

THE ARCHITECTS' JOURNAL



standard contents

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

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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 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.	
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Grosvenor 4721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Langham 5761
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Reliance 7611, Ext. 1706
BCC	British Colour Council. 13, Portman Square, W.1.	Museum 5400
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Welbeck 4185
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Perivale 6869
BDA	British Door Association. 10, The Boltons, S.W.10.	Redditch 716
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. Doldental, 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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S.W.1. 'Phone: Whitehall 0611

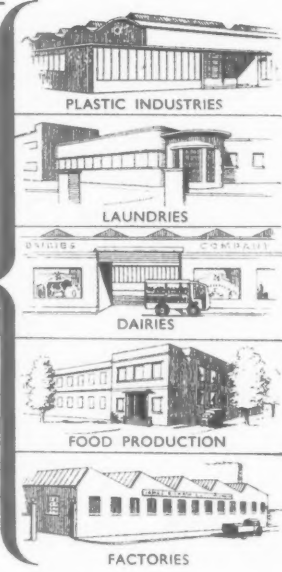
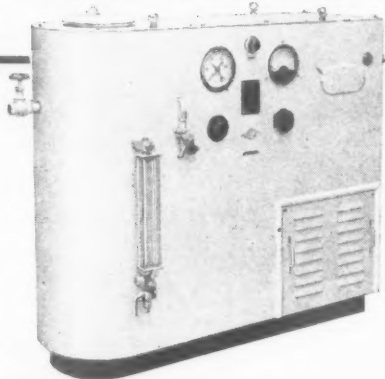
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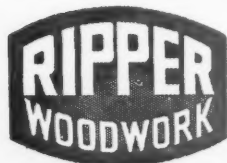
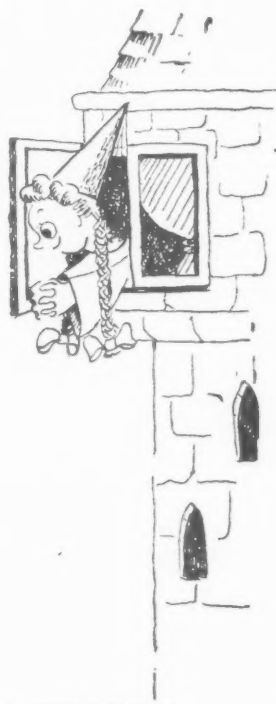
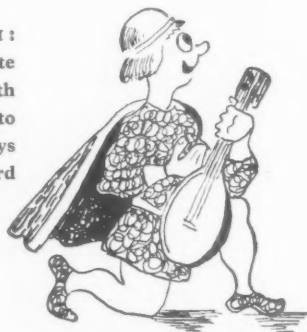
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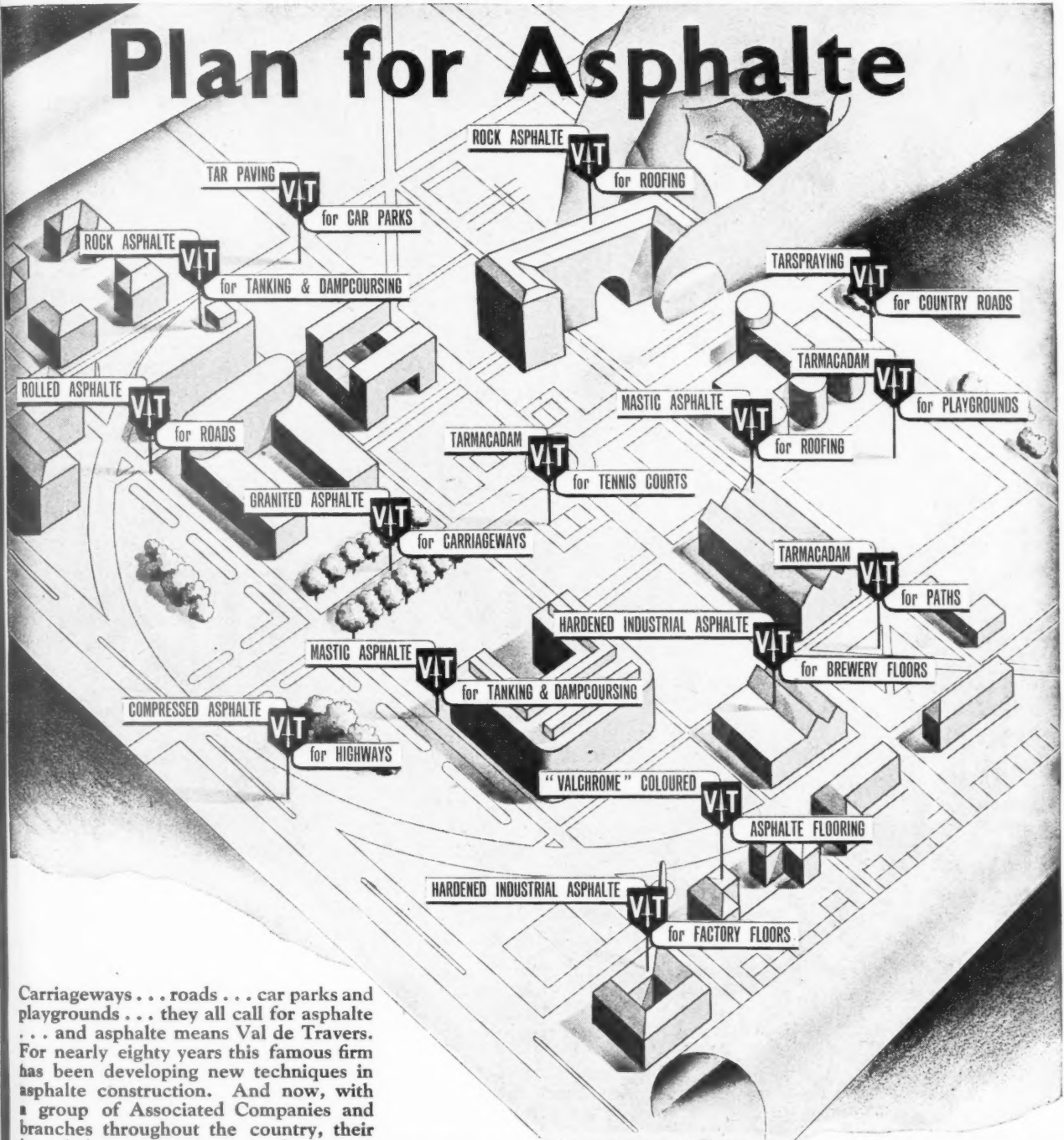




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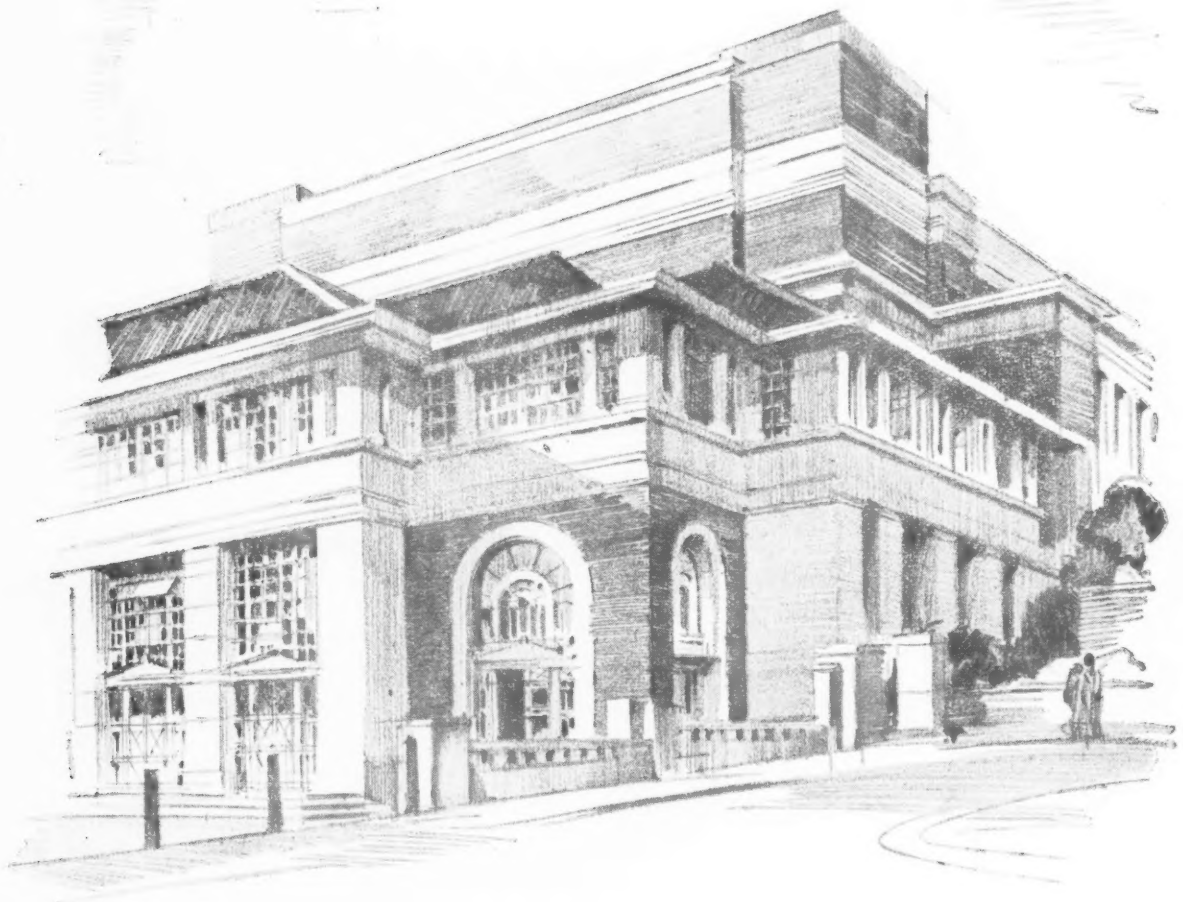
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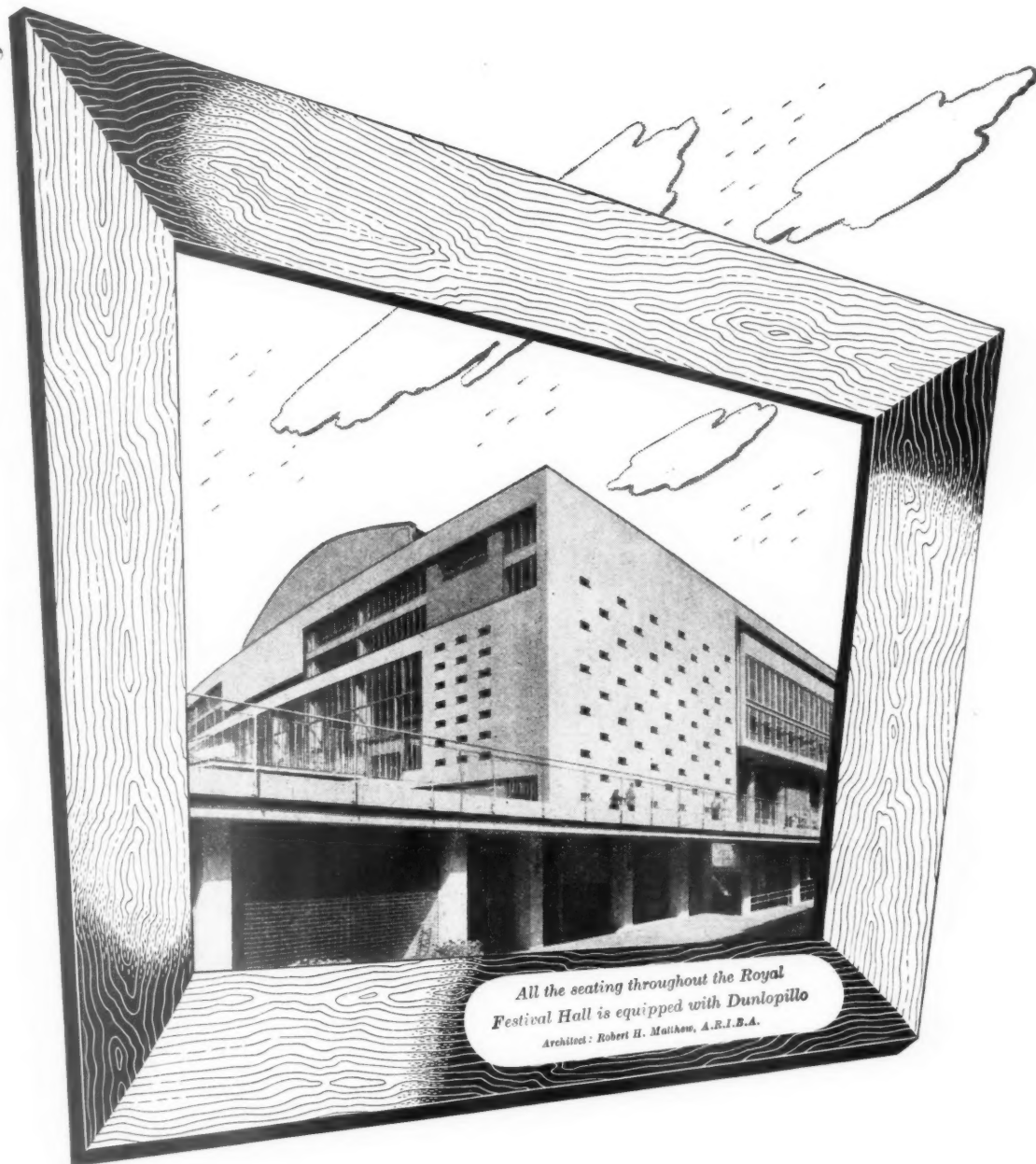
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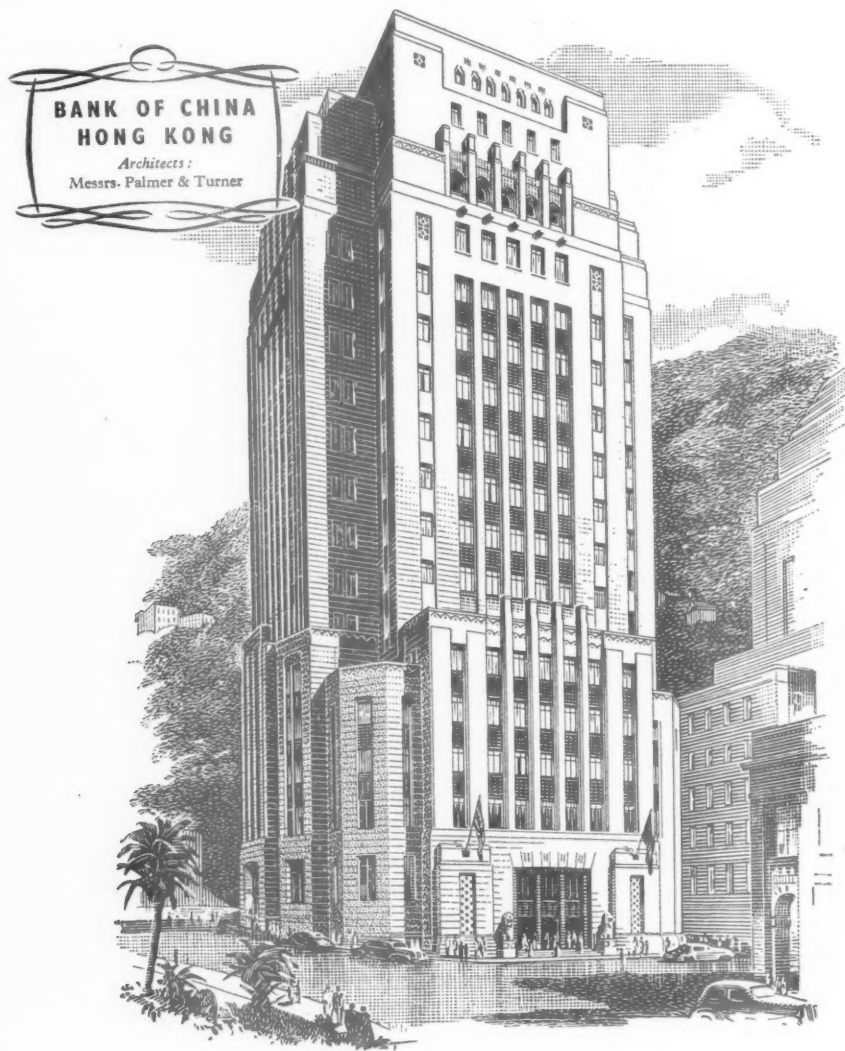
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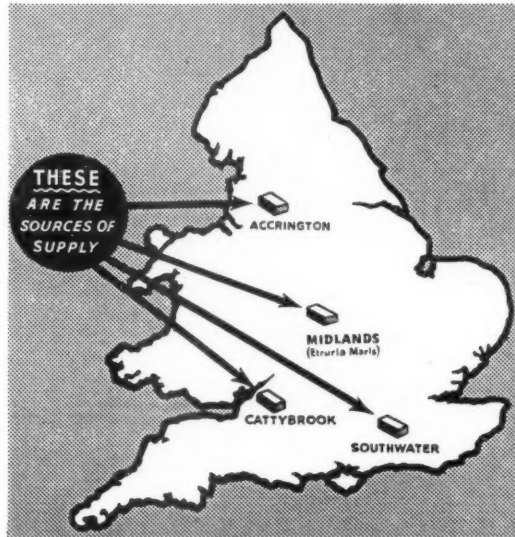
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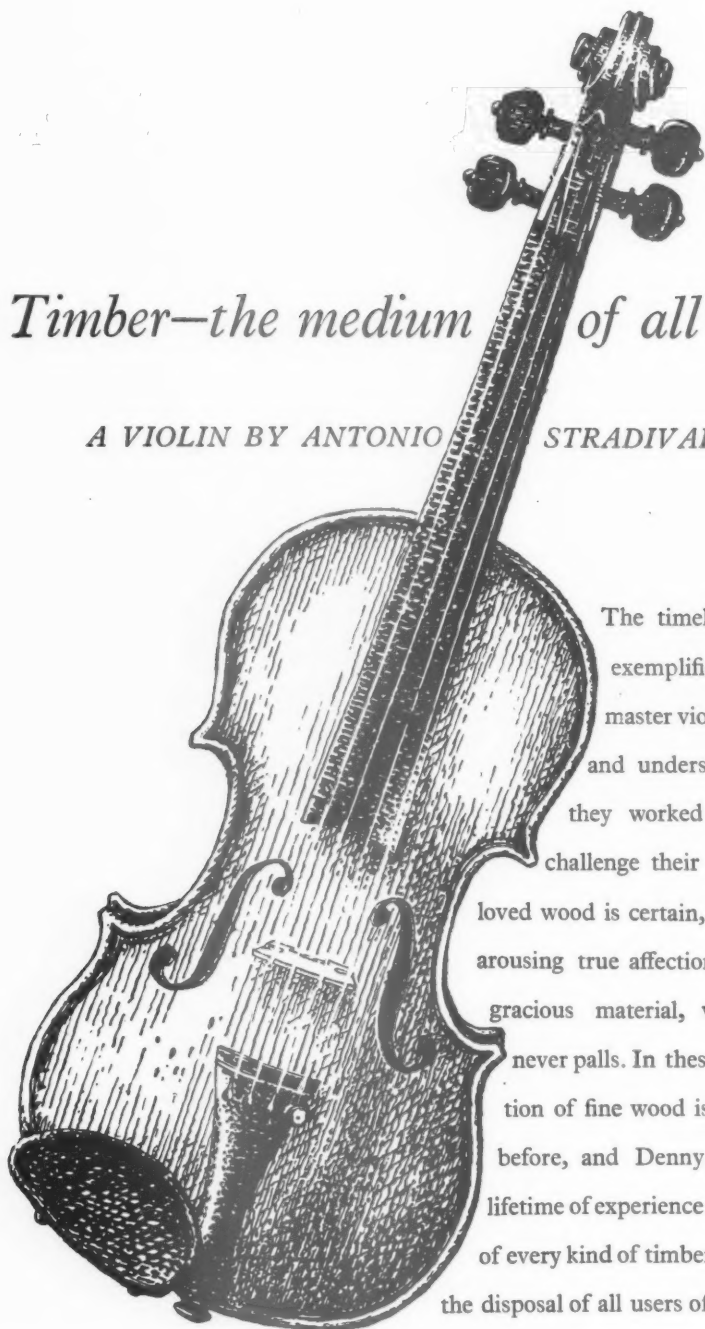
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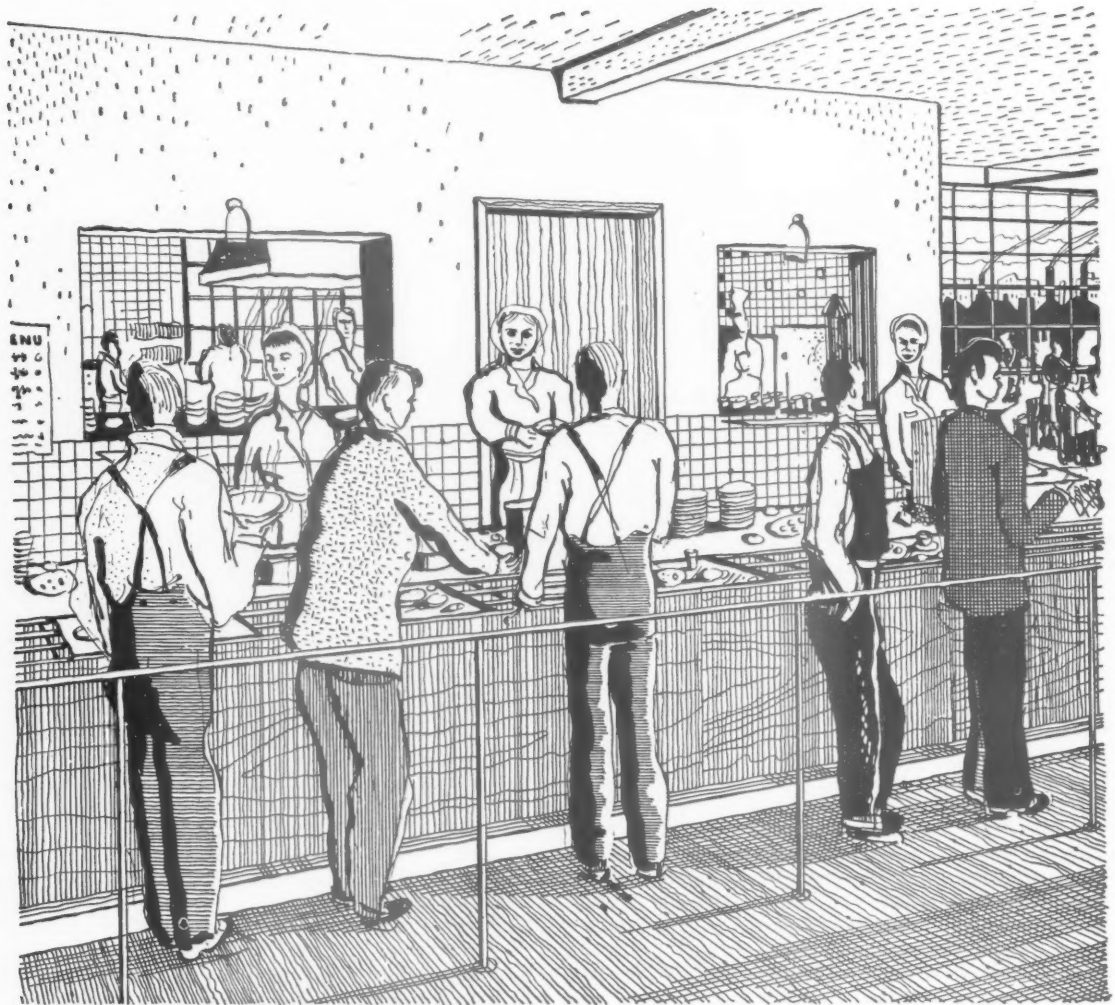
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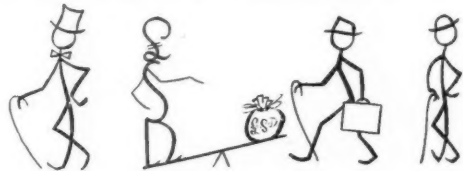
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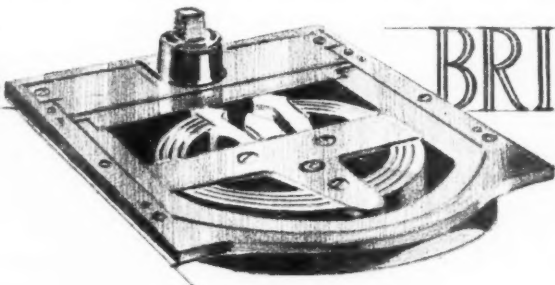


