

# THE ARCHITECTS' JOURNAL



★ 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 Ig one week, Ih to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley", Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 1, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ARCUK	Architects' Registration Council. 78, Wimpole Street, W.1.	Welbeck 2915
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portland Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards' Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 4040
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 32, Millbank, S.W.1.	Tate Gallery 8134
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 65491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Belgravia 6661
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611 Ext. 1284
CDA	Copper Development Association. 55, South Audley Street, W.1.	Grosvenor 8811
CIAM	Congrès Internationaux d'Architecture Moderne. Dolderal, 7, Zurich, Switzerland	
COID	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organization, Ltd. (Fidor), 47, Princes Gate, Kensington, S.W.7.	Kensington 4577
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd., Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4341
GPDA	Gypsum Plasterboard Development Association, 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 2, Chester Street, S.W.1.	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1.	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266

## Standard contents

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

## NEWS and COMMENT

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Working Details

Questions and Answers

Prices

The Industry

## CURRENT BUILDING

Major Buildings described:

Details of Planning, Construction,

Finishes and Costs

Buildings in the News

Building Costs Analysed

Architectural Appointments  
Wanted and Vacant

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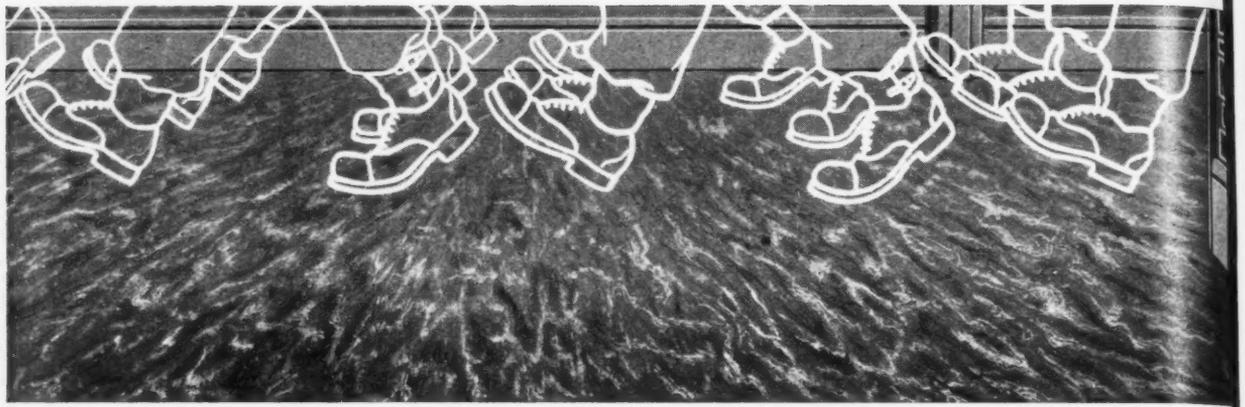
[Vol. 126

THE ARCHITECTURAL PRESS

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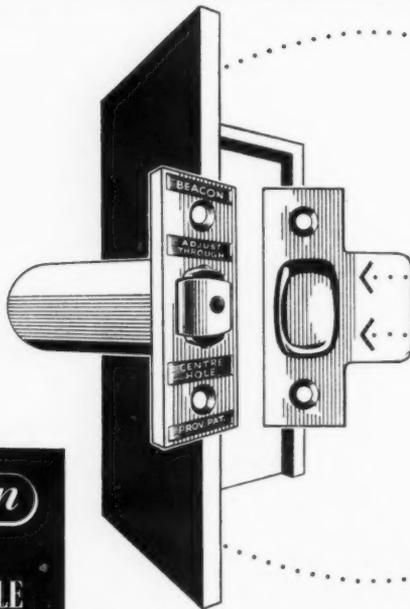
91, BISHOPSGATE, LONDON, E.C.2

Phone London Wall 3564

Bristol Office : 39, Broad Street, Bristol 1

Manchester Office : 472, Royal Exchange Buildings, Manchester.

This catch

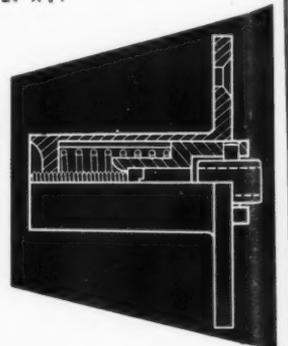


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# VENTILATION AND FIRE PROTECTION!



## with the COLT DUAL PURPOSE FIRE VENTILATOR

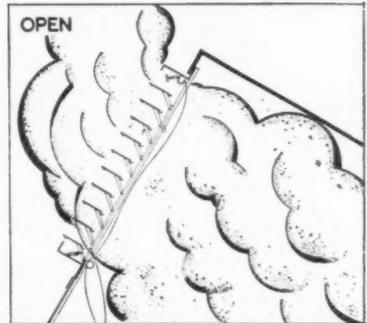
at AG-Delco, Division of General Motors Ltd., Southampton.

A study of industrial fires in Great Britain and in America has shown that the primary cause for the spread of fire is the super-heated air, smoke and explosive gases trapped under the roof. They build up in heat and intensity from the fire below and cause flash fires. Furthermore, the smoke rapidly extends downwards, entirely filling the premises and preventing the work of the fire fighters.

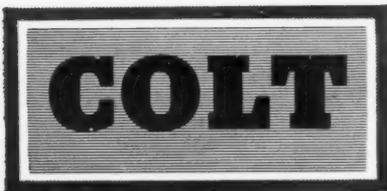
Colt have successfully solved this problem with the design of the Dual Purpose Fire Ventilator which provides ventilation during normal conditions and—in the event of fire—functions as a heat and smoke exhaust.

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The insets illustrate the action of the ventilator as a Heat and Smoke Exhaust. In the event of fire, the fusible link fuses, providing Automatic Escape for Super-Heated Air and Smoke.



## VENTILATION



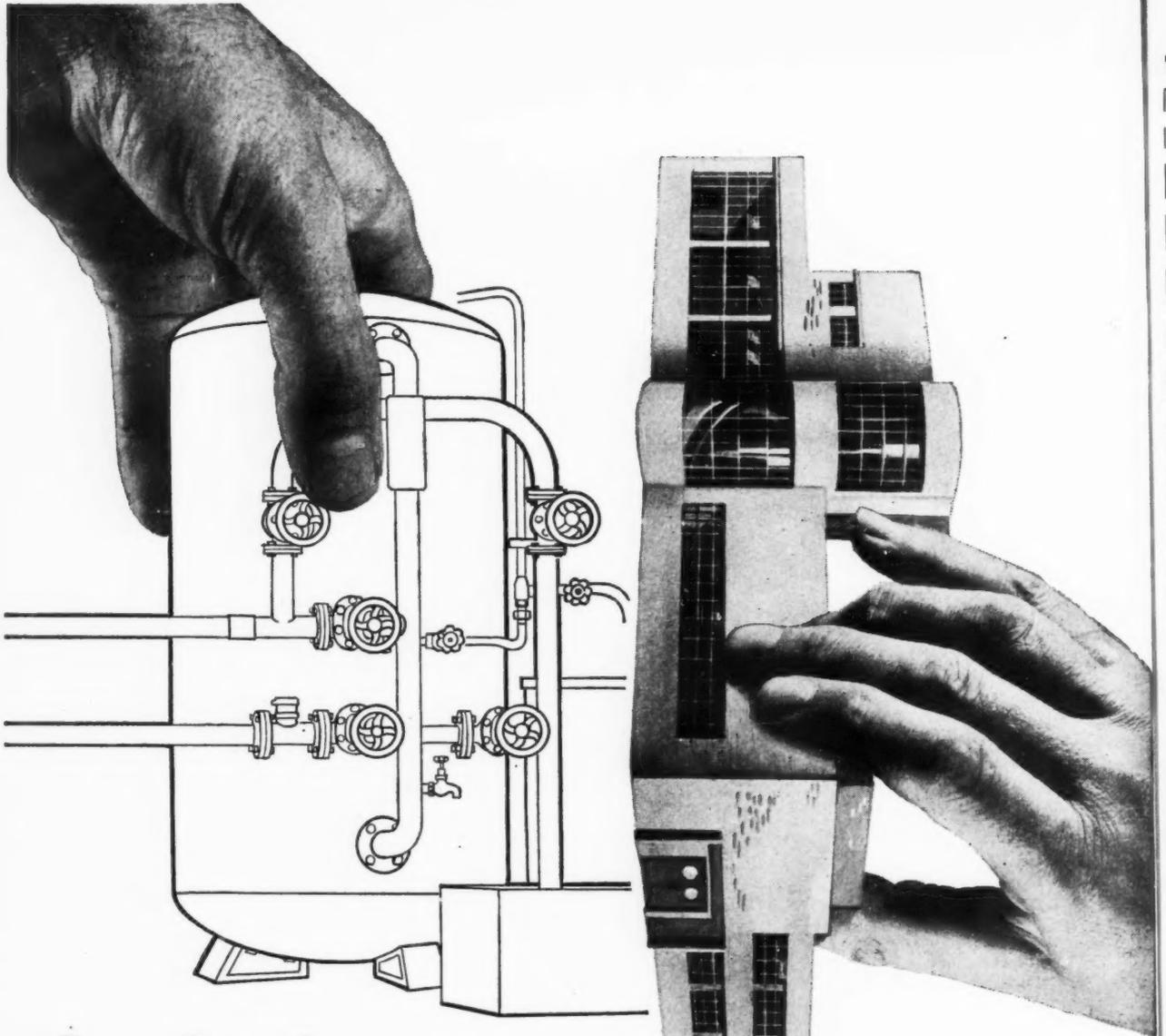
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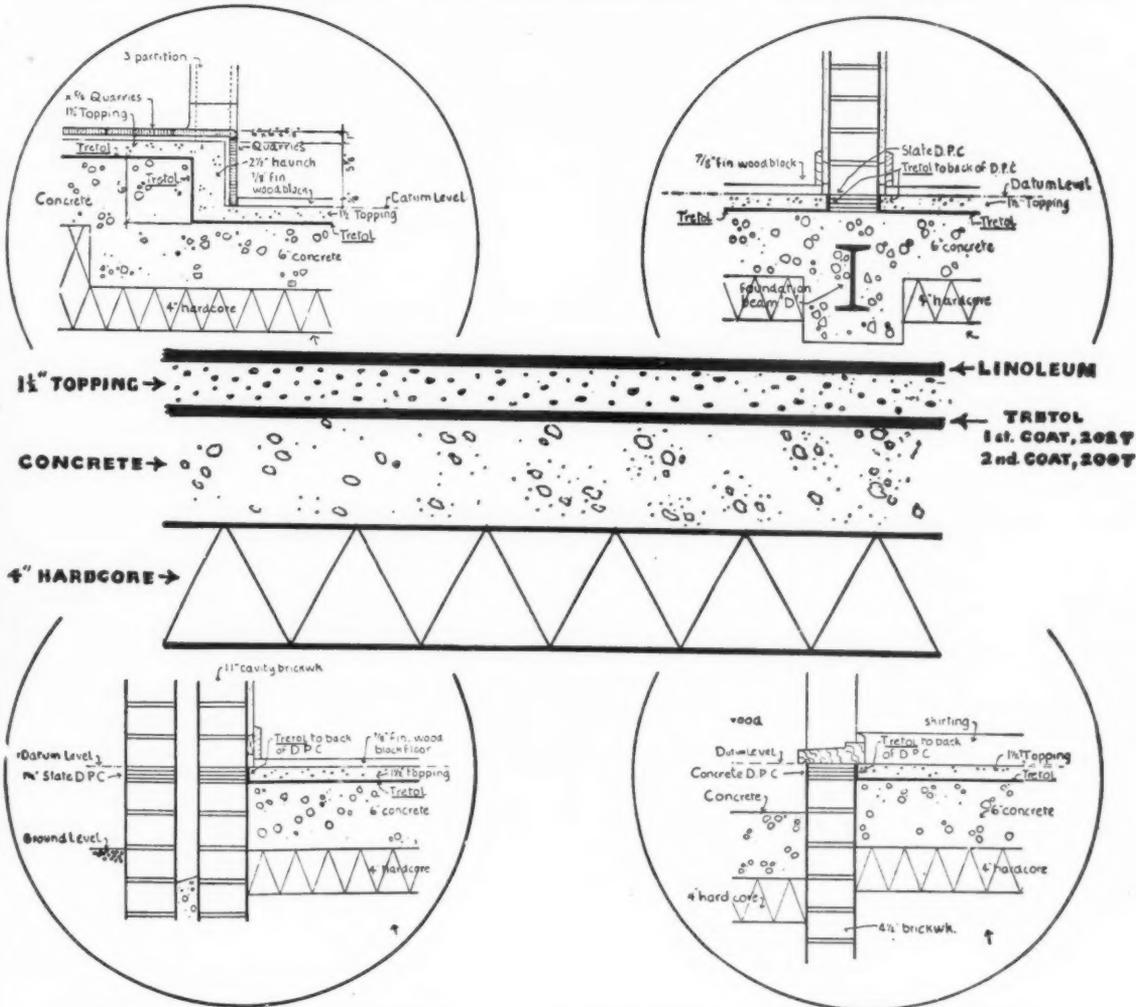
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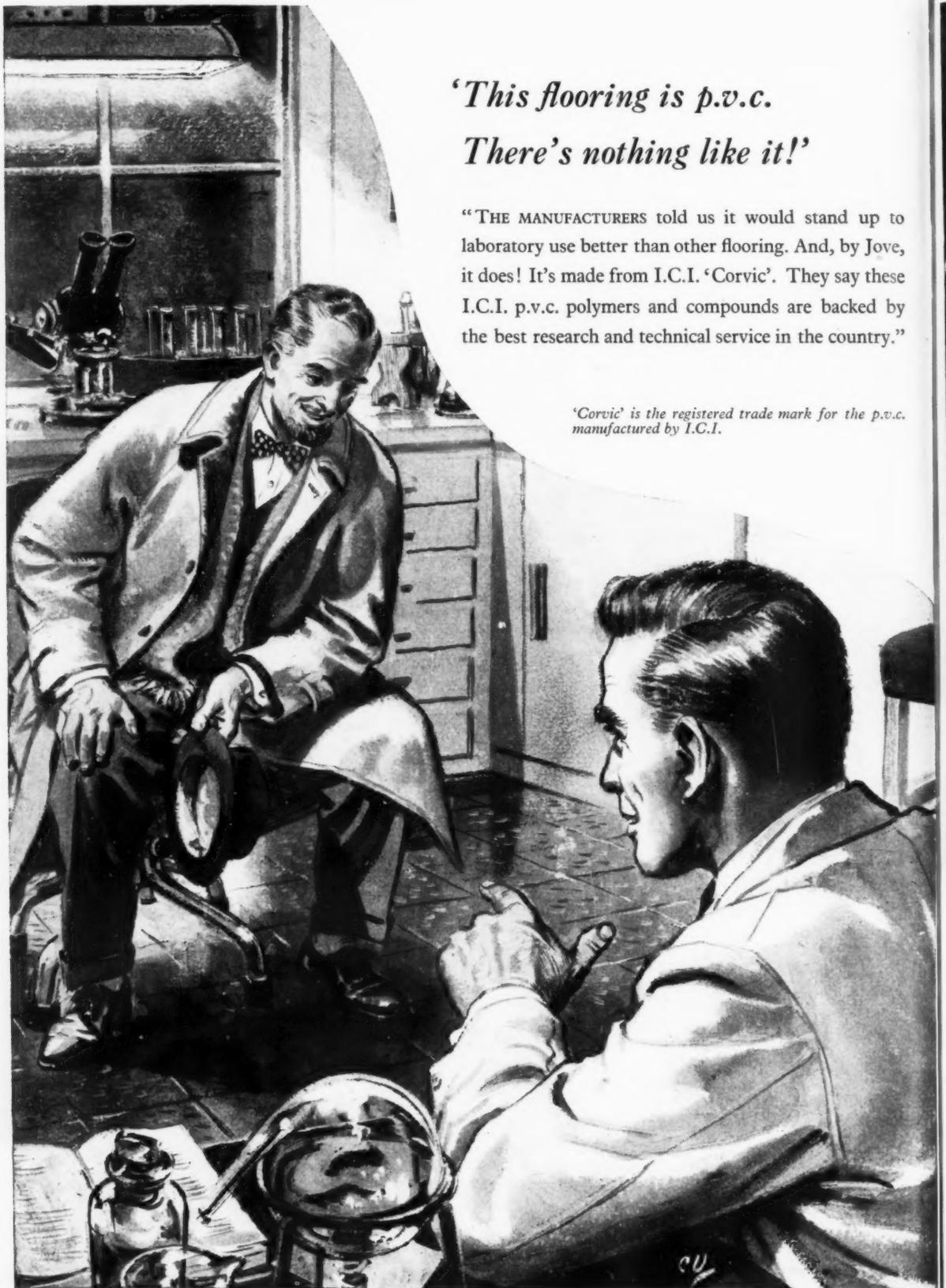
Not always appreciated, but perhaps of major importance, is the fact that **dry floors are warm floors**. Keep dampness well away from the final screed, and a valuable contribution is immediately made to better thermal insulation in domestic dwellings.

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PC. 4



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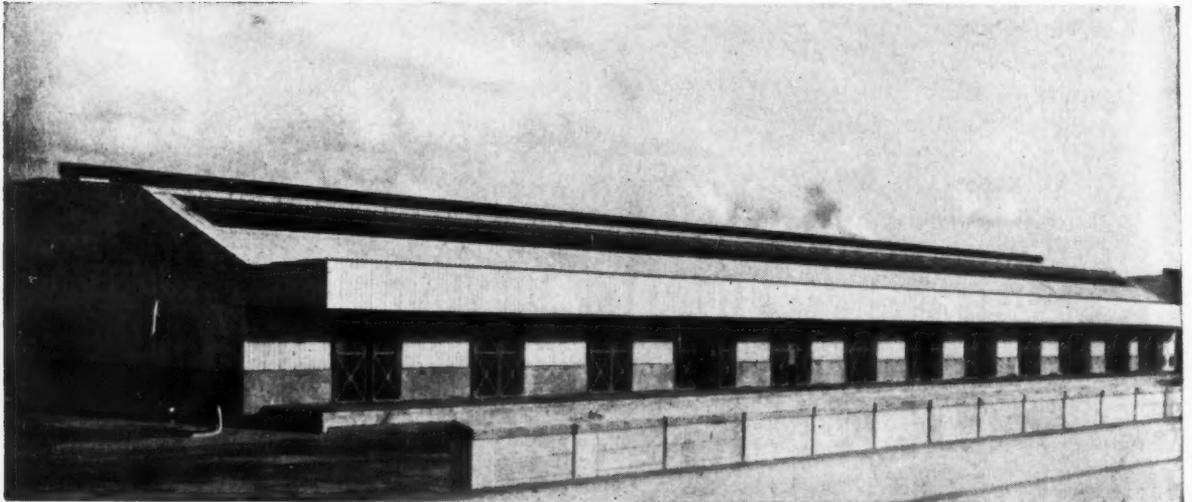
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G33

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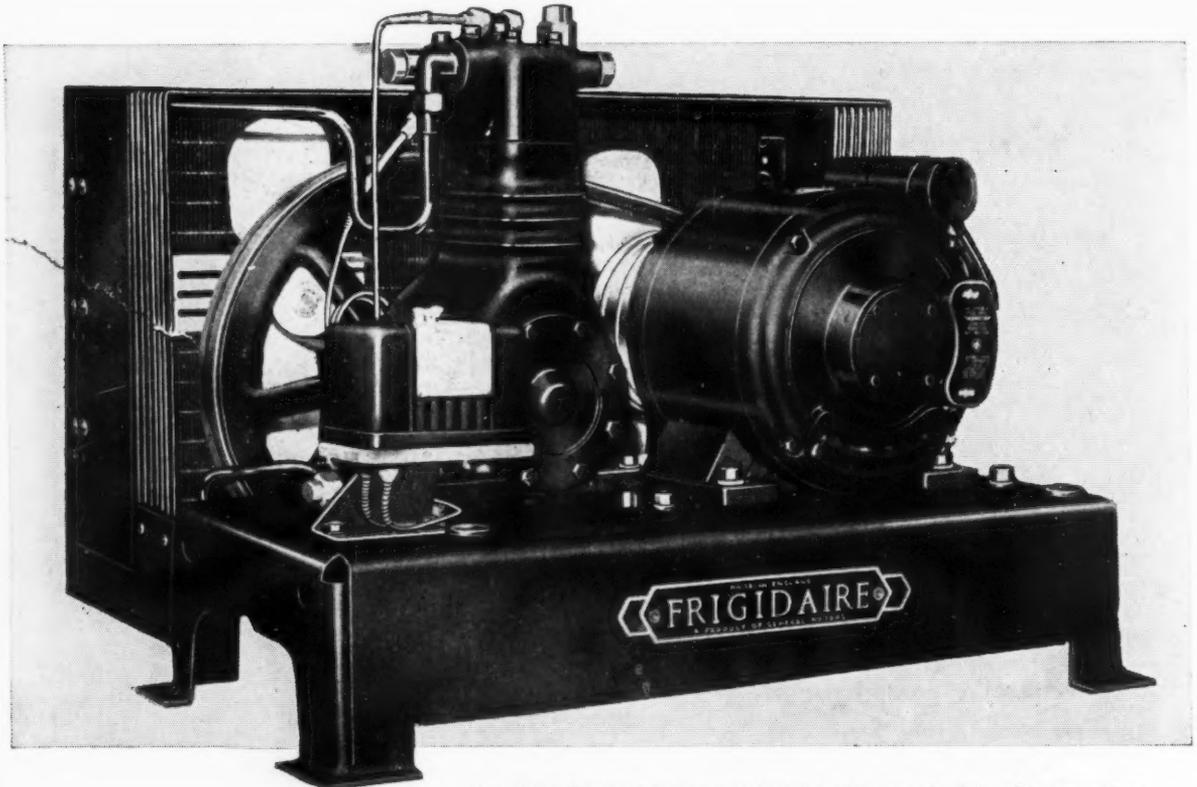
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S.83

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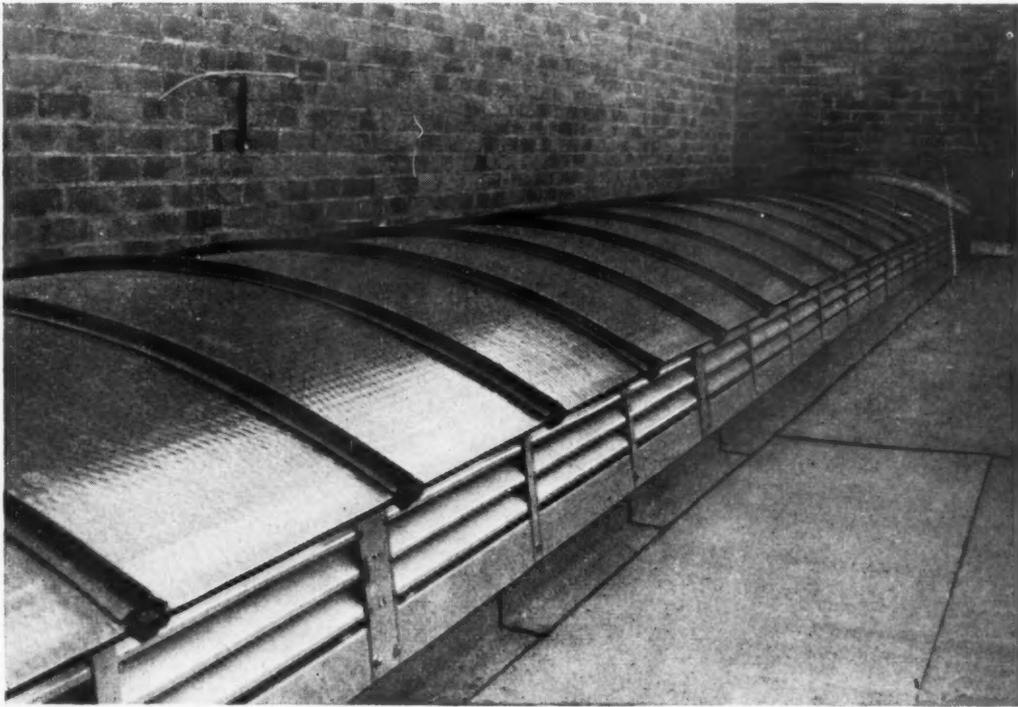
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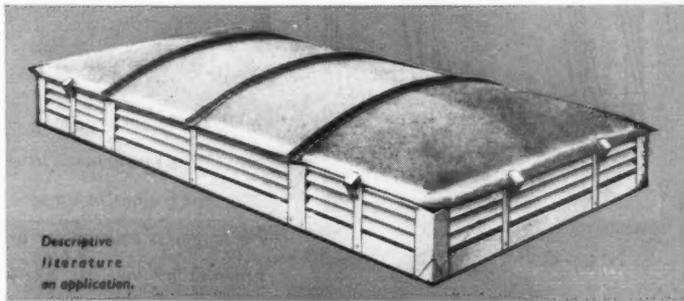


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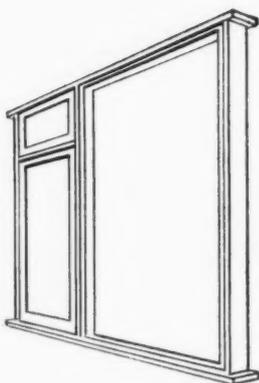
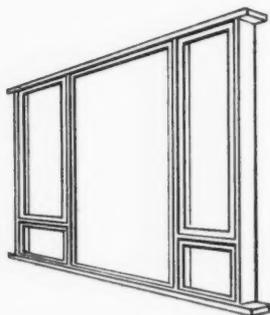
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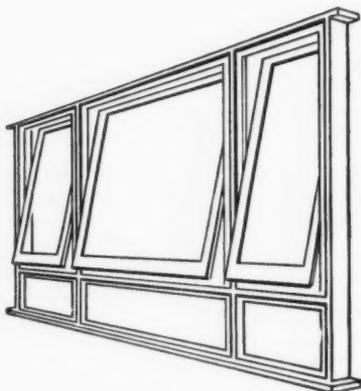


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*See* how well it warms...

**TEMPERATURE CHART OF A TYPICAL THERMODARE INSTALLATION**

FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
[A line graph on a grid showing two temperature curves over a week. The top curve is relatively flat, representing indoor stability. The bottom curve shows significant daily fluctuations, representing outdoor variations.]						

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The top line on the chart shows the degree of temperature stability achieved indoors with Thermodare heating, compared with the variations outdoors (lower line).

# THERMODARE

## *off peak* storage heating

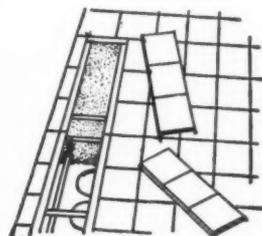
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We marketed the first night storage heater in this country, and are leaders in this rapidly-growing field. Ask for full particulars—the Thermodare Technical Service will gladly help you.



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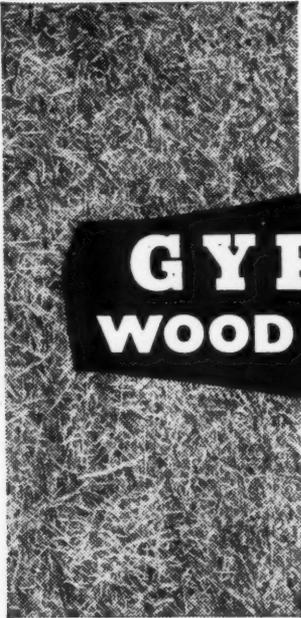


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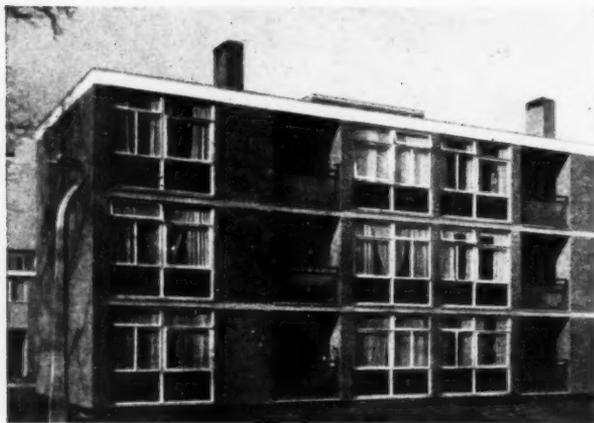
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Timber clad wall panels in maisonettes at St. Peter's House, Jacob Wells Road, Bristol. City Architect : J. Nelson Meredith, F.R.I.B.A.



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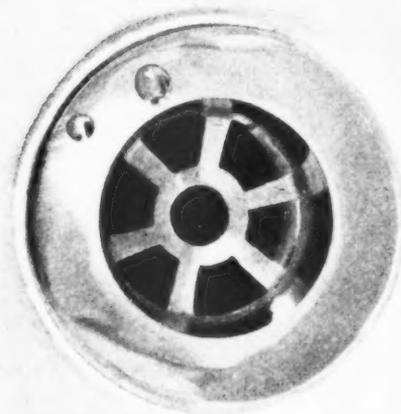
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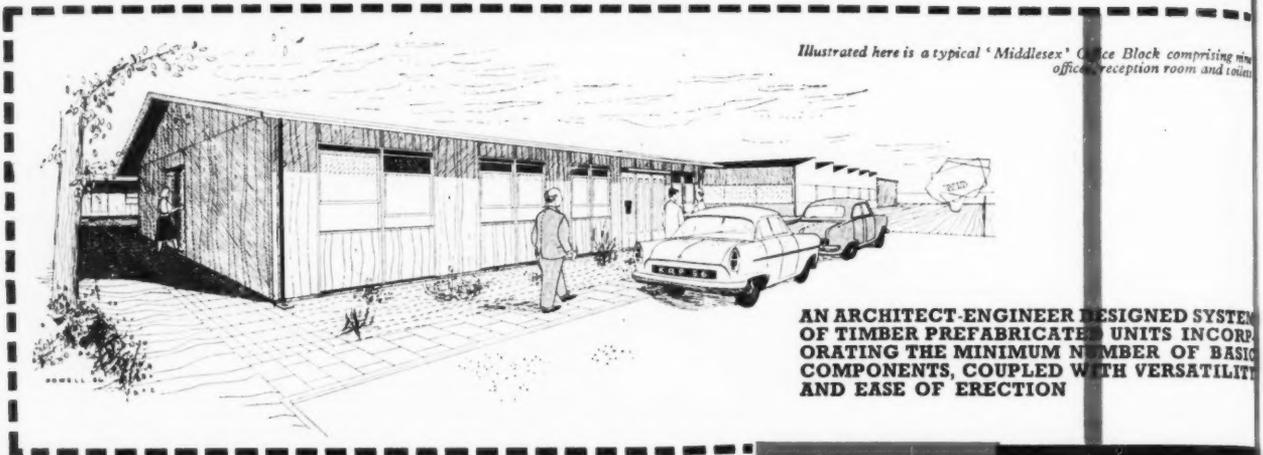
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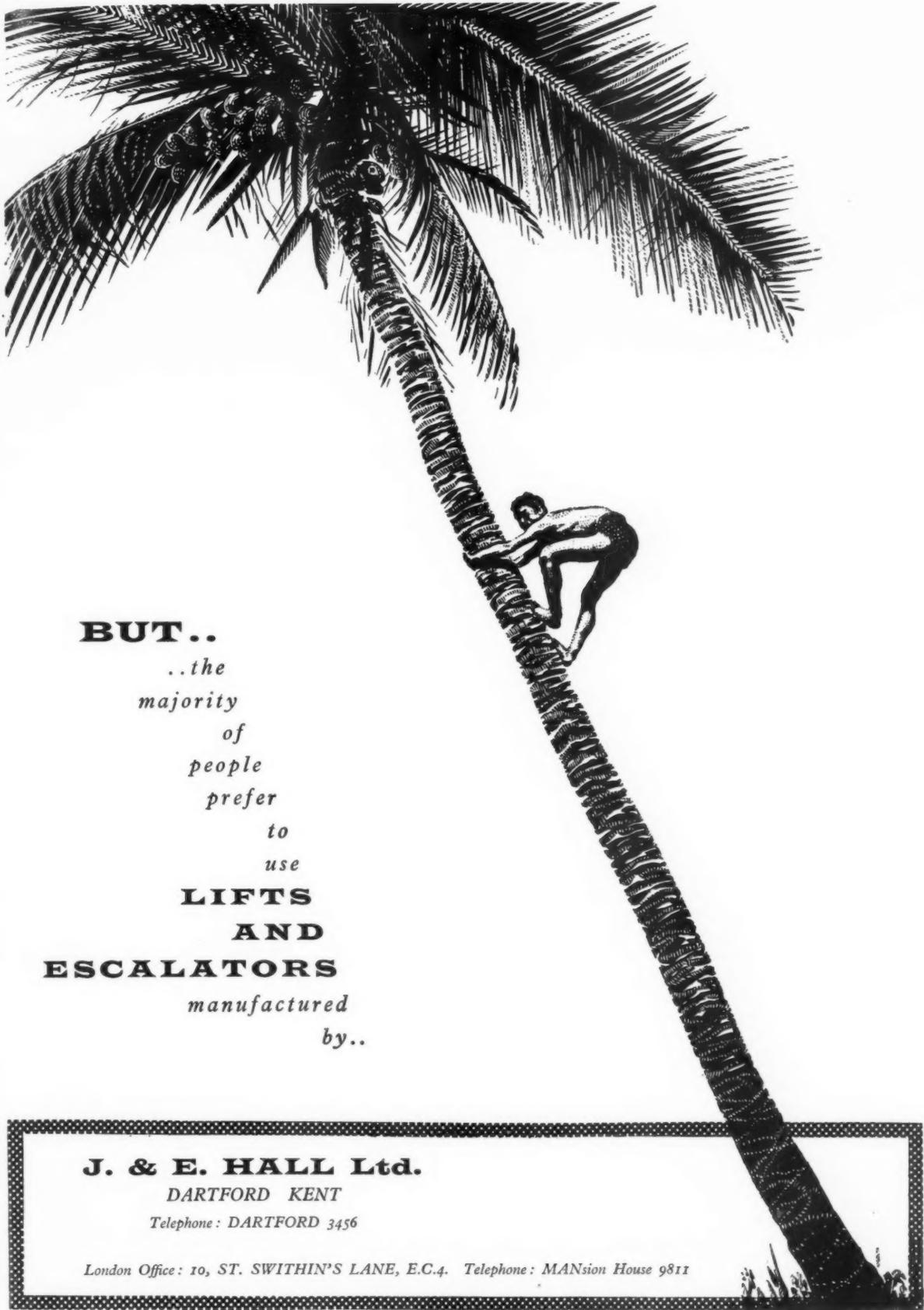
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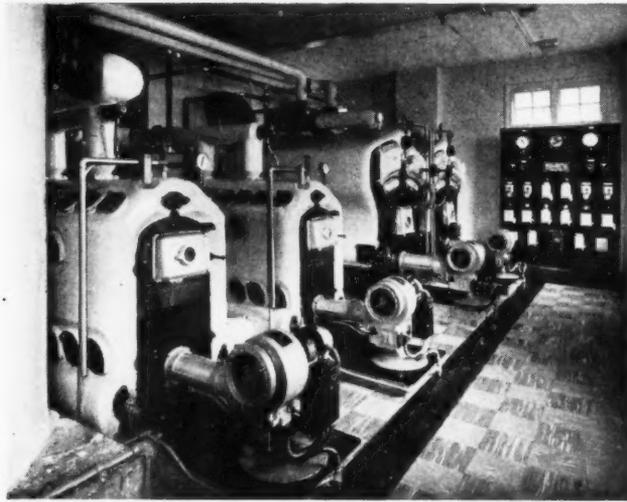
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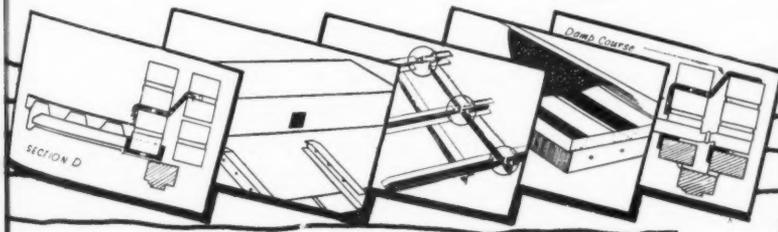
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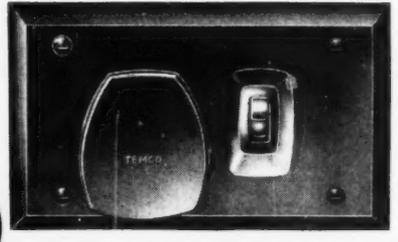
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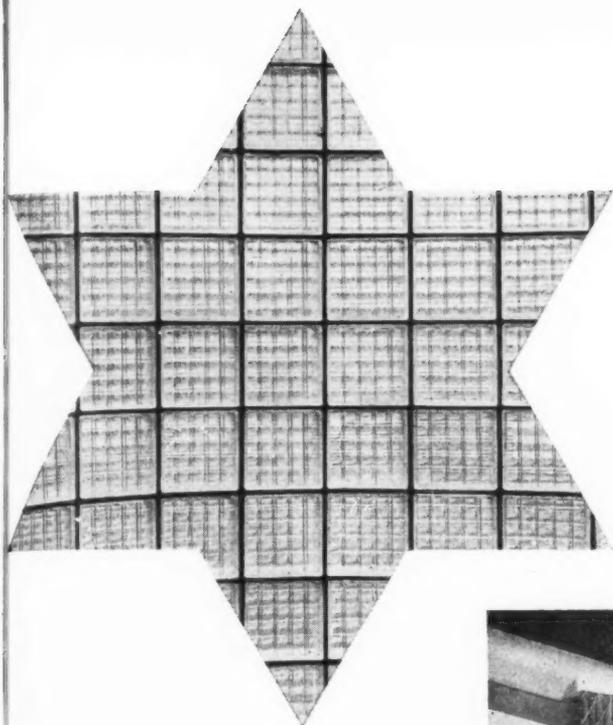
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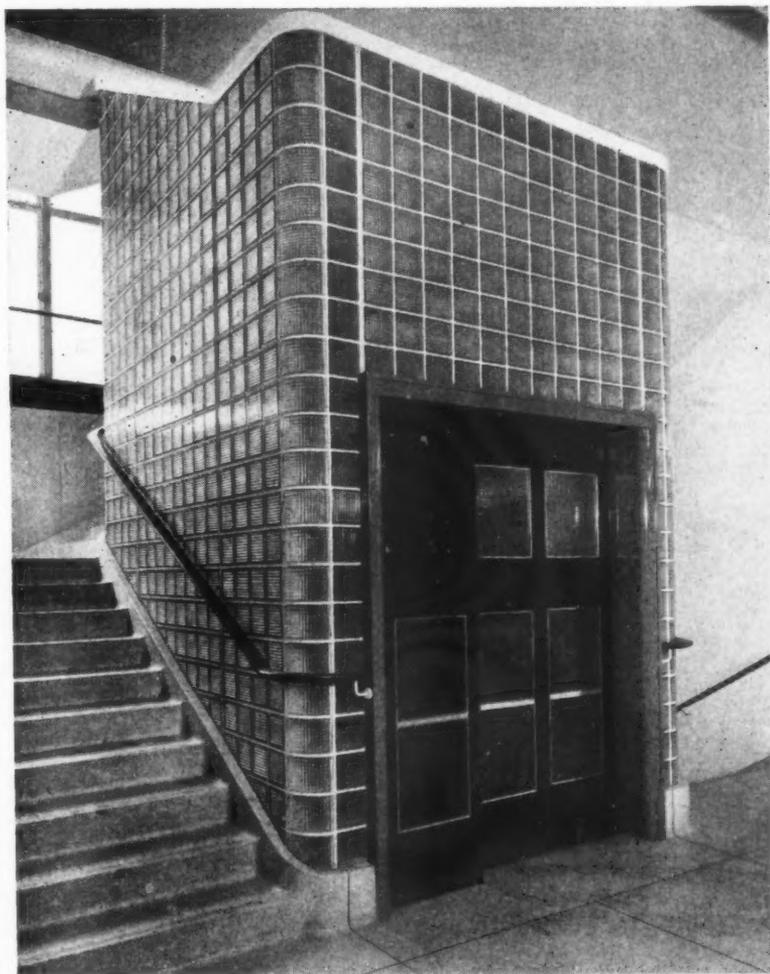
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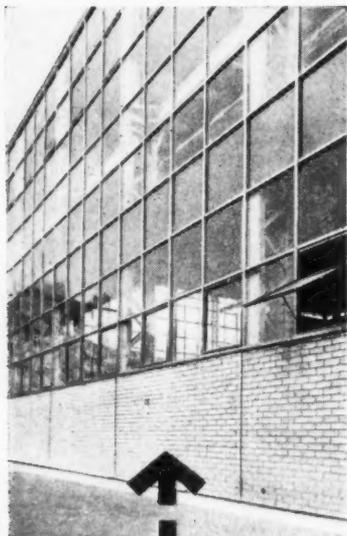


