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THE ARCHITECTS' JOURNAL

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standard contents

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

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THE ARCHITECTURAL PRESS
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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, If 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, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, 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
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
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, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Flaxman 7766
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
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
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. Millbank, S.W.1.	Whitehall 5140
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.	Newport 3111
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.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	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. 35, Old Queen Street, S.W.1.	Victoria 9040
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. 8, Buckingham Palace Gdns, S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub-Contractors, 5, Arundel Street, Strand.	Temple Bar 6633
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	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	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 4041
FS (Eng.)	Faculty of Surveyors of England. Buckingham Palace Gdns., S.W.1.	Sloane 2837
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

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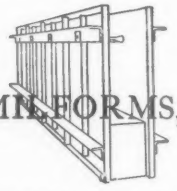

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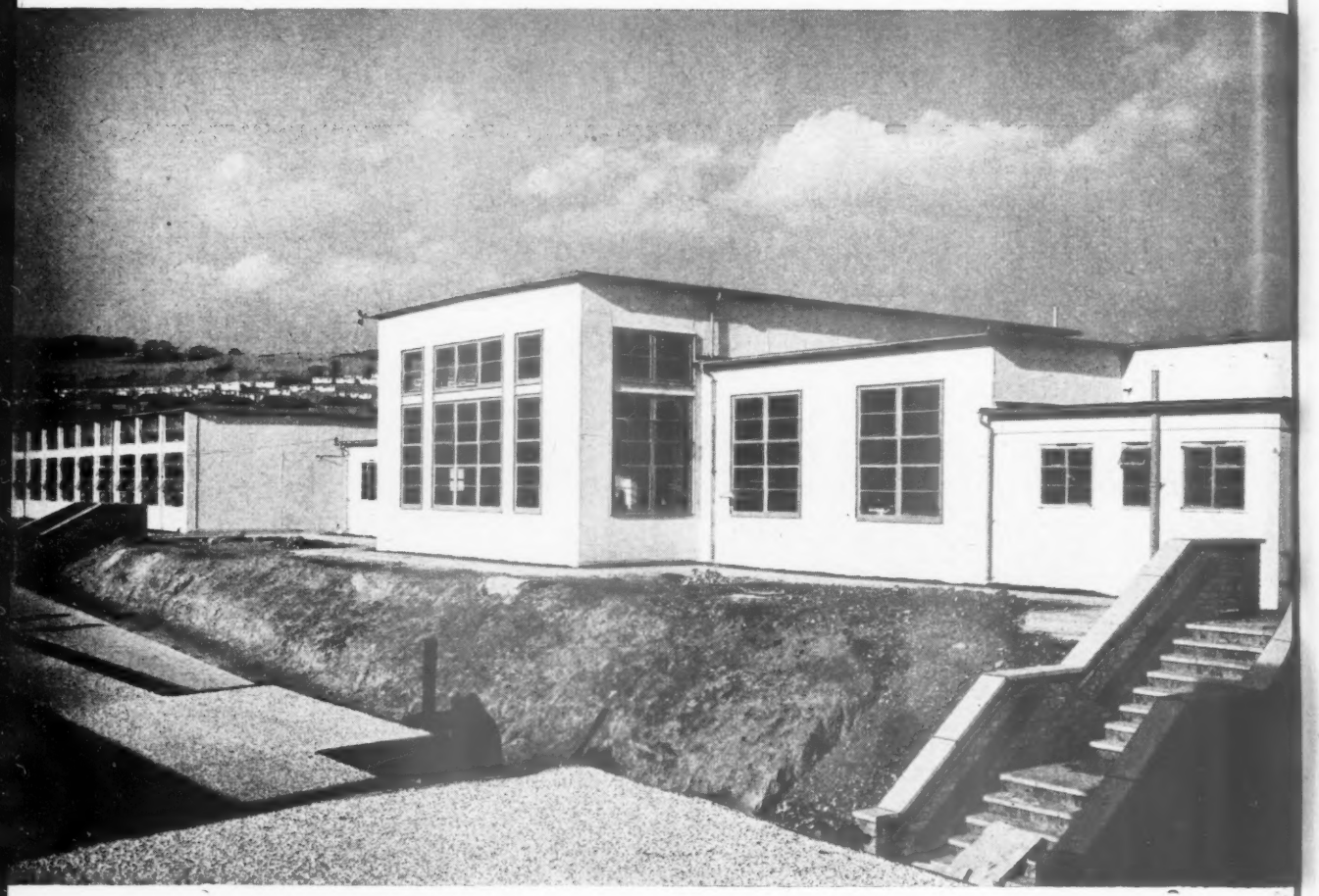

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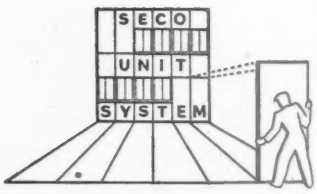

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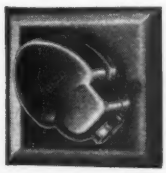

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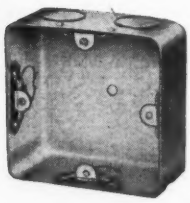

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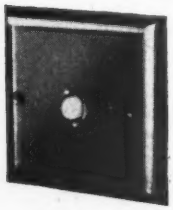

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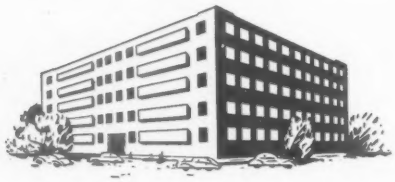

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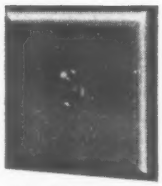
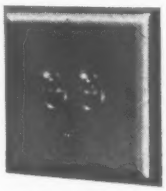
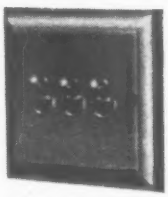


Single Micro-Gap Tumbler Switch



Double Micro-Gap Tumbler Switch



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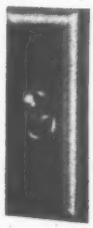
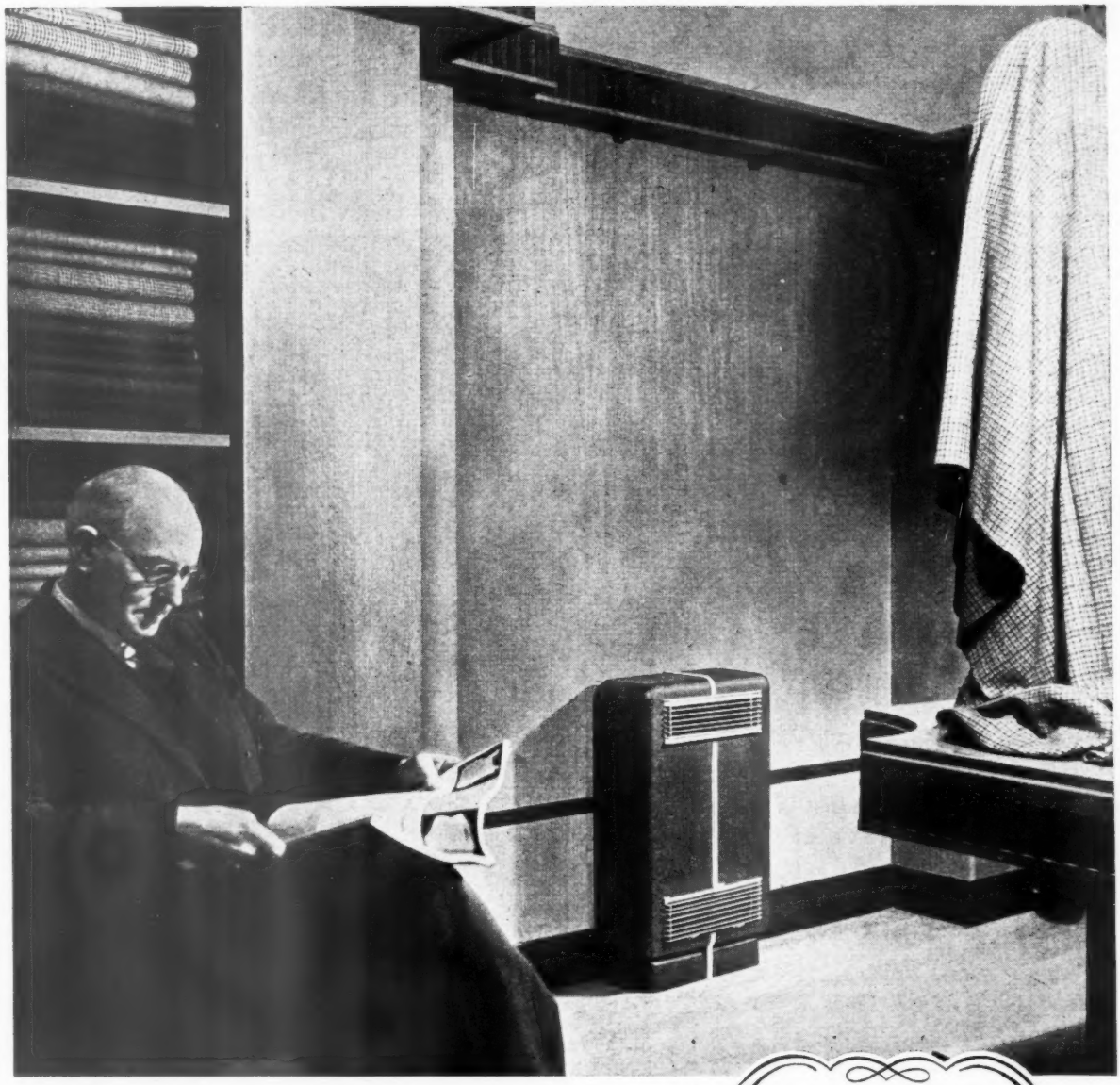


Architrave Micro-Gap Tumbler Switch

Neon Pilot Control Switch

Neon Pilot Control Switch Flush Mounted



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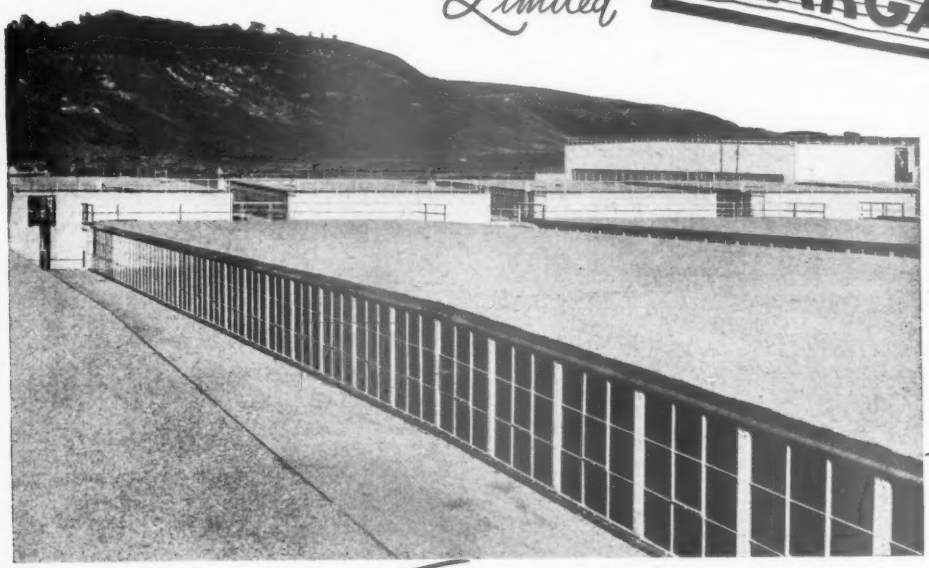

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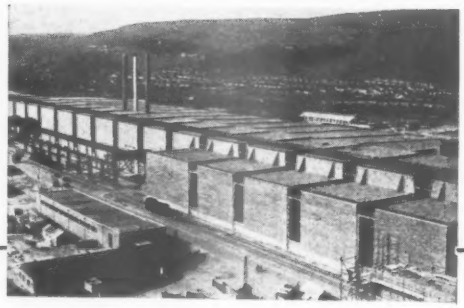

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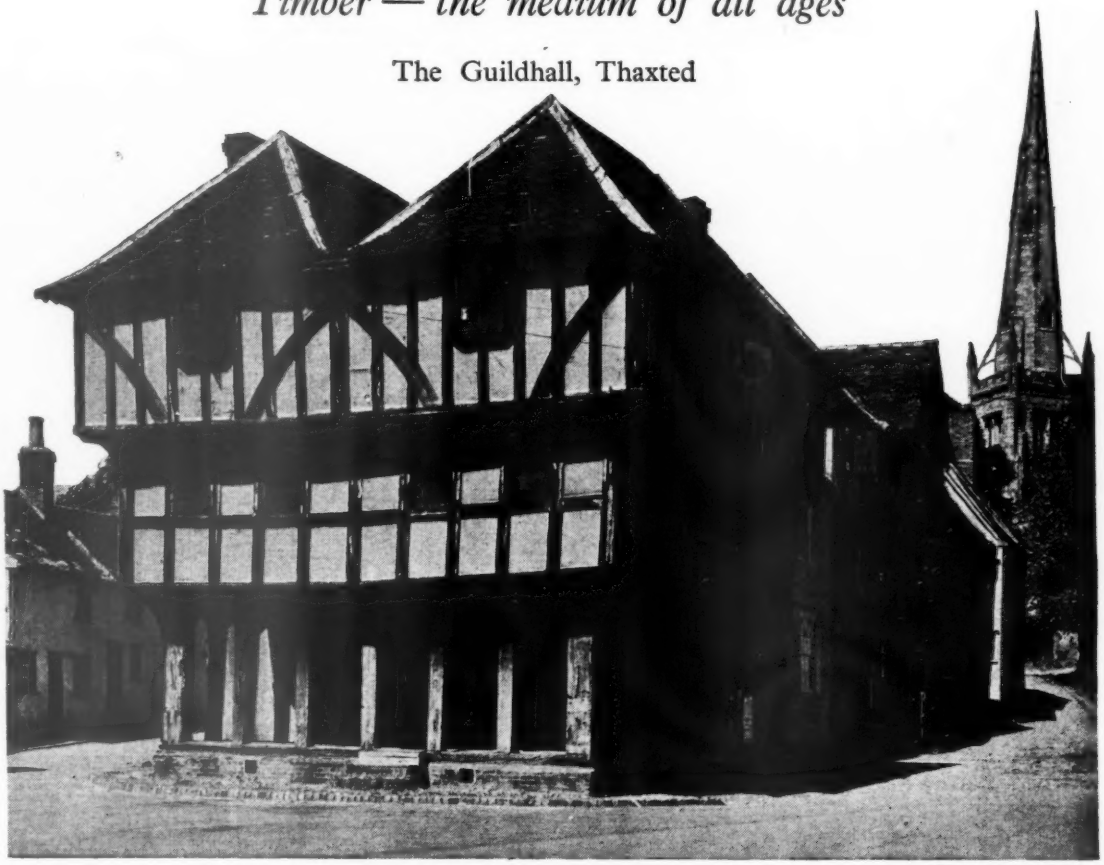

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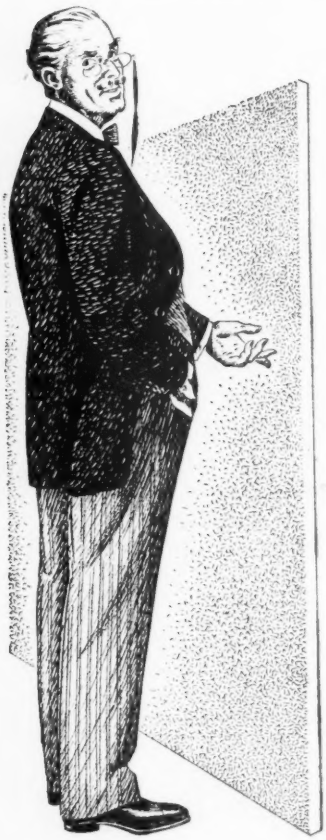

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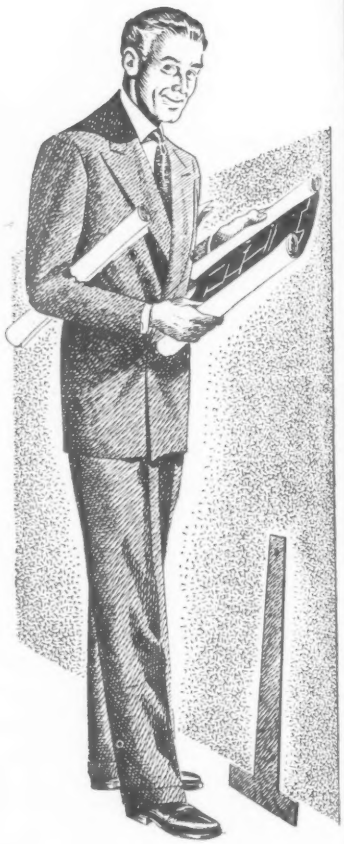

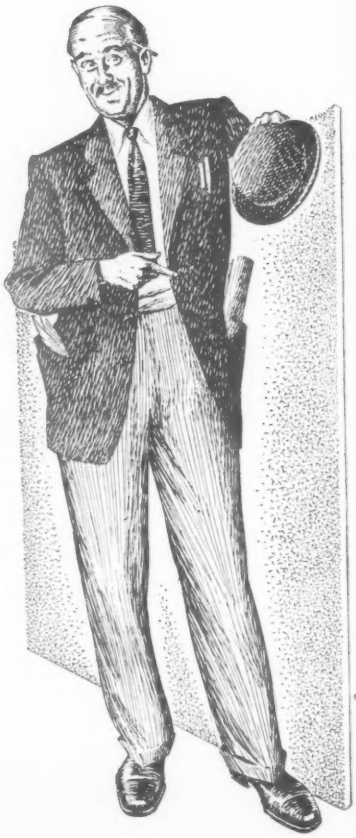

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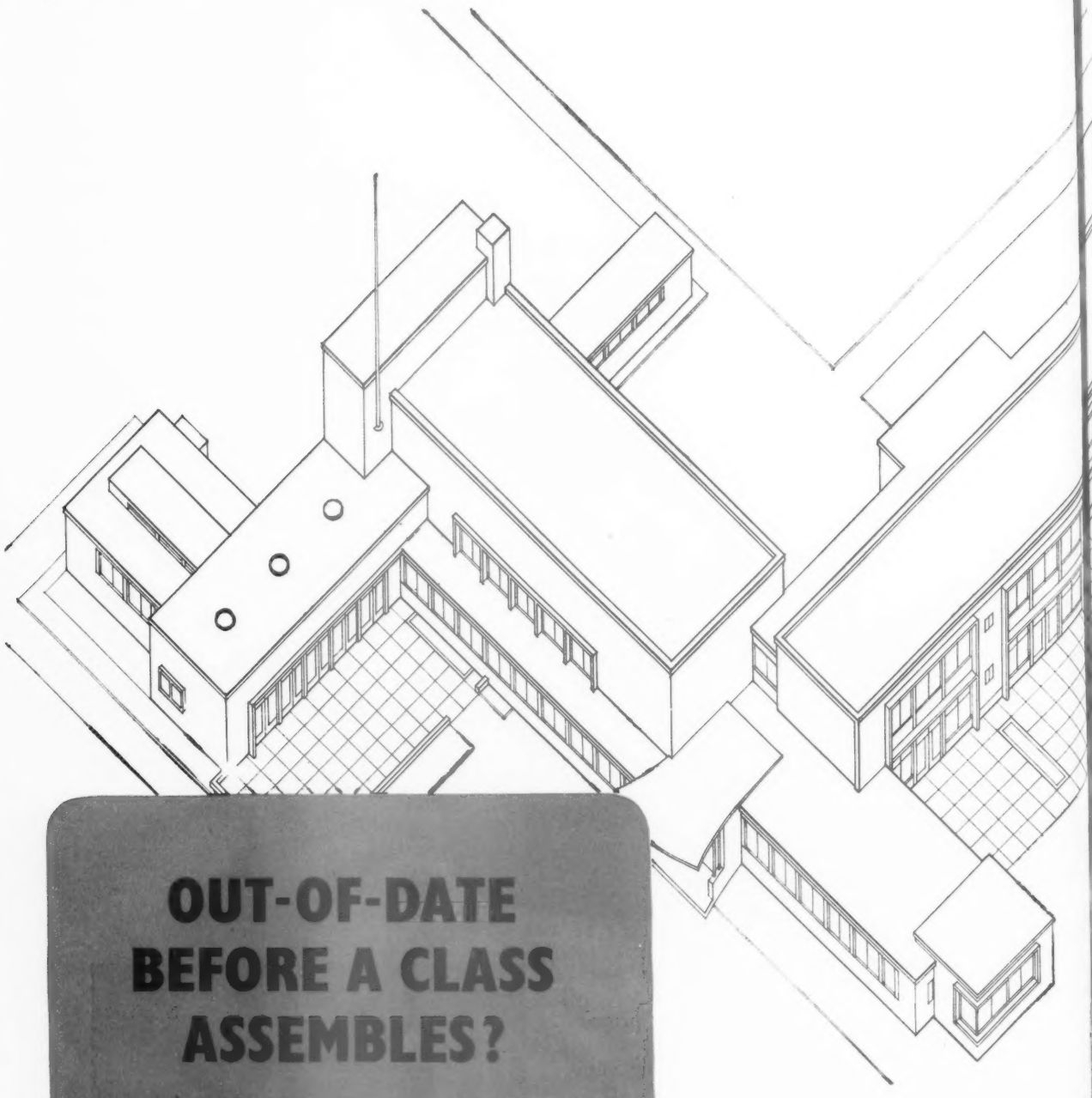

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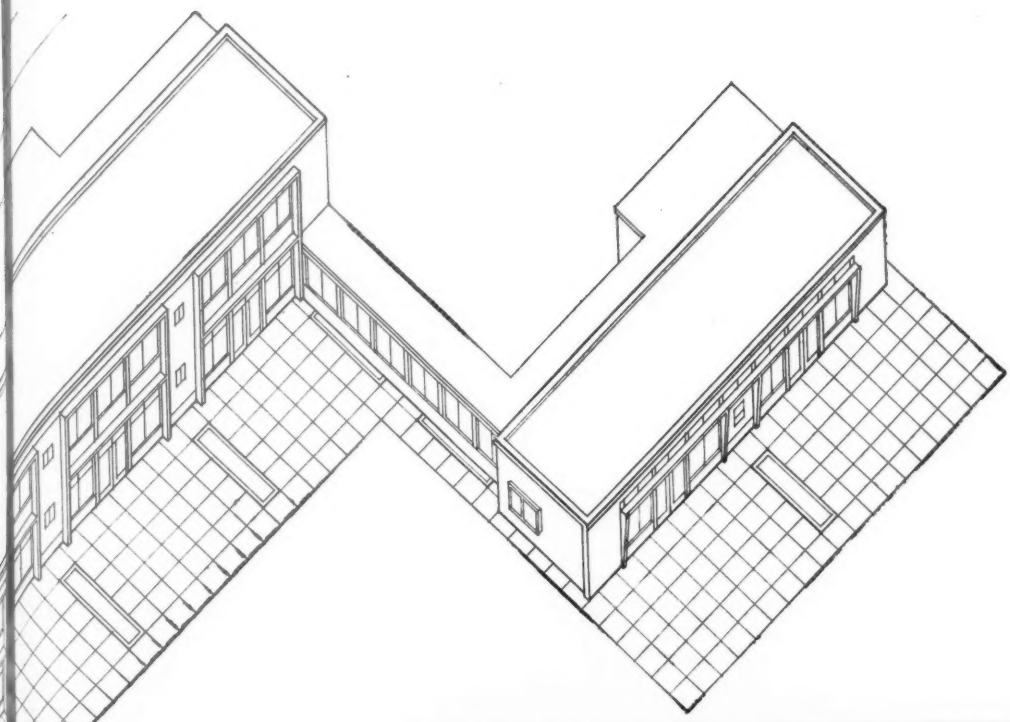

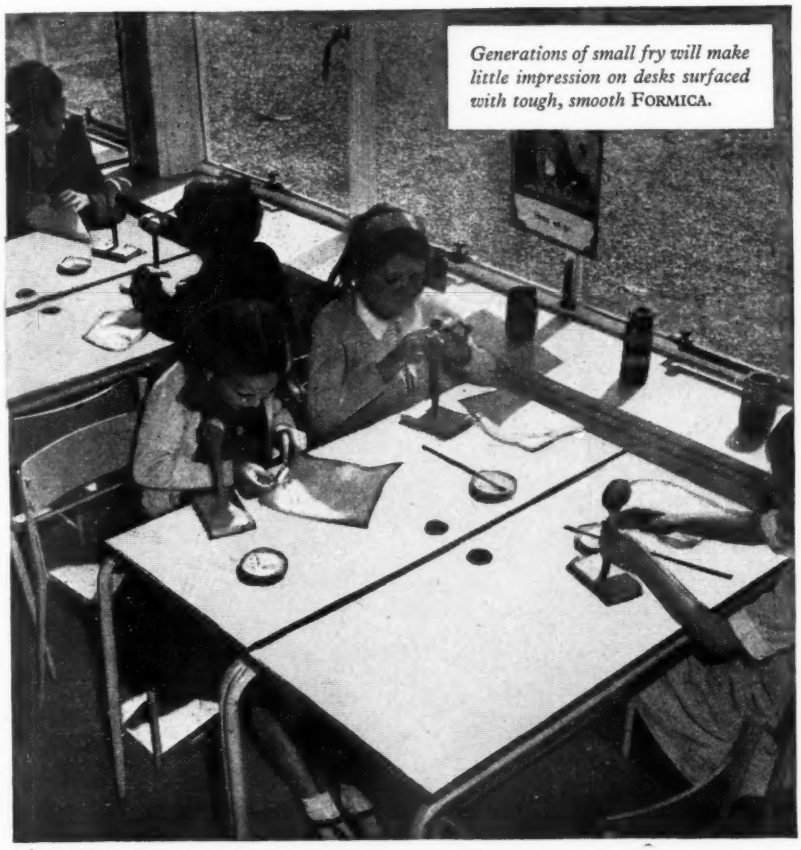

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WALL LINING

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SKIRTING

BUILT-IN FURNITURE

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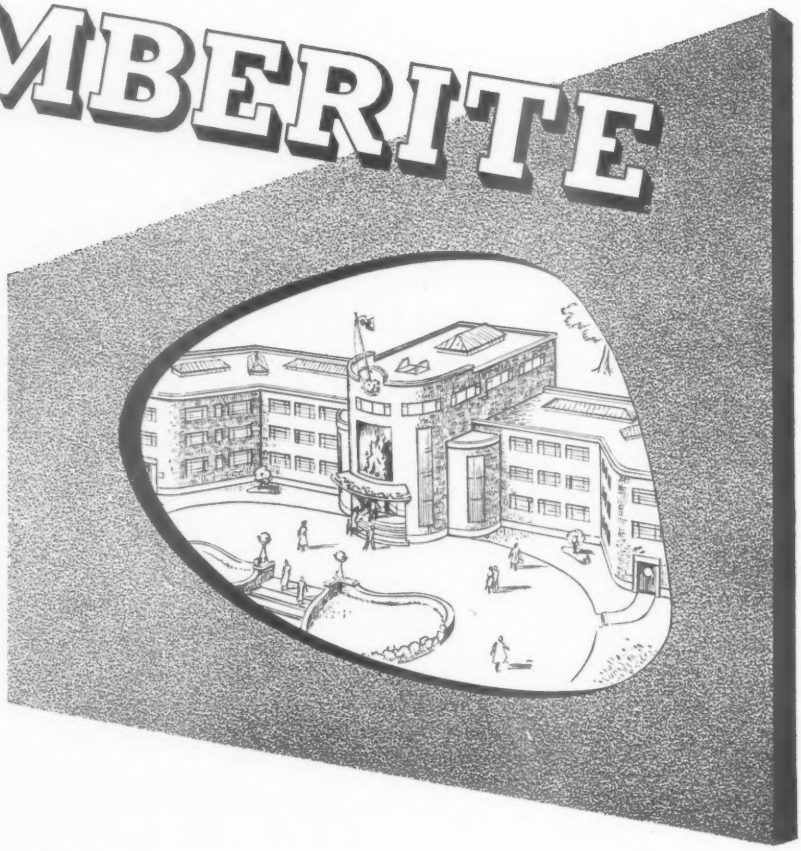

PLIMBERITE is an interior constructional material sufficiently versatile to fulfil the demands of both architects and contractors. Manufactured from pulverised wood chips bonded with synthetic resin under heat and pressure to a density of 50 lbs/cu. ft., PLIMBERITE is produced to specification in the standard size of 8′ x 4′ and in thicknesses of ½″ and ¾″.

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from whom may be obtained technical literature and the name of the nearest supplier

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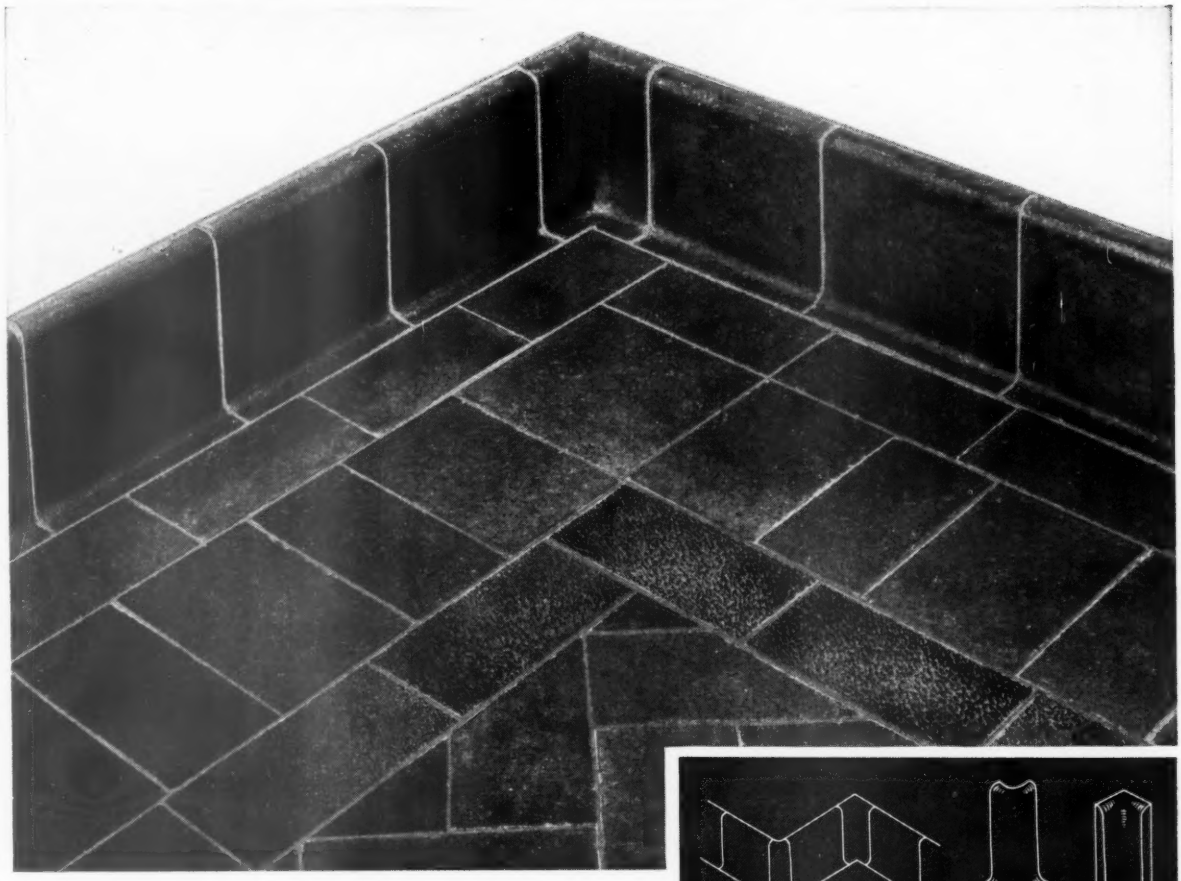
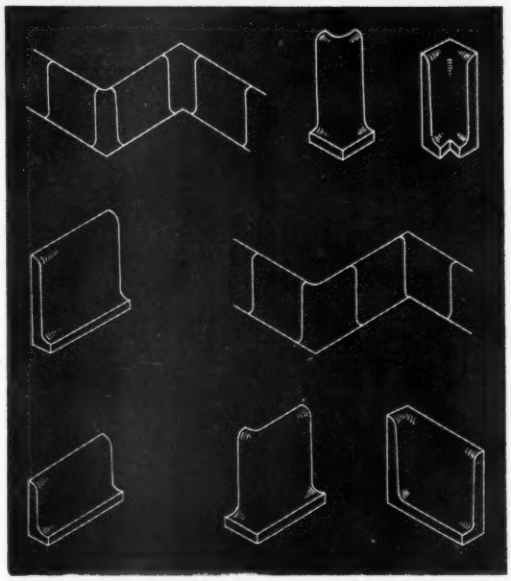


Timber allocations may be ' stretched ' by dispensing with wooden skirtings. A wide range of fittings enables the smooth, dense, colourful surface of Clay Quarry flooring to be continued up to, or beyond skirting height. Floors so treated are rendered completely vermin-proof, and may be kept clean with the minimum of attention. Further, this form of skirting withstands really rough treatment, and eliminates painting.

The red Clay Quarry, so widely respected for its durability, is available in various shades; there are also blues, browns and buffs, all in a full range of sizes, thicknesses and shapes.

