are oiled constantly so that the water flows off them and the wild duck has a natural protection against cold and wet.

DAMP COURSES. The treatment of damp courses, whether horizontal or vertical, is one of the principal applications of cement waterproofed with Pudlo. For complete details of this and other remedies for all classes of dampness write for our "Handbook of Cement Waterproofing".



'PUDLO' BRAND

CEMENT WATERPROOFER

The most reliable fire cement is FEUSOL! Have you tried it?

The word 'PUDLO' is the registered Trade Brand of Kerner-Greenwood & Co. Ltd. by whom all articles bearing that Brand are manufactured. Sole Proprietors and Manufacturers:

KERNER-GREENWOOD & CO. LTD., KING'S LYNN, NORFOLK

DRAINLAYER—(*continued*)

Drains

		3″	4″	6″
Clayware butt-jointed land drains and laying in trench	per foot run	-/4½	-/5½	-/9½
"Seconds" quality glazed stoneware socketed drains and laying and jointing in trench	,,	4″ 2/1	6″ 2/10½	9″ 4/10
"British Standard" quality ditto	,,	2/5	3/6	5/11
Extra on "Seconds" quality for bends	each	3/1	4/8½	13/9
Ditto "British Standard" quality ditto	,,	4/–	5/11	17/6
Extra on "Seconds" quality for equal single junction	,,	5/4	7/11	17/1½
Ditto "British Standard" quality ditto	,,	7/9½	9/8½	21/6
Cast iron socketed drains to B.S. 437 and laying and jointing in trench	per foot run	10/11	16/8	32/6
Extra for short radius bend (Fig. No. 4)	each	22/–	41/4	121/5
Extra for single junction (Fig. No. 18)	,,	40/–	76/9	230/–

Fittings, etc.

			4″	6″
Glazed stoneware trapped gulley with galvanized grating and outlet and setting in concrete	each		22/9	42/2
Ditto with vertical inlet ditto	,,		28/3	47/8
Cast iron trapped gulley with high invert, grating, and 4″ outlet and setting in concrete	,,		58/4	—
Ditto with vertical inlet ditto	,,		67/–	—
Glazed stoneware intercepting trap with inspection arm, stopper and chain and fixing in manhole and jointing to drain	,,		71/11	83/9
Brown glazed stoneware half round straight channels and bedding and jointing in cement mortar	per foot run		1/10	2/9
Ditto ordinary channel bend and ditto	each		5/6	7/9
Cast iron coated single seal manhole cover and frame to B.S. 497 Grade C and setting frame in cement and cover in grease	,,		24″×18″ 41/5	24″×24″ 61/3
Galvanized ditto	,,		69/6	105/6

PAVIOR

		¾″	1″	1½″
Cement and sand (1 : 3) floated screed to receive pavings	per yard super	3/5	4/–	4/7
Ditto trowelled smooth to receive linoleum	,,	3/9	4/4	4/11
Cement and sand (1 : 3) paving trowelled hard and smooth	,,	3/10	4/5	5/–
Granolithic paving (1 : 2½) laid on concrete	,,	1″ 6/2	1¼″ 7/–	1½″ 7/10
½″ red composition paving to B.S. 776 laid on prepared screed	per yard super			16/–
½″ terrazzo paving (Portland cement and spar aggregate) laid on prepared screed	,,			34/2
Extra for white or cream cement	,,			5/3
½″ rubber flooring in all colours, laid on prepared screed	,,			51/–
⅛″ × 12″ × 12″ rubber tile flooring ditto	,,			41/6
⅛″ × 12″ × 12″ cork tile flooring (brown shades) laid in mastic on prepared screed, surfaced and polished	per yard super			40/8
1½″ hard red paving bricks p.c. 404/6 per M. laid flat on prepared bed in cement mortar	,,			22/5
1½″ ditto laid herringbone	,,			24/4
6″ × 6″ red quarry tile paving to B.S. 1286 laid on prepared screed with straight joints	per yard super		½″ 21/5	⅞″ 23/9
6″ × 6″ buff quarry tiles as last	,,		24/10	26/3
2½″ (finished) gravel path laid on prepared bed, well watered and rolled to cambers and falls	,,		2/9	

MASON

		Portland	Artificial
Portland stone and all labours in pilasters, and quoins	per foot cube		38/4
Ditto in jambs, lintols, etc.	,,		40/9
Ditto in arches	,,		49/4
Ashlar av. 6½″ on bed with plain dressed face	per foot super		21/10
Portland stone or artificial stone to B.S. 1217 :—		Portland	Artificial
4½″ × 4″ sill, sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	per foot run	7/5	4/1

MASON—(*continued*)

		Portland	Artificial
9″ × 3″ ditto	per foot run	8/7	6/2
2″ × 12″ Coping, weathered and twice throated, set and jointed as last	,,	7/9	5/6
3″ × 12″ Ditto	,,	10/11	8/2
5″ × 12″ Saddle back coping twice throated, set and jointed as last	,,	17/8	12/6
6″ × 12″ Ditto	,,	20/6	14/1

SLATER, TILER AND ROOFER

Slate

		20″ × 10″	16″ × 10″
Best Bangor slates to B.S. 680 laid with 3″ lap, each slate nailed with two stout copper nails	per square	252/–	236/3
Ditto hung vertically to dormer cheeks and gables	,,	257/3	246/9

Tiles

		Hand made	Machine made
Best sand faced plain (nibbed) tiles to B.S. 402, 10½″×6½″ laid to a 4″ gauge with each tile in every fourth course nailed with galvanized nails	per square	169/–	159/8
Ditto hung vertically to dormer cheeks and gables to 4½″ gauge with each tile nailed with galvanized nails	,,	168/–	157/6
Berkshire hand made sand faced red pantiles 14½″ × 10″ laid to 2½″ head and 1½″ side laps, each tile in every third course nailed with galvanized nails	per square	173/3	
Ditto to mansard slopes	,,	178/6	
Bridgwater hand made Double Roman red sandfaced tiles 16½″ × 14″ laid to 3″ laps, each tile in every course nailed with galvanised nails	,,	131/3	
Concrete plain (nibbed) tiles to B.S. 473, 10½″ × 6″ laid as before described for plain tiles	,,	102/8	
Ditto hung vertically to dormer cheeks, and gables, ditto	,,	107/8	
Concrete interlocking tiles 15″ × 9″ laid to 3″ lap, each tile in every third course nailed with galvanized nails	,,	89/3	
Ditto to mansard slopes ditto	,,	94/6	

Asbestos Cement

6″ corrugated asbestos cement sheeting fixed to wood roofs with galvanized drive screws and washers with a side lap of 1½ corrugations and an end lap of 6″	,,	89/3
6″ ditto but fixed vertically	,,	99/9
Add to both last if fixed to steel purlins or sheeting rails with galvanized hook bolts	,,	4/9

Felt

		Two layer	Three layer
Reinforced bituminous roofing felt laid with 3″ laps and nailed to rafters at 18″ centres with galvanized clout nails	,,		22/–
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot bitumen	per yard super	8/8	11/6

CARPENTER

Carcassing

Softwood, sawn and fixed, in plates, sleeper joists and lintols	per foot cube	15/2
Ditto in floor and ceiling joists	,,	17/–
Ditto in stud partitions	,,	18/8
Ditto in rafters	,,	18/6
Ditto in purlins and struts	,,	18/8
Ditto and framing in ridge	,,	18/6
Ditto in hip and valley rafters including cutting rafters to sizes	,,	20/8

Battening and Boarding

		Roof slopes	Vertical hanging
¾″ × 1½″ battens nailed to softwood for 20″ × 10″ slates to 8½″ gauge	per square	29/11	31/6
Ditto 16″ × 10″ slates to 6½″ gauge	,,	37/10	39/11
Ditto 10½″ × 6″ tiles to 4″ gauge (4½″ for vertical hanging)	,,	60/4	57/9
		Roof slopes	Mansards
Ditto 14½″ × 10″ pantiles to 12″ gauge	,,	21/–	21/6
Ditto 15″ × 9″ concrete interlocking tiles to 12″ gauge	,,	21/–	21/6
Roof boarding in batten widths close jointed and fixed to flat or sloping roofs	,,	¾″ 112/–	1″ 139/6
Ditto tongued and grooved and prepared for felt roofing including firring to falls	,,	165/6	194/6

CARPENTER—(*continued*)

		Roof Slopes	Mansards
Sawn gang boarding fixed to joists in roof	per foot super	1/2½	1/6
Wrot and crosstongued eaves soffite	,,	1/11½	2/3
6″ wrot and grooved eaves fascia planted on	per foot run	–/10½	1/–½