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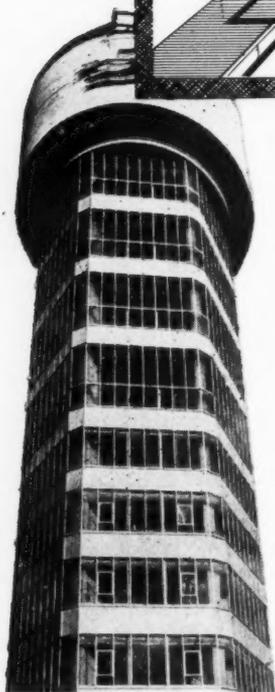
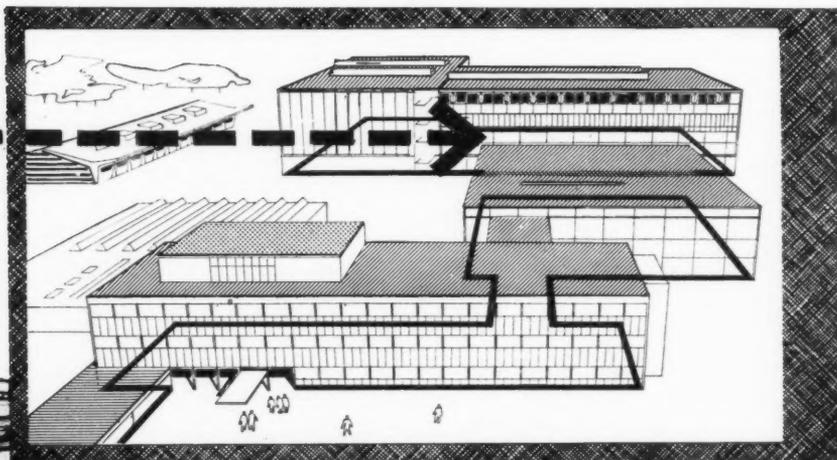
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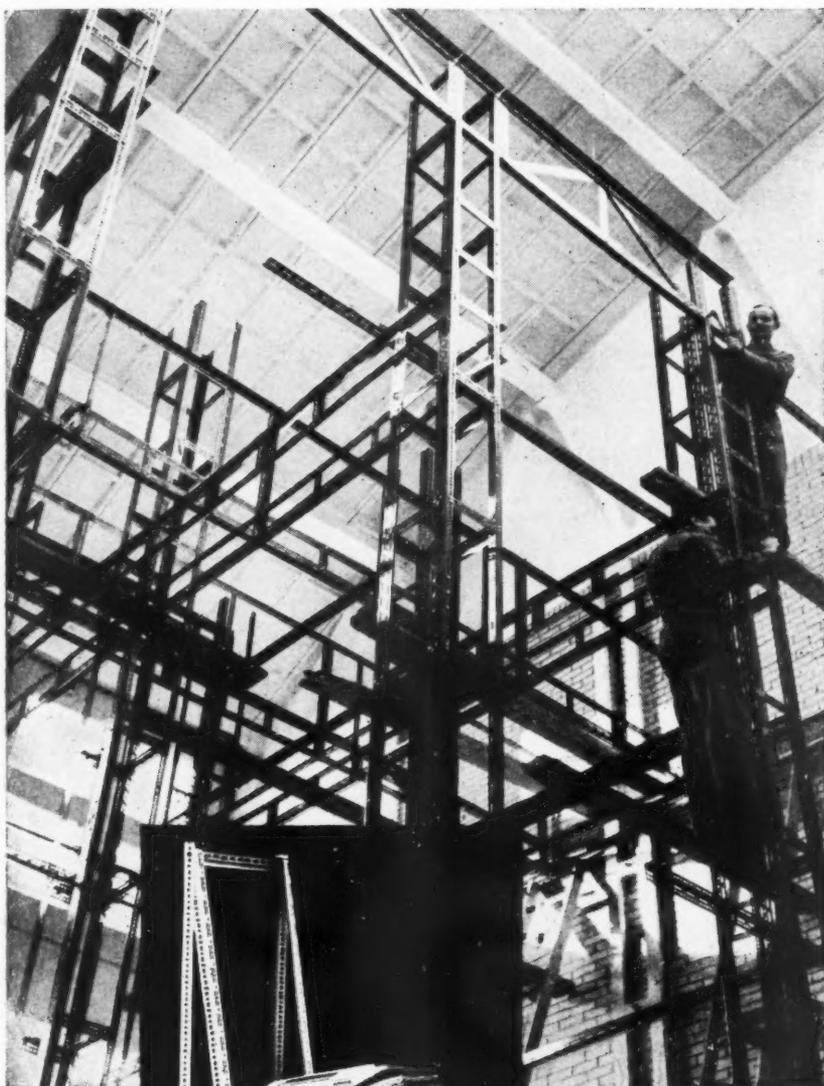
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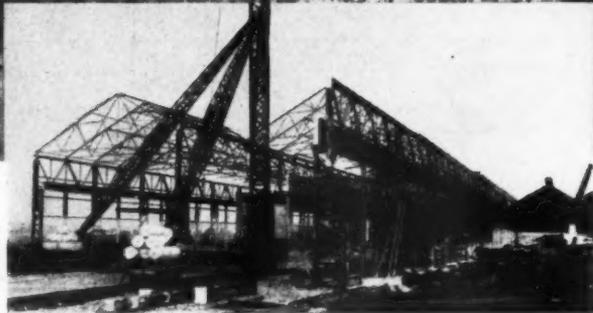
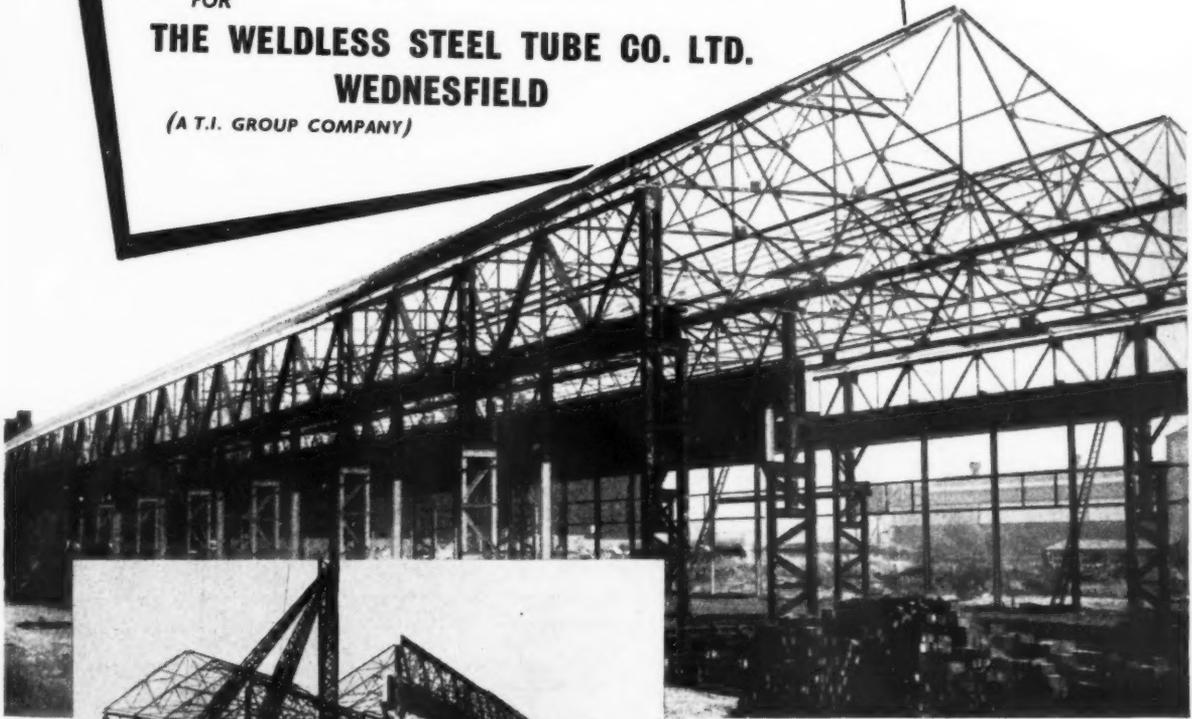
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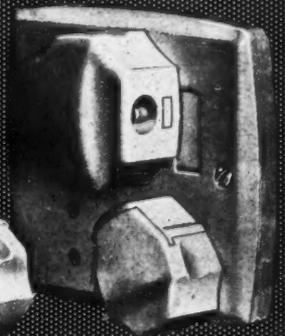
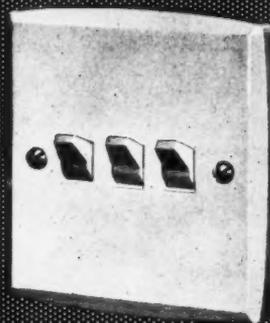
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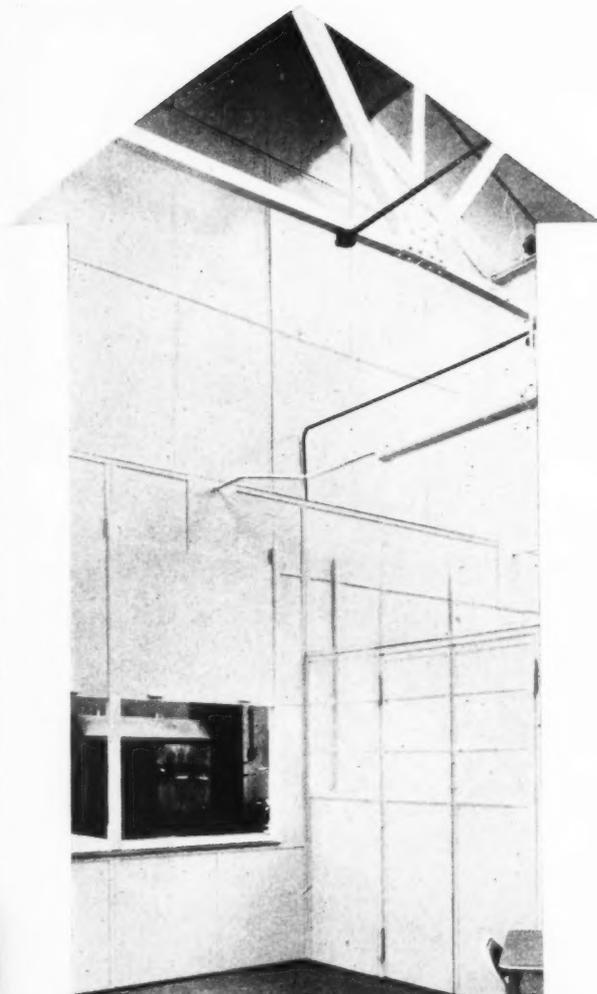
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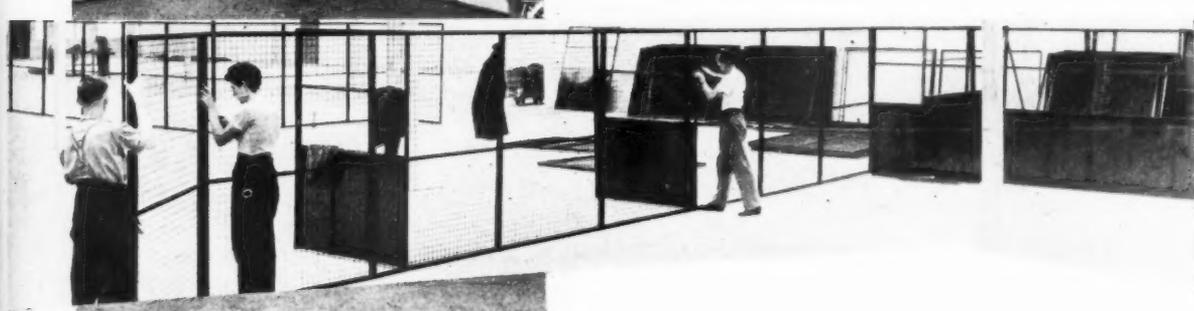
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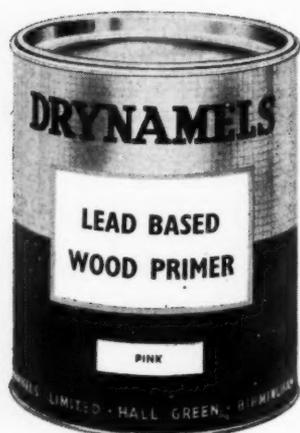
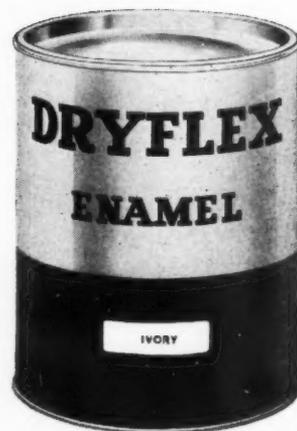
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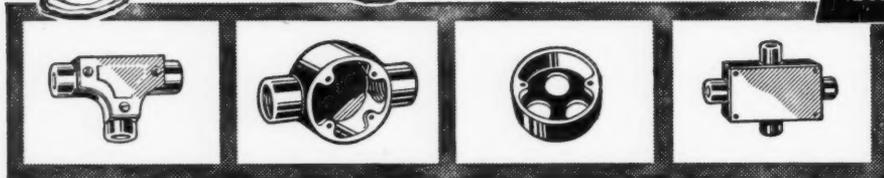


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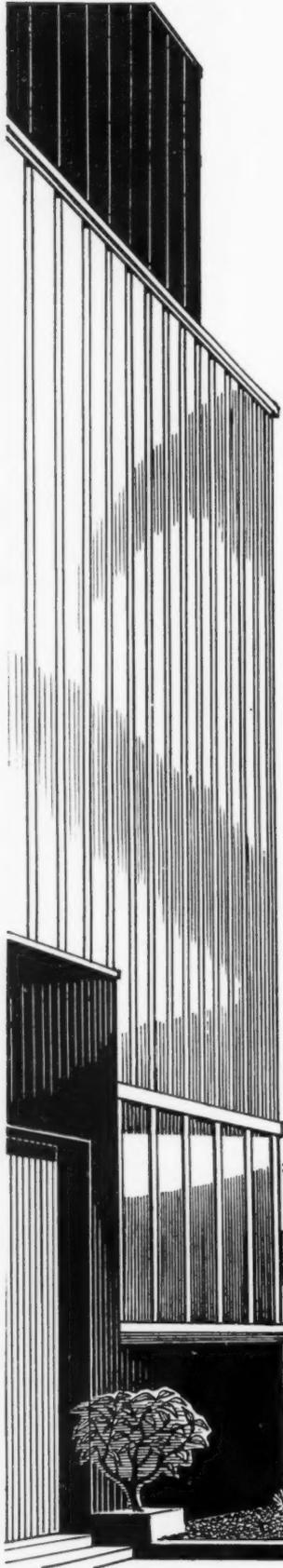


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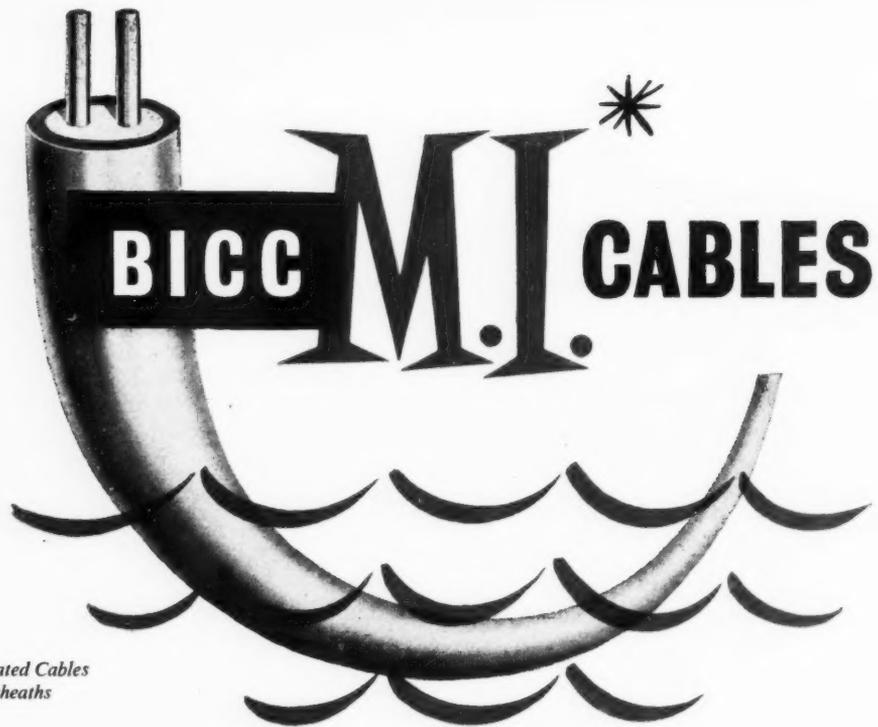
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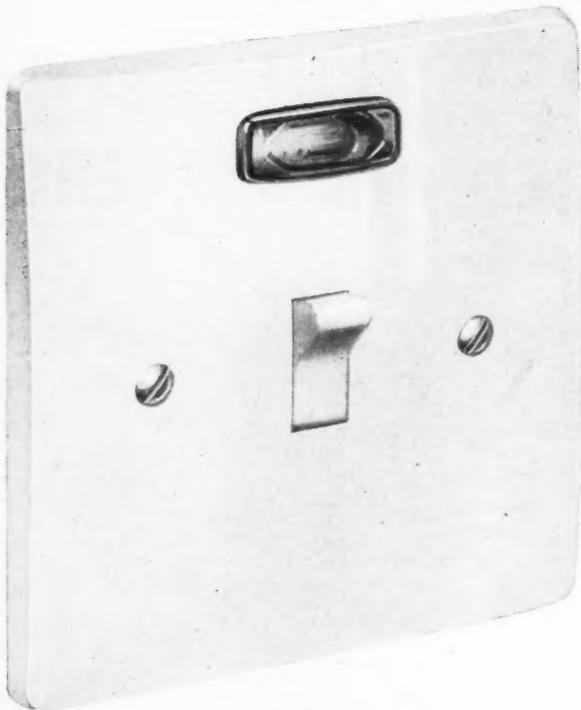




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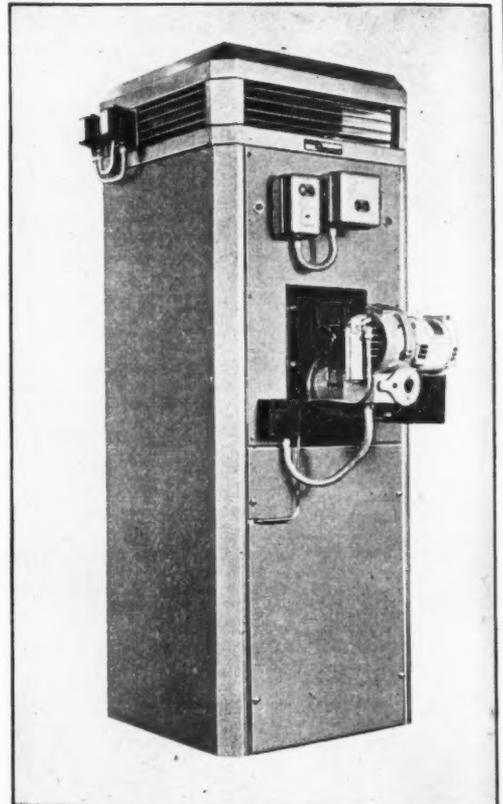
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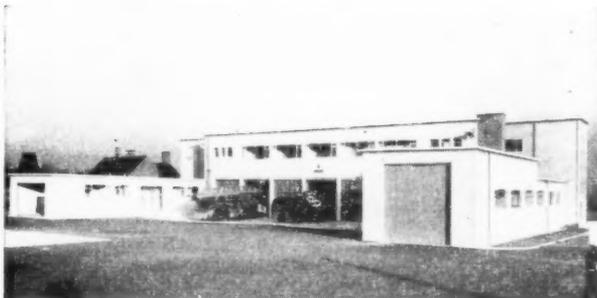
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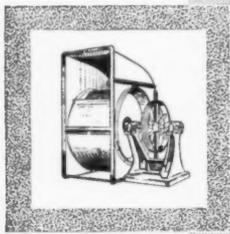


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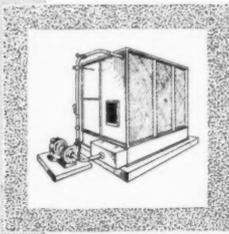
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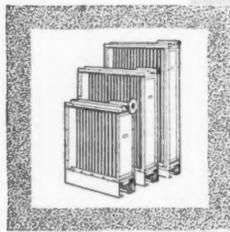
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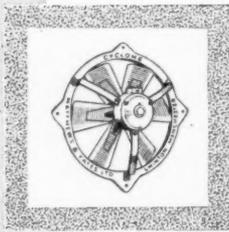
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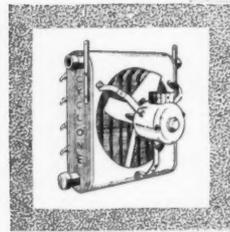
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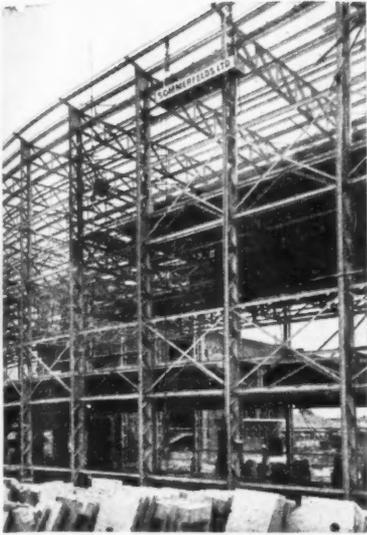
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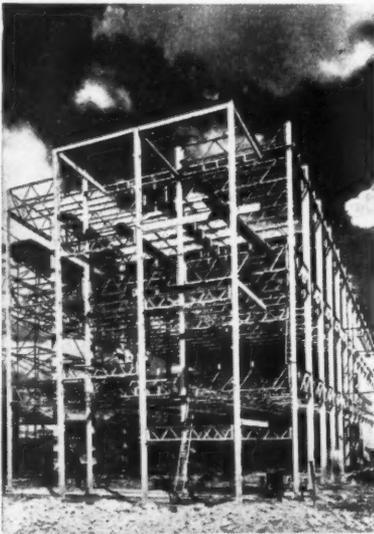


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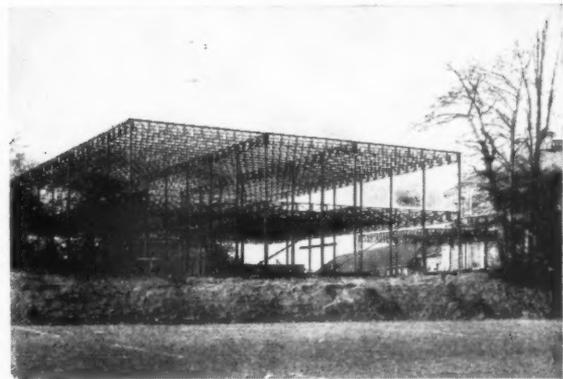
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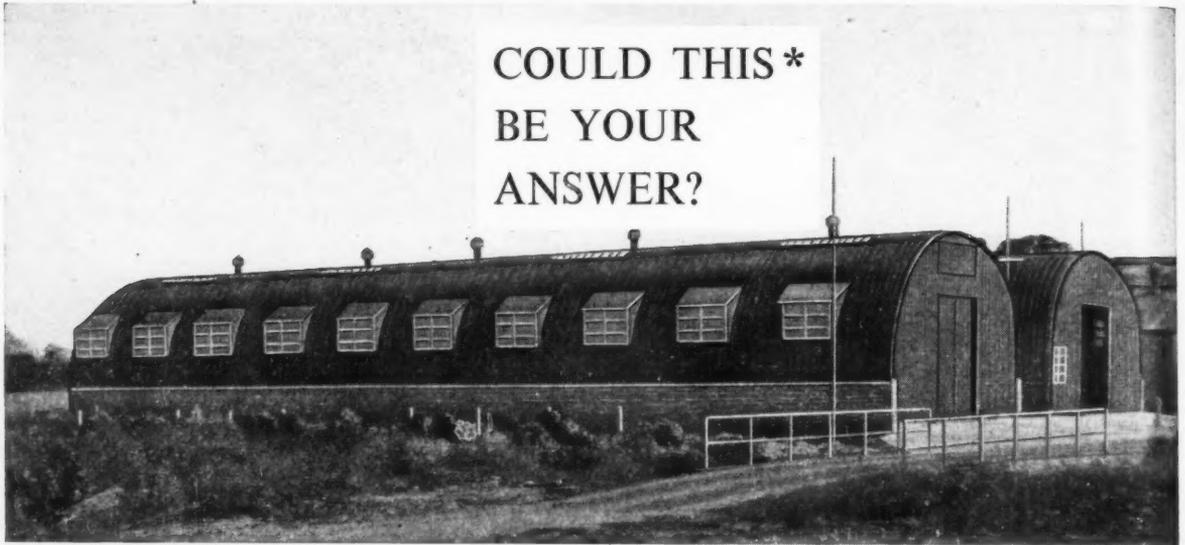
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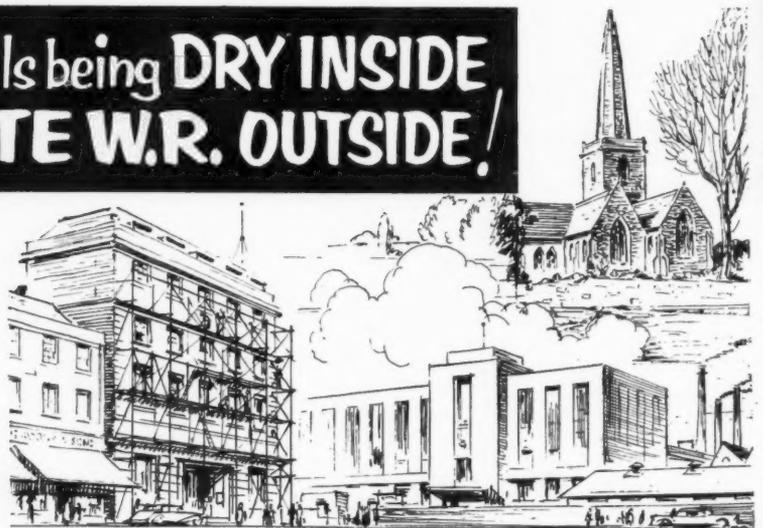
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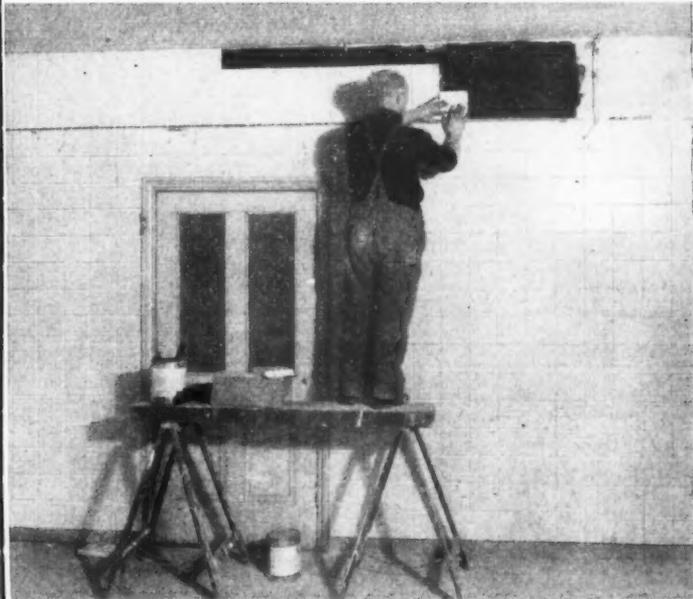
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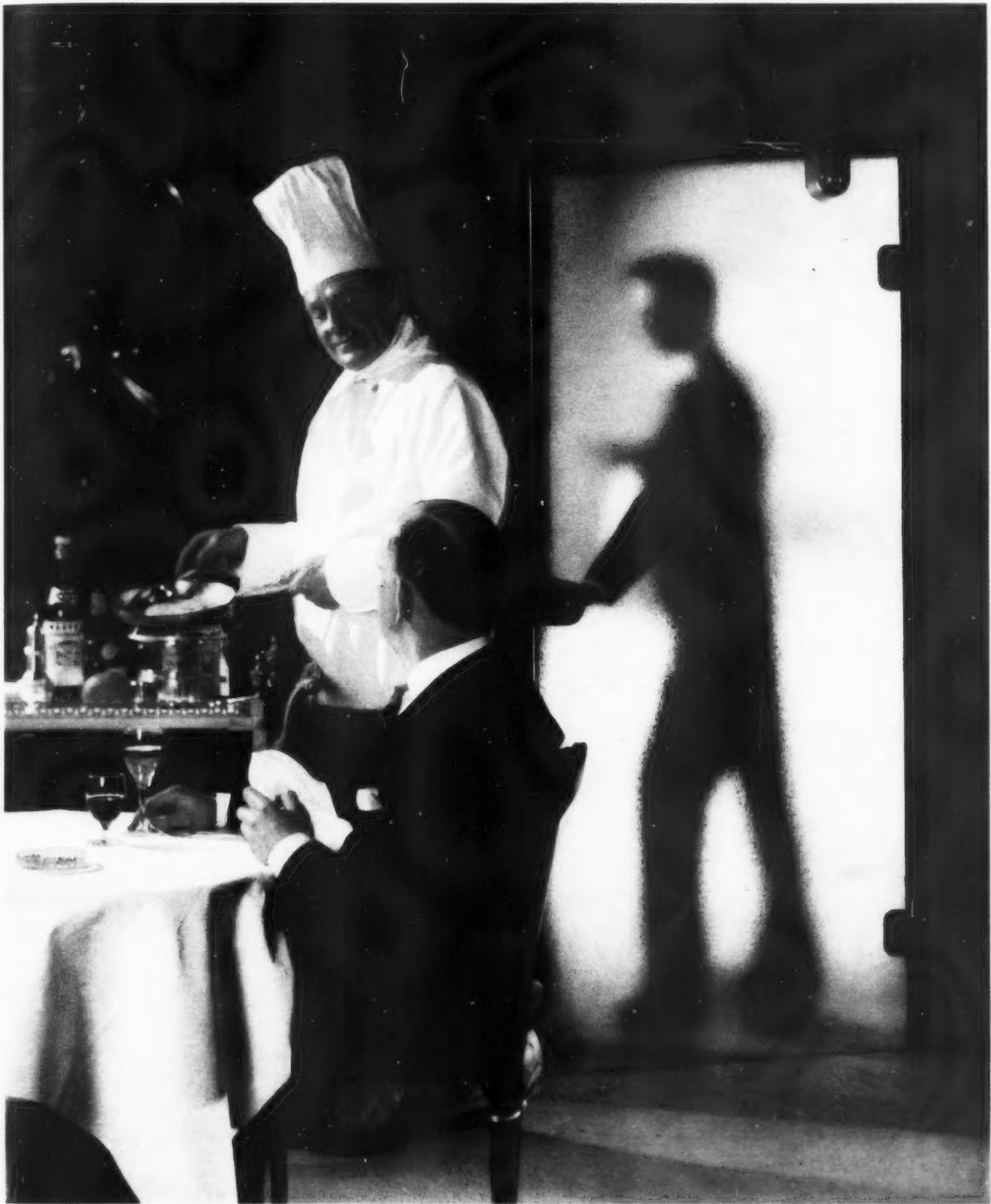
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THE ARCHITECTS' JOURNAL

No. 3258 Vol. 126 August 8, 1957

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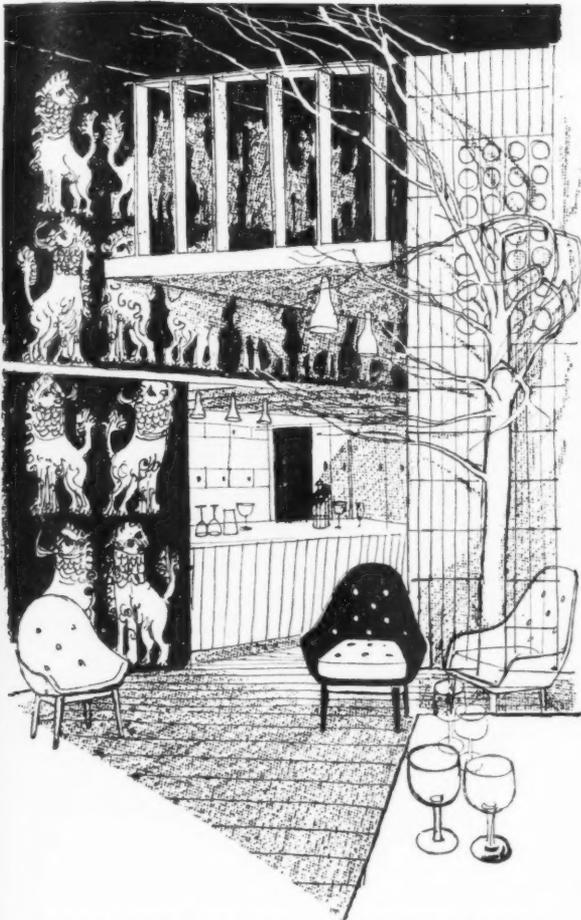
The centre of the enormous lobby is occupied by something like a great glass tumbler about twenty-five feet wide, filled with tropical trees, vines, and orchids in bloom. It tapers down to a sub-lobby below, where it sits in a tremendous wishing-pond splashed by fountains, and high overhead its top opens to the hot, humid air. Momentarily it draws the eye away from the mural paintings, the Halian mosaics, the darting floor patterns, the rich upholstery, the driftwood-based glass tables, the thick curtains, massed flowers, copper beams, crystal lights and brass reflectors. This is the Hotel Americana, still at the height of its first season.

\*

On the main strip of Miami Beach, known as "the multi-million dollar Ocean Front Hotel Row," a new major Hotel Fabulous has appeared regularly once a year for several years. Last year it was the Eden Roc, done with what might be called a Grecian inspiration, and the year before the spectacle was the giant, white, semi-circular Fontainebleau, which is perhaps more French than anything else. The Americana is pure contemporary American and, as I hope I have indicated, is in impeccable taste compared with most of the others. A wall to one of its bars—"The Gaucho Room," I think it was called—is done in square panels of pony hide.

\*

The newest hotel of each season captures the cream of the tourist trade, as you can tell by the width of the white tuxedos and the scent of the cigar smoke wafted on the air-conditioned zephyr. Next year the magnet will be the Deauville, now building at a cost of some twenty million dollars on land—formerly occupied by a sizable apartment block—which has been leased for twenty years, I was told, at a cost of twenty-seven million dollars. A syndicate of perhaps a dozen members builds most of the big hotels on the strip. Each member puts up



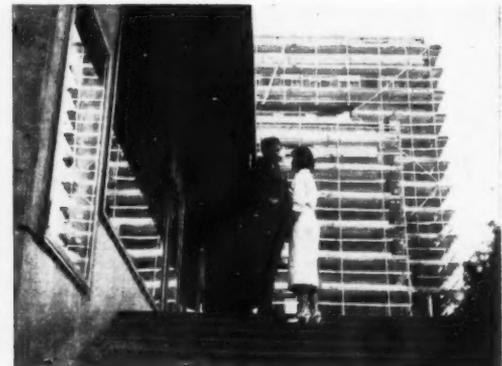
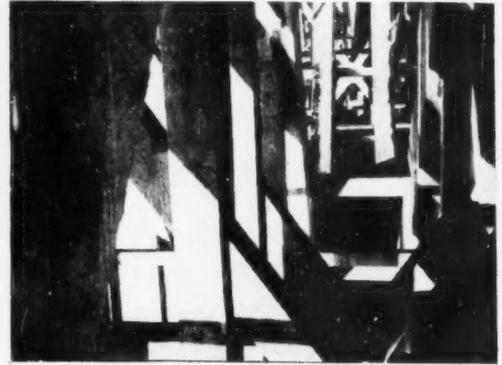
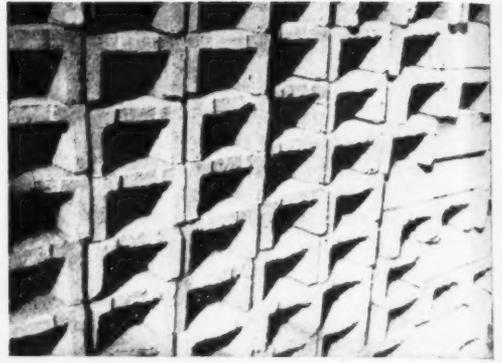
PALLADIO WALLPAPER "SICILIAN LION"  
IN THE BALLROOM COCKTAIL BAR  
OF THE DOVER STAGE

## A SERVICE FOR ARCHITECTS

ARCHITECTS CONCERNED  
WITH THE SPECIFICATION OR DIRECTION  
OF DECORATIVE SCHEMES  
ARE INVITED TO USE THE FACILITIES  
OFFERED BY OUR  
ARCHITECT'S DEPARTMENT



THE ARCHITECT'S DEPARTMENT  
THE WALL PAPER MANUFACTURERS LIMITED  
125 HIGH HOLBORN LONDON WC1  
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MANCHESTER 3



## *If You Want To Get Ahead—*

—get a hat. That slogan of the British hat trade was also the theme of a pleasantly-eccentric film, *Jonas*, which was shown at the recent film festival in Berlin. More interesting than the principal character's obsession with a hat ("an outer sign of a serious inner situation") is the director's obsession with design and building. In spite of its pretentiousness, the film is good to watch. The director, Dr. Ottomar Domnick (a psychiatrist who sponsors his own films), rarely

allows the camera to establish a sense of location (the picture at the top, left, is unusual in this respect). He tilts it down at floorscapes, thrusts it up at half-constructed buildings and subtopian wirescape, or uses building materials to create abstract patterns. And such is his interest in architecture that he uses a building site as the battlefield on which *Jonas* fights with his inhibitions. Meanwhile a tape-recorded Duke Ellington plays the piano backwards. . . .

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some pocket money, maybe a million, and the rest is borrowed from an insurance company. After a year of two of cream-skimming, the syndicate sells, and the new owners carry on a going concern which has subsided to ordinary business levels. A suite with an ocean view now claims in accommodation charges only one or two hundred dollars a day. Someone pointed out a penthouse which, rumour said, was rented for twelve thousand dollars a month. This was exceptionally high, I was told, and a local inhabitant frankly disbelieved the story. If you looked into it, he said, you'd probably find that the rent was only about fifty thousand a year, but the tenant used the penthouse only for a few weeks in The Season and, being a canny businessman, he calculated the rent on the period of occupation.