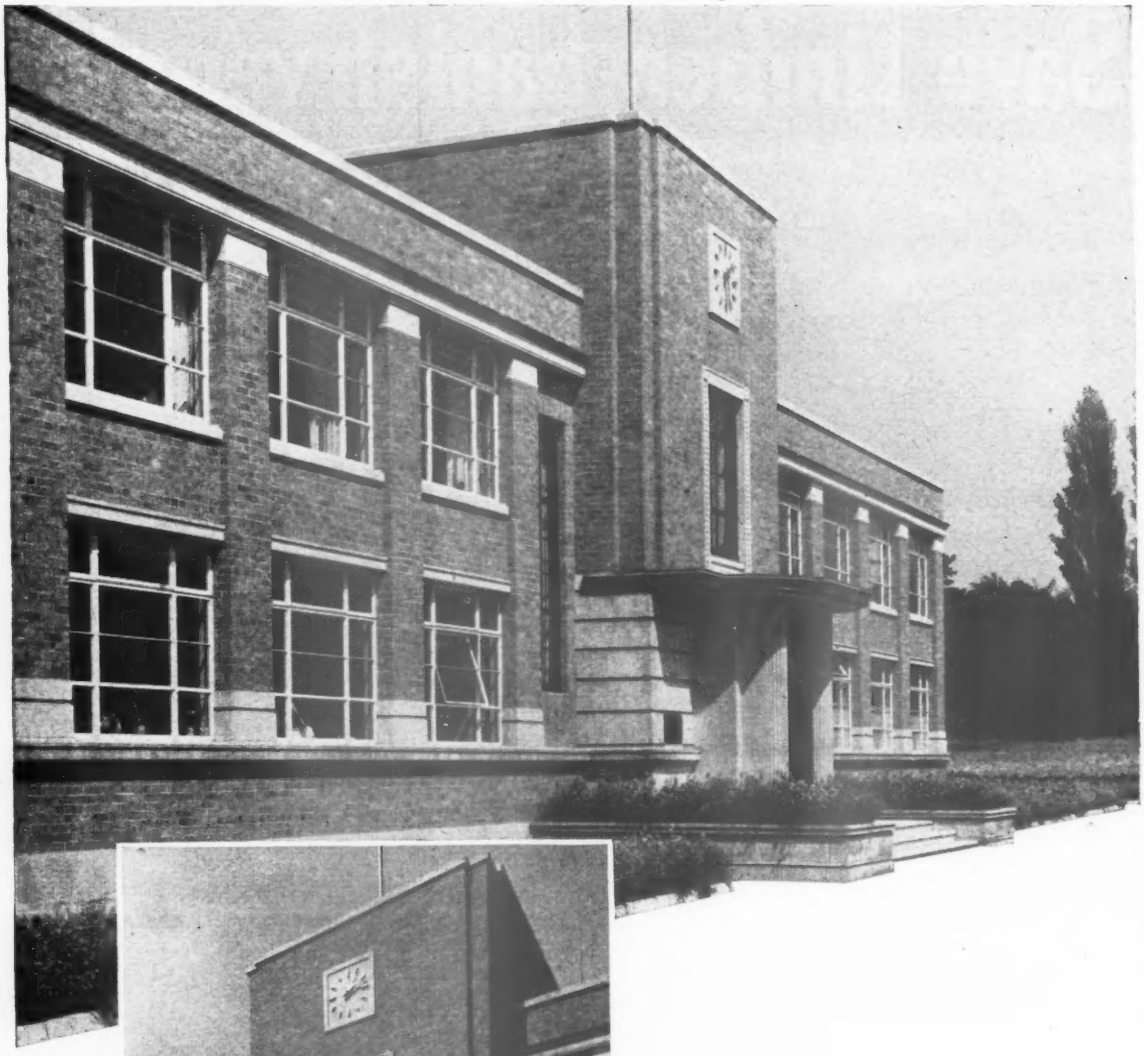
Clay Quarries last more than a lifetime, and COST LESS THAN ANY OTHER FLOORING MATERIAL.

For further information, please write to The Secretary, Floor Quarry Association, Federation House, Stoke-on-Trent.



A few of the fittings available for use with Clay Floor Quarries

Clay Floor Quarries



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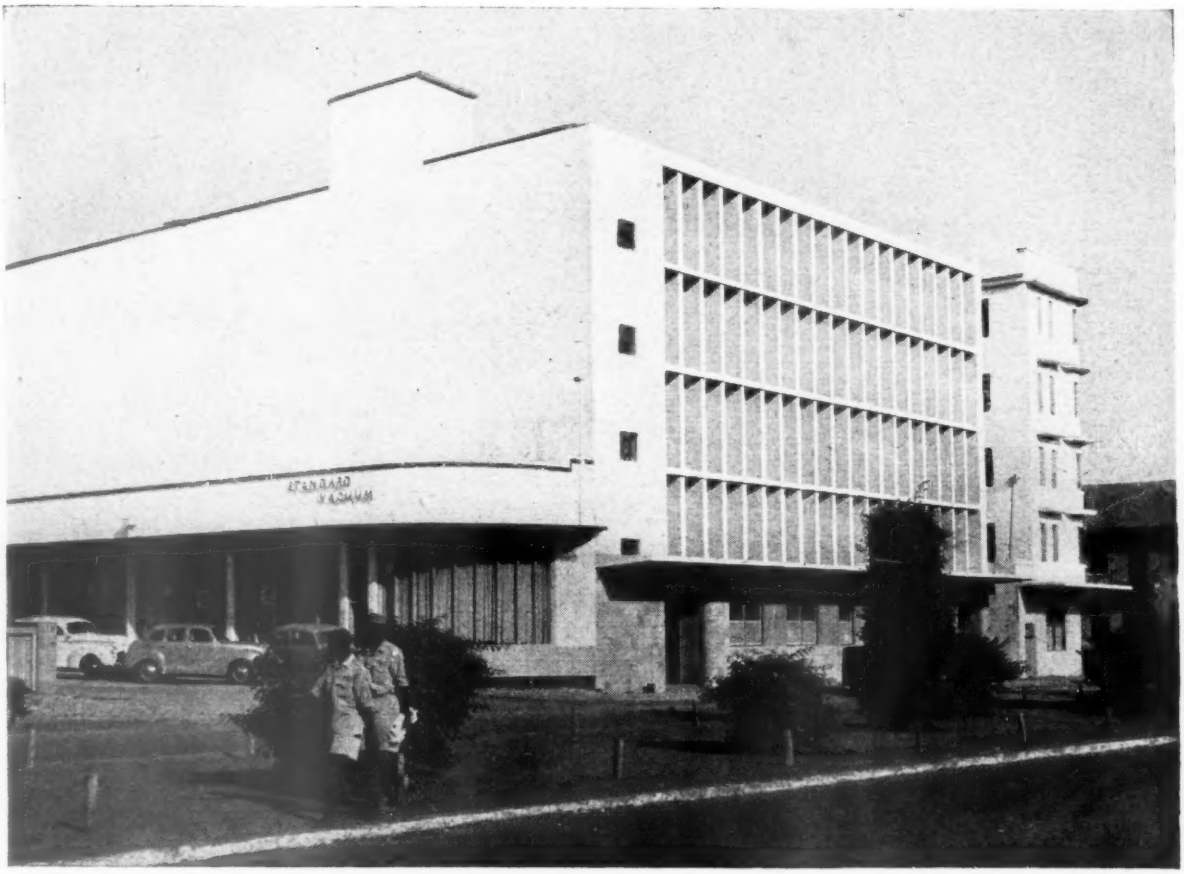

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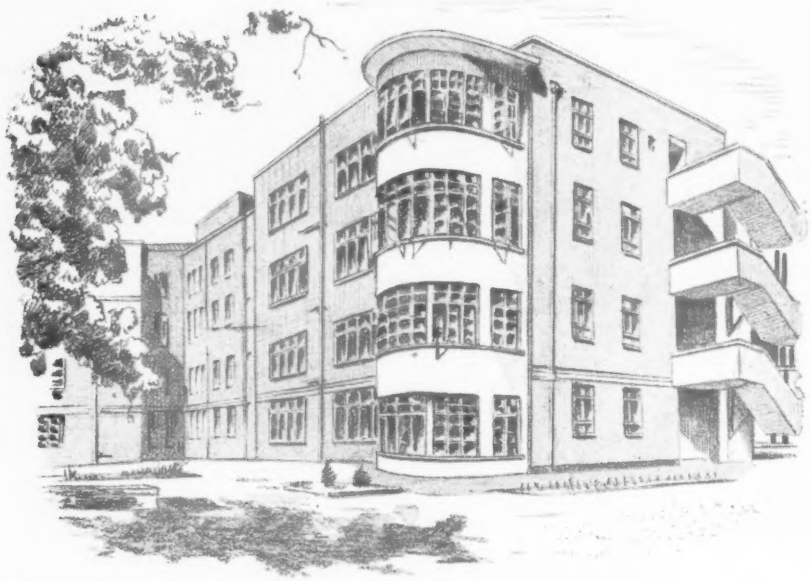

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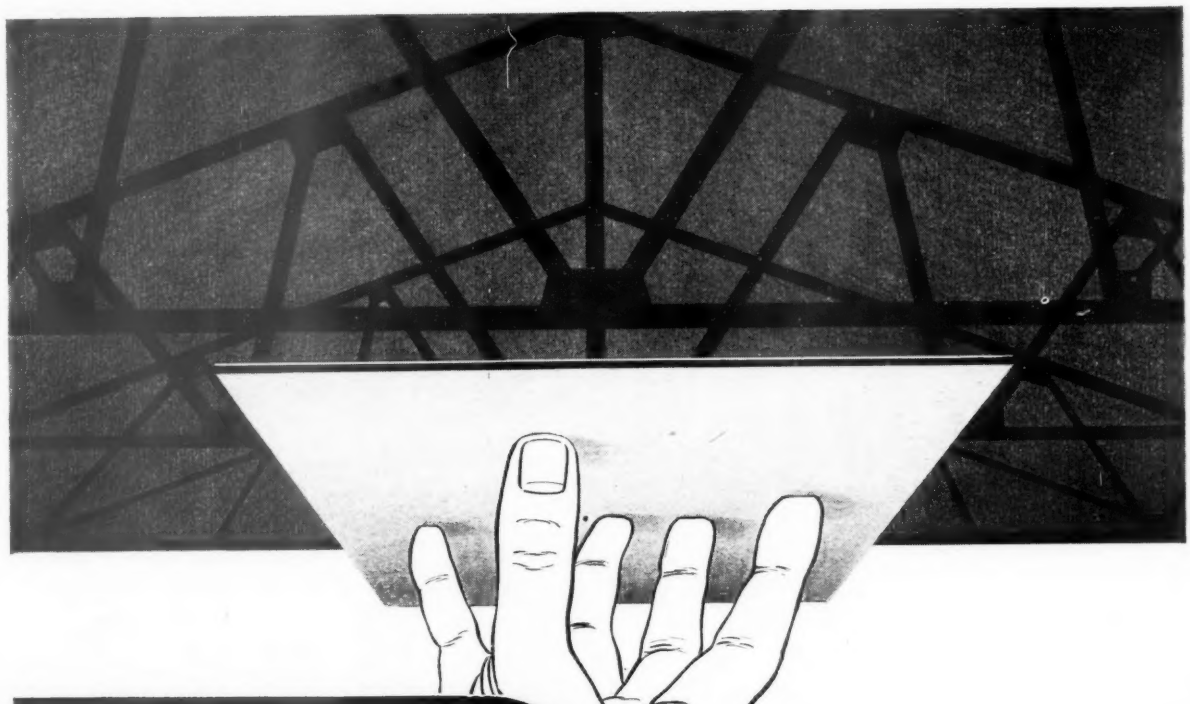

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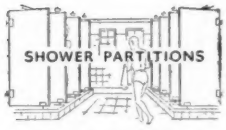

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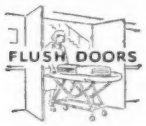

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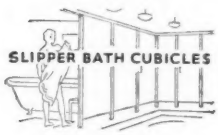

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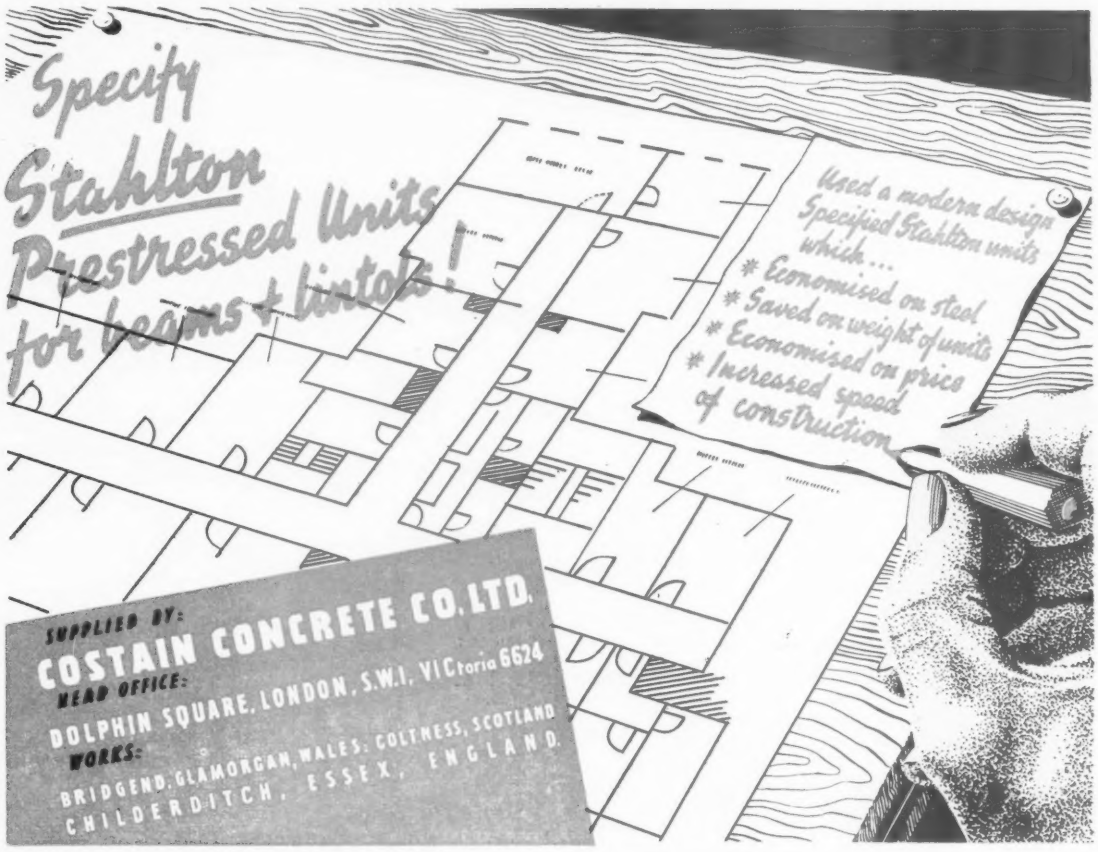

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'Lifts' A collation of British Legislation and official recommendations on Lift Design with notes on Lift Planning. This valuable reference is profusely illustrated with plans and photographs.

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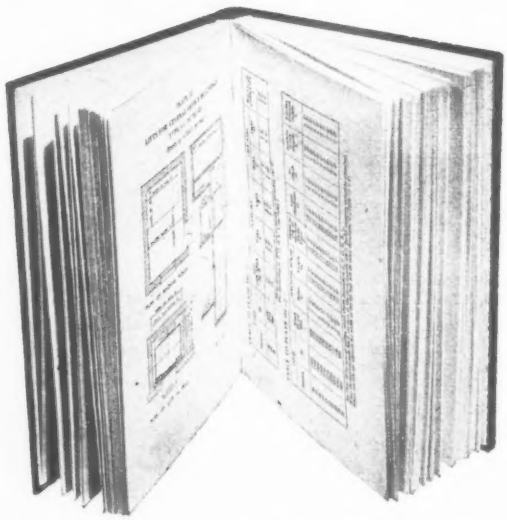

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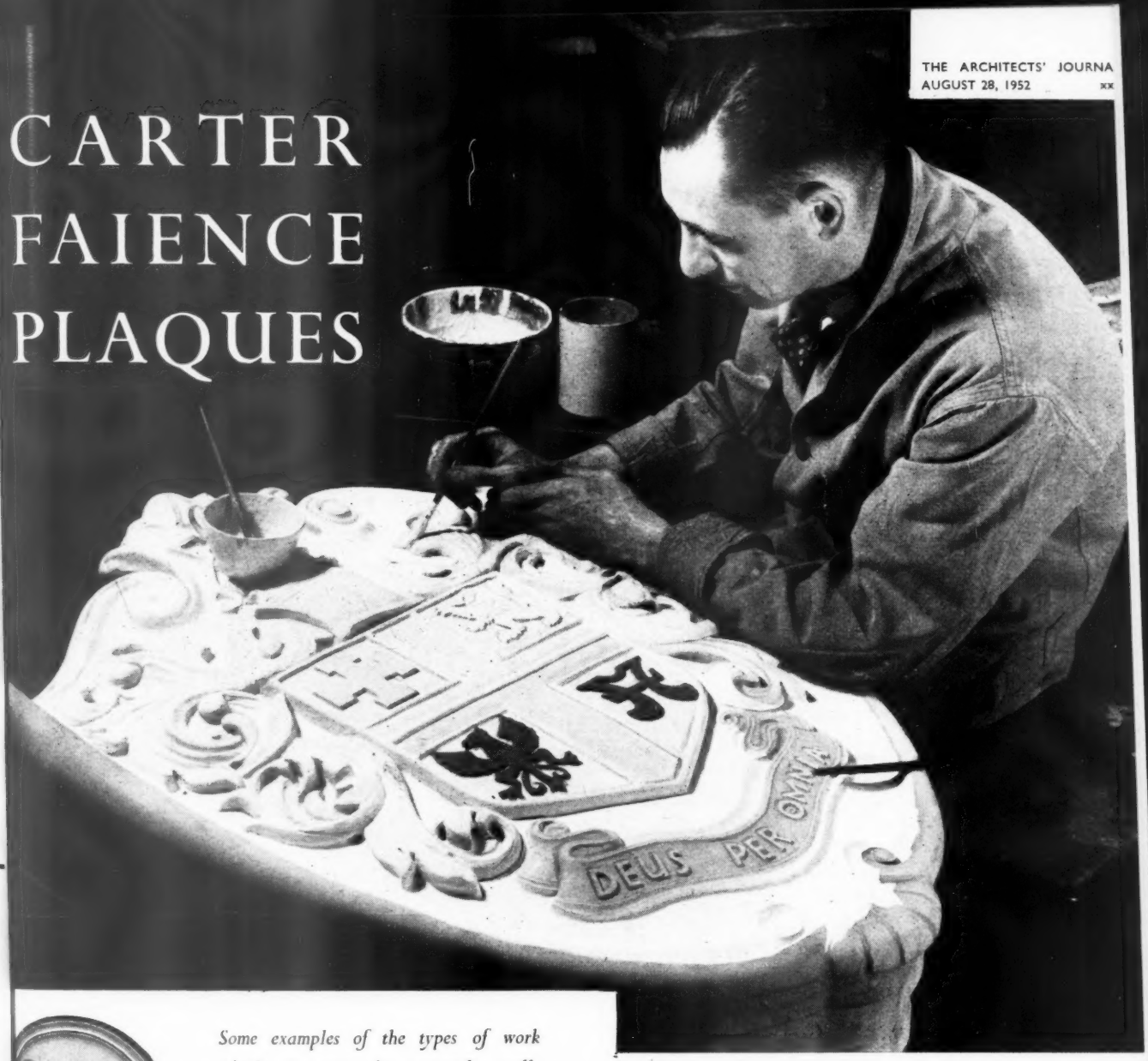

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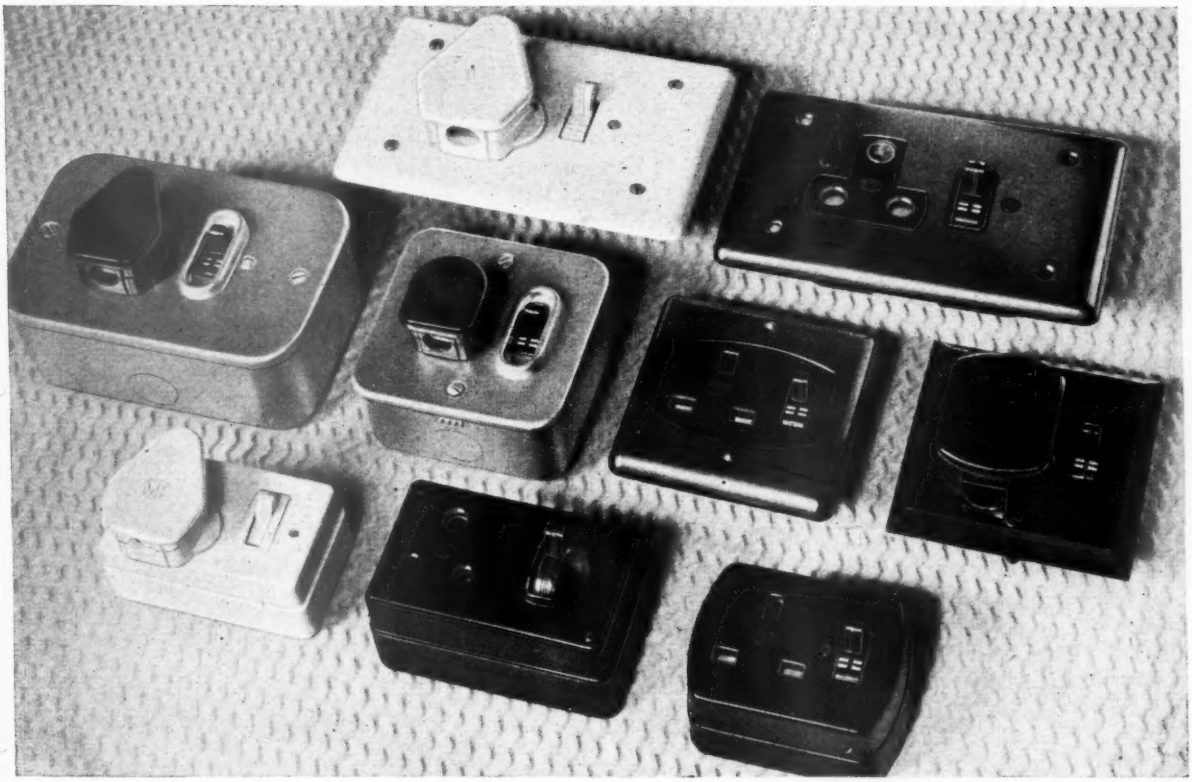

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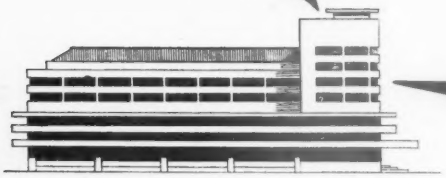

WALLS

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V.17

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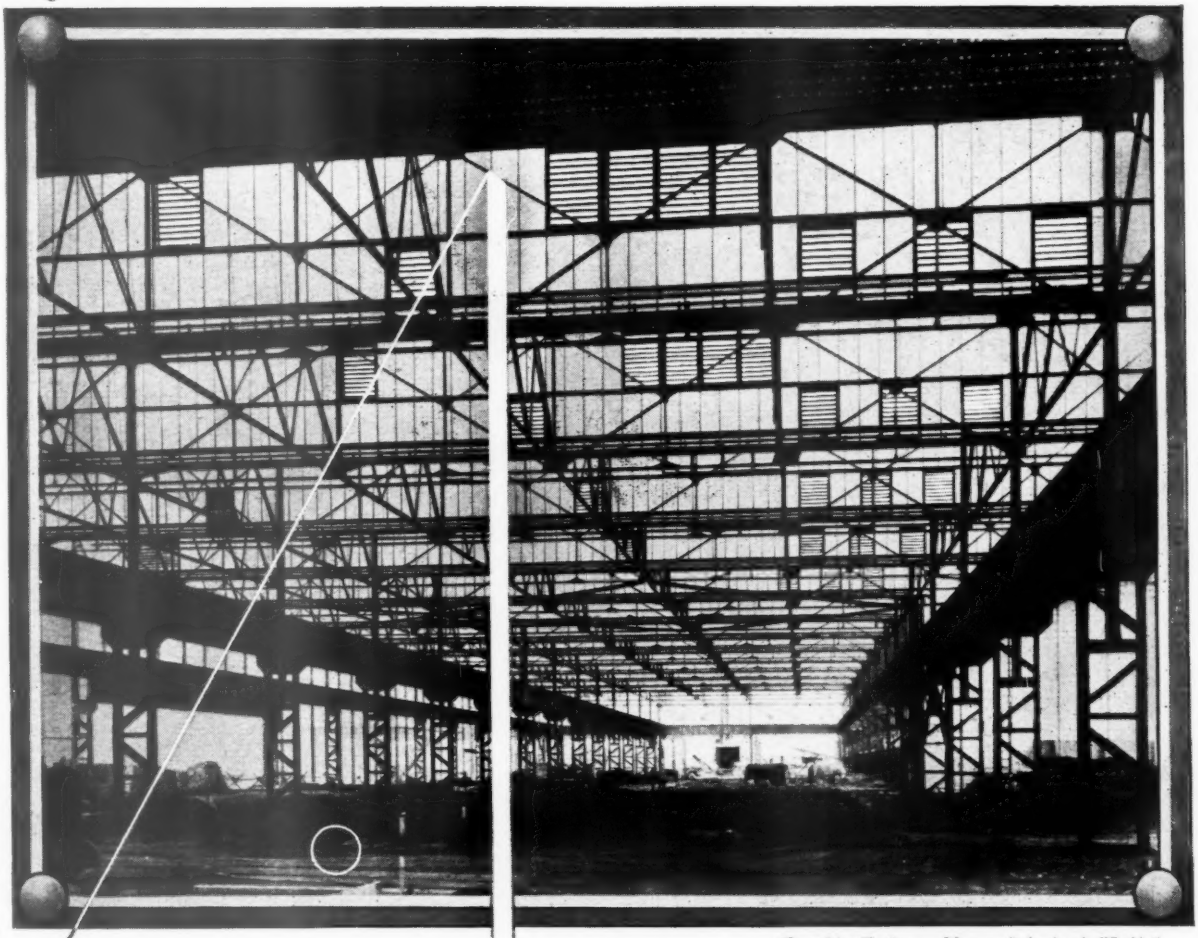

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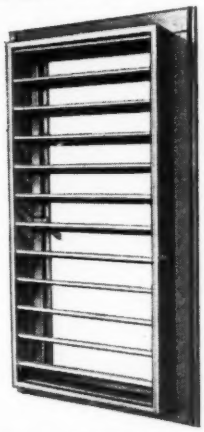

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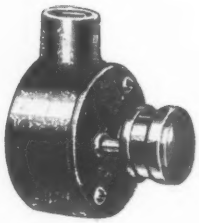
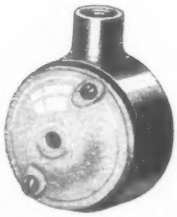


Sunk-type Plug Fitting Iron Cover



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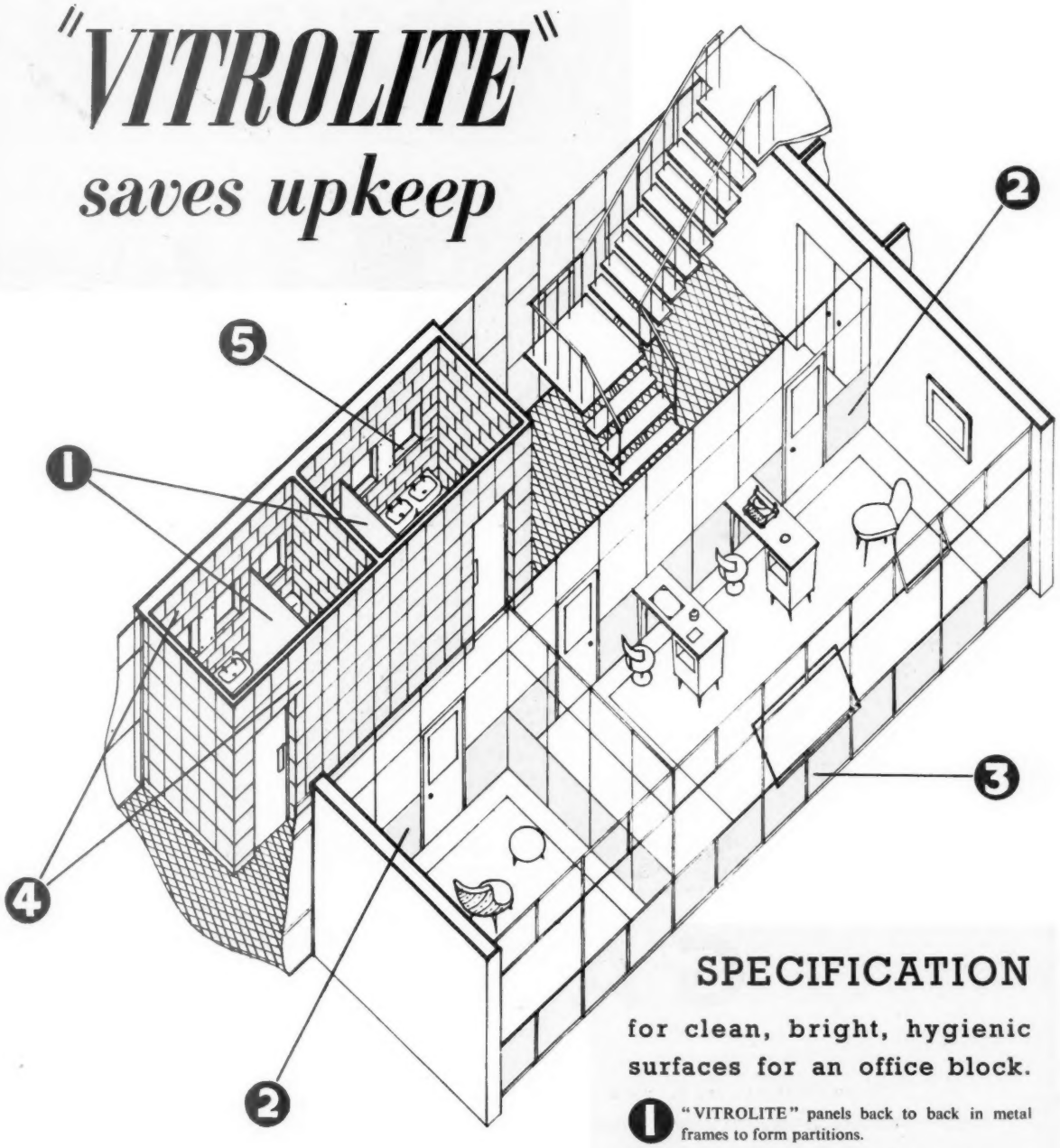

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YOUR REF: LP/EB OUR REF: JP/EB DATE: 21st August, 1943.

Messrs. A. L. Gibson & Co. Ltd.,
Radnor Works,
Strawberry Vale,
Twickenham.

RECEIVED 23 AUG 1943 Ansd. 23

Kinnear Shutter on Core Stove,
Our order A 1940. Your order J 2552.

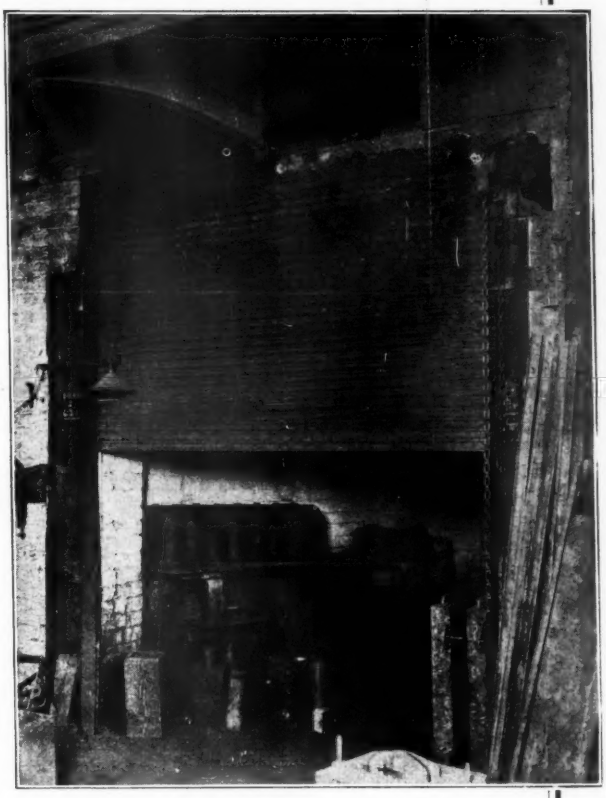
Dear Sirs,

We beg to acknowledge receipt of your letter of the 18th instant, and to confirm having returned the new spring recently supplied for the above shutter.

When your man stripped the existing shutter to carry out repairs, it was found that the existing spring was in such a condition that replacement was not necessary, and this, wethink, is most praiseworthy, having regard to the fact that the shutter in question has been in service since 1910, and in the past few years it has, of course, been necessary to use our stove to its utmost capacity, entailing much extra work and stress on the shutter itself.

Yours faithfully,
BILLINGTON & NEWTON, LTD.,

C. H. Dale Managing Director.



Messrs. Billington & Newton, Ltd., Longport, Staffs.

Kinnear Shutter on Core Oven

This Shutter was supplied by us in 1910, and the above photograph was taken early in 1943, after the Shutter had been in daily use for 33 years.

The letter reproduced in facsimile alongside the illustration sets out very clearly Messrs. Billington & Newton's opinion of our work after 33 years' experience of it; while, in addition, it may be mentioned that Messrs. Billington & Newton have three other Kinnear Shutters in use on Core Stoves, these having been supplied to two subsequent repeat orders in 1910 and 1920.

It will be noted that there is no Sheet Steel Hood over the Shutter Barrel and Brackets in the above illustration. This is evidence of the age of the Shutter, as Hoods were not supplied with the first Kinnear Shutters made, but were added as a later refinement.

In sending us an enquiry this week for a further Kinnear Shutter Messrs. Billington & Newton advise us that the Shutter illustrated above is still giving satisfactory service—after 41 years on a Core Oven and under Foundry conditions.