Wall and Ceiling Boards

		Vertically	Soffites
¼″ fibre board to B.S. 1142 fixed with galvanized flat headed nails to softwood	per yard super	6/3	6/4
⅛″ asbestos cement flat sheeting to B.S. 690 fixed as last	,,	6/2	6/7
¼″ ditto	,,	7/3	7/8

JOINER

Floors and Skirtings

(All thicknesses stated are nominal)

		⅝″	1″	1¼″
Plain edge softwood flooring in batten widths nailed to floor joists	per square	140/6	156/9	189/–
Tongued and grooved ditto	,,	150/–	166/9	200/–
1″ double grooved and tongued and grooved wood block floor laid herringbone with two-block border, set in hot mastic composition on prepared screed and wax polished :—				
Swedish softwood	per yard super			27/4
European beech	,,			33/7
English oak	,,			46/3
European oak	,,			41/9
Burma teak	,,			45/8
Softwood skirtings with splayed or molded top edge, planted on (per inch sectional area)	per foot run	Sectional area 3″ to 6″ –/2¾		Over 6″ –/2½
Extra for grounds plugged to brickwork	,,		–/8	

Windows in Softwood

		1½″	2″
Rebated and molded softwood fanlights and casement sashes divided into squares for glass	per foot super	3/–	3/4
Extra for hanging	each	6/7	6/7
Cased frames with 6″ × 3″ oak sill and 2″ molded double hung sashes including pulleys, line and weights	per foot super	—	10/–

N.B.—The above prices are for purpose made joinery. Standard pattern casement windows and double hung sashes and frames to B.S. 644 are cheaper.

Doors in Softwood

		1½″	1¾″	2″
Framed ledged and braced doors filled in with 1″ T. & G. and V-jointed boarding and hanging	per foot super	6/2	6/11	6/11
Four-panel door, square both sides and hanging	,,	5/1	5/9	5/9
Ditto molded one side	,,	5/8	6/4	6/4
Ditto molded both sides	,,	6/2	6/11	6/11

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

1¼″ standard flush doors 2′ 6″ × 6′ 6″ internal pattern	each	116/–
2″ ditto external pattern	,,	124/3

Linings, Frames, etc., in Softwood

		Sectional area Up to 6″	6″ to 12″
Window and door linings etc. (per inch in sectional area)	per foot run	–/4	–/3½
Frames wrot all round and framed (ditto)	,,	–/3½	–/3
Mullions, transomes and cills (ditto)....	,,	–/3¾	–/3½
		2″ to 4″	4″ to 6″
Moldings, architraves, etc. (ditto)	,,	–/3¾	–/3½
		Thickness 1″	1¼″
6″ Window boards with rounded nosings, tongued at back and including bearers	,,	3/2	3/4½
9″ Ditto	,,	3/6	3/9½

Shelving and Fittings in Softwood

		¾″	1″
Shelving of 2″ slats spaced 1″ apart on bearers (measured separately)	per foot super	2/8	2/11
Shelving on ditto	,,	2/5	3/–
Cross tongued shelving on ditto	,,	3/–	3/7
Shelving 9″ wide on ditto	per foot run	1/8½	2/1
2″ shelf bearers plugged to walls	,,	1/–	1/2
The following in framed up cupboard fittings :—			
T. & G. & V-jointed back	per foot super	2/1	2/5
Cross tongued top, bottom shelf or division	,,	3/1	3/7½
1¼″ flush cupboard doors	,,	7/1	
Labour rebate or groove	per foot run	–/3½	

JOINER—(*continued*)

Labour cross-grain	per foot run	–/4½
1″ × 2″ bearers screwed on	,,	–/6

N.B.—The above prices are for purpose-made cupboard fittings Standard pattern kitchen fittings to B.S. 1195 are cheaper.

IRONMONGERY

		Softwood	Hardwood
3″ steel butts (medium quality)	per pair	4/11	6/1
4″ ditto (ditto)	,,	6/8	8/–
Double action floor springs and top centres including filling boxes with oil P.C. 149/3	each	181/6	187/4
Overhead check action door springs. P.C. 66/8	,,	84/3	87/10
6″ barrel bolts. P.C. 5/6	,,	7/8	8/2
Cupboard locks. P.C. 8/2	,,	12/3	13/4
Norfolk latches. P.C. 5/6	,,	10/5	11/10
Cylinder night latch. P.C. 15/11	,,	22/11	24/9
Mortice latch. P.C. 9/4	,,	14/8	16/1
Rim lock. P.C. 10/–	,,	14/3	15/4
Mortice lock. P.C. 15/2	,,	22/1	23/11
Door furniture. P.C. 24/–	per set	27/6	27/10
Sash fasteners. P.C. 9/–	each	11/8	12/3
Casement fasteners. P.C. 7/11	,,	10/–	10/5
Casement stays. P.C. 11/6	,,	14/–	14/4

STEEL AND IRONWORKER

Structural Steelwork

The following prices are for Basic sections only. Prices for other sections vary roughly in proportion to the price of the steel ex mills—see "Current Market Prices of Materials."

		£	s.	d.
R.S.J.—in steel framed structures hoisted and fixed complete	per ton	58	3	3
Riveted compound girders including plates and rivets	,,	64	0	0
R.S. stanchions including caps, bases, cleats, etc	,,	66	16	0
Riveted compound stanchions ditto	,,	69	15	6
Riveted roof trusses with flat and angle members, plates, cleats, etc., 30′ span	,,	103	7	6
Ditto 40′ span	,,	95	0	0

Sundries

Simple wrot iron balustrades fixed complete (excluding mortices etc.)	per cwt.	11	10	6
Bolts with heads, nuts and washers and fixing	,,	11	1	9

PLASTERER AND TILE FIXER

24 gauge expanded metal lathing and fixing to softwood soffites	per yard super	5/1

Lime and Gypsum Plaster

		Lime	"Sirapite"
Three coat lime and two coat "Sirapite" or similar gypsum plaster :—			
On brick walls and partitions	per yard super	5/11	4/7
On concrete soffites including hacking	,,	6/11	6/7
On soffite of E.M.L. (measured separately)	,,	6/–	7/2
On and including wood laths, to soffites	,,	11/11	—
⅜″ Gypsum plasterboard fixed to softwood soffites, in accordance with manufacturer's instructions, scrimmed and finished with setting coat of suitable plaster	per yard super	7/5	
Plaster moulded cornice or cove (per inch in girth)	per foot run	–/4½	

Cement Rendering

Rendering in Portland cement lime sand(1:1:6) and setting in Keenes cement on brick walls and partitions	per yard super	5/9
Portland cement and sand (1 : 3) plain face trowelled smooth on ditto	,,	5/3
Portland cement and sand (1 : 3) screed for tiling on ditto	,,	2/9

Wall Tiler

6″ × 6″ × ¾″ standard quality white glazed wall tiles set and jointed on prepared screed	per yard super	37/3
Ditto eggshell matt or glossy glazed enamelled	,,	47/-

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER

		Flats	Gutters, flashings, etc.	Stepped flashings
Milled sheet lead and labour	per cwt.	193/–	193/–	202/–

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER—(*continued*)

		Flats	Gutters, flashings, etc.	Stepped flashings
24 S.W.G. sheet copper and labour	per foot super	5/9½	6/1½	6/3½
23 S.W.G. sheet copper and labour	,,	6/3½	6/6	6/10
14 gauge zinc and labour	,,	2/4½	2/8	2/11

Rainwater Pipes and Gutters

		3″		4″	
Cast iron medium section (3/16″ metal) R.W. pipes and jointing and fixing to walls with pipe nails and distance pieces or holderbats (cutting and pinning holderbats measured separately)	per foot run	With holderbats 5/–	With nails 4/–	With holderbats 6/–	With nails 5/–
Pressed steel R.W. pipes and ditto	,,	24 G. 3/11	24 G. 3/4	20 G. 5/6	20 G. 4/10
Asbestos cement R.W. pipes and ditto	,,	3/–	—	3/8	—
		4″		6″	
Cast iron half round eaves gutter and jointed and fixed with brackets to fascia	,,	½″ 2/9	3/16″ 3/1	½″ 4/1	3/16″ 4/10
Ditto O.G. ditto	,,	3/1	3/11	4/7	6/–
18 Gauge pressed steel half round ditto	,,	2/8½		3/9	
Ditto O.G. ditto	,,	3/3		4/6	
Asbestos cement half round ditto	,,	2/4		3/9½	

Soil and Ventilating Pipes

		3″	4″
Lead soil, waste and ventilating pipes (17 lb. per yard for 3″ and 22·8 lb. per yard for 4″ diameter) fixed to walls with lead tacks and brass screws	per foot run	10/10	15/1

		Heavy 11″	Medium 3/16″	Heavy 11″	Medium 3/16″
Medium or heavy section cast iron soil, waste and ventilating pipes with caulked joints, fixed to walls, with pipe nails and distance pieces	,,	5/2	4/9	6/7	6/6

INTERNAL PLUMBER

Lead Pipes

Prices are based upon the following weights per yard.