\*

The main elements of each new big hotel are three: a multi-storied block of bedrooms; an attached two-storey assemblage of many dining rooms and cocktail bars round a vast entrance lobby, all of which are invariably free-shaped; and a terrace. The terrace is between the building and the ocean and is usually enclosed by a ring of cabanas—rented apartments one or two storeys high—arranged to screen the view of the ocean from all but the upper floors of the hotel. The terrace always has a great swimming pool and a paved sunbathing area, and palms, sunshades, fountains, lights, rock-work, plastic chaise-longues, and an architectural central feature in keeping with the motif of the hotel's conception. In the case of the Americana this is a sturdy concrete hyperbolic-paraboloid sunshading an outdoor cocktail bar. "We have here," a native of Florida explained rather neatly, as the band played us softly the hit tunes of the 1930's, "a philosophy of abundance."

\*

A few miles away across the bay in the workaday, steamy little downtown area of Miami, three firms of architects separately prepared elaborate sketch plans for a new hotel. They worked without fees, but in the hope of acquiring the syndicate's latest commission.

ROBIN BOYD

## DIARY

*Son et Lumière.* Pageant of lighting and architecture. In the Royal Park at Greenwich. Nightly including Sundays. August 1-31 until 10.15 p.m. September 1-29 until 9.15 p.m. Admission 5s.

*Thomas Telford Bicentenary Exhibition.* At the ISE, Great George Street, S.W.1. 10 a.m. to 8 p.m. (including Saturdays and Sundays). UNTIL AUGUST 10

*Design in Plastics.* Exhibition at the Design Centre, Haymarket, S.W.1. Monday to Saturday, 9.30 a.m. to 5.30 p.m. UNTIL AUGUST 10

*Mr. Therm at Home.* Gas Council exhibition at the Tea Centre, 22, Regent Street, S.W.1. 10.30 a.m. to 6.30 p.m. UNTIL OCTOBER 4

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\* To preserve freedom of criticism these editors, as leaders in their respective fields, remain anonymous

## The Editors

### MUST BRS BE SO CAUTIOUS?

ONE of the most often-heard remarks at the recent architects' conference at Oxford was that BRS should be more forthcoming. How right or reasonable is this?

We cannot, of course, expect anyone—and least of all a government research establishment—to say things which are likely to be deemed libellous by the law of this land. While the law stands, the news of many things that do not work will have to continue to get around by word of mouth. But there still remains a great deal of information about things that do or do not work which BRS *can* discuss if they wish. And there are lots of ways in which they do try to persuade us to do the right thing and we persist in not doing it. Someone said at Oxford that single-stack plumbing was a risky proposition, and that architects should not rail at the conservatism of bye-laws about such things because they were founded on experience. Yet BRS, on the basis of a research programme put in hand long before "liberals" were pleading for it, has been urging and pressing for the use of single stack plumbing for several years. There are many other examples, the use of internal bathrooms, short-bored piles, all sorts of house-heating, and so on.

But all these are cases where the Station has confidence after doing advanced research. Many architects feel there is need for reasonable speculation before experiments have proved conclusive.

This, of course, would involve the Station in the risk of being wrong. And this cannot be a pleasant experience for those who are aware that a good deal of acrimony often arises over the unsuccessful expenditure of public money.

We too have a responsibility in this matter. If we want BRS to help us by telling us what they think, as well as what they know, we must be prepared to take the responsibility and not to blame them if things do not turn out as expected.



#### WHO IS THIS SON OF LUMIERE?

The French are supposed to be more civilized than we are and yet they have let loose *Son et Lumière* (a pageant made up of floodlighting and stereophonic recordings) upon the world. Chambord, where this form of entertainment was first tried out, is admittedly of a denser texture than the Queens House, Greenwich, and its attendant colonnades; hence the visual interest might there be expected to last longer. The same might be true of Hampton Court, which as well as being dense is asymmetrical; though far be it from ASTRAGAL to will this unhappy entertainment upon that most fascinating of our royal palaces and—for the noise it sets up is tremendous—the unoffending inhabitants of Hampton Court borough.

\*

The sound-track is not uniformly embarrassing; there is one good moment when Humphrey, Duke of Gloucester says, "When I died . . ." But on the whole the narration is sloppy and vapid and the characterization scarcely worthy of a children's charade. The lying-in-state of Nelson in the Painted Hall was an exciting note on which to finish; we were happily spared a snatch of dialogue with Lady Hamilton, which must have been overlooked. ASTRAGAL can only pro-

test that English history in tabloid form, interspersed with a load of fine phrases and fine music, not quite Shakespeare and not quite Elgar respectively, is not for Englishmen; at least, it is a sad day when such stuff can be swallowed without a frisson. If it is mainly intended for foreigners, then we must protest at this final vulgarization of our history and historic monuments; they are not corpses that need cosmetic treatment to appear alive.

\*

Wren and Inigo Jones, not to mention Bluff King Hal and the rest of them, must be turning in their graves these nights. *Son et Lumière, allez à l'enfer*, if those are the words I want.

#### A REVISED "MODERN HOUSE"

It's surprising to realise that Yorke's *Modern House* was first published as long ago as 1934, and that the latest edition\* is the eighth. In this version quite a number of the houses in the earlier editions have been omitted, and there are 60 pages of new jobs including the more recent American work of Breuer, van der Rohe and Philip Johnson, as well as Corbusier's *Maison Jaoul*. The original introduction has been left unchanged, and in many ways makes very interesting reading, apart from its entertainment value, for there is nothing in it which doesn't now seem quite obvious and generally accepted, whereas in 1934 it was the creed only of the young, and was classified as "special pleading."

\*

Inevitably a book of this kind depends on the author's personal choice, and most readers will be able to think of houses which ought, or ought not, to have been included. Nevertheless, the book is as good a general selection as one is likely to get.

#### ARE WE SANS-SERIF SISSIES?

A very bizarre note was struck at the opening of the exhibition of William Morris typography by the inclusion of a speech by Sir Sidney Cockerell on tape, played a little slower than life by the sound of things. The rest of the ceremony was brisk, businesslike and not at all ponderous, however, and the exhibition has the same sort of qualities. It is well worth seeing because of the panoramic coverage it gives, not

\* *The Modern House*. By F. R. S. Yorke. Architectural Press, 50s.

only of Morris's own work, but also of his imitators and followers, and of the sources from which he drew his inspiration; and the catalogue is worth having simply as a piece of historical documentation.

\*

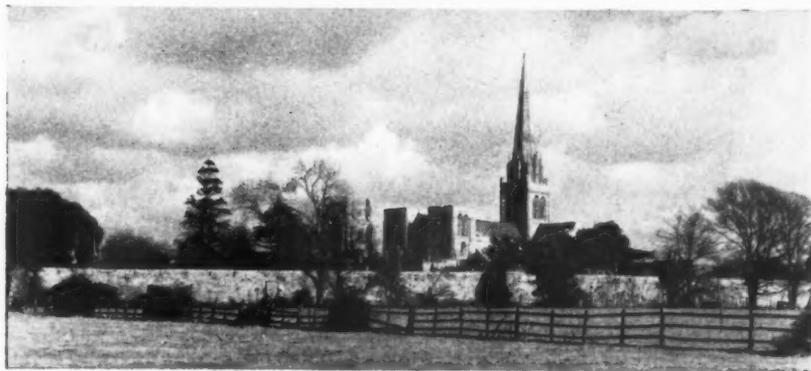
Two heretical thoughts occurred to ASTRAGAL, while he studied the exhibits: could it be true, as old inhabitants along Hammersmith Mall insist, that the bulk of the credit for Morris's printing should go to Emery Walker? And how dramatically standards of legibility have changed. Morris is quoted in the catalogue as wanting to produce books that were "easy to read and should not dazzle the eye, or trouble the intellect of the reader by eccentricity of form in the letters." Yet to a mid-twentieth century eye, Morris books offend against all these canons, and the *Chaucer*, reckoned to be his masterpiece, is a real eye-teaser and intellectual-worrier. Have we raised a generation of sans-serif sissies? Or could it be that Kelmscott Press books were not really meant to be read, but merely glooked over?

#### A NEW ST. PAUL'S VISTA

Coming out of the Morris exhibition, and tempted by a fine afternoon, ASTRAGAL headed up Ludgate Hill toward St. Paul's, to view the site of Lord Mottistone's proposed mistake. Wren's west front looked surprisingly French and, if you will pardon the term, Popish, in the hot dusty sunlight, its steps draped with hundreds of hot, dusty tourists; yet the great surprise of this Pauline perambulation came after one had rounded the apse from the south, and had seen the perspective north up St. Martin-le-Grand, closed and crowned by that grounded glider on top of the Golden Lane slab-block.

\*

This is a thought-provoking vista. It more than justifies that much-debated roof-top feature at Golden Lane, for anything less pronounced on top of so high a slab in that particular location would merely have broken the skyline of St. Martin-le-Grand without doing anything interesting about it—a pure plain prism of a tank-tower would simply have looked feeble. But beyond this, the slab and its roof-treatment provide an instance



Westgate Fields, Chichester. See note on left.

of what the concept of St. Paul's ringed by skyscrapers "at a respectful distance" might look like. This tallish slab is only visible at all from St. Paul's Churchyard because it is on the line of a fairly wide street. Off that line a three- or four-storey building is sufficient to hide it from ground level even at close range. In other words, on the Holford plan, a skyscraper only a couple of hundred yards from St. Paul's would be invisible from the forecourt if properly sited, and invisible from most other points in the city as well. The only way to see it from St. Paul's would be to go up to the Stone Gallery, and from there, of course, altitude would alter cases.

OUTRAGE IN CHICHESTER?

There are two proposals endangering the meadows, known as Westgate Fields, at Chichester (see picture). One is for a ring road running from near the bus station and behind the cathedral; the other is for two primary schools and a college of further education on the meadows.

\*

The ring road is not necessary, but is apparently being built to make the road system symmetrical. It will cut off the greater part of Westgate Fields from the town, and will effectively break the close connection between town and country at this point.

\*

The Minister has not yet approved the proposal for the schools and college, and the Church Commissioners have not yet agreed to sell the land, but unless something is done quickly it will be too late.

LAMBERT'S LONDON

Sam Lambert's inestimable *London Night and Day*\* is with us again. In its fifth edition—revised (but not, it seems, enlarged)—it is still five shillings. Each fresh edition contains new information about new subjects—Espresso . . . Jazz clubs . . . skiffle . . . action painting . . . which presumably means that more and more old information has been left out. But what? And where? There never seems to be any place, ceremony or thing that one cares about that has been dropped, but by the time the guide reaches its inevitable twentieth edition, information equal in bulk to the present volume will have been

dropped—a whole capital city will have been forgotten and discarded. (Pause for middle-aged reflections on the fickleness of affection, memory, etc.

\*

One or two parts of ASTRAGAL'S London have never been in the book at all, and one or two of these would be of more than private interest, so—if suggestions for improvements in the sixth edition are in order—here they are. Why, if stock-car racing and speedway are included, are *real* car and motorcycle racing not included? What about cycle racing at Herne Hill? And surely Fantasy Bookshop (Science Fiction and esoteric LP's) is too eccentric an enterprise to be omitted, standing as it does in one of the few planned pedestrian precincts in London, and opposite an Oriental Warehouseman's (No, find out where it is for yourselves). And what about a

few words on all the main line termini, as well as Cannon Street?

\*

But these, obviously, are all fairly marginal matters, and for most of what most intelligent visitors to London will want to do for most of

NO DISGUISE

No prizes are offered by ASTRAGAL for the identification of the building, below, which was completed recently in the North of England, but he offers the following clues. The form originally desired by the clients, which was "the most economical from the structural point of view," was abandoned on the advice of "architectural opinion," which suggested that "an effort should be made to break up the elevations and skyline, whilst not attempting to disguise the purpose of the structure." It is, of course, a water tower.

ASTRAGAL

What is this building? The clients asked that no attempt should be made to disguise the purpose of the structure. See last note.



\* Architectural (as if you didn't know) Press.

## CRITICISM

## What Readers Think

*On June 20 J. M. Richards wrote a critical review of the housing scheme in Golden Lane, City of London. The architects, who write here in reply to readers' comments (published on July 11), replied to Mr. Richards on June 27*

SIR.—May we re-enter the lists regarding the Golden Lane Estate? Your readers' comments are interesting and—to date—far too flattering for us to complain about. It is curious, however, that critical architects so often reveal the schoolmarm within. This absolutist attitude to detail is revealed particularly in your correspondents' comments on colours, curtains, and height.

The Grundy streak is evident in "This is really appalling, strident colours being applied to every surface in sight without discrimination." Is the epithet "wicked" or "custardy" intended to be the most withering when used to qualify a yellow? We do regret, however, the absence of constructive comment regarding the use of colour as we had very definite intentions when choosing the materials and colours employed. The untreated concrete and brickwork—particularly the latter—will darken in time and the purple brick will turn to grey. The strong colours were chosen to combat the atmospheric pollution and the consequent dispiriting effect of a grey day in Finsbury as we feel the tenants of this high density estate—who have to look at the outside of each other's flats—will welcome a protest against the drabness of our Metropolis. The two large blocks which flank the estate and face major public roads—Golden Lane and Goswell Road—are monochromatic in treatment and it is therefore only the inhabitants who will fully appreciate the warmly coloured interior of the scheme.

Anne MacEwen finds it "absurd to try and regulate the colours of tenants' curtains to fit into an architect's pattern." W. W. J. Trollope, a most angry pedagogue, takes us to task for making all the tenants use the same curtains, with the exclamation "What an intolerable impertinence," and assumes that in some unspeakable way curtains are secretly wrapped up in our approach to architecture. Gerrard Collins suggests that we should incorporate lintels and jambs in our design in order to conceal the curtains, a rather ponderous suggestion akin to using a steam hammer to crack an egg. The point which all these critics have missed is almost too cruel to mention—*viz.*, that we never suggested invading the Englishman's home to the extent of dictating his choice of curtain. What we did propose was a uniform lining material attached to the outside of the curtain next to the window glass, in which position it would be invisible from within, thus leaving the tenant freedom of expression in his interior. The neutral appearance from without would be less "impertinent" than the un-neighbourly effect of tenants thumbing their noses at each other by choosing curtains without regard to their neighbours' tastes. A common external appearance between adjacent windows would only be, to quote Tristan Edwards, "Good Manners in Architecture."

We do not understand W. W. J. Trollope's fanciful and magnificently sonorous rhetorical question "Do they appreciate that their building is a matrix for the homes of living individuals?" According to the Oxford English dictionary a matrix may be a womb, a mass of rock enclosing gems, etc., a sub-

stance between cells, or a mould in which type etc., is cast or shaped. None of these parallels occurred to us when designing the buildings at Golden Lane, an admission which probably puts us in the Zombie class.

Gregory Jones claims that "when living at great heights most people find it unpleasant to look out of their windows sheer down the face of the building." The answer is simple; don't lean out of the window and you won't find it unpleasant. "Is it not correct," he continues, (again not the canonical attitude), "as le Corbusier and the LCC have done—to plan continuous balconies at this height to interpose a barrier, both psychologically and in fact, protective, between the dwelling and the space beyond?" We are quite aware of what le Corbusier and the LCC have done, and have ourselves designed flats with this feature, but, nevertheless, consider that this is only one of several possible solutions and certainly not the most appropriate answer in this particular case—otherwise we should have adopted it. Incidentally, how can a balcony, if it is to be usable, be a barrier or protective, and what is so terrifying about "the space beyond?" Is this hint of agoraphobia an echo of Trollope's matrix?

One of the most charming stories reported to us concerns an elderly lady who, when offered a flat near the ground in this high building, replied that she wanted to be as high as possible as, in view of her advancing years, she liked to feel that she was ascending heavenwards.

CHAMBERLIN, POWELL AND BON.

## OTHER LETTERS

*E. B. T. Tanner, Managing Director,  
Copperad Ltd.*

*J. E. Jackson, F.R.I.B.A.*

## Convection Space Heating

SIR.—It is the practice of certain British and North American manufacturers of space heating equipment in the form of natural convectors and kindred equipment such as skirting board heating, cill line heating and the like, to add to the thermal emissions as obtained under test, an arbitrary percentage. This addition is frequently 15 per cent. As manufacturers of these classes of space heating equipment, we contend that the British Thermal Unit is a clearly-defined unit of heat and, when listing the output of space heating equipment, the actual emissions as determined by tests should be quoted, and the customer should not be confused by these arbitrary additions.

I believe that the origin of this practice was in the United States. I understand that some years ago there was a large number of manufacturers of natural convectors and there was considerable competition amongst the manufacturers to be able to quote the greatest possible thermal output from a convector of the smallest possible size.

The competition to quote these higher duties—higher than could be obtained by actual test—became so severe, that in the absence of a code for the satisfactory testing and rating of convectors, some firms were adding percentages in the order of 50 per cent.

When these higher percentage additions were reached, not unnaturally, many makers felt that the time had come to call a halt, and conferences were held with a view to substantially reducing or better still deleting these percentage additions.

In the event, agreement was reached amongst the manufacturers that the maximum permissible addition would be 15

per cent for the lowest height of natural convectors, and for skirting board heaters, and this percentage was reduced progressively as the outlet height of the convector from the floor became greater, such that for 38 in high convectors the addition was nil.

It is, I believe, admitted by leading manufacturers in the United States that the addition of this arbitrary percentage is unsatisfactory, but my information is that it was adopted as the best compromise and as the only means of persuading some of the manufacturers to come in and agree to rate their equipment on a uniform basis.

I feel it may not be in the best interest of the industry that this similar practice has been adopted in this country, especially as conditions may well arise in the not too far distant future in Great Britain whereby numbers of manufacturers of convectors, skirting board heating and kindred equipment might arbitrarily add percentages for so called "heating effect" which in due course may reach such a high figure as 50 per cent.

I know of no scientific or technical reason why this so called "heating effect" percentage should be added. Clearly, the actual thermal emission must remain constant under similar conditions of operation, and it seems unfortunate that this practice should have been adopted already by British manufacturers.

So far as my company is concerned as manufacturers of these types of space heating equipment, we prefer to adhere to our current practice of listing and quoting only those emissions which are actually obtainable on test, although of course if it were the wish of the various branches of the heating industry, it would be a very simple matter for us to add any percentage whatsoever, doubling or trebling the correct figures if desired. All the same, we wonder if any such additions however large or however small can serve any useful purpose except to confuse, and I would be interested in the views of your readers on this matter.

E. B. T. TANNER.

Slough.

## Prefabricated

SIR.—We are entering a new age of prefabricated building and no amount of resistance on the part of architects will change that fact; if we do not adapt ourselves to it we are the ones who will suffer and prefabrication will take its natural course because it springs from a desire to produce buildings more cheaply and this desire may originate from an inward awareness of the fact that life and this world and its buildings are not permanent—the Pyramids are no more proof against the atom bomb than a petrol kiosk.

This surely does not spell the end of traditional building methods; they will persist in response to our craving for the satisfaction which springs from the beauty of traditional building materials and fair proportions. No one surely can suppose that the man in the street is going to have tin boxes crammed down his throat—he is canny enough to know that in ten years they are more likely to have developed uncomfortably and expensive troubles than the kind of buildings which have been put together with pride and craftsmanship and care. (Of course, the metal boxes may carry a twenty-year guarantee just as flat roofs did.)

Let us accept the metal box with tolerance and even enthusiasm—it is a useful experiment from which much knowledge will derive but let us rest assured that all the time we have ordinary common sense people on this earth, they will satisfy their natural need for semi-permanent traditional building; it would accelerate and encourage its continuance if we could get it firmly under the control of qualified architects, but that is another subject.

J. E. JACKSON.

Kent.



## COMPETITION

### *Municipal Offices for Carlisle*

Messrs. Charles B. Pearson and Son, of Manchester, have won Carlisle's corporation-sponsored competition for an assembly hall and municipal offices. They receive £1,000.

Of the 194 competitors, six were chosen to take part in the final stage of the competition. The remaining five were: Messrs. Ryder & Yates, of Newcastle-on-Tyne; H. George Marsh, of London; Messrs. Hutchinson, Murta & Hall, of Sunderland; F. A. C. Maunder, of Bucks, and Messrs. Russell, Cole & Bender, of London. Each receives £300. The assessor was Professor W. B. Edwards.

## NEW THEATRES

### *LCC Approves of Drama Beneath Offices*

There is no truth (writes KJR) in the implication, made by Lord Gifford in the Lords' debate on St. James's Theatre, that LCC regulations prevent the building of theatres in office blocks. Although the fire regulations are pretty stiff—as they should be—it seems that the Council is prepared to help architects to find a way round them. A scheme for a theatre beneath offices, on the site of the Stoll, has already been approved in principle by the LCC (architects, Lewis Solomon, Son and Joseph); a cinema is to be included in an office block now being built in Shaftesbury Avenue to the designs of Sir John Burnett, Tait and Partners, and an ingenious fire-escape system has been devised for the private underground theatre that Shell are providing in their South Bank office block (architect, Sir Howard Robertson).

So why worry about St. James's Theatre (whose only architectural charm is marred by electrical fittings)—a theatre which has been described by an architect as "a death trap in spite of being bunged up with the maximum number of fire precautions that are possible in such a building on such a site"? If speculators will take note of their opportunities, we need no longer worry if undistinguished theatres flounder as their leases expire. At any moment some financial tycoon will realize the chance he has of pleasing Lady Olivier and London's theatregoers, and of doing himself a bit of good at the same time.

And just in case the tycoons do not believe that the LCC's stringent regulations can be successfully and safely dodged, the JOURNAL editors intend to find space to show what is now being done in the provision

of fire-resisting, panic-proof auditoria beneath office blocks.

After that we may have to stand clear, as a chain of office-coated theatres is thrown across London. And then, of course, there will be room in the West End for those half-starved, garret-bound playwrights whose bushel-shrouded lights never shine further East than in the Royal Court Theatre's reading room.

## YORK

### *Townscape Course*

A course on Townscape is to be held at the York Institute of Architectural Study, Micklegate, York, from September 20 to September 24. The tuition fee for this course, which is planned to give the latest information and views about landscaping problems—and will include lectures, discussion periods and visits—will be five guineas. Members of the course will be responsible for their own hotel expenses. Applications for the course should be made on forms obtainable from the York Institute by Monday, August 12. The lecturers will include: J. L. Berbiers, A.R.I.B.A., A.M.T.P.I., G. F. Chadwick, A.M.T.P.I., A.I.L.A., H. F. Clark, F.I.L.A., J. Haslegrave, Deputy Town Clerk of Leeds, and D. L. Thomas, A.R.I.B.A., A.M.T.P.I.

## LOCAL GOVERNMENT

### *The Commons Debate*

Last week's House of Commons debate on local government produced a small crop of announcements of direct interest to architects and town planners. There is to be a Royal Commission to examine the present structure and working of local government in the Greater London area—roughly defined as the Metropolitan Police district—and to make recommendations about the broad structure appropriate to the area in present conditions and about the distribution of the main local government functions. It is to have special references to the possible need for an overall authority for any services throughout the whole area. Mr. Henry Brooke, making the announcement, said that it might be impossible to determine the right structure for Middlesex except in the context of the Greater London area. What was needed, he said, was "a preliminary and independent and geographically comprehensive examination of the structure of local government suited to the metropolitan area." Only when the answer to this problem was known could wise conclusions be reached on the boundaries, the status and the functions of the local authorities included within it. Although not directly referred to, the LCC Architect's Department may clearly be affected by the work of this Commission.

Mr. Brooke also announced that the government intended to review all the controls by the central government of local authorities. He said that the Minister's responsibility for general policy ought not to entail meticulous scrutiny of the detailed management of a service. It was one thing to prescribe basic standards, and this the government would continue to do, but another to dictate in detail the methods by which those standards were to be achieved. That was what the government wanted to get rid of. This, presumably, means that the submission of detailed plans and estimates for new building will come under their review.

Finally, Mr. Brooke announced that it was proposed to establish a new agency that would take over the property and liabilities of the new town corporations as they were wound up. He apparently has in mind a single government agency that would take over the properties of all the new towns. Mr. Brooke did not advance any detailed arguments in support of this proposal, nor did he refer to the building of additional

new towns, the need for which was mentioned by opposition speakers.

In general, the debate did not shed a great deal of additional light on the government's proposals for the reorganization of local government. These are of most direct concern to the architectural profession, where they may affect the organization of architects and town planning departments, through the delegation of powers to urban districts, the creation of a new authority for regional services in the conurbations (now rechristened "special review areas" by Mr. Brooke, amid a good deal of derision), and the promotion of urban authorities with a population of more than 100,000 to county borough status. Mr. Brooke remains convinced that his measures are a bold attack on the problem of local government, but the *Manchester Guardian* (generally an enlightened critic on these matters) thinks that the most that can be hoped for is to adapt a 70-year-old structure to the needs of 30 years ago.

The most controversial problem, as the debate revealed, is the proposal to substitute a general grant, fixed over a period of years, for the percentage grant for most services. Among the percentage grants to be abolished are town planning (except for blitzed areas) and education. Capital expenditure is not directly affected, but would obviously be affected indirectly. The greatest anxiety was expressed by opposition members (who in this are supported by the teacher's organisations) about the effect of such a change on the ability and willingness of local authorities to develop their services, and particularly education. Mr. Brooke argued that the new system would increase the independence of local authorities, but he also stressed the government's desire to reduce expenditure.

Sir Edward Boyle, the Parliamentary Secretary for Education, discussed the effect of the changes on education in a speech which tended to lean first one way, and then the other. On the one hand, he said that standards of beauty and design in the schools concerned everyone. For that reason he disliked the use of the over-worked phrase "the frills" in connection with education. And he also said that the government would take into account the need to develop the education services in fixing the amount of the general grant. On the other hand, he said that "if a local authority embarks upon a deliberate expansion of the education service as an act of local policy, it is the deliberate intention of the government . . . that this should in future be the local authority's own affair, in the matter of finance."

Mr. Mitchison, who is the opposition's principal spokesman on local government, thought it vital not to restrict the geographical area to be considered by the Royal Commission on Greater London, because it could not find a solution for many of the problems inside Greater London, but would have to consider the position in relation to the neighbouring counties. He ridiculed the idea that the percentage grants acted as an indiscriminating incentive to further expenditure (the government's phrase) and emphasized that detailed central control had nothing to do with the form of the grant—one could have the most detailed and aggravating control without any financial control, or relax it without touching on financial questions. The Ministry of Education's capital expenditure which would not be affected, prescribed that there should be a numbered peg for each pupil's hat and coat, the space between the stands carrying these pegs, temperatures, lighting and the rest. And he quoted a report by the Institute of Municipal Treasurers and Accountants to the effect that a percentage grant encouraged progressive authorities to improve standards of services. The result of ending the percentage grant for education would, he feared, be to prevent progressive authorities going beyond the minimum the Minister prescribed.

# CRITICISM

by J. M. Richards

HOTEL at DOVER  
designed by LOUIS ERDI

It is always interesting to see the challenge of a new problem being met. A hotel may not sound like a very new problem, but in this one, the Dover Stage, the demands made on hotels by the recent huge increase in motor-coach traffic have for the first time been allowed to dictate the design, which has meant thinking out many of the essential planning problems afresh.

Dover is, of course, the focus in Britain of the international motor-coach business, since all coaches passing to and from the Continent use the Dover car-ferry (2,716 of them, I am told, last year, carrying 75,000 passengers), and this hotel has been planned to help solve the problem, among others, of where the passen-

gers are to spend the first night after arrival and the last night before departure. Especially it will mean that coaches starting from London won't have to leave at crack of dawn to catch the early morning ferry. The hotel (see also pages 221-230) which faces the water-front, and is therefore near the harbour, has been planned in consultation with motor-coach proprietors and its rooms are booked by them *en bloc* for touring parties. This simplifies organization in a way, but it means that the demand for rooms will be seasonal and this had to be taken into account when calculating the finances of the project. Hotels are perhaps, of all types of building, the most dependent on an accurate estimate of financial return in relation to building costs. The Dover Stage, because of its seasonal use, has been costed on the basis of only 50 per cent. occupation, taking the year as a whole (for London hotels the figure normally worked to is, I believe, 85 per cent., and for hotels in provincial towns between 70 and 75 per cent.).

So it had to be a cheap building, and I may add that in any case in designing hotels (but not in most other types of building) it pays to build cheaply even if that means increasing the probable maintenance costs, because maintenance comes out of taxable income instead of from capital. Another relevant point is that hotels are exempt from paying purchase tax on furniture bought for replacement.

A cheap building should not look cheap in the sense of being gimcrack; nor does this hotel, though some of the rather rough and ready trim will have to be looked



at again critically in a year or two's time to see how it has lasted. For even if frequent maintenance is budgeted for, substantial materials solidly detailed are still needed in buildings that get a lot of hard wear like hotels; otherwise the maintenance will amount to a good deal more than repainting and repair and the detail will look shabby before the time for repairing arrives.

The public spaces are obviously the most important from this point of view, and the materials used in the foyers, staircases, etc. of the Dover Stage are well chosen and substantially detailed. One detail of the staircase, however, must be criticized: the hardwood handrail terminates at each quarter landing in a triangular point. The hotel staff report that this has already been complained of by visitors, because the points catch in their clothing and cause damage.

The floor of the entrance-foyer is finished in a particularly nice material (see top picture, page 228): a dark-grey Italian terrazzo in which the aggregate consists of oval pebbles of light-coloured marble, ground away to present a flat upper surface. This—unlike most of the materials used elsewhere—is not cheap, but no architect can be blamed, even in a building where cost is paramount—for indulging in one or two extravagances, and the floor gives a delightful character to the entrance besides providing a hard-wearing, easily cleaned surface, which is necessary when visitors are constantly passing in and out in all weathers.

This entrance foyer is the most successful of the interiors. The others (lower pictures, page 228): lounges, restaurant and a ballroom beyond it (designed to serve either as an overflow to the restaurant when coach-parties in transit have to be given meals at the same time as those staying in the hotel, or as a separate suite that can be hired for town functions)—are fresh and lively and are given a pleasantly airy character by their high ceilings with exposed timber beams; but they suffer, in my opinion, from too many conflicting motifs, materials and colours, which makes the effect restless and over-fanciful.

This criticism applies even more to the two bars at the western end of the building. (They form a self-contained pub, with its own entrance from the landward side of the site—the whole project having been partly financed by a firm of brewers.) The saloon bar especially (right-hand picture, page 228), in the interest of gaiety one must suppose, is a really extraordinary medley of unrelated elements: different areas of wall either painted, timber-panelled or covered with three differently patterned and coloured papers; a floor with patterned rugs superimposed on patterned tiling; bar-fittings, counters and built-in seating bays in a confusing mixture of timber and paintwork. The lesson, I think, is that the richness of effect that it is proper to aim at in a pub is not best obtained by the multiplication of colours and patterns, but by variation of texture (in this room there is little respite from hard, bright surfaces) by the careful relationship of a few colours and, above all, by thoughtfully controlled lighting.

The simplification of internal finishes is not the only (or even the principal) way of keeping down costs. The economics of a building are inherent in the structural conception, and the architect's decision in this case to treat the public rooms and the bedrooms as independent structures was obviously a sound one from the point of view of planning and of economics, as well as giving the building an expressive—even a dramatic—external form in which the functions of the parts are clearly differentiated.

I will not expatiate on the economics, in view of the cost-analysis appearing on another page, and as to the planning, the advantages of concentrating all the bedrooms into one tall slab are obvious. They require light and air and the benefit of the view, and the cellular nature of hotel bedrooms lends itself to reinforced concrete frame construction. Raised as it is on only four points of support, and placed at right-angles to the main direction of the building, the tall structure allows the rest of the building—the public rooms and the kitchens behind them—to flow beneath it and to be planned without the restrictions that would have been imposed by the structural grid if the bedrooms had been placed over them. The public rooms are all only one storey high, of light timber-frame construction. They have a flat—or nearly flat—roof, and the only criticism I have to make is that the grey expanse of this roof makes a dreary prospect when seen from above—a defect often found in flat-roofed buildings, but unusually important here because of the importance that has obviously been attached to the view from the bedrooms.

The placing of the bedroom block also seems to me excellent. It allows a long uninterrupted expanse of restaurant window (the southward view at the other end of the site is less interesting, and this is where the pub is placed, a view from the windows being altogether foreign to the nature of a pub), and by being cantilevered over the approach road, it not only brings the bedrooms as far as possible towards the seaward side but provides a sheltered entrance.

Internal circulation is important, because coach-loads of overnight visitors have to be kept separate from daytime coach-passengers coming in for meals. The former can go straight to the lifts after being allocated their rooms at the reception desk in the entrance-hall; for the latter there is a waiting space with bar off the main circulation and adjoining the restaurant. The bedrooms themselves, being designed for only one night's stay, are of minimum size. Their odd shape, the result of a triangular balcony being taken, as it were, out of them, makes the placing of some of the furniture a little awkward (top picture, page 229), but they are perfectly adequate for their purpose and the provision of balconies fully justifies this small sacrifice, since they give a good view of the harbour to every one of the 30 double bedrooms on the east side of the block. The 12 single bedrooms have no balcony and a less good view. For one night only, it was not thought necessary to provide bedrooms with baths. There are two bathrooms on each floor, to serve six double and two single bedrooms, which is, I suppose, adequate, though only just.

The furnishing of the bedrooms can for the same reason afford to be simple. Large wardrobe space is not required, since one-night visitors do not fully unpack. They do not, in fact, have their main luggage in their rooms. The procedure is that when the coach-passengers have been assigned to their rooms on arrival, taking their overnight bags with them, their luggage is unloaded from the coach, sorted into batches according to the floor of the hotel on which the owner's room is situated, and placed in a special luggage room at the end of the corridor on that floor, where it is locked up in the care of the courier but is accessible to the owner on request.

The structure of this bedroom block, devised by Dr. Hajnal Kónyi, is very interesting and successful. It is fully described elsewhere and I have already noted the flexibility given to the plan by the ground floor rooms being able to flow under it (the main reinforced concrete platform is, in fact, 22 ft. above the ground, leaving room also for a mezzanine floor beneath it, containing cloakrooms and a writing-room in the form of a balcony over the entrance-hall). I will only add that the V-shaped supports on which it stands, exposed on the seaward side (bottom picture, page 224), give great vigour to the structure, and the upper part, with its exposed frame, has the same muscular quality, enlivened by well-detailed balconies and the use of bright colour on the windows. The concrete beams and columns, with exposed aggregate, also have a very pleasant texture and colour. The only reservation I have about materials concerns the cedar shingles used as infilling on either flank. Their colour is pleasant but surely shingles by their very nature (that of an overlapping tile) are inappropriately used to fill a recessed panel (top picture, page 227), and still more so when set beneath projecting balconies?

This new hotel, for all its minor faults of over-fancifulness, is a credit to Dover. I wish one could predict the same of the council flats that are going up next door. What is more relevant here, the two buildings are quite unrelated. Yet they are part of the redevelopment of one stretch of the Dover water-front. Why could they not have been co-ordinated in some way? Apart from a threatened conflict in scale and a probability (judging from the drawings) that the flats will be clumsy and depressing, and will seem even more so alongside the crisp economy of the hotel, the two projects seem to treat the important site they share in opposite ways. The hotel, by inviting the inhabitants of Dover and its visitors on to the water-front, creates a link between harbour and town and (by placing its main block at right-angles to the water-front) makes the visual barrier formed by the building as slight as possible; the flats will no doubt be well situated from the point of view of their occupants, but by their bulk and position (parallel with the water-front) will create a clifflike barrier cutting the town off from the harbour. It may seem unfair to blame Dover Council since they followed the recommendations of an assessor (nominated by the RIBA) who awarded the scheme for the flats first prize in an open competition, but the problem would not have arisen if a proper plan had first been worked out for the whole area.

## TERRACE HOUSING AT W O



*Clive Pascall and Peter Watson designed six houses at Woronzow Road, St. John's Wood, London (above), for a builder, who erected them as a speculation, and wished the houses to appeal to a wide range of families. Each house was to have a garage and a minimum of three bedrooms, with additional accommodation, whose use could be varied by the purchaser. Accordingly, the garage, boiler room, store, and an additional room and bathroom are situated on the ground floor, the additional room (below) being capable of use as a spare room with bathroom, play room and laundry, or study and cloakroom. The living room and kitchen are situated on the first floor and another bathroom on the second floor. The three service units of bathrooms and kitchens are served by a common vertical duct. All rooms are centrally*



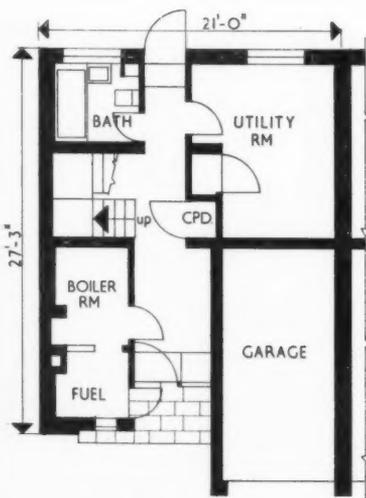
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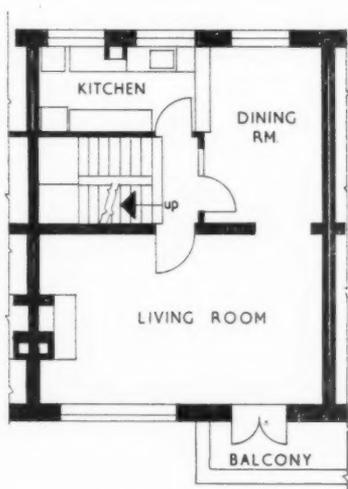
WORONZOW ROAD, ST. JOHN'S WOOD, LONDON N.W.8



heated from the solid fuel boiler, which also heats the water. There is an open fireplace in the living room (right), the boiler and living room flues being grouped together. There is a separate concealed entrance to the boiler room at the front. A detail of the entrance porch is shown above. Conduits are provided for telephones to living room and bedroom. Spine wall construction is used with 13½-in. solid load bearing brickwork externally, 11-in. cavity party walls, and internal walls of 4½-in. brickwork and 3-in. breeze and precast concrete floor units. The roof is timber framed and is covered externally with interlocking pantiles. Floors are finished generally with ¼-in. cork tiles, kitchen and bathrooms with polyvinyl tiles.