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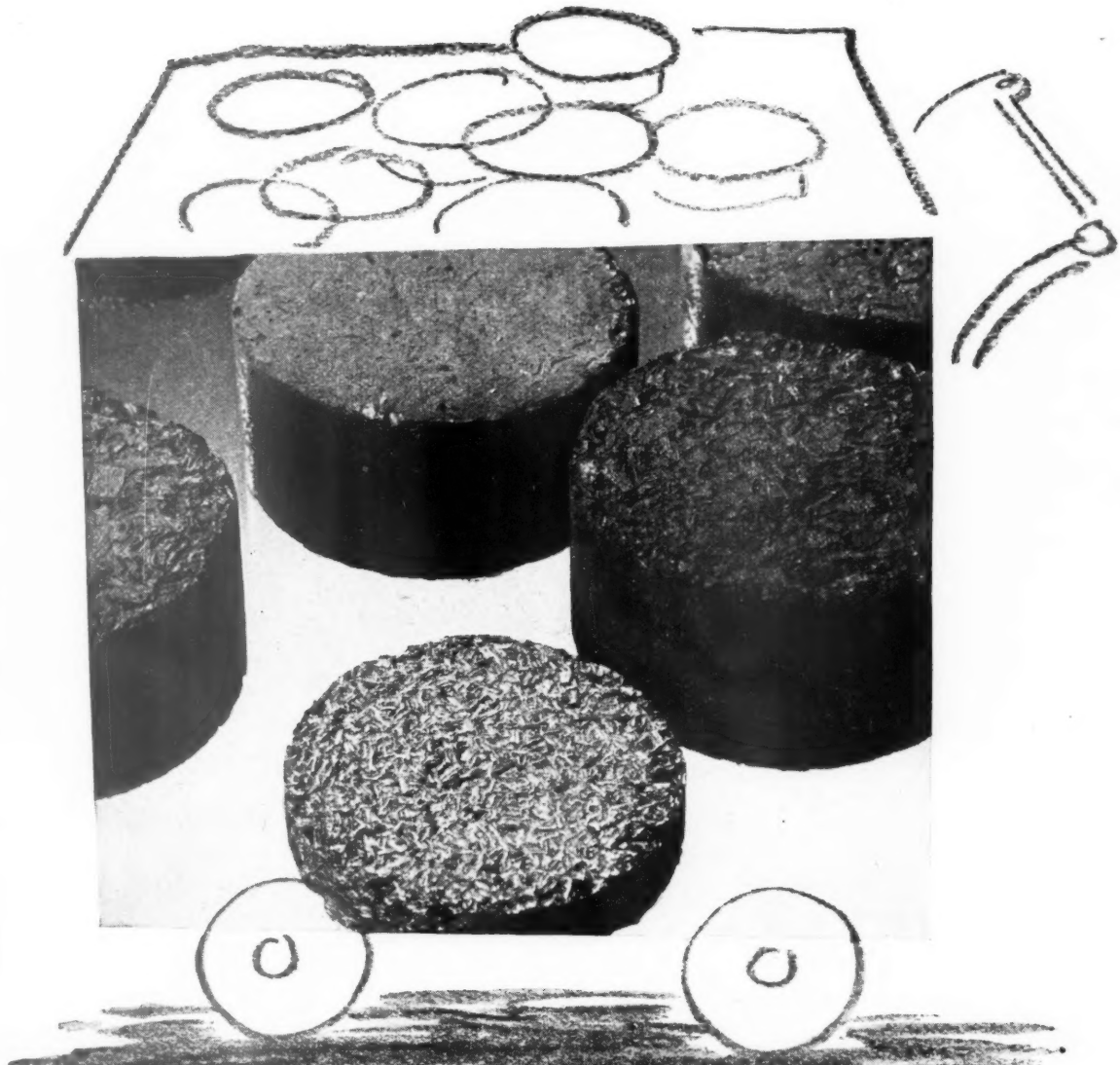
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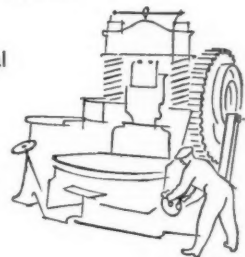
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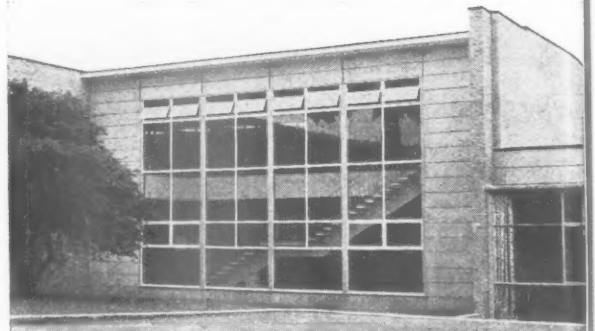
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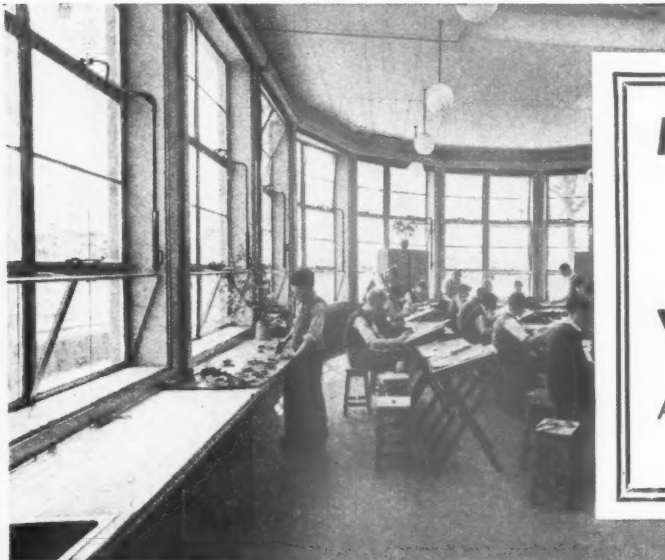
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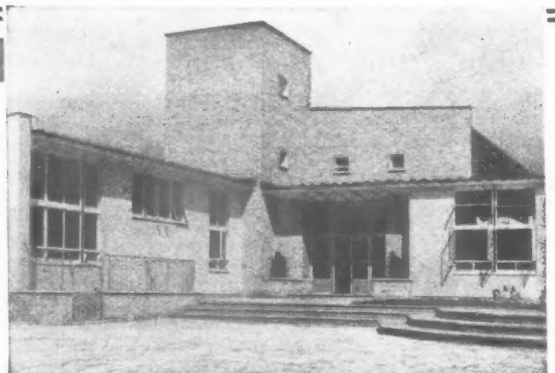
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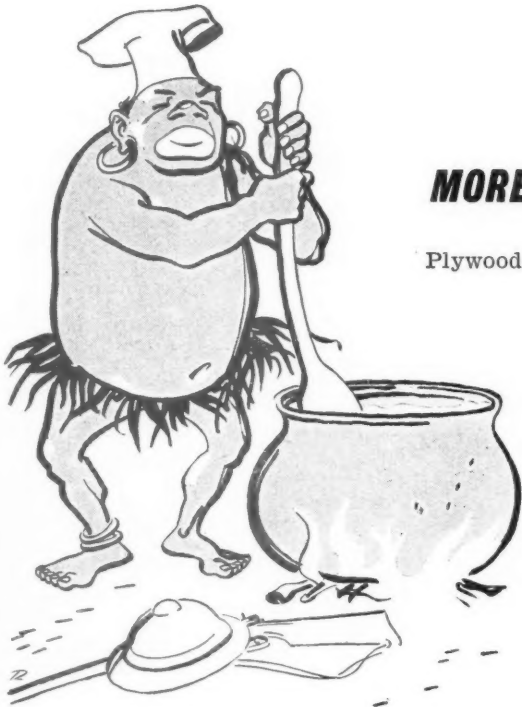
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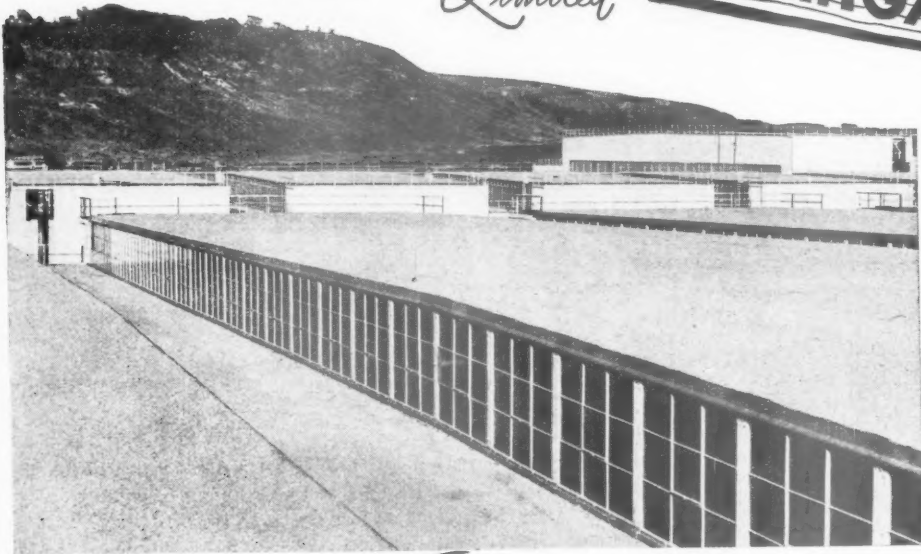
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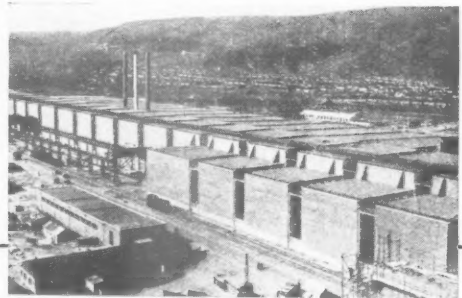
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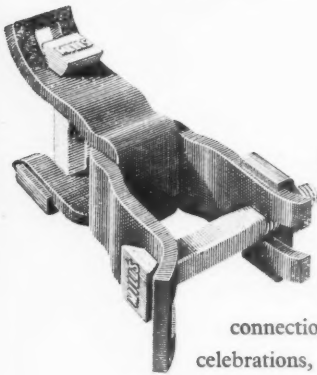
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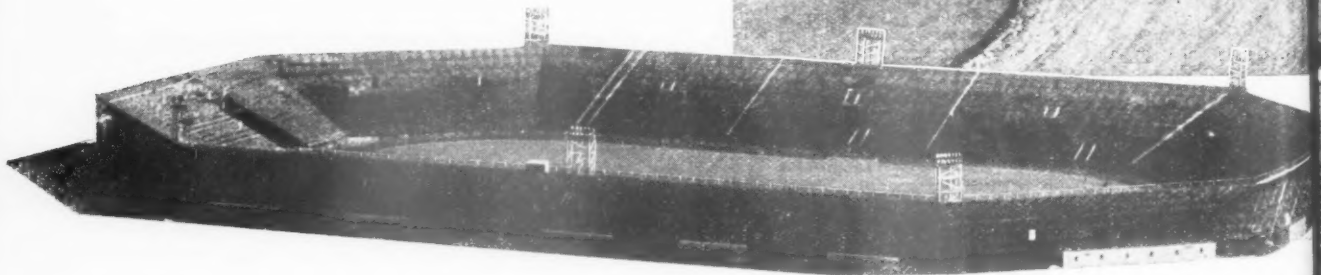
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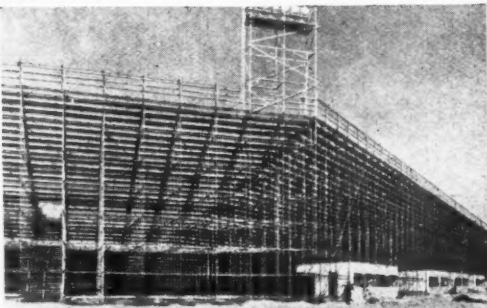
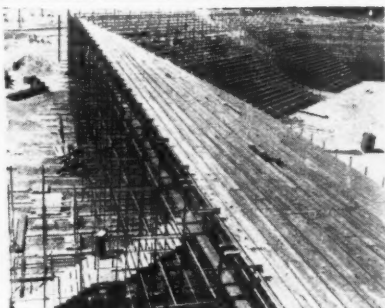
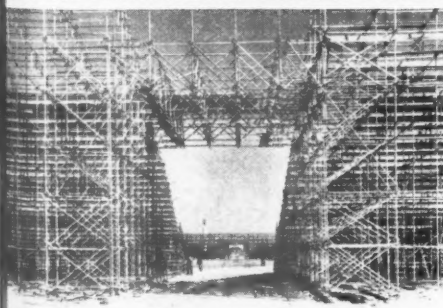
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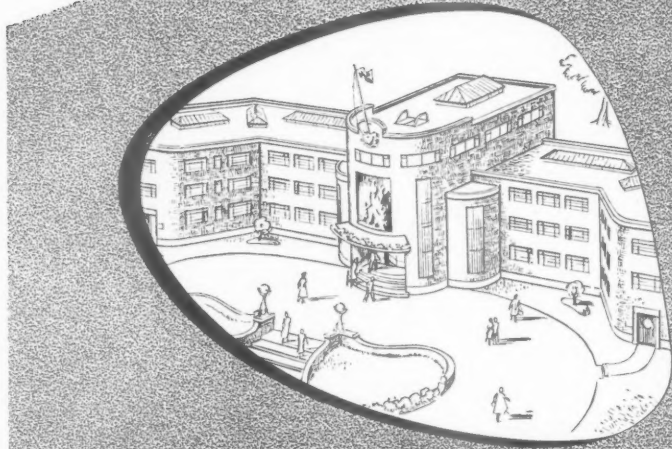
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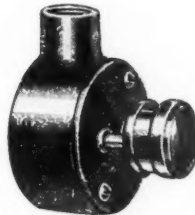
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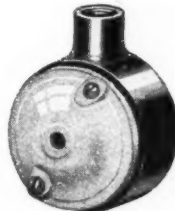
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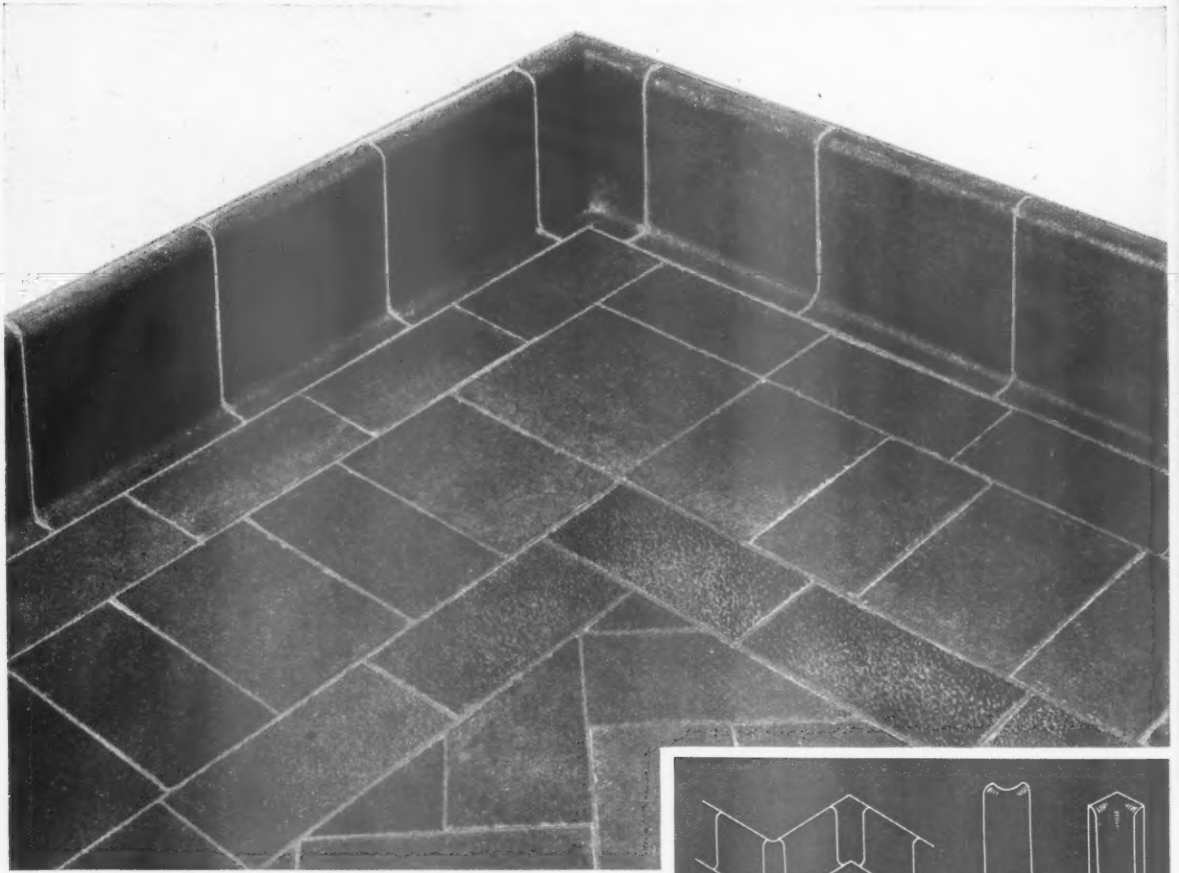
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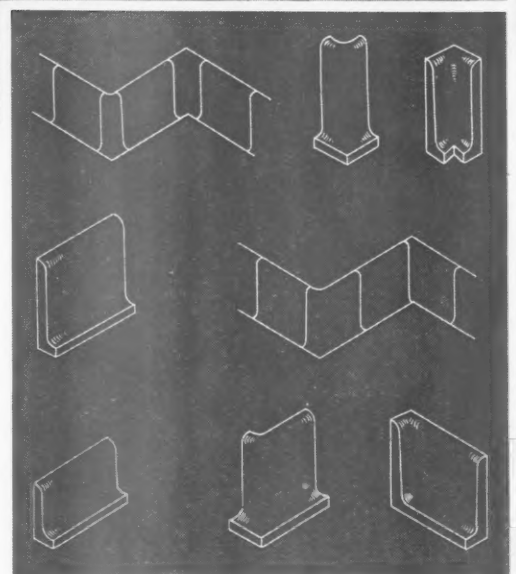