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

		½″	¾″	1″	1¼″
Supply pipe in trench (measured separately)	per foot run	3/7½	5/6½	7/10½	10/4
Ditto fixed to walls and ceilings	,,	4/1	6/2	8/8	11/6
Distributing pipe fixed to walls and ceilings	,,	3/7½	5/3½	7/–	9/3½
Flushing and overflow pipe ditto	,,	2/3	3/6½	4/9	6/3
Waste and ventilating pipe ditto	,,	—	—	—	5/4½
Joints to fittings	each	4/11	5/8	6/1	6/10
Bends	,,	—	—	—	1/11
Branch joints	,,	6/3	7/2	7/7	8/11

Steel Tubes and Fittings

		½″	¾″	1″	1¼″
Galvanized steel tubes to B.S. 1387 Class C with screwed joints in red lead as supply pipe laid in trench (measured separately)	per foot run	1/11½	2/3	2/5	3/3
Ditto Class B ditto fixed to walls and ceilings as supply, distributing, waste pipe, etc.	,,	1/11	2/4	2/6	3/1½
Joints to fittings	each	3/8	4/3½	5/2	6/1½
Bends	,,	—	—	3/2	4/7
Tee, equal or reducing	,,	2/2	2/6½	3/1	4/–

Copper Tubes and Fittings

Prices are based upon the following gauges :—

		½″	¾″	1″	1¼″
Supply		18	17	16	16
Distributing, waste, etc.		19	19	18	18
Copper tubes to B.S. 1386, as supply pipe laid in trench (couplings and trench measured separately)	per foot run	1/11	2/9½	3/11	6/2
Ditto to B.S. 659 as distributing, waste pipes, etc. fixed to walls and ceilings. Couplings measured separately	,,	1/11½	2/6	3/6½	4/1½

INTERNAL PLUMBER—(*continued*)

		½″	¾″	1″	1¼″
Brass compression type couplings—copper to copper	each	4/6½	5/4	7/4	9/6
Ditto bends	,,	5/11	6/11	10/1	12/8
Ditto tees	,,	7/11	8/10	13/6	19/4

Sanitary Fittings

		£ s. d
Fireclay sinks 24″ × 18″ × 10″ including cutting and pinning brackets to tiled wall. P.C. 75/–	each	4 16 0
Combined metal sink and drainer 42″ × 18″ × 8½″ to bearers (measured separately). P.C. 330/–	,,	18 11 9
Fireclay lavatory basin 25″ × 18″ with taps and towel rail bracket including screwing brackets to tiled wall. P.C. 138/6	,,	8 5 0
Rectangular cast iron porcelain enamelled bath 5′ 6″ long, with taps, and panels to side and one end fixed to framing (measured separately) P.C. 390/6	,,	23 9 3
Fireclay w.c. pan with trap, plastic seat, high level cistern and flush pipe, including screwing pan to floor and cistern brackets to backboard. P.C. 200/–	,,	12 12 3
Ditto with low level cistern. P.C. 240/–	,,	14 17 6

GLAZIER

		To wood	To metal
18 oz. Ordinary quality sheet glass and glazing with putty in squares not exceeding 4 ft. sup.	per foot super	1/–	1/1
24 oz. Ditto and ditto	,,	1/1¾	1/3
32 oz. Ditto and ditto	,,	1/7½	1/8½
⅛″ figured, rolled, and cathedral—untinted and ditto	,,	1/4	1/5
¼″ rough cast and ditto	,,	1/7½	1/8½
¼″ wired cast and ditto	,,	1/9¼	1/10¾
¼″ Georgian wired cast and ditto	,,	1/9½	1/11
		To wood	To metal
¼″ Georgian wired polished plate and ditto	,,	6/1½	6/3
¼″ polished plate (glazing quality) and ditto	,,	5/10	6/–

PAINTER

Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered walls and ceilings	per yard super	1/1½
Prepare and twice distemper with washable distemper on plastered walls and ceilings	,,	1/8½
Ditto on brick or concrete	,,	2/3
Prepare and paint two coats emulsion paint on plastered walls	,,	2/6
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	,,	4/7

Paint on Metal

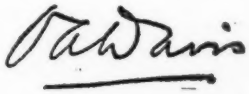
		Basic price	Add for each additional coat
Prepare, prime, and paint one coat oil colour on general surfaces	per yard super	2/11	1/4
Ditto metal casements	,,	4/6	1/11½
Ditto members of roof trusses	,,	3/8½	1/8
Ditto balustrades one side	,,	4/6	1/11½
Ditto bars, etc., not exceeding 6″ girth	per yard run	–/9	–/4
Ditto small pipe	,,	–/9	–/4
Ditto large pipe	,,	1/6	–/8

Paint on Wood

		Basic price	Add for each additional coat
Knot, prime, stop and paint one coat oil colour on general surfaces of woodwork	per yard super	3/3	1/4
Ditto on skirtings, rails, frames, etc., not exceeding 3″ girth	per yard run	–/5	–/2
Ditto ditto for each additional 3″ in girth	,,	–/4½	–/2
Ditto on sash squares one side	per dozen	3/9	1/6
Ditto on large sash squares one side	,,	6/10	2/9

Stain and Varnish on Wood

Prepare, size, stain and twice varnish on general surfaces of woodwork	per yard super	3/8
Ditto on skirtings, rails, frames, etc. not exceeding 3″ girth	per yard run	–/6
Ditto ditto for each additional 3″ in girth	,,	–/5



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

"Do you think Carlite pre-mixed plaster will supersede sand based plasters?"

"As far as I'm concerned it has."

"You sound very sold. What's the big advantage?"

"Several. Carlite has an exfoliated vermiculite aggregate. That's got a lot of advantages as you know. It's pre-mixed to a first class working standard at the factory and carefully tested."

"So you know exactly what you're going to get when you specify Carlite?"

"Exactly. And in passing, Carlite saves contractors and quantity surveyors a lot of worry about specifications too."

"Carlite's lighter than old-style plaster, I suppose?"

"Yes, about two and a half times, but what's more important is that it has terrific strength."

"What's Carlite like in actual use?"

"First class. It's tough and resilient, very hard to crack or break, and it gets rid of 'sweating'."

"Now I'm waiting for you to say it's very expensive."

"Well it's not, and there are times when it actually costs less to use Carlite than to plaster in the old-fashioned way."

For full details of Carlite write to: The Carlisle Plaster & Cement Co., Cocklakes, Carlisle. The Gotham Company Ltd., Wheeler Gate, Nottingham

(Continued from page 651)

wherever production is most economic. Walls could be constructed *in situ* of local materials.

"Mod-X" buildings are completely demountable.

EXPORTING IDEAS

Another firm that exports, not buildings, but an idea and a service, is Reema Construction Ltd. The "Reema" system of building employs large precast hollow concrete wall panels, which, when erected, provide vertical cavities for the pouring of *in situ* columns. The tops of the panels form a horizontal trough in which is cast a reinforced concrete ring beam. This is very similar to the Swedish building system described in the JOURNAL for April 9.

Two-storey work can be carried out and the system has been used for houses, hospitals and a luxury holiday camp in the Bahamas.

The panels are cast on the site and erected by local labour trained by a small nucleus of supervisors sent from this country.

The economical use of timber—one of the most interesting features of building since the war—depends largely on the use of timber connectors. The recent publication of a "design manual" is, therefore, of some importance. It is reviewed below by Specialist Editor No. 14.*

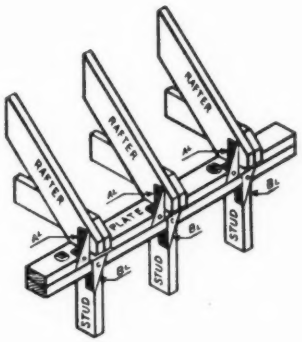
DESIGN FOR TIMBER CONNECTORS

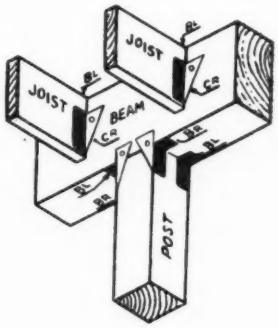
The introduction of timber connectors has largely overcome the inability of joints in framed members to adequately resist shear stresses, and may be said to have done more for timber construction than any other single factor. Various patterns of timber connector have been developed in the USA, in Europe and in this country, and a "design manual" has recently been published to help designers choose the type of connector best suited to any particular job. Also given in the manual are complete design data and practical advice on assembly methods. The types of connector described are "Bulldog" single and double sided, "Teco" split ring, shear plate, and "MAF Trip-L-Grip" framing anchor, and the manual is sub-divided into three sections: the choice of connector, general design data, and the design and assembly of joints.