Ground floor plan [Scale: 1/8" = 1']

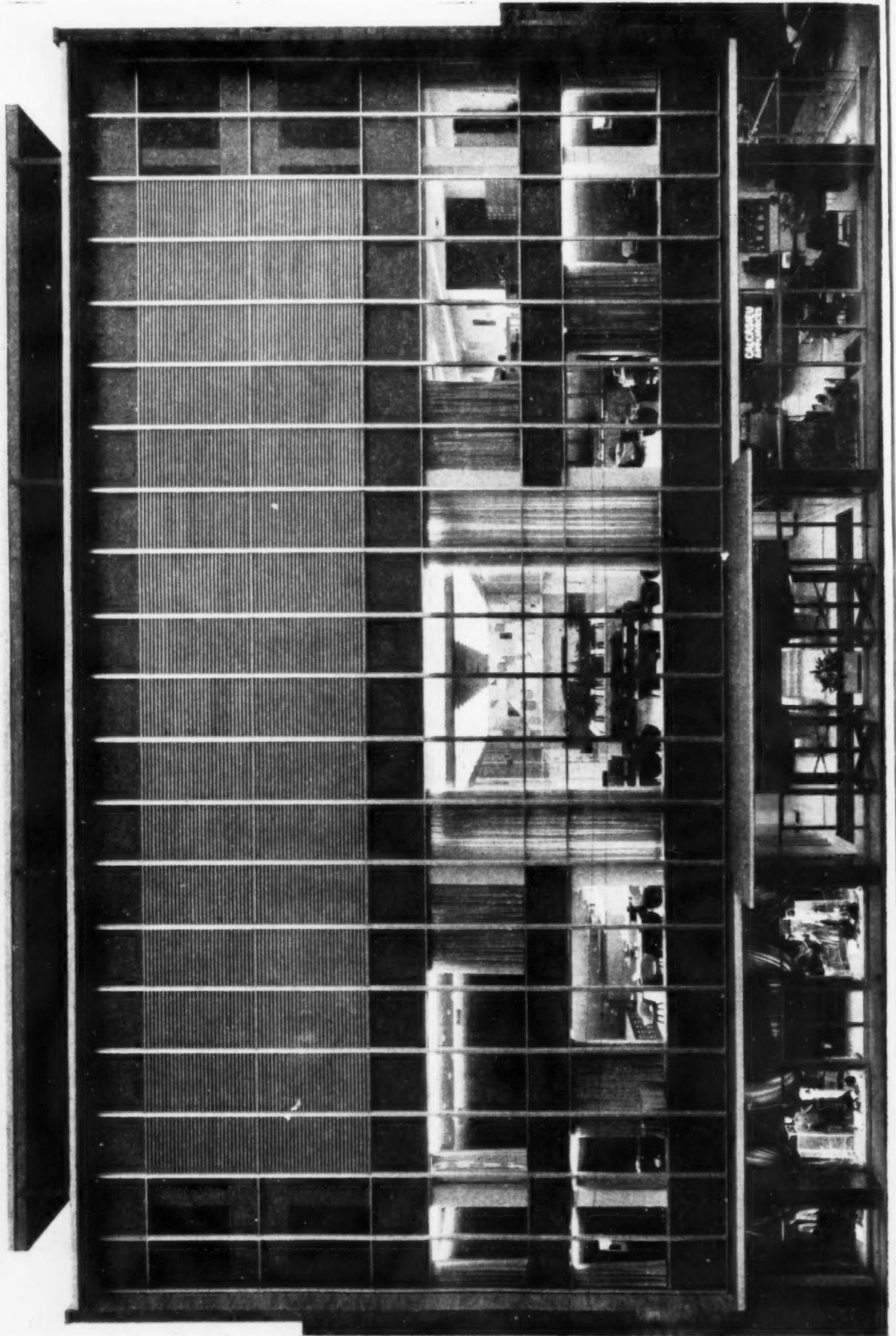


First floor plan



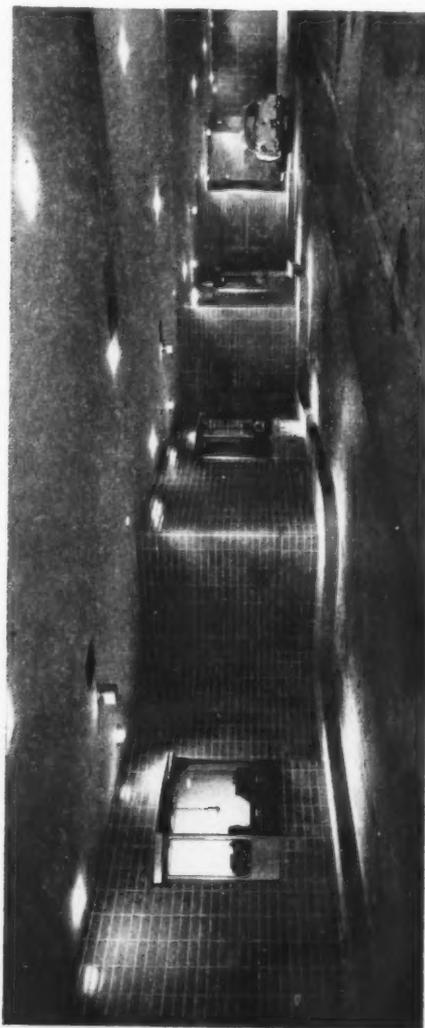
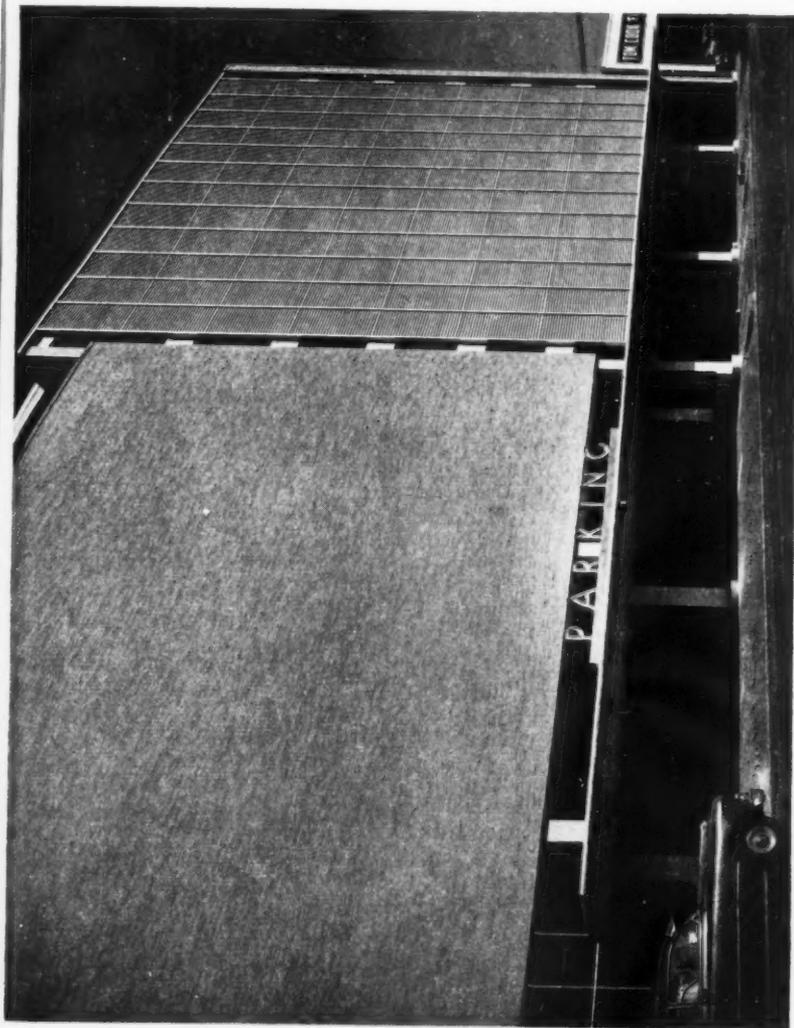
Second floor plan

DRIVE IN AND DRAW OUT: A BANKING SERVICE FOR MOTORISTS



*In banking it has been found in the USA that clients have spent more time*

*In banking it has been found in the USA that clients have spent more time in seeking a car park than they have spent in the bank itself. As it has not always been practical or desirable to remove the banks from the crowded centre to more spacious suburbs, the banks have attempted to find a solution themselves in two ways. The first has been to provide actual parking facilities themselves for the long-term parker, or the man who wants an overdrive. The second has been to provide a banking service direct to the door of the car, thereby saving time and eliminating the need to provide parking space, except in the form of a rather special layby. This is resulting in some fundamental changes in banking architecture, and the photographs shown here of a recently-completed Texan bank illustrate this fairly well. This bank, in Austin, Texas, USA—a town of some 200,000 inhabitants and still growing—was designed by architects Kuene, Brooks and Barr, and illustrates a very close liaison between the architect and a client with a new idea. The ground floor of the building facing the main street (see above) is a shopping arcade, thus bringing in a fair amount of revenue in the form of rent, derived from the most expensive portion of the site. There are two entrances (left) and exits for motor cars. One leads to the basement (below left), which contains four clerks, or "tellers," in specially-constructed booths that are now almost a standard detail in the USA. They are in direct communication with the banking floor above by means of telephone, speaking tube, and a closed television circuit. The latter enables them to check the credentials of any doubtful paper put before them. This basement is in fact a banking floor for motorists, who do not have to leave their cars, and there is also ample room for them to queue up if the four tellers are all occupied. Next to the basement entrance is a vehicular entrance to the multi-storey car park, another revenue-paying venture, which occupies the rear of the building and all the top three floors. Cars reach these upper floors by means of an ingenious sandwich form ramp. The main banking floor is on the first floor, over the shops, and is approached from a central internal arcade up an escalator, a rather unusual feature for a bank, but one likely to find more and more favour as banks move from expensive ground floor sites to the upper floors. Above that is the suite of offices, with the three floors of car park on top.*



MODERNIZED BANK IN WALTHAMSTOW, LONDON, E.17



The extension and alterations to Barclays Bank, Wood Street, Walthamstow, were designed by Clifford Culpin and Partner (architect in charge, Roland Robertson). The illustrations above show the front elevation as it was (left) and as it now is, and the change effected in the interior is similarly shown below. The clients were faced with the problem of providing up-to-date premises for an expanding branch, with some extension at the rear, and all the work had to be done without closing the bank or disrupting its business or security. The architects were provided with a basic layout evolved by the Bank's Premises Department. Because of the need to keep the bank open, a programme was carefully worked

out and inserted in the Bills of Quantities. However, this programme had to be revised many times as the work proceeded, because of hidden defects in the old building. Dust from a builder's depot opposite and an adjacent railway has always been a source of trouble, so it was decided that the banking hall windows on the street front should be fixed and double glazed and that all air for ventilation should be brought in through the rear of the building in ducts, filtered and temperature controlled. The design of the cashier's counter was mainly governed by the fact that the client required fluorescent light fittings and counter grilles. White plastic covered columns were used to support these fittings and grilles.



The fluorescent fittings were a first attempt at using a new aluminium extrusion, and by wiring back through the column it was possible to place all the switch and starter gear in one easily accessible cupboard. Approx. cost £16,000. Quantity surveyors, L. A. Francis and Son; general contractors, E. Fuller and Son, and for the fixtures and fittings, Hibberd Bros. Ltd.

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## THE INDUSTRY

From the industry this week Brian Grant reviews a new geometrical curve, a catalogue of sanitary ware, central heating pumps, steel office furniture, sliding doors, a new spring door-closer, and perspex roof lights.

## DRAWING INSTRUMENTS

A German made flexible curve known as the Hansa-Cobra is now being sold in this country. The curve has a triangular profile  $\frac{1}{2}$  in. wide and consists of a polythene covering on a soft metal core. Each face of the triangular section is slightly concave so that it is easy to grip and very little pressure is needed to stop it slipping. Prices start at 12s. 9d. for a 12 in. curve, and 6 other lengths up to 5 ft. at £3 are available from stock. (Langford & Hill Ltd., Warwick House, 9 Warwick Street, London, W.1.)

## SANITARY WARE

Catalogue No. 129 from Johnsons contains about 120 pages illustrating Vitramid vitreous china and Pyramid sanitary earthenware, both of which are made in a range of ten colours. The list is almost a model of its kind, as, apart from two pages of oddments such as toilet paper holders, every fitting is illustrated with a photograph and a fully dimensioned drawing. The solitary page of text is entirely factual, no salesmanship whatever being detectable. Good. (Alfred Johnson & Son, Ltd., Queenborough, Kent)

## CENTRAL HEATING

Sigmund Pumps have recently issued a small manual setting out the advantages of accelerator pumps for house heating and similar sized systems. By allowing the use of smaller diameter pipes, forced circulation makes for a neat and unobtrusive system,

and pipes may be fitted regardless of levels as long as there are the necessary air vents. Moreover the saving in cost of the pipes will often pay for the pump. Messrs. Sigmund produce an exceptionally neat accelerator pump known as the Thermopak which is made in several sizes for pipe diameters up to 4 in. These pumps are also useful for improving existing gravity systems which may be inadequate by modern standards. There are for example, many churches where the circulation is based on a temperature drop of 40 degrees between flow and return. This difference can be halved by using a pump so that the mean temperature of the system, and the heat output, is increased. The pump is easy to install, as it needs no separate foundation, but can be mounted in either vertical or horizontal pipe runs, the only limitation being that the pump shaft must always be horizontal. (Sigmund Pumps Ltd., Team Valley, Gateshead 11)

## OFFICE FURNITURE

Standardized steel office furniture normally includes desks, filing cabinets, cupboards, and little else. Constructors have now added to their range a bookcase or display cabinet with sliding glass doors of polished plate. Dimensions are 42 in. high, 36 in. wide and 12½ in. deep, with a shelf depth of 10 in. Priced at £17 16s. including purchase tax, the cabinet has two adjustable shelves, but extra shelves can be supplied, also a lock for the doors. Standard colours are olive green or grey stove enamel. (Constructors Ltd., Birmingham 24)

## SLIDING DOORS AND GEAR

As most people know, Kings of Stevenage make door gear of all kinds, for both sliders and folders, and for round the corner types. A recent publication (SD57) contains 160 pages of information, and full sized drawings of most of the equipment, or else diagrams with tables of dimensions. The firm also makes power operated and other special purpose doors, and it is interesting to note that a further development is the production of material handling equipment such as overhead runways and conveyors, as well as power operated pulley blocks and farm equipment. (Geo. W. King Ltd., Argyle Works, Stevenage, Herts)



The new Constructors' steel bookcase or display cabinet.

## DOOR CLOSERS

A new Union door closer has just been announced by Parkes of Willenhall. It is produced in only one standard size, but is available with four different strengths of spring to suit different door widths and weights. Standard models allow for clockwise or anti-clockwise opening up to 120 degrees, and can be provided with a device to hold the door open at 90 degrees. A further pattern allows doors to open up to 180 degrees. (Josiah Parkes & Sons Ltd., Union Works, Willenhall, Staffs.)

## ROOF LIGHTS

Perspex domes for top lighting are no new thing, but there is now available a double-skinned type, hermetically sealed, with an air space. The outer skin is 4.75 mm. thick, and the inner is 2 or 3 mm. according to the size of the light. The U value of this double-skinned unit is 0.42, so that condensation should be avoided, and the double unit is no more difficult to fix than the standard dome. (Cordar Roof Lights, 34, Dean Street, Newcastle on Tyne, 1.)

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# MARLEY EAGLE BEAMS

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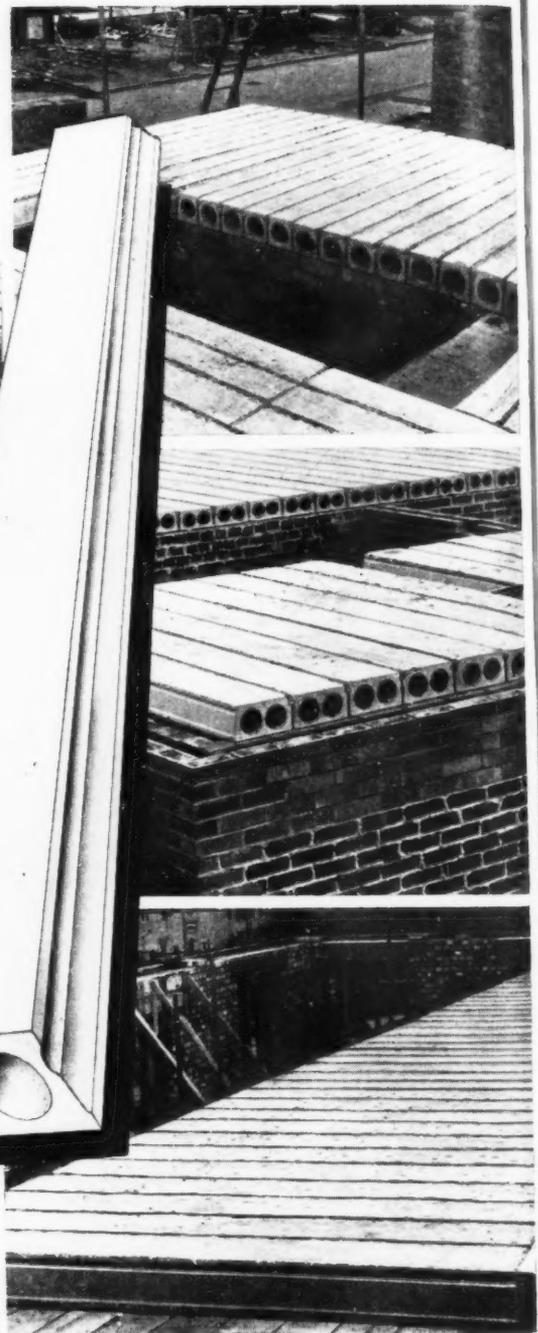
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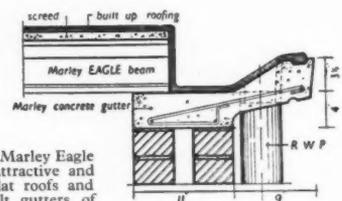
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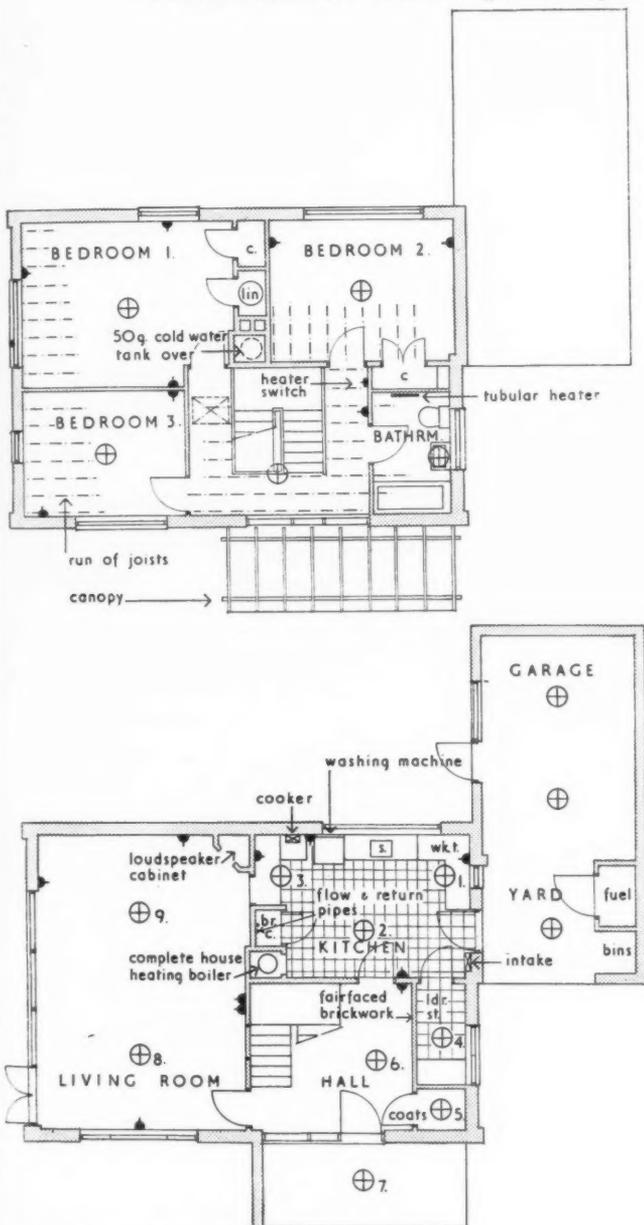
combined with Marley Eagle Beams makes attractive and well finished flat roofs and provides inbuilt gutters of large capacity.

technical section

26 SERVICES AND EQUIPMENT: MISCELLANEOUS  
small electrical installations. 2 a small house installation in TRS

In their first article (AJ, July 25) our authors, Peter Jay and Clive Wooster, described the fundamentals of electrical installation. In this and their next article they take an actual house as a "guinea pig" and go through the motions of designing an installation in tough rubber sheathed cables. Later they will do the same for an alternative installation using screwed steel conduit, and later still they will discuss the installation which was actually carried out. The house was chosen because it was felt to be a good example of a type of house which is very characteristic of this decade. They wish to express their thanks to the owner of the house, G. A. Clark of Taunton, and to the architect, Kenneth Steel, for permitting its use in this way.

From this point we will consider in some detail the installation in the house whose plans are given in Fig. 1. The house is of conventional construction with a solid ground floor, and all the lighting pendants and socket outlets have been marked in. Unfortunately, it is not possible to represent the outlets fully using British Standard symbols, as these do not include separate symbols for all the different types of equipment in common use. There is, for instance,



The house at Taunton which provides the example in these articles.

no way of distinguishing between flush and surface accessories, and no neat symbol for a multigang switch. Further, the symbols are not such as to stand out clearly when marked on an ordinary print.

This discussion is confined to a house with a supply of Alternating Current (A.C.), and to an installation using Tough Rubber Sheathed (T.R.S.) cable. This cable is so called because each conductor has a single thickness of rubber insulation, the earth wire, if any, is bare, and overall there is a thick outer sheath of black rubber, which affords sufficient mechanical protection for most purposes.

We have confined the discussion to this one case because it is among the commonest in this country for private building, and also one of the easiest to understand. It therefore affords a good starting point for a description of technique.

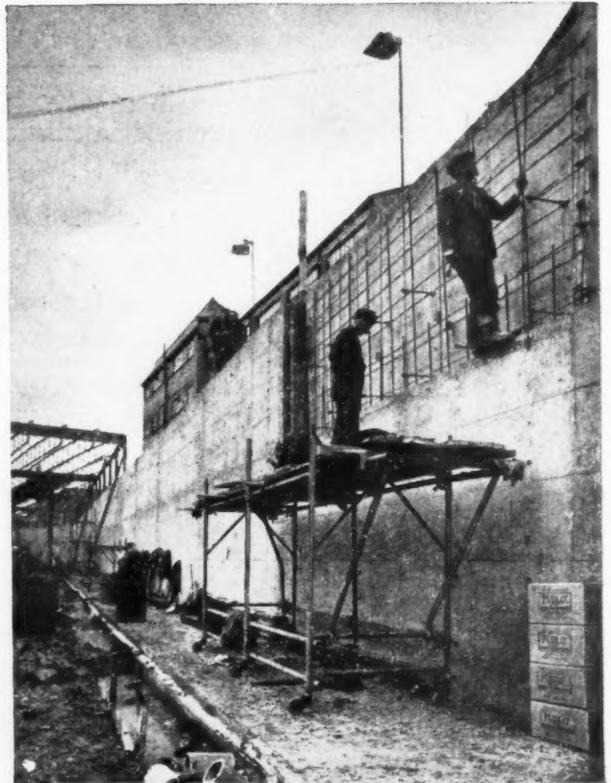
In what follows we describe certain methods and points of practice in very considerable detail, but

Fig. 1. Ground and first floor plans of the house at Taunton.  
[Scale:  $\frac{1}{16}$ " = 1' 0"]

26 Services and equipment: miscellaneous. Small electrical installations. 2 a small house installation in TRS

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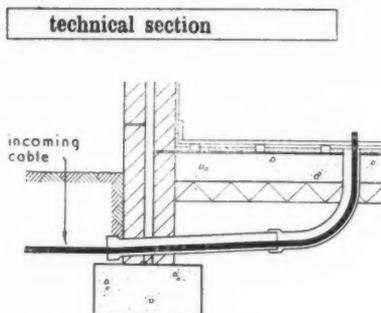


Fig. 2. Duct for entry of service cable.

must point out that there are engineers who in certain cases prefer methods other than those we describe. It is this very impossibility of achieving a final solution which has so far stultified every attempt to give a clear explanation of wiring technique to the non-specialist. Were we to describe every acceptable alternative it would necessitate lengthening the articles to a considerable extent, and sacrificing a good deal of clarity. As it is, we are aware that we have sometimes done less than justice to other schools of thought.

This may not be held to excuse the lazy or careless electrician, and in many cases the "other schools of thought" prefer some more rigorous system than the one we describe.

At the same time, it must be made clear that we are not describing the views of one or two men only, and have said nothing which will not have the agreement of at least a considerable proportion of installation engineers.

**INTAKE:** This is the position at which the incoming cable from the street terminates, and the following equipment must be located here:

1. The sealing chamber and fuses of the supply cable.
2. The meter(s).
3. The main switch and circuit fuses of the installation.
4. The bell transformer and, frequently, the bell.

All the following remarks apply whether the supply cable comes in underground or overhead.

**LOCATION:** The position chosen for the intake must fulfil the following requirements:

It must be possible to bring in the supply cable without undue difficulty.

It must be reasonably accessible both to read the meter and to repair fuses, etc., and had preferably not be placed in a cupboard which is likely to be filled with other things.

It should be separated from the gas main and meter by a fire-resisting partition.

It should be kept well away from any likely condensation, and must never be placed in a small or ill-ventilated kitchen. If it is placed in a large and well-ventilated kitchen it should be kept well away from the cooker, especially from a gas cooker.

Where the Supply Authority require that the installation shall be earthed to the water main, it should be fairly easy to run the earthing strip from the intake to the water main.

There should be an easy and accessible route for the outgoing cables. In this house an apparently obvious position for the intake would be in the ground floor cloak room, except that all outgoing cables would have to pass under the bath, and so be inaccessible as soon as the latter is installed. Again, the broom cupboard in the kitchen might seem a convenient position, except that it would be impossible to keep the cables away from the water pipes.

Without prejudice to the above, essential, conditions, the intake should be as centrally placed on the ground floor as possible.

The Supply Authority should be consulted at the earliest possible moment regarding the provision of a service, and it should not necessarily be assumed that they will run the cable from the road to which the house faces. For an underground service, unless the intake position is located immediately above the point at which the cable enters the building, a duct will probably be required, as shown in Fig. 2. This and similar matters will need to be discussed in the early stages of planning.

**CONSUMER'S UNIT:** It is now customary to employ a *Switch fuse control unit*, which incorporates a main switch and the appropriate circuit fuses as one piece of gear, with the meter and sealing chamber separate (Fig. 3). *E.D.A. units* are also available, in which the sealing chamber, main fuses, main switch and circuit fuses are all drawn from a standard range of components which can be assembled in any one of a number of ways (Fig. 4). The supply Authority normally provide the sealing chamber and main fuses, so that when it is desired to use an E.D.A. unit, their permission should first be obtained, and they will then make a rebate in respect of these two components. As a further refinement, the main switch and circuit fuses may be mounted in a metal cabinet, also containing space for the meter, sealing chamber and bell transformer (Fig. 5). This system was proposed in Post War Building Study No. 11, and the cabinet is called a *Consumer's supply control unit* (Consumer's Unit).

There is some confusion in terminology between the three different systems, but the one adopted here is correct to the best of our knowledge.

From the point of view of appearance and mechanical reliability, the Consumer's Unit is infinitely preferable, but it will cost between £5 and £6 10s. as against between about £2 10s. and £3 10s. for the switchfuse control unit. In any case, a metal-clad unit should be used, and although Switchfuse Control Units are obtainable in wooden or plastic casings, these are not to be recommended as they do not afford adequate mechanical protection, and introduce difficulties in fixing and earthing the outgoing cables.

Where the intake position is such that it would otherwise be necessary to build a wooden cupboard round it, it may be cheaper and more convenient to provide a metal cupboard as a complete item. Where, however, it is possible to mount the units, say, high



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Fig. 3. (above). Switch fuse control unit, Fig. 4. (below). E.D.A. unit.

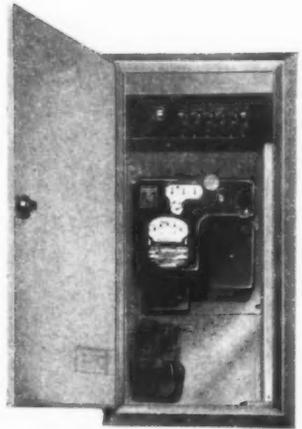
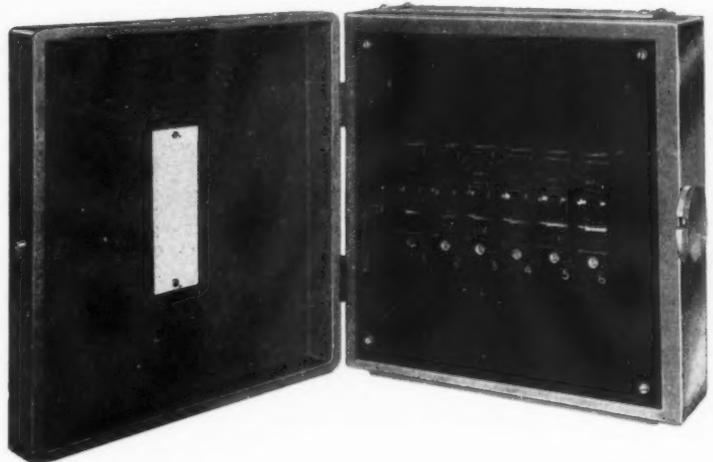
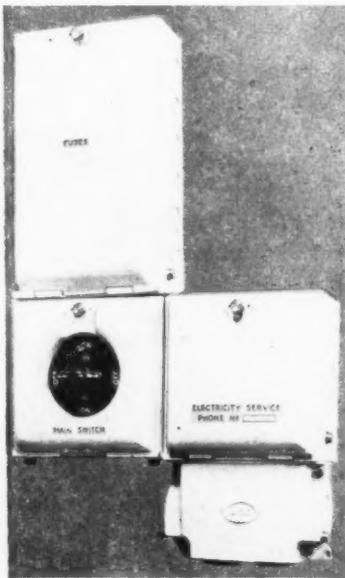


Fig. 5. (above left). Consumer's supply control unit (flush). Fig. 6. (above right). Consumer's supply control unit (semi-flush). Fig. 7. (below). Fuseboard with miniature circuit breakers in place of fuses.



up on the wall in a full height broom cupboard where they will not be obstructed by other gear, the cheaper system may be adopted at discretion.

In this house, the intake position is on the wall in the kitchen, as shown and a semi-flush unit will be used (Fig. 6). The supply cable will in this case rise up in the wall cavity, and the consumer's unit will be mounted at a height of about six feet from the floor. If the intake position had not been on an exterior wall, a duct, as shown in Fig. 2, would have been necessary.

**FUSES:** In general, two types of fuse are available, the rewirable kind, in which the fuse itself is a piece of bare wire, and the cartridge, in which the fuse is replaced as a complete unit. Where the house is very near the Supply Authority's sub-station, the cartridge (High Rupturing Capacity, or H.R.C. fuse) is preferable, as it will withstand certain unusual fault conditions which may damage the carrier (the removable component to which the wire is attached) of a rewirable fuse.

It is desirable to consult the Supply Authority on this

point, but in the vast majority of cases the rewirable fuse will be perfectly adequate, and being cheaper, is, in our opinion, preferable. It is sometimes urged that the housewife would rather change a cartridge, which is quite easy to do, than mess about with fuse wire and tools. This may be true where she has spare cartridges in the house but, in our experience, cartridges are always forgotten, and after a fuse has blown a piece of fusewire is wrapped round a fuse carrier not designed to accept it. This can be dangerous and it is therefore preferable to instal carriers designed for the wire which will be used anyway. In the few cases mentioned above, where the Supply Authority recommend cartridge fuses, the electrical contractor should provide a small initial stock of spares, two of each size used, to be left at the intake position.

**MINIATURE CIRCUIT BREAKERS:** Equipment containing *miniature circuit breakers* (m.c.b.s.) (Fig. 7) in place of fuses is now available for private houses. A circuit breaker, as explained under earthing, is an electrically operated switch, but the m.c.b. will turn itself off if too high a current passes, and serves a

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different function from the earth leakage pattern.

After an m.c.b. has turned itself off it can simply be turned on again by hand once the fault has been removed, which is obviously an attractive idea, especially to the householder who is not mechanically minded. However, there is the disadvantage that the very ease of turning on again removes the implication, which is clear when a fuse blows, that something is wrong and needs attention. As regards the increased ease of use as compared with the fuse, in a good installation properly maintained fuses blow so comparatively rarely that we do not think that this is very important.

Some engineers doubt whether the m.c.b. affords adequate protection for the small cables and flexes used in private house wiring, and this matter has received a great deal of attention in the technical press. On the whole, we think that the manufacturers have had the best of the argument, and except in the case mentioned above, where the house is very near the substation and cartridge fuses are necessary, the protection afforded by m.c.b.s. will be quite adequate. The only real doubt is what happens to an m.c.b. after twenty years without operation. It is possible to argue for hours on this point, but the patterns available in this country have not been in use long enough for anyone to know for certain.

The chief advantage of circuit breakers is that they are fool proof, and it is impossible to misuse them as rewirable fuses are so often misused. They are sealed, and even jamming the handle down will not prevent them operating, whereas cases in which thick wire, and even nails, paper clips and copper strip have been inserted into rewirable fuses are quite common. Careful design of the fuse carrier should prevent the insertion of any of the last named, but even the best designed carrier can still be fitted with a wire three or four sizes too large for the circuit it is supposed to protect.

To a local authority, which is responsible for maintenance and repairs in all its housings, the reduction in maintenance costs may well offset the higher capital cost of m.c.b.s. To the owner-occupier the risk is not so serious, as he will be at pains to look after his own property, provided that he knows what to do, and it is doubtful whether it is worth incurring the extra cost.

In this connection, it is a great pity that there is no standard card available giving instructions for repairing fuses and changing plugs, etc., which could be left at the intake position of every house. There will always be a small number of people who will ignore such instructions, but there is a larger number who would be only too glad to have some instructions to follow. We understand that previous attempts to issue such an instruction card have been opposed by electrical contractors, but they should by now realize that whether they ought to or not, few people send for the electrician every time a fuse blows or a plug needs changing, so that if they are going to do it for themselves they might as well be told how to do it properly.

**NUMBER AND RATING OF CIRCUITS.** In this house there are no complications and we shall therefore use rewirable fuses. The house has fourteen lighting points (excluding the garage and yard), nineteen ring points, an electric cooker, a 3 kW immersion heater, and the garage and yard lighting. The floor area of the house is between 1,100 and 1,200 square feet, and there are more than ten ring points, so that the two rings have to be installed. Two lighting circuits are ample in this case, while the cooker, immersion heater and garage require separate fuseways. The fuseways are, therefore, as follows:

- |    |        |                       |
|----|--------|-----------------------|
| 1. | 5 amp  | Ground Floor Lighting |
| 2. | 5 amp  | First Floor Lighting  |
| 3. | 30 amp | Ring A                |
| 4. | 30 amp | Ring B                |
| 5. | 30 amp | Cooker                |
| 6. | 15 amp | Water Heater          |
| 7. | 5 amp  | Garage                |

It is always prudent to provide a spare fuseway and, as Consumer's Units with an odd number of fuseways are only 2s. cheaper than the next larger size, an eight-way unit should be used here. With the majority of makes, the rating of fuseways can be specified at the time of ordering and the spare might as well be a 15 amp way. If electric cooking and water heating had not been provided from the start, it would have been advisable to provide spare fuseways sufficient for both purposes, and in some cases the provision of these fuseways and attendant wiring is a condition of obtaining a connection to the supply network at a low charge. This point is dealt with more fully in a later section.

**CONNECTION OF THE CONSUMER'S UNIT.** The Supply Authority is responsible for fixing the meter, sealing chamber, etc., and the electrical contractor only for fixing the consumer's unit, leaving "tails" (short lengths of cable) for connection to the meter, and for earthing the unit. This is generally affected by running copper strip with holes punched at quite close centres, called *earthing strip*, from the earthing terminal on the metal case of the Consumer's Unit to the sheath of the supply cable, or the water main, and there it is clamped round the cable or pipe after the contact surfaces have been thoroughly cleaned (Fig. 8). Where it is allowed, earthing to the sheath

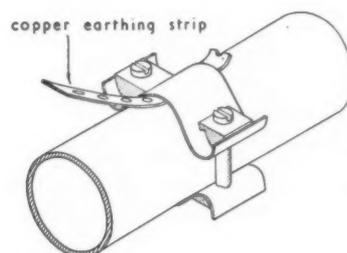


Fig. 8.



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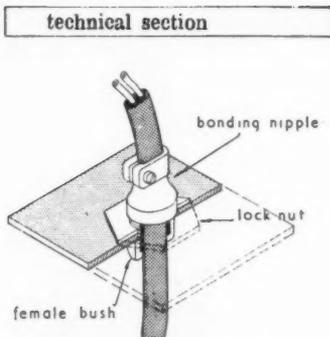


Fig. 9. Diagram of bonding nipple.

of the supply cable is the most convenient system, but in certain cases it is not permitted, and the water main has to be used instead. See also the discussion of earthing in the previous article.

**OUTGOING CABLES FROM THE CONSUMER'S UNIT:** As stated earlier, 3/029 cable should be used for the lighting, and the cable will pass out of the Consumer's Unit through 3/4" knockout holes in the casing. These holes should be fitted with *bonding nipples* (Fig. 9) which grip the cable and prevent it either pulling loose or chafing against the edge of the hole. These nipples should be used to secure cable whenever it passes into or out of a metal box.

Where the cable contains an earth wire, as it will sometimes for the lighting and always for the 7/029 cable to the ring sockets, this earth wire should be connected inside the Consumer's Unit either to a terminal welded to the casing, or to a special connector block provided for the purpose. There should be a terminal or connector within an inch or so of each cable entry, and the earth wires should not be twisted together and run in an untidy bunch round the inside of the Unit, and then all be clamped under one terminal. The latter method is most unsatisfactory, and the wires will very likely work loose or snap off in time.

**CABLE ROUTING—Ground Floor Lighting:** We will now consider the selection of cable routes, and as an example will deal with the ground floor lighting in some detail. As explained earlier, the "loop-in" system of wiring is adopted, using ceiling roses with three terminals, which we may call *a*, *b*, and *c*. A twin cable is taken from the fuseway (properly

speaking, the red runs from the fuse, and the black from a brass terminal block, called the *neutral block*) to the first rose and there the red wire is connected to terminal *a* and the black to *b*. Thence another pair of wires is taken on to the next rose, where the red and black wires are connected to the corresponding terminals, and so to all the points fed from that fuseway. Another twin cable is taken from each rose down to the switch, the red being connected to terminal *a* and the black to terminal *c*. The flex and lampholder are then connected to terminals *b* and *c*, so that the lamp is connected to the supply via the switch, as shown in Fig. 10.

This is the general idea, which is subject to amendment in each case. In the house under consideration there are three lighting points in the kitchen and two switches, the light near the back door and that near the cooker being controlled together. In this article we are not specifically concerned with lighting, but we have not been extravagant in placing three points in the kitchen, and it cannot be lit adequately with less.

The choice of the best route for the main cable (that leading to the *a* and *b* terminals) is not immediately obvious. If the points are numbered as shown in the figure, the following routes are possible:

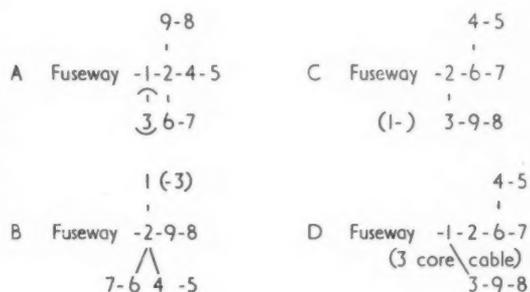
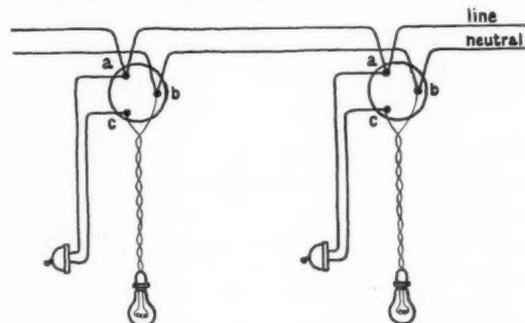


Fig. 10. The "loop in" method of wiring for lighting points.