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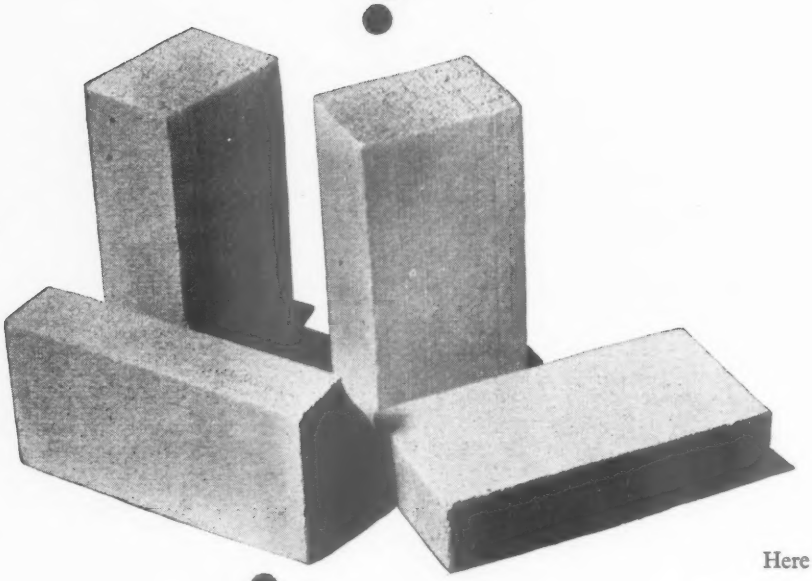

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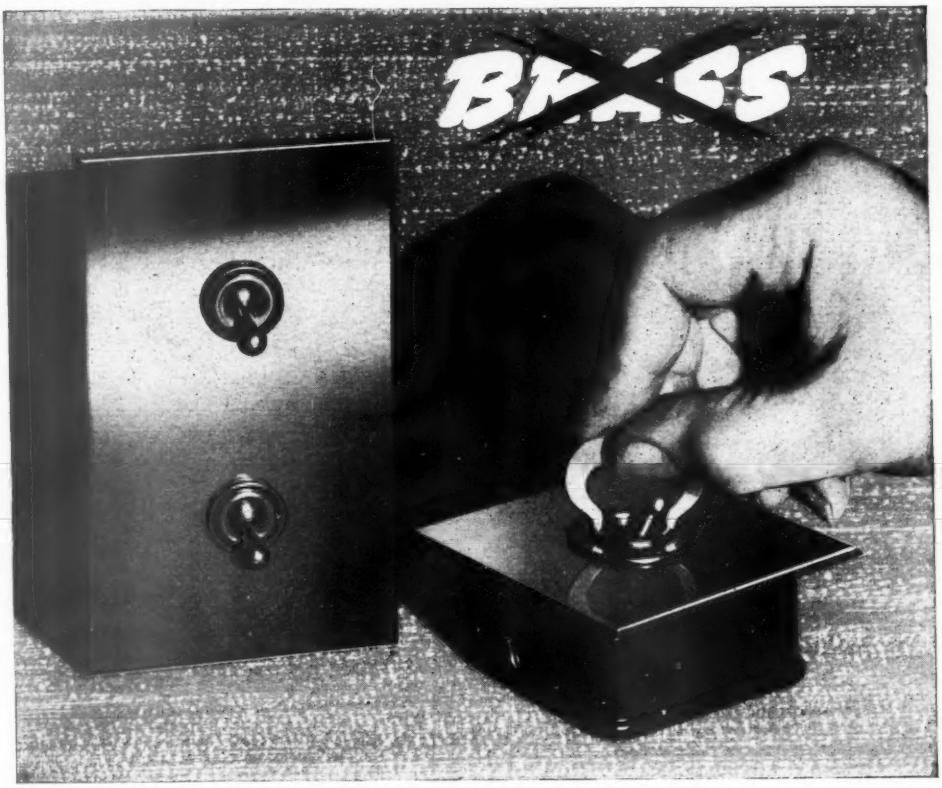

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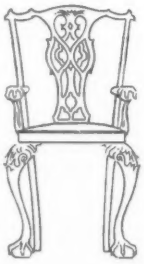

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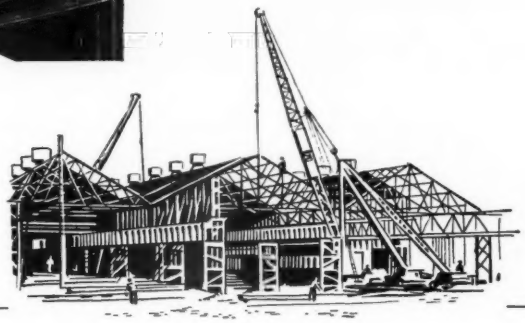

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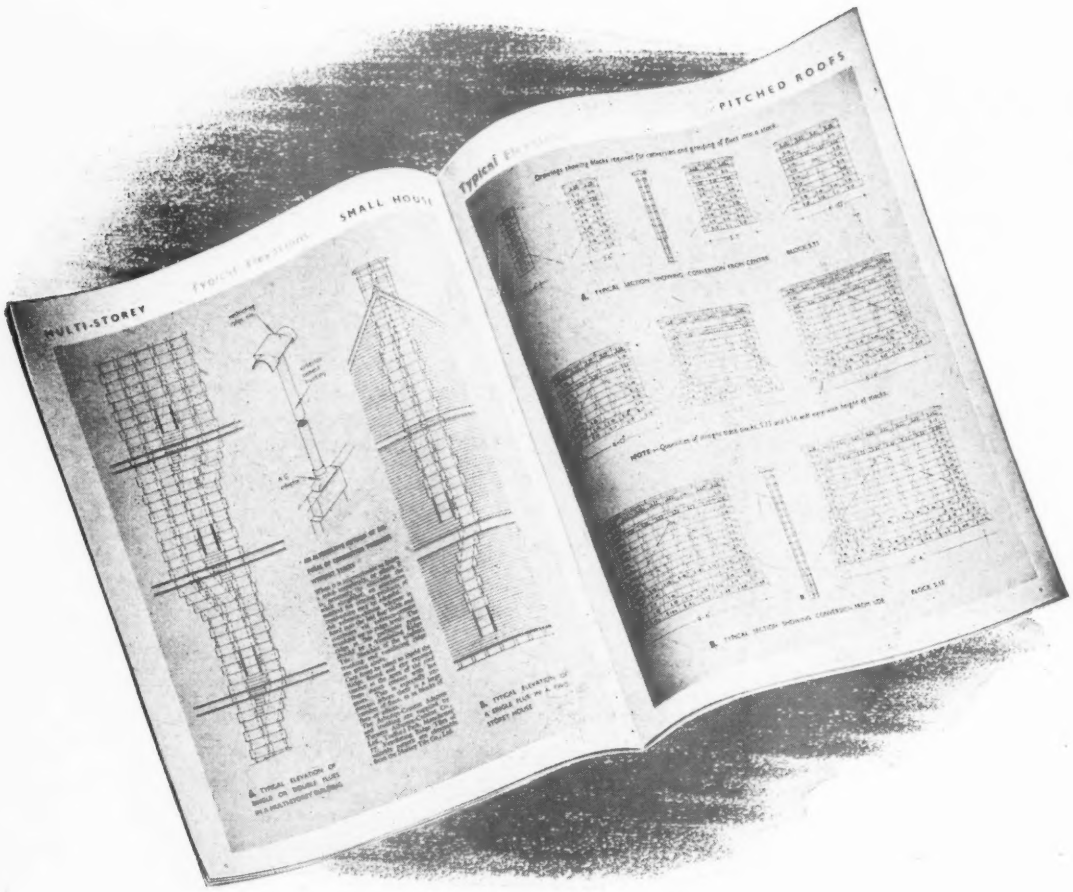

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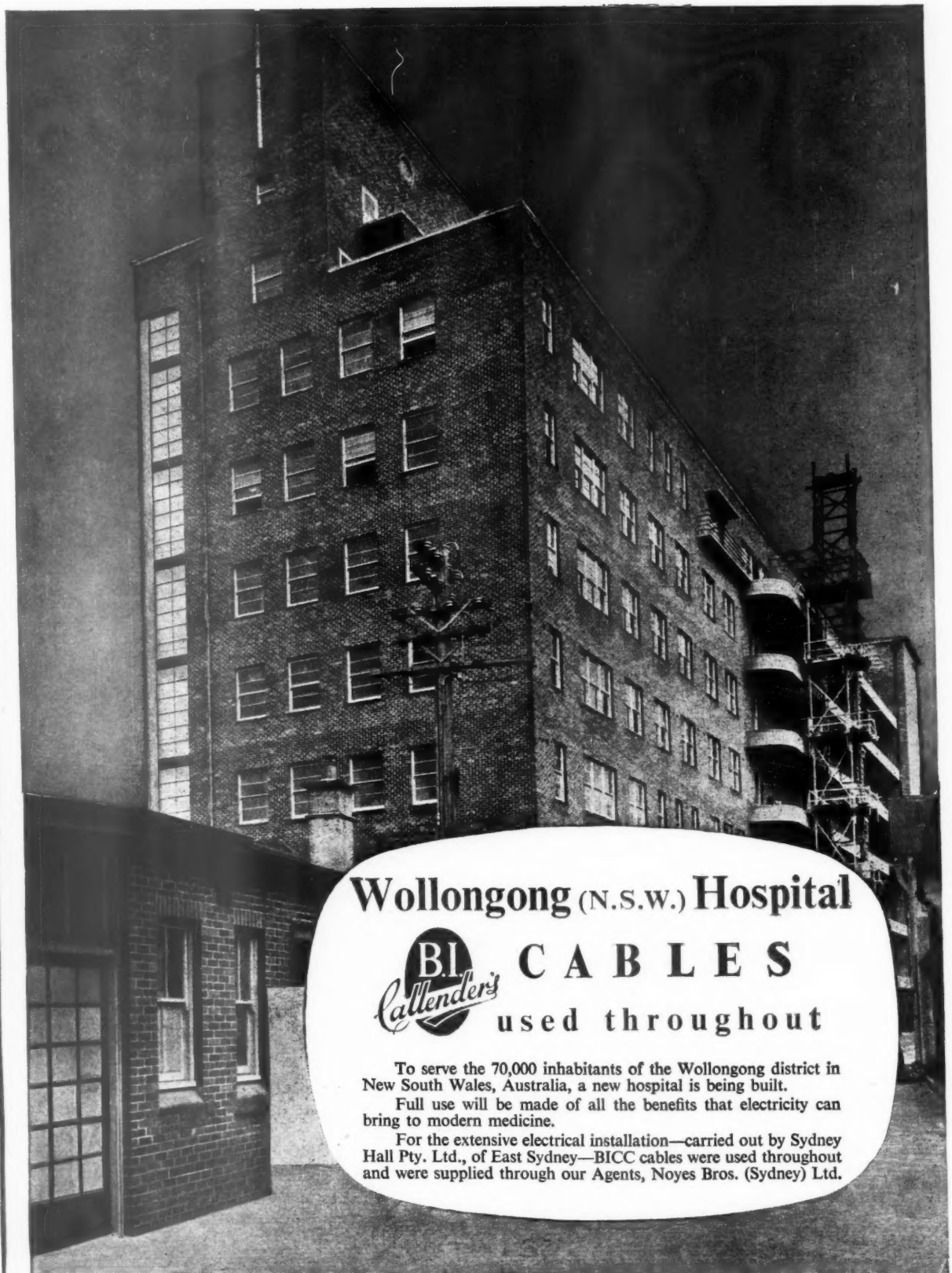

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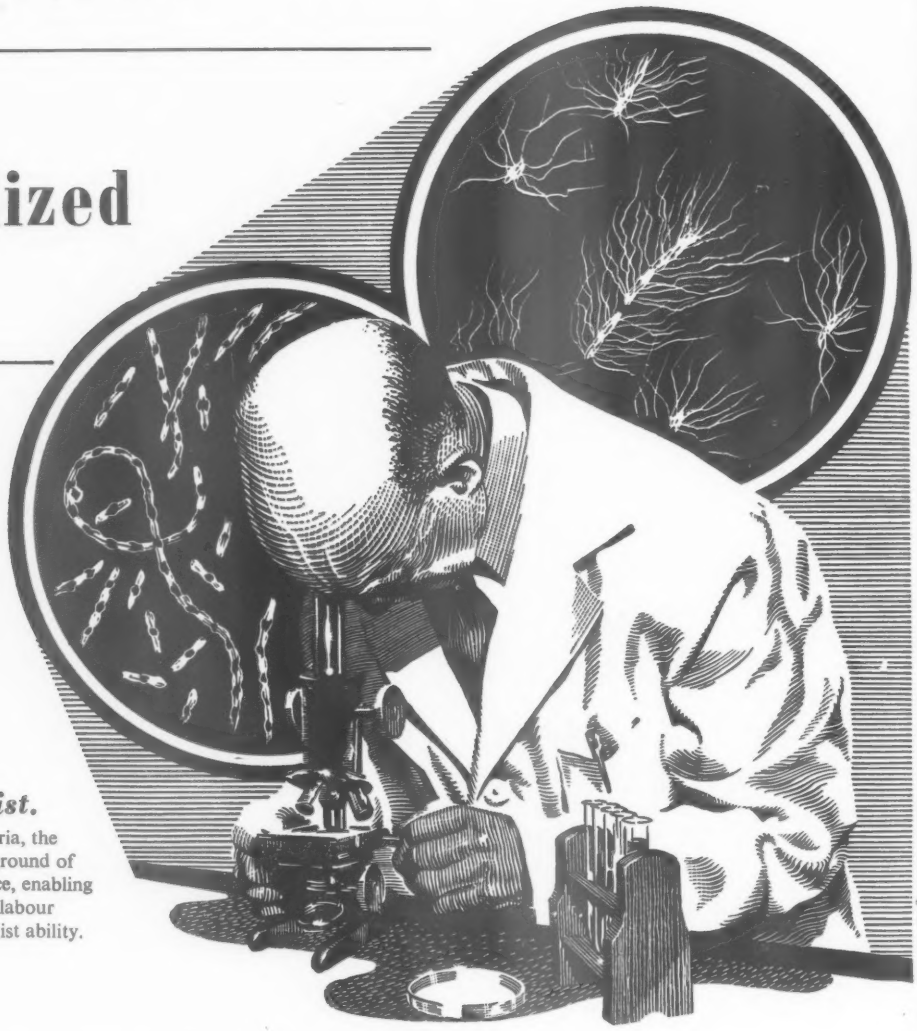

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No. 3000 August 28, 1952 VOL 116

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AUTUMN FORECAST

As August slides by, a growing number of us confront another year's work and find opportunities, while the rest are still away, to run over prospects.

*

The process begins with an individual, short-term forecast, for perhaps a year ahead, and—since we all have to live—this is individually very important. But when one looks ahead generally, one has a strong feeling that big changes must come and that the work now being done by architects and planners is probably a poor guide to what they will be doing in two or three years' time.

*

For months all non-party economists have been saying that we are in for a bad time over exports and the prices of raw materials and imports generally; and not for a year but for a long time ahead. If this is true, and one feels it is, it is inevitable that industrial re-equipment and factory building will have to be put first, agriculture and forestry second, and housing well behind. New offices, shops, cinemas, and most new road construction will, in general, move back from Sometime to Never. We may not like this, but ASTRAGAL joins with those who think that if this is the way we have to go, the sooner we start the better. It will be preferable to having crises every two years (acute but never requiring vigorous remedies) and to elaborate preparation for rebuilding things that will never be rebuilt.

PEI IN THE SKY

No wonder—with so bleak a prospect before us—that the British architect's mouth is inclined to water slightly as he looks at the architectural magazines of foreign countries, somehow more fortunate (but goodness, how?) than we are. Tiny beads of sweat broke out on my even tinier forehead last week as I mulled through the pages of the American magazine illustrating the offices by Mr. Zenckendorf. Who is Mr. Zenckendorff? Come, come, dear readers—he is a real estate magnate from New York, famous, among other things, for his remark, "I don't get ulcers; I give 'em."

*

It seems that Mr. Z., with the help of his architect, Mr. Pei, has built himself a plush eyrie on a Manhattan roof-top. From the photos on page 243 you will see that it consists of a handsome, fully glazed reception-room and terrace in the off centre of which stands the private sanctum—a 25 ft. diameter cylinder of teak, oak and glass. No harm done so far—except in the indescribable style of the descriptive text in which, at one moment, the phrase "agreeable euphosia" swam past my eyes like some repellent and unexpected fish in a quiet pool. But more is to come. The office cost half a million ("couldn't afford a penny less," said Mr. Z.), and is equipped with every sort of gadget, including "mood lighting"—a system of light changes controlled by Mr. Z. from his desk to match the mood of the moment.

*

Now let us recap. Mr. Z. is a big operative. Agreed. He is possibly the biggest real estate operator of his size in the world. Agreed. Clearly he needs an impressive, dignified, up-to-date, and efficient office. In his profession, too, an element of the bizarre is not inappropriate for its publicity value. Agreed. Mr. Pei is clearly also an imaginative and able designer, and there is no doubt that he has achieved an effect of considerable drama and discreet luxury—despite the technical difficulties encountered from in-driving rain and melting plastic domes. No eyebrows need be raised either at the fact that Mr. Z. is apparently happy to work in a windowless hat-box while a tremendous view of New York and the sky stretches—beyond his vision—within a few feet of his desk. That is a matter of personal choice. What honestly baffles one about the whole project is what really goes on in Mr. Z.'s mind as in, say, six months' time, he sits dealing out ulcers from his carpeted pill-box. By now, presumably, the first excitement has worn off. The publicity has dropped from a blaze to a distant buzz. Clients are visiting the place for the second or third time and can no longer be diverted

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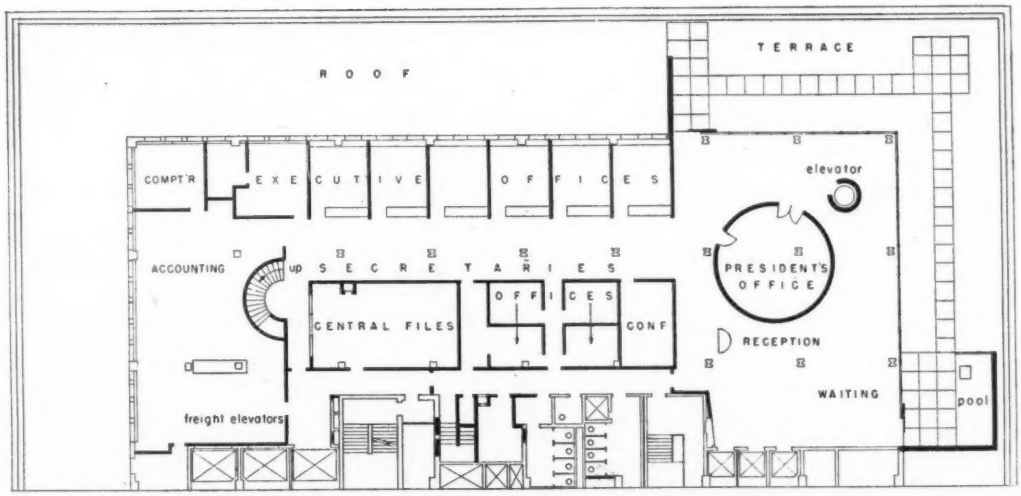


Mr. Zenckendorf's "mood-controlling" offices. *See note on page 241.*

by cylindrical lifts mounting into bean-shaped bathrooms. Even the mood lighting has become a bit of a chore. "Quit going through that old mood-lighting routine, Zenckendorf," I can almost hear a client snarl, "and take a good look at Clause 3 of this agreement."

*

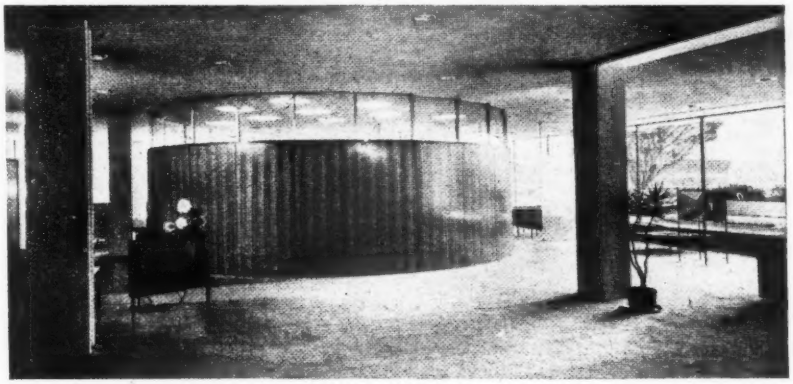
Think, too, of the mental burden every day for six months of deciding exactly what mood you're in when you sit down at your desk. What, in other words, goes through Mr. Z.'s whirling mind that day six months ahead? Does he still feel proud—or faintly silly—in his "Caesar's crow's nest"? (Their phrase, not mine.) What mood-light beats down relentlessly upon him through those plastic domes? Pink for pleasure? Mauve for ennui? Green for nostalgia? Scarlet for shame? (This, frankly, is what we hope.) Or perhaps just a shaft of honest, unassisted daylight casting its rays upon a desk littered, as desks should be, with office *débris*, and not swept clear, by the zeal of a crusading designer, of paper-clips, dried-up ink-wells and correspondence trays full of biscuits.

*

Only Mr. Z. can provide us with an answer to these questions, and as from all accounts he is a cheerful, helpful enthusiastic character, maybe he will oblige. Meanwhile, imagination can only boggle as the drops of envious saliva spot the glossy photographs.

MORE PIE IN THE SKY

Incidentally, good practice in boggling can be obtained occasionally from the correspondence columns of the AJ. Take, for instance, "Mendicant's" letter on the subject of assistants' prospects and salaries, published on August 14. "Employees," it reads, "are very content with matters as they now stand . . . and justifiably so with a prospect of dirt-cheap labour for years ahead. . . . Too long the profession has been organized for employers by employers," etc. (I am reminded of a similar letter some months ago in which a correspondent actually complained that it was no good hoping for understanding from employers because they only ran their offices for their own benefit.)



*

Now what kind of naïve belly-aching is this? Does anybody seriously think that any architect is content with present conditions, and that he *rejoices* in having to cut down assistants' salaries? And for whose benefit, for goodness sake, should an office be run except for that of the man who runs it? For the sake of architecture? For fun? Or—as seems to be implied—for the sake of the assistant? Of course times are difficult for the assistant, prospects are uncertain, remuneration is inadequate. So they are for the employer. It is surely ludicrously muddle-headed to think that it is only a miserly pack of gloating, middle-aged architects who stand between the young assistant and the golden valleys of prosperity—and security. Once more we are back on our recent discussion with A, B and C (see my notes of August 14 again) and this question of "Rights" and "What we're entitled to."

*

ASTRAGAL has recently been accused of sourness, and sour he certainly is on this subject. Nobody is entitled to anything is his view—for August anyway—and people who are always demanding their rights or complaining of not getting them are, in his opinion, bores who are probably receiving only too accurately what they deserve—no more and no less.

CORONATION PLANS

A few weeks ago, the Minister of Works (as reported in the JOURNAL pages of August 7) held a press conference in which he described the task of his Ministry in preparing for next year's Coronation. He made two remarks to which insufficient attention has been given. In referring to the

When is a House?

When Geoffrey Wood was refused a licence to build a house on land he had bought at Brentwood, on the grounds that he had not lived in the district for five years, he applied to the local council for permission to put a large sectional caravan on his site. Consent was given—following two refusals—and it then occurred to Mr. Wood that his caravan might be designed in such a way that it would form part of the final house. The council approved of the idea, but after work on the caravan had begun the client was told that planning consent to the final house would not be given. However, work on the caravan was completed—as shown above—and Mr. Wood's family moved in. Shortly after this they heard that the revised elevations prepared by their architect, David Jenkins, in collaboration with Ove Arup & Partners as consulting engineers, had not been approved. An appeal was made to the Minister of Town and Country Planning, who has just given his consent to the construction of the ground floor of the house. This elaborate red-tape-buster was built by a carpenter and a learner, with the help of the client and his wife. The two halves (60 ft. by 8 ft.) are joined by a 4 ft. link; this gives an overall width of 20 ft. Each half is supported on four wheels attached to steel tripods. Strong steel Z-sections form the chassis of each half. There are temporary posts at the corners, although the sections are strong enough to cantilever. The caravan itself is of normal timber weatherboard construction. More details will be published in a later issue of the JOURNAL.

Disrobing Room (to be built at the west end of Westminster Abbey), which, at the last Coronation, was an odd Neo-Gothic structure, he said that its design would give an opportunity to harmonize the modern structure with the ancient grandeur of the Abbey. If I understand Mr. Eccles rightly, his statement is of great significance. For the first time since I don't know when, a *minister* has passed a remark which could be interpreted by the charitable-minded as advocating modern architecture.

*

The second point is that when the ministry architects, led by their chief, E. Bedford, have completed their designs, Mr. Eccles is going to call another press conference and present the designs for public inspection. This means, of course, that a request frequently made by architectural papers has, at last, been granted. The opportunity to see the designs in advance means that they will receive criticism. It also means that if the general public feels very strongly about a point in the designs, there is just a faint possibility of the ministry being persuaded to have them changed. This may make the lives of the ministry architects very difficult, and we shall, therefore, be duly thankful to the minister and his architects for taking such a courageous, democratic and sensible step before this important event takes place.

*

I am reminded of these points because the other day I met Noel Musgrave, the architect who is not only the editor of *The Architect and Building News*, but is also, I believe, the only editor of an architectural paper who goes in for competitions and wins prizes. He had what seems to me a brilliant idea; that is, that the Service and the Coronation Procession should be held at night. He pointed out that the display device at which we excel today is floodlighting. Nothing is more depressing than Royal processions which take place in rainy and cloudy conditions. Why not make use of our scientific achievements and provide our own lighting for this event throughout the whole length of the route? The possibilities seem considerable, and it may well be that the advantage of holding such a procession in the evening would enable traffic and transport problems to be eased.

ASTRAGAL.

POINTS FROM THIS ISSUE

The Editors

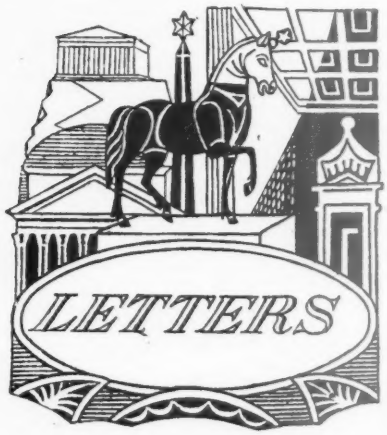
WANTED: A CENSUS

ASTRAGAL mentioned last week that the RIBA had the names of eighty young architects who were looking in vain for employment. This is the first time since the war that such a thing has occurred. For the first time for many years the supply of assistants exceeds the demand for them. What importance should be attached to this fact? Is it a danger signal, a significant pointer to future conditions? Or is it a temporary state due to the sudden flooding of the labour market by the annual release of fifth-year architectural students?

The distressing, indeed the alarming, thing is that no one knows. A *known* unemployment figure of eighty architects for a city the size of London is not large. It is possible, however, that there is, in addition, a certain amount of concealed unemployment in that some architectural firms have not as much work in their offices as they would wish. They are, nevertheless, retaining their staff in the hope that conditions will improve, and more building licences be granted.

There is, however, a most important factor affecting the future of the profession which should be discovered. That is, whether the size of the profession is static or not. Is the annual intake of qualified and unqualified assistants into architectural offices larger or smaller than the rate of deaths, retirements and transference to other pursuits? It may seem extraordinary that such a simple matter (simple, that is, considering the relatively small size of the profession) is not known, but it is not and, although it is almost safe to assume that the profession today is expanding fairly rapidly due to the swollen intake of students into the schools immediately after the war, it is not known what the rate of qualification will be when the schools have reverted to normal.

The eighty or so young architects now without work are almost certain to find some form of employment soon—such is the generous nature of the profession—although they may not find work of the nature they most desire. But architectural firms cannot be expected to dispense charity indefinitely. If the labour market of architectural assistants is going to be flooded annually, steps must be taken *now* to ensure that a balance be struck between the annual intake and wastage of architects and assistants.



I. J. Hayward
Chairman of General Purposes (South Bank) Committee

THE SOUTH BANK: "BALANCE CORRECTED" . . . .

SIR,—My attention has been drawn to the photographs published in the JOURNAL for July 24 of various parts of the Thameside Restaurant below Waterloo Bridge, and to the accompanying comments critical of the changes which have been made.

Sincere criticism of design by a reputable professional journal such as yours is both legitimate and valuable, even if—or perhaps especially if—one does not agree with it. I would suggest, therefore, that it is the more unfortunate that the criticism in this case was misdirected and somewhat misinformed.

In the first place, the comment casts a consistent reflection, not on the Council as such, but on its Parks Department in particular. Muncipal officers, like civil servants, are rightly anonymous; it is, therefore, unfair to attack them rather than the authority they serve. In this case it is also inaccurate, for the changes made at the Thameside Restaurant were not made by or at the instance of the Council's Parks Department, but by and at the instance of the Council's General Purposes (South Bank) Sub-Committee of which I am the Chairman.

In the second place, the furniture, which you compare unfavourably with that used

during the Exhibition, is temporary furniture put in to enable the restaurant to be opened for public use at the earliest possible moment, and will be replaced by suitably designed furniture when that is available. The exhibition furniture had been disposed of by the Government before it had been possible to find out whether, in the absence of the Exhibition, any caterers were interested in attempting to continue to operate the restaurant.

Thirdly, the alterations made to the building cannot fairly be described, as on page 94 of your JOURNAL, as "an unnecessary maltreatment of the building to satisfy the caterers occupying it." The function of a restaurant, however well- or ill-designed, is to satisfy a catering need. The Council could retain the restaurant only if a caterer could be found to undertake the commitment without unreasonably burdening public funds. The alternative, therefore, to suiting the building to the caterer's requirements was to have pulled it down altogether, since the only offer in any way financially satisfactory to the Council was one which included the execution of these alterations.

Incidentally, the photograph you printed of an obviously temporary stretch of chestnut paling scarcely needs to be dealt with but for the fact that it is most misleading. It was erected in an emergency to prevent the general public from intruding on the restaurant's customers until a suitable notice-board could be made and erected, which has since been done.

In conclusion, as you have published photographs to illustrate the point you were trying to make, I venture to bring to your notice the enclosed photographs showing work undertaken on the South Bank by the Parks Department, and to suggest that it would correct the balance if you published some of these.

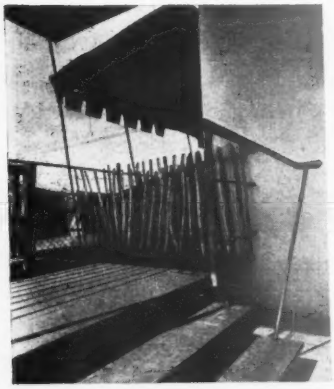
I. J. HAYWARD,

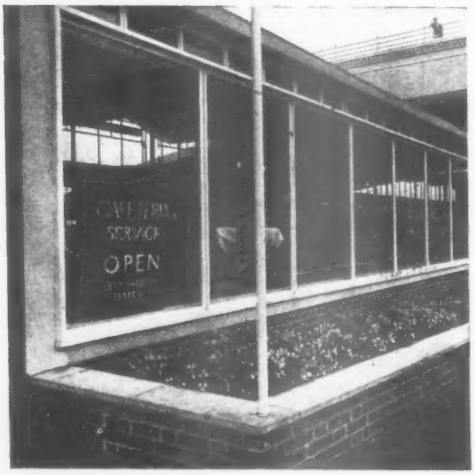
London.

The EDITORS reply:—

We are pleased to "correct the balance" at Mr. Hayward's request by publishing the three photographs at the top of the page. Nevertheless, the JOURNAL'S photographer was able to bring back the two pictures on the left last week. Without venturing to blame any committee, caterer or department we suggest that the Southend touch does not suit the South Bank. Above these photographs: left, the "temporary" chestnut paling at the Thameside Restaurant's entrance has been replaced (right) by a "suitable notice-board." But as the British Public will not take orders another means of "buttoning-up" has been found. Will somebody please take the blame and the necessary action?

. . . . AND LOST AGAIN





"Structure in Building," which has been described as the only book of its kind for architectural students, is reviewed here by D. A. G. Reid, an engineer who teaches at the Brixton School of Building and F. J. Samuely, engineer and lecturer on design at the Architectural Association School. It was written at the invitation of the Text and Reference Books Committee of the RIBA, whose chairman, William Allen, chief architect of the Physics Division of the Building Research Station, has contributed a foreword which is reproduced below. The book's authors, W. Fisher Cassie, an engineer, and J. H. Napper, an architect, are both teachers and they both practise.*

D. A. G. Reid and F. J. Samuely

THE STUDY OF STRUCTURAL DESIGN: REVIEWS OF A UNIQUE BOOK

W. A. Allen writes :—

There are plenty of books about structural design and many are excellent. From an architect's point of view, however, they have the emphasis misplaced, for they concentrate generally on the analysis of stresses and stress-distribution at the expense of the kind of information an architect has to have when he is starting on a design and working it up. For this work he needs to know enough about all the practical systems of construction so as to choose in the first place one which is fundamentally well suited for his purpose ; and having chosen it, he must have a sufficient knowledge of its character, its possibilities and its limitations to enable him to work up the main lines of his design with economy and imagination.

This kind of approach—broad and general, but factual—seems never to have been attempted in a book on structural design, perhaps because few architects felt able to do it alone, and few engineers felt the need. The Text and Reference Books Committee of the R.I.B.A. decided, however, that it was a gap in the literature which ought to be filled as quickly as possible, and turned to consider ways and means.

The chief problem was, of course, to find the right authors, and the Committee thought itself fortunate eventually to be able to persuade the present writers to take up the work. They are well qualified for it. One is an architect and one an engineer ; they shared fully the Committee's outlook on the problem, they are both teachers, they both practise, and they have worked together before on building design. They threw themselves enthusiastically into the work at once, despite other heavy commitments, and now we can see the results. I am sure that architects, and many others who have to work on structural design will find this book with its new approach, a valuable addition to the existing literature.

D. A. G. Reid writes :—

It is a measure of the success of the authors of this book that, on reading it, one is encouraged to believe that it will be read in the future by many of the students for whom it has been particularly written. Do students read textbooks? For the most part only, probably, as a last resort. Even students of architecture, whose imaginations are, in the main, well stimulated, and who do a good deal of hard work, read and write less than one would expect and certainly much less than one would hope. The publication of a book likely to extend the range of literature in current use by students is therefore an occasion to be marked and celebrated.

A TIME SAVER

The accompanying danger must be faced; the book will do for the most able students what they have, hitherto with greater benefit, done for themselves. But for these students there is every reason to suppose that the time saved will be turned to good account. Meanwhile the rank and file are led towards a contemplation far richer than they could have found for themselves and it will remain for teaching staffs to broaden the trail which these authors have blazed.

LUCID CHAPTERS

The general chapters, surveying structural forms, design procedure and the architect's approach to the choice of structure, are not quite so well written as those dealing more particularly with the structural designer's problems. These latter chapters have a lucidity and freshness which are the more noticeable because the presentation of the subject matter in this way has been less frequently attempted than the more general reviews. There are occasions when rather difficult ideas are introduced without adequate preparation, but these are passages which will encourage rereading, and this is a book which will stand repeated reading.