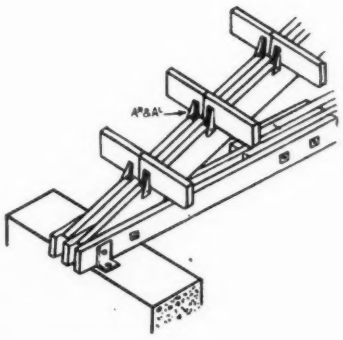
The "Bulldog" connectors are suitable for use with softwoods, providing an efficient joint without special equipment. They are ideal for trussed rafters and light industrial trusses.

"Teco" split rings are suitable for any type of structure with light or heavy loads. They are inserted into pre-cut grooves in the faces of the members to be joined and can develop a very high proportion of the strength of the members being joined. The shear plate provides a similar service where a metal to wood joint is required.

The "MAF Trip-L-Grip" framing anchor is made in three shapes, a right-hand type and a left-hand type, both of which can be nailed to three surfaces, and one type which can be nailed to two surfaces. They replace purpose-made wood-to-wood joints, eliminate the notching of beams, strengthen corners, etc. The manual illustrates nine uses for these connectors, three of which are shown on the right.







Each type of connector mentioned is described in some detail and tables are provided to show sizes; type of bolt and washer used; allowable loads for varying angles of load to grain for Group I and Group II timbers; allowable edge and end distances; and spacings. In each case notes are provided on methods of assembly and maintenance.

This manual provides a sound guide to joint design and should have a place in the libraries of all architects and engineers.

* *Design Manual for Timber Connector Construction.* R. T. WALTERS. (Macandrews & Forbes Ltd., 1953).

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.)

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Please ask manufacturers to send further particulars to:—

NAME.....

PROFESSION or TRADE

.....

ADDRESS.....

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AJ 21.5.53

INFORMATION CENTRE INDEX FOR 1952

An alphabetical index covering Information Centre items and special articles published in the Technical Section during the twelve months ended December 31, 1952, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, *not later than May 28, 1953.*

Please send me the Information Centre Index for 1952:

Name.....
(Block letters)

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Address.....
(Block letters)

.....

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A.J.21.5.53

F

Buildings Illustrated

St. Leonard's Primary School, Bridgnorth, Shropshire. (Pages 640-641.) Architects: Jackson & Edmonds; assistant-in-charge, P. B. Corney, A.R.I.B.A. Structural engineer: S. Willis, M.INST.C.E., M.I.STRUCT.E. Sculpture: W. R. Dalley. Clerk of works: W. W. Fearnhead. General contractors: McKeand Smith & Co. Ltd. Sub-contractors and suppliers: flush doors, Adamite Co. Ltd.; wood block flooring, Bennetts' Wood Flooring Ltd.; facing bricks, Blockleys Ltd.; rolling shutters, Brady & Co. Ltd.; electrical installation, Burns & Dudgon Ltd.; reconstructed stonework, precast concrete beams, Constone Ltd.; false ceilings, Expanded Metal Co. Ltd.; sanitary fittings, William E. Farrer Ltd.; ironmongery and cloakroom fittings, James Gibbons Ltd.; metal windows, John Gibbs Ltd.; composition block flooring, Granwood Flooring Co. Ltd.; entrance gates, Hill & Smith Ltd.; lantern lights, Henry Hope & Sons Ltd.; structural steelwork, E. C. & J. Keay Ltd.; asphalt tanking, La Brea Asphalte Co. Ltd.; acoustic tiling, Midland Wallboards Ltd.; glass domelights, Pilkingtons Ltd.; roofing, Ruberoid Ltd.; heating and hot water supply installation, Scull Bros. Ltd.; playground, Val de Travers Ltd.; granolithic and terrazzo flooring, glazed wall tiling, Venetian Flooring Co.; planting layout by Bakers Nurseries Ltd.

Causeway Green County Primary School, Oldbury, Worcestershire. (Pages 644-646.) Architects: F. R. S. Yorke, E. Rosenberg & C. S. Mardall, F./F./A.R.I.B.A., in association with F. W. B. Yorke and H. M. Barker, F./L.R.I.B.A.; Associate-in-Charge, T. R. Evans, A.R.I.B.A., Assistant-in-Charge, J. G. Fryman, A.R.I.B.A. Consultants: (Structural), Clarke, Nicholls & Marcel; (heating), Oscar Faber & Partners. Quantity Surveyor: Oswald Wainwright. General contractor: Edgar Crowder Ltd. Sub-contractors: Venetion blinds, J. Avery & Co. Ltd.; roofing and tanking, William Briggs & Sons Ltd.; chimney and water tank, Chimneys Ltd.; cloakroom equipment, Clark Hunt & Co. Ltd.; prestressed precast roofing, Concrete Ltd.; playground and road pavings, Constable Hart & Co. Ltd.; specialist joinery fittings, Educational Supply Association Ltd.; electrical installation, Etna Lighting & Heating Co. Ltd.; cast iron shoes, Gasel Ltd.; classroom floors, Granwood Flooring Co. Ltd.; roller shutters, Haskins Rolling Shutters Ltd.; assembly hall steelwork and roof, Hills (West Bromwich) Ltd.; metal door frames, Henry Hope & Sons Ltd.; concrete tiling, Jaconella Ltd.; Hornton stone, London & Sussex Merchants Ltd.; fibrous plaster, H. H. Martyn & Co. Ltd.; Meta Mica spray ceilings, Meta Mica Ltd.; handrails and railings, Mountford Bros. Ltd.; bricks, London Brick Co. Ltd. (common), Richard Parton Ltd. (Uxbridge flint lime bricks), Himley Brick Co. Ltd. (external facing bricks), Titford Brick Co. Ltd. (engineering bricks); general ironmongery, Rennis Ltd.; wall tiling and tank tiling, Carter & Co. Ltd. (suppliers), fixed by R. G. Robertson (Tiles) Ltd.; heating installation, Rosser & Russell Ltd.; flush doors, Saro Laminated Wood Products Ltd.; gloss and flat paints, Parsons & Sons Ltd.; flat internal and external paints, Screeton Paintmakers; steel reinforcement, Square Grip Reinforcement Co. Ltd.; sanitary fittings, Stitsons Sanitary Fittings Ltd.; lamp posts, Tarslag Ltd.; aluminium lavatory partitions, Venesta Ltd.; wood block floors, Vigers Bros. Ltd.; metal windows and doors, Williams & Williams Ltd.; wood wool slabs, Stella Building Products Ltd.

Prefabricated Structures. (Pages 647-651.) The products of the following firms are mentioned in the article: All-Purpose Building Co. Ltd. (the "Apee" building system); Booth & Co. (England) Ltd. (the "Overseer" house); the Bristol Aeroplane Company (Western) Ltd.; C. D. Productions Ltd. (the "Punt" system), consulting engineers, Ove Arup & Partners; A. Cameron Ltd. (the "Mod-X" system), consulting architects, Harrison and Seel, A./A.R.I.B.A.; Cruden Houses Ltd. (the "Scotia" house); K. D. Homes (London) Ltd.; Maycrete Ltd. (the "Supalite" house); Neata Products (Cheltenham) Ltd., consulting architects, L. W. Barnard and Partners, F./F.R.I.B.A.; R. Nerdrum Ltd (the "Precut" house), consulting architect, Frederick Cubitt, L.R.I.B.A.; H. Newsum, Sons & Co. Ltd. (the "Riley-Newsum" house), architects, S. K. Biggs, A.A.I.A., and D. J. Middlebrook, A.R.I.B.A., Reema Construction Ltd.; Scottwood Factory Built Permanent Houses Ltd., consulting architect, William W. Carter, A.R.I.B.A., A.I.A.A.; Stephenson Developments (Huddersfield) Ltd. (the "New Departure" house); Trusteel Corporation (Overseas) Ltd.; Uni-Seco Ltd. (the "Seco" system of building). A list of the firms in the Arcon Group of Companies appeared in the JOURNAL for May 7, p. 598.