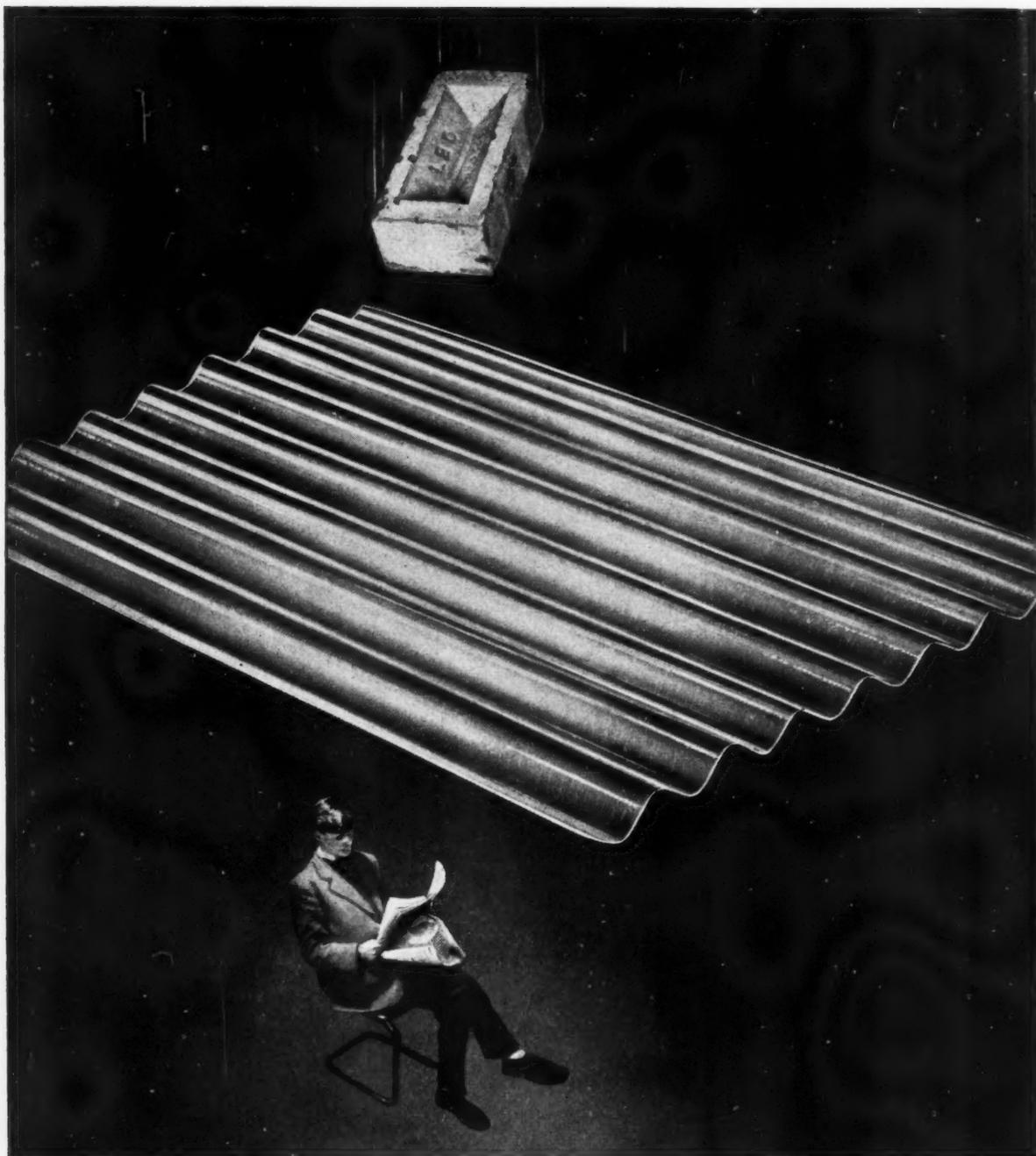


The above diagrams do not show the pairs of wires to the switches. The cables running between points 1 and 3 are connected to the *b* and *c* terminals of whichever point is fed first, and the second point of the two has no switch of its own, but is fed from that of the first.

In plan D we run a 3-core cable between points 1 and 3, interconnecting the *a*, *b* and *c* terminals, so that the feed on to point 9 runs from the *a* and *b* terminals of 3, while the flex of 3 is connected across *b* and *c*.

The three-core cable referred to contains three equal cores, all with their own insulation. Twin with earth cable has one bare core, usually of a size smaller than the conductors.

Plan A involves accommodating five twin cables above the rose of point 2 (the four cables shown and the switch cable), while Plan B necessitates six. Four is in fact the maximum number that can be coped with, and we must therefore choose either C or D. The full wiring diagrams for these two routes are



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## technical section

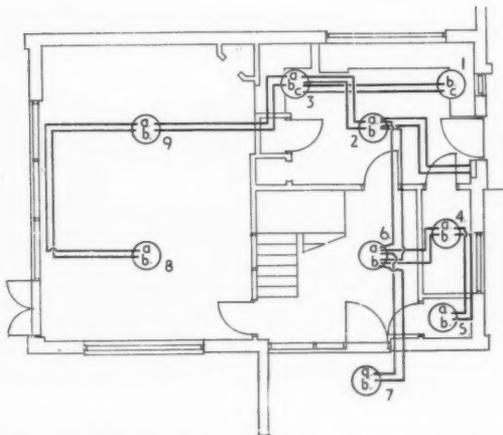
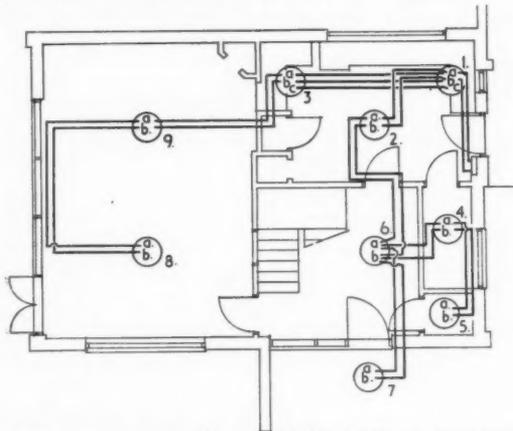


Fig. 11. Diagrams showing two alternative layouts for ground floor wiring. Above, layout C; below, layout D.



shown in Fig. 11. We would be inclined to choose Plan C, but there is no particular objection to D. This brief discussion may give some indication of the need for clear thought in advance about the proper routing of cables, and the sort of things which can go wrong where this thought has been lacking. It may also serve to indicate how structural changes, in themselves apparently unimportant, may necessitate an entire change of plan. For instance, the route of the water pipes from the cylinder to the bathroom might

well make it impossible to wire direct from Point 2 to Point 3, making Plan D preferable after all. Further, where an additional point is added at a later stage, when some of the cable has already been installed, it may not always be possible to run cables from the nearest point, and it is often better to connect to a ceiling rose some distance away.

Although we condemned the use of spurs in an earlier section, we have shown two acceptable cable routes which involve branches not unlike spurs. The situation here is quite different, as 3/029 cable is used throughout, which is amply protected by the fuse, and where there is a sufficient number of sockets provided nobody is likely to connect a heavy load to a ceiling point. Even so, no more than one branch should be taken from one ceiling rose, for the reasons already given.

**GROUND FLOOR LIGHTING CIRCUITS:** Where the outer sheath of the cable is stripped back to make connection to a ceiling rose the exposed cores must, according to the regulations, be placed in an incombustible enclosure. The ceiling may form the top of this enclosure, provided that it is of incombustible material, in which case the sheath must protrude from the ceiling surface, and should not be stripped back too far. A very much better system is to use a *flanged back plate* as shown in Fig. 12. This is a plastic plate with knockout holes for the cable, which can be screwed to the ceiling so that the plate and rose together form a suitable enclosure for cable connections. Although the figure shows five knockouts, four cables is the most that should ever be brought back to one ceiling rose.

Skirted lampholders, as shown in Fig. 13, should be used in the kitchen, and in all rooms which either contain a water tap, or have a stone floor. The latter are partial conductors, and it is possible to get shocks very easily when standing on such a floor and handling electrical apparatus. In the cloakroom a battenholder will be rather better than a pendant, but it must be a "loop-in" battenholder with the third terminal.

The light under the porch will have to be fitted in such a way that it can suffer no damage from moisture. This is dealt with later on, and it is necessary to say here only that the cable should run on the underside of the joists, and that the light itself should be fixed to a batten spanning two joists, leaving at least  $\frac{1}{2}$  in. clearance above to assist in drying out.

**CIRCUIT FOR TWO-WAY SWITCHING:** Points 8 and 9 in the living-room are to be two-way switched, independently, from both doors. The circuit diagram for two-way switching is shown in Fig. 14, from which it may be seen that operating either switch turns the light on if it was previously off, and vice versa. In terms of cable runs, this involves a twin cable from the rose to the first switch, and a three-core cable between the two switches. There are two other methods, both of which are wrong, but often found. The first is shown in Fig. 15, and involves a direct connection between one core of the three-core and one of the twin cable, not passing through the first switch, which is effected by placing a connector in the switch box. This is

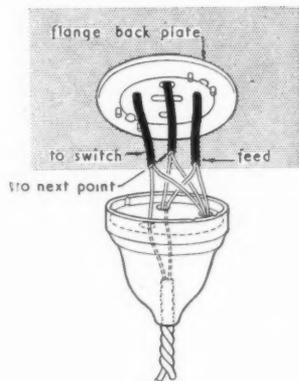


Fig. 12. (left). Diagram showing flanged back plate. Fig. 13. (above). Skirted lampholder.

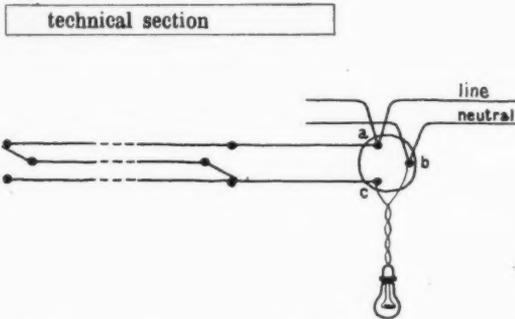
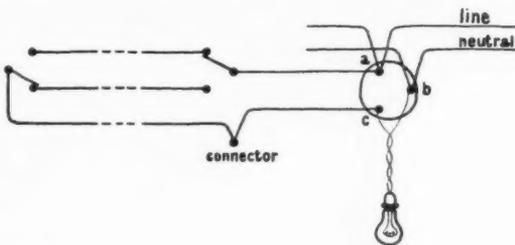


Fig. 14. (above). Correct method for wiring two-way switch.  
Fig. 15. (below). Incorrect method.

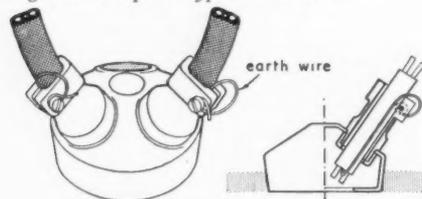


quite unnecessary, and the connector is likely to give trouble. Another method is to run a single-core cable from terminal (a) to the first switch, a twin cable between the two switches, and another single-core cable from the second switch back to terminal (c) at the rose.

This is also wrong, as a single-core cable is most difficult to deal with and requires fixing at much closer centres than the intrinsically more rigid twin cable. The method is also more expensive, as it involves three separate cable runs in place of two. As we shall see later, when wiring in conduit a method very similar to this may be employed without trouble, and there are those who apply it to T.R.S. without thinking.

**EARTHING FOR THE LIGHTING CIRCUIT:** We have so far assumed that there is no need to run an earth wire with the lighting circuit, and this is often the case. However, there is an increasing tendency to use metal lighting fittings, which have to be earthed, and in such a case termination above the ceiling rose should be in a round "loop-in" type conduit box, as shown in Fig. 16, which is itself earthed, and earths the fitting by means of the fixing screws. Where it is intended to use only one such fitting, it is not necessary to run an earth wire round the entire lighting circuit, and the earth wire can be run from the nearest 13 amp socket in the floor above. If a metal fitting were to be used for the porch light, the light

Fig. 16. "Loop-in" type conduit box.



in the hall would have to be provided with a conduit box, earthed as described, and twin with earth cable run to the porch.

As with all boxes, bonding nipples should be used to secure the cable at the entries, and the outer sheath should pass unbroken into the box, the earth wire, if any, being passed out again and clamped under the screw of the nipple. Where a box has been used, the floor above should be trapped for access.

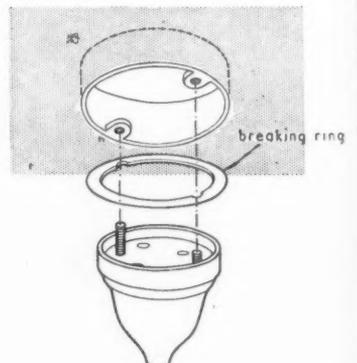
Where there are, or may in the future be a considerable number of metal fittings, it is better to arrange for conduit boxes to be used above all the ceiling roses, and the mains wiring should be in twin with earth cable, the earthing being completed through each nipple from the terminal at the consumer's unit. There is no need to run twin with earth cable down to the switches unless they, too, need earthing. Where conduit boxes have been used, a *breaking ring* should be used between the box and the rose, whose function is to mask the joint between the ceiling plaster and the box (Fig. 17).

**SWITCHES AND THE EARTHING OF SWITCHES:** In this house and most modern houses the switches are likely to be of the plaster depth type (Fig. 18) or, where it is necessary to fix a switch to an unplastered wall, of the round surface type, with a plastic cover (Fig. 19).

The earthing of plaster depth switches has been exercising the ingenuity of manufacturers for some time. The point is that the switch has to be mounted in a box, which is frequently of metal, and although nearly all the exposed parts of the switch are made of plastic, there are generally two metal fixing screws which could be touched with a pencil, pen-knife or other implement, even although they are recessed a little below the surface.

Where the box is made of metal, there is a very slight, but real risk that a wire might break loose inside the box, in which case the fixing screws could become live. It seems excessive to earth every box owing to this possibility, and a number of designs

Fig. 17. Diagram showing breaking ring between conduit box and ceiling rose.



technical section

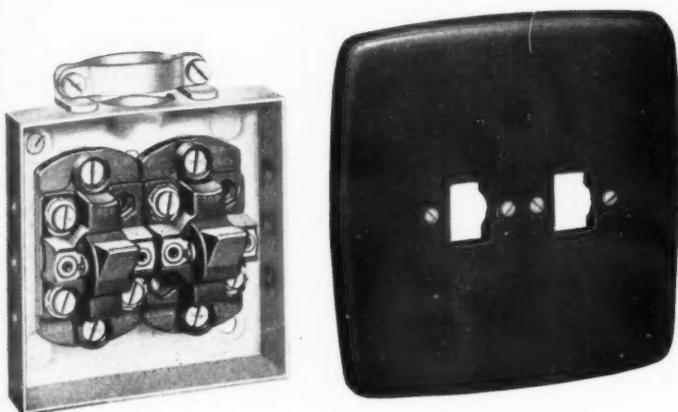


Fig. 18 (above). Plaster-depth switch with cover off. Fig. 19 (left and below left). Two patterns of surface switches.

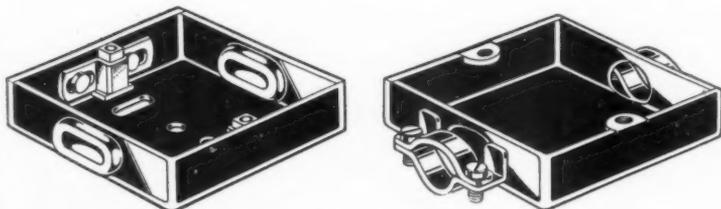


are available which get round the difficulty. The best of them is illustrated in Fig. 20, from which it will be seen that the fixing screws go into insulating pillars which can slide up and down a short distance at the sides of the box, thus allowing the switch to be levelled off even if the box itself is slightly skew. In this way, the fixing screw is completely protected, and can never become live. Other designs are available in which the screw is attached to an insulating lug but is not protected for the whole of its length. Alternatively, a wooden or plastic box might be used, but none of these have provision for levelling, and metal is better.

Alternatively, the metal box can be earthed, in which case a box with *cleat entry* should be used (Fig. 21). The cleat performs a function similar to that of a bonding nipple, although this has the serious disadvantage that the actual earth connection is buried under the plaster.

An ordinary round surface switch made of insulating material and mounted on a hardwood block need not be earthed. One of the patterns illustrated has metal fixing screws for the cover but these are embedded in an all-insulating base, and the possibility of their becoming live owing to a breakdown in the internal insulation may be neglected.

Fig. 20 (below left). Plaster-depth switch box with insulating pillars for fixing screws to plate. Fig. 21 (below right). Plaster depth switch box with cleat entry.



INFORMATION CENTRE

10.160 design: building types FARM BUILDING

*Farm Buildings.* A series of four articles by Kenneth S. Lycett A.R.I.B.A. (*Farm Mechanisation*) (Feb., Mar., Apr., June, 1957)

The periodical in which these articles are published has as its declared aim the provision of a link between farming and engineering. The first of the series compares a number of types of grain storage structure, the second and third are concerned with the application of a standard plan unit to (a) a garage and workshop for the housing and maintenance of implements and machines for a 300 acre arable farm, and (b) two cow-housing systems. A combined multi-crop drying and storage-building designed around a dutch barn is described in the fourth article.

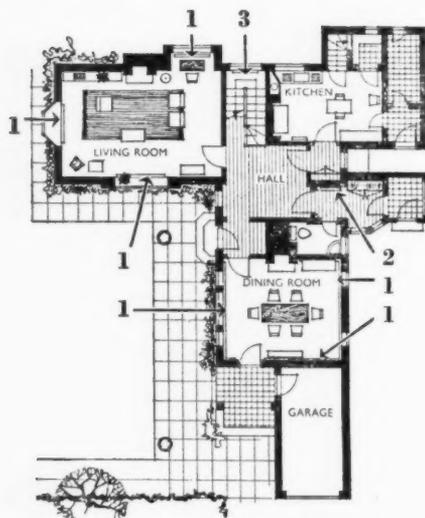
The need for integration between the various buildings on the farm (as opposed to haphazard development) is stated in the opening paragraphs of the first article but the theme is not developed. Descriptions of designs for specialized and multi-purpose buildings display a great deal of farm building "know-how" on the part of the author, but the diffuse way in which advice on functional planning is intermixed with snippets of information on how to avoid building failures leaves the reader in some doubt as to the purpose of the series. If the intention was to help the "build-it-yourself" farmer, the little knowledge conveyed here might be dangerous. On the other hand, if the author wished to show how good design could provide buildings which make a positive contribution to farm mechanization and which are at the same time cheap and easy to build and maintain, the building hints and sometimes contradictory aphorisms about design generally tend to be confusing. In their place one would have liked to see analyses of the use of machinery in relation to farm buildings and roads, more detailed discussion of siting in relation to the farm house and other farm buildings with some reference to variations in exposure conditions up and down the country, comparative capital and maintenance costs for the small as well as the large farm (three-quarters of our farm land is in parcels of less than 300 acres).

The articles are readable and would provide background knowledge for the architect called upon to design any of the buildings described in them. There is also a useful table of weights, sizes etc., of a range of farm implements and machines. It is disappointing thus (even though the source is a farm mechanization magazine) not even passing mention is made of the appearance of farm buildings. Meanwhile 'ruritopia' threatens to outdo 'subtopia.'



*This 3-bedroomed house near Tunbridge Wells was built in the 1930's. It has a fine view across the Weald of Kent. The up-to-date heating system is oil-fired, with fuel supplied by Shell-Mex and B.P. Ltd.*

## A house with modern heating and a lovely view



1. Skirting heating
2. Concealed radiator in hall
3. Boiler room with outside access below stairs.

A DELIGHTFUL FEATURE of this attractive house is its beautiful situation. Built in the early 1930's, it is over four hundred feet above sea level and has an open view of over seven miles to the North across the Weald of Kent.

In 1954 the house was purchased by its present owner who, before moving in, added to its comfort and amenity by installing central heating. Lounge, dining room and landing were fitted with Crane skirting heating, while five radiators were installed in other rooms. An oil-fired boiler, situated in a small separate room below the stairs, supplies the hot water requirements as well as the central heating system.

Oil-fired heating is supremely clean, efficient and labour-saving; and oil fuel bought in bulk is surprisingly economical. It is suitable for blocks of flats and public buildings and, increasingly, it is being installed in houses of every type and size.

From hot water supply in the smaller home to full central heating in larger buildings there are now available special oil-fired units designed for every requirement. Two kinds of oil are supplied for heating - Shell Domestic Fuel Oil for the larger installations and BP Domesticol, the new fuel specially developed for the smaller boilers with vaporising burners.

If you are designing or modifying almost any kind of building, public or private, you may well find it worth your while to make provision for this modern, convenient heating method. For further information write to Shell-Mex and B.P. Ltd., Fuel Oil Dept. FD1L, Shell-Mex House, Strand, W.C.2. This, naturally, will not place you under any obligation.

building illustrated

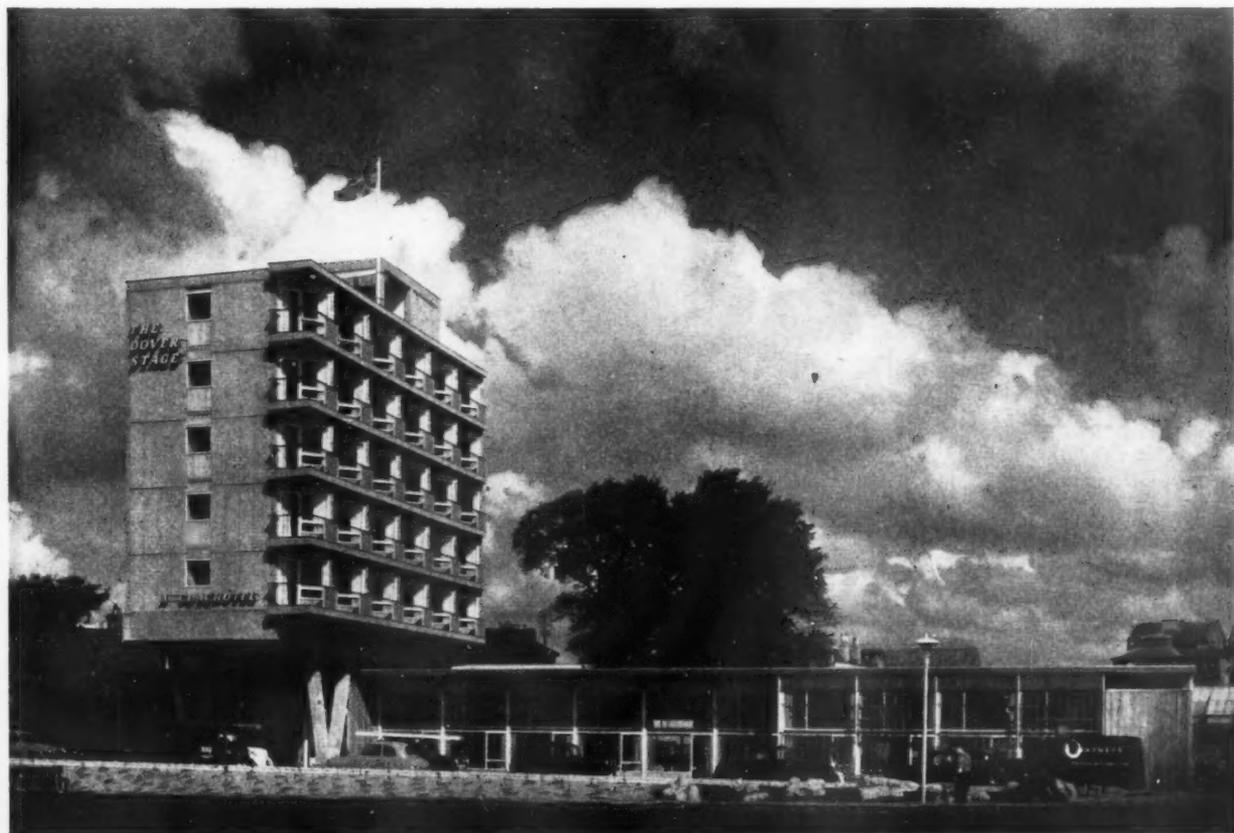
Hotel in Marine Parade, Dover

## HOTEL

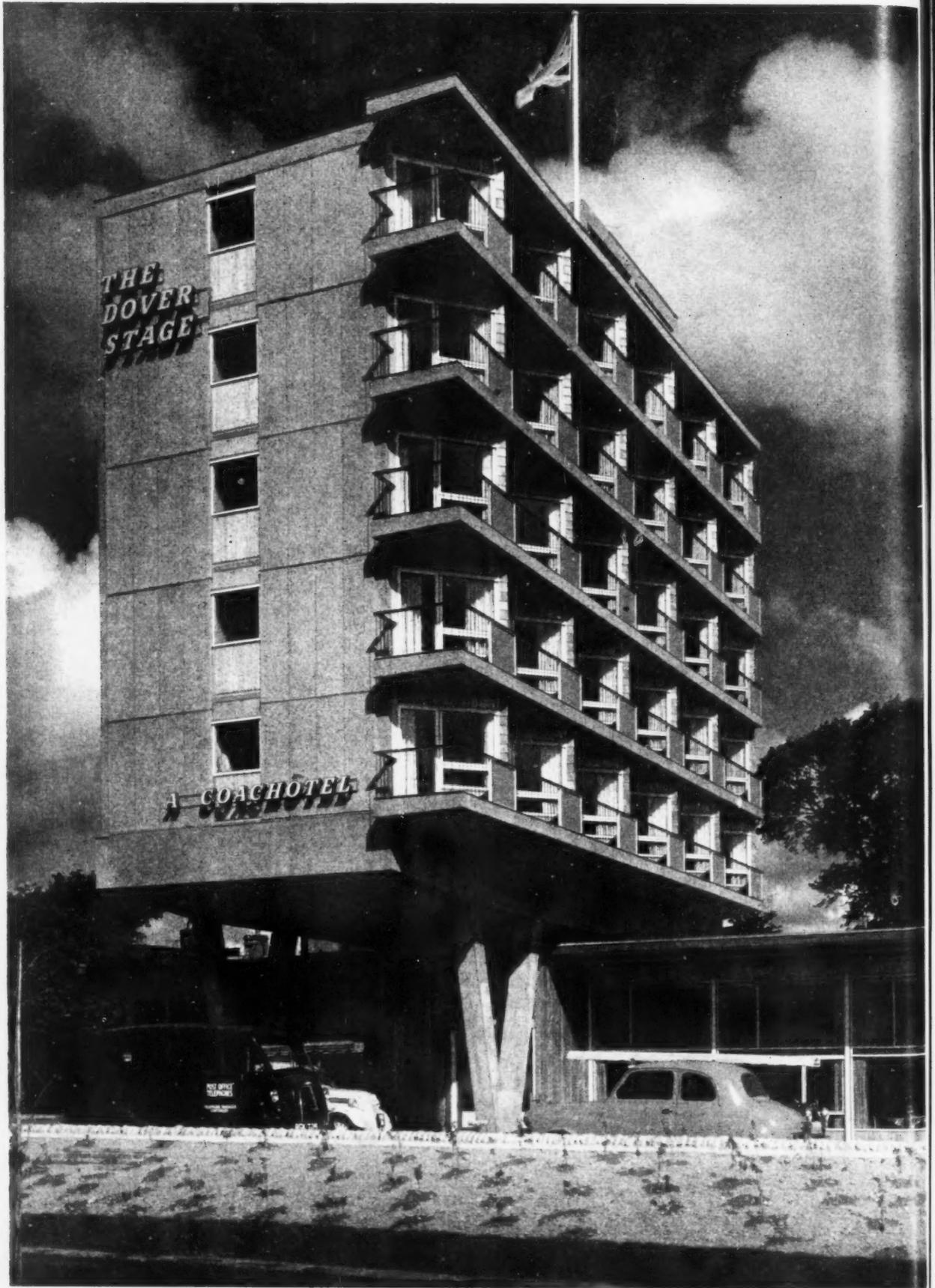
in MARINE PARADE, DOVER, KENT; designed by LOUIS ERDI; architect-in-charge ALAN S. FAIRBRASS, consultants (structural) DR. K. HAJNAL-KONYI; (electrical, heating, ventilation, plumbing) ADVANCED HEATING and AIR CONDITIONING CO., LTD., quantity surveyors HARRIS, ROURKE and SIMPSON

The hotel caters for the overnight stay of coach tourists on their way to and from the continent, and provides accommodation for two coach parties, with their drivers and couriers. A ballroom and licensed premises are included to increase winter revenue. In siting the five-storey bedroom unit, with its saw-toothed windows, the architect achieved a combined view of both the harbour and the castle. This is the first hotel to be cost analysed in the JOURNAL.

Viewpoint 1: general view of the "coachotel" from the south.



building illustrated







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Mez  
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analysis

CLIENT'S BRIEF : his stated requirements

Erection of an hotel, catering for two coach loads of tourists, staying mainly for one night only. Accommodation also to be provided for the two drivers and couriers, and a few additional bedrooms; some licensed premises also required to replace the Trocadero Public House; a ballroom to increase winter revenue; facilities for feeding non-residential coach parties and other travellers. Parking for 4/5 coaches, and car parking facilities. Access to hotel off main A2 road. Bedrooms to have a view of the sea and a view of the castle.

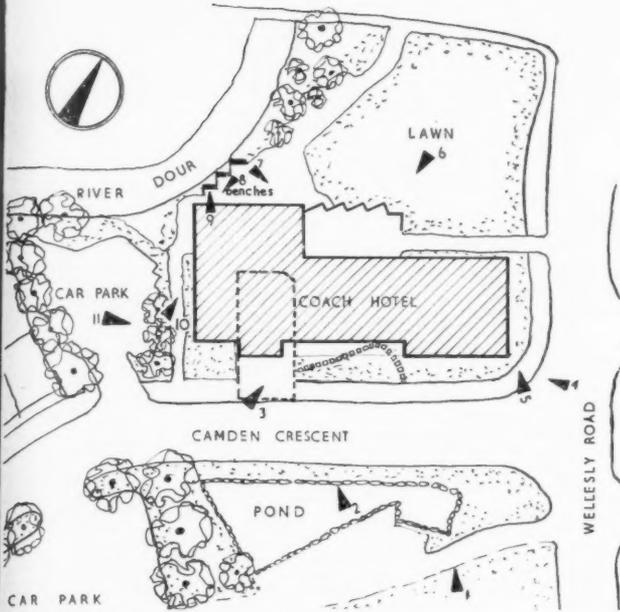
SITE : topography, surroundings, access and planting

Area of site: approximately 1/2 acre. Topography: mainly flat with a maximum depression of 5 ft., caused by natural site level being this much deeper than the road level and approximately half the extent of the site level. Site of bombed and demolished buildings, whose cellars were filled with sulphurous refuse from old gas works. At front of site is the sea and a garden; at rear is the site of a projected road, with another road on the eastern boundary. A small river flows past a part of the site at the rear, where there are some existing trees.

PLAN : General appreciation

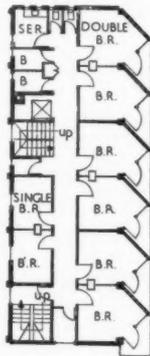
Each bedroom floor accommodates half a coach load. The bedroom sizes were controlled by furniture requirements, and it was found that most partitions, plumbing, electrical work, etc., could be prefabricated. The public rooms were designed around a core unit consisting of reception—control office—"cellar"—kitchen, and yard, with rear service access, considered. The ballroom was designed as a separate unit, to be completely isolated as regards services, if necessary. The columns of the bedroom block were reduced to a minimum to avoid interfering with the ground floor planning.

Relation of units: The bedroom block was separated both structurally and visually from the public room wing for aesthetic as well as sound proofing reasons. The two-storey portion at the rear houses the manager's flat and staff rooms. The butterfly roof over the main part of the ground floor was chosen to unify the silhouette of an

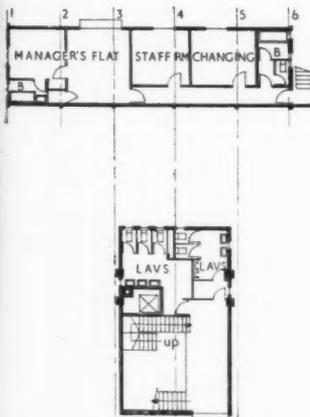


Site plan showing photographic viewpoints

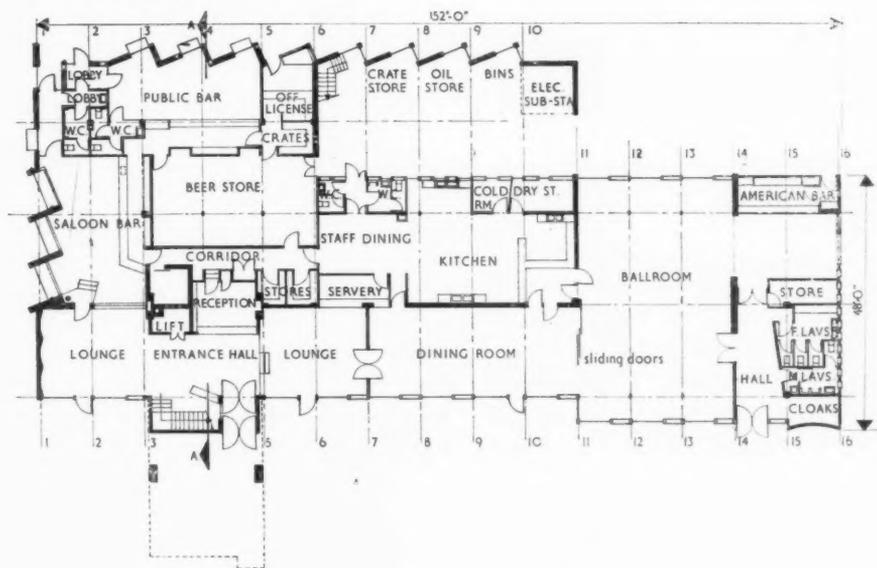
Viewpoint 2 (opposite): the five-storey bedroom unit projects over the entrance to the hotel, providing covered access from the kerbside. The shuttering to all the exposed concrete was treated with a retarder, enabling the aggregate to be exposed by subsequent brushing, while the balcony soffits are painted pale blue. Steel hand rails are painted black, with yellow trims and the boarded panels in the balustrade are delivered with impregnated flat red dye. Window frames are red with white casements. The exposed large-scale aggregate of the pre-cast slabs facing the end of the block imparts a warm natural colour to the building. Boxed metal letters, with inset yellow glass, are internally and back lit.



Typical plan, floors 1-5, point block



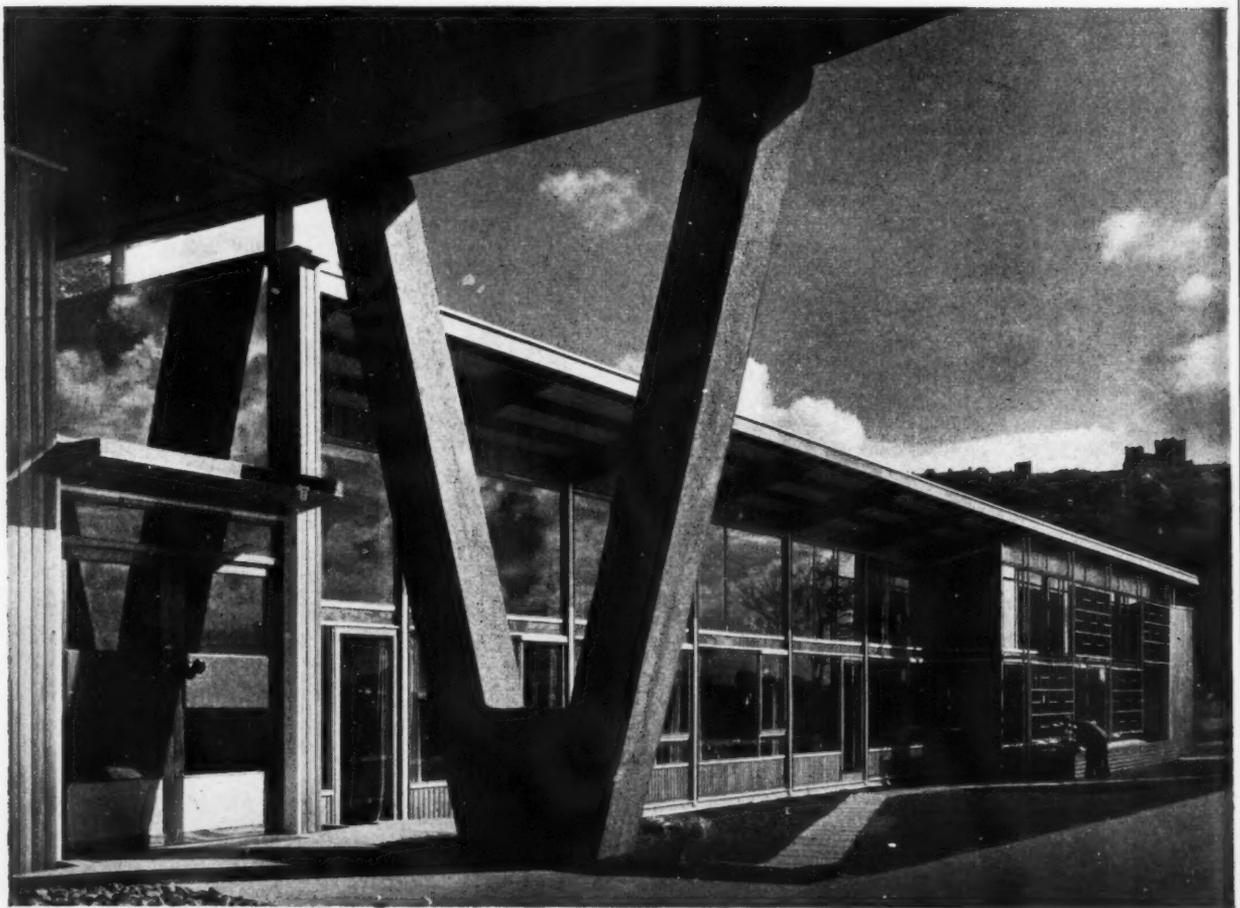
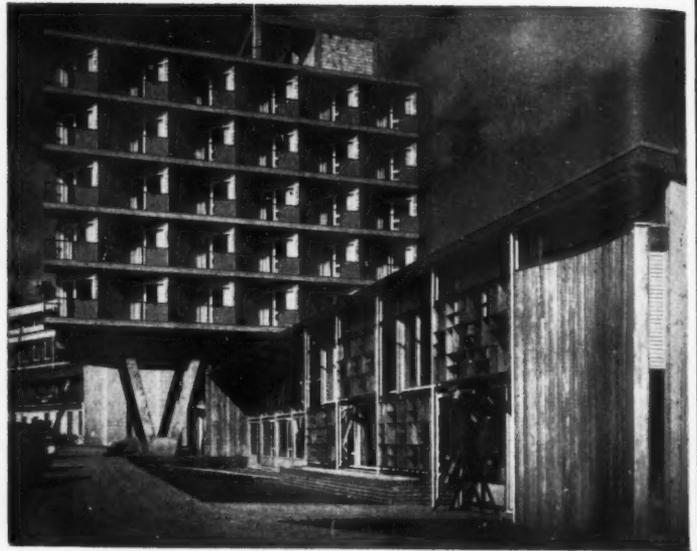
Mezzanine and first floor plan over public bar



Ground floor plan [Scale: 1/16" = 1'-0"]

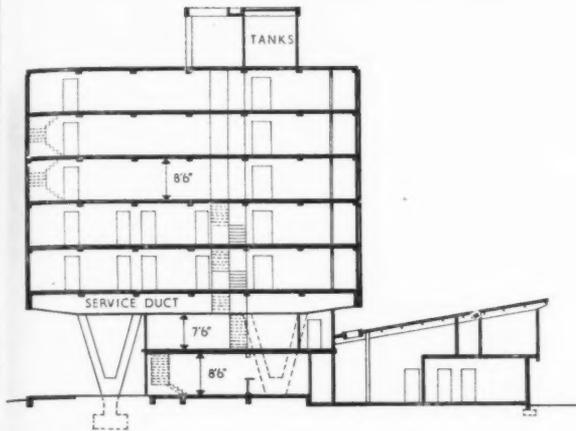
building illustrated

*Viewpoint 3 (below): this view, taken from below the projecting bedroom unit, shows the entrance doors, and the public rooms beyond the V-shaped concrete support. The small concrete hood over the entrance doors has exposed aggregate on its edges, with a pale blue rendered soffit. Oiled hardwood framed doors, with generous plastic panels in blue, give access to the entrance foyer. Light fittings are recessed into the pale blue rendered soffit of the bedroom unit, and a light fitting is built into the internal apex of the concrete V support. The double structural wood beams over the public rooms, which carry the projecting roof, are stained dark red and the exposed joists are varnished. Window framing is white, casements red, and the glazing beads are oiled hardwood. The deal strip infill is varnished. The glazed wall of the single storey block was illustrated as a Working Detail in the JOURNAL for July 11, 1957. Viewpoint 4 (right): this general view clearly shows the saw-toothed windows of the bedrooms, with their cedar-shingled returns. Double steel tubes, painted yellow, carry a screen of patterned hardwood in front of the ballroom windows.*



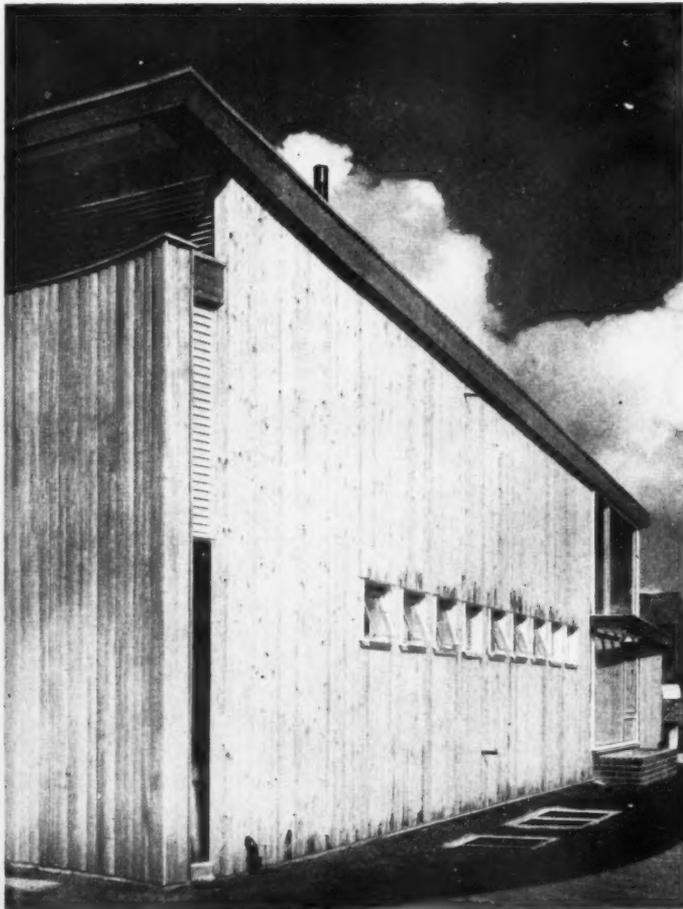
Section

Viewpoint  
toilet fa  
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tion abo  
alumni



Section A-A [Scale: 1/8" = 1' 0"]

Viewpoint 5: the eastern end of the ground floor block accommodates a cloakroom and toilet facilities for the ballroom. The curved wall is faced with oiled hardwood strip, and the return elevation with varnished deal strip. A slit window, with louvred ventilation above, lights the cloakroom, and the aluminium w.c. windows are painted with aluminium metallic paint, in white deal surrounds.



analysis

elevation showing a single-storey structure at the front and a double-storey structure at the rear. Additional advantages derived from the butterfly roof are more interesting ceilings in the front public rooms and saloon bar, and a larger volume of air, giving greater resiliency and requiring less artificial cooling in the beer cellar and an additional wine store above the beer cellar. The semi-flat roof over the ballroom meets the butterfly roof at the eaves front and back, with a mezzanine floor over to house services and cloaks. A 5-ft. 6-in. deep duct over the mezzanine floor of the multi-storey block, is accessible for maintenance to services. All plumbing and electrical work is housed in ducts, with access panels. In the bedrooms these take the form of sound insulation backed mirrors. The kitchens have clerestory windows in tall centre hall.