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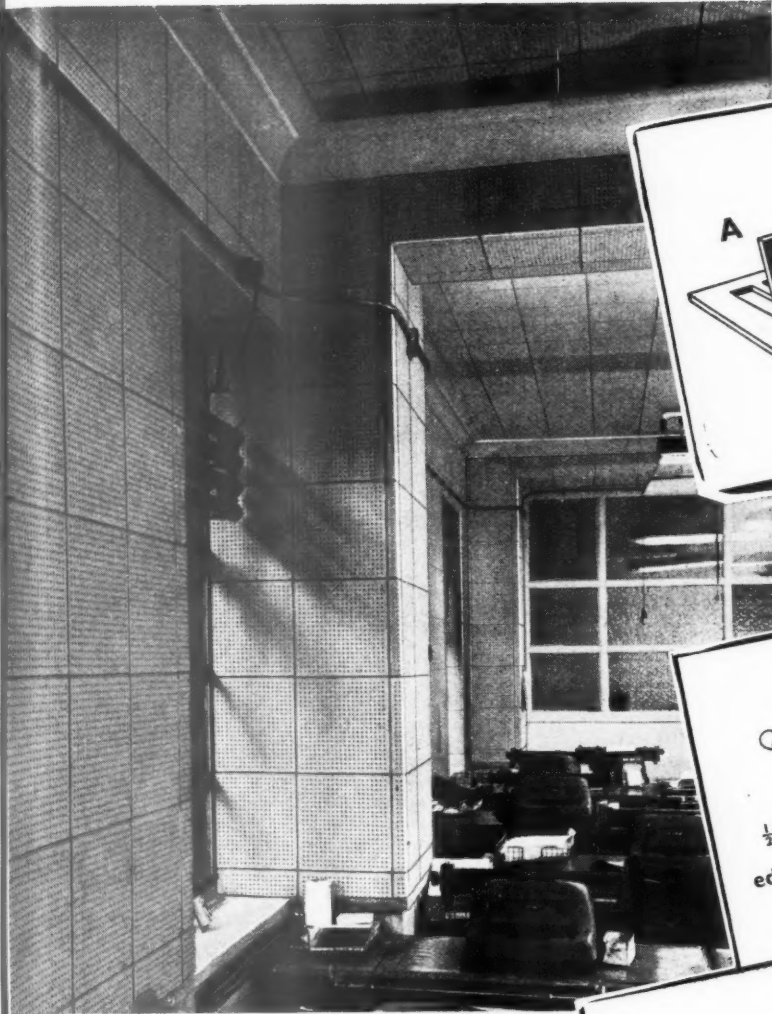
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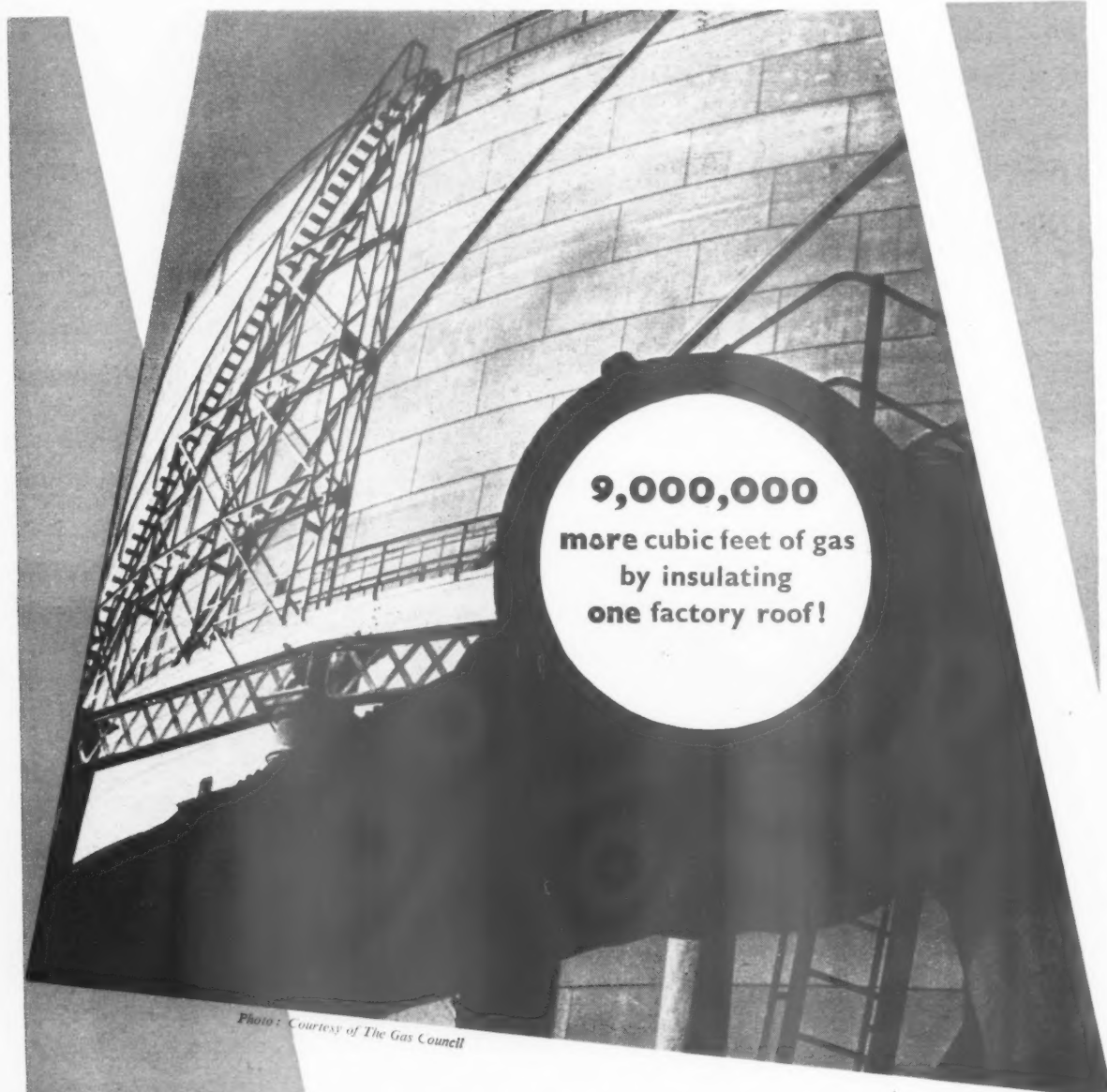
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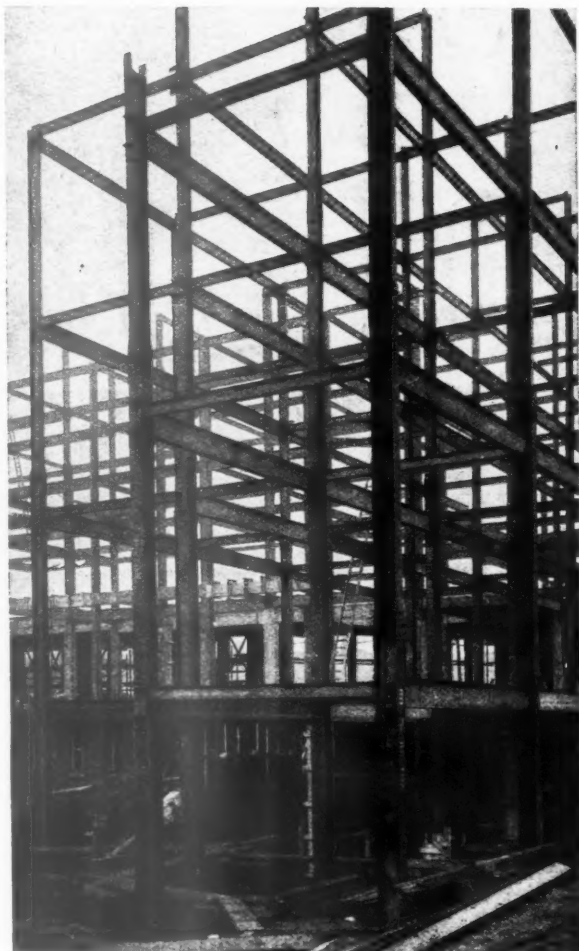
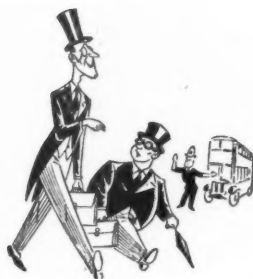
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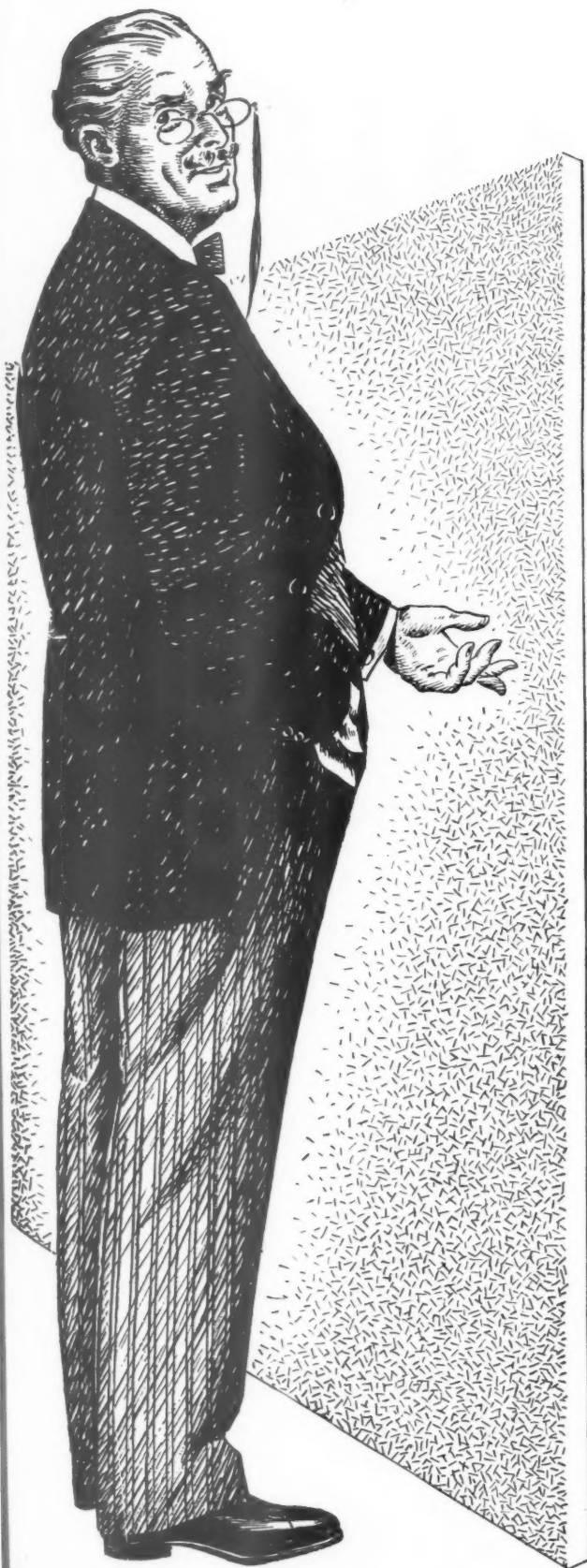
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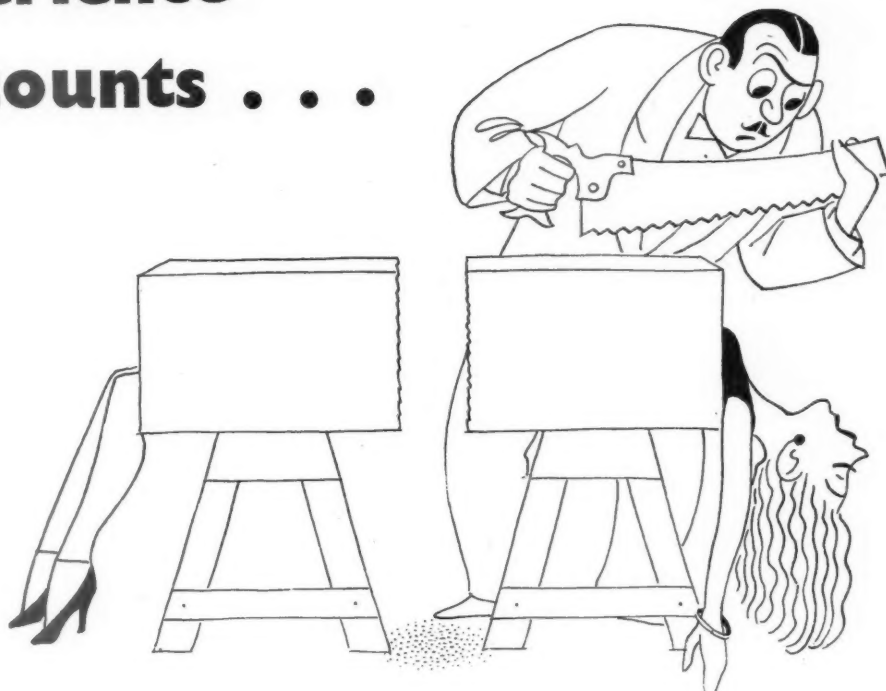
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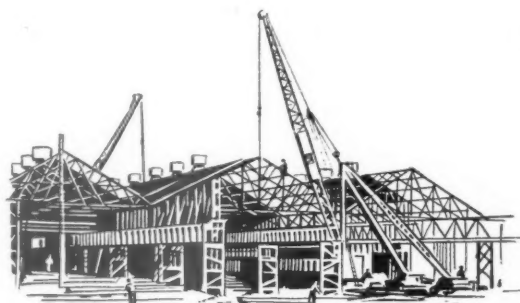
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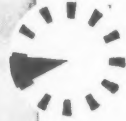
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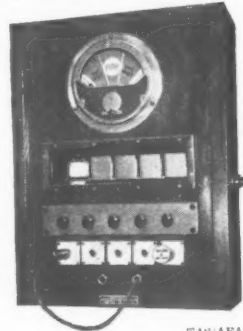
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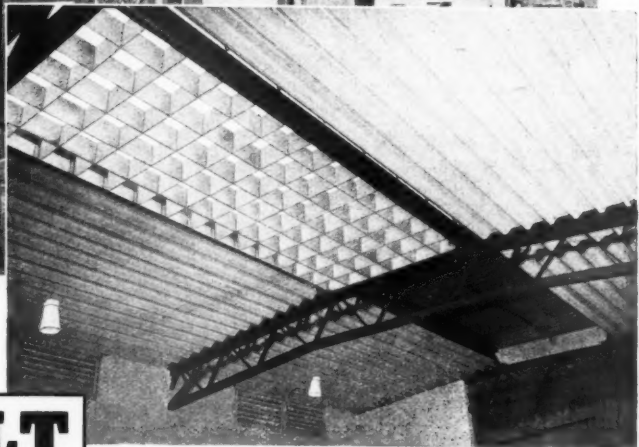
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- Grave Park School, Chiswick
- Dickens Avenue School, Finchley
- Broadfields Avenue School, Edgware
- Apex Corner School, Edgware
- Northolt Grange School, Northolt
- Matthew Arnold School, Staines
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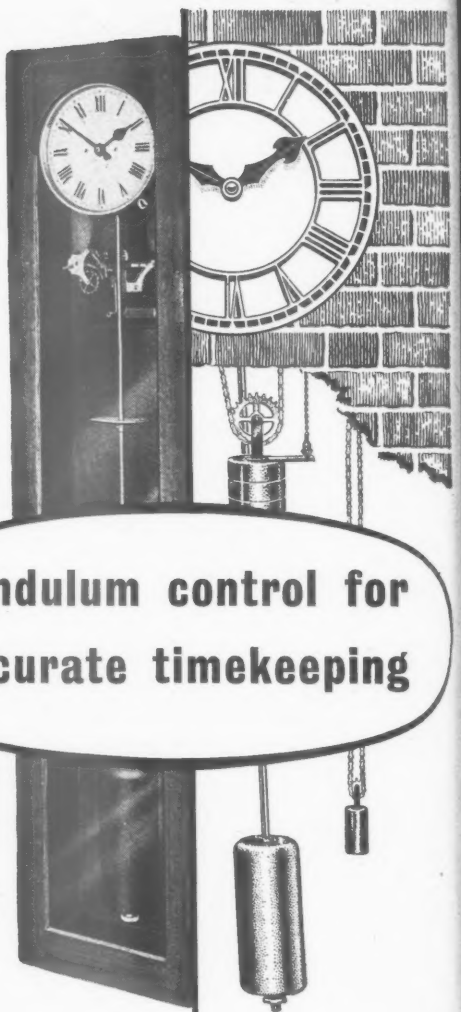
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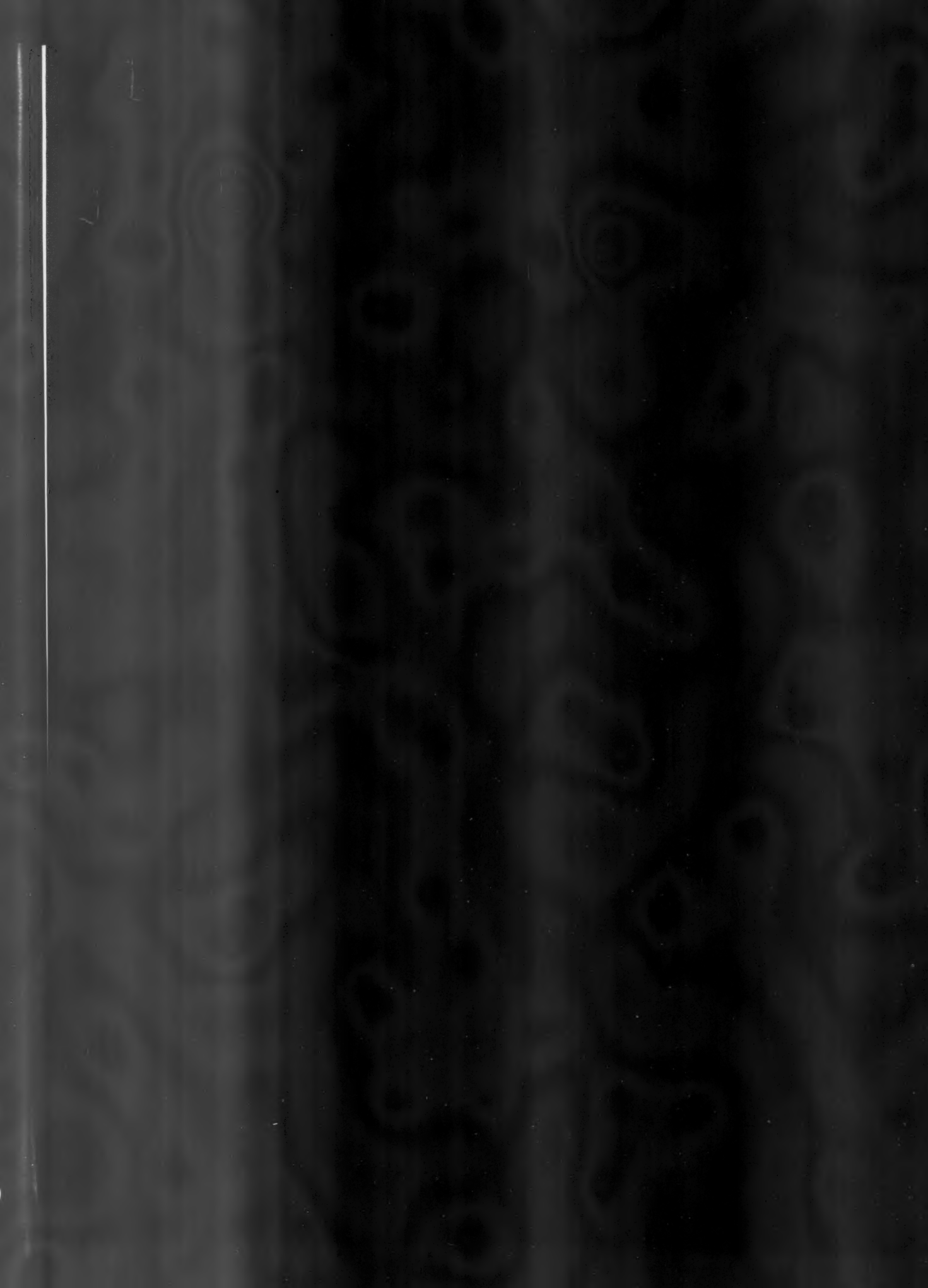
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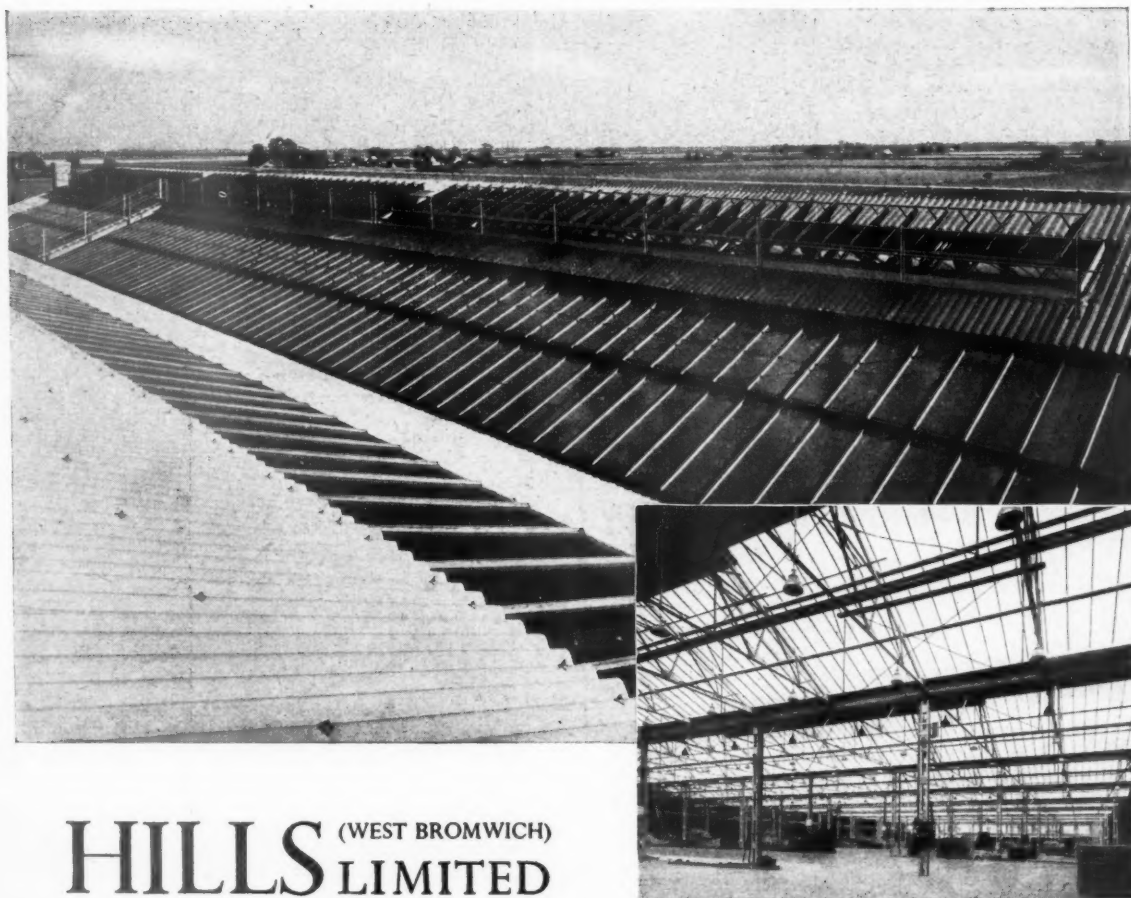
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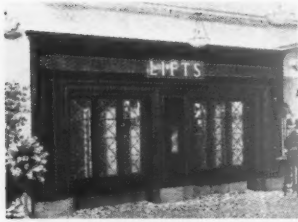
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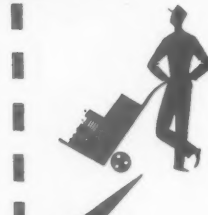
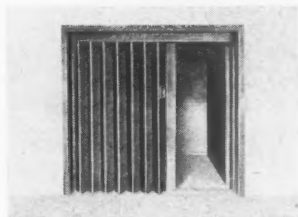
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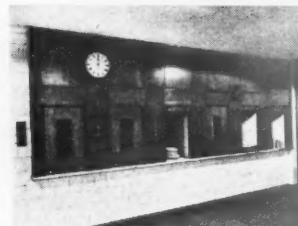
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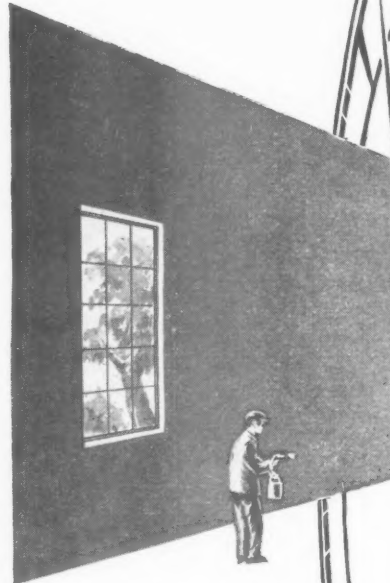


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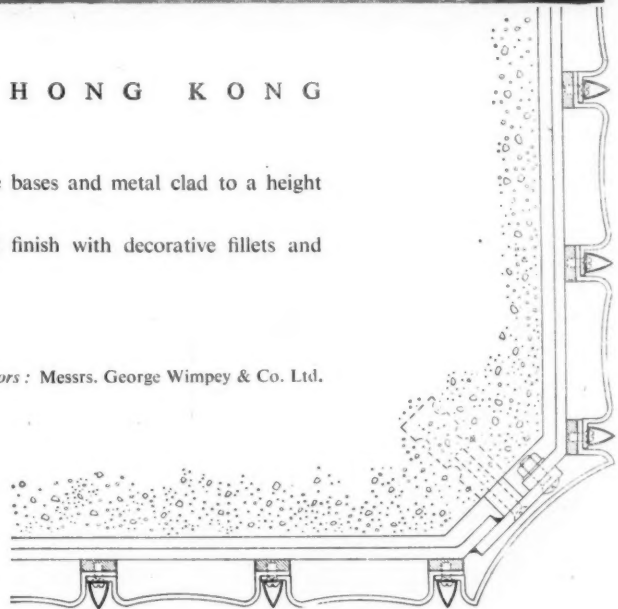


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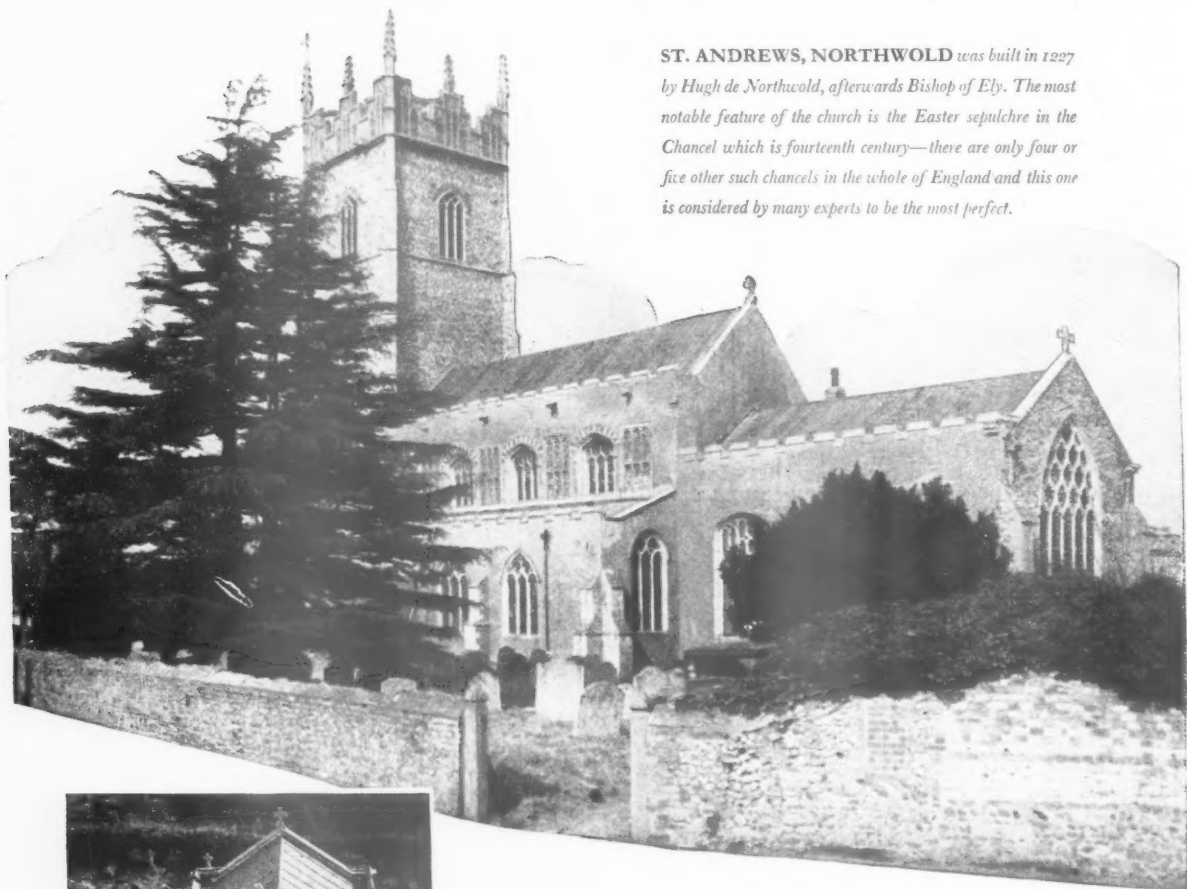


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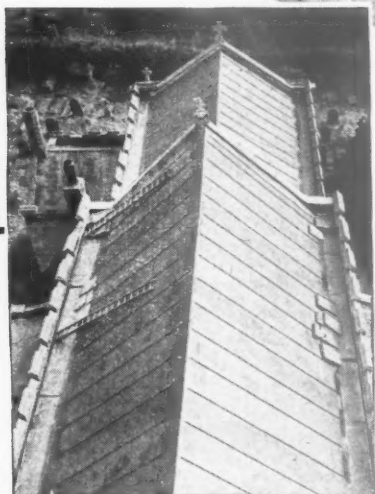
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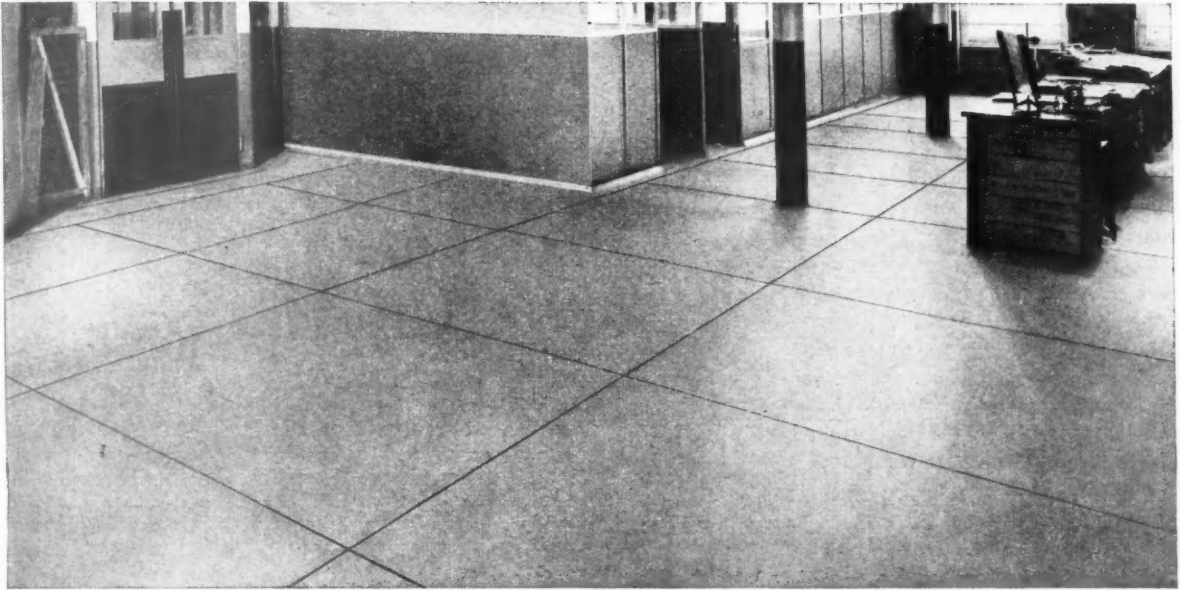
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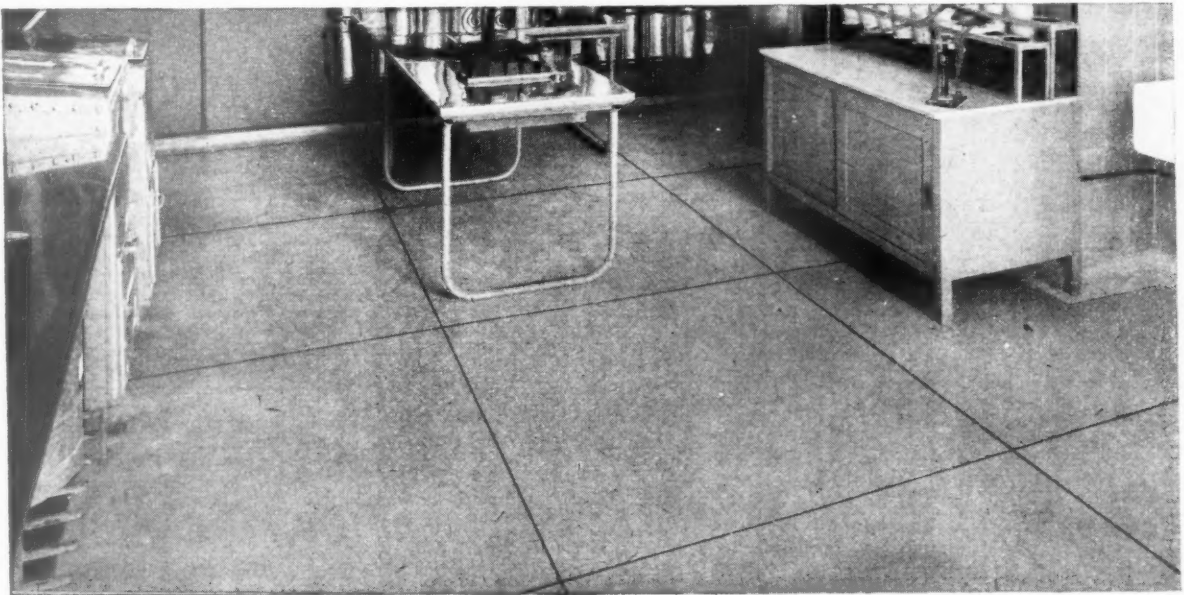
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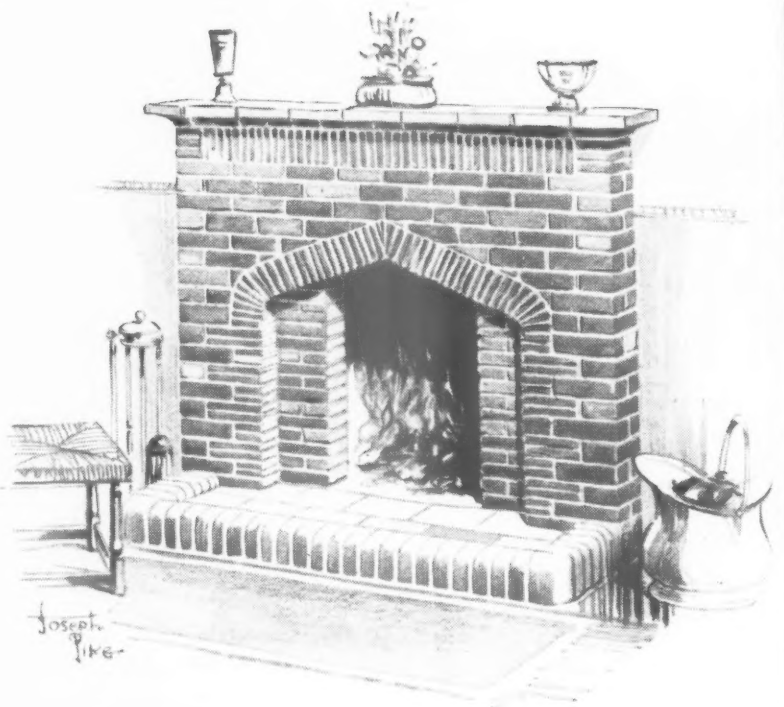


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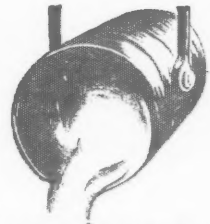
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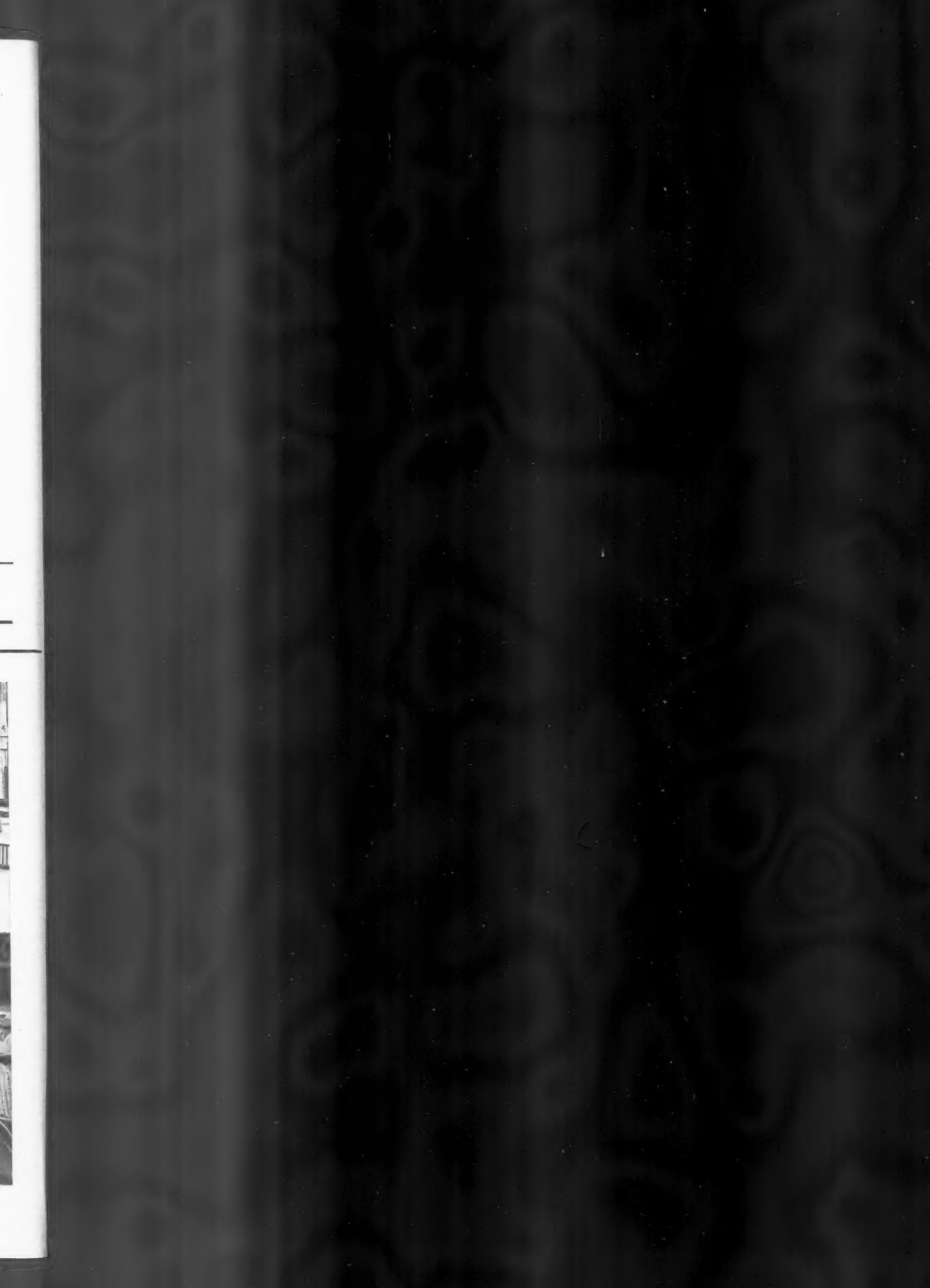
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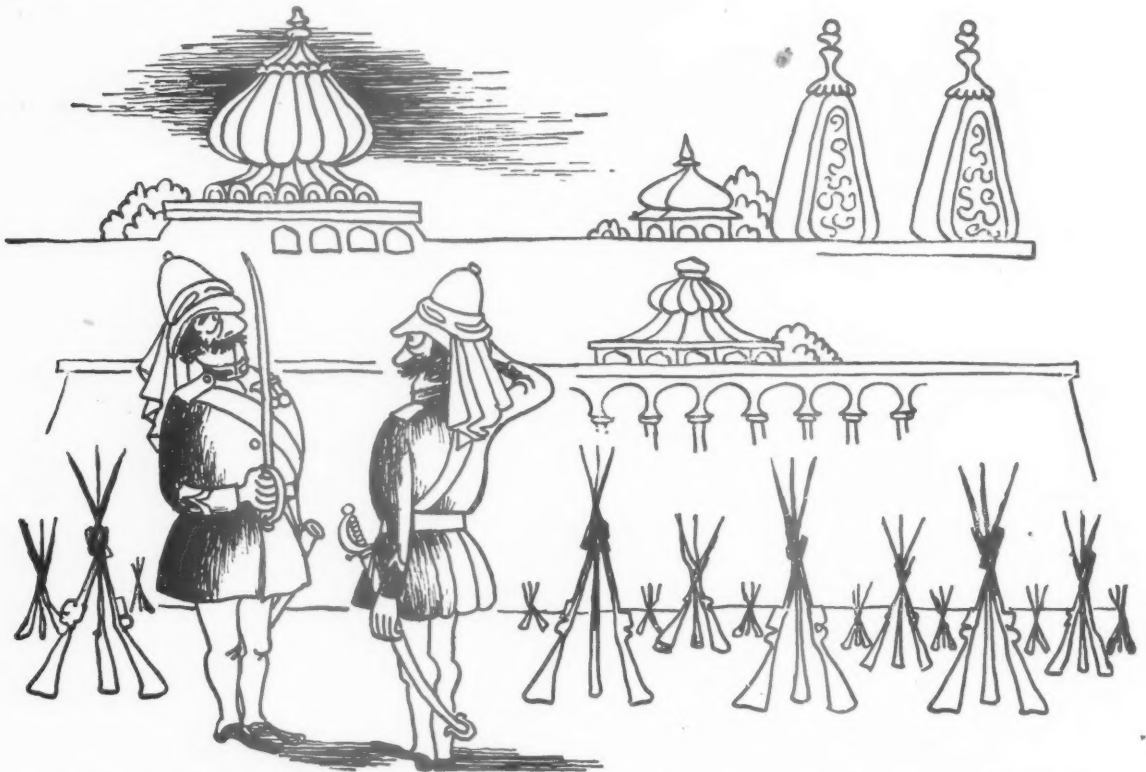
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No. 2988 June 5, 1952 VOL 115



POETIC JUDGMENT

ASTRAGAL welcomes most warmly, if belatedly, the appointment of his erstwhile colleague John Betjeman to the Royal Fine Art Commission. He may affect not to like architects, but he genuinely knows about and loves architecture, and there is no man who has done more to open everybody's eyes to their surroundings. Poets are the best and most trustworthy advisers in matters of the eye, and the RFAC is to be congratulated on having acquired so brilliant a new light for their old channel.