Announcements

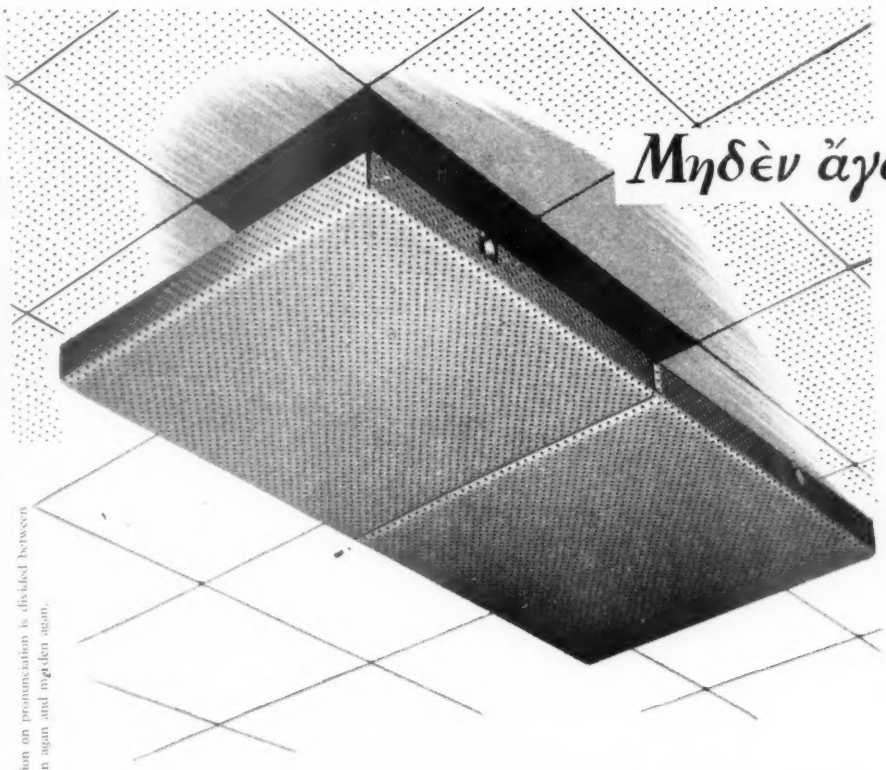
Eric Lyons, F.R.I.B.A., M.S.I.A., and G. Paulson Townsend, L.R.I.B.A., have dissolved their partnership by mutual agreement. Mr. Lyons will continue the practice at Mill House, Bridge Road, Hampton Court, Surrey, and also at 141, Borough High Street, S.E.1.

North & Partners, chartered architects and surveyors, have removed their offices to 40, Broadway, Maidenhead.

Bertram Butler & Co., F./A.R.I.B.A., chartered architects, have moved their office to 6, Tettenhall Road, Wolverhampton.

Correction

The address of Arnold P. Holdsworth, F.R.I.C.S., is 73, Bower Road, Sheffield 10, and not Bone Road as previously announced.



Opinion on pronunciation is divided between mēden agan and mēden agan.

Μηδὲν ἄγαν

In no branch of science is Solon's dictum *Nothing in excess* more honoured —or more important—than in architectural acoustics. It dominates the thinking and the work of The Acoustical Division of The Burgess Products Company Limited.

BURGESS PRODUCTS COMPANY LIMITED, HINCKLEY, LEICESTERSHIRE

SUGG WESTMINSTER

Domestic heater fitted in L.C.C. new hutted classroom

Photograph by courtesy of the L.C.C. Education Authority.

—one of the many situations for which the Sugg *Assisted-convection gas-fired space heater* is particularly suited.

Developed by SUGG of Westminster, the principle of fan-assisted convection is embodied in several different types of heater and heater-ventilator for both industrial and domestic installation.

This new development in space-heating gives remarkably even temperature from floor to ceiling.

Available for flued and flueless operation. Economical in installation, very efficient in use of fuel.

See our permanent exhibit at the Building Centre, Store Street, W.C.1.

Literature upon request from :

WILLIAM SUGG & CO. LTD., RANELAGH WORKS, CHAPTER ST., WESTMINSTER, S.W.1 VIC 3211

CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

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

COUNTY BOROUGH OF CROYDON.

Applications are invited for the following appointments in the School Architect's Section:—

(*a*) JUNIOR ARCHITECTURAL ASSISTANT—Inter R.I.B.A.—salary A.P.T. II, £495 by £15 to £540 per annum.

(*b*) DRAUGHTSMAN—R.I.B.A. Probationer—salary A.P.T. I, £465 by £15 to £510 per annum. London Weighting is also payable.

Applications, on forms obtainable from the Chief Education Officer, Katharine Street, Croydon, must be submitted to him by 30th May, 1953.

E. TABERNER,
Town Clerk.

28th April, 1953. 8783

CITY OF BIRMINGHAM EDUCATION COMMITTEE.
APPOINTMENT OF STAFF TO ARCHITECT'S BRANCH.

Applications are invited for the following appointments in the Architect's Branch of the Birmingham Education Department (Architect to the Committee: Mr. J. R. Sheridan-Shedden, A.R.I.B.A.):—

ASSISTANT CLERKS OF WORKS.
(Temporary.)

Salary: Miscellaneous Grade IV (£440—£495).

Applicants should have had a thorough technical training and experience in building construction materials.

Application forms, which may be obtained from the undersigned on receipt of a stamped addressed envelope, must be returned not later than 1st June.

E. L. RUSSELL,
Chief Education Officer.

Education Office,
Margaret Street, Birmingham, 3.

8782

CITY OF BRADFORD.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT (post No. 122) in the City Engineer and Surveyor's Office, at a salary in accordance with Grade A.P.T. V of the National Scales, *i.e.*, £595—£645.

Applicants must be A.R.I.B.A. and should have had experience in the design of houses, flats and shops and the layout of housing estates. They must have sound design ability and be experienced in the preparation of working and detail drawings.

The appointment is superannuable. Applications on the prescribed form to be obtained from the City Engineer and Surveyor, Town Hall, Bradford, together with three testimonials must be received by the undersigned not later than Monday, 1st June, 1953. No housing accommodation will be provided by the Corporation.

W. H. LEATHEM,
Town Clerk.

Town Hall, Bradford. 8814

NEW ZEALAND.

Applications are invited from suitably qualified ARCHITECTS AND ARCHITECTURAL DRAUGHTSMEN to fill vacancies in the New ZEALAND Railways. Salary will be according to qualifications and experience.

Further details and application forms may be obtained from the Official Secretary, New Zealand Government Offices, 415, Strand, London, W.C.2, quoting reference number A/B 3/36/36 together with the name of this paper.

Completed applications must be lodged at the above address not later than Friday, 5th June, 1953. 8823

BOROUGH OF POOLE.
APPOINTMENT OF ARCHITECTURAL ASSISTANT, A.P.T. II.

Applications are invited for the abovementioned appointment in the Borough Engineer and Surveyor's Department.

Applications should have passed the Intermediate Examination of the R.I.B.A. and have had general experience in an Architect's office.

Forms of application, together with further particulars may be obtained from the Borough Engineer and Surveyor, Municipal Buildings, Poole. Completed applications must be returned to the undersigned by not later than Friday, 29th May, 1953.

WILSON KENYON,
Town Clerk.

8824

COUNTY BOROUGH OF DEWSBURY.
BOROUGH ARCHITECT AND BUILDINGS SURVEYOR'S DEPARTMENT.

Applications are invited for the following temporary appointment for a minimum period of eighteen months in the above department:—

ARCHITECTURAL ASSISTANT (Education Section)—A.P.T. Grades II/III/IV—Salary £495—£600 per annum.

The successful candidate will be placed on A.P.T. Grade, II, III, or IV, the appropriate Grade being determined by his qualifications and experience.

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

Applications stating age, qualifications and full particulars of training and experience, together with copies of two recent testimonials, should be sent to me not later than Wednesday, 27th May, 1953, in envelopes endorsed "Architectural Assistant."

A. NORMAN JAMES,
Town Clerk.

Town Hall, Dewsbury.
7th May, 1953. 8816

CITY OF BRADFORD.
SENIOR TOWN PLANNING ASSISTANT.
GRADE A.P.T. VI.

Applications are invited for the appointment of Senior Town Planning Assistant (Post No. 13) in the City Engineer and Surveyor's Office, at a salary in accordance with Grade A.P.T. VI of the National Scales, *i.e.*, £670—£735 per annum.

Applicants should preferably be A.M.T.P.I., A.M.I.C.E., or A.M.I.Mun.E., and have had considerable experience in the administration of the Town and Country Planning Act, 1947, and, in particular, dealing with applications for (*a*) Planning Permission and (*b*) Display of Advertisements.