MAIN CONSTRUCTION : : general appreciation

The multi-storey block is in r.c., where repetition of units justified precasting. The single-storey block is in timber framed construction, with a 9-in. centre spine wall for insulation between kitchen and public rooms. This later form of construction was chosen for reasons of economy. Floor areas : multi-storey block, 9,110 sq. ft., single-storey block, 10,390 sq. ft.

	cost per sq. ft.	s	d
preliminaries and insurances	1	8	

STRUCTURAL ELEMENTS

Work below ground floor level

Multi-storey block—piles, encased to protect from soil contamination.	1	1
Single-storey block—r.c. raft and edge beams.		
Reason. Very poor made-up ground, cellars and soil contaminated with sulphurous refuse.	6	1

External walls and facings

Ground floor—fair faced 11-in. cavity cement paint finish, cedar shingles on studding; vertical boarding. Multi-storey block—6-in. block walls and cedar shingles. Precast r.c. marble faced pans (slabs with ribs) on south and north elevations of multi-storey block. Shingles used for economy and to avoid future maintenance.	7	7 1/2
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Ratio:	Solid walls	0.5
	Floor area	1

Frame or load-bearing element

Multi-storey block—r.c. with retarder applied to shuttering. Beam spans 21-ft. and 6-ft. cantilever. Column grid 10 ft. 6 in.	4	3 1/2
Single-storey block—timber post and beam 18-ft. and 8-ft cantilever, column grid 10 ft. Reason: The timber framed construction was used on the ground floor block for reasons of economy.	1	3

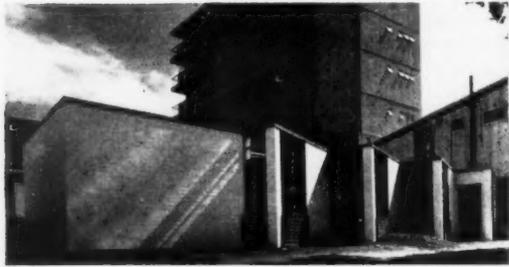
Upper floor construction

Staff quarters—timber joists; ceiling: plaster on metal lathing.		3
Multi-storey block—hollow tile and concrete	4	0

Staircases

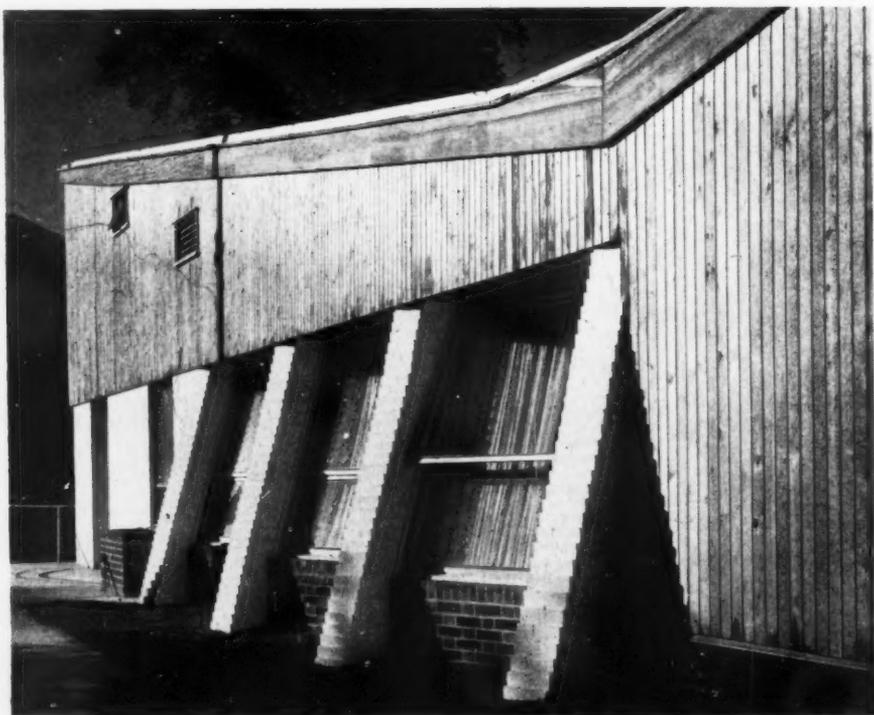
Multi-storey block—r.c., timber treads and granolithic.	10 1/2
Staff block—timber.	3
Height: floor to floor 8 1/2 ft. 11 in. Number of staircases—2 in multi-storey, 1 in staff. Width: 3 ft. 3 in.	

building illustrated



*Viewpoint 6 (extreme left): a saw-toothed screen of brick and woven timber slats, conceals the kitchen service yard, oil storage tanks, and transformers. To the right, the butterfly roof over the staff quarters, can be seen. Viewpoint 7 (left): cedar shingles face the rear of the staff quarters, which are at first floor level, over the Trocadero Bar.*

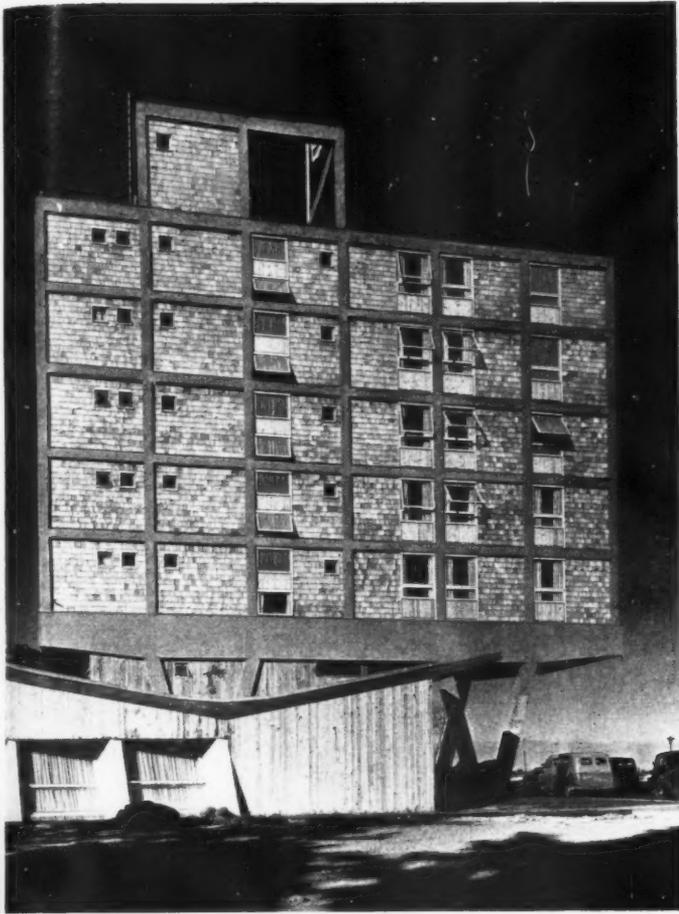
*Viewpoint 8 (left) and viewpoint 9 (below): a terrace, facing the bar entrances at the rear of the hotel, is partially cantilevered over the river. It is saw-toothed at its edge, and roughly shuttered concrete slabs are turned up to form the backs of seats. Tubular steel rails protect the edge overlooking the river.*



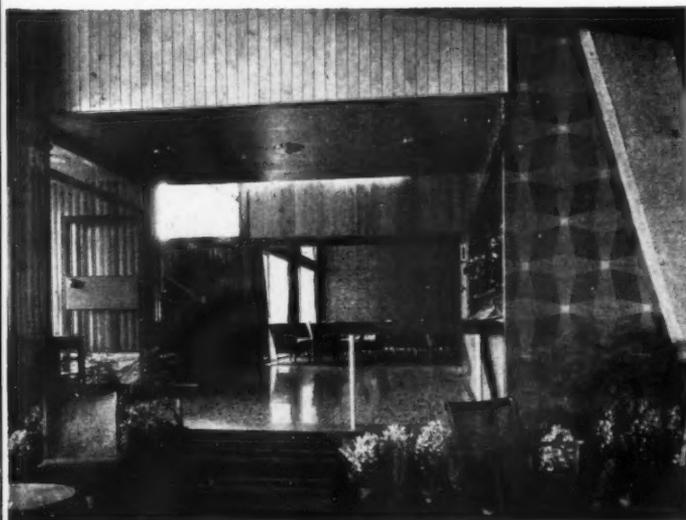
*Viewpoint 10 (left): these windows in the western end of the ground floor unit are to the Dover Sole Bar. Brickwork is painted yellow, with the vertical deal boarding varnished. A high level louvred vent was inserted in this wall, but the Dover Sole Bar has proved to be inadequately ventilated. The architect points out that forced ventilation has now been installed in this bar.*

*Viewpoint 11 (right): a view of the building's exterior, showing the saw-toothed screen of brick and woven timber slats.*

analysis



Viewpoint 11 (above): panel infilling in this west elevation is in cedar shingles, which give a warmer feeling than the photograph suggests. The white window frames have varnished deal panel infillings and the aluminium bathroom and w.c. windows are painted with aluminium metallic paint. Below: the entrance foyer and lounge beyond, with the main entrance doors on the left. Flooring is pre-cast Italian tiles. On the right one of the concrete V-shaped supports is visible, with a bright red wallpaper on the wall adjoining. The end wall of the lounge is also papered, and elsewhere, varnished deal boarding completes the finishes.



Roof construction

Single-storey ground floor—timber joists, compressed straw slabs. 3-ply felt, 1/2-in. marble chips.

Structure and finish cost:

Multi-storey block—r.c., thermal screed, 3-ply felt, mineral surfaced. Finish cost only:

s d  
7 5 1/2  
8 1/2  
1 1/2

Roof lights

Over kitchen and "cellar" on ground floor. Metal framed plastic lights and timber framed lights. Reason. Permanent ventilation achieved within the metal frames. Total area —80 sq. ft.

Windows and external doors

Generally (cloaks and w.c.'s excepted) timber frames—painted, oil paint.

Aluminium frames, painted with metallic paint in cloaks and w.c.'s.

3 4 1/2  
3 1/2

$$\text{Ratio: } \frac{\text{Ext. door and window area}}{\text{Floor area}} = \frac{0.256}{1}$$

Glazing

Roof lights and stairs—Georgian wired. Elsewhere, 1/4-plate and 32-oz. Reason: Complying with fire regulation.

1 1 1/2

PARTITIONING

Internal partitions

Multi-storey block—hardwood with insulating blanket. Finish—plaster board plastered with paint or wallpaper. Elsewhere—breeze, compressed straw slabs, etc. Finish—plastered. Reason: Strawboard used in locations requiring thermal insulation.

3 1

Screens

Generally timber frames, glazed. Also large sliding screen in cellular aircraft-type lightweight construction, with sound insulated core, between ballroom and dining room.

7

W.c. doors and partitions

Cost included under internal partitions and doors.

Internal doors

Timber, flush and glazed. Some doors with moulded boarding facing.

1 9 1/2

Ironmongery

Main doors—floor springs. Others—helical springs, rising butts, cylindrical locks. Bronze finish.

1 3 1/2

FINISHINGS

Floor finishes

Some public and bedrooms generally—fitted with carpet on rubber underlay. Ballroom—sprung mahogany dance floor. Dining room—aluminium backed parquet. Foyer—Italian marble tiles. Bars and cloaks—P.V.C. tiles. Cost excludes carpets and underlay.

1 7 1/2

Wall finishes

Public rooms, etc.—vertical boarding, fluted and flat, wallpaper and paint. Bedrooms—paint and wallpaper. Reason: for variety and aesthetic interest. Easy maintenance.

1 4 1/2

Ceiling finishes

Generally plastered and distempred.

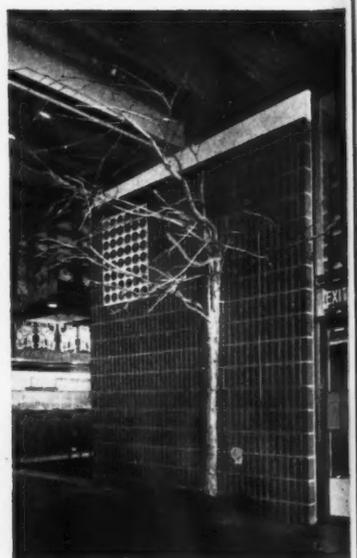
8 1/2

building illustrated



Below: the dining room and entrance foyer beyond. The ceiling beams are treated as before and the rear wall is faced with embossed plywood, varnished and a badly placed mirror. The flooring is in hardwood tiles. Individual table lamps, of unexciting design, are supplemented by concealed fluorescent tubes in the troughs at window transom level. These table lamps and the wall mirror and panelling on the right were the choice of the client. Below right: a corner of the ballroom. This panel of purple-grey brick on end dominates the room, with its inset of clay pipes which form the return for plenum heating and ventilation, set in white cement. The hardwood strip floor is sprung for dancing. The American Bar can just be seen on the left.

Left: a view from the stairs looking down into the entrance foyer and lounge beyond. The hardwood strip wall panel on the right incorporates the lift access doors. Below left: the Trocadero Bar is sited on the northern side of the ground floor and is accessible for local casual trade. Brickwork is painted yellow with wallpaper on the rear wall. The ceiling is plastered and painted white and the lowered ceiling panel over the windows, which conceals fluorescent tubes, is in varnished deal. Below: the Dover Sole Bar. A large moulded hardwood strip panel dominates this room and is an aid to unity. Wallpaper is red and fawn. There are P.V.C. tiles and a carpet on the floor. The bar front is in the same moulded hardwood strip with a plastic counter. Directional lighting over the bar is supplemented by concealed fluorescent strips above the boarded ceiling by the windows on the left. The beer store, which is an internal room built from studding and vertical boarding with 4 in. of thermal insulation, consisting of two 2-in. layers of Cabots quilt, is behind and on the same level as the bars. It is top lit and ventilated, and it has been found in use that controlled mechanical ventilation would have been desirable. The architect reports that a cooling plant is soon to be installed. The beer is pressurized in the barrel and piped to the bar counter taps via plastic tubing.



Above:  
carpeted  
Wireless

Below:  
one a c  
as well

analysis



Above: a typical bedroom. Walls are plastered and painted blue, and the floor is close-carpeted. Door and window frames are painted white and the casement yellow. Wireless re-diffusion is fitted in each room, also a telephone.

Below: the wall behind the lavatory basin is papered. A plastic-topped shelf is fixed above a convactor heater, and a panel below the shelf and the basin conceals the plumbing as well as the heater unit. A universal electric shaving point is provided by the basin.



Decorations

Ceilings—distempered. Walls—emulsion paint and wallpaper. Concrete—cement paint. Colour schemes prepared in office and paint mixed to match samples.

Cloak rooms

Cost included under miscellaneous items.

Other fittings

Bar fittings, reception desk, porter's fittings, powder shelves, mirrors, etc., all specially designed. Kitchen equipment cost not included in contract.

SERVICES

Plumbing

External 6

Rain-water disposal

Roofs—6-in. cast iron R.W.P.'s from internal sumps in roofs taken down inside ducts. 2½

Plumbing: internal

Waste disposal: in ducts. Cast iron one-pipe system with anti-syphonage and deep seal traps to lavatory basins. 3 2

Cold water installation

All copper pipes. Reason: ease of installation and jointing. 1 5½

Sanitary fittings

Bedrooms and cloakrooms—fireclay basins on special steel legs. Bars—cast aluminium sinks. Kitchens—stainless steel sinks. 1 0½

Heating installation

All-electric, with control panel in front of manager's desk. Thermostatically controlled and with time switches. Public rooms—electric elements in floor screed. Ballroom—plenum, with air conditioning. Bedrooms—built-in convectors. 3 7

Hot water installation

Oil-fired boiler. Stoking method—automatic. Immersion heaters—ballroom, cloaks. Electric. Reasons: intermittent usage. 1 9½

Drainage: type of system

Combined to main sewer. 1 3

Gas installation

Kitchen only—for cooking only. 1

Electrical installation—source and fitting type

Indirect or semi-direct, fluorescent and tungsten. All in copper-sheathed mineral insulated cable. 3 3

Lifts

Fully automatic, preselector gear, automatic doors. All floors. Motor room on roof. 2 4½

Paved areas

Concrete paving slabs, coloured grano, hoggin and pebbles. Car park, site works and road. 6½ 10½

Miscellaneous

Items such as lightning conductors, cloakroom fittings, radio and television fittings, telephones (internal and external), signs, illuminated and others, emergency lighting, etc. 6½

total cost per ft. super based on final account 75 2½

## analysis

## SPECIAL ACOUSTICAL TREATMENT

**Sound absorption material**

Mineral wool blankets between bedrooms.

**Sound insulation**

9-in. solid brick walls. Location—between ground floor core unit and public rooms. Reason—to minimise service noises spreading into public rooms.

## FIRE

**Structural precautions\***

2 hours fire resistance to multi-storey structure—various foam and other extinguishers. Reason—to fire authority and insurance companies' specification.

**Planning precautions**

Exits required by local and fire authority. Escape stairs to above 40 ft. level.

## REFUSE DISPOSAL

Bins collected daily by farmers and local authority.

## TIME SCHEDULE

Drawings	Started March, 1955.
Tender date	December, 1955 (except piling)
Contract signed	January, 1956.
Work commenced	February, 1956.
Work completed	May, 1957.
Type of contract	Based on quantities.
Total floor area	19,500 sq. ft.

## ADDITIONAL INFORMATION

Analysis of above figures shows that the cost of structure, foundations, roof and staircase = 26s. 1d. which divides: multi-storey block 10s. 11½d. of total area (22s. 9½d. on multi-storey area). Ground floor = 15s. 1¾d. of total area (28s. 2d. on ground floor area). The cladding, partitions, windows, doors, etc., over the whole, cost 20s. 11d.; the services, including plumbing and sanitary fittings 19s. 3½d. general finishes and decorations = 6s. 8½d. and some special hotel and pub fittings 2s. 3d.

The reason why the single-storey block cost seems so high is because of poor ground, which required special foundation slabs, beams, etc.

## SITE ORGANIZATION

*Site labour and equipment:* The general foreman, A. Lee, was in charge of the job with a foreman carpenter, leading carpenter, foreman bricklayer and gangers. A Tower Hoist was in position at the south end of the point block serving all floors and an additional hoist on the west side during the progress of the concrete work.

*Sub-letting:* Plastering, there were not sufficient local plasterers available to ensure the work being completed to the strict time schedule. (All the joinery including bar counters, back fittings, reception, counters, etc., were manufactured in the own joinery shop.)

*Job Management:* A progress chart was prepared in consultation with the architect and after allowing for the additional time on extra work to foundations and for bad weather during the winter of 1956, the original time for the job was maintained. The job had constant liaison from headquarters and was personally supervised by R. R. O. Barwick.

## COST COMMENTS

The client's brief gives no indication of limiting cost, but the ultimate cost of this scheme based upon the final account amounts to the reasonable figure of 75s. 2¾d. per foot super. The following elements call for comment: *Preliminaries:* There could be several reasons for this relatively low figure; e.g. the firm employed may not carry large overheads (see notes on site organization), or that the preliminary items may be included in the general pricing of the bill, etc.

*Heating:* Those caught up in the recent interest in embedded electric floor heating may compare this one with the Beaconsfield library (AJ 25.7.57), where heating took 4s. 0¼d. or 4¾ per cent. of the total of 84s. 6½d. per square foot. It is worth noting that the 3s. 7d. shown above, represents the same percentage of the total cost.

## CONTRACTORS

*General contractors:* R. J. Barwick. *Sub-contractors—Flooring:* Bennett's Wood Flooring Co. Ltd., Linoleum Manufacturing Co. Ltd., Limmer & Trinidad Lake Asphalt Co. Ltd., Horsley Smith & Co. Ltd., Marriott & Price Ltd., Marley Tile Co. Ltd. *Windows:* East & Sons Ltd. *Lift:* Aldous & Campbell Ltd. *Sanitary fittings:* Stitsons Sanitary Fittings Ltd. *Facing slabs:* Cheecol Processes Ltd. *Ironmongery, cloakroom fittings:* Yannedis & Co. Ltd. *Felt roofing:* Pilkington's Asphalt Co. Ltd. *Cedar shingles and cladding:* Hall & Co. Ltd. *Furniture and fittings:* Bobby & Co. Ltd., Maple & Co. Ltd. Nason's (Canterbury) Ltd. *Kitchen equipment and sundries:* South Eastern Gas Board, Radiation Ltd., W. M. Still & Sons Ltd., Wm. Page & Co. Ltd. *Refrigeration:* Windsor Refrigerator Co. Ltd., Longford Engineering Co. Ltd. *Cash registers:* F. Stevenson & Sons (Manchester) Ltd. *Fire appliances:* Pyrene Co. Ltd. *Blankets:* J. Churchward & Sons Ltd. *Crockery and glass:* H. Hart & Co. Ltd. *Cutlery:* Alexander Clark & Co. Ltd. *Cleaning equipment:* Hoover & Co. Ltd. *Radio:* Sound Diffusion Ltd. *Television:* Rediffusion (South East) Ltd. *Central heating, electric wiring and plumbing:* Advanced Heating & Air Conditioning Co. Ltd. *Sunblinds:* J. Avery & Co. Ltd. *Door furniture:* Saro Laminated Products Ltd. *Signs:* Bush Signs Ltd. (illuminated) and Denny's (plastic). *Foundations:* Cementation Co. Ltd. *Bricks:* Hammill Brick Co. Ltd. *Wallpapers:* John Line & Sons Ltd., Crown Wallpapers and Heath & Co. *Paint:* Hadfield (Merton) Ltd.

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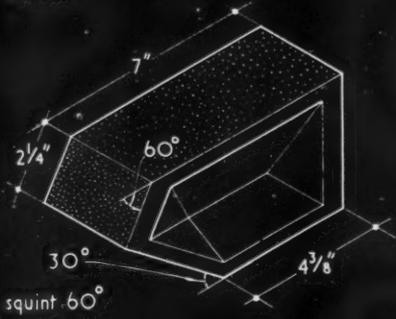
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**BRICKS | CLAY COMMON | GENERAL DATA**

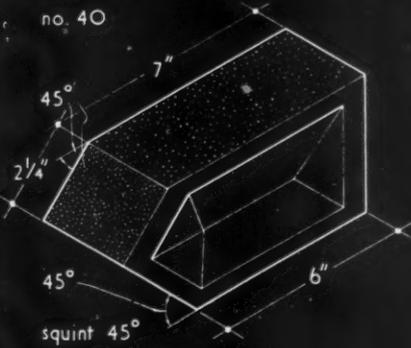
13.C11

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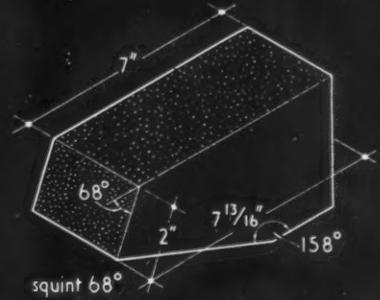
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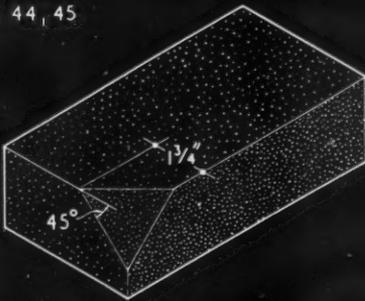
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no. 41

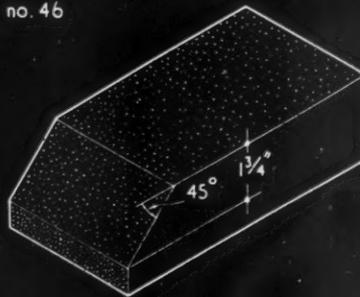


nos. 44, 45



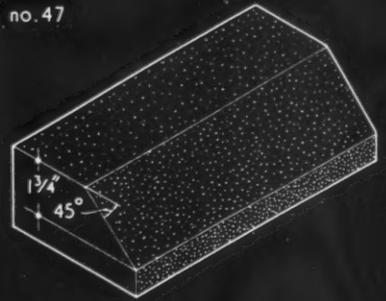
plinth stop  
right or left hand

no. 46



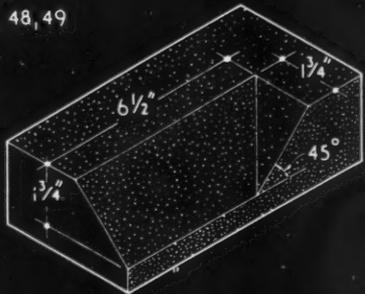
plinth header

no. 47



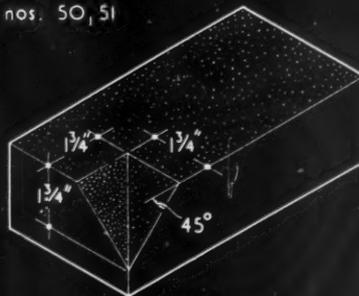
plinth stretcher

nos. 48, 49



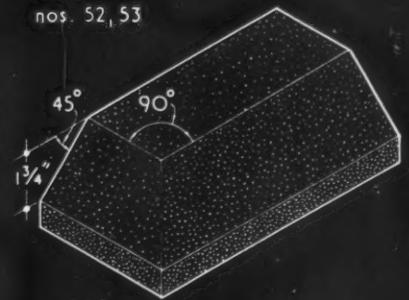
plinth internal return 6 1/2"  
right or left hand

nos. 50, 51



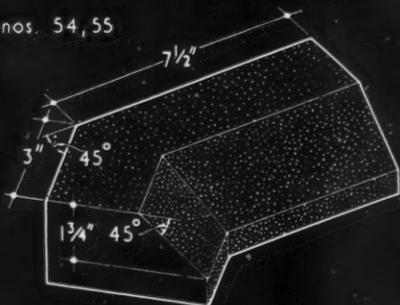
plinth internal return 1 3/4"  
right or left hand

nos. 52, 53



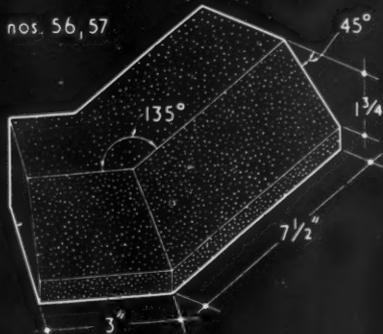
plinth external return  
right or left hand

nos. 54, 55



plinth internal angle  
right or left hand

nos. 56, 57



plinth external angle  
right or left hand

## 13.C11 · PHORPRES · BRICKS: STANDARD SPECIALS: 2. SQUINT AND PLINTH BRICKS

This Sheet is one of a series dealing with Phorpres bricks and describes squint and plinth standard specials. Sheet 13.C10 illustrates Phorpres bullnose standard specials and Sheet 13.C12 illustrates Phorpres miscellaneous standard specials, e.g., half round headers and stretchers, cant, culvert, birdsmouth, etc.

## Schedule of Squint and Plinth Standard Specials

The following table gives the makers' number and description of the above standard specials. The quotation of the number is sufficient indication of the type required.

As from 1.1.58, No. 38 will be discontinued. From the same date, slight modifications, which are shown in the drawings on the face of the Sheet, will be made to the following specials—Nos. 39, 40, 54, 55, 56, 57. These changes have been introduced in order to effect the best compromise between various bonds and have been made in consultation with the building industry.

Makers' Number	Description
38	Squint 48°
39	" 60° (see <i>Finishes</i> )
40	" 45°
41	" 68°
44	Plinth stop right hand
45	" " left hand
46	" header
47	" stretcher
48	" internal return right hand 6½ in.
49	" " " left hand 6½ in.
50	" " " right hand 1½ in.
51	" " " left hand 1½ in.
52	Plinth external return right hand
53	" " " left hand
54	" internal angle right hand 45°
55	" " " left hand 45°
56	" external angle right hand 45°
57	" " " left hand 45°

## Finishes

All faces of standard specials required to be exposed are available in any Phorpres facing with the exception of Cortex. In those faces visible in the illustrations this is indicated by stippling. No. 39 is also supplied faced on the 30° angle and return stretcher if required.

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

Compiled from information supplied by:

## London Brick Company Limited

Head Office: Africa House, Kingsway, London, W.C.2.

Telephone: Holborn 8282.

Telegrams: Phorpres, Westcent. London.

## Midland District

Office: Prudential Buildings, St. Philip's Place, Birmingham, 3.

Telephone: Central 4141.

## South Western

District Office: 11, Orchard Street, Bristol, 1.

Telephone: Bristol 23004/5.

## Northern District

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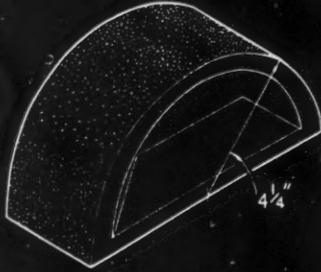




# BRICKS | CLAY COMMON | GENERAL DATA

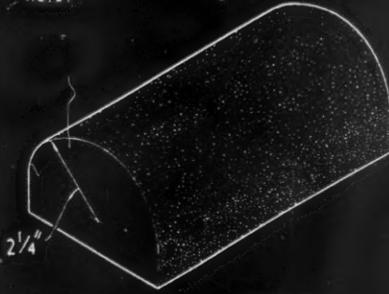
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no. 36



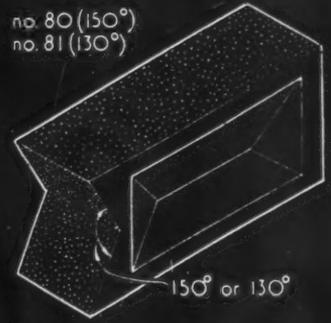
half round header 4 1/4" radius

no. 37



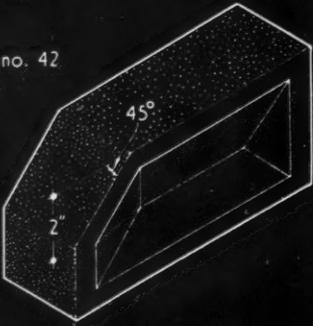
half round stretcher 2 1/4" radius

no. 80 (150°)  
no. 81 (130°)



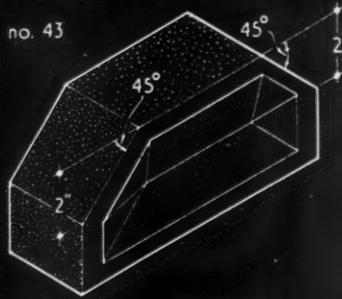
birdsmouth

no. 42



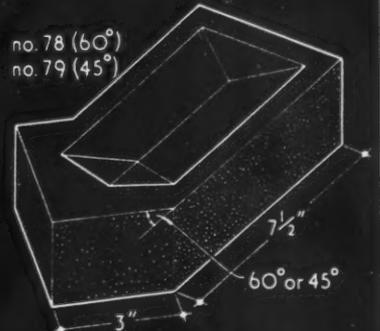
cant

no. 43



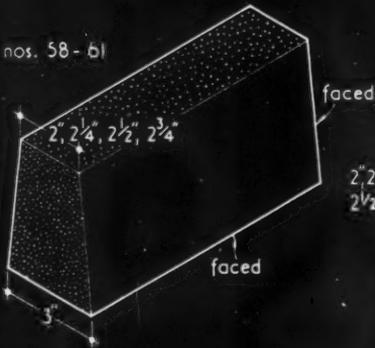
double cant

no. 78 (60°)  
no. 79 (45°)



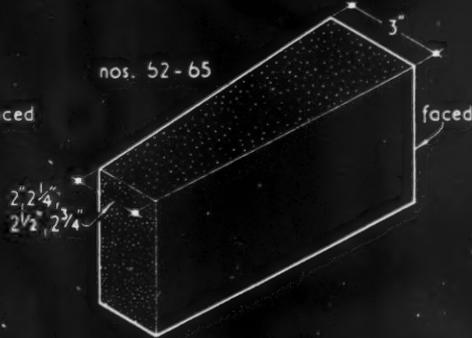
angle brick

nos. 58-61



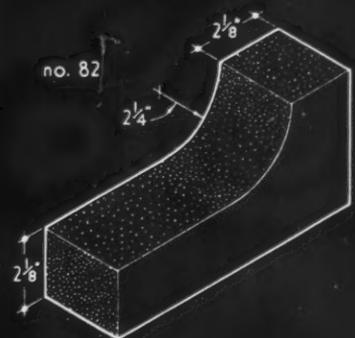
culvert header

nos. 52-65



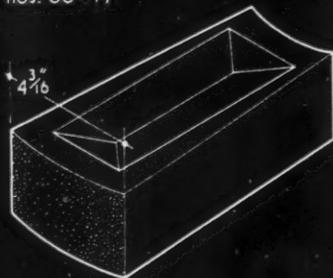
culvert stretcher

no. 82



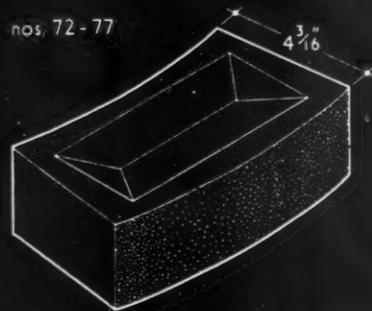
pistol brick

nos. 66-71



chimney (or well) header

nos. 72-77



chimney (or well) stretcher

## 13.C12 PHORPRES BRICKS: STANDARD SPECIALS: 3. MISCELLANEOUS

This Sheet is one of a series dealing with Phorpres bricks and describes miscellaneous standard specials, e.g., half round headers and stretchers, cant, culvert, birdsmouth, etc. Sheet 13.C10 illustrates Phorpres bullnose standard specials and Sheet 13.C11 illustrates Phorpres squint and plinth standard specials.

## Schedule of Miscellaneous Standard Specials

The following table gives the makers' number and description of the above standard specials. The quotation of the number is sufficient indication of the type required.

As from 1.1.58, No. 83 will be discontinued. From the same date, slight modifications, which are shown in the drawings on the face of the Sheet, will be made to the following specials—Nos. 78, 79. These changes have been introduced in order to effect the best compromise between various bonds and have been made in consultation with the building industry.

Makers' Number	Description
36	Half round header 4½ in. radius
37	" " stretcher 2¼ in. "
42	Cant
43	Double cant
58	Culvert header 3 in.-2 in.
59	" " 3 in.-2¼ in.
60	" " 3 in.-2½ in.
61	" " 3 in.-2¾ in.
62	" stretcher 3 in.-2 in.
63	" " 3 in.-2¼ in.
64	" " 3 in.-2½ in.
65	" " 3 in.-2¾ in.
66	Chimney (or well) header for 4 ft. inside diameter
67	" " " " 6 ft. outside diameter
68	" " " " 8 ft. " "
69	" " " " 11 ft. " "
70	" " " " 13 ft. " "
71	" " " " 16 ft. " "
72	" " stretcher for 4 ft. inside diameter
73	" " " " 6 ft. outside diameter
74	" " " " 8 ft. " "
75	" " " " 11 ft. " "
76	" " " " 13 ft. " "
77	" " " " 16 ft. " "

Makers' Number	Description
78	Angle brick 60° (See Finishes)
79	" " 45° (See Finishes)
80	Birdsmouth 150°
81	" 130°
82	Pistol brick (circular corner)
83	Girder skewback 3 in. only.

## Finishes

All faces of standard specials required to be exposed are available in any Phorpres facing with the exception of Cortex. In those faces visible in the illustrations this is indicated by stippling. Nos. 78 and 79 are also supplied faced on the internal angle and stretcher if required.