"THE CANDIDATE'S A DODGER, AND I'M A DODGER, TOO"

Election times, especially when as vital an issue as salaries is under discussion, are moments when even the bleariest

architectural eye may come ungunned—witness the JOURNAL'S correspondence column recently which has been full of suggestions on how to vote for the new RIBA Council.

*

Is not such enthusiasm sadly misplaced? There are only ten nominations to be made—so, fill them how you will they will be a minority of nearly one-eighth of the Council for the coming year and in subsequent years can never become more than one-half of the total strength of the Council. Before yelling "Undemocratic" it should be realized that the RIBA constitution is quite democratic, but more widely based than some ignorant young shavers realize. Roughly half the members of Council are representatives of local architectural societies, and it is here, in these neglected, ill-attended societies, that the young radicals should bawl their heads off—that is if they can be bothered to, and if they have the courage, and any real conviction.

RIBA OCCASION

All architects love to hear the RIBA described as a learned society. It may be an exaggeration (this year's accounts show £924 to the library and £43,000 to administration) but it's flattering and probably does no harm, and soon there will be a chance to help the illusion along. To those members whose interests are more strictly confined to professional affairs, Jack Isaacs may be less well known than he should be. If he is known at all, it is probably as an expert on the history of the theatre—more particularly stage machinery of the 17th and 18th centuries, but he is also one of the most brilliant talkers of our day—and the most prolific of readers. It is said that he transports

about fifty books per week back to the public libraries—having read them—and he was, until recently, lecturer in English literature at King's College, London, and at the Old Vic. He is a man worth hearing. Don't forget, then, learned society members, that he is giving a Sessional Paper at the RIBA on June 1. The subject is "Gothick Taste."

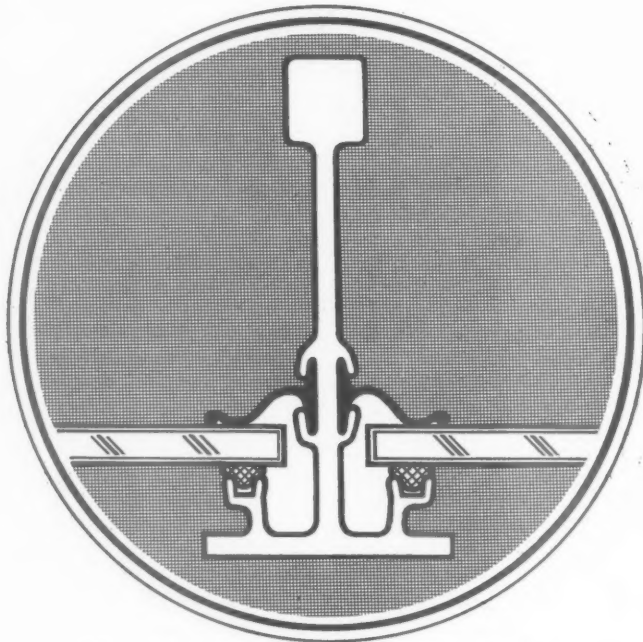
BATTERSEA REVISITED

May's "new-fangled mirth" returned to Battersea last week, and ASTRAGAL looked in to the Pleasure Gardens just too soon to miss a Press luncheon thrown—with kindness and velocity—by the organizers. Not far from the Riverside Restaurant—ingeniously designed, as you may have noticed, so that diners can't see the river—pneumatic drills were still jiving noisily with their muscular partners, while the tree-tops were loud with the familiar sound of the bare-chested worker calling his mate, as final safety tests were made on the overhead walk. This walk, by the way, has lost some of its gracefulness since last autumn; it is no longer supported by trees, but by miniature pylons which embrace them.

*

This is not the only feature that isn't quite what it used to be. As ASTRAGAL wandered through the Gardens, rejoicing at their re-opening, he winced at the sight of many "improvements"—the wastepaper baskets clinging to the slender columns of the Lancaster-Piper feature; the very realistic telephone kiosk in front of Emmet's Far-Tottering station; the nasty outbreak of trip-wires—in sad contrast to the charming intersecting hoops used elsewhere; the badly designed furniture; and some unhappy pieces of landscaping, presumably by the LCC

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Parks Department, which has done little to brighten the strange no-man's-land in the centre of the Gardens. As for the Showboat—a new feature this year; even a passing tug lowered its funnel in dismay as it slid past this crudely supported impostor, perched ridiculously above the beach at low tide.

However, there are a few *real* improvements. The band-stand, in which a lonely electric organist used to amuse himself behind the Vauxhall Beer Garden, is now on an island in the Crescent Restaurant area; the Emett railway has been diverted to that the public doesn't have to cross a bridge to reach the Beer Garden; some of the Parks Department planting has given the whole place a less temporary, more "settled down" appearance; the operator of that Teutonic torture-chamber, the Rotor, has been fitted with an appropriate uniform (ex-Gestapo?), complete with metal shoulder strips; and the fun fair has been graced by a lady ("is she flesh or wax?"), described on Press view day as The Sleepin' Beauty. No "G" to her string? Or does she come from Darlington, the home of the chorus girl?

A final point. If last year's decorations in pastel shades were too insipid, isn't James Gardner's present colour scheme too dark and heavy? Why are we so afraid of bright primary colours?

BIRTHDAY GREETINGS

Congratulations from ASTRAGAL to Thomas Wallis—see photograph above—still in active practice at the age (last week) of eighty. Thomas Wallis's firm (Wallis, Gilbert and Partners) not only specialize in industrial architecture—they almost invented it. Before they began their pioneer work in this field in 1919, architects were seldom called in by industrialists; factories were designed by engineers. America and Germany were far ahead of Britain in the design of industrial buildings, and it was an American engineer, Maurice Kahn (brother of architect Albert Kahn of Detroit), who put Thomas Wallis in the way of a specialized industrial practice. He went right on to put industrial architecture on the map—as well as on the Great West Road.



Thomas Wallis, photographed on his eightieth birthday. See ASTRAGAL's note below

Perhaps his most valuable contribution was the stress he always laid on the need for well designed welfare buildings, canteens, recreation rooms and the like, which have only become an important element in industrial buildings in recent years. Thomas Wallis started his own practice in 1902, after being articled to Sidney Smith, architect of the Tate Gallery. He tells a charming story about his first years in the firm. His employer was in for an important competition and thought it would be good practice for his young pupil to try his hand at a scheme, which he did at home in his spare time. Mr. Smith was so impressed by it that he entered it in the competition in the firm's name as well as the scheme prepared in the office. The two designs won first and second prize, Thomas Wallis's design coming in first. As romantic a beginning as you could ask for an architect's career.

WASH AND BRUSH UP

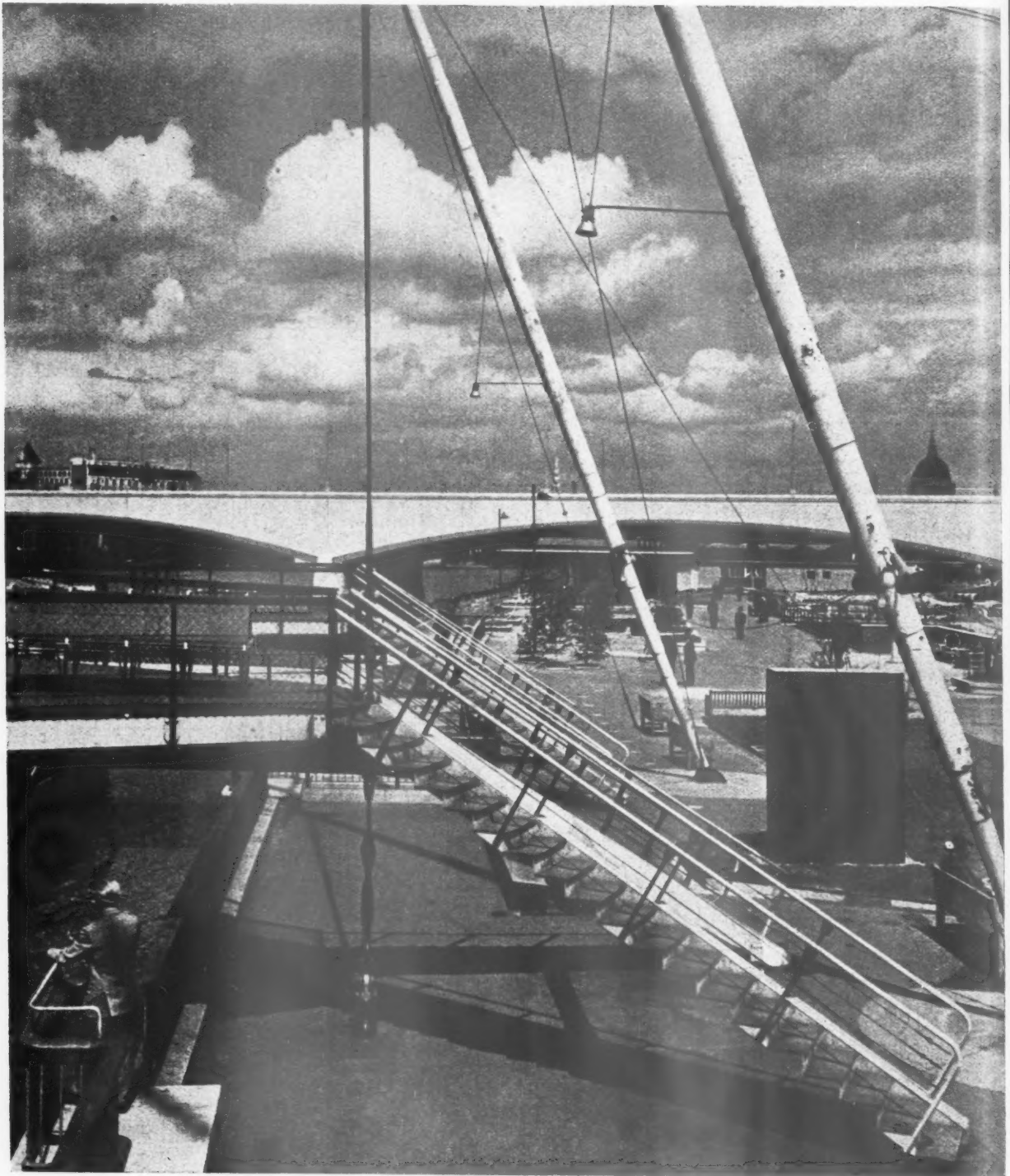
Now the Festival is over and its achievements safely forgotten, the *Evening Standard* has taken up the cudgels in the cause of a cleaner London for Coronation year, and seems to find Whitehall—unsuitable name—perhaps wisely, unhelpful. Cleaned buildings, like cleaned paintings, are largely matters of expert and individual judgment. Certain buildings—like the Duke of York's column—are better black. Others, like St. Paul's—perhaps better left parti-coloured. (Don't forget the story of La Petite Murphy, the Boston Irish beauty, de-

picted by Boucher in even fewer clothes than present day pin-up girls. Louis XV was so nauseated on meeting her that he ordered her to be washed and scrubbed; afterwards, hardly being able to take his eyes off her, he made her his mistress.) As for the tidiness of London buildings, did you see that the policeman on watch at the Victoria Tower, on being asked how long the scaffolding had been round the tower, was reputed to say that he didn't know as he'd only been on the job 17 years. ASTRAGAL can't remember either, nor the reason why it's there at all, except something about the stone Barry used turning into magnesium sulphate, a chastening metamorphosis for the centre of government.

The scaffolding has indeed been there so long that most Londoners will probably be very sad to see it go. It gives an exotic "Vertical City" scale to that area, which will be missed, particularly by architects, and Barry's Tower—when it emerges from its thinly pencilled cage of steel—will have to be a very good piece of architecture indeed—as perhaps it may be—if it is to take an equally warm place in our hearts.

WANTED: A BLANK WALL

Whenever the subject of murals crops up in architectural circles—say once a month, when the subject of the inexperience of assistants has temporarily dried up—you will usually hear



The South Bank's Middle Period

This week we give a glimpse of what is going on at the site of the South Bank Exhibition. As traces of the Exhibition buildings are rapidly removed and the Skylon gets shorter every day, areas of grass and planting appear along the riverside walk. In the background can be seen trees and flowers which have been planted in assymetrically arranged beds. These are placed as hazards around groups of chairs—unfortunately, the hideous park-bench variety. The nautical character of what was the Seaside Section of the Exhibition has been retained and at night the cantilevered viewing platforms and the masts in front of the concert hall

are tepidly illuminated—a ghostly reminder of the blazing glory of the South Bank nights of a year ago. To the right of the picture is seen one of the features of the Seaside Section—also used as a hazard—standing, in the shadow of *The Architectural Review*, amid a pile of pebbles. There are several other hints that features from the Exhibition are to be incorporated in the landscaping of the South Bank for its Middle Period—until permanent development is possible. It is a little premature to comment on this temporary development, but there seems cause for hope. We shall return to the site later.

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POINTS FROM THIS ISSUE

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The Editors

STUDENTS COMPLAINT AGAINST RIBA

AS readers will already know, the RIBA has recently decided that students shall not qualify for associateship of the Institute until one year after passing their examination, during which time they must be employed in an architect's office. The matter has not previously been discussed on our leader page, though it has been dealt with elsewhere in the JOURNAL. But there has been so much confused thinking and talking about the rights and wrongs of the case—as exemplified in the discussion at the Institute's recent annual general meeting—that no apology need be made for a restatement of the facts.

No one in the profession would think of complaining because the RIBA is seeking to improve standards within its members' ranks. But students near the end of a five-year course—which they embarked on confident that they would finish it with their necessary qualifications—do have a righteous quarrel with the Institute. It is true that a warning about the impending regulation was issued in 1949. But that means that the Institute would only have had to postpone the practice of the regulations for two years—not five—to be sure of treating everybody fairly.

Some people may doubt whether even this would have been fair. In 1947 the RIBA handbook on "Membership" contained official encouragement for students to seek office experience in the vacation. And doubtless many students who took that advice thought that their holiday work would be taken into account if the regulation about office experience were ever restored. But now that the regulation has been restored all the practical experience they gained is useless.

What is so extraordinary about the whole affair is not so much that the Institute made its decision without, apparently, foreseeing its consequences, but that having made the decision nothing will induce it to change its mind. Anthony Chitty summed up the Institute's dogged attitude at the annual general meeting when he said: "It became apparent to me recently . . . that the setting up of a tribunal (for hardship cases) and the alleviation of these conditions, letting the students through, would virtually mean the cancellation of the regulations for another two years. That would have been directly contrary to the decision of the Council." Well, of course it would. But why not? Is the Council's decision so sacrosanct that it cannot be revoked even when its unfairness must be apparent to all but itself?

somebody protest that there's nothing they would like more than a few murals, but the client simply won't stump up the cash. It was good to see in the news item on page 663 of last week's JOURNAL that the Edwin Austen Abbey Memorial Trust Fund has announced that it has funds available to finance suitable projects and is now open for suggestions. If you know of a nice blank wall, then it's up to you to let the Abbey Fund trustees know about it too.

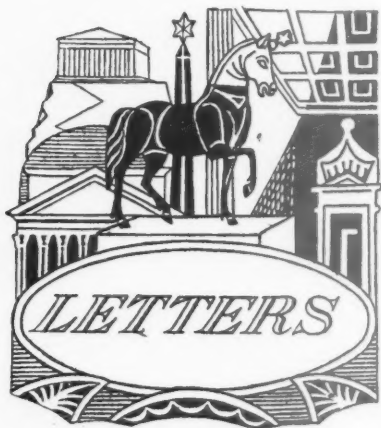
OLD ROWNTREE'S BAILEYWICK

Pursuing his own researches on this subject, ASTRAGAL looked in last week on the Old Bailey, which is now undergoing extensive bomb-damage repairs. Plenty of domes and pendentives there surely just asking to be covered with swords and scales and togas . . .

But too late. A gang of mural painters was already in charge. Directing operations from a scaffold eighty feet above the floor could be discerned the genially rotund figure of Kenneth Rowntree. After touching in the last high-light on a bunch of grapes, he was persuaded to descend, and over a cup of tea in a nearby café (who is it who opens his stories with that sentence?) he told how it all happened.

The original paintings by Sir William Richmond and Gerald Moira were badly damaged in the war. These are now being restored and in places revised under Mr. Moira's direction with Kenneth Rowntree and ex-RCA students collaborating. The work is expected—here Mr. Rowntree licked his lips slightly—to take a long time. Returning to the Old Bailey for a look, ASTRAGAL stood for one guilty and romantic moment in the empty dock of No. 1 Court, and then, suitably enough, climbed the scaffold. The view from within Mountford's heavy dome is superb (except to the north west and that you-know-which building in Holborn). Above us on the ceiling swam the figure of Truth—handsome, solid, enchantingly coloured. Art, literature, and learning lay still on their backs awaiting promotion from canvas to plaster. Bemused by such distinguished company, ASTRAGAL brushed the marble dust from his trousers, and left the Old Bailey a free man . . . and then over a cup of tea in a nearby café—I'm so sorry, this is where we came in.

ASTRAGAL



R. Carton Tickell, A.R.I.B.A.,
A.M.T.P.I.

Principal Overseas Technical Service

"Borough Architect"

E. W. Collins, A.R.I.B.A.

Arthur Lindsay, A.S.T.C. (Arch.)

John Gloag, Hon. A.R.I.B.A.

Neville Conder, A.R.I.B.A.
Consulting Architect to the BOT for BIF

G. B. J. Athoe

E. B. Redfern A.R.I.B.A.,
A.M.T.P.I.

Living Abroad

SIR,—The Overseas Technical Service represents many leading firms of architects overseas in the recruitment of United Kingdom staff. May I therefore repudiate ASTRAGAL's comment in your issue of May 8 that our principals are offering salaries which are "not too easy to live on" . . . "the cost of living being what it is."

Later this year we shall be publishing a booklet giving details of income tax, food prices, rents, etc., for all countries in the Commonwealth, and I shall have pleasure in forwarding one to ASTRAGAL. Meanwhile may I say that the cost of living is rising with such rapidity in the United Kingdom that differences between our prices and those in Africa are disappearing. The one exception is housing, where a married man may have to pay up to £30 a month for a house or flat, for which sum the single man obtains full board and lodging.

Every day I have to inform married applicants that unless their wives are in a position to take up employment (there are many well paid posts for women available in most African towns), it will be difficult to maintain a reasonable standard of living, due to the rent component, £750 per annum. This salary, however, would give the single man a higher standard than the equivalent he would normally obtain in the United Kingdom, unless he wraps himself round a gin bottle each night.

During the past year we have advertised over thirty vacancies at annual salaries from £400 for draughtsmen to £1,200 for senior assistants, with potentially higher incomes for branch managers working on a salary and bonus. In all cases we have asked for candidates of experience, competence, to whom we have been able to offer, not inflated salaries, but interesting work and a pleasant life in growing communities.

R. CARTON TICKELL.

Harrow.

Architects' Salaries A Reply

SIR,—I must reply to the letter signed by 51 members of the County Architect's Office, Wakefield, in your issue of May 22, which states that: "A clear example of the present situation is in the letter from 'Borough Architect' who is unwittingly lowering the status of the profession."

The 51 members of the above office are obviously unaware of the memorandum of Recommendations of the Joint Negotiating Committee for Chief Officers of Local Authorities in respect of salaries, dated September 12, 1950, which has been accepted by some authorities. Others are fighting these recommendations. In these recommendations, salaries are worked out on a population basis, irrespective of the varying responsibilities of chief officers.

"BOROUGH ARCHITECT."

.... Cheap Labour ?

SIR,—Does it occur to the RIBA Council that the half-hearted interest displayed on the question of adequate remuneration standards for qualified salaried architects is one of the main reasons for the growth of official and salaried architects and consequently for the increasing dearth of private work?

What individual or body contemplating building work of any extent—whether new building, alterations or maintenance—is going to pay scale fees to private architects when satisfaction can be got by forming a department and employing a few qualified and experienced architects at £500-£800 per annum with perhaps a chief at £1,200-£1,500?

London.

E. W. COLLINS.

.... The Private View

SIR,—I trust you will forgive the stains of blood and tears which befect this letter, for my heart overflows with sympathy for the innumerable correspondents—salaried Assistants in Public Offices—who have found a sympathetic airing for their griefs upon your pages. I, too, am one of the salaried many, but in private practice.

It is, however, time that this nonsense should come to an end! For who, pray, are these poorly paid men who cry out in their need? Who are these down-trodden "official" architects who are, at the moment, lobbying so vociferously, and so imposingly (over the cryptic mass signatures like "104 from X Office, Wakechester") for "justice" and "fair" representation on the RIBA Council?

I trust that those few to whom the following comments do not apply will forgive me, and understand—for the sake of the others who deserve to be told how they appear in the eyes of those who are still not influenced by the heartrending tales which we have now heard, that one fact is certain: the clamorous lads who are so shockingly maltreated are little credit to any body of professional men, and perhaps least of all to architecture! For they have deliberately chosen their own path; they are the same who disdained, a year or two (or four) ago, to accept what they considered the low initial salaries, the large element of chance, the need for devotion and for shouldering real responsibility, necessary in working in private offices. They preferred the security and the high initial salaries, together with the promise of less work and little responsibility (and liberal holidays!) of the official appointments. They are the same who, within the last twelve months, have been granted at least one significant and substantial salary increase, apart from the regular automatic "up-gradings" which they enjoy.

Compared with law and medicine, compared even to certain selected skilled and semi-skilled trades, architecture is not a calling which is able to bring riches and distinctions. That is one lesson which, to my knowledge, has been omitted from the syllabus of most schools of architecture. Yet architecture has its many compensations, through the delights of creative art and the rewards of philosophy: compensations which no other field of human endeavour is able to offer or parallel.

ARTHUR LINDSAY.

Derby.

Advertisement

SIR,—I would refer to your leading article of May 15. If and when the architect is allowed "to get back into contracting and into building itself," the next step will be to advertise his services. One can only hope such advertisements will be worded in a dignified and professional manner. I happen to possess a copy of the *Norwich Mercury* for Saturday, February 23, 1788, which includes an advertisement that might well supply a model. It reads as follows:

"Architecture.

HENRY DOBSON,
Architect and Builder,

No. 7 St. Giles's Hill, Norwich.

Impressed with Gratitude for the liberal Patronage of his Friends, begs Leave to return them his most grateful Acknowledgments, and wishes to inform them, and the Public, that he undertakes to execute Buildings of every Description, on the most reasonable Terms. Determined to exert every Endeavour to merit their Approbation, he submits the following to their Attention.

BUILDINGS surveyed or measured

DRAWINGS for the Direction of Workmen executed with Neatness, Precision, and Dispatch.

Also ORNAMENTAL DRAWINGS for finishing Rooms in the most elegant and approved modern Taste.

Perspective Drawings of any Kind of Mechanical Engines, furnished on moderate Terms, and the strictest Attention paid to their Minutiae.

H. D. respectfully informs such Gentlemen as the following Article may concern, that he executes BECKS and CASKS for Stores of any Dimensions, on the same Terms as in London."

London.

JOHN GLOAG.

BIF: Second Reply

SIR,—Those of your readers who are not familiar with the organisation of BIF may have been mystified by the apparently conflicting statements from S. P. Jordan and myself in your issue of May 29. I was replying to your frontispiece caption concerning Earls Court and Olympia; the two sections of the Fair organised by the BOT. Mr. Jordan was speaking of the Castle Bromwich section, which is organised, I believe, by the Chamber of Commerce, Birmingham. Each of these authorities has its own regulations and I should have made it clear that I have no authority to speak for the latter.

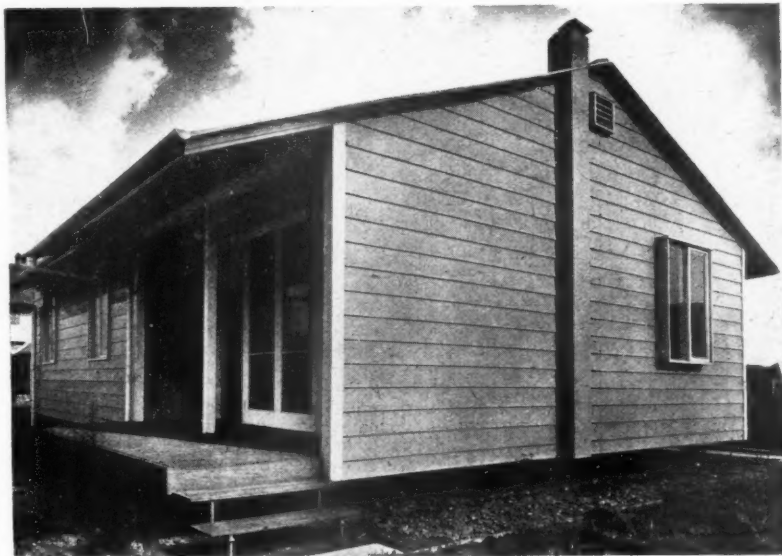
London.