The appointment is superannuable. Applications on the prescribed form to be obtained from the City Engineer and Surveyor, Town Hall, Bradford, together with three testimonials must be received by the undersigned not later than Monday, 1st June, 1953. No housing accommodation will be provided by the Corporation.

W. H. LEATHEM,
Town Clerk.

Town Hall, Bradford. 8815

MANCHESTER CORPORATION HOUSING COMMITTEE.

Applications are invited for the positions of ASSISTANT ARCHITECTS, Grade A.P.T. V, £595—£645 p.a. (Applicants must be Registered Architects.) Particulars of age, qualifications and experience should be forwarded to the Director of Housing, Town Hall, Manchester, 2, to be received by Saturday, 30th May, 1953. Canvassing is prohibited. 8828

BRACKNELL NEW TOWN.

1. JUNIOR ARCHITECTURAL ASSISTANT—within Grade VIIIb £310—£460 p.a.

2. JUNIOR ARCHITECTURAL DRAUGHTSMAN—Salary according to age and experience within the Grade £160—£250 p.a.

3. JUNIOR QUANTITY SURVEYING ASSISTANT—Salary according to age and experience within the Grade £160—£250 p.a.

Superannuation schemes. Medical examination. Housing available in due course. Apply by 27th May, 1953, giving age, education, appointments held, if any (with dates and salaries) and two referees, to General Manager, Bracknell Development Corporation, Farley Hall, Bracknell, Berks.

The Corporation cannot guarantee that the duration of the appointment (which will be subject to the usual provisions as to notice) will exceed five years. 8825

SOUTH-WEST METROPOLITAN REGIONAL HOSPITAL BOARD.

Applications are invited for the following appointments on the Board's Architectural staff:—

(1) ASSISTANT QUANTITY SURVEYOR. Salary scale: £600×£25 (7)×£30 (3) to £865 p.a., plus London weighting allowance. Applicants must hold the Corporate Membership of the Royal Institute of Chartered Surveyors, and have good general training and experience, including estimating and analysis of prices, working up and taking off quantities.

(2) ARCHITECTURAL ASSISTANT. Salary scale: £440×£25 (1)×£20 (8) to £625 p.a., plus London weighting allowances. Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects (or an examination recognised by the Institute as equivalent), have had good architectural training and general experience, and be capable of preparing working and detailed drawings.

Commencing salary and conditions of service according to Whitley Council Agreements.

The appointments are subject to the National Health Service (Superannuation) Regulations, and to satisfactorily passing a medical examination.

Applications, stating which post is applied for, age, qualifications, present appointment and salary, experience and training, together with the names and addresses of three referees, should be forwarded to the undersigned by not later than 28th May, 1953.

E. G. BRAITHWAITE,
Secretary, South-West Metropolitan Regional Hospital Board,

11a, Portland Place, London, W.1. 8826

BRITISH ELECTRICITY AUTHORITY.
EAST MIDLANDS DIVISION.

Applications are invited for the following positions within the Division:—

CIVIL ENGINEERING DRAUGHTSMEN CONSTRUCTION DEPARTMENT, NORTH WILFORD, NOTTINGHAM. Vacancy No. 22/53.

Candidates should have experience in design and detail of re-inforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., for general building construction drainage and sanitation schemes, associated with offices and administrative buildings.

The salary will be in accordance with Grade 5 (£567—£671 per annum) or Grade 6 (£433—£567 per annum) of Schedule D of the National Joint Board Agreement.

DRAUGHTSMAN, TRANSMISSION DEPARTMENT, DIVISIONAL HEADQUARTERS, NOTTINGHAM. Vacancy No. 42/53.

Candidates should preferably have had experience in one or more of the following:—Design and construction of High Voltage substations or overhead Transmission Lines and underground cable systems. Civil Engineering, Electrical Engineering, including layouts and diagrams for H.V. transformers and switchgear.

Salary and conditions of service will be in accordance with the National Joint Board Agreement, Grade 6 of Schedule D (£433—£567 per annum) according to qualifications and experience.

ENGINEERING DRAUGHTSMEN (MECHANICAL), CONSTRUCTION DEPARTMENT, NORTH WILFORD. Vacancy No. 44/53.

Senior Draughtsmen are required in the Mechanical section of the Construction Department at North Wilford Power Station, Nottingham. Candidates should have experience in one or more of the following:—

(i) Design and layout of Power Station equipment, including Turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries.

(ii) H.P. and L.P. steam and feed pipework. Condensing Plant and feed heating systems.

(iii) Conveyor plant, coal handling systems and material handling of station auxiliary equipment.

Salary and conditions of service will be in accordance with the National Joint Board Agreement Grade 5 (£567—£671 per annum) and Grade 6 (£433—£567 per annum) of Schedule D according to experience.

The above appointments will be pensionable with the provisions of the British Electricity Authority and Area Boards Superannuation Scheme.

Applications should be submitted on the official form which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham and should be returned to the undersigned by the dates stated. Please quote Vacancy Number.

L. F. JEFFREY,
Divisional Controller.

8813

CITY OF CARDIFF EDUCATION COMMITTEE.
COLLEGE OF TECHNOLOGY AND COMMERCE.

Principal: DR. A. HARVEY.

Welsh School of Architecture:

Applications are invited for the post of ASSISTANT LECTURER AND STUDIO INSTRUCTOR in this Department of the College. Candidates should have been trained in a recognised School of Architecture and be Associates of the R.I.B.A.; some professional experience is desirable.

The salary will be in accordance with that for Assistants, Grade B (£490×£25—£765), plus allowances for degree (or degree equivalent) and training, the minimum starting salary being thus £604 per annum.

Forms of application, together with further particulars, are obtainable from the undersigned on receipt of a stamped addressed foolscap envelope, and should be returned as soon as possible.

ROBERT E. PRESSWOOD,
Director of Education.

City Hall, Cardiff.
May, 1953. 8834

CITY AND COUNTY OF BRISTOL.
CITY ARCHITECT'S DEPARTMENT.

Applications invited for the Permanent Staff Appointment Grade VI (£670—£735 per annum): SENIOR ASSISTANT ARCHITECT.

Applicants must be Associate Members of the R.I.B.A. or hold equivalent qualifications and have had considerable experience in design, construction and contract administration preferably with a large local authority. Experience in Education and/or General architectural work will be an advantage.

Appointment superannuable subject to satisfactory medical examination and to one month's notice in writing on either side.

Housing accommodation provided, if necessary, at an economic rent.

Applications, stating age, training, qualifications, experience, present appointment and salary, with names of two referees (including present employer) by Wednesday, 3rd June, to

J. NELSON MEREDITH, F.R.I.B.A.,
City Architect.

The Council House,
College Green, Bristol, 1.
14th May, 1953. 8842

CITY OF STOKE-ON-TRENT.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited from suitably qualified persons for the following appointments:—

(*a*) ASSISTANT ARCHITECT. Salary: A.P.T. Div., Grade VII (£710-£785).

(*b*) ASSISTANT ARCHITECTS. Salary: A.P.T. Div., Grade V (£596-£645).

(*c*) ARCHITECTURAL ASSISTANT. Salary: Misc. Div. 1H (£375-£440).

(*d*) ASSISTANT QUANTITY SURVEYOR. Salary: A.P.T. Div., Grade VIII (£760-£835).

(*e*) ASSISTANT QUANTITY SURVEYOR. Salary: A.P.T. Div., Grade VII (£710-£785).

(*f*) ASSISTANT QUANTITY SURVEYOR. Salary: A.P.T. Div., Grade III (£525-£570).

Note.—Suitable housing accommodation may be made available to successful candidates for the senior appointments.

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

Applications, giving date of birth, particulars of training, experience, etc., with copies of two recent testimonials, should be received by J. R. Piggott, F.R.I.B.A., City Architect, Kingsway, Stoke-on-Trent, Staffs., endorsed with the title of the appointment applied for, not later than Saturday, 30th May, 1953.

HARRY TAYLOR,
Town Clerk.

Town Hall, Stoke-on-Trent.
5th May, 1953. 8827

CRANBROOK RURAL DISTRICT COUNCIL.
HOUSING ARCHITECT.

Applications are invited for a whole-time Architect to the Council in connection with the Council's new Housing Schemes. The term of the appointment will, subject to satisfactory service, be for five years or such longer period as may later be arranged with the Officer.

Applicants must be Associates of the R.I.B.A., and any other qualifications will be an additional recommendation. Previous experience of supervising and superintending the erection of houses under Contract is essential.

Duties of the appointment are:—

(*a*) To prepare layouts for site development; plans and types of houses, specifications, and bills of quantities.

(*b*) To supervise the carrying out of the work under Contract for site development and the erection of the houses, and generally to perform the duties of Architect, under the Contracts.