It was, perhaps, inevitable that so earnest an attempt to explain to architects the mind of the engineer should have an air of superiority. "Although you can never be like us," it seems to say, "yet be as like us as it's possible to be." But how much of the wood can one "see" without knowing the trees? How much "feel" of a structure can one obtain without having done, for oneself, some of the structural analysis which has, so notably, developed the sense in those that really have it? Some systematic study of mechanics normally finds a place in an architecture course; the authors could, with advantage, have given some formal recognition to this fact; it is not too much to expect that those students who will develop a real feeling for structure will extend their exercises in analysis beyond the simpler structures and will not stop quite so short of the structural engineer's more complex problems as this book normally seems to assume. The profession of architecture provides for a variety of special interests and architectural students are as various in this respect as the architects they are to become. It is not by any means impossible for some of them to be quite like engineers.

For engineers I should suppose it to be a quite admirable book and one which will do much to explain to them the workings of the mind of an architect, a long-overdue contribution to engineering education.

F. J. Samuely writes :—

The idea of a book of this nature being written by an architect and an engineer was excellent, and the fact that this particular architect and engineer are not only on the staff of the same architectural school, but have also been in practice together, makes the combined work of even greater value.

The great danger of relying too much on the collaboration of an architect

* Architectural Press. 30s.

and an engineer has, however, been avoided. Unfortunately, many architects have for various reasons to design buildings without the assistance of an engineer. Even if they are able to employ the services of an engineer in the final stages, for the detailed construction and calculations, they will often already have decided on many salient points beforehand: the shape of the building; the depth of beams, which frequently defines the number of storeys that can be constructed for any given height of building; sizes and positions of columns affecting space and circulation; the shape of the roof for single storey buildings, etc.

This book will be extremely useful, primarily, to students of architecture, to teach them the procedure to be followed when they are unable to obtain the full assistance of an engineer. It is obviously not meant to be a textbook on structures, but is an excellent means of co-ordinating their knowledge, after the principles of the subject have already been assimilated.

It so often happens that students absorb a number of unrelated facts which cannot be put to any practical use. I think this book will show the student how he can make use of these facts, and I would recommend it to every architectural student, and indeed to young architects who have sufficient leisure to read it in full.

After a short survey of structural forms, the procedure for structural design is set out in great detail, and is amplified very clearly in a number of chapters, which are followed by a treatise on "Choice of Structure."

While in general the book fulfils its purpose admirably, there are one or two points which might be improved upon.

First, as mentioned before, the greatest need for an architect is to know sufficient about structures in order to deal with the preliminary design adequately and, therefore, I consider the most important part of the book to be chapter 10, "Choice of Structure." Unfortunately, to this chapter, no doubt owing to lack of space, only 26 pages out of 213 have been given, and domestic and multi-storey buildings have been dealt with very summarily. Large span single storey buildings are treated in greater detail, although there are still other possibilities which are not mentioned at all. Also, although many solutions are enumerated, no guidance is given as to which type should be selected for any particular purpose.

In the beginning stages of a design when the architect has to depend on his own knowledge of structure, he will certainly not have time to undertake the more exact calculations described in chapters 1 to 9 of this book, nor would it be recommended that his mind should dwell so much on detailed problems.

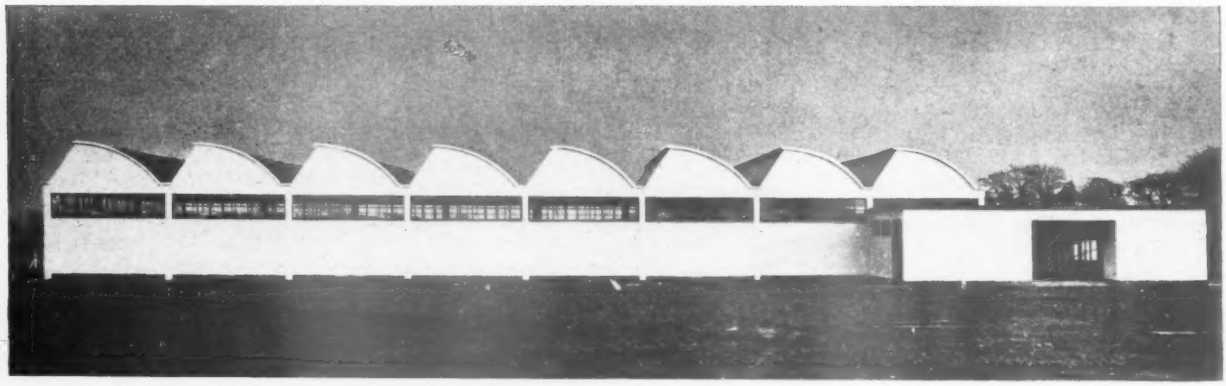
Even if it were necessary for an architect to do all his own calculations, the mere fact that a statically indeterminate structure was involved might deter him from adopting an otherwise interesting and suitable construction, and I feel strongly that it is most important to give some advice on how to proceed without going into exact calculations. For example, to provide certain "yard sticks" from which to determine the approximate sizes of structural members, the most economic column grid, and the type of roof construction.

I would also have liked very much to see in a book of this type some more definite reference to economics and economy.

In the first instance, it is my experience that young students do not learn anything about economics, except perhaps in relation to the structure. It is necessary to make them aware that the cheapest building is not necessarily the most economical and that it is possible to find out the extra costs that are involved in, say, omitting columns or reducing the depth of the beams beyond what is most economical, and setting this extra cost against other advantages gained, for instance the possible greater revenue due to an increase in floor space. To do this it would be useful to give some idea on how to make an approximate calculation of the cost of the structure.

The question of hinges in frames has been given prominence, and this is a very useful contribution. In view of this it is remarkable that three-pinned frames are not mentioned at all. If, as is to be hoped, the reprinting of this book is found necessary in the near future, I would like to suggest that this omission be repaired and the following minor points, which at present are very misleading, be given attention:—

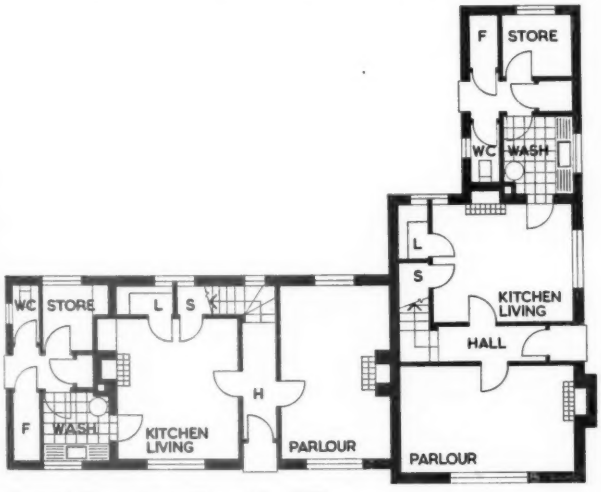
(*a*) Page 46: development of plastic hinges. I sincerely hope that three plastic hinges in one line will never occur. (*b*) Page 58: the explanation of diagonal tension. There seems to be little doubt that diagonal tension can be due to shear only, and is not necessarily a combination of shear and tension. As the arrangement of beams in reinforced concrete depends on this principle, a correct explanation is more important than might appear on the surface.



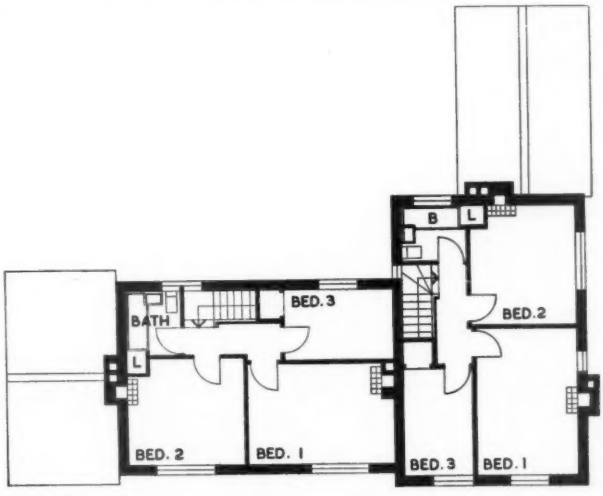
Recent developments in north-light construction; two examples in reinforced concrete. Below, in situ, *shell barrel vaults, showing that "even a 'saw tooth' may achieve elegance." (Factory at Congleton, Cheshire; architect, Professor R. Frankel.) Left, precast, with double cantilever for canopy. (Factory at Gillingham, Kent; designed by W. S. Atkins and Partners.) (Photographs from the book).*

HOUSING SCHEME AT ALDERMINSTER

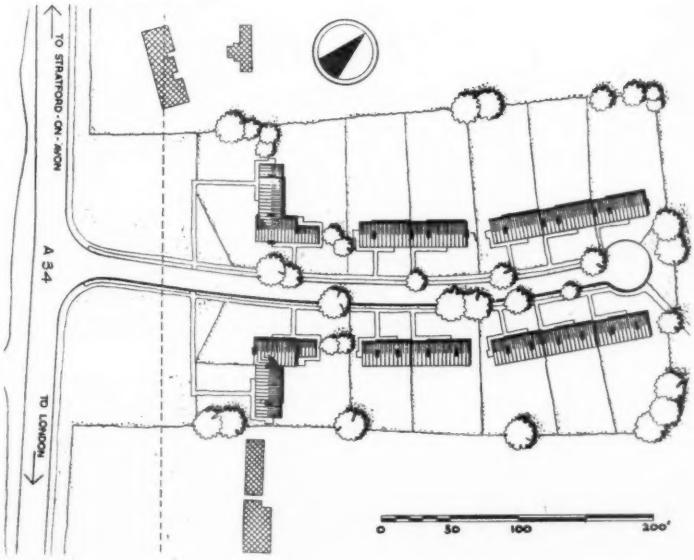
The housing scheme illustrated on this page is for the Stratford-on-Avon R D C, and was designed by Francis W. B. Yorke and H. R. Barker. The photograph right is a general view of the scheme looking north-east. The construction is of 11-in. cavity brickwork and out-buildings are of 9-in. brickwork. Partitions are of 2½-in. breeze or 4½-in. brick. The ground floor is of 4-in. concrete and the first floor tongued and grooved boarding on timber joists. Windows are metal in softwood surrounds. Roofs are covered with concrete tiles. Internally walls are plastered and distempered white or primrose. Floors are covered with mastic asphalt in parlours and kitchen-living rooms, quarry tiles in halls and bathrooms, and granolithic elsewhere. Ceilings are of plasterboard and skim. Windows are painted off white externally and doors are eau-de-nil, birch grey, cream or signal red. The area of each dwelling, measured inside external walls and including out-buildings, is 1,033 sq. ft.



Ground floor plan. [Scale : $\frac{1}{8}$" = 1'0"]



First floor plan.



Site plan

BRS

Research Staff Cut

The Department of Scientific and Industrial Research proposes to cut the staff of BRS by roughly 10 per cent. At the end of October thirty technicians, scientific assistants and experimental officers and ten members of the clerical staff are to be dismissed. Cuts are also being made in equipment, and recruitment is to be reduced.

The announcement of this staff reduction, which is intended to save only £25,000 per year, comes less than three months after the disbanding of the MOW advisory service on payments-by-results schemes, under its chief adviser, R. H. James. (See JOURNAL for July 10.)

A spokesman of DSIR gives as a reason for the cut the fact that staff of the MOW chief scientific adviser's section had been transferred to BRS (in 1950), but admits that general economy measures are also responsible.

A protest against the proposed dismissals has been made by a deputation from the Institution of Professional Civil Servants.

MOW

De-requisitioning Progress

MOW de-requisitioned 36 properties in July and returned them, wholly or in part, to their owners or previous occupiers. The total area of premises released was 231,898 sq. ft., nearly three times as much as in June and the largest total since the Ministry began issuing progress reports in March of this year. The released property included 13 houses, 11 groups of offices, 8 shops, a hotel, a laundry and an institution.

The majority of the premises released were in the London area. These included 21,328 sq. ft. of office space on three floors of Devonshire House, Piccadilly; 11,956 sq. ft. on six floors of No. 3 St. James's Square; and 11,220 sq. ft. on three floors of the Peter Jones building in Sloane Square.

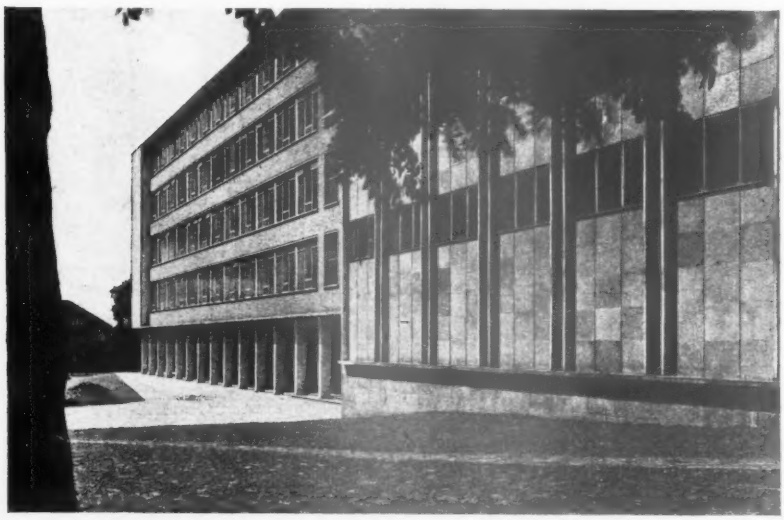
N. IRELAND

"Speculative" Factories

In view of the encouraging results which have attended its policy of erecting "advance factories"; the Ministry of Commerce has announced its intention to proceed immediately with an extension of its programme.

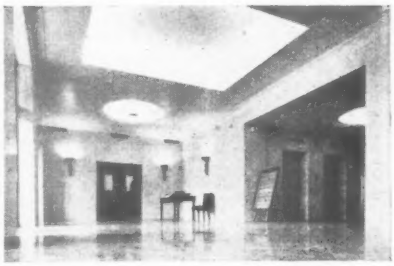
These factories are erected by the Ministry in accordance with the policy of the N. Ireland Government, expressed in the New Industry Development Act of 1945, of attracting more industry to N. Ireland. They are built as a speculation, so that firms wishing to set up factories do not have to wait for a factory to be erected, but can lease, normally for a term of 15-21 years, a ready-built factory from the Ministry. The factories usually consist of a single-storey production area and a two-storey administration block.

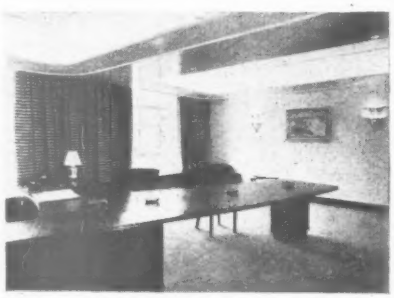
Four factories of this type which are nearing completion—at Newcastle, Ballynahinch,



The extension to Willesden Technical College is the first building of its kind to be completed in Middlesex since the war and was designed under the supervision of C. G. Stillman, County Architect and D. R. Duncan, Area Architect. The college, which is in Denzil Road, Willesden, was first opened in 1934 and is divided into three sections; engineering, architecture and building, and art. The extension, which has been built at a cost of approximately £260,000, contains laboratories for metallurgy, metrology, physics and chemistry, as well as classrooms and drawing offices. The extension will be illustrated and described in detail in a later issue of the JOURNAL. *The general contractors for the construction of the school were Lavender McMillan Ltd.*

OFFICE BLOCK IN

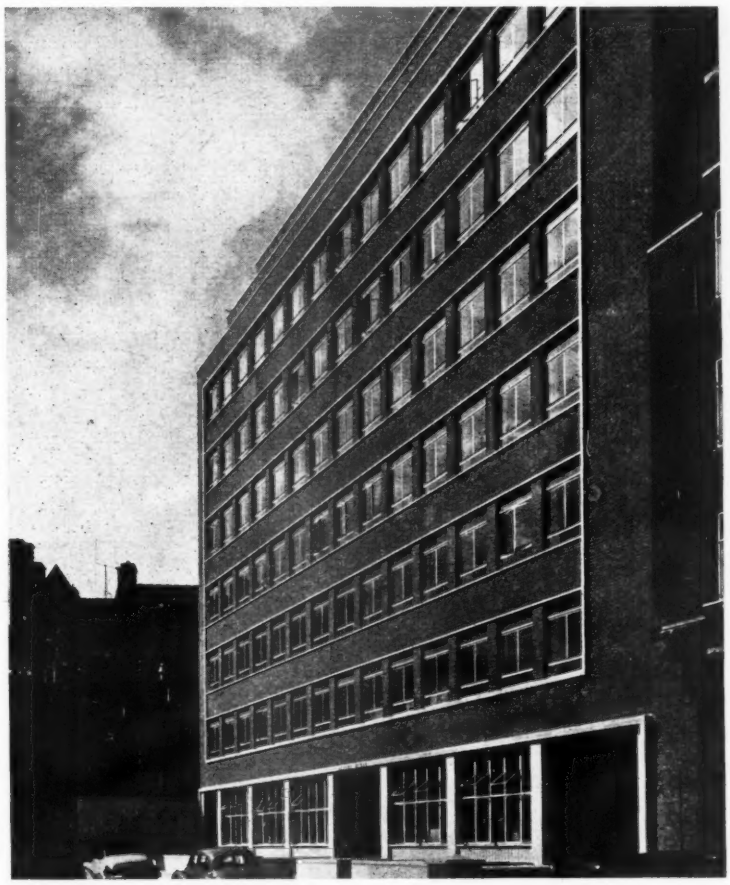


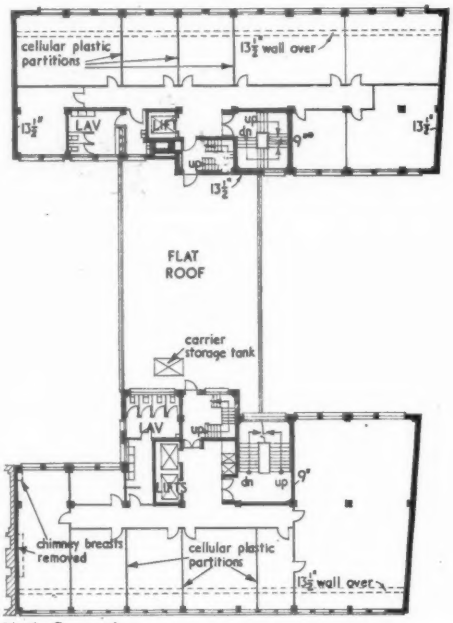


This office building at 36-38, Berkeley Square for Lewis Berger & Sons Ltd. was designed by Howard, Souster and Partners, with J. Stanley Beard, Bennett and Wilkins as consulting architects. The site of 17,000 sq. ft. was formerly occupied by the town residence of the Earl of Rosebery, which was demolished to make way for the new offices. The top photograph on this page shows the main entrance hall on the Berkeley Square side, above is an office for one of the directors, below is the board room. On the opposite page, top, the west facade, which faces Farm Street and bottom, the east facade facing

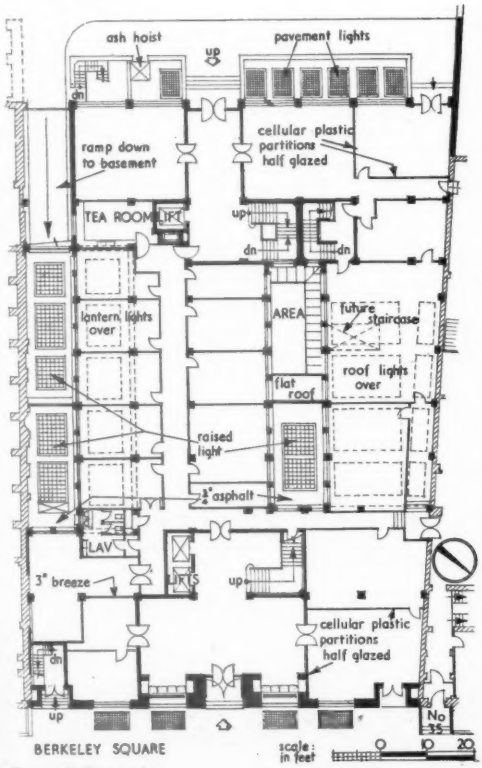
BERKELEY SQUARE, LONDON W.1. FOR LEWIS BERGER LTD.

Berkeley Square. The area of office space provided is approximately 54,330 sq. ft., excluding circulation space. The main elevation to the square is faced in Portland stone, while the rear elevation to Farm Street is of red facing bricks and Portland stone dressings to harmonise with the adjacent buildings. A car park for clients is accommodated in the basement and is approached by a ramp from Farm Street. The building is steel framed and fire resisting materials are used throughout. Air conditioning is installed in the board room and directors' suite of offices. Emergency lighting is provided by means of a diesel plant which automatically operates in the event of a general power failure and also controls and maintains the ventilation of the car park. All G.P.O. telephone and internal telephone wiring is concealed in steel ducting buried in the floor screeding. Due to the angles of light in relation to adjoining property laid down in town planning regulations, the building is divided into an east and west block above fifth floor level. Adequate daylight is provided to offices in the centre of the building from an internal area. The general contractors were Harry Neal Ltd. For sub-contractors *see page 270.*





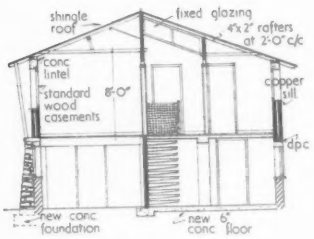
Sixth floor plan



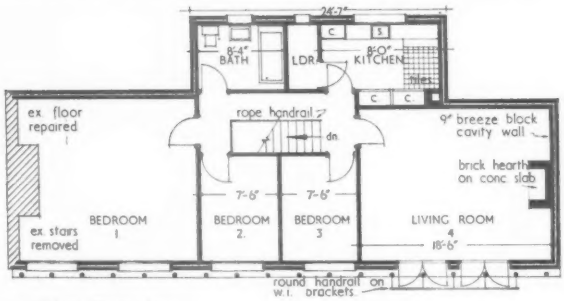
Ground floor plan

COUNTRY HOUSE AT GREAT SOMERFORD, W

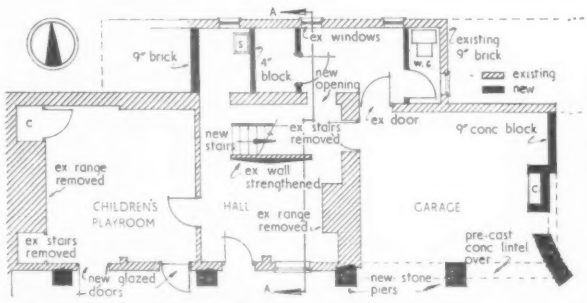
The site for this house in Wiltshire, designed by Robert Townsend, is long and narrow and tapers to the east. This has necessitated having the garden at the side of the house, which is placed at the wide end of the site. The principal living room is on the first floor to obtain a view across the road, which runs along the south boundary of the site. The aim was to build a country house using simple local materials readily to hand and some walls remaining from a demolished pair of cottages ere incorporated. The plan is a simple rectangle with an extension to the north for the bathroom, kitchen, etc. The widening of the roof span at the centre allowed the staircase to be placed centrally and to be lit through a window overlooking the narrower roof span. The ground floor is built of brick, concrete



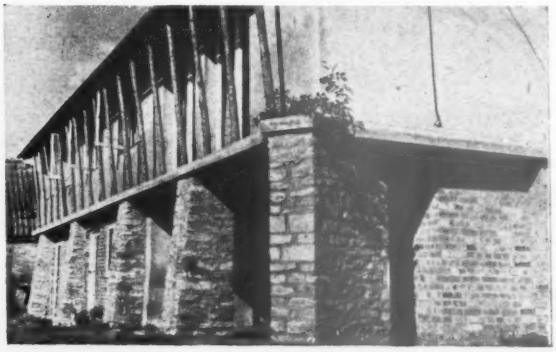
Section A-A



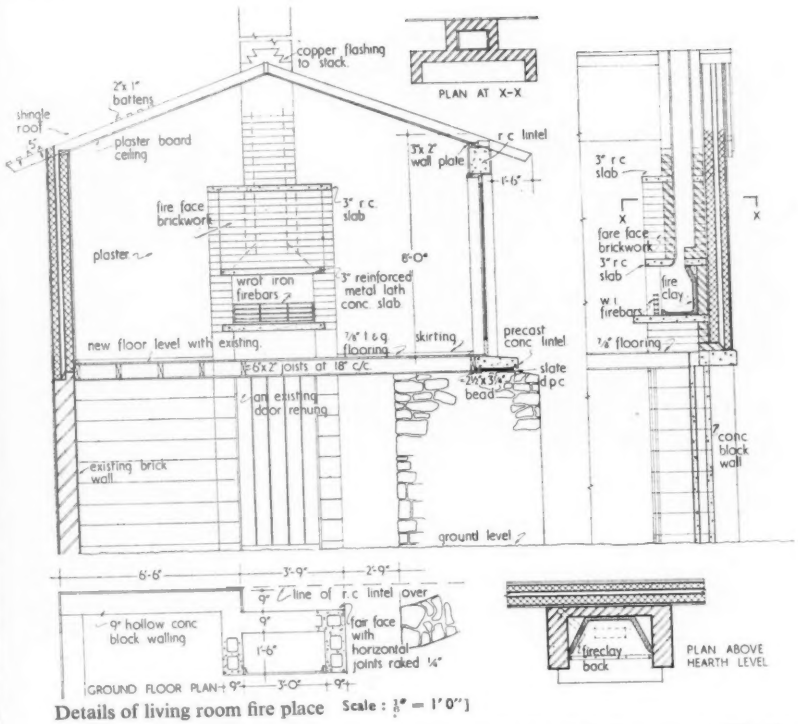
First floor plan



Ground floor plan [Scale: $\frac{1}{8}$" = 1' 0"]

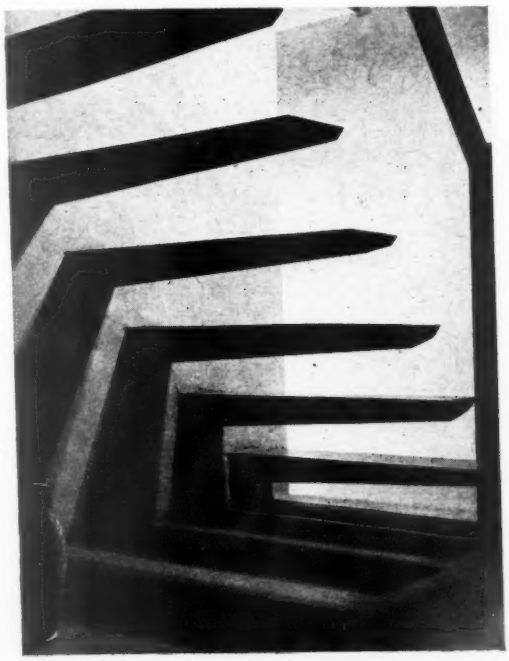


WILTSHIRE



Details of living room fire place Scale : $\frac{1}{8}$" = 1'0"

blocks and stone piers, incorporating material from the demolished cottages. The first floor walls are of breeze block cavity construction, with a 3-in. outer skin and 4½-in. inner skin, rendered externally and lime plastered internally. Partitions are of breeze block. The timber roof has 3-in. by 1½-in. rafters, roofing felt and is finished with cedar shingles. Ceilings are of insulating board, V-jointed and plastered. The first floor is of softwood boarding and the ground floor is covered with thermoplastic tiles. The stairs have cantilevered treads of 9-in. by 3-in. seasoned elm, tapered to the outside edge. The newel and handrail are not as originally designed, being a personal contribution by the client. It was intended to have a rope handrail with a filling of pig netting as indicated on the section on the opposite page. The fireplace shown in the drawing above also suffered transformation while construction was proceeding. The photographs on the opposite page show top, the south facade, bottom left, the south-east corner and bottom right, the north and west facades. The photograph right shows part of the new staircase. The contract price was £1,600. The general contractors were Martin Bros. For sub-contractors see page 270.



Limavady and Coleraine—have already been let or are in process of being allocated. The new programme will consist of four factories, the largest of which will be located on an estate acquired by the Ministry at Carnmoney, Co. Antrim. The remaining three will be located at Armagh, Dungannon and Ballymoney.

CPRE

Preserving Oxfordshire's Cottages

The Oxfordshire Housing Society has obtained permission to undertake the reconditioning of thirteen small cottages built in 1794 on the south side of the village green of Bletchingdon. Their demolition would have entirely changed the character of this charming village.

At a cost, including the purchase of the freehold, of about £9,300, the society is to carry out work which will convert the property into seven up-to-date cottages, each with living room, kitchen, two bedrooms and bathroom.

The society, the aims of which are "to provide housing and associated amenities for persons of limited means in the County of Oxford," and, in particular, to preserve "the beauty and character of Oxfordshire's villages," was formed at a public meeting sponsored last year by the Oxfordshire branch of CPRE. It is registered as a Friendly Society on charitable rules, and the chairman, R. P. T. Gibson, is appealing for funds, for, although assistance under the Housing Act, 1949, has been applied for, capital sums must be raised privately.

The society has announced that a favourable opportunity has arisen to carry out a similar scheme at Sycamore Terrace, Bloxham, where, at a cost of about £4,500, a row of eight stone and thatched cottages in the old part of the village could be converted into five up-to-date homes.

NIGERIA

New Suspension Bridge

A suspension bridge 590 ft. long is to be built over the Cross River in Nigeria. The main span over the gorge through which the Cross River flows will be 350 ft. in length. The deck will be 90 ft. above normal low water level. The value of the contract placed recently by the Crown Agents for the Colonies, on behalf of the Nigerian Government, with Dorman Long of Middlesbrough, is £315,000. Steel requirements will be 500 tons.

The site of the bridge, which will carry the only road joining the Eastern Provinces of Nigeria to the British Cameroons, is about 120 miles from the West African Coast.

The consulting engineers are Messrs. Coode & Partners of London.

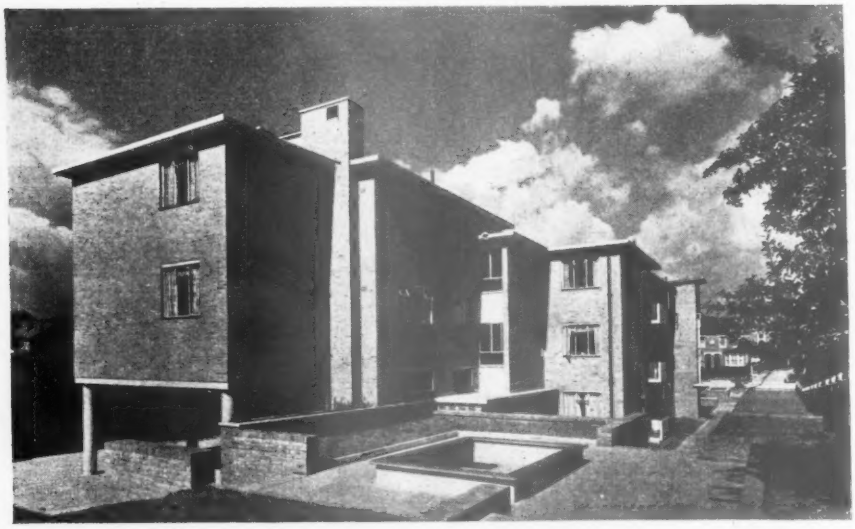
CANADA

Prospects for Architectural Immigrants

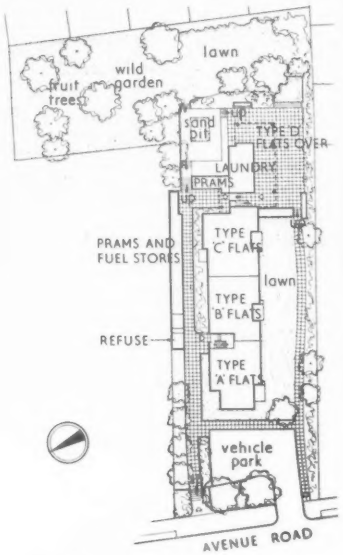
The Executive Director of the Royal Architectural Institute of Canada, C. J. C. Carroll, has made a statement on the opportunities for architectural practice and employment there. This statement has been issued in response to enquiries made by the Secretary of the RIBA during his visit last April.