NEVILLE CONDER.

ABS Funds

SIR,—As a very humble subscriber to the funds of the Architects' Benevolent Society, I attended its annual general meeting recently, when, *inter alia*, the report of the

ALUMINIUM PREFABRICATED HOUSE



Commonwealth House, which has been built beside the Great West Road near Kew Bridge, is being opened by Hugh Molson; Parliamentary Secretary to the Ministry of Works, next Tuesday. This prototype house, which can be produced, if supplies are available, at the rate of 1,000 per month, is intended primarily for export to countries of the

commonwealth. The general contractors are Simms, Sons, and Cooke, Ltd. The aluminium frame, cladding and roof is produced by Aluminum Union Ltd.



Hon. Treasurer was presented. I was staggered to learn from the report that out of some 17,000 persons on the register of Registered Architects, only some 3,000 subscribed to the funds of that very deserving body (the ABS).

Looking back on the days of heated argument in committee of the House of Commons arising on the terms and provisions of the Architects' (Registration) Bill, which became the Act of 1931, it seems a pity that half of the registration fees were not earmarked for charities such as the ABS, instead of for scholarships for entry into an overcrowded profession. Anyway, I hope this missive will have the effect of rousing those architect readers who are lucky enough to have a pound in their pockets to spare, to help the good work which is being performed. Much more could be done by the ABS, if it were not for the lack of funds.

G. B. J. ATHOE.

Knightsbridge.

The Future of Development Charge

SIR.—The JOURNAL rightly commented recently (see leading article: March 27) that the 100 per cent. development charge is "socially bad in that it destroys initiative and enterprise," and that there is an "inefficient and costly scheme of collection." What of the farcical instances which have been quoted periodically of indecision and varying valuations and interpretations and of the "that's that" attitude which has been adopted when the Board has been unable or unwilling to support its interpretations or valuations with quotations or facts. —confident in the knowledge that its interpretations can only be questioned in legal actions beyond the pocket of the average individual, and its valuations only on the "old boy" basis?

So far as compensation is concerned, the main point is that the compensation provisions of the Act have almost completely failed in their main aim of ensuring that land would change hands at "existing use value": soon many owners of undeveloped land will be entitled to cash in on the £300 m. fund and still have no incentive whatsoever either to sell at existing use value or to put their land to its planned use. Others who may have borne very real financial burdens may be only partially compensated.

Your opinion that a more simple plan could be devised should be pursued vigorously, and the suggestion to link the assessment of development charge with increase in rateable value has that aim well in view. Rumour has it, however, that the politicians are inclined to deal with Parts 6 and 7 more drastically, and unless planners can point to a solution which will suit both planners and planned, they may find that some of the good provisions of the Act will be swept away with the bad. Examples of possible improvements which might be debated are:

(a) That planning authorities be required to produce maps showing those parts of their areas where both development charges and compensation could be abandoned. (e.g. in built-up areas where existing use and planned use coincide; land laid out with roads for development; and predominantly agricultural areas which, as far as can be seen, would always remain as agricultural.) Such a partial abandonment would not harm the planners, would automatically reduce administration costs, avoid thousands of pettifoggish applications and "nil" determinations, and remove the present penalties against the owners who wish to carry out improvements or sell for redevelopment.

(b) Development Charge in other areas to be renamed "Increased Value Tax" and levied at a rate not exceeding 75 per cent.

—to leave a very desirable degree of incentive.

(c) Compensation for loss of increased value (in areas planned for development) only to be paid when evidence has been produced that the land has been sold for its planned use at its existing use value—or when the "Increased Value Tax" has actually been paid (including those who have already paid).

(d) That planning authorities be required to obtain from their valuers *basic rates* of "Increased Value Tax" for the main development or redevelopment areas shown on the development plans and to *publish* such typical rates for all to see. This would enable prospective developers to have a clear idea of their liabilities without tedious negotiations, and assist in avoiding wide variations in the rate of charge for similar development.

(e) That the right of *appeal* be instituted in respect of development charges; for why should the planning committee always have to keep an eye on justifying their decisions when the Central Land Board or its successor can be its own judge and jury?

Any constructive suggestions by individuals

(or organisations) which might contain the germ of an idea for improving Parts 6 and 7 of the 1947 Act ought to be published quickly, and debated before the politicians produce their own ideas and bulldoze them into law.

E. B. REDFERN.

Exeter.

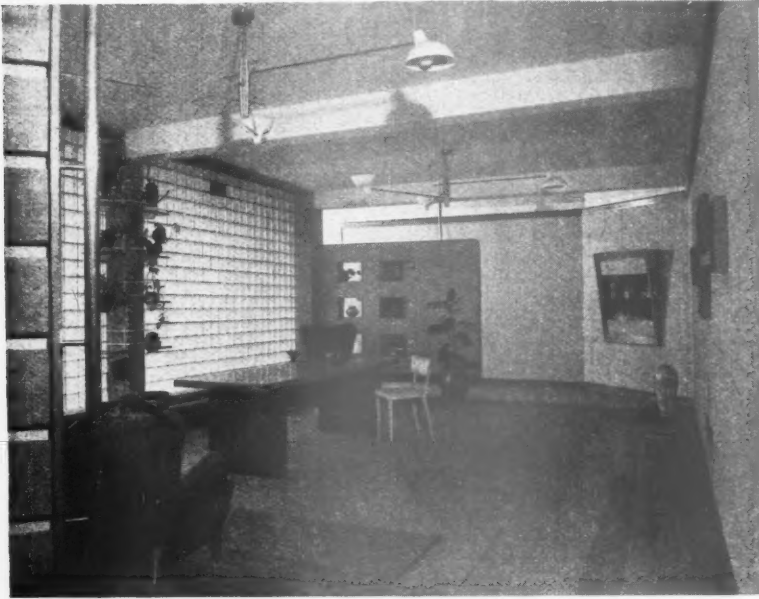
DIARY

Mechanical Handling Exhibition and Convention. At Olympia. Weekdays, 10 a.m. to 6 p.m. UNTIL JUNE 14

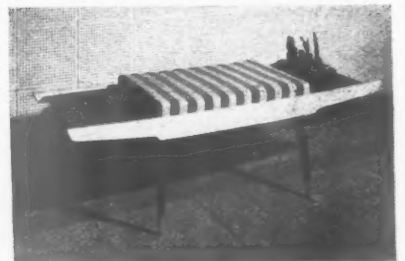
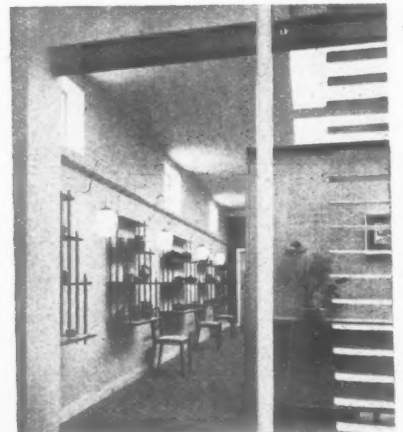
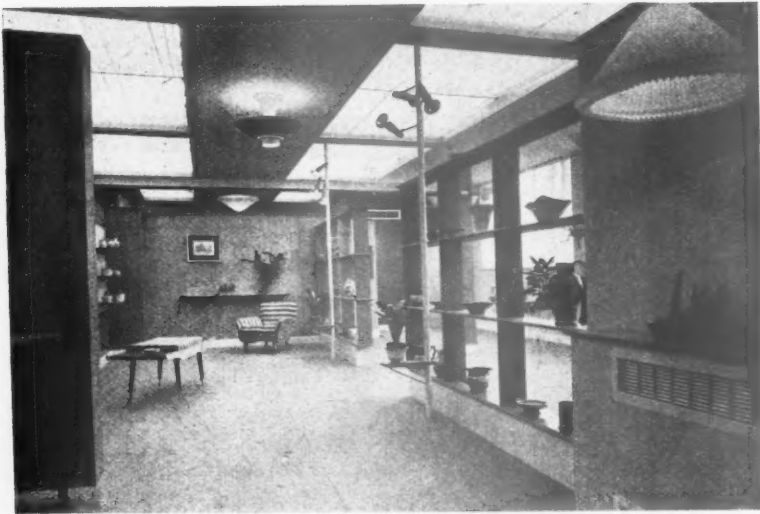
For Bill and Betty—Or Setting up Home. Exhibition at the Whitechapel Art Gallery, High Street, E.1. Weekdays (excluding Mondays), 11 a.m. to 6 p.m. Sundays, 2 p.m. to 6 p.m. UNTIL JUNE 14

Exhibition of Planning Projects on View at CIAM Congress last year. At BC, 26, Store Street, Tottenham Court Road, W.C.1. Weekdays, 9.30 a.m. to 5 p.m. Saturdays, 9.30 a.m. to 1 p.m. UNTIL JUNE 21

NEW SHOWROOM FOR POTTERY MANUFACTURER

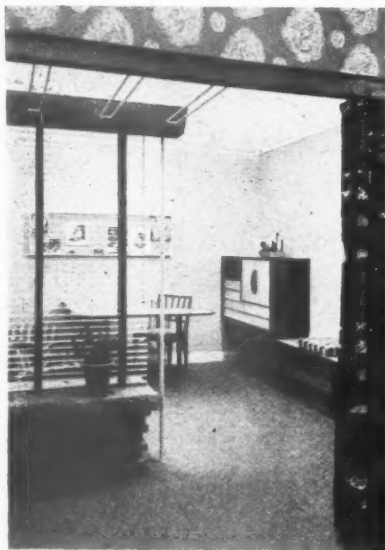


The interior of the new showroom for Joseph Bourne & Son, Ltd., at Denby, near Derby, was designed by Robert Wetmore of Cockade, Ltd., who were the contractors. For the new building, which includes the showroom, the architects were Wood, Goldstraw and Yorath. Included in the new interior design is the entrance hall shown top, left. Acoustic tiles, 12 in. by 12 in. provide a textured surface in contrast to the wall of glass bricks. At the far end a screen, supported on polished copper tubes, is used for display purposes. The showcase to the right is canted forward to avoid reflection from the windows. The fluted beechwood cores and brass arms of the light fittings were specially designed. The showroom, centre, left, is sectionally divided to show different types of ware. The open shelves on the right are of light beech and the windows beyond have sills of dressed York stone. The display section, bottom, left, has blockboard shelves with mahogany edges. The lighting is concealed in the metal louvres above. In the general view, shown immediately below, the wall has a continuous series of shelf fittings. These are also of blockboard, but

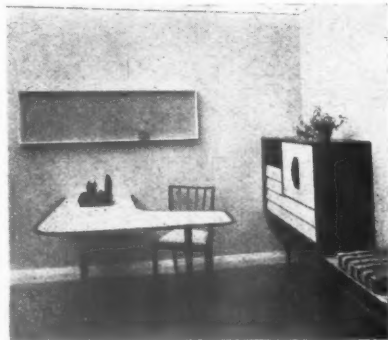


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veneered in sycamore with vertical slats of mahogany. Between each fitting a large opal globe hangs from a brass tube. The wall is papered with a striped pattern in buff and dark grey. The table stool, opposite page, bottom, had been specially designed and is constructed of sycamore and mahogany. At one end of the showroom an anteroom, shown in two photographs on the left, is partly screened off by a venetian blind hanging over a plinth of rough-hewn Yorkshire stone. A built-in seat extends the length of one wall and supports a storage unit. The ceiling lights are screened by a linen velarium stretched over at a height of 9 ft. Throughout the showroom the floor is covered in grey felt. Although most of the furniture has been specially designed, some utility furniture has been used. The general contractors were Cockade, Ltd. For sub-contractors, see page 710.



People's Homes, Millbrook; Aylesbury Rural District, Raymond C. White, for Anstey Close, Waddesdon. South Western: Exeter County Borough Council, Harold B. Rowe, for Stoke Hill Estate; Stroud Rural District, Bernard J. Ashwell, for Cheltenham Road, Painswick. Midland: Nuneaton Borough Council, Frederick Gibberd, for Dempster Court, Church Street; Pershore Rural District Council, Thomas Bateman, for Wick. North Western: Macclesfield Borough Council, Ernest A. Heppenstall, for Gawsworth Road, Weston Housing Scheme; Chapel-en-le-Frith Rural District Council, George Robb, for Castleton Housing Scheme. South Eastern: Crawley Development Corporation, Alwyn G. Sheppard Fidler, for West Green. Wales: Caerphilly Urban District Council, Alun Rogers, for Nantgarw No. 2; Wrexham Rural District Council, John B. Cooper, for Plas Isaf, Rhos-y-medre.

CAMBRIDGE

Limited Competition for New Buildings

Cambridge University has invited Sir Hugh Casson and Messrs. Atkinson and Anderson to submit plans for the development of a site between the University Library and Sidgwick Avenue. It is proposed to build a lecture hall to seat 1,000 students, and provide accommodation for eleven university departments. The architect selected will take charge of the building programme, which is to commence in about four years time and is to be spread over a number of years.

RIBA

Surveyor's Exam Results

At the RIBA examination for the office of building surveyor under local authorities, held in April, 1952, 13 candidates presented themselves. Those successful are: Wilfred J. Morley; Wallace Platt; Ernest J. Winfield; Richard F. Stockley.

BC

Club Room for Examinees

Students visiting London for the RIBA examination from June 18 to 26, will be able to use a club room at the Building Centre, 26, Store Street, Tottenham Court Road, W.C.1. An information service will be available and it is proposed to hold an exhibition of "thesis" drawings from some London schools. The Architectural Press, Ltd., will provide a display of its books and publications.

All students interested in the club room are requested to apply for a membership card.

CIAM

BC Exhibition

An exhibition of the planning projects prepared for showing at last year's CIAM congress at Hoddesden will be on view at the Building Centre from June 5 to 21. The theme of the congress was "the heart of the city," and the plans illustrated include town and city centres from all over the world, among them the new Swedish industrial town of Gustavsberg, the reconstructed Hiroshima and a number of interesting projects from South America. The English contribution, prepared for exhibition by the MARS Group, consists of plans for the centres of East Kilbride, Stevenage (two versions, one the work of a group of students) and Coventry.



MOHLG

Housing Medals 1952

The 1952 awards of housing medals and diplomas offered by the Minister of Housing and Local Government for the best designed local authority urban and rural housing estates in England and Wales have now been completed on the recommendations of the regional awards committees. Entries have

been received from New Towns and from housing associations in addition to local authorities. The 1952 awards were chosen from 275 schemes completed during 1951.

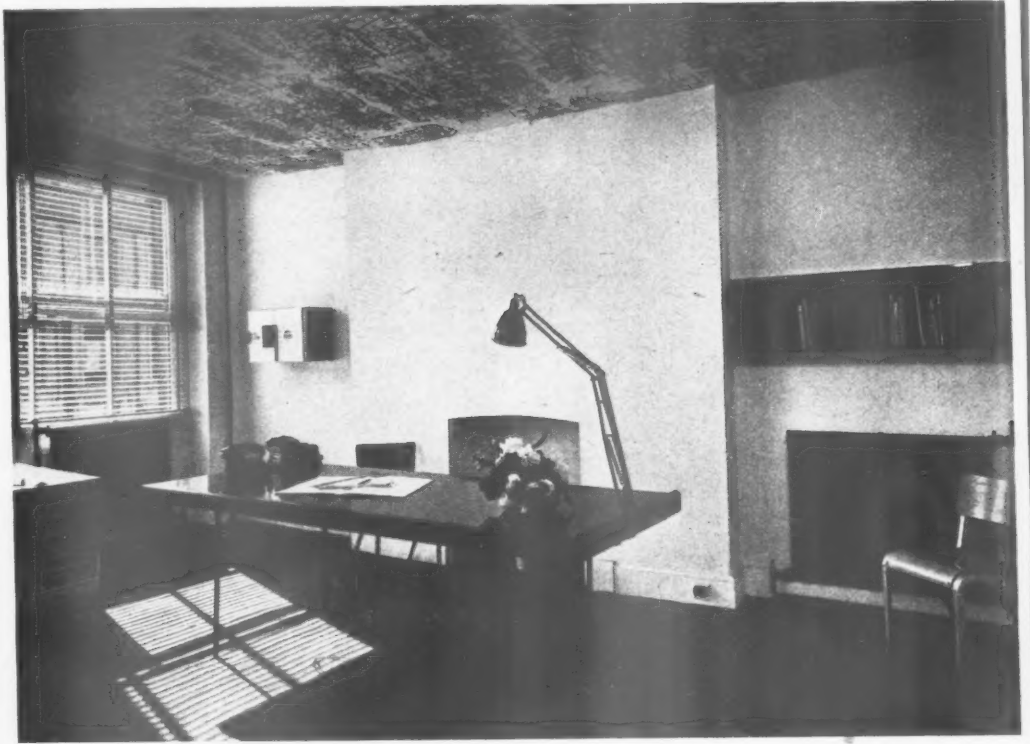
The medal recognises the work of the architect or designer responsible for the design of the estate selected in each case, and is awarded individually to that person, who also receives a diploma signed by the Minister and by the Chairman of the Awards Committee. A similar diploma is presented to the local authority concerned. In judging the entries the Awards Committees have taken into account the layout and appearance of the estates and the architectural quality of the houses.

The Minister will, to the invitation of the President and the Council of the RIBA, present the medals and diplomas at the Royal Institute on July 16.

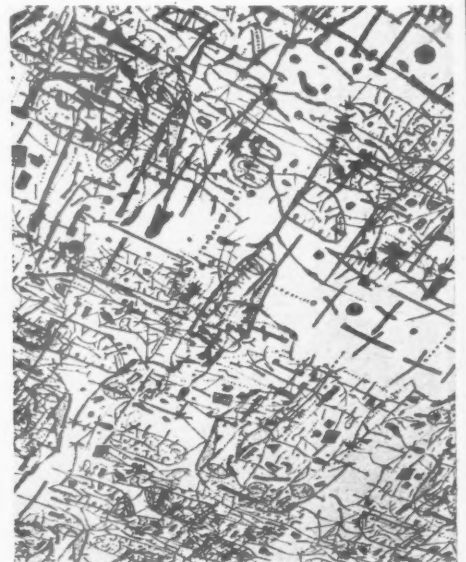
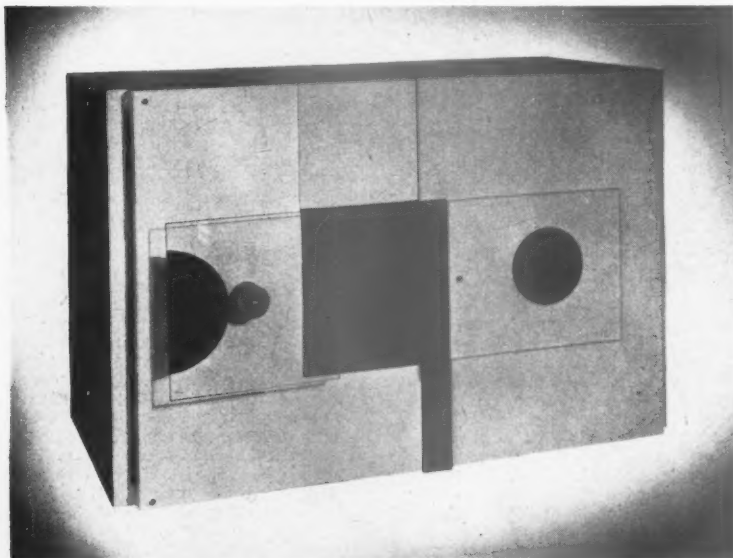
The awards are as follows:—Northern (area): Hexham Rural District Council, William Dixon & Son, for Stocksfield. East and West Riding, Ripon & Pateley Bridge Rural District Council, Needham, Thorp & White, for Broomfield Estate, Birstwith. North Midland: Brackley Rural District Council, Geoffrey F. Lawson, for Syresham. Eastern: Harlow Development Corporation, Frederick Gibberd, for The Lawns, Mark Hall, Area 3; Braughing Rural District Council, Paul V. E. Mauger, for Greenways, Buntingford. London: Wandsworth Metropolitan Borough Council, Charles H. James, for Notre Dame; St. Marylebone Metropolitan Borough Council, Louis de Soissons, for Barrow Hill Road. Southern: Southampton County Borough Council, Leon Berger, for Old

ROOM AT 8, FITZROY STREET, LONDON, W. 1

A room at 8, Fitzroy Street, the offices of Ove Arup and Partners, has been redesigned as an office for one of the partners (R. S. Jenkins) by Alison and Peter Smithson. The wall cabinet, seen in the photograph, bottom left, was designed by Victor Pasmore. The case is mahogany with a double front, side hung on piano hinges, so that



when the doors are open flush with the sides a different pattern is obtained. The front is faced with panels of "Perspex" and other plastics. The table, which appears in the top photograph, was designed by the architects, and is made of ebonised blackboard, with legs of $\frac{1}{2}$ -in square section mild steel rods. The ceiling, part of which is seen bottom right, was designed by Eduardo Paolozzi and is printed on white lining paper by the silk screen process. The screens can be turned in different directions to vary the basic pattern. The colour scheme of the room is entirely black and off-white except for the radiators, which are painted battleship grey. One wall, which appears in the photograph, centre right, has a large blackboard fixed to it. This is of hardboard, treated with three coats of blackboard compound. The general contractors were F. C. Cope Ltd.



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In his letter from Dublin Niall Montgomery gives an account of recent news from the building and architectural world.

NIALL MONTGOMERY Dublin News-letter

Water is important because it keeps Irish concrete green; cement also, because of its place in the principal Irish building unit, the concrete block; the worker, because of his place in the anti-building bloc; hence his biggest exertion, the strike. (£58,500 is paid out annually in wet money; 216,500 man-days lost in strikes.) The two main brickworks are protected against English bricks: their production is too small, their products too costly for ordinary use. Stone is in the jewellery class, used only for banks, government buildings and the wonderful openwork dry fences one sees west of the Shannon; clay is considered exotic, although its use in walls is consistently, convincingly advocated by the only architect who drives a Rolls Royce.

Cement started with a limp in 1951; the winter's rail strike and a shortage of wagons left provincial arrears which the Drogheda factory had to handle at Dublin's expense. Stocks began to run low, imports fell off, the cost of cement went up, so, in April, the workers asked for £1 a week increase. At the other cement factory, in Limerick, later in the month, they accepted 12s., but Drogheda's 450 slouched out into the inverted commas which are the "workers'" unalienable right, in time of strike, or any other time. Next day the Irish Transport and General Workers' Union and the Amalgamated TGWU instructed dockers not to handle cement; sad blow to Cork, dependent on imported cement because freight charges make Drogheda and/or Limerick cement too expensive. In May cementless builders were laying off men, and ITGWU (see above) had rejected the Lord Mayor of Cork's impertinent request that the embargo be lifted.

A conference in the Labour Court followed a request from two Cabinet Ministers for interviews with unions and company; respectful "proposals" were prepared, and the workers came back—for 16s. In July cement was short, stocks used up in April ran low, and the

unions banned overtime, "to avoid hardship." In January, 1952, cement rose to £7 4s. 9d. per ton.

THE SHOW MUST GO ON

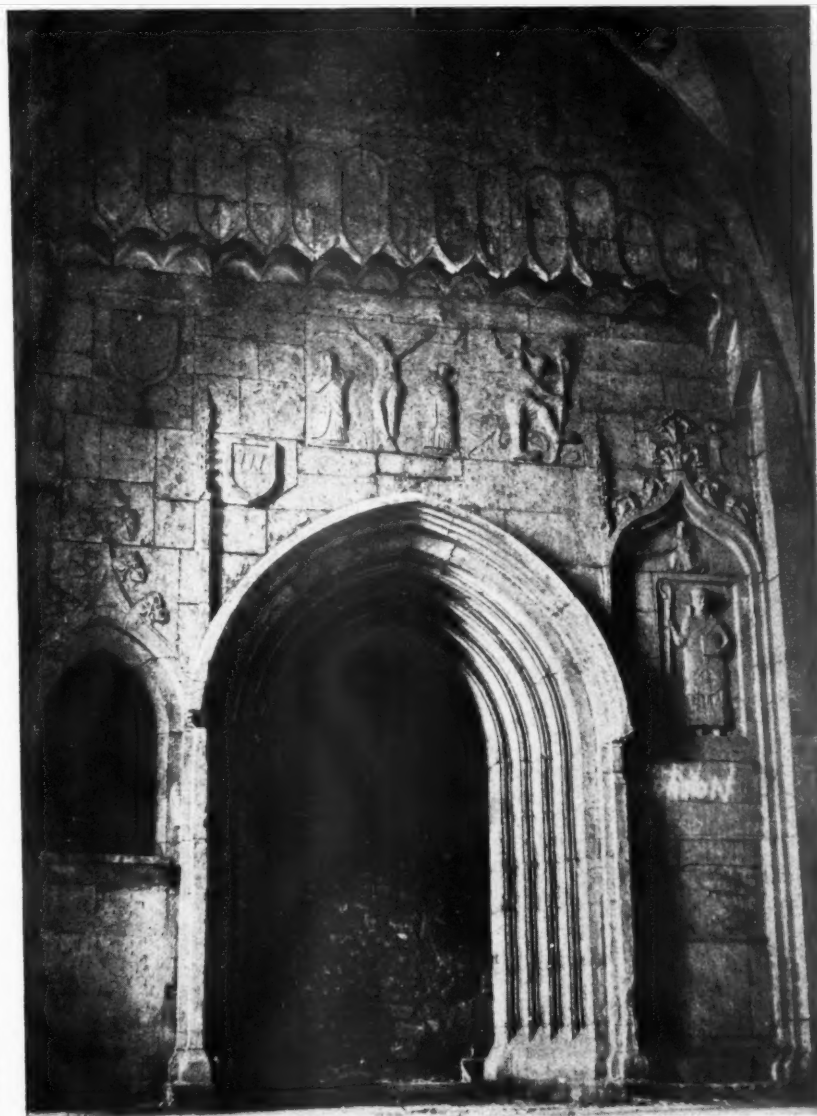
Throughout the year the country watched the worker in the role of prima donna, featuring in *The Show Must Not Go On*. Plasterers, alleging "victimization," kept darting, like keystone cops, in and out of the half-million-pounds sanatorium in progress at Ardkeen, Waterford. Plumbers, on a big housing scheme in Ballyfermot, Dublin, stayed in their tents because they weren't allowed to do the sheet copper work—the desire to violate that noble metal with galvanized nail, soldering iron and lead clip is comparable to the urge that produces graffiti in urinals. A builder in Mountmellick pleaded that his strike was due to no trade dispute. "The crux," it is said, "arose between the men concerning who should be laid off." But for sheer purity of line, Newry's strike

in February of this year, as reported in the *Irish Times*, is perhaps best:

Shortly after officials of the Ministry for Health, together with representatives of Newry Urban Council, visited the 120-house site at Newry, yesterday, and spoke unfavourably of the plastering work, twelve plasterers downed tools in protest of the alleged condemnation of their work.

Cost of living in June, 1951, had advanced 6 points in 3 months. Price controls on timber were withdrawn in September, and the accuracy of the builders' feeling that speculative building was dead, echoed in the December newspapers, was proved in February, 1952, when all building controls were lifted—last spectacular fine had been in May, 1951, when two Galway boys went to £10,000 on a £700 licence for a dance hall. In March there was a memorable Budget.