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

Compiled from information supplied by:

## London Brick Company Limited

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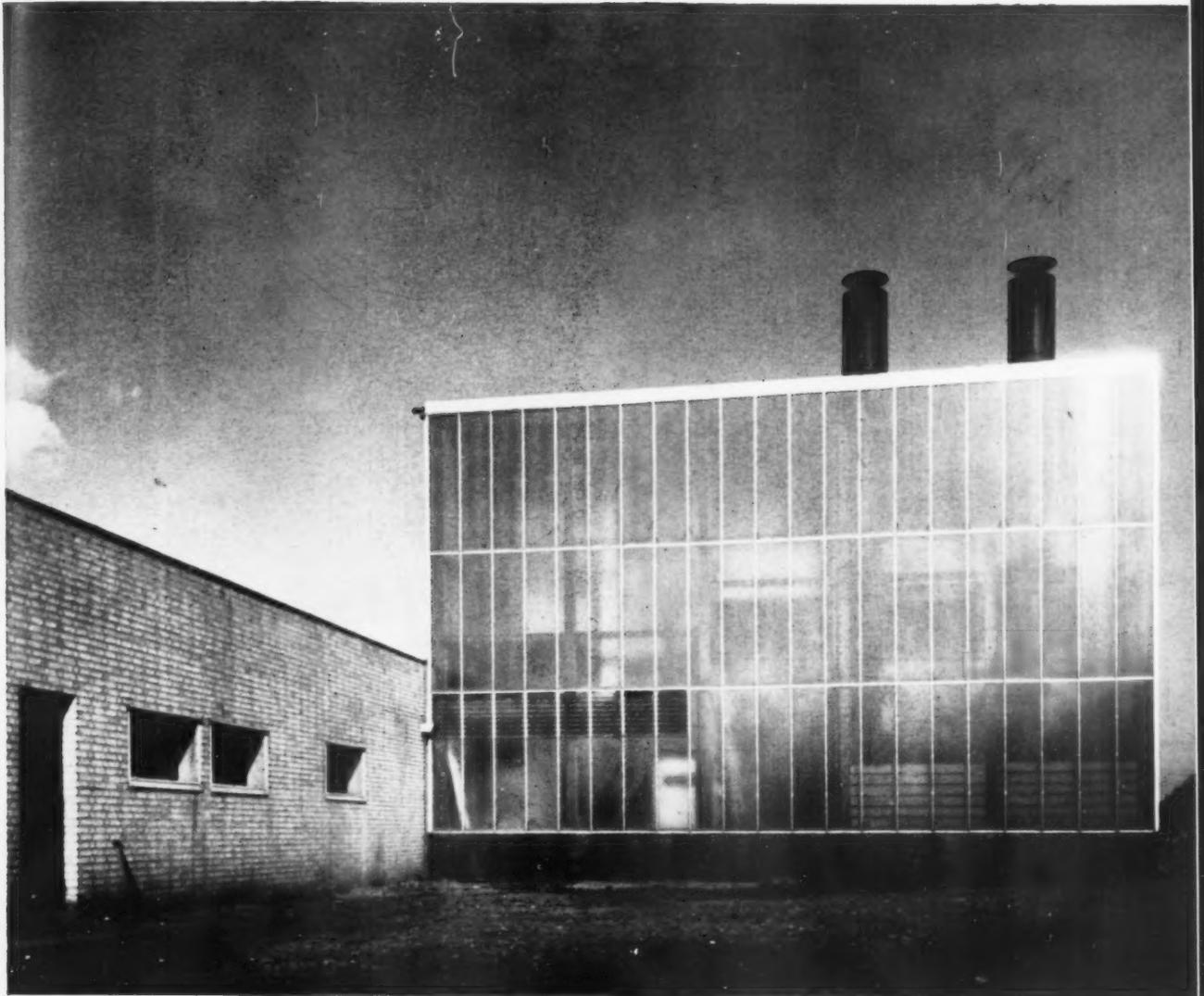


working detail

WALLS AND PARTITIONS: 51

GLASS WALL TO BOILER HOUSE: PITHEAD BATHS AT DUDLEY, WORCESTERSHIRE

*Richard Sheppard and Partners, architects*



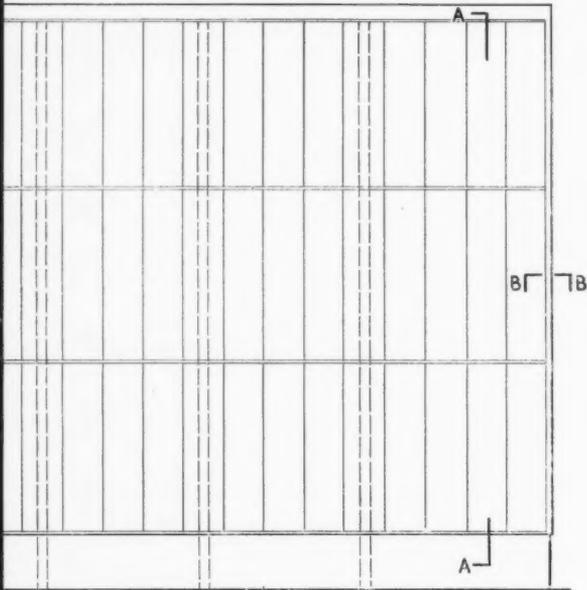
*Patent glazing is often used for boiler houses as the boilers themselves are, of course, independently lagged and sections of wall can easily be taken down to enable large pieces of equipment to be removed. A similar example was illustrated as a Detail on July 12, 1956. One point of difference between the two is that in the example above ventilators are incorporated in the glazing to ensure a steady supply of air to the boilers.*

working detail

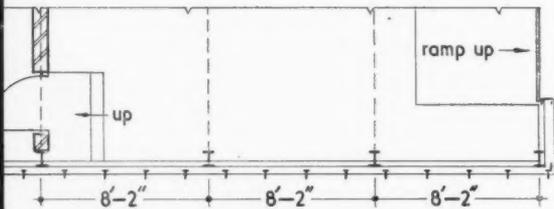
WALLS AND PARTITIONS: 51

GLASS WALL TO BOILER HOUSE: PITHEAD BATHS AT DUDLEY, WORCESTERSHIRE

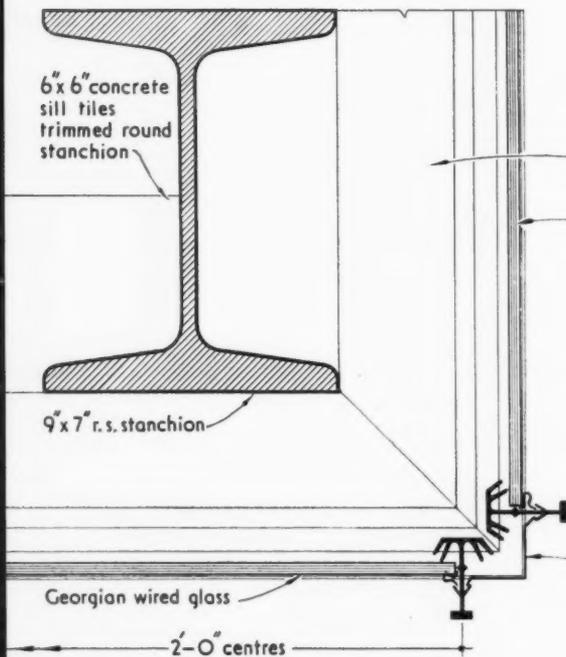
Richard Sheppard and Partners, architects



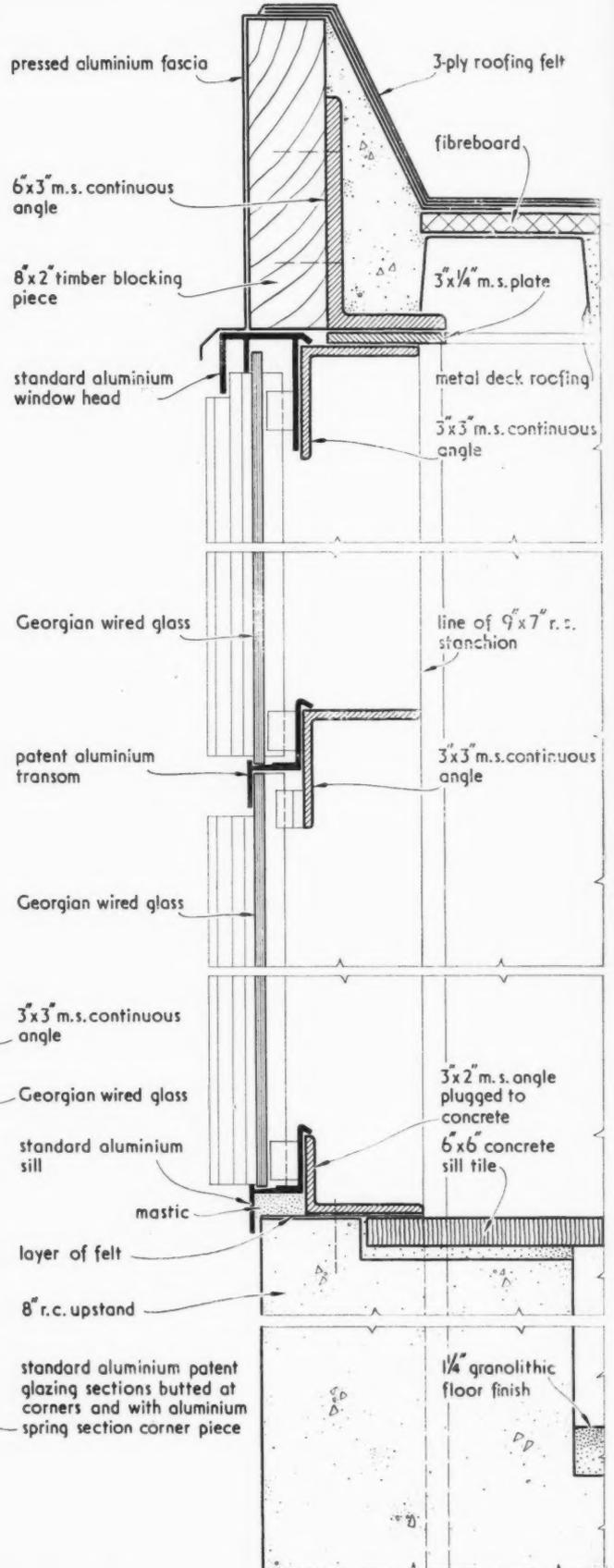
ELEVATION, scale  $\frac{1}{8}'' = 1'-0''$



PLAN, scale  $\frac{1}{8}'' = 1'-0''$



PLAN AT B-B, scale  $\frac{1}{4}$  full size



SECTION A-A.





Concrete brickwork

Plaster dots

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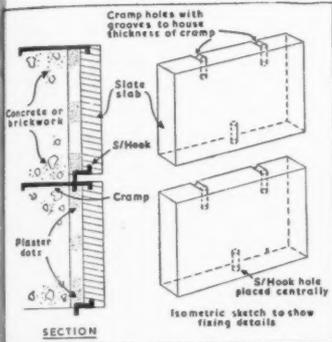
**THE BROUGHTON MOOR  
GREEN SLATE QUARRIES LTD.**  
CONISTON, THE LAKE DISTRICT, LANCASHIRE

CONISTON 225 6  
CANN, CONISTON

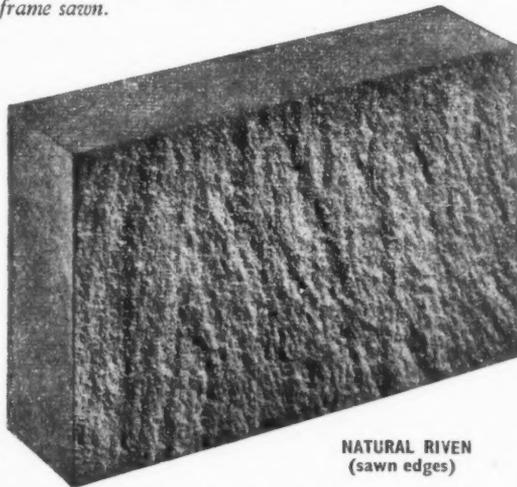
**SLATE  
SLABS**

**Broughton Moor Light Sea Green Slate Slabs**

*The illustration shows the beautiful texture, character and colour of this material. Other finishes include: Fine rubbed, sanded, rough diamond, frame sawn.*



**FACING WITH BROUGHTON MOOR SLATE**



**NATURAL RIVEN  
(sawn edges)**

The Broughton Moor quarries are situated in the Lake District mountains, and from them is obtained the beautiful Olive Green and Light Sea Green Slate famous for its colour, texture and great durability

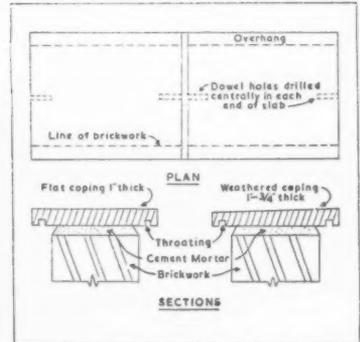
THE SLABS, after being wire sawn and blasted from the quarry face, are sawn to size and given the appropriate finish. They are readily available up to 5' 0" x 2' 0" in the Light Sea Green colour with a frame sawn, sanded or finely rubbed finish, and in thickness from 1" up.

NATURALLY RIVEN (i.e. naturally split) slabs can be supplied both in the Olive Green and in the Light Sea Green colours. In the Olive Green colour slabs can be supplied up to sizes 24" x 15" and in thickness from 3/4" up. Light Sea Green slate slabs with a naturally riven finish can be supplied in sizes up to, say, 18" x 15". Small sized slabs can be supplied with a naturally riven finish approximately 1/2" thick in both the Light Sea Green and the Olive Green colour.

ALL WORK is normally executed from Architects' prepared drawings, combined with Contractors' site details, and templates if required. A high degree of accuracy, combined with a first class standard of craftsmanship, is guaranteed.

A TYPICAL SPECIFICATION. "The facing slabs to be of Broughton Moor Light Sea Green Slate, obtained from the Broughton Moor Green Slate Quarries Ltd., Coniston, Lancs, all 1" thick and with natural riven finish to top face, and sawn edges, to sizes as shown on detailed drawings, and having two holes drilled for cramps, and one hole for 'S' hook per slab."

HOLING of slabs can be done at the quarry for cramps, dowels or 'S' hooks, with grooves cut from the hole to the back of the slab to house the thickness of the metal.



**COPING WITH BROUGHTON MOOR SLATE**

SPECIAL MOULDINGS, cuttings, weatherings, or lettering will be quoted for on request. This material is ideal for work in low relief.

THE WEIGHT of Broughton Moor Light Sea Green Slate can be based on 150 ft. sup. of 1" thick material being equivalent to 1 ton.

A KEY PLAN is supplied by the quarries whenever necessary to facilitate fixing, with corresponding marks on each slab. With slabs having sawn edges, fine joints can be obtained.

DELIVERY of this material can be given promptly to all parts of the country, by road direct to site in company's transport, or to nearest station by rail carriage paid. **Technical pamphlets** illustrating the following uses are available on request:

Flooring .. .. .	Pamphlet 1
Facings .. .. .	" 2
Coping .. .. .	" 3
Cills .. .. .	" 4
Riven Face Slabs .. .. .	" 5

A REPRESENTATIVE is available to discuss all supply and fixing problems.

Further particulars, delivered prices, samples, etc., from :-

Producers and Quarry Owners

**THE BROUGHTON MOOR GREEN SLATE QUARRIES LTD., CONISTON, LANC**

Coniston 225/6



## Take a safe step

You need have no hesitation about the selection of FERODO STAIRTREADS for any type of public or semi-public stairway. You can probably see the proof quite near to your own office, in shops, halls, hotels, restaurants, cinemas, and other public buildings, where Ferodo Non-Slip Stairtreads have been tested over many years. They provide safety, protection, and years of hard wear, at little cost, and always with an eye-pleasing quality that compliments your design. Whether you plan a staircase that is magnificent or one that is merely modest, specify FERODO and be sure that you have made the right choice.

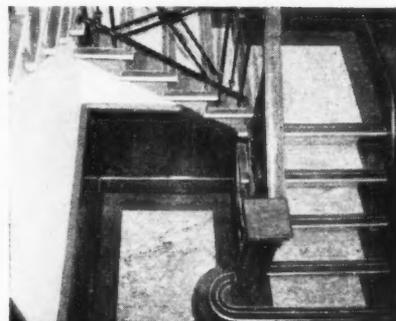
- Available in seven colours—red, white, blue, green, black, brown, and grey. Channelled in aluminium or in the recently introduced silver bronze, or manganese bronze, nosing.
- A range of 31 types and sizes of tread, adaptable to every shape of stair.
- Supplied in any length, cut to fit each stair. Curved or straight as required.
- Simply and easily fixed to any basic material—wood, stone, concrete, etc.—by concealable screws through ready drilled holes.

## FERODO non-slip stairtreads

FOR YOUR REFERENCE FILES Illustrated Catalogue in full colour will be sent on request to Stairtreads Dept., Ferodo Limited, Chapel-en-le-Frith, Derbyshire.



Smart Bros. Ltd., Deansgate Manchester.



Ferlike Price Services, London.

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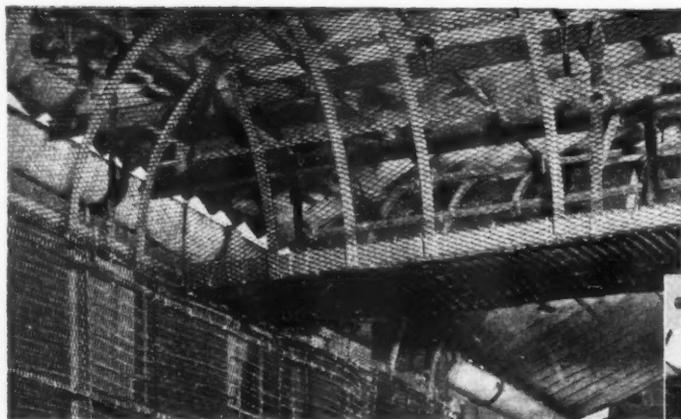
OFFICES AT GREENFORD, MIDDLESEX



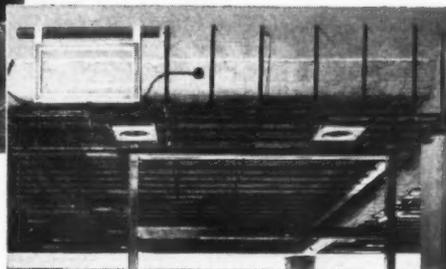
This four-storey office block, with a semi-basement, now being erected on a sloping site at Greenford, Middlesex, for Honeywell-Brown Ltd., was designed by Clive Pascall and Peter Watson. The building has been designed on the principle of American office layouts with the structural grid spacing to suit desk layouts in open areas, with the exception of the directors' suite of offices on the top

floor. Only a small number of offices will be partitioned, and then to a height of only 6 ft. 6 in. The building also contains a small store, canteen, kitchen and school. Construction is a r.c. frame, floors and flat roof, and r.c. column bases. The cladding generally is of reconstructed stone and precast concrete panels with aluminium window in-filling.

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**Announcements**

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**TRADE**

J. H. Sankey & Son Ltd., specialists in building materials, sanitary ware and refractory goods, have moved their head office to Essex Works, Ripple Road, Barking, Essex.

T. & W. Farmiloe Ltd., manufacturers of Nine Elms paints, have formed a subsidiary company in Northern Ireland. The new company, T. & W. Farmiloe (Ireland) Ltd., has its registered office at the Nine Elms Paints Depot, 1, Oxford Street, Belfast.

The Limmer and Trinidad Lake Asphalt Co. Ltd. announce that T. H. Kirkup has been appointed a managing director of the company.

Ascot Gas Water Heaters announce that G. M. Behr has been appointed General Sales Manager to the Company, with responsibility for the maintenance and enlargement of all export markets in addition to co-ordination of sales promotion in both the Home and Oversea markets. G. E. Jeffs has been appointed London Sales Manager and deputy to Mr. Behr.

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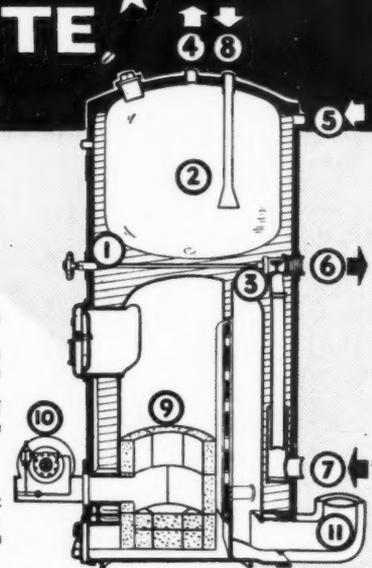
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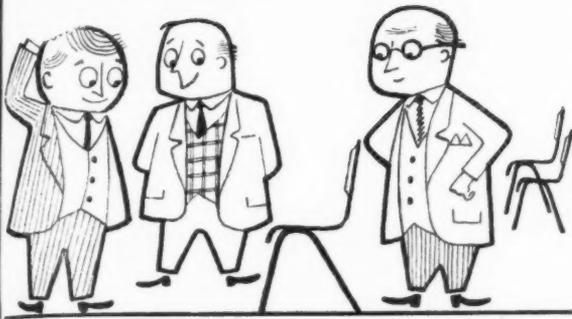
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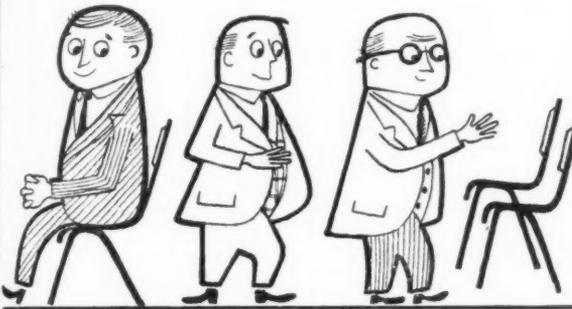


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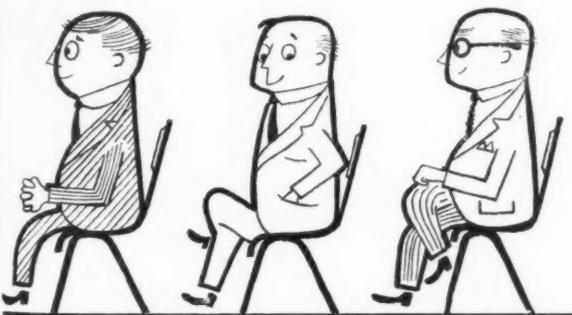
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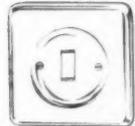
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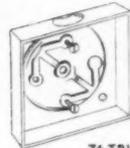
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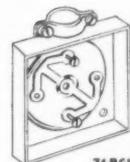
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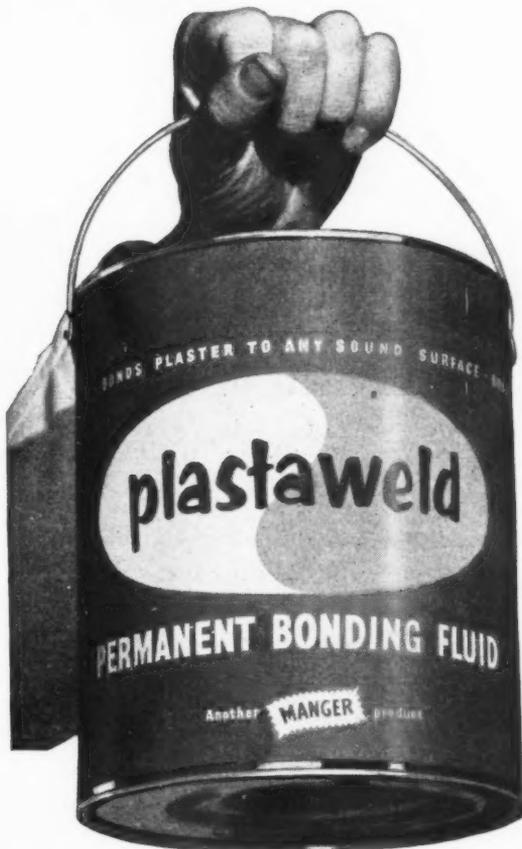


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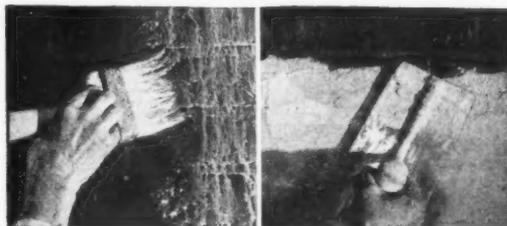
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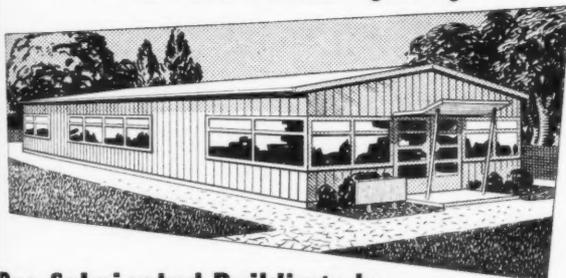
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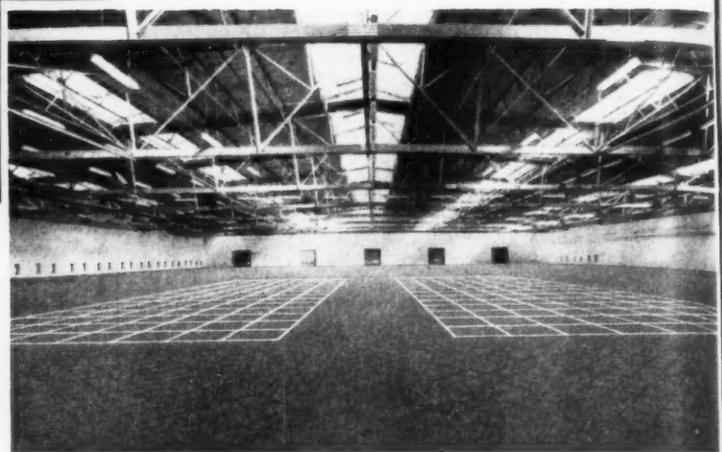
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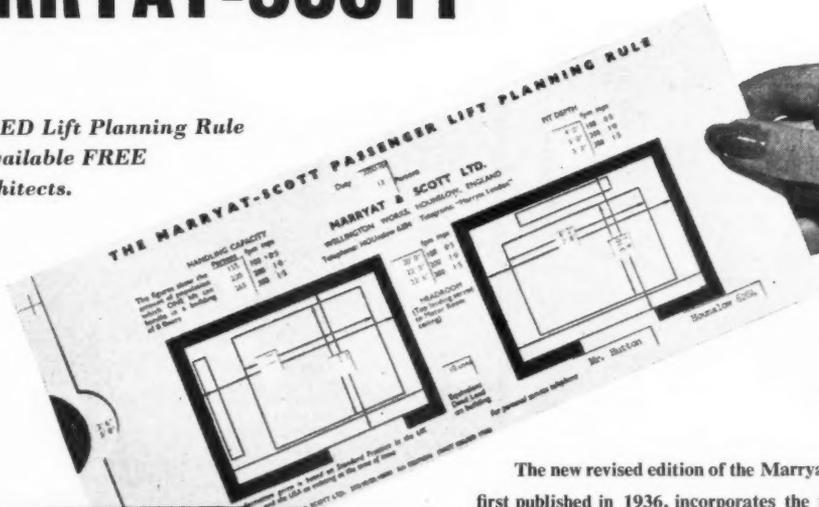
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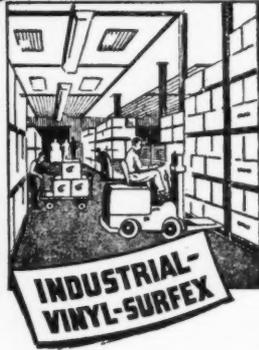
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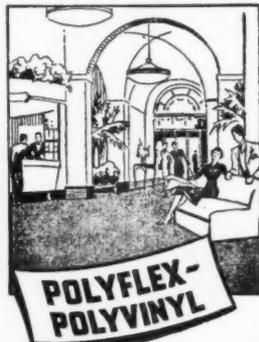
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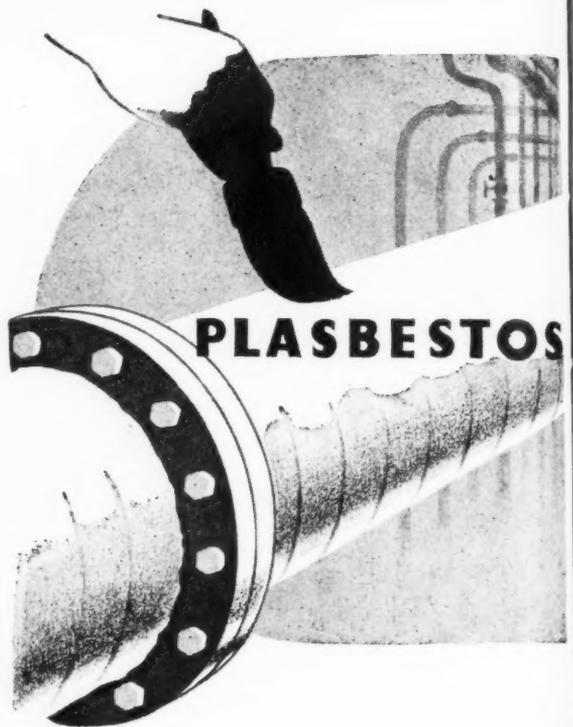


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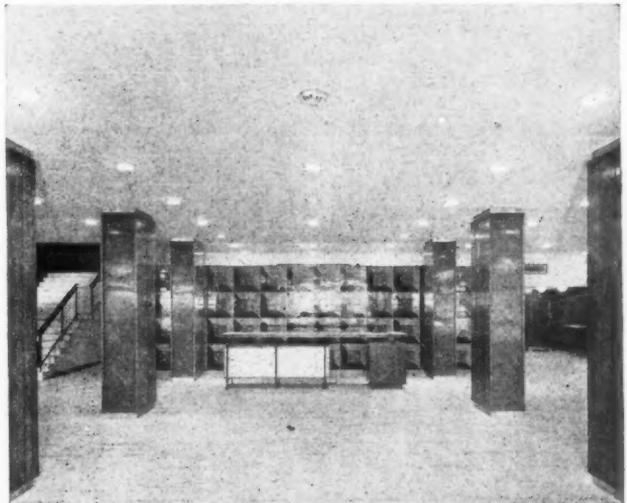
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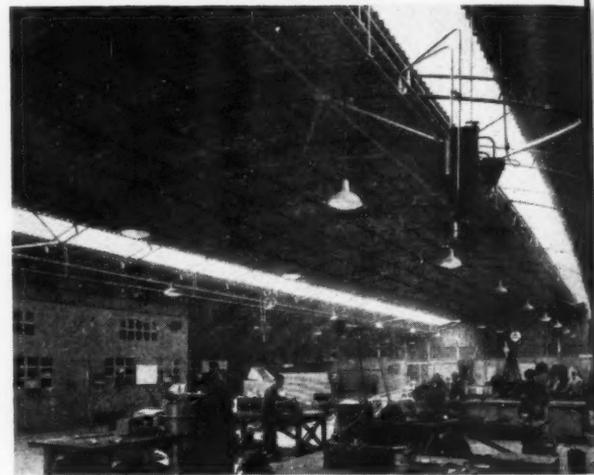
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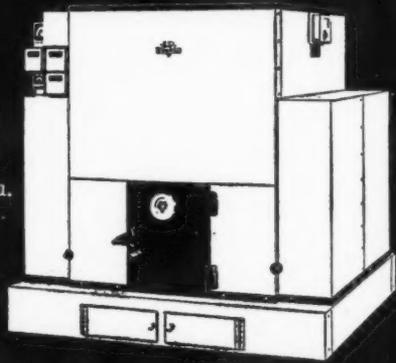
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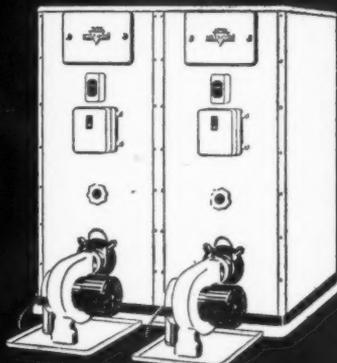
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*August Architectural Review*

The year-round English draught makes *Weather-stripping* a subject of perennial interest and in the August issue of the Review, Peter Whiteley will make a study of the products available for remedial work on both doors and windows, as well as the kind of preventive design that is better than even the best of cures. Two hotels of outstanding interest will be described and illustrated; the *Malmen*, by Wallander and Varhelyi in Stockholm, and Louis Erdi's *Coachotel*. A creative and broadminded approach to a vexed question, outdoor publicity, will be outlined in the new proposals for *Advertising in Stevenage*, and the social and architectural problems

of building new *Urban Nuclei* in rural areas will be considered in an article by Hilda Selem on recent re-settlements in Italy, and a study of Richard Llewelyn Davies' and John Weeks' rebuilding programme for *Rushbrooke*



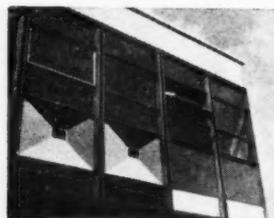
Model of a village at Rushbrooke, Suffolk, by R. Llewelyn Davies and John Weeks, to be illustrated with pilot houses.

in Suffolk. Historical features in this issue will cover the early romantic days at the Weimar *Bauhaus*, whose expressionist and religious fervours are recalled by Helmut von Erffa; a sheaf of notes on 'out-of-the-way' aspects of Italian architecture, and a study of Bernardo Bellotto's four magnificent views of the mysterious *Wilanow Palace* outside Warsaw, now on view at the Whitechapel Gallery. In *Skill*, the *Interior of the Month* will be the new offices for the Orient Line, and in *Design Review*, John Blake will survey recent developments in wallpapers and furnishing fabrics.

**Curtain Walls  
Roman and Gothic  
Shepton Mallet**

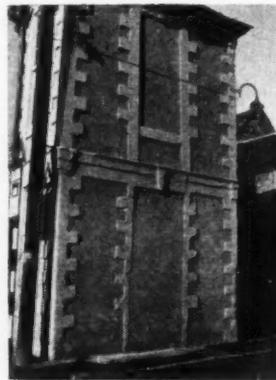
*September Architectural Review*

A major feature of the Review's *Machine Made America* issue, and rapidly becoming a dominant topic in discussions of the economics, technics and aesthetics of building today, *Curtain Walling* will bulk large in the September number of the Review. Michael



Curtain Walling detail of the new BEA terminal now under construction off Cromwell Road, Kensington.

Brawne will contribute a full scale study of the potentialities and perils, scope, materials and methods of this fully industrialised means of clothing buildings, while in *Skill* there will be a supplement on some of the products and systems that are available on the British Market. Also in *Skill* will be new Jaeger shop *Interiors* by Dennis Lennon, as well as *Design Review* and other regular departments. Aspects of the diversity of English nineteenth-century architecture are covered by Hugh Honour's account of the improbable *Roman Church at Everingham*, in Yorkshire, whose decorators were a suitably incongruous combination of Yorkshire and Rome, and a narrative of the building activities at *Strawberry Hill* of Frances Waldegrave, recounted from original sources by Osbert Wyndham Hewett, author of a recent full-dress biography of Lady Waldegrave. September *Townscape* features will deal with *Shepton Mallet*, whose multi-



House in the lower town Shepton Mallet

level town-centre will be discussed by Gordon Cullen, and *Hampstead Garden Suburb*, source of so much good and so much evil in English planning, whose status after a half-century of existence will be evaluated by Ian Nairn. And, as usual, the *Counter-Attack Bureau* will give the latest battle-bulletins on the continuing fight against Subtopian blight.

**Universities  
Staircase  
Arcadia**

*October Architectural Review*

Vexed by conflicting interests and lack of comprehension of the issues at stake, the design of *Universities* has become a prob-

lem that excites passion and prejudice, rather than constructive thinking. In the October number of the Review, Professor Pevsner and the Hon. Lionel Brett will attempt to put the problem back on a realistic basis in a special feature covering both the historical growth of *universities* and their present needs, emphasising the diversity of concepts, both in organization and architecture that the term embraces. Two articles in the same issue will deal with problems of architectural lettering; Nicolette Gray



3—D. shop lettering in Dublin.

contributing a study of *Lettering in Three Dimensions* and *Skill*, surveying the design of *Fascia Boards*. Also in *Skill* will be an illustrated description of Arne Rudberger's stunning staircase for the MEA department store in Stockholm, and other recent structures to be illustrated will include a small house by Sir Hugh Casson on the South Coast, and another well-designed adjunct to a department store—G. A. Jellicoe's roof garden on top of Harvey's at Guildford. Two historical features will deal with developments in the first quarter of the present century: Ian Nairn's delayed study of *Hampstead Garden Suburb* is now expanded into a larger study of



Staircase at the MEA store, Stockholm.

*Arcadia* as a place to dwell in, and Reyner Banham will investigate the implications of recent publications on the position of *Mondriaan* both as a pioneer of modern design, and as a model to be set up for emulation by architects in the future. Robert Melville's survey of art exhibitions will continue, and *Marginalia* will maintain its running commentary on world architecture.

The annual post-free subscription rate payable in advance is £2.18.0 sterling; in U.S.A. and Canada \$9



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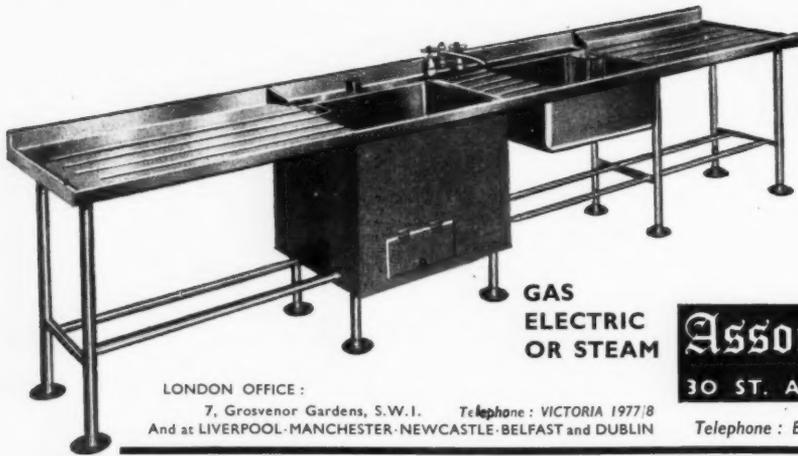
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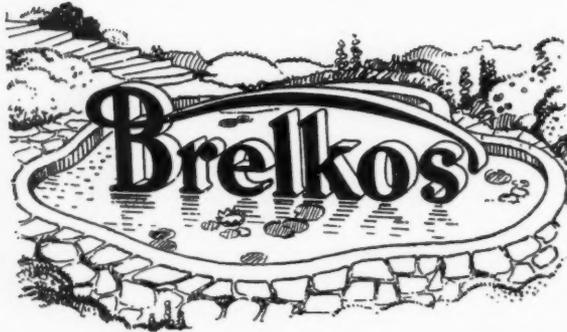
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**CLASSIFIED ADVERTISEMENTS**

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

**Public and Official Announcements**

30s. per inch; each additional line, 2s. 6d.

**LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT**

Selections for appointment are now being made from students at architectural schools who will take their final examinations this summer. Starting salary up to £676. Vacancies also for ARCHITECTS of experience at starting salaries up to £1,036. Full programme of houses, flats, schools and many other interesting buildings.  
 Application forms and full particulars from the Architect (Ref. AR/EK24/572), The County Hall, S.E.1. (895) 6290

**BOROUGH OF SWINDON APPOINTMENT OF PLANNING ASSISTANT A.P.T. IV**

Applications are invited for the appointment of a Planning Assistant A.P.T. IV (£727-£907) in the Planning Department of the Borough Engineer. Candidates should be fully qualified, and should have had experience of housing layouts, and Central Area Redevelopment schemes.  
 Housing accommodation is available.  
 Applications, on forms to be obtained from the Town Clerk Civic Offices, Swindon, must be returned by 17th August, 1957. 7086

**BOROUGH OF WIDNES APPOINTMENT OF HOUSING MANAGER A.P.T. IV**

This is a new appointment. The maximum salary, according to experience and qualifications, will be within the range £1,300-£1,500 per annum, to be reached by four annual increments of £50. The Council require, as a basic qualification, Associateship of the Royal Institution of Chartered Surveyors or its equivalent.  
 In the case of applicants who, in the opinion of the Council, possess exceptional qualifications for this post, the Council are prepared to offer a higher maximum salary.  
 Further particulars from me. Closing date Monday, 26th August, 1957.  
**FRANK HOWARTH,**  
*Town Clerk.* 7059

**ISLE OF ELY COUNTY COUNCIL COUNTY ARCHITECTS' DEPARTMENT**

Applications are invited for the following appointments:—  
 (a) SENIOR ASSISTANT ARCHITECTS, Grade A.P.T. VI (£902-£1,107).  
 (b) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. V (£815-£994).  
 (c) ASSISTANT ARCHITECT, Special Grade (£707-£861).  
 Applicants for (a) and (b) must be A.R.I.B.A. or equivalent with previous experience.  
 Applicants for (c) should have completed parts I and II of the R.I.B.A. Final or Special Final Examination or to have completed a course at a School of Architecture.  
 Appointments are subject to the National Joint Council's Scheme of Conditions of Service, the Local Government Superannuation Act and to passing a medical examination.  
 Applications giving details of training and experience, together with the names of two referees, to be sent to the County Architect, County Hall, March, Cambs., not later than Tuesday, 20th August, 1957.  
**R. F. G. THURLOW,**  
*Clerk of the County Council.* 7062

**BOROUGH OF CHELMSFORD ASSISTANT ENGINEER, A.P.T. IV (£727 15s. to £907 2s. 6d. p.a.). ASSISTANT ARCHITECT, A.P.T. IV (£727 15s. to £907 2s. 6d. p.a.).**

Applications are invited for the above appointments at a starting salary within Grade A.P.T. IV. Housing accommodation is available. Further particulars may be obtained from the Borough Engineer and Surveyor, Municipal Offices, Chelmsford. Closing date: 30th August, 1957.  
**B. A. FRANCIS,**  
*Town Clerk.* 7105

**BOROUGH OF ROYAL LEAMINGTON SPA ARCHITECTURAL ASSISTANT, GRADE IV**

Applications are invited for the above post in the Borough Engineer's Department at a salary within A.P.T. Grades IV/V. Starting salary will be subject to qualifications and experience. Candidates must be Corporate Members of the Institute of British Architects.  
 Housing Accommodation will be provided if required.  
 Further details and forms from the Borough Engineer, to whom completed forms of application must be sent to reach him not later than 21st August, 1957.  
**JAMES N. STOTHERT,**  
*Town Clerk.* 7133

**NORTHAMPTON RURAL DISTRICT COUNCIL ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointment on either the Higher General Division scale (£184 10s.—£512 10s. per annum) or Grade A.P.T. II (£609 17s. 6d.—£691 17s. 6d. per annum) according to qualifications and experience.  
 Applicants for Grade A.P.T. II appointment should have passed the R.I.B.A. Intermediate examination, or its equivalent at one of the recognised schools of architecture and have had a sound general experience.  
 The principal work will be preparation of improvement schemes for Council Houses although from time to time, new works will be involved.  
 The appointment is subject to the Local Government Superannuation Acts, the National Conditions of Service, a satisfactory medical examination, and termination by one month's written notice, on either side.  
 Applications, endorsed "Architectural Assistant," with personal details and details of experience and qualifications, together with names of two referees, to be sent to the undersigned by 14th August, 1957.  
**CLIFFORD E. JONES,**  
*Clerk of the Council.*

Council Offices,  
 1, Cheyne Walk,  
 Northampton. 7094  
 24th July, 1957.