Mr. Carroll states that: "The architectural profession in Canada today is in a very unsettled condition owing to many circumstances. The defence programme, although well advanced, is still causing shortages in essential materials and skilled mechanics. Restrictions on building caused

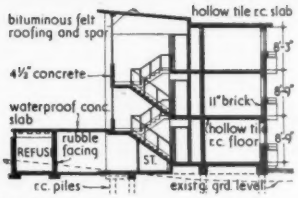
FLATS IN AVENUE ROAD, SOUTHGATE,



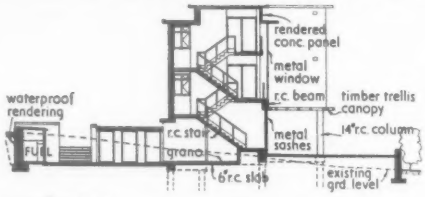
The block of eleven flats for the Southgate Borough Council, illustrated on this page and opposite, are designed by Walter W. Fisk and Sidney H. Fisk. The accommodation provided consists of three 5-person 4-room flats, three 4-person 4-room flats and five 4-person 3-room flats. There is a laundry within the block and pram and fuel stores are provided externally. The site, which is just over half an acre, is L-shaped and has a narrow frontage of 76 ft. to Avenue Road and a considerable slope towards the south. The slope of the site made necessary a change in floor levels at the east end of the block, where the end flats are entered at half-landing levels. The ground floor level under this end



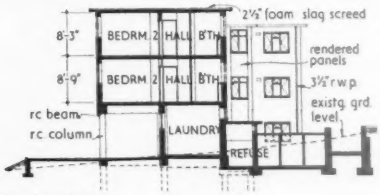
Site plan



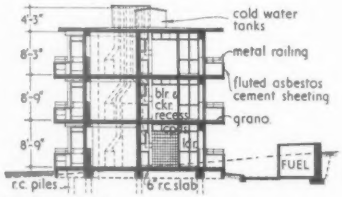
Section A-A



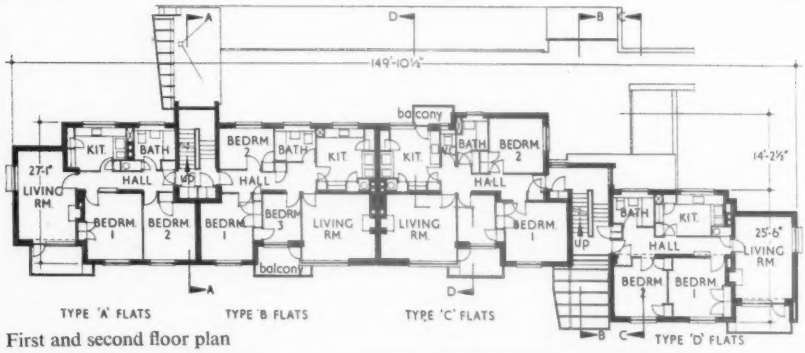
Section B-B



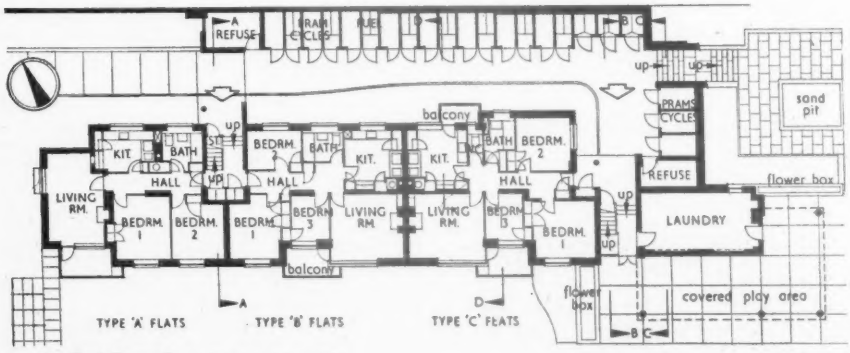
Section C-C



Section D-D



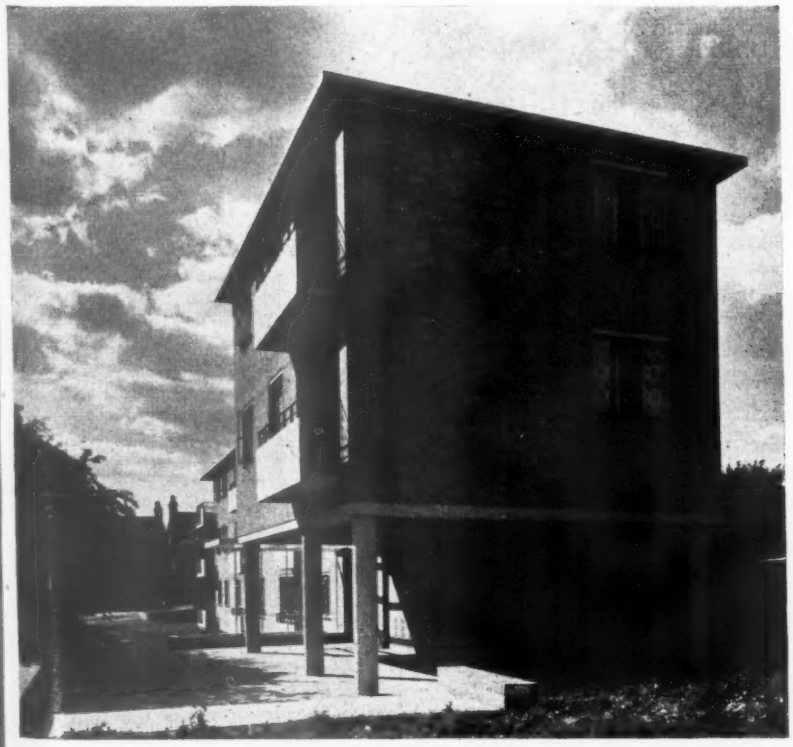
First and second floor plan



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

LONDON, N.14

unit is occupied by the laundry and by a covered play space. Construction is of load-bearing brickwork carried at ground level on in situ *RC slabs and beams supported on bored piles. External walls are* 15½*-in. cavity to the ground floor and* 11*-in. cavity on upper floors. Party walls are* 11*-in. cavity brickwork and internal partitions are of* 2*-in. hollow breeze blocks. Floors and roofs are RC hollow tile slabs with solid RC balconies cantilevered from the floor slabs. Facing bricks are London yellow stocks throughout. On the opposite page the top photograph shows the north and east facades, centre the north facade and entrance seen from the north-west. On this page, the south and west facades are seen above and the east facade and covered play space below. The general contractors were Francis Jackson, Contractors, Ltd. For sub-contractors* *see page* 270.



by the shortages are definitely affecting the architectural field.

"As to the prospects for the newcomer on the scene," the statement continues, "it is but fair to point out both the possibilities and the difficulties. . . . Canadian practice follows American rather than English practice, and, therefore, both architects and architects' assistants emigrating to Canada must be prepared to adapt their background of knowledge and competency to conditions which will have to be thoroughly assimilated if the newcomer expects to succeed.

"Knowledge of Canadian practice can, of course, be gained by enrolment in one of the five architectural schools but, for the practitioner already qualified in another country, the only practical way to gain sufficient experience of Canadian requirements to qualify for practice in Canada is to work under a Canadian architect."

"In the ten provinces of Canada the practice of architecture is governed by regulations set up under provincial law. There are variations in such laws as between provinces." Mr. Carroll suggests, therefore, that "architects holding certificates to practise in other parts of the Empire should make preliminary inquiry as to their status, if proposing to settle in Canada. Such inquiry should be addressed to the secretary of the association of the province in which one intends to settle. Associateship in the RIBA is definitely recognized and considered by the Provincial Architectural Associations in Canada in assessing the qualifications of applicants. These applicants are generally asked to take an examination in professional practice."

The matter of remuneration, says Mr. Carroll, "is a difficult one on which to give information. The income of an architect setting up his own office is entirely dependent on his own ability and assiduity. It can be said that, once established, well qualified architects earn good incomes in comparison with other professions. In government service salaries for architects range from $3,120 to $7,200 per year. The Government of Canada, through one of its agencies—the Unemployment Insurance Commission—maintains a national employment service in the various areas of Canada."

Mr. Carroll concludes that the requirements for success in the practice of architecture in Canada are "as in every other field, ability, character, hard work, and a faculty for adjustment. Opportunities for the right persons are, without doubt, present in Canada, but this opinion must be qualified by the warnings before mentioned."

DRY ROT

Handbook Revised

A thoroughly revised edition of Forest Products Research Bulletin No. 1, "Dry Rot in Wood," was published last week (HMSO, 2s.). It contains complete information on how to recognize dry rot attack and what to do about it before it becomes extensive and expensive to eliminate.

Dry rot has become much more widespread in the last ten years. It has gained a hold on many buildings which were not maintained properly during the war. From them it has spread vigorously, even into post-war houses. It is now costing something like £20 million a year in replacements and repairs.

The Bulletin describes practical methods of detecting and treating decay caused by *merulius lacrymans*. There are photographs of timber under attack and of the fungus at various stages. Sections are included on how to sterilize infected walls and how to treat timber with preservatives to make it safe. BRS has contributed a section on good construction which will eliminate the possibility of attack.

TPI

Summer School at Bangor

" In planning to meet the housing needs of the people, there must be close co-operation, all through, between the architect and the town planner." This quotation from the presidential address by Sir George Pepler to the Town and Country Planning Summer School, which commenced at Bangor on Monday, sums up the general attitude of the school.

The planning of the dwellings, the president continued, was clearly the sole function of the architect; the planner was responsible for selection of areas for housing the layout plan, designed in relation to the development plan . . . the shape, nature and features of the site itself, and economy in road works, sewerage and other services. Above all, the plan should provide the opportunity for good building, with favourable aspects and prospects. There was also scope for the landscape architect, added Sir George; he should combine the buildings, roads and gardens into a visibly harmonious whole.

The president was followed, on Tuesday, by H. E. Bracey, who spoke on " Rural Social Trends." The Census figures, he said, suggested that rural migration, in England, at least, had been halted, and the rural population had increased 20 per cent. between 1931 and 1951 (compared with 21·4 per cent. for urban districts and municipal boroughs).

The shortage of rural houses for agricultural workers existed even before the war in many areas. Countrymen, said Mr. Bracey, frequently asserted that buying of country cottages by townsmen had been an important factor in rural migration. The countryside had been invaded by town workers for whom special early morning and evening buses were run to enable them to get to and from their jobs in town.

Further reports of papers presented at the TPI Town and Country Planning Summer School will appear in next week's JOURNAL.

In his article below, Mr. Sophian discusses some of the matters that have to be considered when a dangerous structure notice is served under the London Building Acts.

T. J. SOPHIAN

Dangerous Structures and the London Building Acts

Where a dangerous structure notice is served under the London Building Acts, a number of practical questions arise for consideration.

Let me outline for the moment the procedure adopted where a building happens to be in a dangerous condition and a council decides to exercise its powers under the Acts that are concerned with dangerous structures.

The first step is that the matter is reported to the council. The council then orders a survey to be made by the district surveyor, who, if he considers the structure dangerous, will issue a certificate to that effect. Next the council will shore up the structure and serve the owner with a dangerous structure notice. Should the owner dispute the validity of the notice, he must appoint an independent surveyor, who, with the district surveyor, will appoint an arbitrator. The two surveyors and the arbitrator will then consider the matter afresh in order to decide whether the notice should stand or not, or whether it should be amended.

" OTHERWISE SECURE "

If the notice is effective, then, in the event of failure to comply with it, the council will obtain an order from the police court directing the owner " *to take down, repair, or otherwise secure* " to the district surveyor's satisfaction the structure in question within the stated time. It will still be open to the owner at this stage to dispute the notice, although he may not have asked for arbitration when the notice was first served on him.

What the notice and the order, if made, require the owner to do, is to *take down, repair, or otherwise secure* the structure and " otherwise secure," it seems, means to secure by means of repair.

WHAT " REPAIR " MEANS

Now what does " repair " mean? It certainly does not mean reinstatement of the building, and a *dangerous structure notice cannot require the owner to rebuild the whole of a building* or any part of it which may be regarded as separate from the main structure, as, for example, any back condition of a height of only one storey where the building itself is of a height of several storeys.

On the question of the meaning of " repair," the celebrated judgment in the case of Lurcott *v.* Wakeley, 1901, 1 K.B. is generally referred to. In that case the court said that " repair " and " renew " were not words expressive of a clear contrast; repair always involved renewal; but renewal of a subordinate part. Thus if a skylight leaked, repair would be effected by hacking out the putties and replacing them with new ones and renewing the paint. Again, if a roof fell out of repair the necessary work would be to replace the damaged timbers by sound work, to substitute sound tiles or slates for those which were cracked, broken or missing, to make good the flashings, and the like.

Again, if part of a garden wall fell down, repair would be effected by its being built up again with new mortar and new bricks or stone. " Repair," it was said, was " restoration by renewal or replacement of subsidiary parts of a whole." " Renewal," as distinguished from repair, was reconstruction of the entirety, meaning by " the entirety " not necessarily the whole, but substantially the whole subject matter in question. It is important, accordingly, to consider in every case how far a dangerous structure notice obliges an owner to effect repairs. If the structure is dangerous then the notice would be sufficiently complied with by the demolition of any part of the property which might be necessary, but rebuilding of the property could not be called for. Again, the notice should be carefully examined in order to see whether it covers the whole of the work which the council requires the owner to do.

Thus, if a notice refers merely to a flank wall, clearly work on the front and back walls of the building would not be covered by the notice, and the authority could not compel the owner to carry out work to those parts of the building, unless and until a fresh notice extending to those portions of the building was served.

In cases in which the owner does not carry out the work required by the notice, the council is entitled to carry out the work itself, and to make a claim for the expenses on the owner. If such expenses are not paid, then the council can institute proceedings in the police courts to obtain an order for the recovery of the sum, but such proceedings must be brought within twelve months of the demand for payment of the expenses.

Where a council has done work itself, it is important to ask for full details and to go carefully into the various items of the account, for, it is to be observed, the jurisdiction which is conferred on the court by the Acts in such cases is to " fix " the amount of the expenses, and accordingly the court can enquire into the reasonableness of the expenses which are claimed.

On this point the case of LCC *v.* Harling Street Owners, 1935, 2 K.B. 322, is the leading authority. There the council executed the work required to be done by the notice on the owner's default. The council entered into a contract with contractors for the execution of the work, and, according to the terms of the contract, the certificate of the architect was made final and binding between the council and the contractor. The architect issued a certificate and the council paid the amount stated thereon. Evidence, however, was called to show that the contractors had unnecessarily incurred an expense of £119 by engaging a third person to come on to the site and to collect the materials. In fact, had the materials been sold on the site a sum of £75 would have been recovered for them. The court accordingly held that the claim on the council was to be reduced, not only by the unnecessary expense of £119, but also by the further sum of £75; this being the amount which could have been realised by the sale of the materials on the site itself.

OFFICE EXTENSION

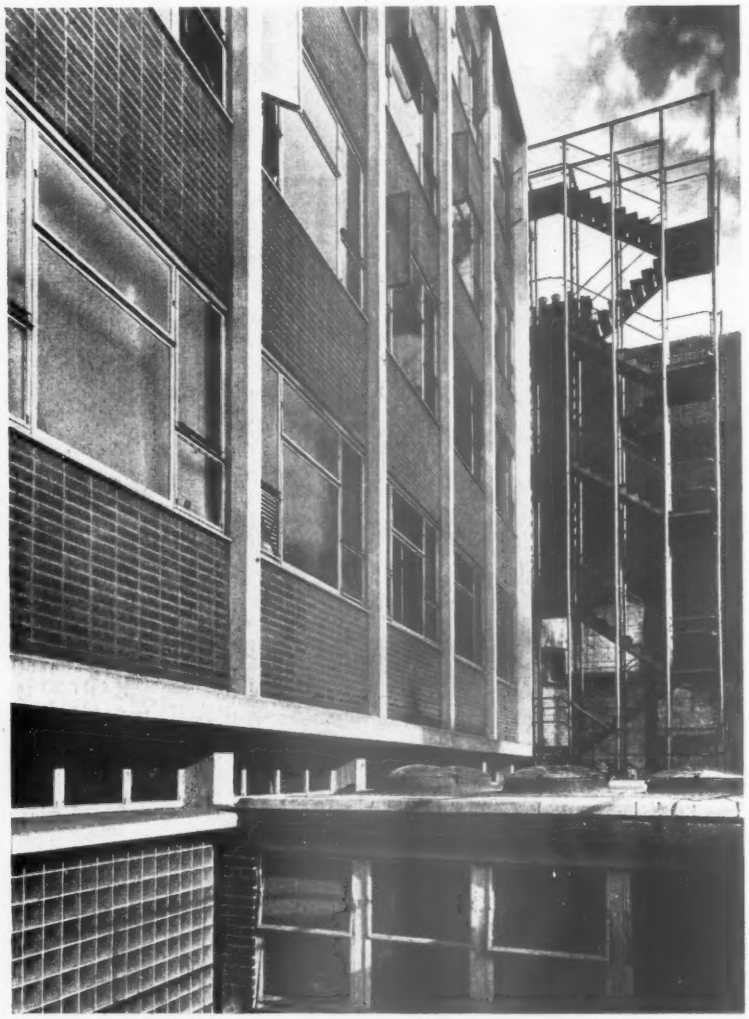
in DUKE STREET, ST. JAMES'S, LONDON, S.W.1

designed by BERTRAM CARTER

in association with DYNELEY, LUKER and MOORE

The general purpose of this scheme has been to provide additional office space for the clients, who occupy the adjoining block of offices, which were built during the pre-war years. Three early nineteenth century houses, badly damaged by enemy action, have been thrown into one. The front elevation, facing Duke Street, has been restored, and the rear wall, facing west, has been built out about 10 ft.

Part of the new west elevation.



Above, the west facade looking towards the specially designed fire escape. Right, lift and cloakroom doors on the sixth floor. Below right, revolving door in the main entrance hall.

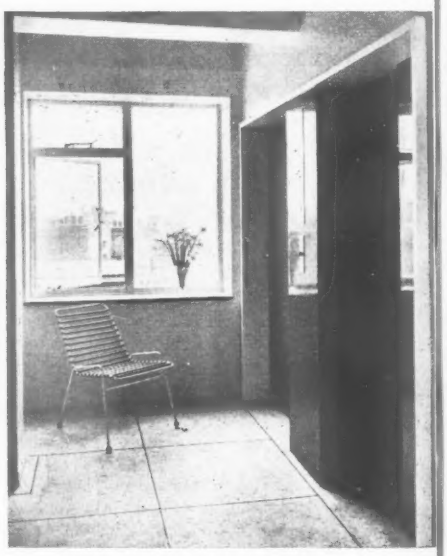
OFFICE EXTENSION

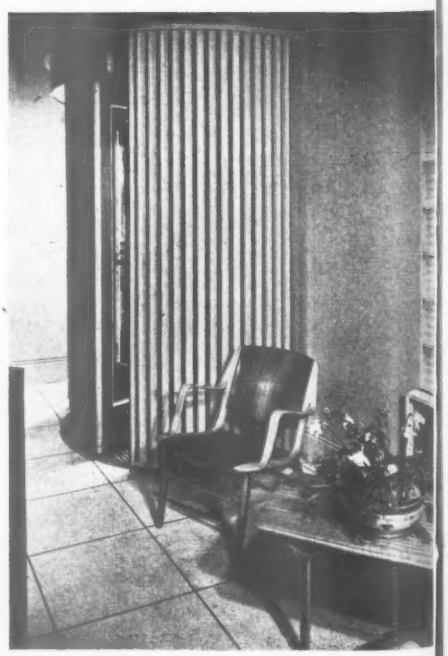
in DUKE STREET, ST. JAMES'S, LONDON, S.W.1

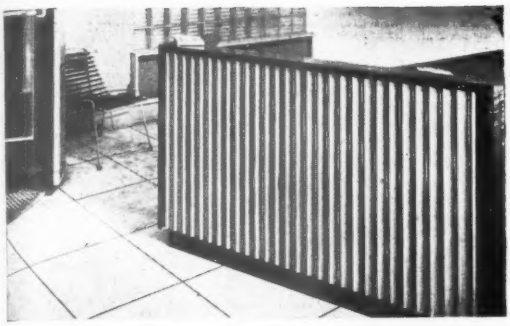
designed by BERTRAM CARTER

PLAN.—Although the increased depth of the building has doubled the floor space, the additional cubic content is within 10 per cent. of the original figure. All original stair wells have been floored over, access now being from the original office building by flights of stairs. The secondary means of escape is by an outside staircase, specially designed by the architect, and not glazed in. The space at the rear of the building, which was at one time gardens, is now occupied by a two-storied extension of the gound floor and basement, and surrounds two areas. Part of the ground floor and basement is leased to a hairdresser, who occupied the premises before the war and for whom it has been remodelled. Between the original offices and the remodelled building there was another structure extending to the second floor only. At first it was thought that the foundations and frame had been constructed to take a further five floors, but this was found to be incorrect and three new columns now support the three external walls of the vertical extension by being cantilevered from the frame of the old building. No additional load is imposed on the party wall between the remodelled building and the link.

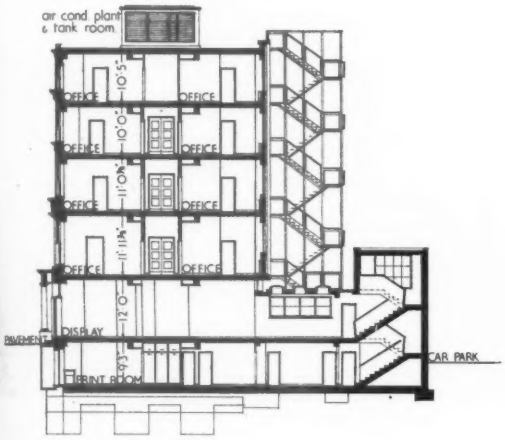
CONSTRUCTION.—The total floor area precluded the retention of the original timber floors to comply with the regulations. The additional weight of the new concrete floors is carried on reinforced concrete beams bearing upon flush brick piers bonded into the party walls. The west elevation is a parallel RC frame, with infilling of brick, glass brick or window, and is tied back into the older part of the structure at the party walls.





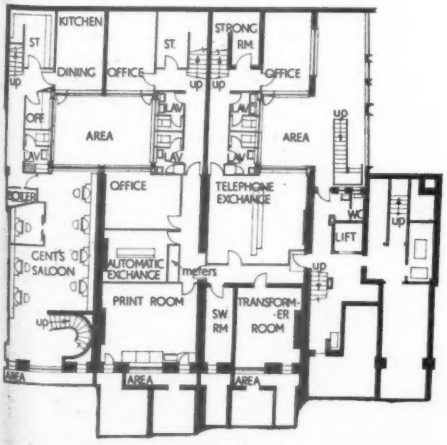


Left, enquiry desk in the main entrance hall of 32, Duke Street.

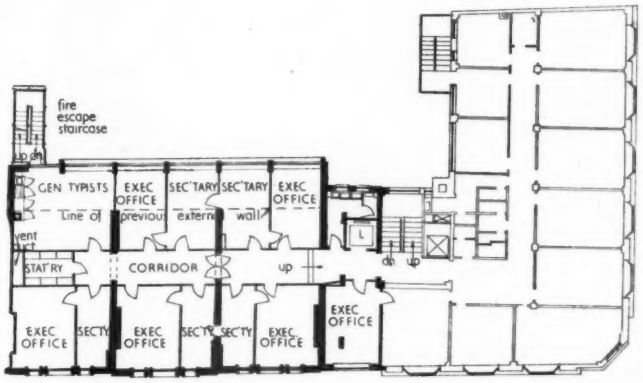


Section A-A

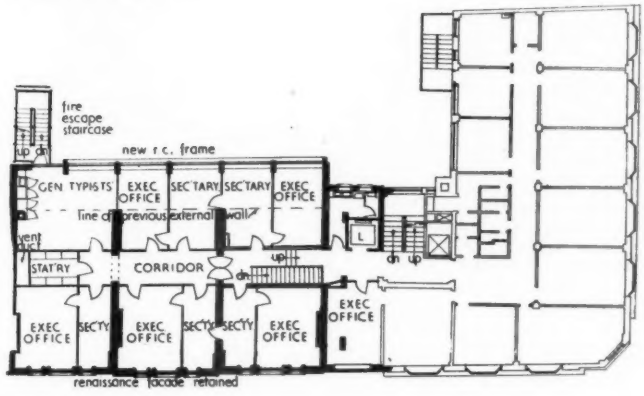
Ground floor plan and mezzanine



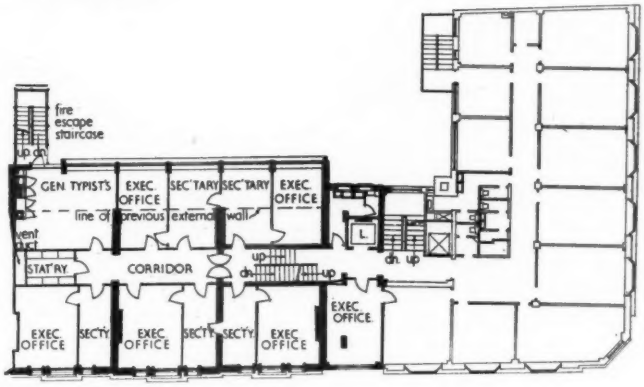
Basement plan [Scale : $\frac{1}{32}$" = 1' 0"]



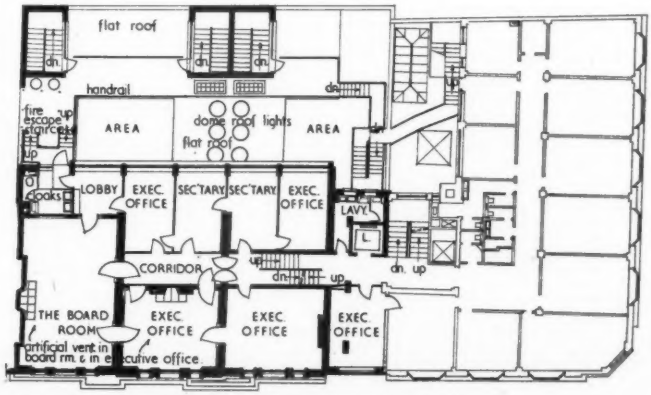
Fourth floor plan



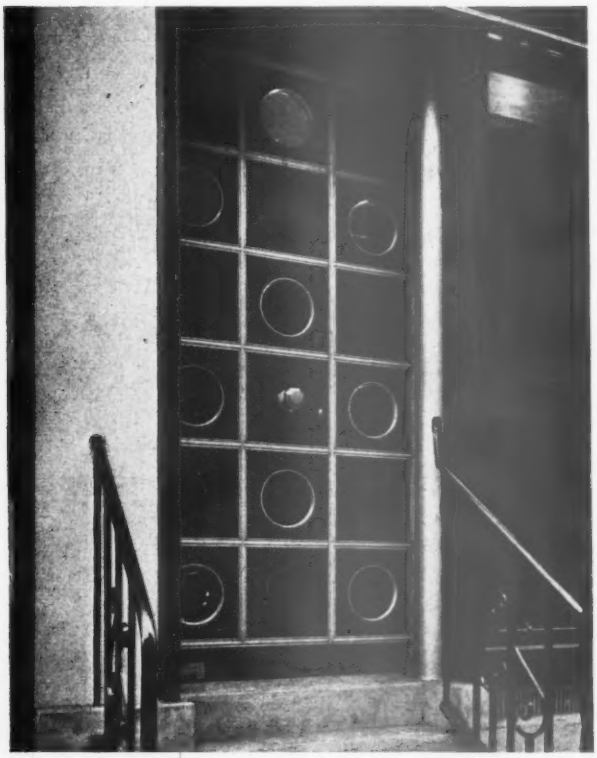
Third floor plan



Second floor plan



First floor plan (The original offices are to the north)

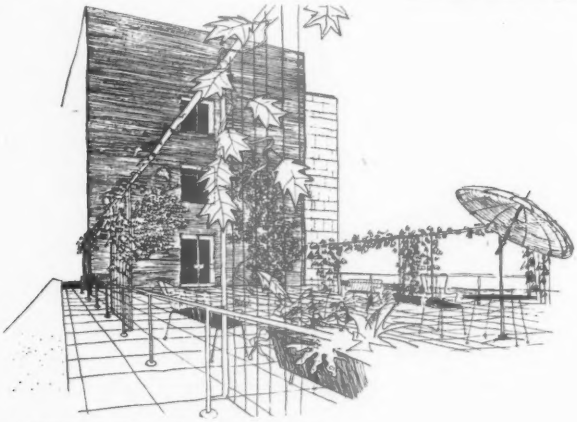


Above left, entrance to hairdressing saloon. Above right, corner of gentlemen's hairdressing department. Below right, new west facade and junction with original offices.

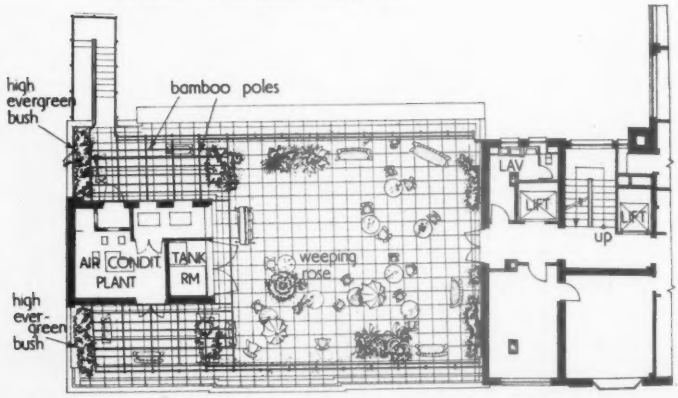
OFFICE EXTENSION

in DUKE STREET, ST. JAMES'S, LONDON, S.W.1

designed by BERTRAM CARTER



Perspective of proposed roof garden

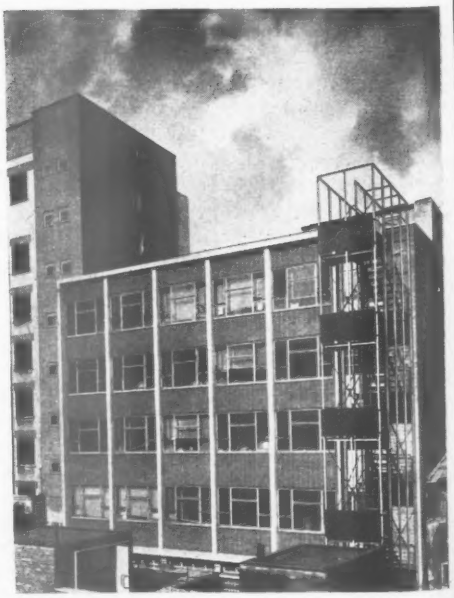


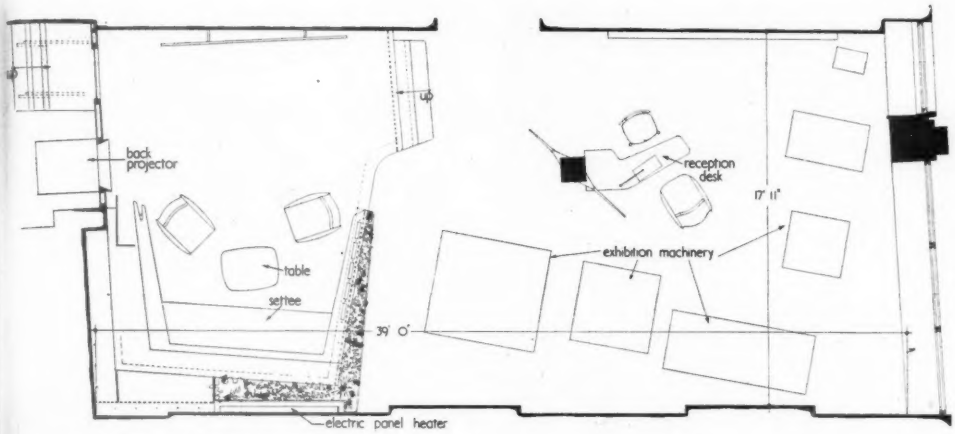
Roof garden layout [Scale: $\frac{3}{16}$" = 1' 0"]

FINISHES.—Plastered surfaces, and also door frames and skirtings are painted a mist grey throughout, but doors and flush panel electric radiators are painted a different colour on each floor.

SERVICES.—Heating, hot water and lighting are by electricity and the plenum system for heating and ventilating the board room suite is also electrically generated. A new lift has been installed between the two buildings.

The permanent showrooms, covering an area of 684 sq. ft. on the ground floor, have been designed by F. M. Gross for the display of engines manu-



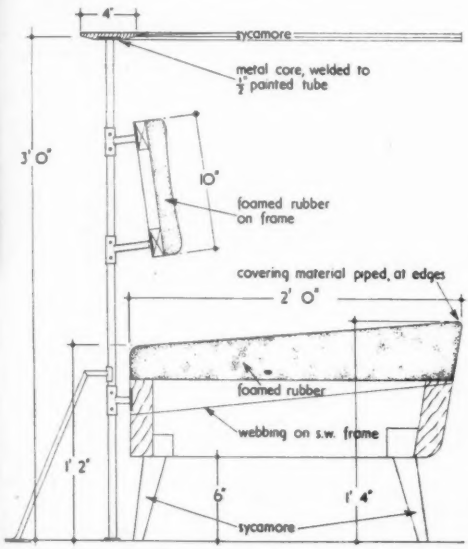


Layout of ground floor exhibition space [Scale : ¼" = 1'0"]

EXHIBITION

at OFFICES in DUKE STREET, ST. JAMES'S, LONDON, S.W.1

designed by F. M. GROSS

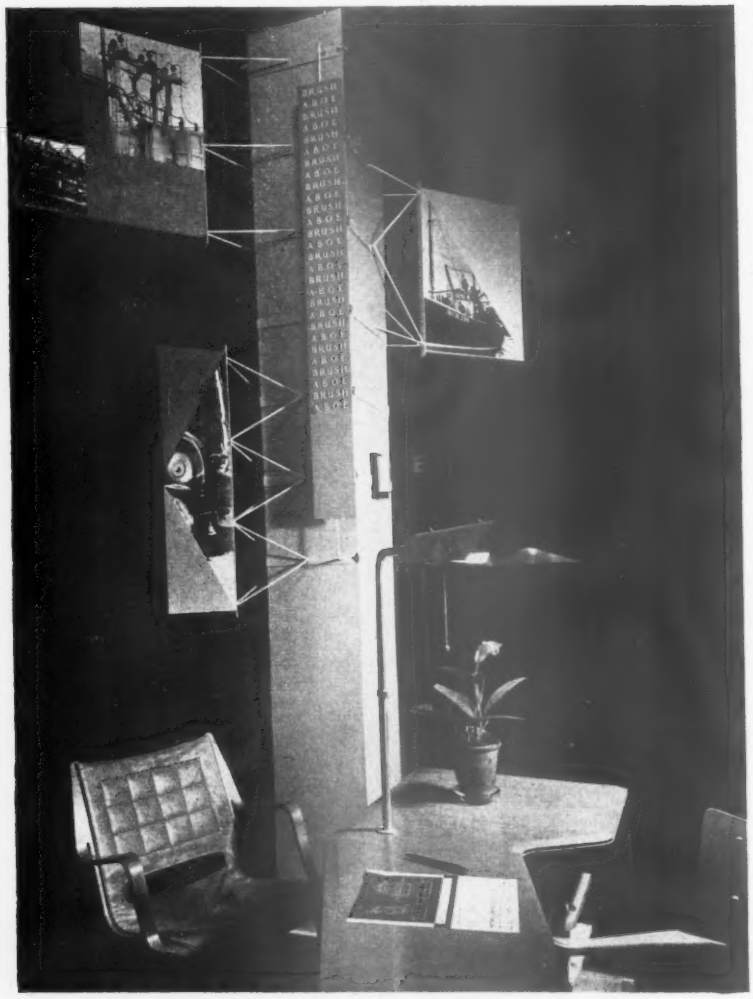


Section through settee and shelving [Scale : 1" = 1'0"]

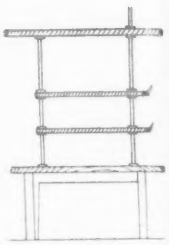
Below, two views of the raised platform in the exhibition area. One wall is covered with natural woven straw. In the bottom photograph the frame for the cine back-projector can be seen.

factured by the clients. One third of the space available contains a raised platform with seating, shelving, a cinema back projector and a large pictorial graph on one wall. The settee is upholstered in pale blue and yellow and the chairs have biscuit coloured calf skin upholstery. The column in the display area has been used for a photographic feature. Sycamore and abura are used for the receptionist's desk and shelving on the platform. Next to the showroom are two show windows, one containing an abstract design of a hand, made of silicon rod, turning a globe.