The re-surfacing of the central streets sent traffic snarling through Dublin's mews, gave some point to an action, as



The transept screen-wall of Kilcooley Abbey, a A.D. 1200 Cistercian foundation, now standing in the grounds of an 18th century mansion, Co. Tipperary.



Custom House, Dublin (Michael Scott's bus station beyond) from St. George's Quay, south bank of the Liffey. See reference on this page.

a result of which the High Court, at the instance of a firm of private builders, ordered the Corporation to produce a town plan. Tweedledom reigned concurrently when the Corporation, seeking essential *lebensraum*, was opposed by the County, on principle, but with urgent demands for compensation.

DIVERSIONS

The diversions, and you can have both meanings, were announced in March, and in late April. When the work of re-surfacing had started, a columnist, recalling his own remark that the Corporation "must be crazy if they think the Horse Show is held at this time of the year," apologised, saying: "But I completely forgot about the Spring Show." He continued with the argument that the additional NO ENTRY signs were evidence of collaboration between police and taxi-men to justify detours, concluded: "Take away the streets and there is no problem." But in June there were newspaper requests that some of the emergency routes be continued; that, in effect, is what has happened, and the re-surfacing has left the city with a new circulation system for which praise goes to the police, of all people.

In August came a proposal to help traffic further by making traffic islands of Custom House and the new bus station—there is a danger that this scheme may not be carried out if the authorities realize that it would also point the architectural relationship and separate splendour of both buildings. The Port and Docks Board have reputedly refused to yield for the purpose waste land standing between the quay and Amiens Street unless the old proposal for a bridge nearer the mouth of the river is also discussed.

An application to the High Court by a firm of Dublin house builders to make absolute a conditional order of mandamus directing the Corporation of Dublin to adopt a draft scheme for Dublin under the Town and Regional Planning Acts, 1934, 1939, was heard in October, 1951. Counsel pleaded that his clients were prejudiced in their development schemes by the Corporation's

failure to produce "with all convenient speed" the Town Plan they were statutorily bound to by their resolution of January, 1936: their indefinite retention of interim power showed a misconception of their duties under the Act.

The Chief Town Planning Officer's defence—the Corporation's building record (15,000 dwellings between 1914 and 1934), the city's growth, the increased importance and work of his department, the vast preliminary investigation of boundaries and sanitary services involved, and the cost, excluding compensation, of a planning scheme—twelve million pounds—was waved aside by plaintiff's silk: Town Planning Committee minutes showed that no permanent scheme had been envisaged since 1936. "What, then, is the twelve million pounds for?"

The judges brooded over this and defending counsel's learned plea (a) that the Minister for Local Government is the only person statutorily entitled to the relief sought, to which the applicants had no greater right than anyone else, and (b) that the Corporation have not refused a "properly presented" legal demand for a scheme, and late in February made the mandamus order absolute, but granted a 21-day stay of execution, in the high tradition of legal humour. Lordships held that the statutory duty relied on by the applicants had been established, that the damage alleged was continuous: that Corporation were wrong in interpreting the "convenient speed" clause to their own advantage: Town Planning Officer's affidavit proved their object to be the prolongation of interim control. Corporation's attitude towards planning was possibly justified, but might best be discussed with Parliament.

PLANNING ACT "UNSUITABLE"

Corporation decided to appeal, shattered speculative builders' hopes by announcing that it did not propose to relax interim control. Dermot O'Toole, a member of the Town Planning Board, wrote to the daily papers confirming the view expressed by his colleague, Mr. Gibney, in the previous

October, that the Town Planning Act, adapted from an English Act long superseded, was at best unsuited to Irish conditions, character and pocket, and that the Abercrombie plan, hampered by a necessarily limited survey, as expressed in its road pattern of radials and concentric circles, was based on an approach to sociology and communications outdated by the author's own subsequent plan for London.

LOCAL GOVERNMENT

There are three separate local government areas, and three separate authorities—Corporation of Dublin, County Dublin County Council and Dun Laoghaire Borough Corporation—in the County of Dublin. A "Greater Dublin" Commission condemned this fantasy in 1940, urged that, for the purpose of all major services, the county should be treated as an entity, was ignored. Eight years later the central city sought 11,000 acres from the County: this demand, beaten down to 6,000 in subsequent discussions, was formally considered in September, 1951, by the signiors of the County. They went on record as "neither admitting nor accepting the Corporation's arguments for extension," demanded compensation for capital liabilities, revenue liabilities, and increase of annual burden on the basis of 30 years' purchase. Their horror—geophagy: they viewed with what but "alarm the continued failure of both the Government and the Corporation to grapple with the grave problem of the continued growth of the city at the expense of the rest of the county." Their remedy for the evils of centralization—"to request the Government to move to Cork"!

1601 is the Irish 1066—Battle of Kinsale and collapse of pre-feudal system—and so the Corporation Law Agent's statement that two years after it Dublin's boundaries probably exceeded her present ones astonished the common reader. Boundaries were restricted in 1840, extended in 1900, 1916, 1930 and 1940. He was speaking in March of this year at a City Hall Inquiry, many times postponed, at County Council's request.

Corporation's Law Agent spoke well, invoked the recommendations for extension made by the Greater Dublin Commission and by Abercrombie in 1939, said that county dwellers were unfairly enjoying city amenities without paying the City Rate. But through the framework of his reasoned appeal mouthed the great minotaur of municipal politics—Housing, devourer of city grass, playgrounds, squares, derelict sites, gulper of that precocious, green-belted commander of no worker's vote—Town Planning. He admitted that 3,561 of the extramural acres formally sought have been developed. In effect, the city, with only 300 acres unravished, is flat-sodden, house-happy.

When the hearing closed, all parties other than councillors, appeared to be satisfied that the city must expand and that the local government structure in city and county needs revision. Special pleading by one of them for a "properly designed two-tier system," retention of "the more personal functions of local government"; self-conscious requests that the 3,000 persons who emigrate every year should be put to work developing the green belt, and that self-sufficient but satellite towns be built outside a five-mile limit, were not taken seriously.

Scholars, juvenile, started 1951 by sprinting out of a blazing Galway dormitory just before a 24-ft. bressummer, built into the flue, brought the roof down with it. Elsewhere during the year they were seen at class, overcoated, shivering; at home, on strike, with parental connivance; on the mountain side, with mixer and shovel, building their own school. The Irish National Teachers' Organization, in Galway for their Eastern Congress—after advocating the adoption of the metric system and deploring immoral literature (it is rarely praised here)—protested that the majority of school building was unsatisfactory, cited as proof medical officers' reports, complained of erection programmes delayed for state and local authority sanction of expenditure. Local authorities stand half the total cost: a delegate suggested they should, therefore, be responsible for heating, maintenance, cleaning, added that "a number of school children were kept back after school to do the cleaning, and ended the day in a whirl of germ-laden dust."

In January, 1951, forty out of fifty children boycotted a school near the Border, across which the faithful ten came, and in February, 1952, came the Malahide school strike, and an admission by the Minister in the Dail that 460 schools in the country were in a "squalid" condition: 200 need replacement. It appeared that in Malahide the 100-year-old 36 ft. x 21 ft. school contained six large desks, six dual desks and two teachers to instruct eight boys, ranging in age from eight to fourteen. The one-third contribution from the community was available: the strike was in protest against the delay alleged to be caused by departmental red tape.

SCHOOL BUILDING

Bad schools are a heritage: the country has had thirty years in which to better them. Mr. Moylan, Minister for Education, admits that "school buildings are a national disgrace," pleads the difficulty in getting sites, consequent inadequacy of playgrounds, showed his sincerity by seeking £193,810 more for building in May of this year—over half a million pounds was spent in schools in 1951-52—said he hoped to eliminate entirely

the time lag between the occupation of new housing areas and the building of schools to serve them. Up to this schools have been erected at the rate of one a week, and the high quality of design and construction was underlined in a lecture by the Public Works School Architect to the Architectural Association last March.

THE DUBLIN THEATRE

Architecturally, the curtain rose on the 1951 theatre season in Dublin at a ceremony in the sugar store of an old distillery, converted for £22,000 into a "recreation hall," when Lord Iveagh read to the Right Honourable the Lord Mayor, Aldermen and Burgesses of the city the account of a party given to their predecessors 100 years earlier by the reigning Lord Mayor, his ancestor, Sir Benjamin Lee Guinness. The Guinnesses are in fact noble citizens, and though a cry of "My Goodness! Maecenas!" would have been in order fourteen days later, when they gave their new hall to the troupers of the Abbey Theatre, burned out, complete with Green Room cupboard full of rejected, unreturned scripts, the comment offered by a Dublin journalist was a nightmare pun on Swift's epitaph: "Abbey Theatre et imitare si poteris strenuum pro virili libertatis vindicatore!" (Did Guinness's get the place fired as a publicity stunt, he asked? "Are we going to have an outbreak of 'South Bank' nonsense, with various American morons being loaded on to barges at Butt Bridge to "go to the Abbey?")

Less rough, the senior Abbey dramatist and director, Lennox Robinson, said the morning following the fire that it would have to be demolished sooner or later and rebuilt as a national theatre. "The theatre took the matter into its own hands, waited until the house was empty, and deliberately set itself on fire. It went up in flames and in glory, reflecting the glory of its players and its playwrights." Not everyone accepted that explanation—why did it wait? The Abbey moved into the Peacock Theatre followed by journalistic hoots—"It is a perfect fire trap"—and in the Dail the leader of the Labour Party mystified all hands by asking for a Government-sponsored national theatre "... so that those who accepted the Abbey philosophy would have an ever-expanding opportunity of advertising Irish culture and art for the benefit of the world!"

EXCAVATIONS

The search for shelter brought its perhaps most selfless votaries, the archaeologists, underground in October, 1950, when, at Fourknocks, Meath, they found themselves in a "passage grave," completed, said the newspaper report, between 2,000 and 1,500 B.C., so when, in September, 1951, the Prehistoric Society gathered in Dublin for their annual conference, the first

"away" date, naturally, was Fourknocks. Back in their Dublin meeting rooms, they heard one of Mr. de Valera's scholarly sons kill the rumour about these megalithic gallery grave builders—they landed at Sligo or Mayo, maybe (not Carlingford) and a Jesuit gravely hammering the open ring fort theory—they had roofs. 1,500 B.C. is again the figure when in February of this year, a ploughman finds another cremation burial cist, at Marlton Glen, Wicklow. In April the one to uncover the ancient beehive chamber at Balrathboyne is, of all people, John Smith, but when, later that month, he finds "a second connecting souterrain," the dating is handled in Dublin bars privately, perhaps more reliably, by the grey, influential men who built them—in A.D. 1922.

The Christmas Day collection by Scottish building interests at Westminster Abbey reminded Irishmen of the borrowed masonry's original home, Tara, Co. Meath, which certainly was the seat of the chief pre-Norman dynasties: earlier, the Mysteries of Eleusis and Samothrace may have been celebrated there. Excavation proposals announced last autumn caused mysterious, but scholarly, bitterness; a wonderful letter from that most beautiful woman, Maud Gonne MacBride, now very old, has just appeared:

On the last Christmas Day of last century, though it was snowing, Arthur Griffith and I went to Tara and succeeded in stopping some Englishmen who had bought a small bit of the Hill of Tara and were digging for buried treasure.

Griffith was the first President of the Irish Free State, the "Englishmen" were the British Israelites, the "buried treasure" the Ark of the Covenant. One of the fine ideas mooted—only—by her son, former Minister for External Affairs, was a national aerial survey, which would have been useful for agricultural, ordnance and archaeological purposes.

In a recent radio talk on ancient monuments, the permanent civil service chief of Local Government, apologizing for their preservation, said it was not "solely for their beauty as works of art, but for the light which they might shed on certain historical periods." Office of Public Works has 600 of them, irrelevant beauty and all, pinpointed on a wallmap in the office of the Curator, W. P. le Clerc, Esq. Available official literature, most of it the work of the previous Curator, Mr. H. G. Leask, fine scholar and draughtsman, is excellent but inadequate, due only to the political unimportance of ancient monuments, smallness of the grant.

An Taisce, the Irish National Trust, also have suprahumal obsessions; their third birthday last November was marked by an appeal for funds and a blow at County Councils on the head of "apathy or ignorance." In the

spring the National Trust (English) had offered them a castle (Irish); in June the Meath County Council had vowed support for their work. Climax was September at Kanturk Castle, three-storey palace called "MacDonagh's Folly" because of a ban on completion imposed by Elizabeth, when a fife and drum band fanned out with anthem loud welcoming Lord Rosse as he presented the castle on behalf of the English National Trust to the Irish National Trust, of which he is a member. He said how glad he was to receive it, and, February, 1951, went on to tell the Friends of the National Collection, whose President he is, that Ireland "degenerated in the last century to a nation of Philistines." The Minister for Education, Mr. Seán Moylan, in reasonable reply, said that "the only people who could be civilized were free men, and the only nation in which civilization could develop was a free nation."

SKELETONS IN THE ABBEY

Thirty skeletons affronted the view of builders seeking only bottoms for funds last February in St. Mary's Abbey, Dublin (suppressed A.D. 1540). Two days later, the Lord Abbot of the Cistercians arrived from distant Roscrea, pronounced the bones to be monachal, said he would see the Archbishop of Dublin, arrange about their transfer to Roscrea. Next day it said in the papers the Lord Abbot had gone home, had decided not to ask the coroner for the bones. Dubliners were asking each other: "What did his Grace make about his disapproval?"—and answering "No bones!"

Royal Hospital, Kilmainham (Dublin)—its attribution to Robinson, Irish Surveyor General, not Wren, is confirmed in Maurice Craig's "Dublin"—housed in recent years police headquarters staff and a statue of Queen Victoria, expelled from Parliament's back garden in the city. The police left in 1950 when the authorities said the building was unfit for occupation, but in March, 1951, London, Ontario, to whom she had been offered free, refused H.M., so there she stays. A lady, brooding on this all summer, suggested that the building be made safe—like the Tower of London.

DEMOLITION OF DELVILLE

Others worried openly about the demolition of Delville, haunt, apparently, of Swift, Berkeley, and Addison, and there was some talk of cleaning the Nelson Pillar, outside Doric job with admiral aboard. The whole thing was summed up in April by a poet, Mr. Geoffrey Taylor, writing, no doubt, with a slight yawn: "Surely we might leave the bulk of our ruined towers, old castles, ruined abbeys, and megalithic remains to fall down or crumble away romantically and naturally? There is no fear of the supply of picturesque ruins running out—new ones are always coming on."

EXTENSION TO ST. ANDREW'S

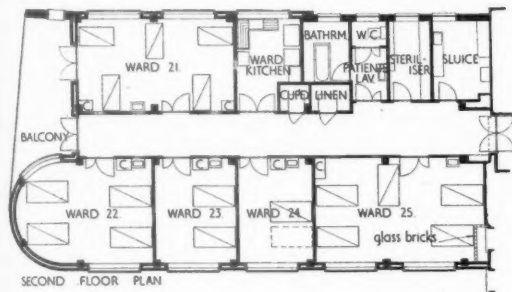
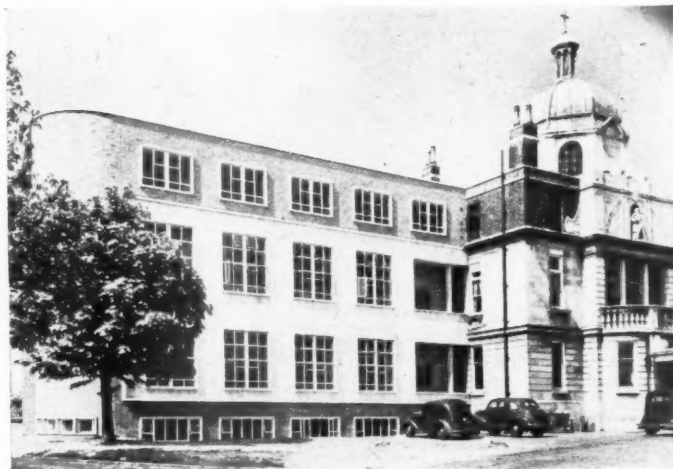


H. H. Clark designed the first part of a large proposed extension to St. Andrew's Roman Catholic Hospital, to be opened next Monday by Cardinal Griffin. The extension provides a complete new X-ray department, as well as a number of single and three-bed wards and children's ward unit. The original building, seen on the right in the photograph below, was designed 40 years ago but the symmetry of the south-west elevation was not completed about the centre block at that time. The design of the new wing had to be well related to the original building and to form a link between the old design and future developments, the character of which will be fundamentally

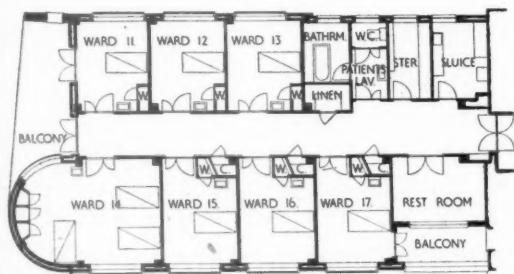


HOSPITAL, DOLLIS HILL, LONDON, N. W. 2

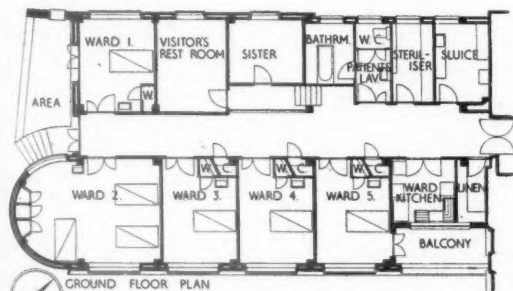
different. The main cornice line is continued in a simplified form and returned vertically to enclose an area of precast stone tiles, as seen in the photograph on the right, which are intended to give continuity to the original ashlar stonework. Internal communication was essential if the existing lifts and staircase were to be fully employed and this meant that the same floor levels were adopted. The ground floor is about 4 ft. above ground level and with a 13-ft. ceiling height on ground and first floors. This height has been reduced in corridors and sanitary accommodation by



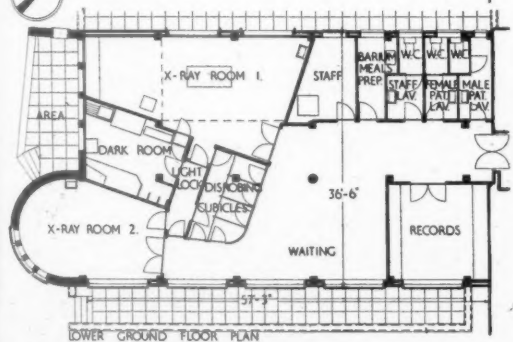
SECOND FLOOR PLAN



FIRST FLOOR PLAN



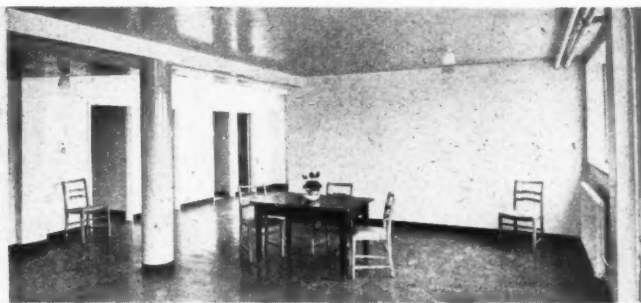
GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

Plans of extension (Scale: 1/4" = 1' 0")

false ceilings, containing services. A reinforced concrete frame was considered most suitable, with 11-in. cavity brick panel walls and hollow brick internal partitions. The suspended floors are of RC rib and hollow tile construction. The photograph top left, opposite, shows the north-west and south-west of the extension; below is X-ray waiting space on the lower ground floor, and bottom, a typical three-bed ward. The cost was £28,000, which gives a cub. ft. price of 4s. 6d. The general contractors were William Moss & Son, Ltd. For sub-contractors, see page 710.



TRANSFORMER STATION

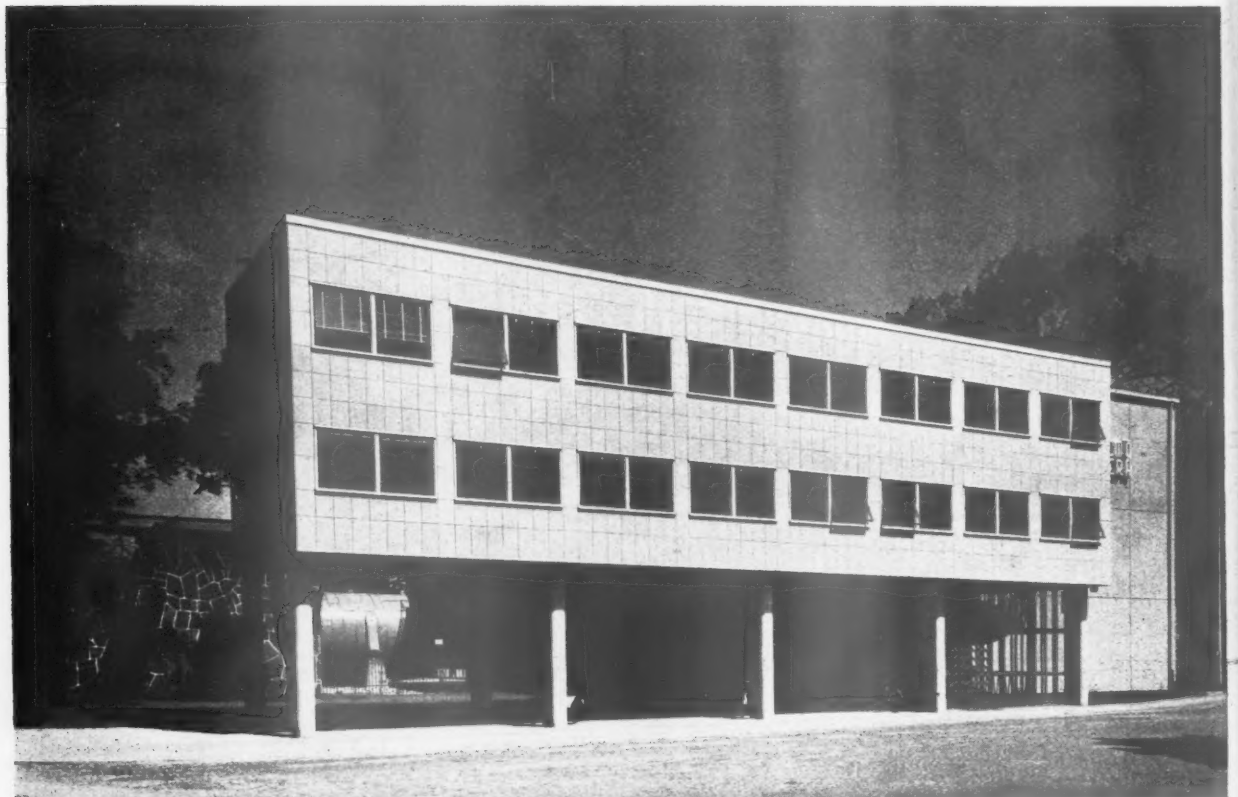
at MALMÖ, SWEDEN

designed by HANS WESTMAN

consulting engineers WINBERG and HÖGSTEDT

The design for the transformer station at Malmö was won by Hans Westman after a competition had been held among four nominated firms of architects. In planning the station the architect decided to set back the large plant block on the site, as it does not need much daylight, and place the offices in a separate wing, raised from the ground, where maximum light is obtained. It is thought that the raising on columns of this block gives it a lightness of appearance that it would otherwise lack.

The south facade of the office block.



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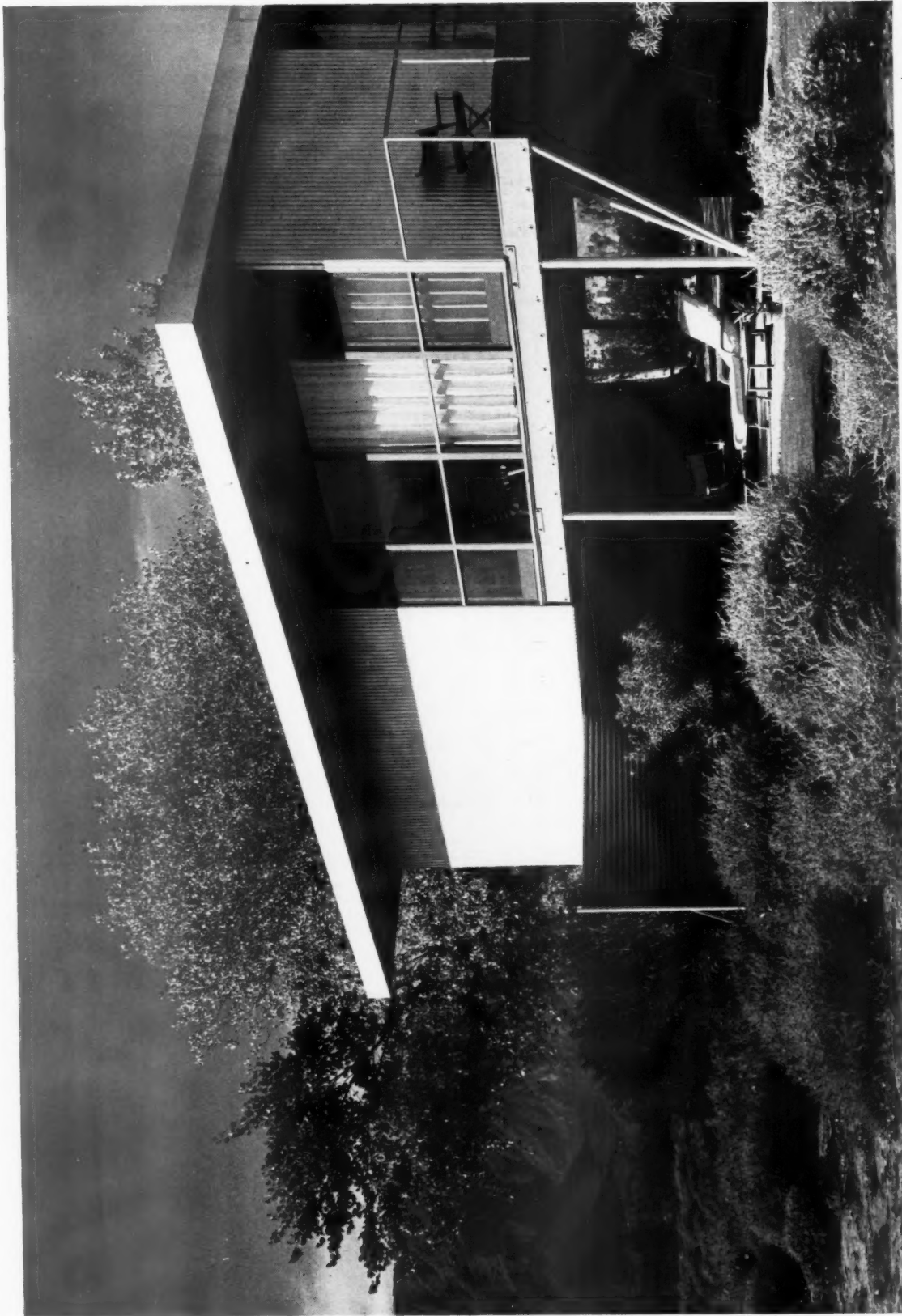
102

WORKING DETAIL

BALCONY AND GLASS WALL: HOUSE AT PALM SPRINGS, CALIFORNIA

Clark and Frey, architects

BALCONIES: 2



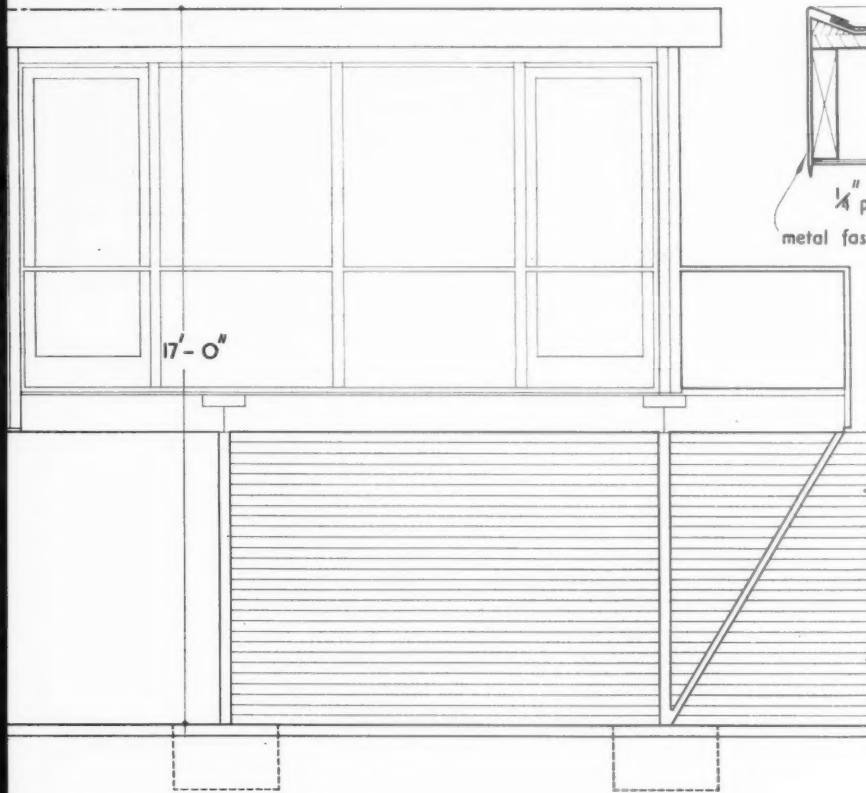
Photograph: Julius Shulman.