**BOROUGH OF LUTON SENIOR ENGINEERING ASSISTANTS, SENIOR ARCHITECTURAL ASSISTANTS, SENIOR QUANTITY SURVEYING ASSISTANTS.**

A.P.T. V (£614 17s. 6d. to £994 5s.).  
 (d) ENGINEERING ASSISTANTS.  
 (e) ARCHITECTURAL ASSISTANTS.  
 (f) QUANTITY SURVEYING ASSISTANTS.  
 Gen. Div. (£184 10s.) to A.P.T. IV (£727 15s.).  
 Applicants for senior posts must be fully qualified.  
 Commencing salary for (d), (e) or (f) in accordance with experience and qualifications, applicants holding intermediate qualifications appointed in A.P.T. IV.  
 Large constructional and development programme offers a variety of work and experience. Housing provided and removal expenses paid.  
 Application forms for (a) and (d) from Borough Engineer returnable by 12th August, and for (b), (c), (e) and (f) from Borough Architect, Town Hall, Luton, returnable by 19th August. 7082

**BOROUGH OF WARWICK RE-ADVERTISEMENT**

(a) CHIEF ARCHITECTURAL ASSISTANT  
 (b) CLERK OF WORKS  
 Applications are invited for the above permanent appointments from persons possessing the appropriate qualifications. The appointments are subject to the Local Government Superannuation Acts, the Scheme of Conditions of Service of the National Joint Council for Local Authorities Services, one month's notice on either side and the passing of a Medical Examination.  
 (a) CHIEF ARCHITECTURAL ASSISTANT  
 A.P.T. Grade IV (£725 15s.—£907 2s. 6d.)  
 Commencing salary to depend upon qualifications and experience of successful candidates who must be Associate Members of the Royal Institute of British Architects.  
 Warwick is a town of great historic interest and Architectural beauty and the position offers excellent opportunities to persons interested in the type of work which has to be carried out in such a town.  
 The Corporation will give assistance with regard to housing accommodation.

(b) CLERK OF WORKS A.P.T. Grade II (£609 17s. 6d.—£691 17s. 6d.)  
 Applicants should have previous experience of the organisation and supervision of work in connection with housing maintenance by both Contract and direct labour, as well as that of general building work.

The Corporation will give assistance with regard to housing accommodation.  
 Applications stating age, qualifications, training and experience must be delivered to the undersigned with the names of three referees by first post Saturday 17th August, 1957.  
 Canvassing will disqualify and applicants should disclose relationship with any member or Senior Officer of the Council.  
**HECTOR SETON BROWN, A.M.I.C.E., A.M.I.W.E.**  
*Borough Engineer, Surveyor and Water Engineer.*  
 23 Jury Street,  
 Warwick. 7103

**LONDON ELECTRICITY BOARD ARCHITECTURAL ASSISTANT**

Applications are invited for the above position in the Architect's Section of the Construction Branch of the Chief Engineer's Department in Central London.  
 Applicants for the position should be studying for, or have passed the Intermediate Examination of the R.I.B.A., be capable draughtsmen and have had several years' experience in an architect's office.  
 Conditions of service are in accordance with National Joint Board agreement Schedule 'D,' and salary is within Grade 5—£800 0s. 0d./£910 0s. 0d. per annum, inclusive of London Allowance.  
 Application forms obtainable from Personnel Officer, 46, New Broad Street, London, E.C.2., to be returned completed by 12 August, 1957. Please quote reference—PER/2336/A. 7113

Architects, as under, wanted by Lanark County Council for County Architect's Department, Motherwell:—

- (a) SENIOR ASSISTANT ARCHITECT, salary £1,100/£1,150. Must be A.R.I.B.A. In addition to all-round knowledge of architectural practice, should have knowledge of modern school building and be capable of assuming position of responsibility.
  - (b) ARCHITECTURAL ASSISTANTS—A. & P. VIII (£950/£1,005). Must be A.R.I.B.A. with not less than 7 years' practical experience.
  - (c) ARCHITECTURAL ASSISTANTS—A. & P. VI and VII (£825/£950). Must be A.R.I.B.A. with not less than 3 years' practical experience.
  - (d) ARCHITECTURAL ASSISTANTS—A. & P. V and V(a) (£730/£825).
  - (1) A.R.I.B.A. plus satisfactory architectural training, or
  - (2) Passed Parts I and II Final R.I.B.A. plus 3 years' practical experience, or
  - (3) Intermediate R.I.B.A. plus 5 years' practical experience, or
  - (4) Satisfactory architectural training plus 9 years' practical experience.
- In addition to large School Building Programme, work in Department embraces every aspect of building with exception of Housing; appointments, therefore, provide excellent opportunity for extending experience on an interesting and varied programme.  
 Medical examination, Superannuation. No canvassing.  
 Applications stating age, qualifications and experience together with names of three referees, should be lodged with County Clerk, P.O. Box 1, Glasgow, by 17th August, 1957. 7104

**THE CORPORATION OF GLASGOW ARCHITECTURAL AND PLANNING DEPARTMENT ASSISTANT QUANTITY SURVEYORS**

Vacancies exist for a number of Assistants as above, minimum qualification Intermediate examination of the appropriate professional body. Salary scale £595-£1,180 with placing according to age, experience and qualifications.  
 Form of application may be obtained from the Principal Administrative Officer, 20 Troon-gate, Glasgow, C.1  
**A. G. JURY,**  
*City Architect and Planning Officer.* 7141

**S.V.742—ARCHITECT, GRADE II**

Salary £700 x £30 to £1,000.  
 Candidates should be corporate members of the R.I.B.A. with varied practical experience.  
**S.V.730—ARCHITECTURAL ASSISTANT, GRADE I**

Salary: £625 x £25 to £750 p.a. (exceptionally £900).  
 Preferably Intermediate R.I.B.A. although regard will be paid to good practical experience.  
 The architectural work of the department covers the design of colliery surface buildings of all types, including workshops, stores, power plants, offices, pithead baths, canteens, medical centres and recreation buildings.

The point of entry into the salary scales of the respective grades will depend on qualifications and experience. The posts are superannuable and superannuation rights under Local Authority and certain other schemes are transferable.  
 Facilities for part-time study at the Nottingham School of Architecture may be granted to Assistants in certain circumstances.

Applications giving age, present salary and full details of education, qualifications and present appointment should be addressed to The Divisional Chief Staff Officer, National Coal Board, E.M.D., Sherwood Lodge, Nr. Arnold, Nottingham, within 14 days. Please quote appropriate reference number. 7143

**CITY OF CARDIFF APPOINTMENT OF ASSISTANT ARCHITECTS**

Applications are invited for the following appointments:  
 ASSISTANT ARCHITECT, A.P.T. Grade IV (£727 15s.—£907 2s. 6d. per annum).  
 ASSISTANT ARCHITECT, A.P.T. Grade III (£656—£784 2s. 6d. per annum).  
 Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services for posts in the above mentioned Grades.  
 General Conditions of Appointment may be obtained from the undersigned, by the names and addresses of three referees and endorsed "Architectural Assistant (Education), A.P.T. Grade IV" must be delivered to me not later than the 30th August, 1957.  
**S. TAPPER JONES,**  
*Town Clerk.*

City Hall,  
 Cardiff,  
 August, 1957. 7142

**GOVERNMENT OF NORTHERN IRELAND ASSISTANT ARCHITECT CLASS II**

Applications are invited for pensionable posts in the Chief Architect's Branch, Ministry of Finance. Candidates must be Registered Architects by examination, with at least two years' experience in an Architect's Office in the preparation of working drawings. Salary scale £744 (at age 25)—£1,002 (age 34 and over)—£1,160. Transfer of existing pension rights may, in certain circumstances, be approved. Preference will be given to ex-Servicemen. Application forms may be obtained from the Secretary, Civil Service Commission, Stormont, Belfast. 7150

**EAST RIDING OF YORKSHIRE COUNTY COUNCIL**

Applications are invited for the following permanent appointments on the staff of the County Architect.

**ASSISTANT ARCHITECTS**

N.J.C. Special Scale (£707 5s. 0d.—£861 0s. 0d.)  
**ASSISTANT QUANTITY SURVEYOR**  
 N.J.C. Scales—Grade III (£656 0s. 0d.—£784 2s. 6d.)

Applications giving particulars of qualifications, age, experience, past and present appointments with salaries, together with the names of three referees, should be sent to the County Architect, County Hall, Beverley, not later than Friday, 16th August, 1957.

**THOMAS STEPHENSON,**  
*Clerk of the Council.* 7139

**BOROUGH OF LEYTON**

Applications invited for appointments:—  
**SENIOR ARCHITECTURAL ASSISTANT,**  
 Grade A.P.T. VI (£902—£1,107 per annum).  
**ARCHITECTURAL ASSISTANTS (TWO),**  
 Grade A.P.T. V (£814 17s. 6d.—£994 5s. per annum).

Plus London weighting at £30 p.a. at age 26 or over in each case.

**HOUSING ACCOMMODATION** will be made available to the successful candidates, if required. Candidates must be Associates of the Royal Institute of British Architects, and for the senior post must have had extensive general experience of local authority building projects. The other two posts are for duties in connection with the Corporation's programme for Redevelopment Areas, and require considerable experience of contemporary design and construction of multi-storey flats.

Full details and form of application can be obtained from the Borough Engineer and Surveyor, by whom completed forms must be received not later than Friday, 23rd August, 1957.

**D. J. OSBORNE,**  
*Town Clerk.* 7134

**CITY OF NOTTINGHAM**

**ASSISTANT PLANNING OFFICER, GRADE A.P.T. VI (£902—£1,107 p.a.)**

Applications are invited for the above position in the City Engineer's Department.

The post is next in seniority to that of the Chief Assistant Planning Officer, and there is a technical staff of 21 in the Town Planning Section of the Department. Applicants should have good experience of re-development schemes and Development Plan work with an urban authority. Preference will be given to Associate Members of the Town Planning Institute.

Commencing salary will depend on ability and experience, and will be within the range £902 to £1,107 per annum in Grade A.P.T. VI.

Applications, on forms to be obtained from R. M. Finch, O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, are to be made to him not later than 31st August, 1957. 7132

**WEST HERTS CREMATORIUM JOINT COMMITTEE**

**CLERK OF WORKS**

The Committee are about to begin the building of a Crematorium at Garston, near Watford. Three staff houses are already under construction. Applications are invited for the post of Clerk of Works, to supervise the erection of the crematorium and the completion of the houses. The salary will be £20 a week. Applications, stating age, qualifications, experience, and the names of three referees must reach A. S. Moody, Esq., the Committee's Surveyor, of 16, St. Peter's Street, St. Albans, not later than 19th August, 1957.

**C. W. G. T. KIRK,**  
*Clerk of the Committee.*

Town Hall, Hemel Hempstead.  
 8th August, 1957. 7119

**DURSLEY RURAL DISTRICT COUNCIL**

**JUNIOR ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointment in the Department of the Engineer and Surveyor, at a salary in accordance with A.P.T. I.

Candidates must be competent draughtsmen, experienced in the preparation of detailed house plans and working drawings for housing schemes. The work attached to the post is on the housing side of the Department, and will afford an opportunity of gaining experience of varied and interesting building programmes.

Applications, stating age, experience and any qualifications, and giving the names of two persons to whom reference may be made, must reach the undersigned not later than first post on Saturday, 31st August, 1957.

**H. A. PATE,**  
*Clerk of the Council.*

Council Offices, Kingshill, Dursley, Glos.  
 30th July, 1957. 7137

**UNIVERSITY OF SOUTHAMPTON**

Applications for the post of **WORKS AND BUILDINGS OFFICER** are invited from persons with suitable professional qualifications and at least 5 years' post-qualification experience. Salary scale £900 to £1,650, with placing according to qualifications and experience. F.S.S.U. and Children's Allowances. Experience in the supervision of erection of large buildings and in the preparation of bills of quantities and plans desirable. Further particulars should be obtained from the Secretary and Registrar, to whom applications (10 copies) should be sent as soon as possible. 7106

**BOROUGH OF EALING**

(a) **SENIOR ARCHITECTURAL ASSISTANT,**  
 A.P.T. IV, £757 15s. 0d.—£1,024 5s. 0d. inclusive. Candidates must be Associate Members of the Royal Institute of British Architects or possess a recognised equivalent qualification.

(b) **DRAUGHTSMAN** for Civil Engineering work. Miscellaneous Scales of Salaries Grade IV, £502 5s. 0d. to £589 7s. 6d., plus London Weighting.

No housing accommodation is offered with these posts, but generous help with removal expenses will be given to successful applicant.

Full particulars and application forms obtainable from the Borough Surveyor, Town Hall, Ealing, W.5.

Closing date 19th August, 1957.  
**E. J. COPE-BROWN,**  
*Town Clerk.*

Town Hall, Ealing, W.5. 7118

National Coal Board, East Midlands Division, invite applications for the following appointment in their Architect's Department, Nottingham:

**S.V. 796—QUANTITY SURVEYOR, Grade I.**

Salary: £1,000 v. £35 to £1,300. Candidates should be corporate members of the Royal Institution of Chartered Surveyors, with considerable experience of all aspects of the work in a Quantity Surveyor's office.

The post is superannuable and superannuation rights under Local Authority and certain other schemes are transferable.

The starting salary of the successful candidate will depend on his qualifications and experience. The architectural work of the department covers the design of colliery surface buildings of all types including workshops, stores, power plants, offices, pithead baths, canteens, medical centres and recreation buildings.

Applications, stating age, qualifications and experience, and present employment and salary, should be submitted *within 14 days* to: Staff Director, National Coal Board, East Midlands Division, Lichfield Lodge, St. Arnold, Nottingham. Envelopes and applications to be marked "S.V. 796." 7114

**STAFFS COUNTY COUNCIL**

**EDUCATION ARCHITECT'S DEPARTMENT**

Applications are invited from suitably qualified persons for the following appointment which will be subject to the Local Government Superannuation Acts; applicants should state whether to their knowledge they are related to any member or senior officer of the Authority. Canvassing will disqualify any applicant. Forms of application may be obtained from the Education Architect, Green Hall, Lichfield Road, Stafford, and should be returned by the 22nd August, 1957.

**QUANTITY SURVEYOR: Grade A.P.T. VI (£902—£1,107).** Applicants should be members of the R.I.C.S. (Q.S. Section).

The County are prepared to grant a lodging allowance of 35s. per week to married applicants maintaining a home outside the geographical county for a period of six months; also 3rd class rail travel home bi-monthly during the initial six months. The County Council are prepared to give consideration to the granting of financial assistance in appropriate cases, towards removal expenses.

**T. H. EVANS,**  
*Clerk of the County Council.* 7151

**URBAN DISTRICT COUNCIL OF BASILDON**

(a) **ASSISTANT ARCHITECT, A.P.T. V (£814 17s. 6d.—£994 5s.)**

(b) **SENIOR ARCHITECTURAL ASSISTANT, A.P.T. IV (£727 15s.—£907 2s. 6d.)**

Applications are invited from experienced Architects for the above established posts in the Engineer and Surveyor's Department. Commencing salaries will be fixed according to experience and qualifications. The provision of housing accommodation will be considered.

The Urban District has a population of approximately 65,000, covers 27,000 acres, and includes the New Town Area and two Townships designated as Expanded Towns. Rapid development will provide an increasing variety of interesting works.

Full particulars and application forms from and returnable to Mr. S. A. Wadsworth, A.M.I.C.E., A.M.I.Mun.E., Council Offices, High Street, Billericay, Essex; closing date 20th August, 1957. 7135

**CANNOCK URBAN DISTRICT COUNCIL**

(Population 41,950)

**QUANTITY SURVEYOR**

Applications are invited for the above-named appointment in the Architect's Department. Preference will be given to the holder of a recognised qualification.

Salary A.P.T. V (£814 17s. 6d. to £994 5s. 0d.) or VI (£902 to £1,107 per annum), commencing point to be fixed according to qualifications and experience.

Housing accommodation available for successful married applicant, if required.

Applications giving particulars of age, present and previous appointments, training and experience, with not more than three references, must reach the undersigned (from whom further particulars are available) by 14th August, 1957.

**H. C. ALLEN,**  
*Clerk of the Council.*

Council House, The Green, Cannock, Staffs.  
 26th July, 1957. 7120

**WEST MIDLANDS GAS BOARD**

**BOARD HEADQUARTERS**

**ARCHITECTURAL ASSISTANT**

Applicants for the above post on the staff of the Board Architect should be fully conversant with contemporary constructional practice and be capable of undertaking medium-sized projects with a minimum amount of supervision. The work involved consists of a wide variety of interesting projects, including commercial buildings, showroom and exhibition work, in addition to industrial projects with the ancillary office, canteen and welfare buildings.

The salary will be within A.P.T. Grade X (£860—£960 p.a.) of the National Salaries Scales. The post is pensionable and the successful candidate may be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with the names of two referees, should be addressed to the Industrial Relations Officer, West Midlands Gas Board, 6, Augustus Road, Edgbaston, Birmingham, 15, to reach him not later than Monday, 19th August, 1957.

**J. SWAN,**  
*Secretary to the Board.* 7123

**CARLTON URBAN DISTRICT COUNCIL**

**APPOINTMENT OF ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointment at a salary in accordance with A.P.T. Grade IV viz: £727 15s. 0d. x £35 17s. 6d.—£907 2s. 6d. the point of entry to be determined having regard to the applicant's experience. Qualifications—Final R.I.B.A. or Registered Architect.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, 1937 to 1953, the National Scheme of Conditions of Service and the satisfactory passing of a medical examination.

Applications stating age, qualifications and details of experience, together with names of three referees to be forwarded to the undersigned by 10 a.m. Wednesday, 21st August, 1957.

Housing accommodation will be made available if required and removal expenses will be paid by the Council.

Canvassing either directly or indirectly will disqualify.

**A. E. F. WALKER,**  
*Clerk of the Council.*

Council House, Burton Road, Carlton, Nottingham.  
 24th July, 1957. 7112

**MINISTRY OF HOUSING AND LOCAL GOVERNMENT:**

**ASSISTANT PLANNING OFFICERS**

The Civil Service Commissioners invite applications for at least five pensionable posts mostly in London, but travelling involved. Age on 1st June, 1957, normally 35, but well qualified candidates at least 30 may apply. Qualifications: candidates must have achieved Corporate Membership of the Town Planning Institute. In addition candidates must either (a) have been registered by the Architects Registration Council of the United Kingdom; or (b) have achieved Corporate Membership of the Institution of Civil Engineers, Royal Institution of Chartered Surveyors, Institution of Municipal Engineers, Institute of Landscape Architects, Land Agents' Society or (c) have a University degree with at least 2nd Class Honours in Town Planning, Civil Engineering, Economics, Geography or possess other academic qualifications of equivalent value. At least three years' recent practical experience in town and country planning essential.

Starting pay (London) £1,315 (women £1,246). Men's maximum £1,690. These salaries are being increased by approximately five per cent. Women's pay being improved each year until equality with the men's scale is reached in 1961. Exceptionally, higher starting salary at 35 or over if outstandingly well qualified. Promotion prospects. Five-day week.

Particulars and application form from Secretary, Civil Service Commission, Scientific Branch, 7th Floor, 30 Old Burlington Street, London, W.1, quoting No. S4740/57. Applications to be returned by 27th August, 1957. 7111

**BOROUGH OF LARNE**

The Larne Borough Council invite applications for the undermentioned temporary appointment:—

**ASSISTANT ARCHITECT**

A.P.T. Grade V—£814 x £35 to £994 p.a. Commencing salary according to qualifications and experience.

Candidates must be A.R.I.B.A. and an additional qualification in planning would be an advantage. The work includes housing layouts and the design of public buildings and is limited, in the first instance, to 5 years from April 1st, 1957.

The appointment will be subject to the provisions of the Local Government (Superannuation) Act (N.I.), 1950.

Applications giving date of birth, full particulars of qualifications and experience and copies of two recent testimonials should reach the undersigned by 31st August, 1957.

**ROBERT LITTLE,**  
*Town Clerk.*

Gardenmore House, Larne, Co. Antrim. 7140

**NEW ZEALAND MINISTRY OF WORKS PROFESSIONAL AND TECHNICAL STAFF**  
The Ministry of Works, New Zealand, invites applications for the following vacancies on the Permanent Staff. Positions, qualifications desired and commencing salaries are as follows:

**ARCHITECTURAL DIVISION**  
1. **ARCHITECTS** Corporate Membership of the Royal Institute of British Architects. Commencing salaries from £895 to £1,465 per annum in accordance with experience.  
2. **ARCHITECTURAL DRAUGHTSMEN** General Certificate of Education or Ordinary or Higher National Certificate (Building) plus five years' draughting experience. Commencing salaries up to £1,225 per annum in accordance with qualifications and experience. Enquiries mentioning this paper and quoting reference No. 3/74/135, also stating the type and number of position sought, should be addressed to the High Commissioner for New Zealand, 45 Strand, London, W.C.2. Full details of duties, experience desired, and general information on the conditions of employment in the New Zealand Public Service, together with application forms will then be furnished. 7110

**COVENTRY CORPORATION PLANNING CONTROL ASSISTANT.** Salary within A.P.T. I/III, according to qualifications and experience. Additional local award £26 in approved circumstances. Loan for removal expenses if required. Application forms, etc., from City Architect and Planning Officer, Bull Yard, Coventry, returnable within 10 days of publication. 7136

**LONDON COUNTY COUNCIL ARCHITECT'S DEPARTMENT**  
Vacancy for Grade III (up to £1,036 7s.), for maintenance, repair and small improvements of Council buildings. Experience of alteration work and maintenance work on schedule basis an advantage; A.R.I.B.A., or A.R.I.C.S. desirable. Particulars and application form, returnable by 15th August, 1957, from the Architect (AR/EK/45/57), County Hall, S.E.1. (1463). 7102

**Architectural Appointments Vacant**

4 lines or under, 9s. 6d.; each additional line, 2s. 6d. Box Number, including forwarding replies, 2s. extra.

**RONALD WARD & PARTNERS** require **ARCHITECTURAL ASSISTANTS** with contemporary outlook and willing to use own initiative. Salary range £600 to £850. Congenial working conditions. Apply 29, Chesham Place, Belgrave Square, S.W.1. Telephone Belgraveia 3361. 6322

**CO-OPERATIVE WHOLESALE SOCIETY LTD. ARCHITECT'S DEPARTMENT, MANCHESTER**  
**APPLICATIONS** are invited for the following appointments:—(a) **SENIOR ASSISTANT ARCHITECTS** with experience of work on commercial and industrial projects (salary range £820 to £975 per annum). (b) **ASSISTANT ARCHITECTS** capable of preparing working drawings from preliminary details (Salary range £550 to £820 per annum). There is a five-day week in operation and both appointments offer prospects of upgrading. Applications stating age, experience, qualifications and salary required to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1, Balloon Street, Manchester 4. 6023

**YOUNG ARCHITECTURAL ASSISTANT** (male) required in West End office. Write stating age, experience and salary required. Box 6683.

**ARCHITECTURAL ASSISTANT** required in busy London Office with varied practice. Good salary and prospects for suitable applicant. Five-day week. Write, giving particulars of age, qualifications, experience, etc., to Box 851 c/o 7, Coptic Street, W.C.1. 6376

**LONDON** office with widely varied practice urgently requires all grades of **ASSISTANTS**, preferably with London experience. Five-day week. Lewis Solomon, Son & Joseph, 21, Bloomsbury Way, London, W.C.1. Holborn 6108. 6531

**ASSISTANT ARCHITECT.** Co-operative Wholesale Society, Ltd., invite applications for the position of Assistant Architect. Must be capable of preparing working drawings from preliminary details. The post is superannuable, subject to medical examination. 5-day week in operation. Applications, giving details of age, experience and salary required, to—W. J. Reed, F.R.I.B.A., Chief Architect, C.W.S. Ltd., 99, Leman Street, London, E.1. 6350

**NORTH & PARTNERS**, Chartered Architects with extensive practice, seek partner's personal ASSISTANT. Position will afford excellent opportunity for capable assistant. Reply: 40, Broadway, Maidenhead. 6502

**RAMSEY, MURRAY, WHITE & WARD** require recently qualified ASSISTANTS, with two to five years' practical experience, to work on interesting industrial and office buildings. Salary by arrangement.—Apply 32, Wigmore Street, W.1. 5929

**WELL-KNOWN** London Architects require ASSISTANTS between Intermediate and Final standard. Interesting projects. Five-day week. Write Box 853, c/o 7, Coptic Street, W.C.1. 6583

**NORTH AND PARTNERS**, Chartered Architects, with large and varied practice, require a capable experienced ASSISTANT for drawing office, salary by arrangement. Reply: 40, Broadway, Maidenhead, Berks. 6573

**ASSISTANT**, Intermediate standard, required, busy West End office. State age, experience, and salary required.—Box 6946.

**JUNIOR ARCHITECTURAL ASSISTANTS** required in the Architect's Department of Multiple Retail Company, Birmingham Area. Applicants must have had sound architectural training up to Intermediate standard, and are required to prepare working drawings and details under supervision of senior staff. Salary within the range of £500 to £700 p.a. Five-day week. Staff canteen and pension scheme available. Replies to Box 6753.

**ASSISTANT** required, Intermediate standard; also **JUNIOR**, in West End office. Write stating age, experience and salary required to Box 6724.

**SENIOR ASSISTANT** required of Intermediate/Standard in Croydon office. Varied practice of interesting work. Good draughtsman and sound knowledge of construction essential, together with ability to manage jobs. Five-day week. Salary according to experience. Apply George Lowe & Partner, 4, High Street, Croydon SE68/9. 6851

**NORFOLK** Architect requires competent office trained ASSISTANT. Qualified man would be considered.—Reply, with full details of experience and salary required, to Box 7076.

**BRONEK KATZ** and **E. VAUGHAN** have vacancies for one **SENIOR** and one **JUNIOR ASSISTANT**.—208A, Regent Street, W.1. Reg. 5401. 7075

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**APPLICATIONS** are invited for the following appointments in the above Branch Office undertaking interesting and varied commercial and industrial projects:—

(a) **ASSISTANT QUANTITY SURVEYOR**, with good experience in the preparation of Bills of Quantities, measuring and adjusting variations and estimating under supervision (salary range £550 to £820 per annum).

(b) **ASSISTANT ARCHITECT**, capable of preparing working drawings from preliminary details (salary range £550 to £820 per annum). There is a 5-day week in operation, and the appointments offer prospects of upgrading.

Applications, stating age, experience, qualifications and salary required, to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester. 7075

**ARCHITECTURAL ASSISTANT** (Intermediate Standard) with experience required in Private Practice, City Office. Apply in writing stating age, experience and salary, Box 6943.

**JUNIOR ARCHITECTURAL ASSISTANT** required in Architect's department of well established firm of Surveyors in the Medway Towns.—Please write, giving full particulars and salary required, to Box 7066.

**ARCHITECTURAL ASSISTANT** required by a large Midland food manufacturing business. Applicants must have had sound architectural training up to Intermediate standard. The work is interesting and varied, embracing as it does new work, alterations and maintenance carried out in part by its own Building, Joinery and associated shops. Applicants to give full details of qualifications, experience, etc. Commencing salary within the range of £650 to £750 per annum. Box 7122.

**THE Milk Marketing Board** require an **ASSISTANT** in their Architect's Department capable of preparing working drawings and details and able to make field surveys and surveys of existing buildings. Preference will be given to applicants who have already passed their Intermediate R.I.B.A. examination. Salary by arrangement. Applications in writing stating age and previous experience to the Senior Personnel Officer, Milk Marketing Board, Thames Ditton, Surrey. 7117

**MALE OR FEMALE ASSISTANT** (Intermediate standard) required for private office in Bahamas on 2 or 3 year contract. Salary about £1,000 p.a. Fares paid by employers. Applicants must be good draughtsmen. Box 7130.

**ASSISTANT ARCHITECT** required—capable of preparing working drawings and details from preliminary sketches. Applications stating age, experience, qualifications and salary required to R. C. Steel, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society Limited, 90, Westmorland Road, Newcastle upon Tyne. 7129

**ARCHITECTURAL ASSISTANT** of Intermediate standard urgently required for housing development. Permanent progressive post, superannuation scheme, good working conditions. Housing accommodation will be made available. Write, giving full details of experience, age, and salary required to Chief Architect, New Ideal Homesteads, Ltd., 61, South Street, Epsom, Surrey. 7128

**ASSISTANT ARCHITECT** required in small modern office with plenty of scope. Salary £13 to £15. Watson & Coates, 6, Gray's Inn Square, W.C.1. 7127

**APPLICATIONS** are requested for the position of **CONSULTANT ARCHITECT** to the David Lewis Manchester Epileptic Colony (individuals or firms may apply). The main requirements will be advice on maintenance problems, new construction work being negligible. Full particulars in writing to the Chairman, the David Lewis Manchester Epileptic Colony, Great Warrard, Nr. Acrey Edge, Cheshire. 7126

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**ARCHITECTURAL ASSISTANTS** required for work on licensed premises, including interior decoration. Write stating age, experience and salary required to the Secretary, Benskin's Watford Brewery Ltd., P.O. Box 105, Watford, Herts. 7123

**ARCHITECTURAL ASSISTANT** (Intermediate standard) required in Westminster office—general practice—no Saturdays. Apply stating age, experience and salary required. Box 7121.

**SENIOR ASSISTANT** not necessarily qualified but capable of carrying through small contracts and supervising work; must be quick and speedy draughtsman. Box 7116.

**SENIOR ASSISTANT** required. State age, experience and salary. Charles E. Ware & Son, 20, Richmond Road, Exeter. 7108

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**ASSISTANT** required of final R.I.B.A. Standard. Varied and interesting work including specification writing. Experience necessary. Write Lassetter & Judd, L/A.R.I.B.A., Somerset House, Reading. 7152

**ARCHITECTURAL ASSISTANTS** required, must have London experience and be able to take responsibility. Salary £650—£750. Please apply in writing giving details of experience to Ellis, Clarke & Gallanmaugh, 37, Soho Square, W.1. 7145

**ARCHITECT'S ASSISTANT** wanted in small office, work of great variety and much in Country. Post-Intermediate standard needed. Write, giving experience and salary required, to Quick & Lee, Chartered Architects, 11, Waterloo Place, Leamington Spa, Warwick. 7144

**Architectural Appointments Wanted**

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**ASSISTANT** (30). Final standard, nine years' office experience, required responsible and progressive position, Brighton area. Salary around £800. Box 7115.

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Bowker, S. O., Ltd. ....	69	0076	Hargreaves Group Co. ....	39	0752	Permutit, Ltd. ....	4	0420
Briggs, William, & Sons, Ltd. ....	41	0082	Hermesal Acoustics, Ltd. ....	77	0089	Philips Electrical, Ltd. ....	79	0432
British Columbia Lumber Manfs. Assoc. ....	20	0085	Hills (West Bromwich), Ltd. ....	49	0292	Phoenix Rubber Co. ....	2	0430
British Insulated Callender's Cables, Ltd. ....	44	0091	Holoplast, Ltd. ....	45	0299	Pilkington Bros., Ltd. ....	55	0438
British Reinforced Concrete Eng. Co., Ltd. ....	88	0101	Holtom, J. H., & Son, Ltd. ....	87	0770	Previte & Co., Ltd. ....	87	0446
British Sanitary Fire Clay Association ....	21	0774	Hope, Henry, & Sons, Ltd. ....	62	0302	Prodorite, Ltd. ....	72	0448
Broad & Co., Ltd. ....	84	0784	Hope's Heating and Engineering Co., Ltd. ....	28	0303	Purimachos, Ltd. ....	80	0450
Broughton Moor Green Slate Quarries, Ltd. ....	65	0111						
			I.C.I. (Metals), Ltd. ....	42	0307			
C.T.C. Heat (London), Ltd. ....	68	0169	I.C.I. (Plastics), Ltd. ....	6	0309	Radiation Group Sales, Ltd. ....	60	0666
Cape Building Products, Ltd. ....	32	0120				Rainham Timber Engineering Co., Ltd. ....	15	0455
Cascelloid, Ltd. ....	76	0124	Janes, H. C., Ltd. ....	12	0320	Richardson & Starling Co., Ltd. ....	79	0460
Catesbys, Ltd. ....	70	0125	Jones, T. C., & Co., Ltd. ....	16	0323	Richards Tiles, Ltd. ....	53	0467
Chloride Batteries, Ltd. ....	9	0134				Robertson Thain, Ltd. ....	8	0473
Clark, James, & Eaton, Ltd. ....	31	0137	Kerner-Greenwood & Co., Ltd. ....	59	0325	Ruberoid Co., Ltd. ....	14	0479
Colt Ventilation, Ltd. ....	3	0146				Rubery Owen, Ltd. ....	35	0480
Colt Ventilation, Ltd. (Oil Heaters), Ltd. ....	18	0720	Leaderflush, Ltd. ....	50	0336			
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			Lewis, G. W., Tileries, Ltd. ....	40	0637	Shell-Mex & B.P. Co., Ltd. ....	64	0506
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Dreadnought Fireproof Doors (1930), Ltd. ....	54	0191	Lynch & Baker, Ltd. ....	84	0358	Sommerfelds, Ltd. ....	51	0523
Drynamels, Ltd. ....	38	0680	McCarthy, M., & Sons, Ltd. ....	84	0361	Steelbrac, Ltd. ....	37	0650
Dussek Bitumen & Taroleum, Ltd. ....	74	0622	M.K. Electric, Ltd. ....	47	0392	Surflex Flooring Co., Ltd. ....	74	0743
			Manger, J. & Son Ltd. ....	71	0369			
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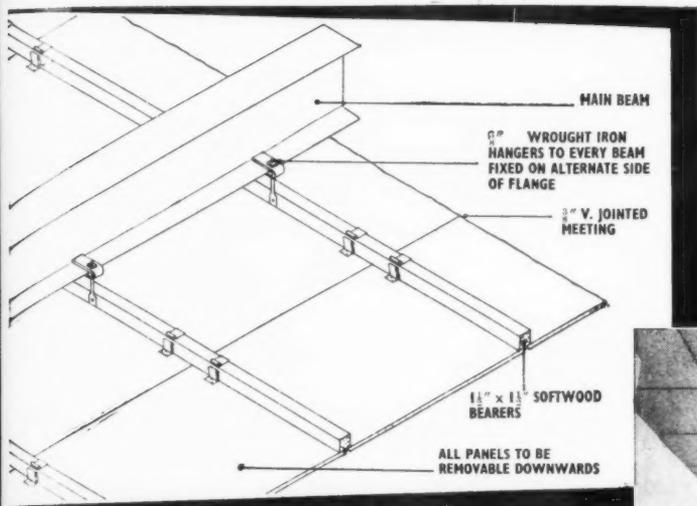
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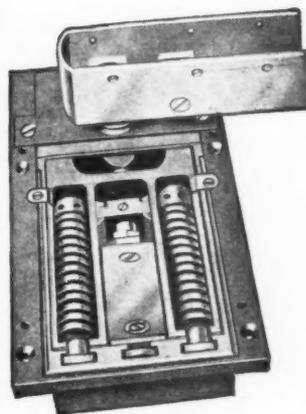
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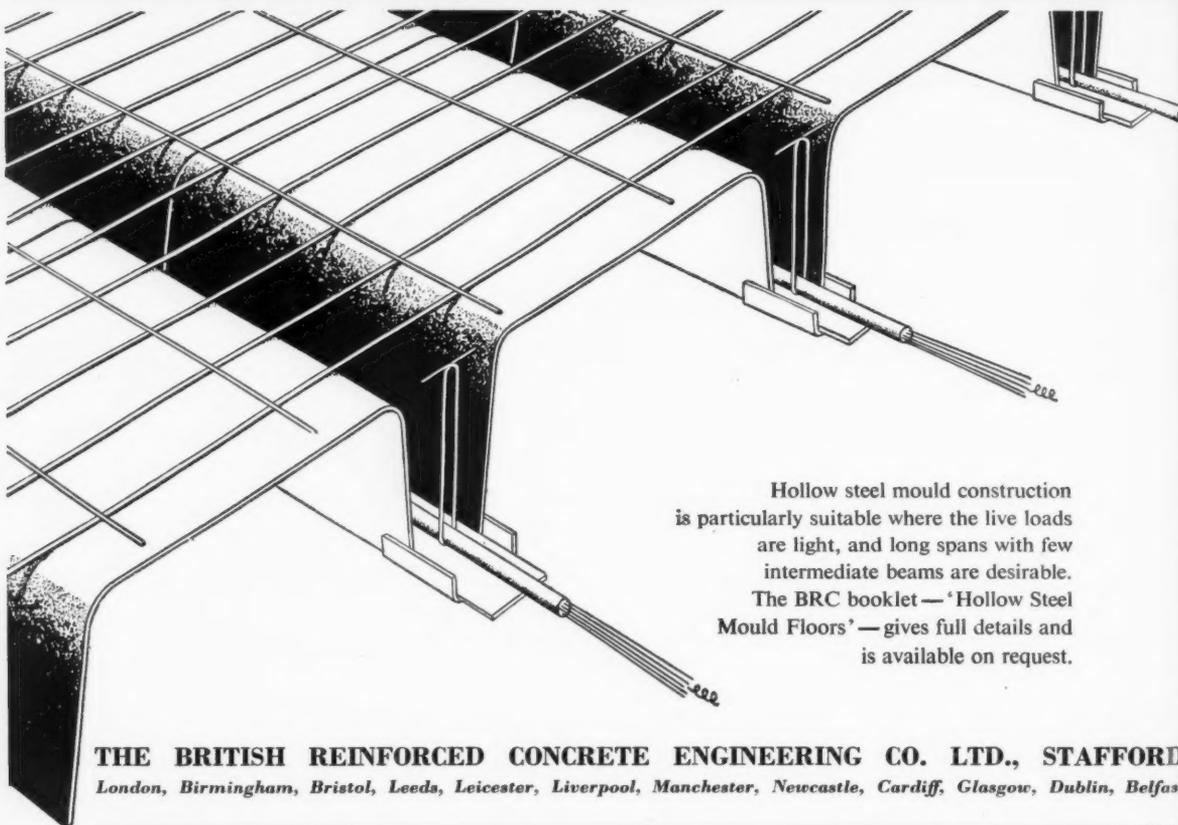
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