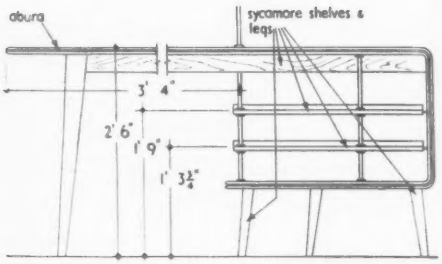
The general contractors were Trollope & Colls Ltd. For sub-contractors see page 270.



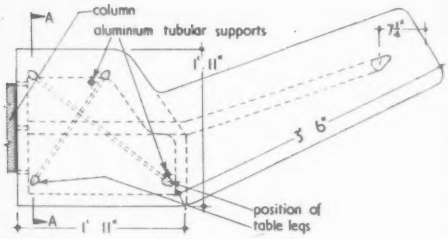
Left and bottom right, two views of the receptionist's desk in the display area, made of sycamore and abura. Bottom left, window display showing abstract design in silicon rod.



Section A-A



Back elevation of desk



Plan of reception desk [Scale : ½" = 1' 0"]

EXHIBITION

at OFFICES in DUKE STREET, ST. JAMES'S, LONDON, S.W.1

designed by F. M. GROSS

WORKING DETAIL

SCREENS AND FLOWER BOXES: RESTAURANT IN LONDON, W.1

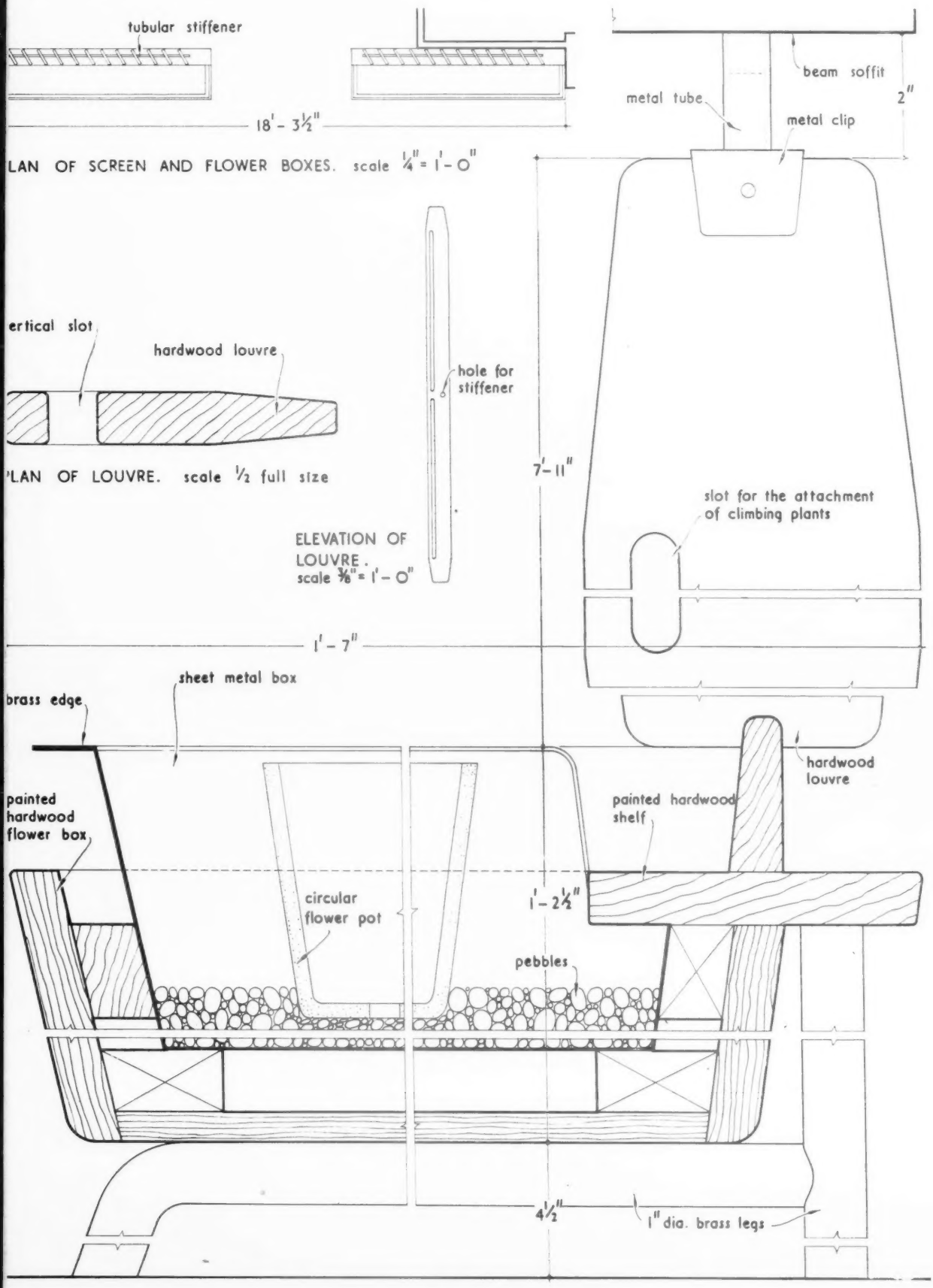
Jacques Groag, architect

The vertical hardwood louvres of the screen form a support for climbing plants.

WORKING DETAIL **FURNITURE AND FITTINGS: 24**

SCREENS AND FLOWER BOXES: RESTAURANT IN LONDON, W.1

Jacques Groag, architect



VERTICAL SECTION THROUGH SCREEN AND FLOWER BOX scale ½ full size

WORKING DETAIL

STAIRCASE: HOUSE IN HANOVER, NEW HAMPSHIRE

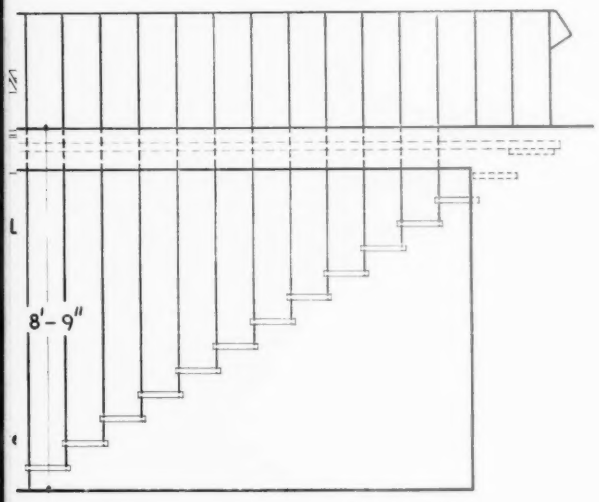
E. H. and M. K. Hunter, architects

The hardwood treads are supported at the wall on metal angles concealed behind the panelling and at the outer end by the painted rods which completely enclose the staircase.

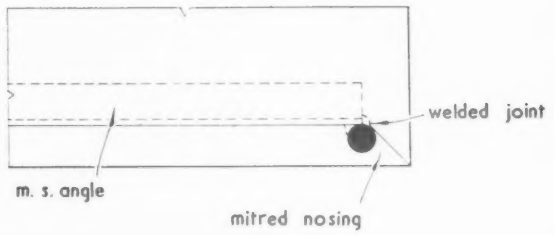
WORKING DETAIL

STAIRCASE: HOUSE IN HANOVER NEW HAMPSHIRE

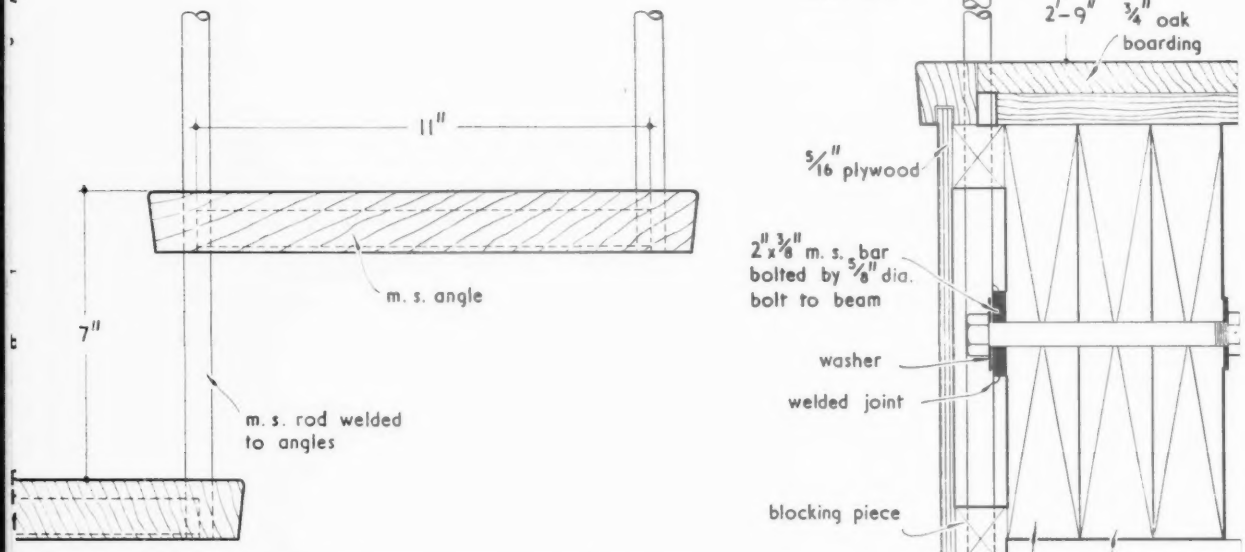
JE. H. and M. K. Hunter, architects



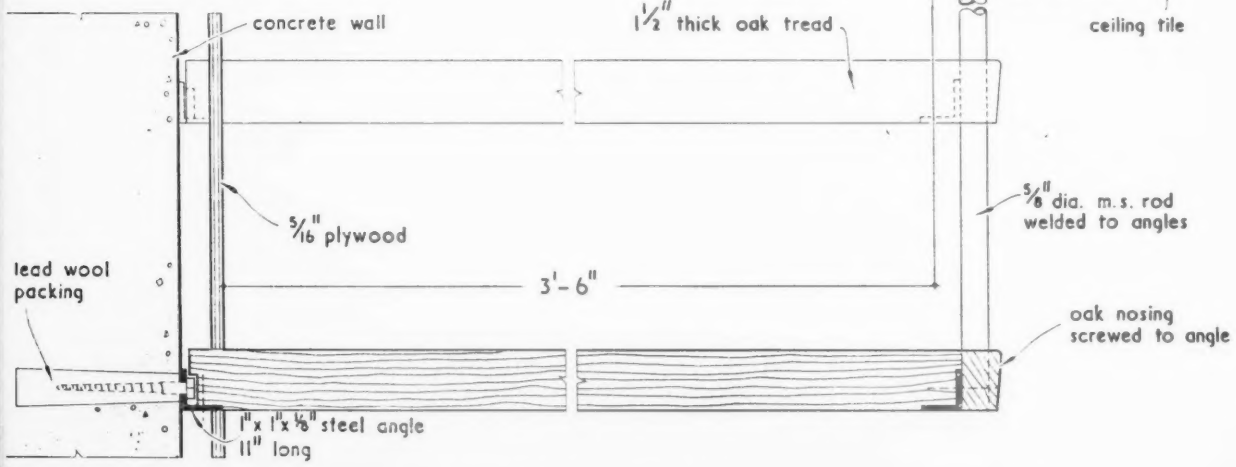
ELEVATION OF STAIR. scale 1/4" = 1'-0"



PART PLAN OF TREAD.



LONGITUDINAL SECTION THROUGH STAIR. scale 1/4 full size



CROSS SECTION THROUGH STAIR AND HANDRAIL. scale 1/4 full size

TECHNICAL SECTION

From Australia comes confirmation of the importance of the problem of relating building prices to building costs, referred to on this page in the JOURNAL for July 10, 1952. In his address, as retiring chairman, to the Melbourne Division of the Institution of Engineers, Australia, Ian Langlands stated that " the increases in wages and costs of materials [in Australia] are insufficient to account for the fourfold increase in costs " [from 1939 to 1952].

Mr. Langlands listed four reasons for high building costs in Australia. They are equally applicable in this country. It is, therefore, worth while repeating them : " Low productivity of labour [in Australia, as here, this is only two-thirds of what it is in the USA], delays due to the inadequate supply of materials, inefficient organization on the part of the builder and increased profits."

Ian Langlands recommended that an Australian team of builders, operatives and professional men be sent to America to study the building industry there. It is now three years since the British team visited the United States; can we fairly claim that we have taken advantage of this three-year lead we have on our Australian colleagues ?

This week's survey

23 HEATING AND VENTILATION
domestic heating: recent developments

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

In their joint survey of recent developments in the field of domestic heating. Dr. J. C. Weston and G. D. Nash, both of BRS, deal with theoretical concepts of heating efficiency, new systems of domestic heating, including, in particular, various methods of utilising convected warm air, and recently developed heating appliances.

In recent years there have been many developments in the design of appliances and systems for house heating, both in the laboratories of appliance manufacturers and in those of organizations such as the CUC and the North Thames Gas Board. Based on the recommendation of the Simon Committee, particular attention has been given to the development of fires which will burn smokeless fuel and will also remain alight for long periods unattended. This necessitates careful control of the supply of combustion air to the fire, a feature which is of advantage also when, as is usually the case, house coal is burnt instead of coke. Many of these modern solid fuel appliances not only provide radiant heating, but also supply warm air by

convection; gas fires with this facility have also been developed.

Methods of whole house heating by radiators, panels, or warm air have received much attention, and very efficient boilers particularly suitable for such systems are now available.

At the same time, much research has been carried out by BRS to provide comparative data on the performance of established methods of house heating, and, in particular, those suitable for houses with a floor area of between 800 and 1,000 sq. ft. These data enable architects to know accurately the performance likely to be achieved by a particular system and, incidentally, are valuable to the designers of appliances and heating systems. The work has been carried out both in unoccupied and occupied houses on the experimental housing site at Abbots Langley, and elsewhere, and it now covers most aspects of the problem. Progress reports ([1] [2] [3] [4] [5])* have been published from time to time giving information on such matters as efficiency, cost and ventilation rates.

CONCEPTS OF EFFICIENCY

Before reviewing the present position it may be helpful to consider what is meant by the "efficiency" of domestic heating systems. Although this is of fundamental importance there exists much confusion, inadvertent and deliberate, concerning the significance of various definitions of efficiency, but a recent paper by Fox[6] of the Fuel Research Station has done much to clarify this issue. Three main definitions are considered—"test bench efficiency," "room efficiency" and "system efficiency"; each is the ratio of the "useful heat obtained" to the heat in the fuel consumed, but it is in defining the "useful heat obtained" that the differences occur. For "test bench efficiency," laboratory measurements are made of the heat output, but such measurements may be rather circumscribed; for example, in the case of an open fire without special provision for convection heating, only the radiant heat output is measured and no allowance is made for the heat gained by convection from the appliance and its surround. On the other hand, the withdrawal of heated air from the room by an open fire, due to the "pull" of the flue, is not taken into account. This may often be between 6,000 and 10,000 cu. ft./hr.; for a stove the figure is between 2,000 and 3,000 cu. ft./hr. Clearly "test bench efficiency" has restricted application, but it is valuable for comparing one appliance with another of the *same type*; it is not intended to provide comparisons between different types of appliance, nor, although it is often misused for this purpose, does it give the "efficiency of domestic heating."

To overcome some of these difficulties the concept of "room heating efficiency" has been introduced—in this case, only that part of the heat output from the appliance which is "useful" to the room under consideration is taken into account, so that for an open fire, for example, the loss of heat due to excessive ventilation is not ignored.

HEAT GAINS

In a house the flue—particularly if it is on an inside wall—acts as a useful source of heat, and Weston[1] has shown that the heat gained from the flue in a well-insulated house can be so substantial that, together with other adventitious gains, such as those from cookers and water heaters, it is sufficient to provide background heating in bedrooms. This bedroom heating is "useful" and some allowance should, therefore, be made for it in calculating efficiency. For this reason Weston suggested "system efficiency," which is the ratio of the total heat produced in the house (in *all* rooms) to the heat in the fuel consumed in *all* appliances in the house. The "system efficiency" for many conventional heating arrangements has been shown to be above 50 per cent.[7]

From the architect's point of view, "room efficiency," giving the useful heat in the room, and "system efficiency," giving the total heat in the house, are more pertinent figures than "test bench efficiency."

EFFECT OF RADIANT HEAT

Although "room efficiency" takes account of most features of an appliance, personal comfort must be the ultimate criterion, and other factors, such as temperature gradients, air movement and the relative proportions of radiant and convective heat, play an important part in determining this. Where an appliance heats mainly by convection it has been found that higher room air temperatures are required for comfort than where there is a substantial amount of radiant heat. This has been considered in the relevant BS C of P[8] in which it is suggested that in calculating the heat requirements of a room a reduction of 10 per cent. should be made where the appliance provides a substantial proportion of its heat by radiation.

COST AND CONSUMPTION

Recently published papers have shown that domestic heating cannot be considered solely as a technical problem of efficiency and consumption, but that it is also a social problem involving personal preferences and people's ability or willingness to pay for the service required. The question is not, therefore, how are we to provide certain arbitrary standards of heating, but how can we obtain the best service possible with a limited expenditure? This has been emphasized by BRS experiments with the houses at Bucknalls Close.

In these eight houses the tenants' fuel was subsidized to the extent of 66 per cent., 33 per cent., and 10 per cent. in the first, second and fourth years of the experiment respectively, no subsidy at all being given during the third year. It was found that as the price of fuel to the tenant increased, the amount used decreased; the tenants spent more on fuel, but they did not spend sufficient to offset the rise in price. Hence, as the cost of fuel went up temperatures in the houses fell. The temperature difference (inside to outside) during the first year was 18° F.; during the third year it was only 11° F. These results, together with other similar data, indicate the effect on house temperatures of changes in the cost of heating.

INSULATION

Not only fuel prices, but also increased efficiency, and improved thermal insulation, reduce the cost of heating and result in higher standards of heating. The figures quoted above suggest that if, by improved insulation, for example, the cost of heating a house, per degree rise in temperature, is reduced, higher temperatures will be maintained in the house and probably two-thirds of the fuel saved by the extra insulation will be used to raise the temperature of the house; only one-third really being saved. It is not suggested that thermal insulation is not valuable (full scale experiments confirm its value), but the amount of fuel saved by extra insulation should not be over-estimated.

HOW MUCH INSULATION?

What is the greatest degree of insulation attainable without excessively increasing building costs? Apparently, as much insulation as will reduce the "U" value for the external shell of a house to between 0.20 and 0.25. For ground floors this can be achieved by using a solid floor; for a normal pitched roof, by the addition of an insulation layer of slag wool, glass wool, aluminium foil or similar materials at ceiling level; for walls, by the use of a suitable lightweight concrete for the inner leaf of the cavity wall, which is often cheaper than using brick. The overall difference in cost resulting from these modifications to the wall and roof construction is slight, but the loss of heat per degree rise in temperature is reduced by about 20 per cent. The use of windows that fit well and the provision of weatherstripping for external doors will reduce heat loss by a further 13 per cent. A method now exists of assessing the reduction of heat loss resulting from the insulation of walls, floor and roof. This

* See list of references on page 267

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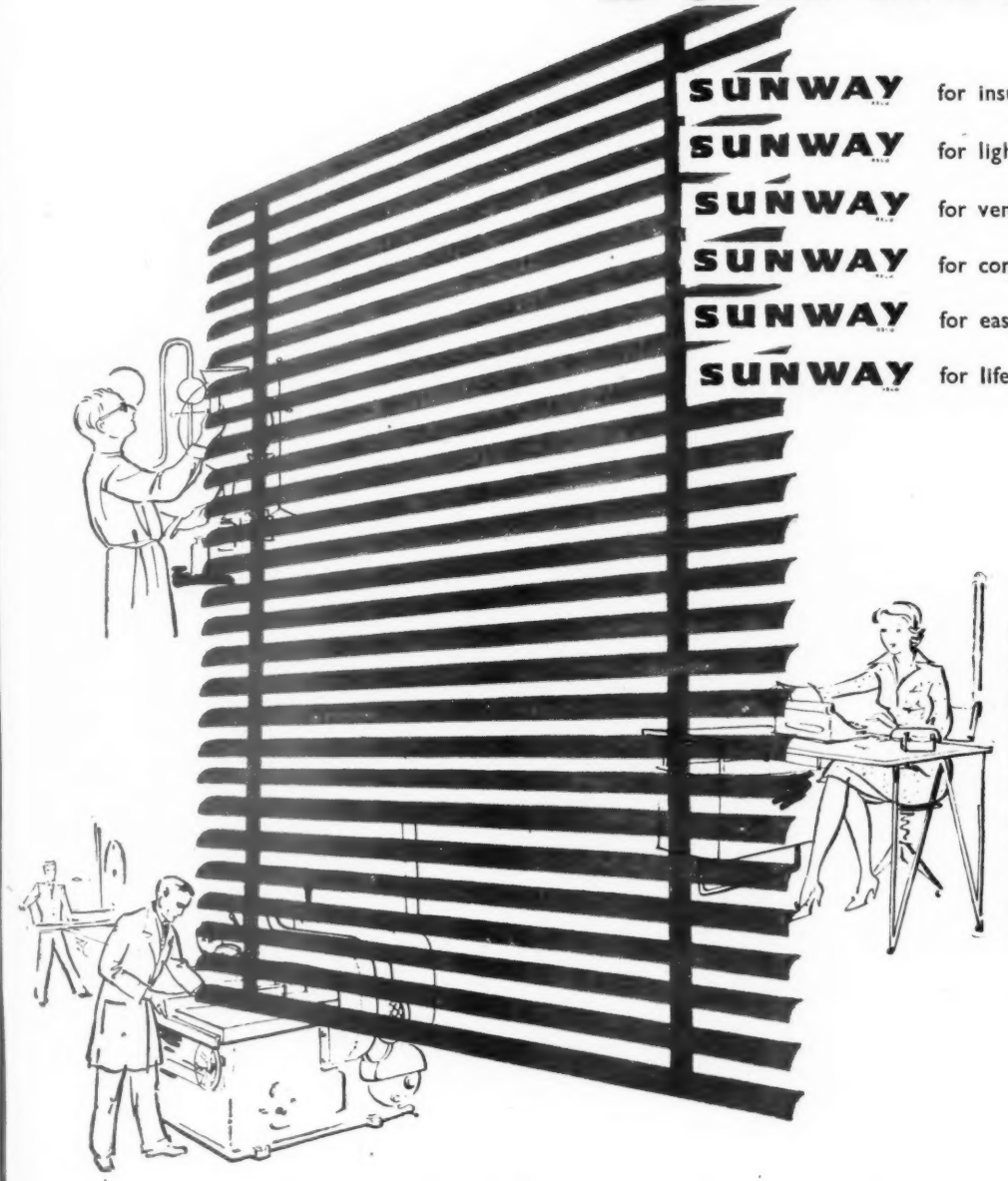

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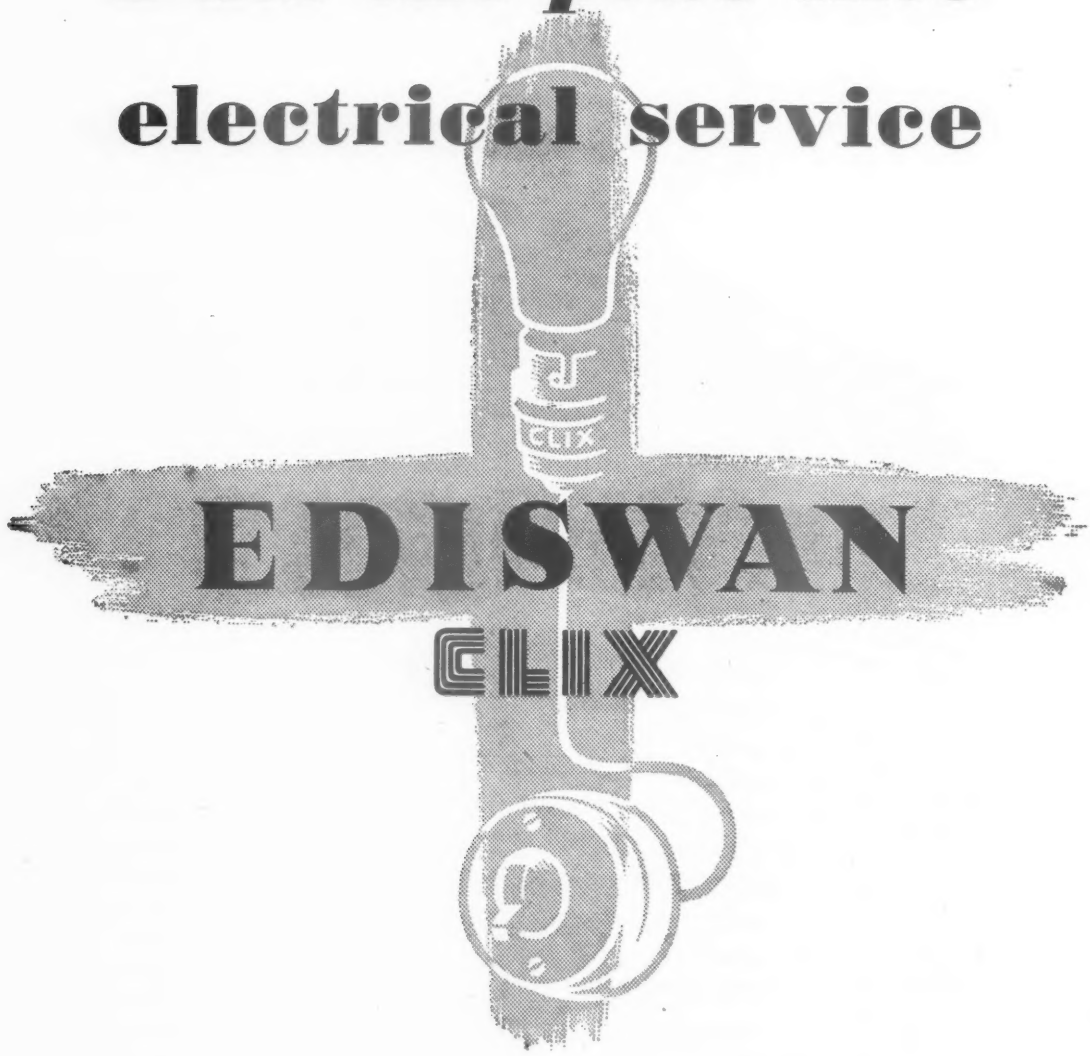

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enables the relative merits of various roof and wall treatments to be determined.[9 10]

THERMAL CAPACITY

The thermal capacity of a building, which is an index of the amount of heat which is stored in the structure, including that stored in the internal floors and partitions, plays an important part in determining heat requirements when heating is not continuous. A building with a high capacity (*i.e.*, a heavy building) may require more heat than one of lower capacity to provide the same conditions during periods of heating. Within the range of normal house construction the difference is slight but non-traditional forms of construction increase the range. It would be reasonable to adopt the German practice of requiring buildings of low thermal capacity to have higher "U" values than other buildings, in order to reduce the rate at which the structure cools. Apart from its effect on comfort considerations, low thermal capacity may increase the danger of condensation.

HEATING SYSTEMS FOR HOUSES

It is clear that there is no one solution to the problem of domestic heating that will suit all households or all houses. For houses with a floor area of 800-1,000 sq. ft., as built by local authorities and for which cost is an important factor, it seems that a single solid fuel appliance should be used for the main space and water heating, with gas or electricity for incidental heating, cooking and auxiliary summer water heating. This represents a good compromise between convenience and efficiency. Wherever possible the flue for the solid fuel appliance should be on an inside wall so that full advantage can be taken of the heat in it. The main appliance should be either a stove or an open fire with a back boiler. If the boiler is large enough it can be used to heat one or two radiators in addition to the domestic hot water. The radiators should be placed in the kitchen and dining space rather than in bedrooms, for, as mentioned earlier, the latter will not be unduly cold in a reasonably well insulated house. This arrangement can provide an adequate service economically and without excessive first cost. A householder with small financial resources can economize by shutting off the radiators and heating only the main living room.

An important point brought out by the study of systems of whole house heating[7] is that it is not desirable to provide poor people with a heating system which, though efficient, cannot provide a limited service for low expenditure when required. It has been said that "greater hardship results from putting a family whose expenditure on heating must be small into a house with whole house heating, than from putting a family which prefers a house that is warm throughout, and can afford to pay for the heating, into a house with a modern open fire warming only the ground floor. The family which does not want the whole house heated is being required to pay more than it wishes and, moreover, the service provided does not give satisfaction, particularly in depriving the family of what it regards as the essential comfort of an open fire."[11]

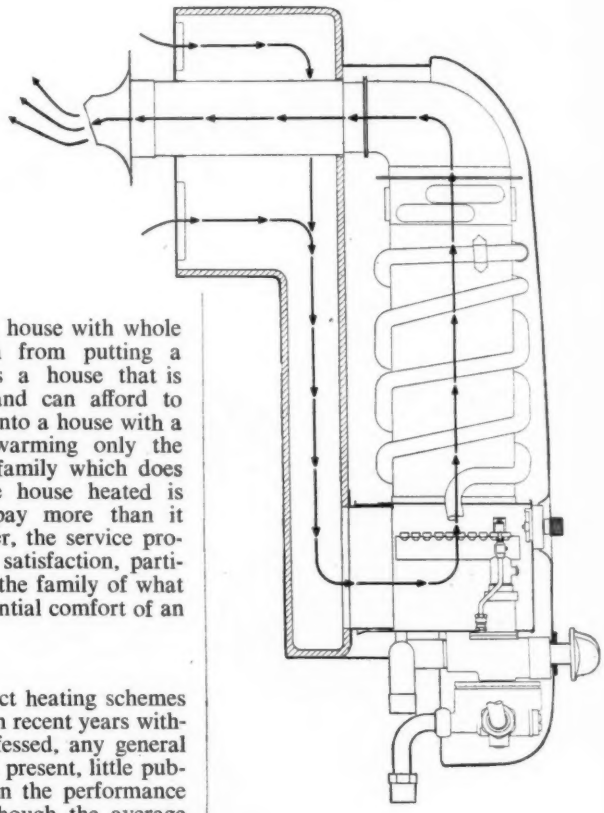

Fig. 1, diagram showing circulation of fresh air and products of combustion through the enclosed ducts of the "Ascot" balanced flue water heater.

DISTRICT HEATING

A number of district heating schemes have been installed in recent years without, it must be confessed, any general success. There is, at present, little published information on the performance of these schemes, though the average annual fuel consumption on one typical estate was 6·8 ton per dwelling. Information which is available indicates that district heating is not suitable for low density housing estates, nor are normal boiler house schemes sufficiently efficient. For high density estates, such as Pimlico, where use is made of waste heat from electricity generation, there is more hope of success.

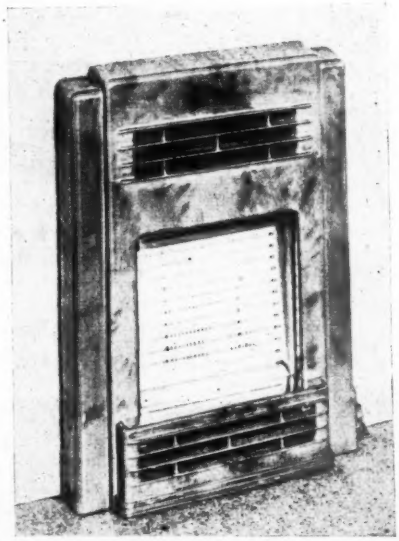

Fig. 2, gas fire designed to provide convected warm air in addition to radiant heat. (General Gas Appliances Ltd.)

MODERN APPLIANCES

The list of "Recommended Domestic Solid Fuel Appliances,"[12] issued by the CUC, represents an important step forward in the improvement of domestic heating, since the architect can be sure that all appliances in it conform to specified requirements and standards of performance. For some types, notably boilers, data on the rating are also given to assist in the selection of appliances of adequate size for any particular system. The latest C of P[5] gives a method of calculating the heat requirements of a room and, as rating data become available, rational sizing of appliances becomes possible for the first time. The present absence of ratings for many of the appliances is, undoubtedly, a great disadvantage.

The CUC list includes many appliances designed to provide convected warm air—one of the principal features of post-war design. Much has been claimed for the convection output of some of these appliances, but it should be realized that the output is very limited. If such an appliance is used in a room which is, say, 200 sq. ft. in area and which has a calculated heat requirement in excess of 9,000 BThU/hr., it is better to use the available warm air in this room rather than elsewhere in the house.