The cantilevered balcony is struttled at one end by tubular steel rods branching from the base of one of the columns which support the house.

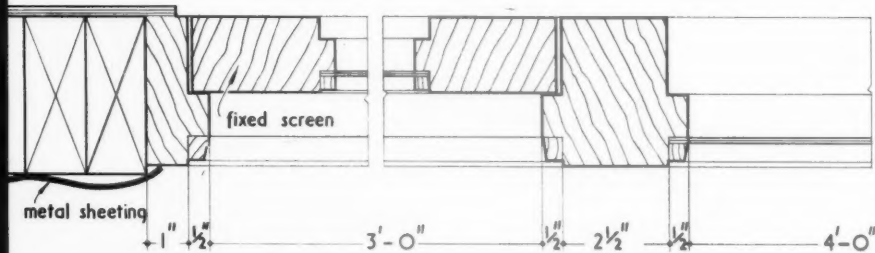
WORKING DETAIL

BALCONY AND GLASS WALL: HOUSE AT PALM SPRINGS, CALIFORNIA

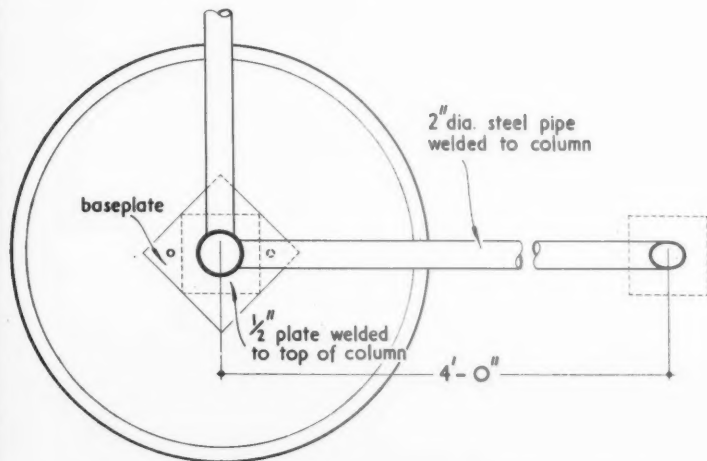
Clark and Frey, architects



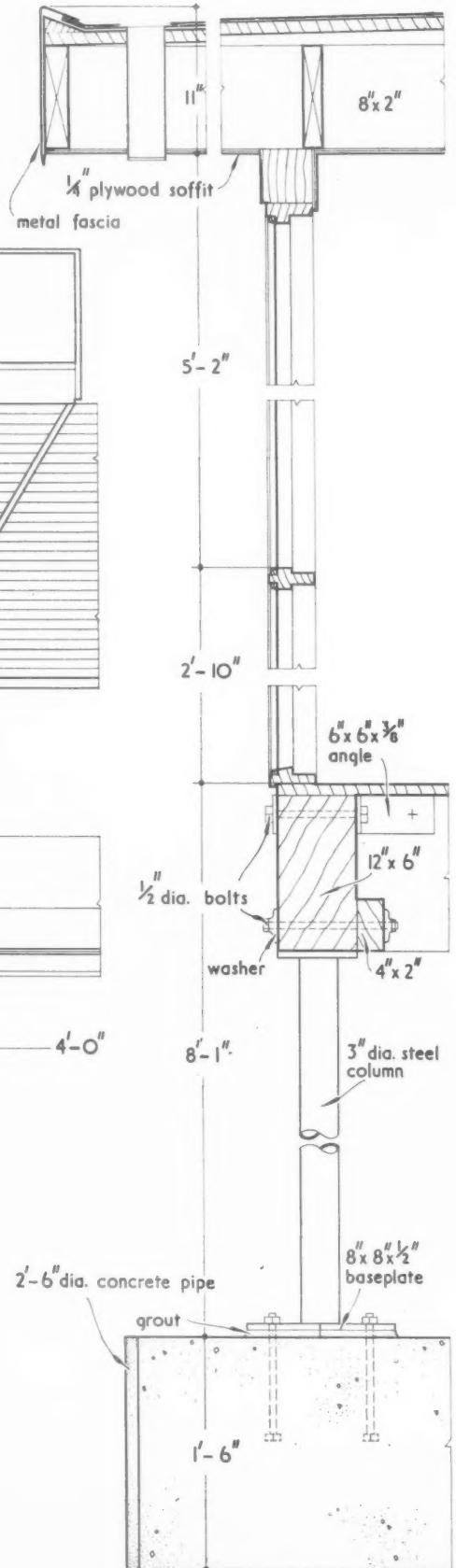
PART ELEVATION scale $\frac{1}{4}'' - 1' = 0''$



PART PLAN OF WINDOW scale $\frac{1}{4}$ full size



PLAN OF CORNER COLUMN scale $1'' = 1' - 0''$



SECTION THRO' WINDOW scale $1'' = 1' - 0''$

WORKING DETAIL

REVOLVING DOOR, OFFICES IN LONDON, S.W.1.

Bertram Carter in collaboration with Dyneley, Luker and Moore, architects

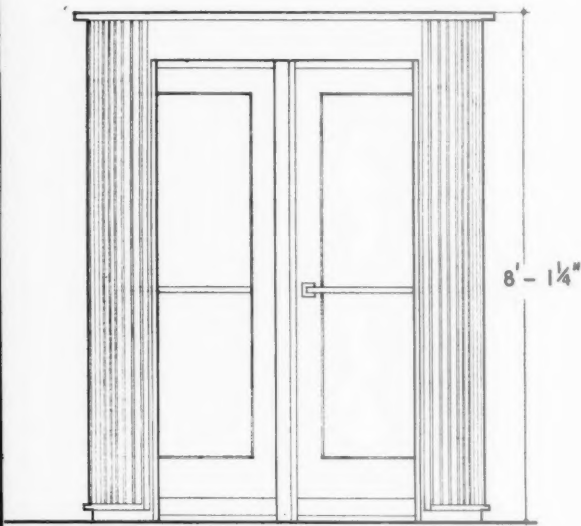


The doors are in natural mahogany and the side casing is panelled on the outside in vertical moulded strips of obechi.

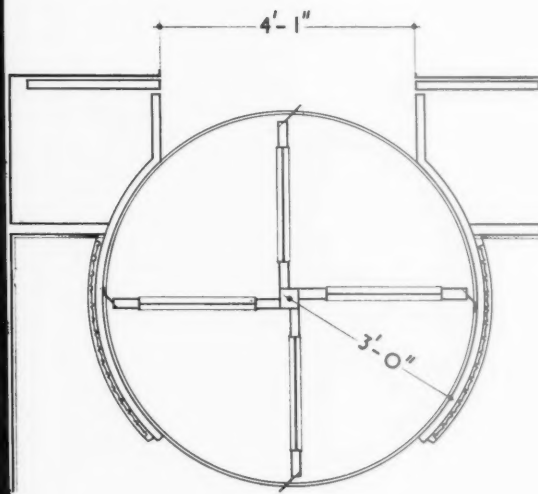
WORKING DETAIL

REVOLVING DOOR, OFFICES IN LONDON, S.W.1.

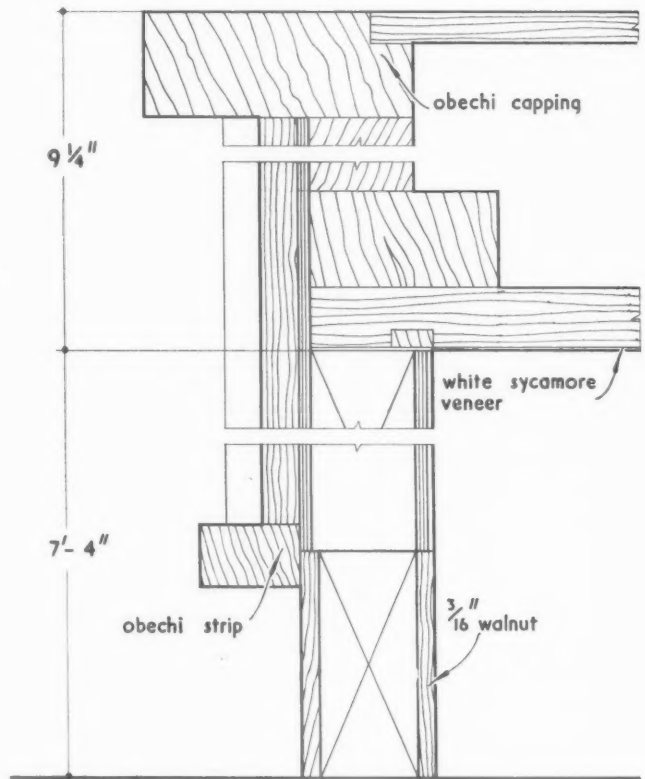
Bertram Carter in collaboration with Dyncley, Luker and Moore, architects



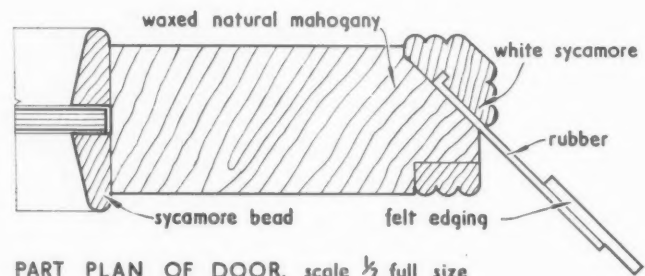
ELEVATION.



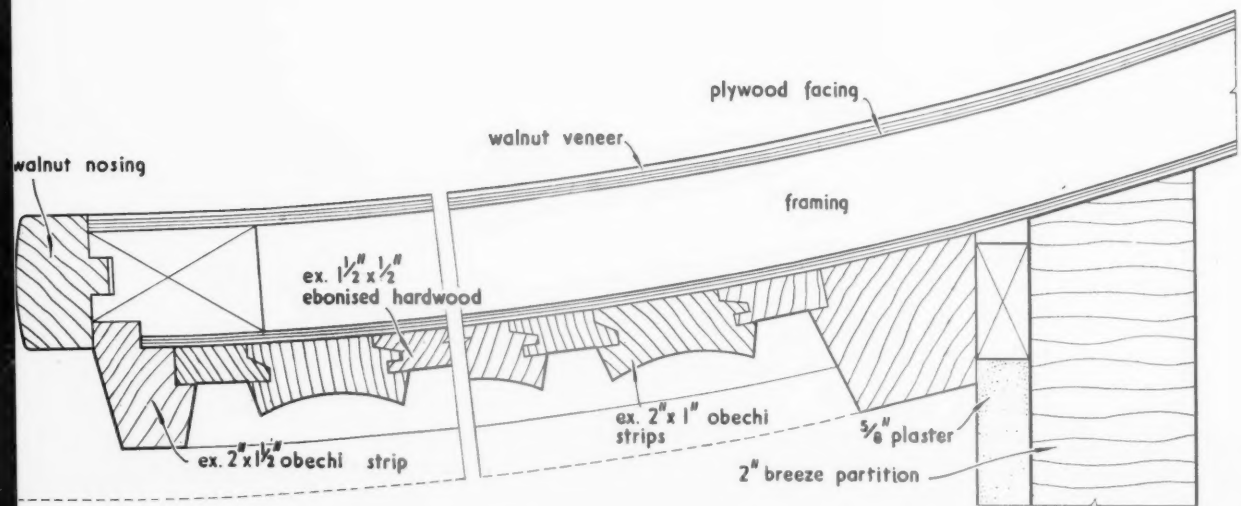
PLAN OF DOOR. scale $\frac{3}{8}'' = 1' - 0''$



VERTICAL SECTION THRO' SIDE CASING. scale $\frac{1}{2}$ full size



PART PLAN OF DOOR. scale $\frac{1}{2}$ full size



PART PLAN OF SIDE CASING. scale $\frac{1}{2}$ full size

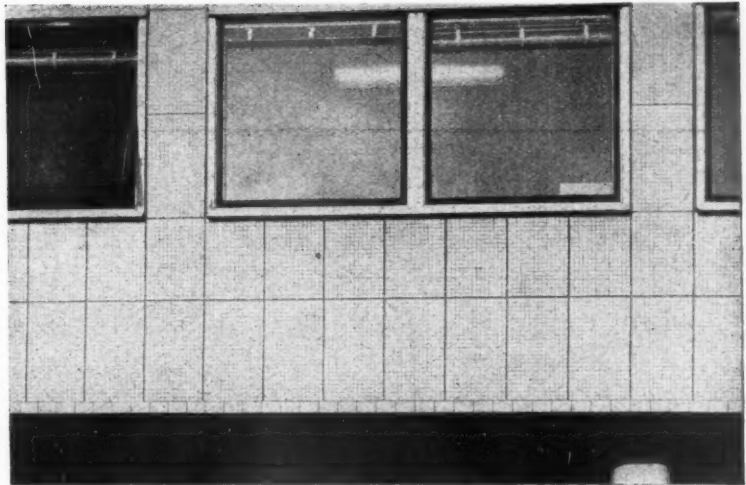


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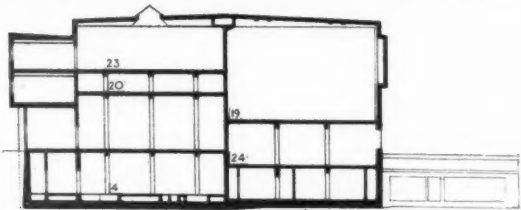
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Right, a detail of the facade faced with Ifö mosaic.



PLAN.—The control room is situated at the highest level in the main works block and is lit mainly by a ceiling lantern, but small windows at a low level are provided in order to avoid the shut-in effect which arises in a room with only top light.

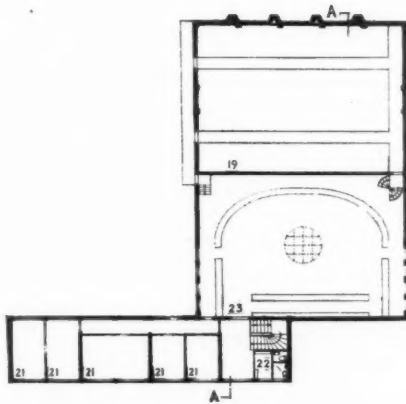
CONSTRUCTION.—The whole building is of concrete with a reinforced concrete frame and the office block is carried on RC columns. The detached transformers have bomb proof walls of concrete finished with gneiss, a type of granite consisting of a laminated rock of quartz and mica.



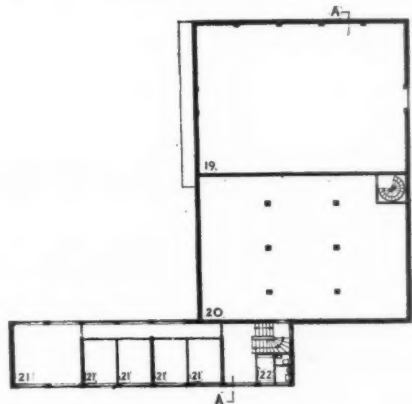
Section A-A

KEY

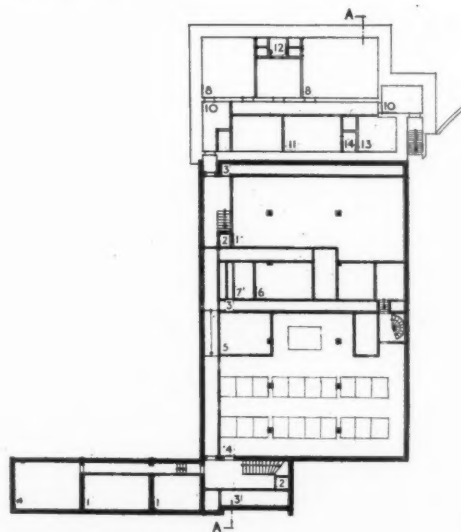
1. Stores.
2. Broom cupboard.
3. Cable duct.
4. Cable cellar.
5. Compressor room.
6. Central heating.
7. Fan room.
8. Air raid shelter.
10. Poison gas lock.
11. Works control.
12. Telephone supervisor.
13. Changing room.
14. Battery.
15. Machine shop, foreman.
16. Canteen.
17. Toilet.
18. Changing room.
19. 50-kilowatt plant.
20. Cable room.
21. Office.
22. Cloakroom.
23. Control room.
24. Machine shop.



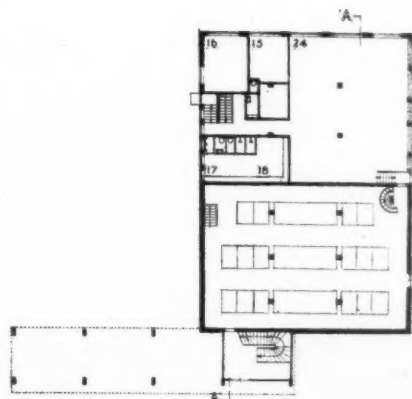
First floor plan



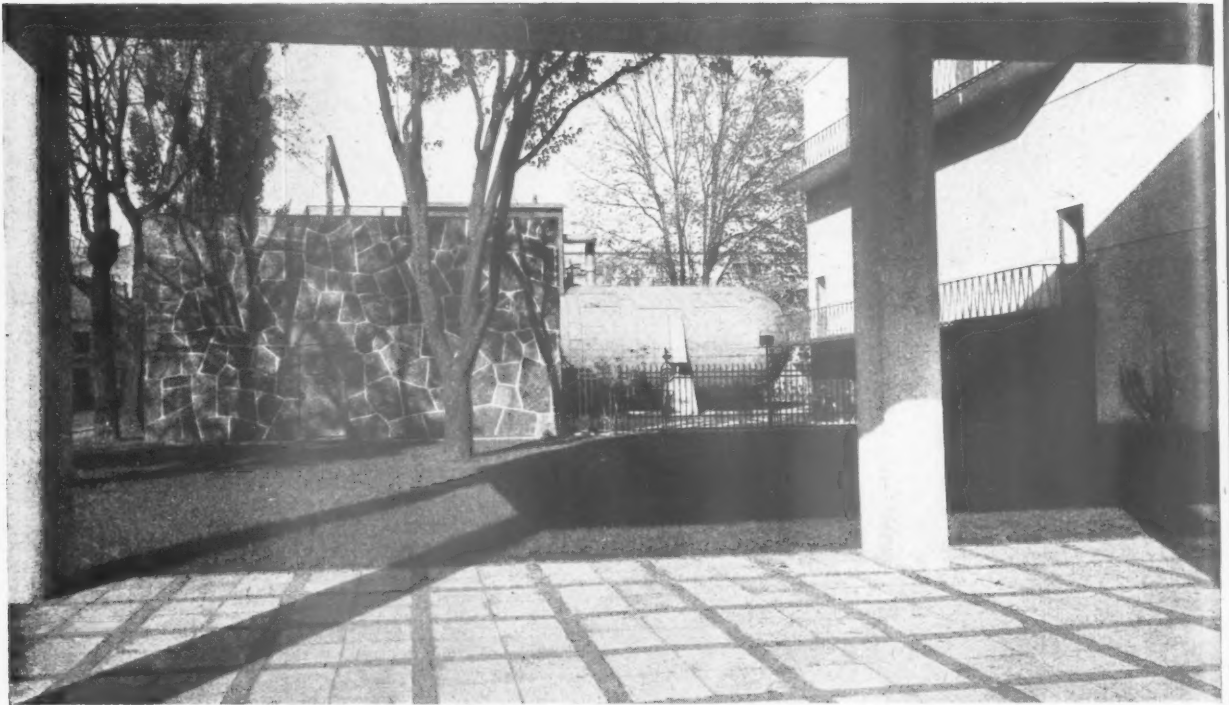
Second floor plan



Basement plan [Scale: 1/8" = 1' 0"]



Ground floor plan

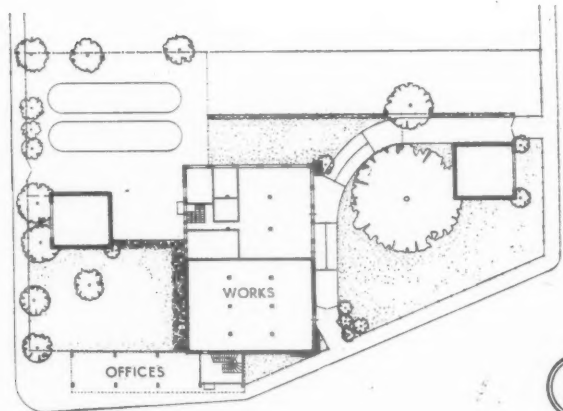


TRANSFORMER STATION

at MALMÖ, SWEDEN

designed by HANS WESTMAN

FINISHES.—The office wing is faced with Ifö mosaic, which has been little used in Sweden as a facing material and is used on this building as an experiment. Care has to be taken to allow the panels to dry out slowly after fixing and it is necessary to shade the face of the building from the direct rays of the sun. So far no frost damage has taken place. The remaining facades are finished with porphyry plaster.



Site plan



Top, looking north from the loggia under the office block towards the transformer cell. Right, looking north-east at the raised office block.

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ABATTOIR

at SLYFIELD GREEN, GUILDFORD, SURREY

designed by the Chief Architect's Division, MINISTRY OF WORKS

The new abattoir at Guildford is the first of several experimental units being built for the Ministry of Health. Its purpose is to test, under hygienic conditions, a system known as "line dressing," and also to serve as an information centre for local authorities who are considering similar projects. The layout affords complete external segregation between the "clean" side, consisting of offices, welfare and outloading of carcass meat, and the "dirty" side for incoming live animals, outgoing waste products and condemned carcasses.

View looking north-east from the approach road.





ABATTOIR

at SLYFIELD GREEN, GUILDFORD
designed by the Chief Architect's Division, MOW

PLAN.—An effort has been made to create a functional and economic building, which also suits the residential locality where the site is situated. Internally the plan centres round a slaughter hall with lairage pens to the east, by-products to the north and offices, cold rooms and outloading to the west. The office accommodation includes a manager's office, designed to give observation of operations in the slaughter hall and by-products area through plate glass panels. The staff welfare accommodation includes messing facilities, showers and locker room.

CONSTRUCTION.—The building has a reinforced concrete frame with a load-bearing RC roof to the cold rooms, pre-cooler area and out-

loading department, and a RC north light roof to the slaughter hall area.

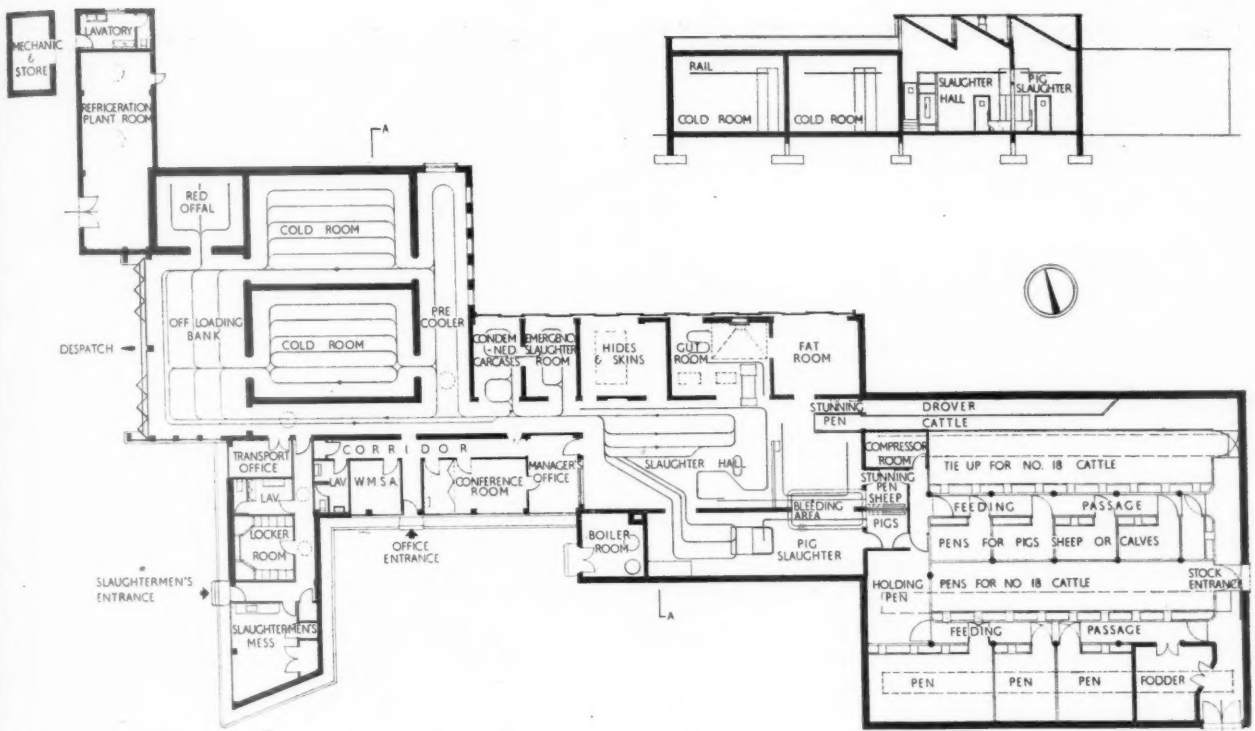
FINISHES.—The question of providing suitable finishes, particularly within the slaughter hall area, presented a complex problem as materials used have to withstand blood and acid action and constant variation in temperature as well as to reach the required hygienic standard. The floor of the slaughter hall and by-products area is of 2-in.

Above, looking north-east at the office entrance and windows. Below, general view looking north, with the welfare wing on the left and offices in the centre.