(*c*) To deal with the final accounts arising under the Contracts in conjunction with the Chief Financial Officer.

The Officer will not be allowed to engage in private practice as an Architect or to undertake private work.

The salary will be at a rate of £810 per annum, rising by five annual increments of £30 per annum to £960. A travelling allowance for the use of the Officer's car on official business will be arranged. The appointment will be determinable by three months' notice on either side.

Housing accommodation will be offered the successful applicant.

Applications, on the form obtainable from the undersigned, and giving the names of three referees, must be received by me, marked "Architect: Application," not later than Thursday, 4th June, 1953.

Canvassing in any form will disqualify.

By Order.

P. G. BANFIELD,
Clerk to the Council.

Council Offices, Offices, Cranbrook.
9th May, 1953. 8817

BOROUGH OF WALLSEND.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, A.P.T., Grade IV (£555-£600), in the Borough Surveyor's Department.

Candidates should have the Intermediate Examination R.I.B.A. or equivalent, and have experience in housing and other architectural work.

The appointment will be subject to the terms of the National Joint Council's Conditions of Service and to the Local Government Superannuation Act of 1937. Canvassing will be deemed a disqualification, and applicants must disclose whether they are related to any member or senior officer of the Council.

Applications, in envelopes suitably endorsed, stating age, qualifications and experience, together with copies of not more than three testimonials, to be received by the undersigned not later than Saturday, 30th May, 1953.

CHAS. E. BRADBURY,
Town Clerk.

Wallsend. 8835

BUCKS COUNTY COUNCIL.
APPOINTMENT OF COUNTY ARCHITECT.

Applications are invited from Fellows or Associate Members of the Royal Institute of British Architects for the appointment of County Architect, at a salary of £2,250 per annum, rising by two annual increments of £100 and one of £50 to £2,500 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 20th June, 1953.

GUY R. CROUCH.
Clerk of the Bucks County Council.

County Hall, Aylesbury.
May, 1953. 8845

NEW SOUTH WALES UNIVERSITY OF TECHNOLOGY, SYDNEY, AUSTRALIA.

Applications are invited for appointment to the following position:—

ASSOCIATE PROFESSOR, SCHOOL OF ARCHITECTURE AND BUILDING.

Salary: £1,747 (Australian) per annum. Applicants should possess a Degree or Diploma in Arcnitecture from a recognised school and be an Associate or Fellow of the Royal Institute of British Architects or the Royal Australian Institute of Architects; should have good professional experience and have specialised in some aspect of architectural studies or practice. Lecturing or teaching experience will be an advantage. Successful applicant will be responsible under the Professor for the undergraduate degree and diploma courses in Architecture and Building.

Applicants should give full details of academic, professional or industrial experience. Six copies of applications (together with six copies of testimonials and other supporting documents), should reach the Agent-General for New South Wales, 56/57, Strand, London, W.C.2, by 1st July, 1953. Appointees will be eligible, subject to medical examination, to contribute to the New South Wales Superannuation Fund, which will provide an annual pension of up to £1,014 (Australian). Their first-class shipping fares to Sydney will be allowed. Further particulars may be obtained from the Agent-General for New South Wales at the above address. 8836

LANARK COUNTY COUNCIL require ARCHITECTURAL ASSISTANTS for the County Property Department at Motherwell on the following salary grades:

A.P.T. Grade VII (£715—£790).

A.P.T. Grade V1 (£630—£690).

Must be Associates R.I.B.A. and have thorough knowledge of architectural work with practical experience in design and preparation of working drawings.

A.P.T. Grade V (£600—£650).

Must have passed Intermediate Examination of R.I.B.A. and have attained a corresponding experience in general architectural work.

Posts superannuable. Medical examination. No canvassing.

Applications, stating age, qualifications, experience, together with names and addresses of three referees, should be sent to the County Architect, 34, Albert Street, Motherwell, Lanarkshire, not later than 13th June, 1953. 8843

CITY OF CARLISLE.
APPOINTMENT OF PRINCIPAL ASSISTANT ARCHITECT (SCHOOLS).

Applications are invited for the above post. Salary A.P.T. Grade VII (£710 by £25 to £785). Housing accommodation available.

Forms of application from the City Surveyor, 18 Fisher Street, to whom applications are returnable by 30th May.

H. D. A. ROBERTSON,
Town Clerk.

8844

NATIONAL COAL BOARD—WEST MIDLANDS DIVISION.

Applications are invited for an ARCHITECT, Grade II, £600 by £25 to £650 by £30 to £900 male, and £575 by £20 to £775 female, in the Divisional Architect's Department of the Board. Headquarters for this appointment will be at Fenton, Stoke-on-Trent.

Applicants must have passed the Final Examination of the Royal Institute of British Architects and have had at least one year's subsequent practical experience and should be able to prepare sketch plans, working drawings and specifications.

The post will be eligible for the Board's Superannuation Scheme.

Applications giving age, education, qualifications and experience with dates in chronological order should be made by the 30th May, 1953, to the Divisional Establishment Officer, National Coal Board, West Midlands Division, Himley Hall, Dudley, Worcs. 8846

CITY OF LEEDS EDUCATION COMMITTEE.
LEEDS COLLEGE OF ART.
Principal: E. E. Pullee, A.R.C.A., F.S.A.E.
THE SCHOOL OF ARCHITECTURE AND TOWN PLANNING.
Head: F. Chippindale, F.R.I.B.A.
DEPARTMENT OF TOWN PLANNING.
Senior Lecturer in Charge: W. K. Smigielski, Ing. Arch., A.M.T.P.I.
LECTURER AND STUDIO INSTRUCTOR IN TOWN PLANNING.

Applications are invited for the above post, duties to begin on the 1st September, 1953.

Candidates should hold a recognised Degree or Diploma in Architecture, together with a recognised Diploma in Town Planning or Civic Design, and should have experience both in design and teaching. Associate Membership of the Town Planning Institute would be an added advantage.

Salary: Burnham Technical Scale for Lecturers, £940 by £25 to £1,040.

Application Forms and further particulars (stamped addressed envelope) from the Chief Education Officer, Education Offices, Leeds, 1, to be returned within 14 days of this notice. 8812

LIVERPOOL REGIONAL HOSPITAL BOARD.

Applications invited for appointments in department of Regional Architect, T. N. Mitchell, B.Arch., A.R.I.B.A., 88, Church Street, Liverpool,1.

(*a*) ASSISTANT ARCHITECT: £600 by £25(7) by £30(3) to £865 per annum. Applicants must hold A.R.I.B.A., have preferably had experience in design and construction of hospital buildings, and be capable of supervising building contracts.

(*b*) ARCHITECTURAL ASSISTANT: £440 by £25(1) by £20(8) to £625 per annum. Applicants must have Inter. R.I.B.A., good general experience and ability in design and construction.

(*c*) SURVEYING ASSISTANT: £440 by £25(1) by £20(8) to £625 per annum. Applicants must have Inter. R.I.C.S. (Quants. Sub. Div.), experience in working up, abstracting and billing, measuring and adjusting variations, settling contractors' final accounts and some experience in taking off.

In each case advanced increments could be granted by the Board for experience.

Each appointment will be subject to the National Health Service (Superannuation) Regulations, 1950.

Applications, indicating post applied for, and stating age, education, qualifications, experience, present and previous appointments and salary, and names and addresses of three referees (two technical) to the undersigned not later than 10 a.m., 5th June, 1953.

VINCENT COLLINGE.
Secretary to the Board.

19, James Street, Liverpool, 2. 8860

PADDINGTON B.C. require ARCHITECTURAL ASSISTANT (A.P.T. III—£555 to £630 p.a.—£10 per annum less if under age of 26). Inter R.I.B.A. essential. Candidates must be used to preparing working and detail drawings and be good draughtsmen. They must also have been engaged on, and interested in, the best contemporary architecture. Applications, stating age, qualifications, present and past appointments and names and addresses of three referees to the Town Clerk (A.115), Town Hall, Paddington, W.2, by 6th June, 1953. 8841

Architectural Appointments Vacant

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

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

ARCHITECTURAL ASSISTANTS required immediately. Beyond Intermediate standard. Must be quick, accurate draughtsmen. Only applicants who can start immediately need apply. Details of experience and salary required to W. S. Hattrell & Partners, F./A.R.I.B.A., 1, Queens Road, Coventry. 8802

EXPERIENCED ARCHITECTURAL ASSISTANT required in London office. General Practice. Must be good draughtsman, with sound knowledge of construction and at least 3-5 years' practical office experience. Apply to Secretary, Gale, Heath & Co., 15, New Bridge Street, E.C.4. Tel. Central 1651. 8801

ARCHITECT'S Department of large commercial organization requires ASSISTANTS. Sound all-round training in the profession essential, including supervision of work. Excellent opportunities for men of initiative. Apply in writing, giving details of experience, age and salary required, to Box 3582/1, Foster Turner & Everetts, Ltd., 11, Old Jewry, E.C.2. 8800

ARCHITECTURAL ASSISTANT, Intermediate standard, required for office in Cotswold area. Application, stating age, experience, and salary required, to Eric Cole & Partners, FF.R.I.B.A., Dyer Street House, Cirencester, Glos. 8767

ARCHITECTURAL DRAUGHTSMAN for Precast Concrete design required by large firm of Manufacturers in Wolverhampton district. Apply, stating age, experience, and salary required, to Box 8766.