Recently developed magazine boilers which burn only graded fuels, such as selected anthracite, or, in some cases,

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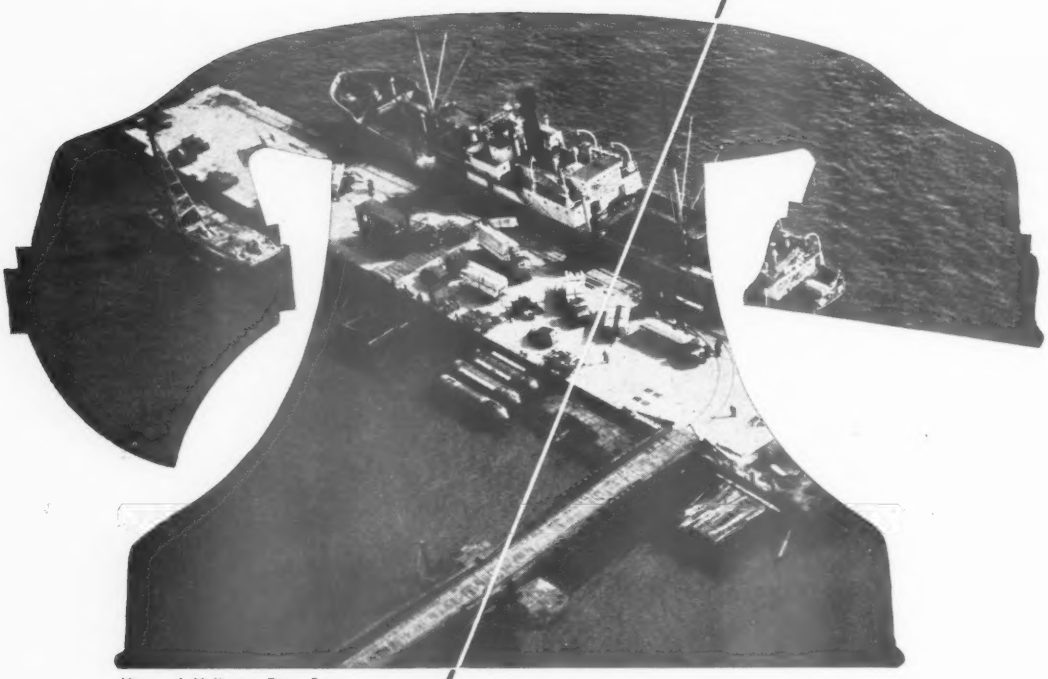

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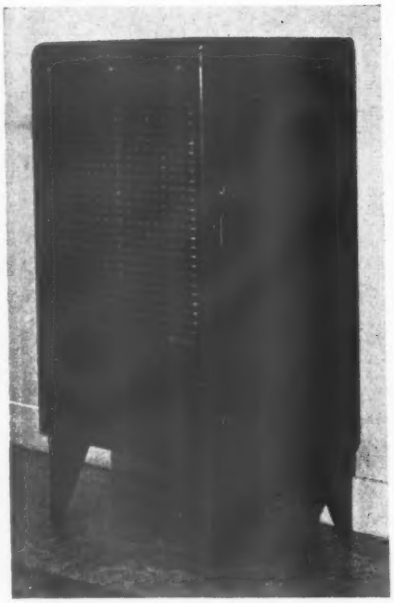


Fig. 3, "Weatherfoil" warm-air heater cabinet. (Weatherfoil Heating Systems Ltd.)

coke, are very efficient and represent a great advance in the design of domestic heating appliances.

GAS APPLIANCES

The balanced flue is now incorporated in an instantaneous gas water heater (Fig. 1) and in space heaters. The inlet for the combustion air is adjacent to the outlet for the flue gases; hence, both inlet and outlet are subject to the same external pressure, enabling the "pull" of the flue to function satisfactorily. It is necessary to provide only an opening in the wall behind the appliance for the short length of inlet and outlet ducts incorporated in the unit. This is a great advantage, particularly for blocks of flats where the use of long flues for these appliances is thus avoided.

A gas appliance which does not appear to have received the attention it deserves is the convector gas fire (Fig. 2), an efficient appliance giving a reasonable combination of convected and radiant heat.

FORCED WARM AIR

Among the methods of whole house heating which have been developed in recent years are those based on forced warm air. There are two main forms: in one, a finned unit, through which water heated by a boiler is circulated, is placed in a cabinet and a fan is used to blow air over the unit (Fig. 3). This method is particularly appropriate for open-plan houses in which the only enclosed room on the ground floor is the kitchen and where the staircase rises directly from the living space.

The other method of forced warm air heating uses a furnace cabinet within which the flue, designed as a heat exchanger, heats the air which surrounds it. The heated air is blown by means of a fan either directly or through ducts to selected positions in the house; the number of outlet registers depending on the extent to which an open plan is used. Incidentally, the furnace used employs the "downdraught" principle; the combustion air and the volatile material pass downwards through the hot fire-bed, thus assisting combustion. [This appliance (Figs. 4 and 5) will burn most fuels, including bituminous coal, efficiently and relatively smokelessly.] This same principle has been used in an appliance which combines the appearance of an open fire with the performance of a stove, the fire being "seen" as a reflection in a polished metal hood (Figs. 6 and 7).

FLOOR AND CEILING HEATING

Considerable interest has been shown in floor heating in recent months. The method usually adopted is to lay hot-water pipes at 6-in. - 12-in. centres in the ground floor screed. The advantages of the system are cleanliness, the comparative absence of floor draughts, and the small vertical temperature gradients. However, it is difficult, unless the house is well insulated, to provide sufficient heat from the floor alone if its surface temperature is not to exceed 75° F., which is usually considered to be a desirable maximum. The addition of an open fire for use in very cold weather is one way of overcoming this. Ceiling heating has not been widely used in houses; one of the difficulties is that a heated ceiling near the head may give rise to discomfort and recent research by Bedford suggests that for ceilings below 9 ft. in height much care must be taken in arranging the panels.

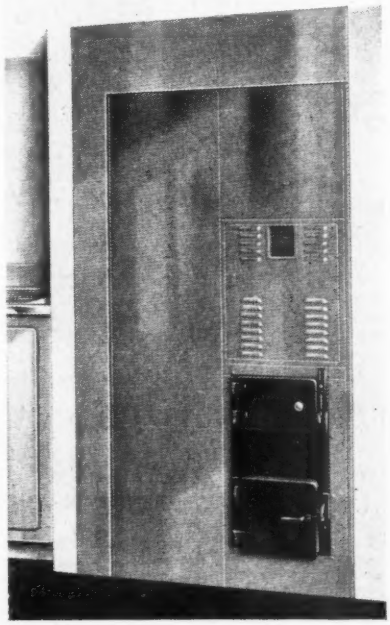
A system which combines the advantages of floor heating with an adequate output has been used recently both in the USA and in Sweden and appears to be a promising development. A furnace or heater unit situated centrally in the house supplies heated air to a system of under-floor ducts and thence to a perimeter duct which has controllable outlets into the room. Thus, there is a combination of warm air and floor heating, since the under-floor duct effectively heats the floor for some distance on either side.

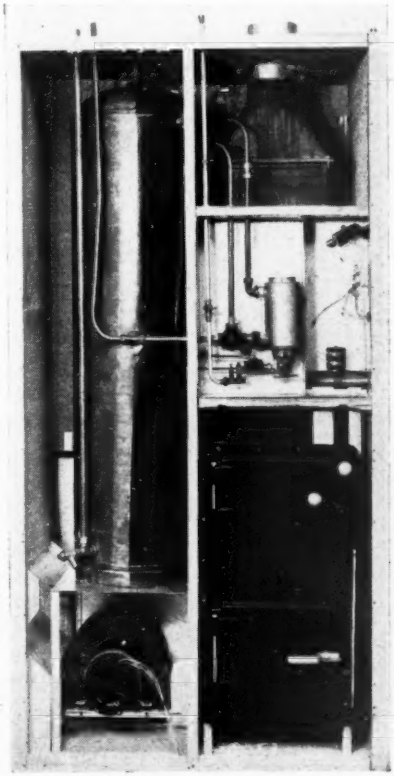
Another recently developed method of house heating is the skirting board, or, as it is known in America, the base-board, system. A panel or convector, 9-12 in. high, provides the heating; being placed at the normal position for a skirting it is unobtrusive. The little evidence available suggests that this is another promising system.

CONCLUSIONS

Many of the new appliances are highly efficient when burning coke, but the shortage of this fuel emphasizes the need for coal-burning appliances of equal efficiency.

The traditional preference in this country for open fires suggests that





Figs. 4 and 5, "Radiation" solid-fuel, down-draught, cabinet heater. Above, exterior view from kitchen side; right, interior. (Radiation Ltd.)

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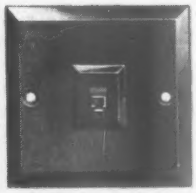
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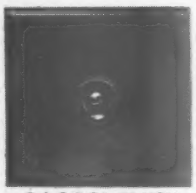
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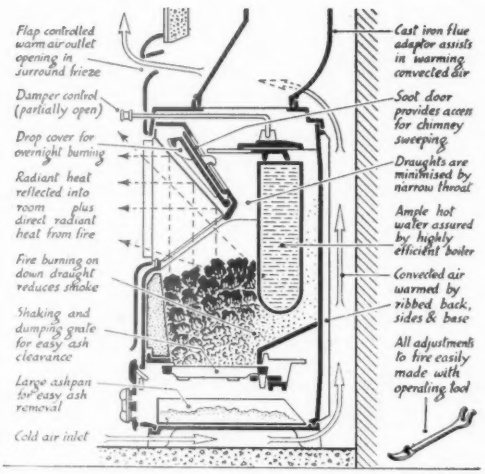

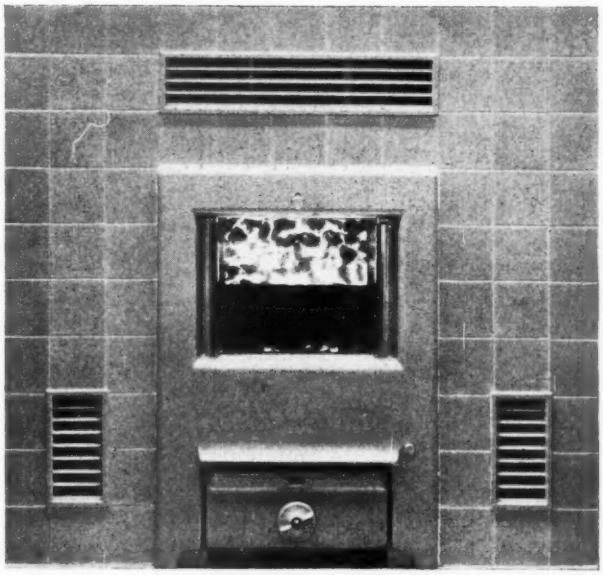

Figs. 6 and 7, section through and front view of the Type 32 "Raymax" down-draught convector fire. (Radiation Ltd.)

their essential features should be preserved, but that improvements should be made, probably by such means as a controllable damper or an otherwise restricted chimney throat, to reduce excessive withdrawal of heated air from the room. In addition, greater attention should be given to the development of fires which will provide convected as well as radiant heating to the room in which they are placed; such appliances are needed both for new housing and to replace, at a moderate cost, existing less efficient units.

REFERENCES

[1] Weston, J. C. *Heating Research in Houses.* (Journal of IHVE, 1949, **17** (149), 135-67.)

[2] Weston, J. C. *Domestic Water Heating.* (Journal of IHVE, 1950, **17** (75), 517-53.)

[3] Dick, J. B., Thomas, D. A. *Ventilation Research in Occupied Houses.* (Journal of IHVE, 1951, **19** (14), 306-26.)

[4] *Principles of Natural Ventilation of Buildings.* (BRS Digest No. 34.)

[5] Weston, J. C. *Heating Research in Occupied Houses.* (Journal of IHVE, 1949, **19** (189), 47-108.)

[6] Fox, L. L. *Efficiency of Domestic Space Heating Appliances Using Solid Fuel.* (Journal of Inst. Fuel. To be published shortly.)

[7] Lant, F. C., Weston, J. C. *An Investigation of Whole House Heating.* (Journal of Inst. Fuel. May 1952, **25**, pp. 109-114.)

[8] *Open Fires, Heating Stoves and Cookers burning Solid Fuel.* (Draft CP (B) 1006. To be published shortly as BS, C of P 403, 1952.)

[9] Weston, J. C. *Heat Requirements of Houses.* (Journal of IHVE, 1951, **18**, (185), 388-98.)

[10] *Heat Loss from Dwellings.* (BRS Digest No. 35.)

[11] Green, R., Milroy, E. A. *House Heating and the Tenant.* (RIBA Journal. Future issue.)

[12] *Recommended Domestic Solid Fuel Appliances.* (CUC. Dec. 1951.)

RECENT INFORMATION CENTRE ITEMS ON DOMESTIC HEATING

Domestic heat pumps ...	23.159:	3.7.52
Warm-air heating ...	23.158:	29.5.52
Domestic solid fuel appliances	23.157:	17.4.52
Skirting heating	23.156:	24.1.52
Heat loss from dwellings	23.154:	20.12.51
Gas-fired boilers: installation of	26.96:	20.12.51
Domestic heating: use of electricity for "topping-up"	23.153:	13.12.51

See also: Centralized Services v. Individual Appliances, 10.7.52, p. 55.
An Economical Open Fire, 10.4.52, p. 465.
Domestic Floor Heating, 31.1.52, pp. 161-164.

QUESTIONS & ANSWERS

3060 PRIVATE ROADS AND SEWERS

Q. *I am considering the purchase of some land in a small cul-de-sac on the outskirts of a town. There are two points on which I would welcome your comments.*

The land is a plot suitable for the erection of a house, and is surrounded by six other houses, the road being served by a private sewer. The sewer is private in so far as it was made when the houses were erected by a firm of contractors and, presumably, its cost was included in the price of the houses. It has not been taken over by the council.

In the event of my wishing to take the drains of my house into this sewer, am I correct in starting excavations in the road and linking up without informing the owners of the other houses?

The site is a shallow one, but has a frontage of about 200 ft. In the event of the road being taken over in the future, I shall, obviously, have a large bill to pay. The other houses have deep gardens but frontages of about 40 ft. Am I correct in believing that I shall not have to pay the full charge per foot run of frontage, and that I shall probably get a reduction because of the abnormal frontage?

A. Liability for road charges is now dealt with by the New Streets Act, 1951, which came into force on October 1, 1951. Under this Act, any owner of land proposing to build on land fronting a private street must pay, or secure, to the local authority the amount which they estimate is the charge for making up and completing the roadway and services. There is a provision that the local authority may take a smaller amount (which gives them power to adjust the charge where, as here, the frontage is disproportionate to the depth) and there is a right of appeal to the minister. In view of this Act, the applicant will, obviously, have to see the local council at an early stage.

With regard to the sewers, where a combined drainage scheme was put into operation before September 30, 1937, it automatically became vested in the local council and, thus, an adjoining owner would have a right to connect to it. If it were made after then, the local council can take it over if they wish. The circumstances in a particular case can, obviously, only be found out by enquiry to the local council. If the sewers are not taken over, the applicant will have to obtain permission from the adjoining owners before he can connect. In general, these are the kind of enquiries that a solicitor for the applicant would make from the vendor before any contract to buy the land was signed. The applicant should, certainly, get them cleared up, and checked with the local council, before he signs any agreement to buy.

PAINTING ALUMINIUM WINDOWS (Addendum to Q & A 3059).

We have received the following comment from ADA on Q & A No. 3059 (JOURNAL *for July* 17, 1952):—

It is wise for users of aluminium to seek the fullest information from manufacturers, but one cannot endorse the suggestion that "aluminium alloys vary widely" with the implication that painting practice will be different for the various materials. In fact, the range of aluminium alloys is no greater than the range of, say, steels and the same type of primer is used for all.

Experience shows that zinc chromate primers are the best for aluminium and its alloys, and excellent "paint life" is obtained provided that proper surface preparation is given, *e.g.*, by abrasion, suitable chemical treatment or by applying a special "wash" primer beforehand. Any undercoat and topcoat may then be applied, provided that they are compatible with the primer and with each other. The same methods will also suffice for protection against any slight action which mortars and cements may have on aluminium window frames.

Full information on methods of painting aluminium can be obtained from ADA.

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THE INDUSTRY

From the Industry this week Brian Grant reports on an original type of louvred ceiling lay-light, and a fool-proof safety device for gas boilers and reminds readers of an important difference between the old and the current BSS for copper traps.

LIGHTING FITTINGS

The Edison Swan Electric Co. has produced an original type of recessed louvred ceiling laylight which should prove useful for installation in hotels, public buildings, picture galleries or museums, where the use of ladders might be dangerous to visitors or exhibits. The installation shown was produced for the British Electricity Authority, who asked that the laylights, which were to be mounted at a height of 14 ft. above floor level, should be arranged so that servicing could be carried out by a single person, without ladders, and at floor level. They also asked that the heavy louvre section should be readily detachable.

The laylight consists of a fixed outer frame in which is hinged a sub-frame carrying the lamps and reflectors. The hinged frame has a louvre fitted within it as a sliding extension which opens progressively as this frame is opened. Similarly, when closing the laylight the louvre is retracted as the hinged frame swings upwards. The whole operation of opening or closing the hinged frame and lowering or raising the louvre is automatically controlled in either direction by a self-sustaining hand winch.

In the closed position the unit is secured at its free end by an automatic catch and has the appearance of a normal recessed louvred laylight. When the unit is to be opened for cleaning or for replacing lamps, the catch is released simply by hooking on to it an end-loaded light alloy tube and, as the winch is rotated, the laylight frame and extension louvre section swings down to the vertical position. When the louvre section reaches the bottom of its slide the lamps and interiors of the unit are readily accessible and, if necessary, the louvre section can be easily detached.

The control gear is mounted directly on the steel structure of the ceiling in the form of unit assemblies each feeding one lamp. Special plug-and-socket connections to the supply and lamps allow rapid tests to be made for the replacement of any defective lamp or component.

The principle of operation, which depends only on a simple winch and pulley gear, is applicable to all sizes of louvred or glazed laylight fittings and the cost is proportional to the size of fitting involved. There is, of course, no reason why the winch wires should not be concealed. (*Edison Swan Electric Co. Ltd., 155, Charing Cross Road, London, W.C.*1.)

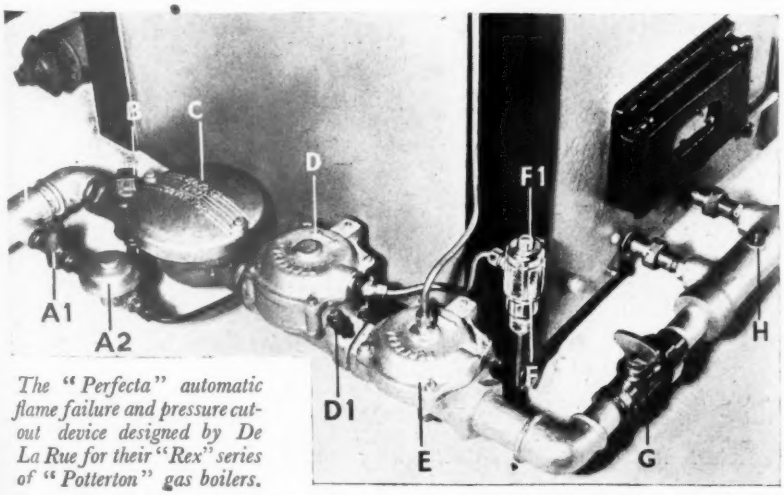
CONTROLS FOR GAS BOILERS

Reference was made on this page recently to an automatic safety device for fitting to oil-fired boilers, and readers may, therefore, be interested in a comparable device for gas-fired boilers. With many types of safety equipment it is possible for the device itself to fail (often without any indication that it has done so) and this is even more dangerous than having no safety equipment at all.

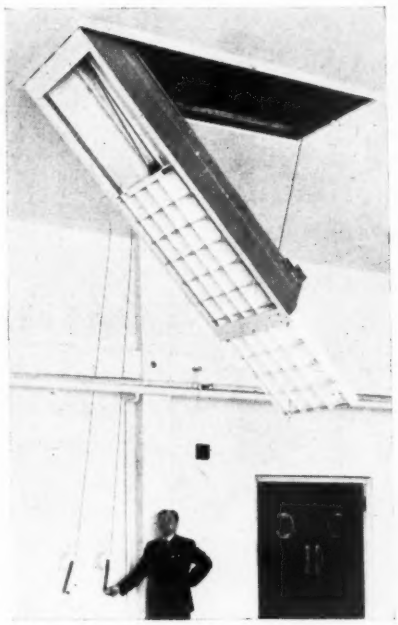
Messrs. De La Rue have recently developed a control, for use with their "Rex" series of "Potterton" gas boilers, which guards against gas pressure failure (less than 1-in. water gauge) and against the failure of the pilot flame itself. Either failure cuts off the supply of gas, which cannot be restored without going through the complete drill for lighting.

Before the gas supply can reach the burners the pilot flame must heat up the thermo-couple of the thermo-electric valve (F)—a process which takes about 30 seconds and produces enough current to energize an electromagnet. The operator then presses the plunger on this valve (F1), which is held by the electromagnet. This allows gas pressure to build up in the pressure cut-off valve (D). When sufficient pressure has accumulated the operator presses another plunger (D1) and the main gas supply is allowed to pass through, and when the burner cock (G) is opened the burners will light. The whole procedure sounds somewhat complicated, but it is quite simple to learn, and the system has the great advantage that if any individual unit should fail the main gas supply is cut off, and cannot be reinstated without going through the whole lighting procedure again, including first turning off the main burner cock (G) so that pressure can be built up inside the pressure cut-off valve (D).

This device can be fitted to existing "Potterton" boilers with a minimum of trouble. The firm, incidentally, has just issued a new catalogue listing its complete range of boilers, which are made with outputs up to 1¼ million B.Th.U. per hour. (*Thomas De La Rue & Co. Ltd., Imperial House, 84/86 Regent Street, London, W.*1.)



The "Perfecta" automatic flame failure and pressure cut-out device designed by De La Rue for their "Rex" series of "Potterton" gas boilers.



The "Ediswan" recessed louvred ceiling laylight. The hinged frame being lowered and louvre section commencing to slide out of the frame.

TRAPS WITHOUT INSPECTION EYES

I have just received a letter from Econa Modern Products Ltd. which suggests that not all architects realize that traps without inspection eyes are approved by BSI. The old BSS demanded, so far as I remember, eyes in all traps, but the current one (No. 1184) allows two-piece copper traps of the type produced by Messrs. Econa to be made without inspection eyes, which this firm maintains "are ineffective and a waste of money." The firm's address is: *Aqua Works, Warwick Road, Tyseley, Birmingham.*

BRIAN GRANT

ENQUIRY FORM

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

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28.8.52.

Buildings Illustrated

Offices at 36-38, *Berkeley Square, W.*1, *for Lewis Berger & Sons Ltd.* (Pages 250-251.) Architects: Howard Souster & Partners. Consulting architects: Stanley Beard Bennett & Wilkins. Consulting engineers: G. A. Dodd & Partners. Quantity surveyors: Gardiner & Theobald. General contractor: Harry Neal Ltd. Clerk of works: Norman Bowditch. General foreman: George Williams. Stonework carving: Hamish Macpherson. Sub-contractors: Asphalt, special roofings, Rock Asphalte Co. Ltd.; reinforced concrete, patent flooring and fireproof construction, Caxton Floors Ltd.; bricks (red facings), Pratt Watford Ltd., (sand lime) Sand & Brick Co.; stone, Bath & Portland Stone Firms Ltd.; structural steel, Dawnays Ltd.; partitions, Holoplast Ltd.; glass, Froy & Sons; patent glazing, Luxfer Ltd.; floors, Korkoid Decorative Floors; waterproofing materials, Stonhard Ltd.; ventilation, central heating, Rosser & Russell Ltd.; gas fittings, North Thames Gas Board; electric wiring, clocks and bells, Berkeley Electrical & Engineering Co. Ltd.; electric light fixtures, Thorn Electrical Industries, Ltd., George Forrest & Son; electric incinerators, R. W. Knowles & Co.; air conditioning, Carrier Engineering Co. Ltd.; plumbing, Matthew Hall & Co. Ltd.; sanitary fittings, Broad & Co. Ltd., W. N. Froy & Sons Ltd.; terrazzo, Diespeker & Co. Ltd.; door furniture, H. & C. Davis & Co. Ltd.; casements and window furniture, Monk Metal Window Co. Ltd.; internal telephone system, Standard Telephone Co.; folding gates, Bolton Gate Co. Ltd.; fireproof doors, Chatwood Safe & Engineering Co. Ltd., H. & C. Davis & Co. Ltd.; iron staircases and metalwork, Kingsmill Metal Co. Ltd.; bronze doors, The Birmingham Guild Ltd.; sunblinds, panelling and furnishings, Laszlo Hoenig; armour-plate doors, Courtney Pope Ltd.; plaster, W. A. Telling Ltd.; decorative plaster, Roffé Ltd.; joinery, Harry Neal Ltd.; stonework, Bath & Portland Stone Firms Ltd.; marble, Art Pavements Ltd.; tiling, Carter Tiles Ltd.; lifts, Waygood-Otis Ltd.; ash hoist, cranes, Geo. Johnson Ltd.; lightning conductors and flagstaff, J. W. Gray & Son Ltd.; fire-fighting appliances and sprinkler system, The Automatic Sprinkler Co. Ltd.

House at Great Somerford, Wiltshire. (Pages 252-253.) Architect: Robert Townsend, A.R.I.B.A. General contractors: Martin Bros. Sub-contractors: floor tiles, Armstrong Cork Co. Ltd., laid by Gabriel, Wade & English Ltd.; cooker, Allied Ironfounders Ltd.; electric wiring, Southern Electricity Board; door furniture, Ingersoll Locks Ltd.; joinery, Jayanbee Joinery Ltd.

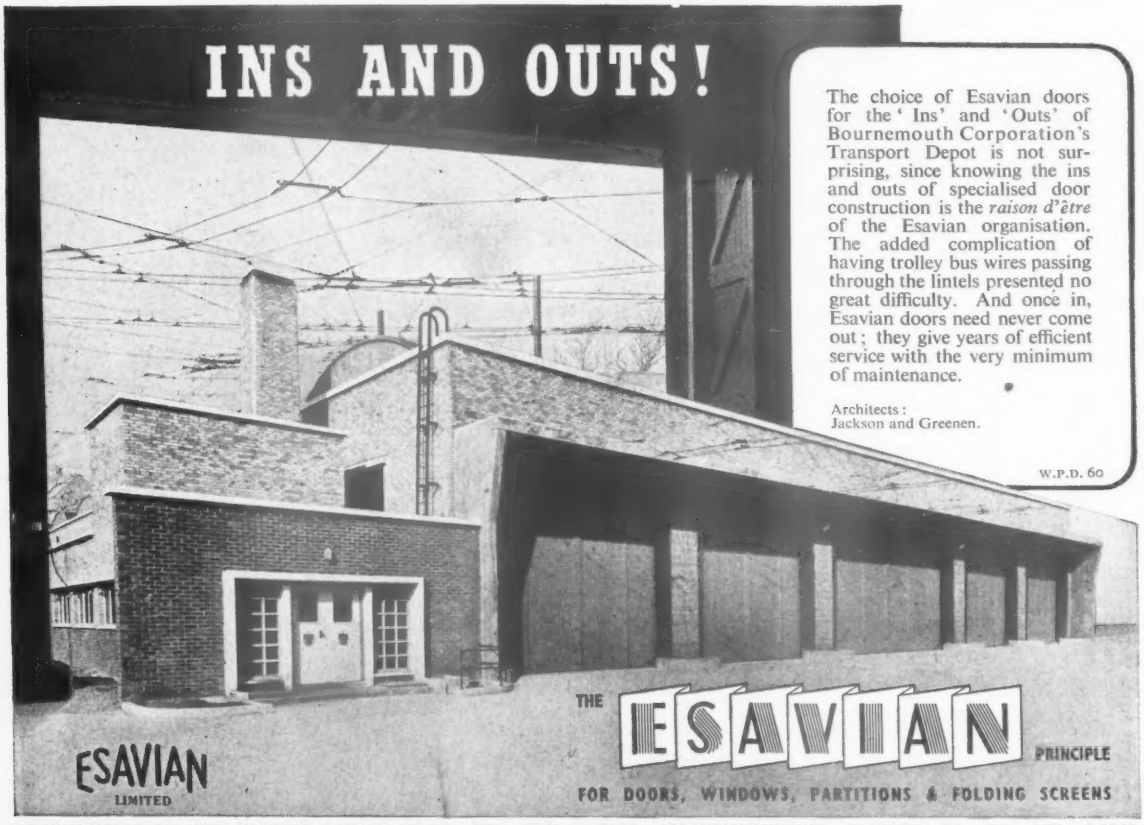
*Flats in Avenue Road, Southgate, London, N.*14, *for the Southgate Borough Council.* (Pages 254-255.) Architects: Walter W. Fisk & Sidney H. Fisk F./L.R.I.B.A. General contractors: Francis Jackson, Contractors, Ltd. Sub-contractors: tarmac paving, Ragusa Asphalte Paving Co. Ltd.; facing bricks, The Cement Marketing Co. Ltd.; flush doors, Leaderflush Ltd.; electrical installation, Tindall & Son Ltd.; reinforced concrete, Helical Bar & Engineering Co. Ltd.; floor tiling, The Armstrong Cork Co. Ltd.; gas services, Eastern Gas Board; plumbing and hot water installation, C. J. & S. H. Schooledge & Co.; ironmongery, Yannedis & Co. Ltd.; balustrades, Clark, Hunt & Co. Ltd.; foundations & piling, The Cementation Co. Ltd.; bituminous roofing, William Briggs & Sons Ltd.; sanitary fittings & fireplaces, John Bolding & Sons Ltd.; artificial stone copings, Concrete Stone Co. Ltd.; windows, Ideal Casements (Reading) Ltd.; paints, etc., Murray & Jones Ltd.; vermiculate aggregate, Dohm Ltd.; wall tiling, Carter & Co. (London) Ltd.; coloured cement finishings, Cement Marketing Co. Ltd.; partition blocks and balcony outlets, Broads Manufacturing Co. Ltd.

Offices at 34/36, *Duke Street, London, S.W.*1, *for the Associated British Engineering Co.* (Pages 257-262). Architects: Bertram Carter, F.R.I.B.A., in association with Dyneley, Luker & Moore. Exhibition display: F. M. Gross, F.S.I.A., F.R.S.A. Quantity surveyor: Cecil Baker, F.R.I.C.S. General contractors: Trollope & Colls Ltd. General foreman: Mr. Simmonds. Sub-contractors: damp-courses, asphalt, Highways Construction Ltd., Limmer & Trinidad Lake Asphalte Co. Ltd.; reinforced concrete, Trollope & Colls Ltd.; terra-cotta, stairtreads, Art Pavements & Decorations Ltd.; structural steel, Smith Walker Ltd.; fireproof construction, Trollope & Colls Ltd.; tiles, Carter & Co. (London) Ltd.; special roofing, Frazzi Ltd.; glass, James Clark & Eaton Ltd.; patent glazing, Lenscrete Ltd.; patent flooring, Hollis Bros. Ltd.; central heating, electric heating, electric light fixtures, clocks, Richard Crittall & Co. Ltd.; sanitary fittings, John Bolding Ltd.; door furniture, Jayanbee Joinery Ltd.; casements, iron staircases, Williams & Williams Ltd.; sunblinds, Venetian Vogue Ltd.; metalwork, Crittall Manufacturing Co.; revolving doors, T. B. Colman & Son Ltd.; joinery, Rippers Ltd.; stonework, Wandsworth Stonemasonry Works; tiling, Carter & Co. (London) Ltd.; lifts, Waygood-Otis Ltd.; cranes, Scaffolding (Gt. Britain) Ltd.

Correction

The name of the architect for the standard factories at Crawley New Town, illustrated in the JOURNAL for August 14, page 206, was inadvertently omitted. The architect was A. G. Sheppard Fidler, M.A., B.ARCH., F.R.I.B.A., DIP.C.D.(Liverpool), A.M.T.P.I.

On June 26 it was stated in the JOURNAL that the landscaping of the New Town of Hemel Hempstead was in the hands of H. F. Clarke. It is, in fact, in the hands of N. H. J. Clarke.



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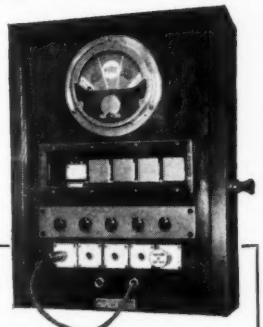

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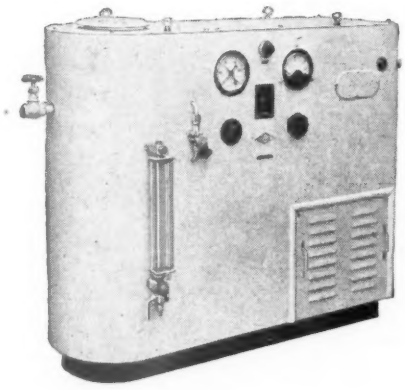

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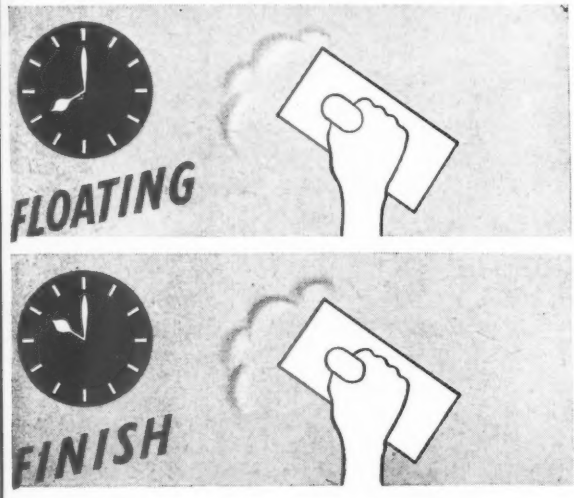

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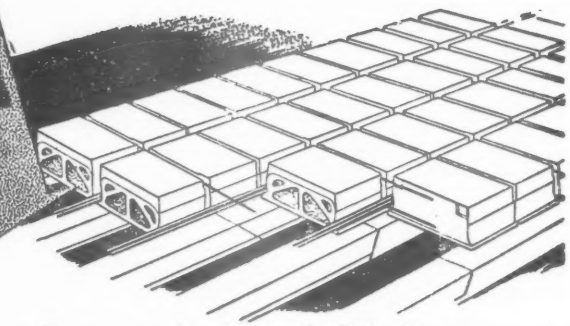

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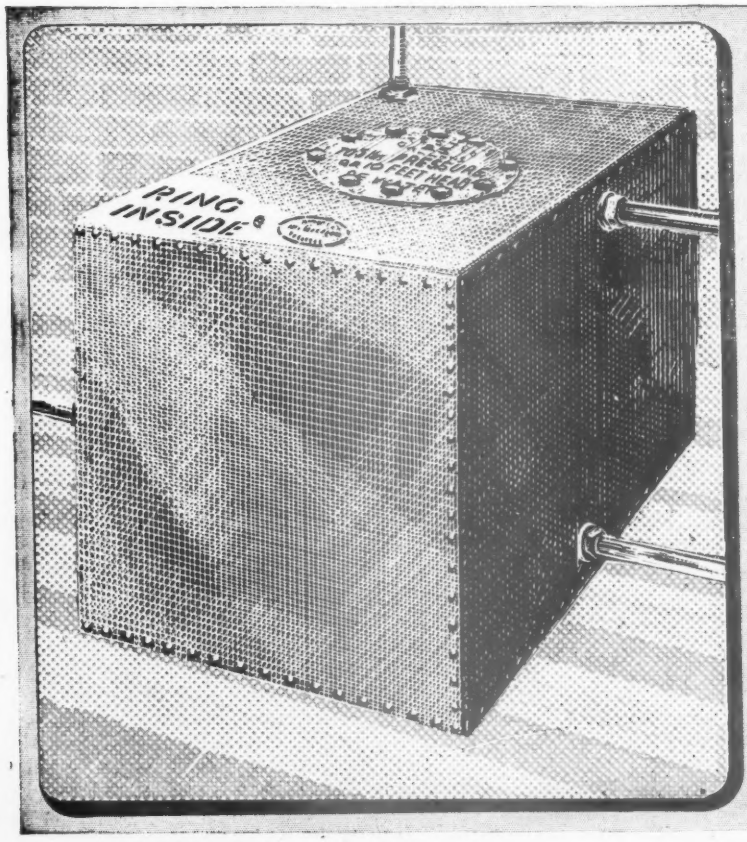

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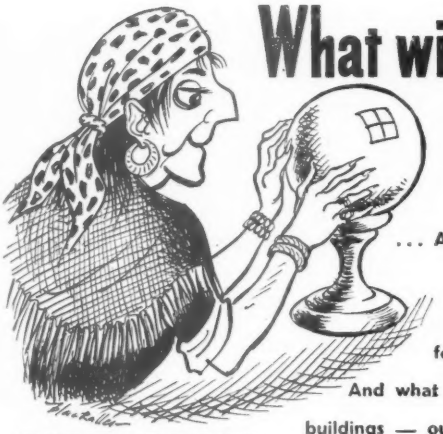

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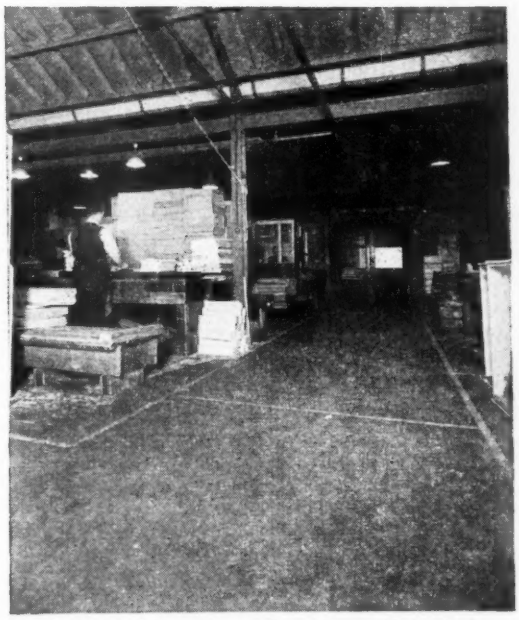

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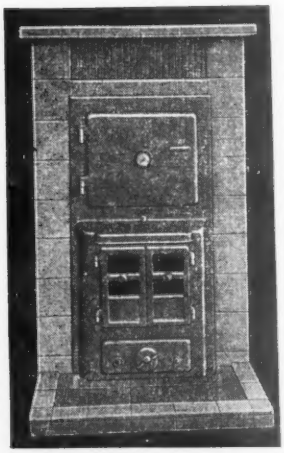

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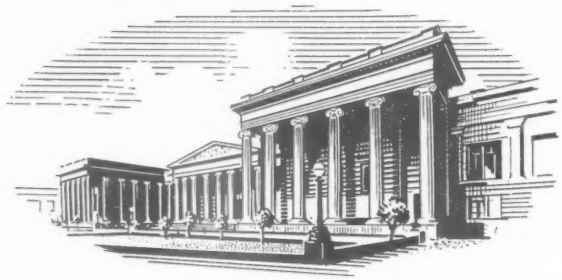

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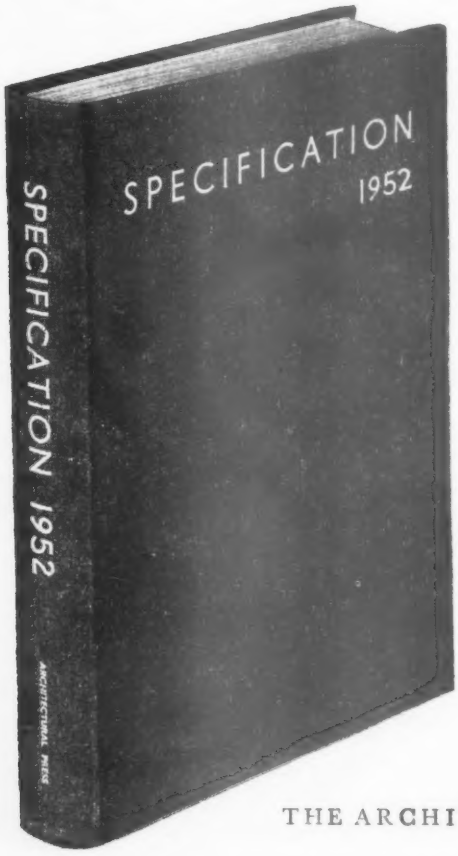

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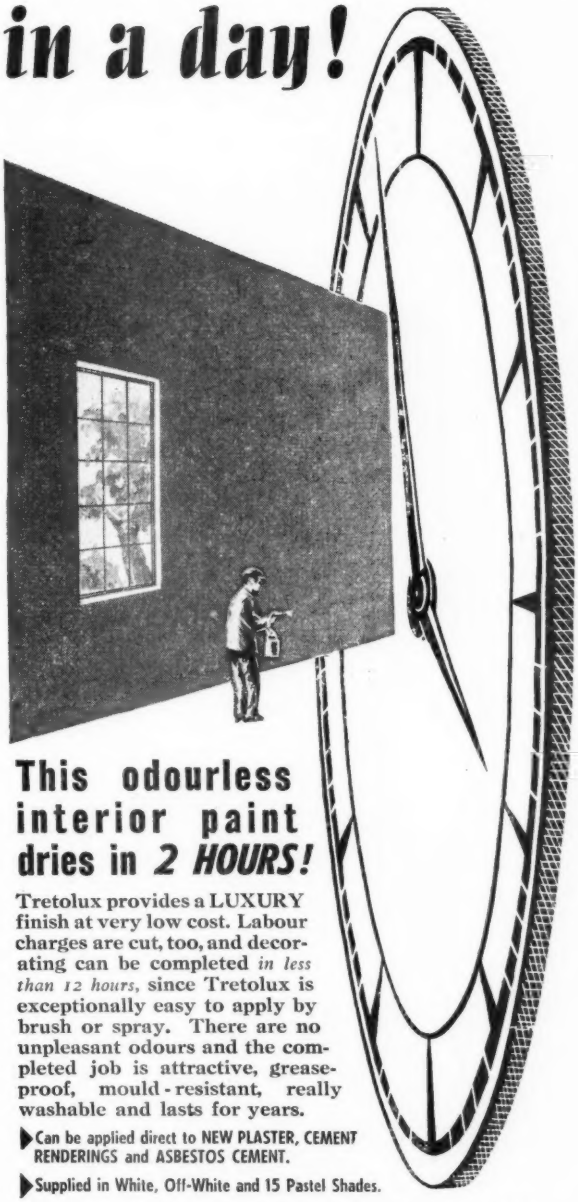

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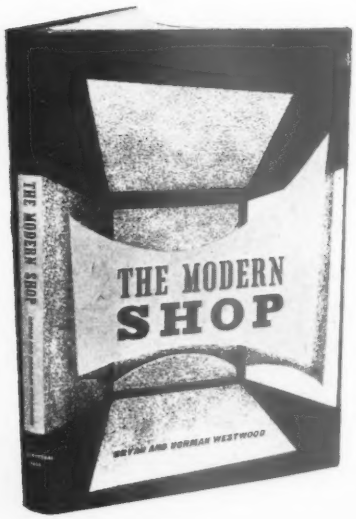

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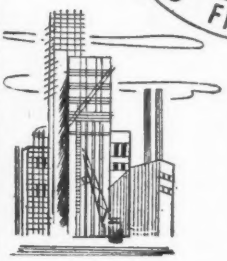

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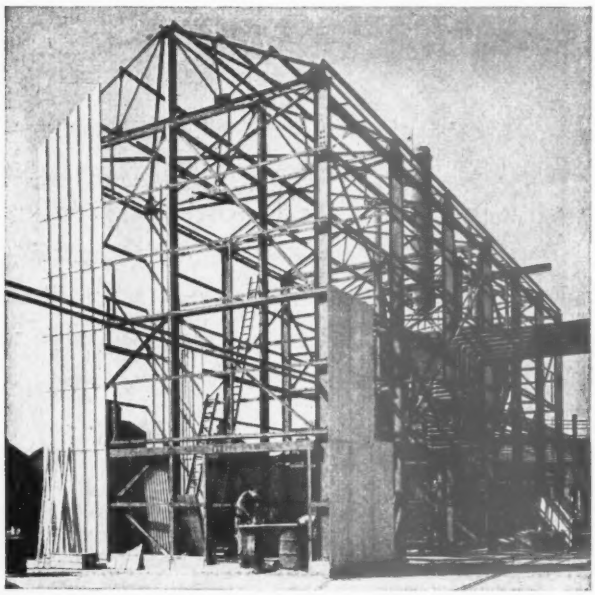

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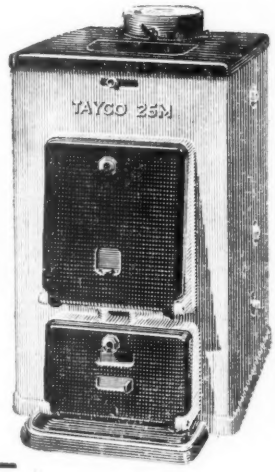

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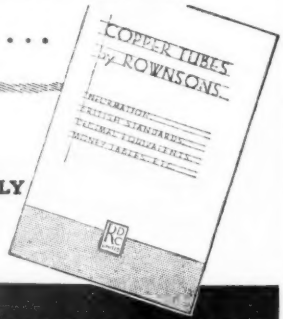

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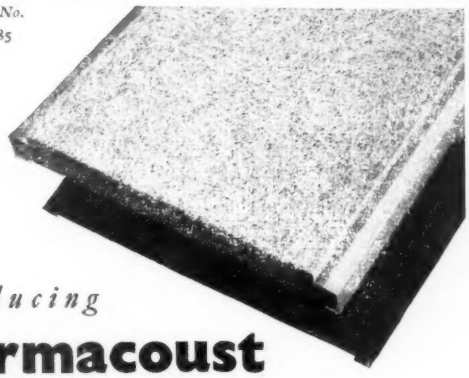

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B. A. FRANCIS,
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18th August, 1952. 7283

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T. STEPHENSON,
Clerk of the Council.
County Hall, Beverley.
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WREXHAM RURAL DISTRICT COUNCIL. APPOINTMENT OF (*a*) ENGINEERING ASSISTANT, (*b*) ARCHITECTURAL ASSISTANT.

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The Council will be prepared to consider the provision of housing accommodation in regard to appointment (*a*) if required.

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

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Applicants should be competent Draughtsmen of 25-30 years of age, and should have had at least three years' experience in a Town Planning Office, preferably with experience in the designing and layout of housing estates. Matriculation and the Intermediate Examination of the Town Planning Institute will be an advantage.

Application forms and conditions of appointment, etc., may be obtained from:

THE HIGH COMMISSIONER FOR NEW ZEALAND,
415, Strand, London, W.C.2,

mentioning this paper, and quoting reference No. A.3/74/59.

Completed applications to be lodged as soon as possible, and in any case not later than 12th September, 1952. 7269

COUNTY BOROUGH OF CROYDON. ASSISTANT ARCHITECT.

Applications are invited for this appointment from persons with a good general knowledge of local authority architectural work. Salary: A.P.T., Va, £625 to £685 p.a., plus London weighting (£30 p.a. at age 26 and over).

The Council do not offer housing accommodation.

Applications on forms from the Borough Engineer, Town Hall, Croydon, must be submitted to him by 3rd September, 1952.

Canvassing with disqualify.

E. TABERNER,
Town Clerk.
7289

LONDON ELECTRICITY BOARD. ENGINEERING DRAUGHTSMEN.

Applications are invited for the above positions in the North-Western Sub-Area Drawing Offices at Aybrook Street, W.1, and Willesden, N.W.2.

The duties include the preparation of layout drawings of transformer chambers, distribution systems not exceeding 11 kV., and plans of existing systems, etc.

The posts are graded under Schedule "D" of the National Joint Board agreement as Grade VI, £438 to £574 7s. per annum, inclusive of London allowance, and the commencing salary will be dependent upon qualifications and experience.

Application forms, obtainable from Establishments Officer, 46, New Broad Street, E.C.2, to be returned by 5th September, 1952. Please enclose addressed foolscap envelope and quote ref. V/1494/A. on all correspondence. 7284

CITY OF BIRMINGHAM EDUCATION COMMITTEE. APPOINTMENT OF DISTRICT BUILDING WORKS SUPERVISOR.

Applications are invited for the appointment of a District Building Works Supervisor in the Architect's Branch of the Birmingham Education Department (Architect to the Committee: Mr. J. R. Sheridan-Shedden).

Salary: A.P.T., IV (£555×£15—£600).

Applicants will be required to have a general knowledge of the building trade, and particularly of those branches required for the carrying out of repairs and alterations. They should be competent to inspect work, assess requirements, supervise labour and contractors, and hold a Higher National Certificate or its equivalent.

Application forms, which may be obtained from the undersigned on receipt of a stamped, addressed envelope, must be returned not later than Saturday, 13th September, 1952.

E. L. RUSSELL,
Chief Education Officer.
The Education Office, Margaret Street,
Birmingham, 3. 7268

LINDSEY COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

Vacancy on the permanent staff for JUNIOR QUANTITY SURVEYOR, A.P.T., I, £465-£510. Applicants should have experience in abstracting and billing and also able to take off small schemes.

N.J.C. conditions of service. Relationship to member or senior officer of the Council is to be disclosed in writing with application. Canvassing will disqualify.

Applications, stating age, qualifications and experience, with names of two persons to whom reference can be made, to be sent to the undersigned not later than Tuesday, 2nd September, 1952.

A. RONALD CLARK, A.R.I.B.A., A.M.T.P.I.,
County Architect.
County Offices, Lincoln. 7286

HUNTINGDON COUNTY COUNCIL ARCHITECT'S DEPARTMENT. ARCHITECTURAL ASSISTANT, GRADE II, A.P.T.

Applications are invited for the appointment of an Architectural Assistant. Salary: Grade II, A.P.T., £495×£15 to £540 per annum.

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

Applications, stating age, qualifications, experience, present position and salary, should be submitted to S. J. Hands, A.R.I.B.A., County Architect, County Buildings, Huntingdon, by not later than Friday, 12th September, 1952, with two recent testimonials or the names of two persons to whom reference could be made.

JOHN KELLY,
Clerk of the Council.
County Buildings, Huntingdon.
28th August, 1952. 7311

GLAMORGAN COUNTY COUNCIL.

Applications are invited for the following permanent appointment at Headquarters, County Hall, Cardiff:—

ONE SENIOR PLANNING ASSISTANT, Grade A.P.T., VI (£645×£20 (2)×£25—£710 per annum).

The appointment is permanent and subject to the National Scheme of Conditions of Service, and to the staffing regulations of the County Council from time to time in force. Applicants must have passed the Final Examination of the T.P.I., the I.C.E., the I.Mun.E. or the R.I.C.S.

A wide knowledge of planning technique is required, and candidates must have had previous experience in the preparation of a Development Plan, be competent to analyse survey and research work, and be able to assess facilities required in existing or proposed communities.

Applications from persons who have completed a Degree course, giving exemption from the T.P.I. examinations but without practical experience, will also be considered, but in such cases the salary offered will be in accordance with Grade A.P.T., V (£570×£15 (2)×£20—£620 per annum).

Applications, stating age, training, qualifications, experience and present salary, and accompanied by two testimonials, should be sent to the County Planning Officer at this address, and received not later than 7 days from the date of the appearance of this advertisement.

D. J. PARRY,
Clerk of the County Council.
Glamorgan County Hall, Cardiff.
16th August, 1952. 7288

THE NORTH-WESTERN ELECTRICITY BOARD. APPOINTMENT OF THIRD ASSISTANT ENGINEER (CLERK OF WORKS), SUB-AREA TECHNICAL ENGINEER'S DEPARTMENT, KENDAL.

Applicants should have had experience as Clerk of Works, with thorough knowledge of all sections of the building trade, be capable of setting out, giving levels, measuring up, keeping all necessary site records, and rendering reports. Maintenance and repair of Board's property will be included in duties.

Salary scale: £621-£648 p.a. Grade H.10 N.J.B. Conditions.

Applications to Sub-Area Manager, No. 6 (Lakeland) Sub-Area, The North-Western Electricity Board, Castle Green, Kendal, by 6th September, 1952. 7303

LINDSEY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

There is a vacancy on the permanent staff for HEATING ASSISTANT, A.P.T., III, £525×£15—£570. Duties will include taking off of heat losses, designing heating schemes, preparing specifications and obtaining tenders, and preparing estimates.

Allowance of 25s. per week and return fare home bi-monthly will be paid for up to six months to married men unable to find housing accommodation.

N.J.C. conditions of service. Canvassing will disqualify. Candidates must disclose in writing whether to their knowledge they are related to any member or senior officer of the Council.

Applications, stating age, qualifications and experience, with copies of two testimonials or the names of two persons to whom reference can be made, to be sent to the undersigned not later than Tuesday, 2nd September, 1952.

A. RONALD CLARK, A.R.I.B.A., A.M.T.P.I.,
County Architect.
County Offices, Lincoln. 7287

NEWMARKET RURAL DISTRICT COUNCIL.
APPOINTMENT OF ARCHITECT.

Applications from suitably qualified persons are invited for the above appointment.

The salary, which, with the conditions of service, is in accordance with the recommendations of the Joint Negotiating Committee for Chief Officers and will commence within the range £800-£1,100 per annum, depending on qualifications and experience.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side.

The person appointed will be requested to carry out all architectural duties in connection with the Council's housing schemes, and all other similar duties that may be assigned to him by the Council. He will also be required to provide and maintain a car for the purposes of his duties, for which a travelling allowance will be paid in accordance with the National Scale.

Applications, stating age, qualifications and experience, together with names of three referees, must be submitted to the undersigned not later than 15th September, 1952.

Modern attractive house available if required.

H. W. EVANS,
Clerk to the Council.
Council Offices, Park Lane, Newmarket. 7298

Architectural Appointments Vacant

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

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

EAST AFRICA.—ASSISTANT ARCHITECTS required. Must be A.R.I.B.A. and single. Salary, £1,000 p.a. to £1,200 p.a., according to experience. Send full particulars and photograph to H. G. Radford, A.R.I.B.A., & Partners, 18, Derwent Avenue, Allestree, Derby, England, with stamped addressed envelope for reply. Selected applicants will be interviewed in England. 7253

JUNIOR ARCHITECTURAL ASSISTANT required immediately by Fowler, Grove & Haggar, Chartered Architects, 140, Lodge Road, Southampton. 7254

BOOTS PURE DRUG CO., LTD., NOTTINGHAM
ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the appointment of ARCHITECTURAL ASSISTANTS to the permanent staff of the above Department. Applicants should have had several years' experience in an Architect's office, and be capable of carrying out a job from sketch plan to building stage. Thorough knowledge of building construction and ability to prepare neat, accurate working drawings and attractive sketch plans is essential. Ability also to calculate steel framed and reinforced concrete structures desirable.

The department has in hand works of a very varied nature, including retail shops, alterations and extensions to shops, laboratories and office buildings. Permanent and progressive appointment for the right man, who will be required occasionally to visit works in progress of building in all parts of the British Isles.

Successful applicants will be required to pass a medical examination and to join the Company's pension scheme after not less than six months' satisfactory service. The working week is five days.

Write, stating age, qualifications, training, experience and salary required, to: Chief Architect, Boots Pure Drug Co., Ltd., Station Street, Nottingham. 7306

NAAFI requires a qualified ASSISTANT in the Architect's Section at Claygate. Age not exceeding 37. A sound knowledge of working drawings essential. Reply, in first instance, in writing, giving details and salary required, to Director of Works and Buildings, NAAFI, Esher, Surrey. 7305

DAR-ES-SALAAM.—ARCHITECTURAL ASSISTANT required for leading professional office. Interesting and varied work. Must be prepared to accept responsibility. Preference given to applicants with private practice experience. Initial salary £780, with annual increments, but this may be upgraded on results. Write Box 7308, with brief personal and professional details.

ASSISTANT ARCHITECT, A.R.I.B.A. preferred, required for the design and detailing of Industrial and Administrative Buildings connected with the Petroleum Industry, to work in the Architectural Section of a large Consulting and Contracting Organisation in London. Salary commensurate with ability and experience. Applicants should send fullest details of qualifications and experience to the Personnel Manager, Kellogg International Corporation, Stone House, Bishopsgate, London, E.C.2. 7277

ARCHITECT'S ASSISTANT required for East Dereham, Norfolk, office. Intermediate standard, able to drive car. Details, including salary required, to Box 7278.

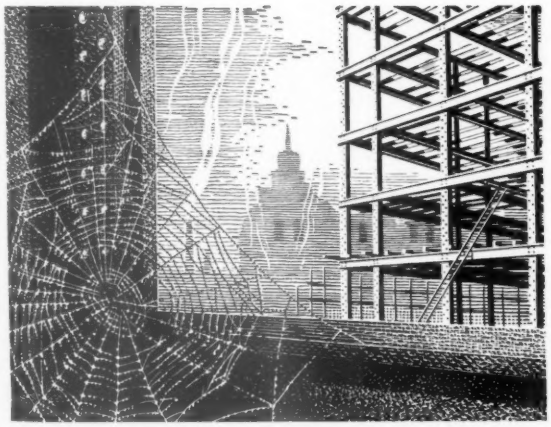
ARCHITECT'S/ENGINEERING DRAUGHTSMAN required at once by Manufacturers of pre-cast concrete mass produced houses for London office. Knowledge of joinery and other trades essential. Write Box No. 6559, c/o Whites, Ltd., 72, Fleet Street, E.C.4. 7279

ASSISTANT required of Intermediate R.I.B.A. standard in Eastbourne office. Must be first-class draughtsman and able to take control of small contracts. Box 7295.

SPARE-TIME Assistance wanted. Inter. standard, London, W.C.1. 'Phone CHA. 8467. 7296

ARCHITECTURAL ASSISTANT required immediately for busy general private practice in Bournemouth area. Experienced in site surveys, working drawings, and specifications. Write, giving full particulars and salary required, to Box 7297.

ARCHITECTURAL ASSISTANT of Inter. standard wanted. Several years' office experience and neat and efficient draughtsman essential, in small office, W.C.2 district. State full particulars and salary required to Box 7281.



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ASSISTANT (R.I.B.A. Intermediate standard) required for estate department of a Yorkshire brewery company. Write, giving age, experience, and salary required, to Box 7299.

Architectural Appointments Wanted

STUDENT R.I.B.A. wants post as ARCHITECT'S ASSISTANT. Age 23. No previous office experience. School trained to Intermediate. Taking night class course for Final. London or Home Counties preferred. £5 a week. Box 521.

SENIOR ASSISTANT requires change. Qualified. 13 years' varied experience, including period with contractors. Technically minded, contemporary designer, used to organisation and control. Box 7309.

CHARTERED ARCHITECT, with many years' experience in general practice, domestic, commercial and industrial work, war damage and conversions, handling of contracts, site supervision, etc., seeks responsible post. Box 544.

ARCHITECTURAL ASSISTANT (35) seeks post with London office. Seven years' experience, including private housing, exhibitions, Festival of Britain work, competitions, etc. Perspectives done quickly. Box 543.

ARCHITECTURAL ASSISTANT, Final R.I.B.A., 2 years' experience on sites, 1 year office experience, requires progressive position. Box 538.

A. R.I.B.A. (27) requires position as SENIOR ASSISTANT in central London area. 7 years' varied experience in private practice and L.A. schools, including administration and supervision of contracts. Box 539.

SENIOR ARCHITECTURAL ASSISTANT (32), passed R.I.B.A. Final (except Structures), 8½ years' varied experience, requires post in Suffolk, Ipswich area. Box 540.

ARCHITECTURAL ASSISTANT, 3½ years' experience, able to type, seeks post with London office. Excellent references. Permanency preferred. Box 541.

ARCHITECTURAL ASSISTANT seeks position in London office. Box 542.

A. R.I.B.A., accustomed to being in charge of a drawing office, has had excellent experience in the office and on the site. Can take charge from sketch to final settlement; specifications, perspectives, layout. Can work in his own West End office if necessary. Box 7301.

ASSISTANT, 6½ years' experience on industrial and commercial projects, requires appointment in London or Southern Region. Good references. Box 545.

Other Appointments Vacant

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

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

A VACANCY occurs on the technical staff of "The Architects' Journal" for someone with a keen interest in and a sound knowledge of building construction. Write, giving age and experience to the Technical Editor, "The Architects' Journal," 9, Queen Anne's Gate, London, S.W.1. 7169

ARCHITECT'S SECRETARY AND SHORTHAND TYPIST required, part-time (half days), in small office, W.C.2 district. Apply, state when free, salary required. Box 7282.

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BOISSEVAIN & OSMOND (London), with busy contemporary architectural and industrial design practice, require competent DRAUGHTSMEN of Intermediate standard. Box 7300.

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REGISTERED ARCHITECT, residing in Surrey and in partial practice, desires Partnership. Full time domestic, etc., preferred. Capital available. Box 7314.

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EXPERIENCED REPRESENTATIVE, keen and imaginative, with good connection among London Architects, seeks appointment with good prospects with firm of repute. Highest references. Box 7197.

TECHNICAL REPRESENTATION, Southern Counties, qualified Architect, some rep. experience, own car, offers services, whole/part-time. Box 7255.

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EXPERIENCED FURNITURE DESIGNER, about to complete term of present contract, available for new post. Accustomed to working with Architects. Box 7294.

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"THE ARCHITECT IN PRACTICE," by A. J. Willis and W. N. B. George. A R.I.B.A. recommended text-book. 18s. 9d., post free, from Mason & Hodges, Ltd., 6, Goring Road, Worthing, Sussex. 7262

PRACTICE FOR SALE.—Old-established Architect's General Practice. Work in hand and good prospects. Well equipped office, on lease; London West suburb, with very little competition. Reasonable figure would be accepted. Age reason for selling. Box 7313.

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R.I.B.A. and T.P.I. EXAMS.—Stuart Stanley (Tutor Sch. of Arch., Lon. Univ.) and G. A. Crockett, M.A./B.A., F./A.R.I.B.A., M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.) prepare Students by correspondence tuition. 10, Adelaide Street, Strand, W.C.2. TEM. 1605/4.

UNIVERSITY OF MANCHESTER. THE NEXT SESSION COMMENCES ON THURSDAY, 2nd OCTOBER, 1952. 7276

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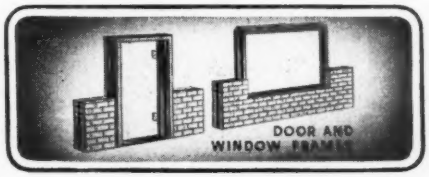

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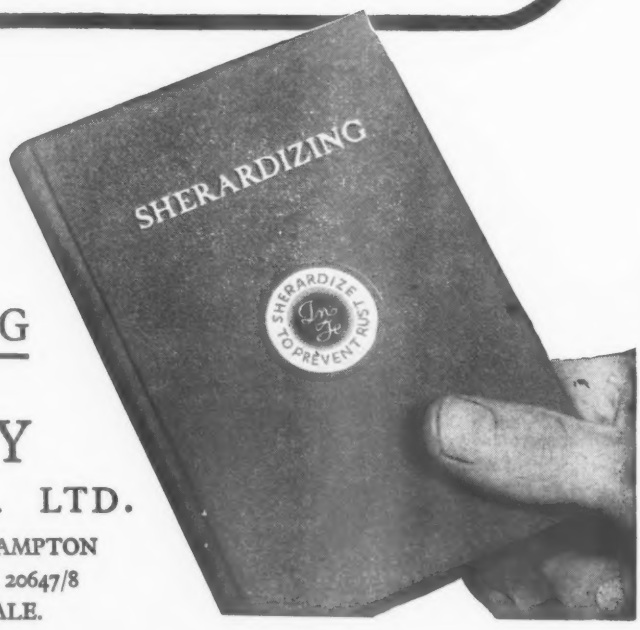

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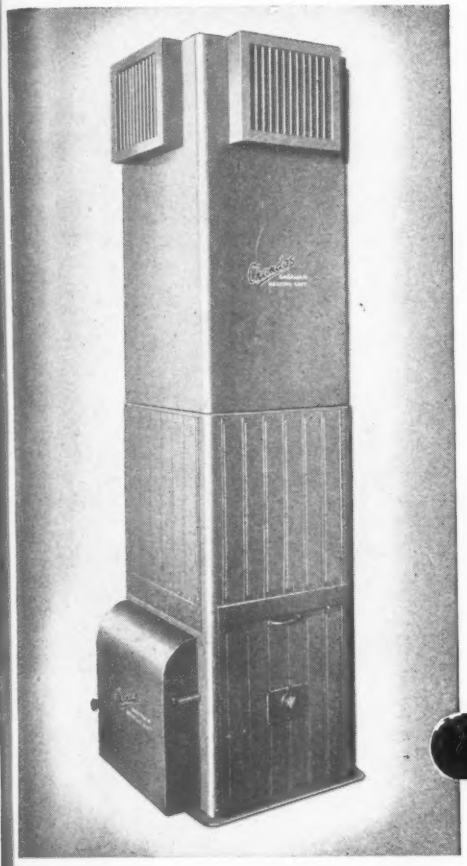

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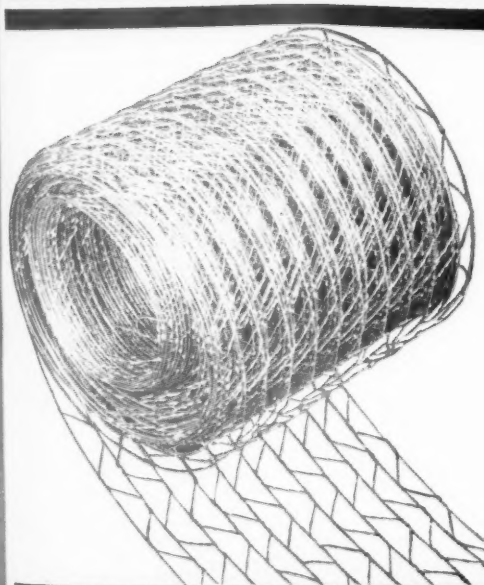

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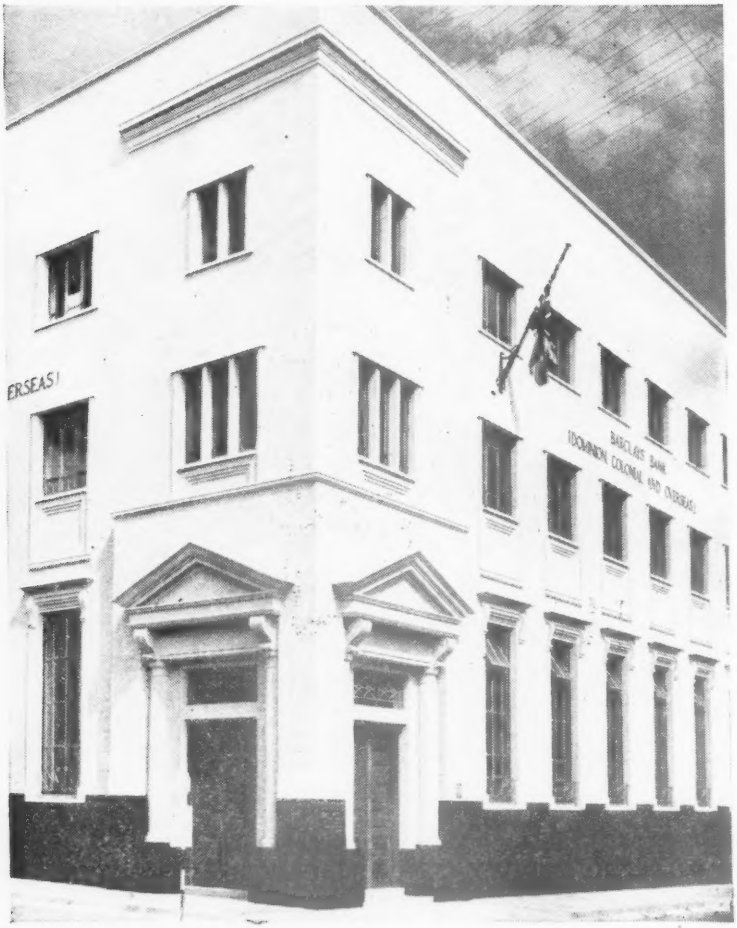

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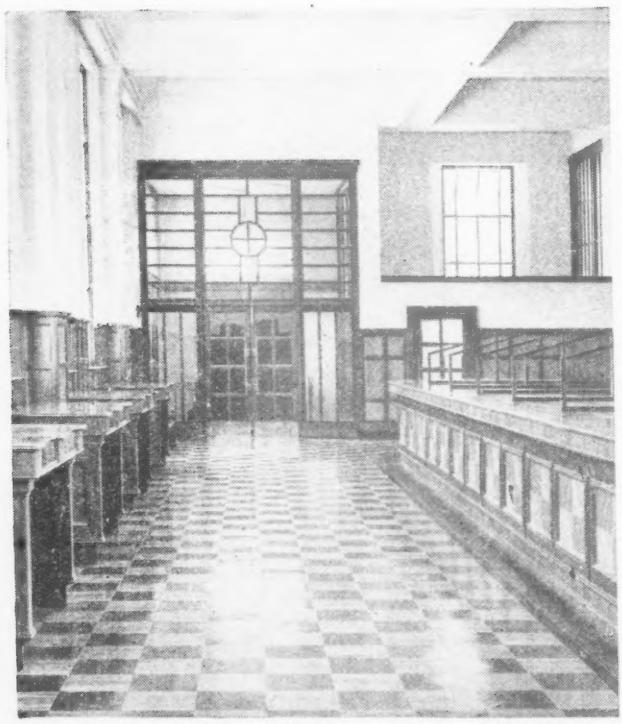

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