ARCHITECTURAL DRAUGHTSMAN wanted Maidenhead; permanent position; good salary and prospects. Full particulars training, experience, age, salary, to Box 8668.

SCHERRER & HICKS, of 19, Cavendish Square, London, W.1, require JUNIOR ASSISTANTS of first and second year evening school standard, and also of pre-Intermediate standard. Write, stating age, experience, and salary required. 8829

PERMANENT Male ARCHITECTURAL ASSISTANT, not below Intermediate standard, required by private Architects in London with varied practice. Reply with particulars and salary required, to Box 8830.

ONE ASSISTANT required. Intermediate standard. General practice and interesting work. Some office experience essential. Salary according to experience, qualifications and ability, especially ability. William Crabtree, F.R.I.B.A., 8, Robert Adam Street, W.1. Tel. WEL. 8918. 8831

AN ARCHITECT, preferably experienced in prefabrication, is required immediately in a West End office to take charge of a section dealing with the application of standard structures to clients' requirements. Please reply to Box 8849.

ARCHITECTURAL ASSISTANT, intermediate standard, required by Building Contractors. Knowledge of construction and detailing. Neat and accurate draughtsman. State age, experience. Box 8848.

JUNIOR ARCHITECTURAL ASSISTANT required with office experience for busy country office. Finished or exempt Military Service., Lenton & Partners, F./A.R.I.B.A. Stamford, Lincs. 8839

JUNIOR ASSISTANT required. Reliable and with previous office experience. Salary according to experience. Apply Box 8857.

REQUIRED,—All-round General Practice ARCHITECTURAL ASSISTANT, on salary with partnership basis. Manchester area. State salary required and full particulars to Box 8820.

RALPH TUBBS, 35, Welbeck Street, W.1, requires Architectural Assistant with both imagination and experience. Please apply by letter with brief particulars. 8847

WANTED IMMEDIATELY: Architectural Draughtsman (National Service completed). Able to prepare eighth scale Working Drawings from Sketches, Measure up and Plot Down. Good salary to suitable applicant. Apply W. E. Norman Webster & Son, F/L.R.I.B.A., 1a & 2a, Station Street, Spalding, Lincs. 8859

NORMAN & DAWBARN urgently require one Architectural Assistant within the salary range £650—£750. Applications in writing giving particulars of age, experience and technical training to 5, Gower Street, W.C.1. 8850

ARCHITECTURAL ASSISTANTS wanted. Grade A.P.T., II (£495×£15—£540). Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects. Forms of application from G. R. Barnsley, A.R.I.B.A., County Architect, Shire Hall, Warwick. 8851

REQUIRED immediately, in contemporary London office, Qualified ARCHITECTURAL ASSISTANT; to be in charge of school project. Several years' office experience essential, preferably on schools. Salary by arrangement. Apply Box 8854.

ARCHITECTURAL ASSISTANT (age 23-27), at least three years' drawing office experience, preferably in connection with industrial and commercial buildings, required by City firm of Building Surveyors. Salary: £400-£600. Apply Box 8853.

ASSISTANT ARCHITECTS required for West Country Industrial Organisation. Applicants should have good experience in design and working drawings and be able to accept responsibility. Membership of the R.I.B.A. desired. Salary according to age and experience. Apply Box £861.

ARCHITECT'S ASSISTANT required. Office, South Coast. Experienced preparation of working drawings, details and surveys. Reply giving age and salary required to Box 8858.

ARCHITECT'S ASSISTANT required for Norfolk office. Intermediate standard, able to drive car. Details, including salary required, to Box 8856.

REQUIRED by a private office in the Westminster area an ASSISTANT of Intermediate standard. Capable and quick draughtsmanship is an essential qualification. Please reply, stating age and experience, to Box 8855.

JUNIOR ASSISTANT required. Intermediate standard. At least two years' office experience. Salary: £350-£400. Write G. H. N. Innman and H. A. J. Darlow, F./A.R.I.B.A., The Charterhouse, E.C.1. 8840

Other Appointments Vacant

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

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

PART-TIME SHORTHAND-TYPIST required in small Architect's office, W.1 area; mornings preferred. Telephone Gerrard 8442. 8821

H. NEWSUM, SONS & CO., LTD., Lincoln, in process of developing new structural project, require young man, 24-30 years, with minimum 3 years' experience drawing office and preparation of estimates. Salary according to experience. Staff pension scheme. Apply, in writing, to the Secretary at above address. 8792

DRAUGHTSMAN required for general practice. About Intermediate standard. Flat available for right man. Reply, stating wages, experience, etc. Parker & Parker, Architects, Wisbech. 8852

Architectural Appointments Wanted

SENIOR ARCHITECT, A.A., sound constructor, designer and draughtsman, seeks post at moderate salary. Work commenceable immediately. Box 697.

STUDENT, R.I.B.A. (30), married, taking Final in June, requires post offering experience. Southern England. Box 698.

ARCHITECTURAL ASSISTANT (32), with wide varied experience, requires post with responsibility and prospects. London area or Southern England. Handled contracts from design to completion. Box 695.

ARCHITECTURAL ASSISTANT, Dip.Arch. (28), experience of design, working drawings, seeks part-time employment. Box 8833.

STUDENT R.I.B.A. (22), taking Finals (Dip.Arch., Birm.), June, requires position for approximately 12 months until call up for National Service. Box 696.

QUALIFIED SENIOR ARCHITECT (44) seeks responsible appointment, preferably in London. Wide domestic general and hospital experience, including overseas. Box 694.

Services Offered

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

SURVEYING and Levelling of Building Sites and Measured Drawings undertaken by experienced Surveyor at moderate charges Box 6583

QUALIFIED INTERIOR DESIGNER (Female), 24, two years' varied experience, seeks position in Architect's or Designer's office. 'Phone PRI. 4332 or write Box 8832.

SURVEYING and Levelling of Sites, Bills of Quantities, Variation Accounts, Survey of Buildings and Reports. Qualified Surveyor. LIV. 1839. Box 8822.

For Sale or Wanted

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

PRE-FAB HOUSES, 3 Apartments, Kitchen, Bathroom. Ready for immediate erection. £300 including Fittings and Built-in Furniture. D'Arcy, Gospel Oak, London, N.W.5. Tel.: GULliver 3644. 8838

FOR SALE, large number of secondhand 5/3½ "Winget" Portable Petrol Driven Concrete Mixers, on four steel road-wheels. Only worked on one contract. Thos. W. Ward, Ltd., Albion Works, Sheffield. 8837

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

POSSESS YOUR OWN TYPEWRITER!—Royal, Remington, Underwood, Imperial, etc. Standard and portable, full guarantee. Easy h.p. or cash from £10. Metyclean, 13, Monmouth Street, Shaftesbury Avenue, W.C.2. TEM. 6332/3. 8723

ABOUT 13,500 super feet of Squared Dressed Hard Sandstone at Crowborough, Sussex (40 miles London, and 24 miles South Coast). Immediate offers are invited for this very fine hard sandstone in an old mill. Full particulars from the Owner's Agents, Messrs. Charles J. Parris amalgamated with Messrs. St. John Smith & Son, The Broadway, Crowborough. (Tel: 7 & 593), and at Tunbridge Wells & Uckfield. 8818

FOR SALE. Quick Setting Precision Level, Ball Joint Model (as new). Makers: E. R. Watts & Son. In solid leather Overcase, sling strap, with Solid Round Form Stand; Levelling Stave two slides, and six Ranging Poles. All for the sum of £60. Box 8819.

Miscellaneous

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

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2051.

PICTURE FRAMING.—Drawings, Maps, Photographs, etc., framed at short notice. Over 200 mouldings in stock. Samples and prices on request. Blackman, Harvey, Ltd., 11, Bateman's Buildings, Soho Square, London, W.1. GER. 3463. 8416

Educational Announcements

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

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

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