MECHANIC & STORE

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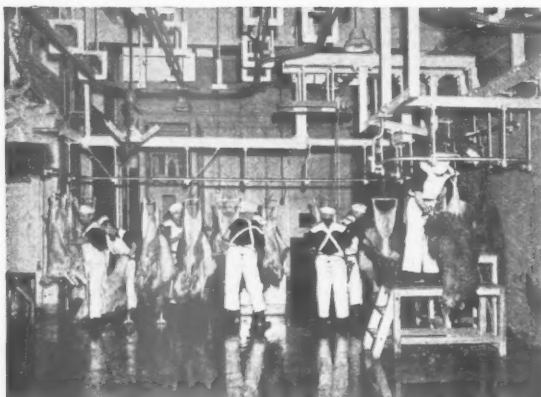
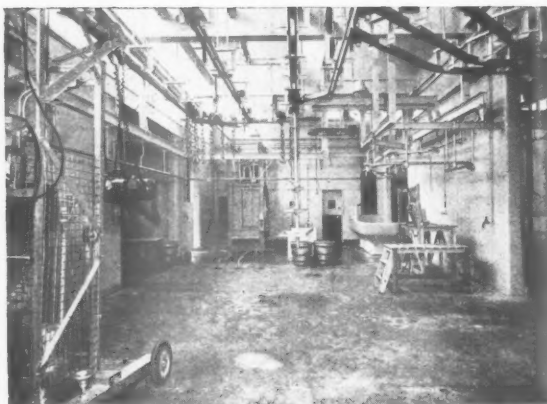
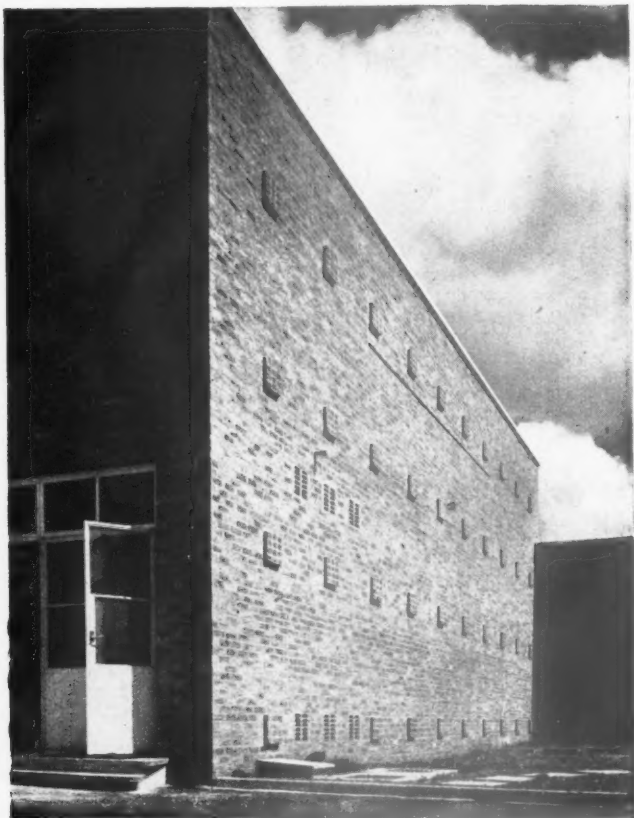
Ground floor plan and section A-A [Scale: 1/8" = 1' 0"]

granolithic incorporating a proprietary hardener, finished with a non-slip surface of carborundum at the rate of 3 lb. per sq. yd. An experimental floor

of non-slip acid resisting pressed tiles, jointed with acid resisting mastic cement has been laid in the pig slaughtering area. Floors to the cold rooms, out-loading and pre-cooler areas, where a fat-resistant, non-slip finish is required, are laid with acid resisting

Below, the off-loading bank on the left and transport office on the right.





Above, south wall of the pig slaughter house. Top and centre right, two views of the cattle and sheep slaughter hall. Right, the off-loading despatch bank with slaughtermen's entrance on the right.

ABATTOIR

at SLYFIELD GREEN, GUILDFORD

designed by the Chief Architect's Division, MOW

asphalt, incorporating a high percentage pitch and topped with carborundum. The walls of the whole operational area have been sprayed with chlorinated rubber paint in light colours. The lairage floors are in concrete with a granolithic finish in which dry granite chippings have been incorporated to give a non-slip, hard wearing floor. All pen divisions are of standard tubular construction with in situ concrete feeding and drinking troughs. In the lairage pens pavement lighting has been introduced in the roof slab and natural ventilation is provided by low level intake ventilators in the perimeter wall and extract louvres in the pavement lights upstands.

SERVICES.—Blood and stomach contents are not, as is the usual practice, taken into the public sewer. Animals are bled direct into an in situ concrete trough discharging into an underground tank; then blood is pumped into road transport containers.

The general contractors were C. F. Kearley, Ltd. For sub-contractors see page 710.



TECHNICAL SECTION

The machinery of the building industry today makes it very difficult to introduce innovations. Here is a current and frequent problem. A new and promising form of construction has been evolved for a particular job. Preliminary component development work has been done and is ready for trial. The architect is starting to detail the buildings; the component manufacturer is co-operative, but it is clear that both should collaborate with the erection contractor from the start. The client is a public body and the erection contract can only be made on a basis of competitive tender. To get tenders the project must be pushed forward to a reasonable stage of detail, which precludes the contractor from playing his part. So the vicious circle is complete.

Is it possible that most of the problems confronting our industry today are "paper"? So many controls, safe-guards and interests to be reconciled that no progress is possible towards really economical construction.

R. FITZMAURICE

This week's
special article

18 CONSTRUCTION : THEORY economics of multi-storey flats

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.

The author of the following article, Peter Dunican, sets out some notes on the structural economics of multi-storey flats. He suggests that the concrete wall is an efficient and economical structural member which can be used to advantage in flats. A number of recommendations are made for further investigation, particularly into the problem of cladding.

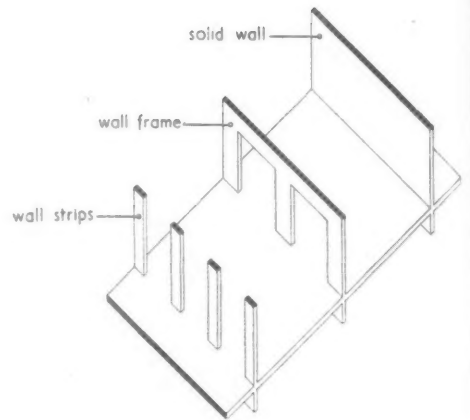
Local authorities have found that blocks of flats more than five-storeys high, constructed in reinforced concrete, are usually more expensive and require more steel than five-storey blocks constructed with load-bearing brick walls. This experience might have been different if the comparison had been made between five-storey load-bearing brick schemes and higher reinforced concrete schemes designed to make full use of the material and exploiting up-to-date construction techniques.

It is agreed that to achieve the most efficient and economical structure, the

design and the architectural planning must proceed together from the start. A block of flats designed to utilize load-bearing brick walls cannot be satisfactorily transformed into a block with load-bearing concrete walls by simply substituting concrete walls for brick walls. The whole layout and plan must be considered afresh in the light of the characteristics of the substituted material. When reaching a decision on the choice of structural system, cost is important, but it is not the only factor which must be taken into account. Speed of construction and conservation of

	(a) 13½ in. brick	(b) 5 in. concrete	(c) 6 in. concrete	Units
Safe load	20·80	21·40	20·30	Tons/ft. run.
Unit cost	40·42	40·25	37·00	Shillings/sq. yd.
Unit weight	140·00	60·00	72·00	Pounds/sq. ft.
Base area	1·125	0·42	0·50	Square foot.
"U" value	0·362	0·60	0·565	—
db value	55·00	24·00	47·00	—

Above, Table I. Right, Fig. 1, three types of concrete construction—solid wall, wall frame and wall strips.



scarce materials must also be considered.

COMPARATIVE ANALYSIS OF STRUCTURAL ELEMENTS

Costs are, however, very useful for making primary comparisons of the structural value of various materials. For instance, there are a number of ways in which the vertical load-bearing members in blocks of flats can be constructed; three of them are:

- (a) 13½-in. brickwork in London flintons, using 1:3 cement mortar;
- (b) 5-in. reinforced concrete;
- (c) 6-in. plain structural concrete wall.

The main characteristics of these possibilities are set out in Table I. The costs are based on those prevailing in December, 1951. Wall shuttering has been taken at 12s. per sq. yd. It will be noted the cheapest form is the 6-in. plain structural concrete wall. Apart from cost, the concrete wall, plain or reinforced, has other advantages; these include: the saving in self weight, which reduces the cost of the foundations; the saving of floor space which reduces the

volume of the building for the same effective floor area; and the elimination of obtruding beams and columns into rooms.

It appears, therefore, that the concrete wall should, with advantage, replace the brick wall. This, however, is only correct for internal load-bearing walls. External walls, where the problems of thermal insulation, finish and weathering exist, must be considered separately.

Nevertheless, in my opinion the concrete wall performs the primary function of carrying vertical loads more economically than the brick wall. In consequence, there is no reason why a five-storey block constructed with structural concrete walls should be more expensive than a brick scheme. In fact, using the Danish laminated wall shuttering system (see Fig. 7), it has been found that concrete walls for four-storey blocks

are cheaper than brick. The key to cheapness is undoubtedly the cost of shuttering. This can be dealt with in a number of ways, some of which are considered later.

Floor slabs present the same problems whether used in five-storey or higher blocks. The costs are referred to later, but all the present evidence suggests that for normal spans the *in situ* reinforced concrete floor is the cheapest.

THE BASIC STRUCTURE

The two basic structures for blocks more than five storeys high are: first, a framework of beams and columns, either in structural steel or reinforced concrete; and second, a reinforced concrete slab construction which can be sub-divided as shown in Fig. 1 into: (a) the solid wall, (b) the wall frame, or (c) the wall strip.

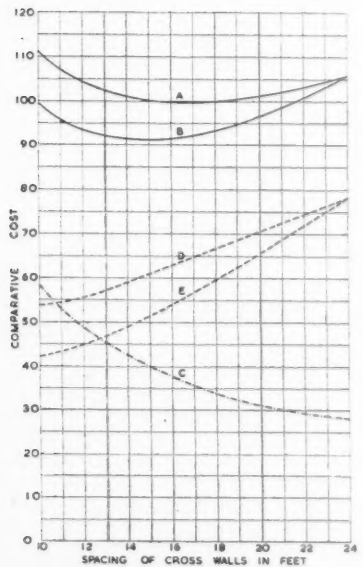


Fig. 2. Comparative cost of reinforced and prestressed floors.

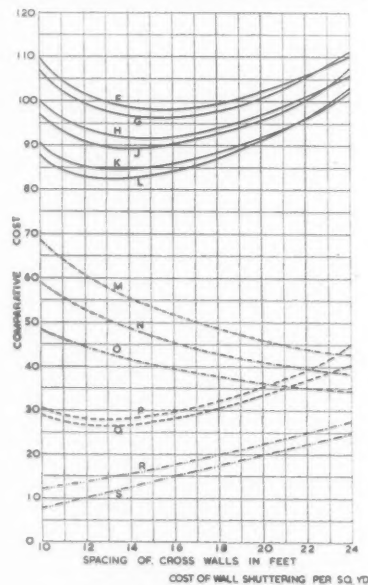


Fig. 3. Comparative cost of RC and mass concrete walls.

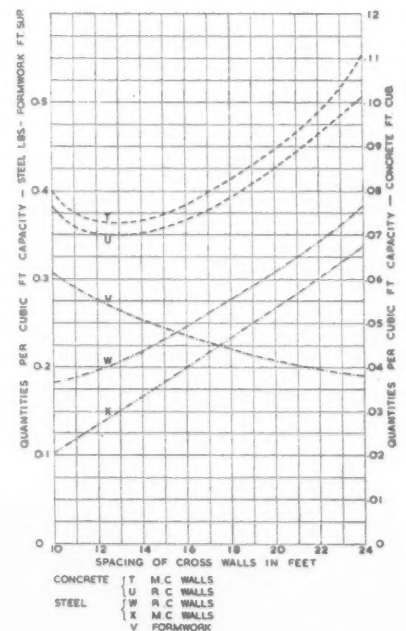
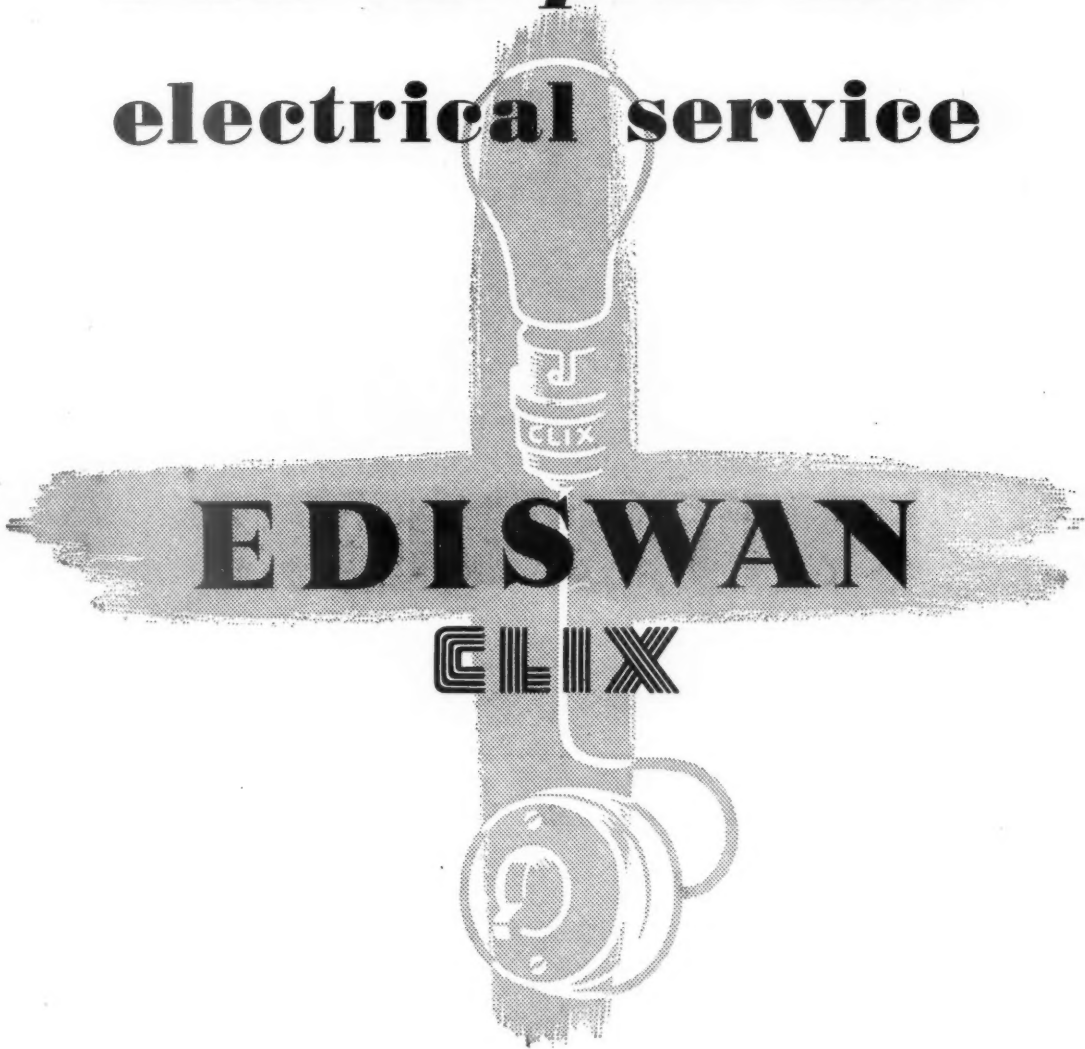


Fig. 4. Comparative quantities.

Puts the *plus* into electrical service



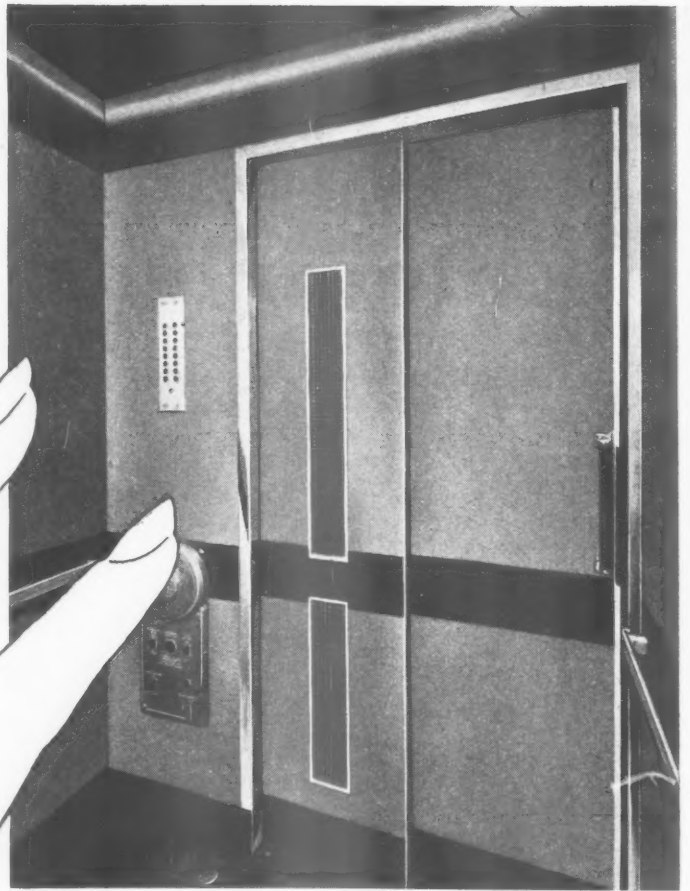
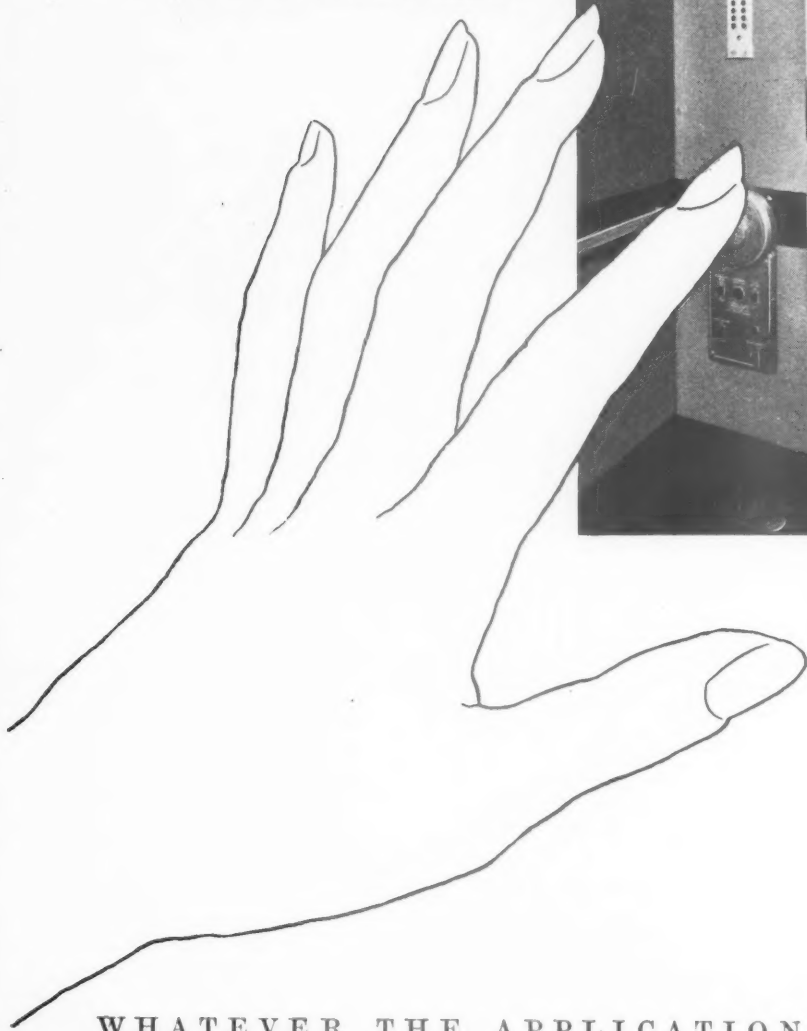
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WHATEVER THE APPLICATION



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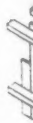
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Box frame construction (see Fig. 11) is a special form of slab construction consisting of solid cross walls and floor slabs only. The advantages which are to be gained by using this particular system have been set out elsewhere.^{(1)*} It has been suggested that this system is architecturally restrictive and structurally expensive, but it has been used successfully on a number of local authority housing schemes which have been constructed here since 1945.

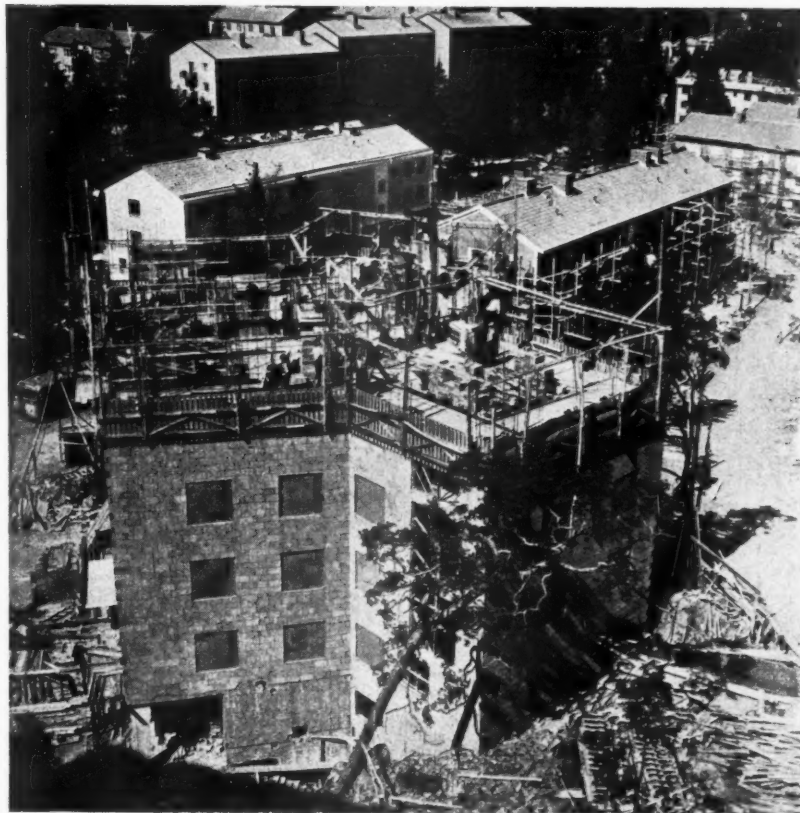
On one particular scheme the contractors were allowed to tender on a variety of structural systems which, in addition to the box frame, included *in situ* and precast beam and column designs. On analysis of the tenders it was found that the box frame scheme provided the cheapest solution.

The United States Government Housing and Home Finance Agency have also studied the problem of the structure for multi-storey, low-cost flats. Their conclusion⁽²⁾ is that the box frame or egg-crate system, as they call it, will cut considerably the cost of flats which would normally have a beam and column structure.

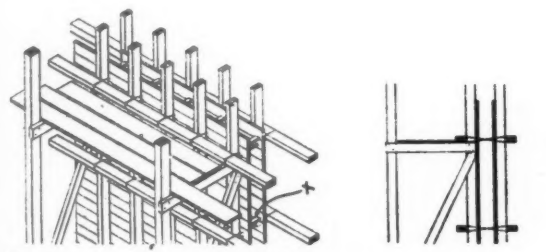
The spacing of the cross walls influences the cost of the structure and the quantities of materials required. Figs. 2, 3 and 4 set out these comparisons graphically.

Therefore, if the opinion is accepted that some form of slab construction utilizing space dividing and enclosing walls presents the right functional approach to the problem, it is necessary

* For list of references see end of article.

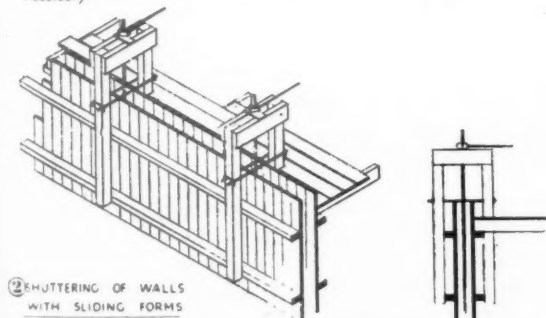


Above, Fig. 5, the first blocks of flats built in accordance with the "Prometo" system of shuttering, using hydraulic jacks. A group of 8-storey blocks of flats with star-shaped floor plan was erected during 1950 in a suburb of Stockholm, for which the walls were cast, as are the walls of silos. The walls were cast at a rate of one storey per day. Below, Fig. 6, details of the intermittent climbing shuttering used at Highpoint I.



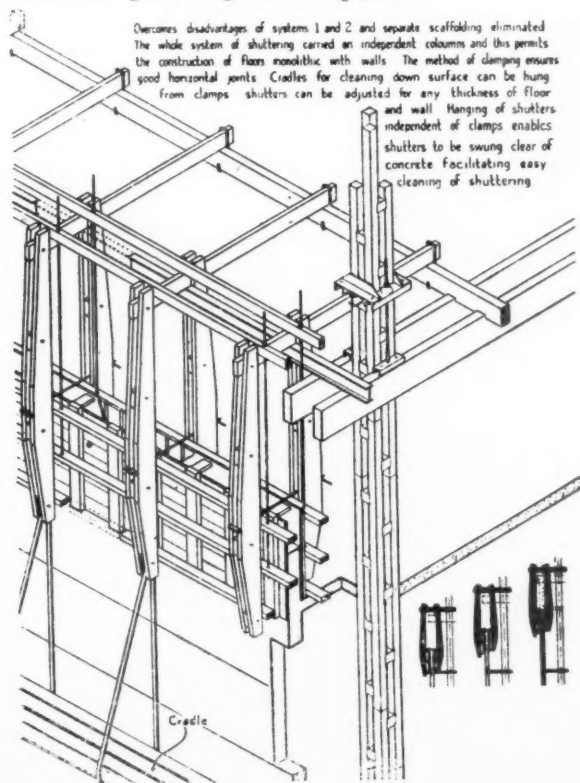
1 NORMAL SYSTEM OF SHUTTERING

Disadvantages - Relative high labour cost, dependency upon skilled workmen, horizontal joints difficult to conceal, stains on surface from binding wire left in walls, scaffolding necessary.



2 SHUTTERING OF WALLS WITH SLIDING FORMS

Disadvantages - Lifting of forms, pouring of concrete is a continuous operation and must go on day and night until completion. The construction of intermediate floors therefore, becomes only possible by leaving a chase in wall thus - This does not permit the floors to be constructed more alike with the walls.



Overcomes disadvantages of systems 1 and 2 and separate scaffolding eliminated. The whole system of shuttering carried on independent columns and this permits the construction of floors monolithic with walls. The method of clamping ensures good horizontal joints. Cradles for cleaning down surface can be hung from clamps. Shutters can be adjusted for any thickness of floor and wall. Hanging of shutters independent of clamps enables shutters to be swung clear of concrete facilitating easy cleaning of shuttering.



Prominent on the London scene are the new Whitehall offices being constructed by Richard Costain Ltd., the first stage of which is now approaching an advanced state of completion as can be seen by the illustration adjoining. The drawing reproduced below shows how this fine Government building will look when fully completed.

Architect:
E. VINCENT HARRIS, R.A.
Consulting Engineers:
R. TRAVERS-MORGAN & PARTNERS



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to analyse the possible constructional techniques which are available with particular regard to cost and the shortage of steel reinforcement.

The cost of formwork is the most decisive factor in the cost of any reinforced concrete. Nearly two-thirds of the cost of the plain structural concrete wall is for formwork. If the formwork required can be reduced, materially cheapened or eliminated entirely, the saving will be considerable. For walls it is possible to deal with this problem in one of two ways. Firstly, by eliminating the main surface-shuttering either by precasting the walls on the ground or on the floor slab, or by using hollow precast concrete blocks which will form an integral part of the wall. Secondly, by rationalizing the shuttering technique by using either continuous sliding shutters, as used in silos and in current use on flats in Sweden (see Fig. 5), intermittent climbing shutters as used on Highpoint I and in current use on flats in Denmark (see Fig. 6), or shutters standardized to the clear floor height and wall length.

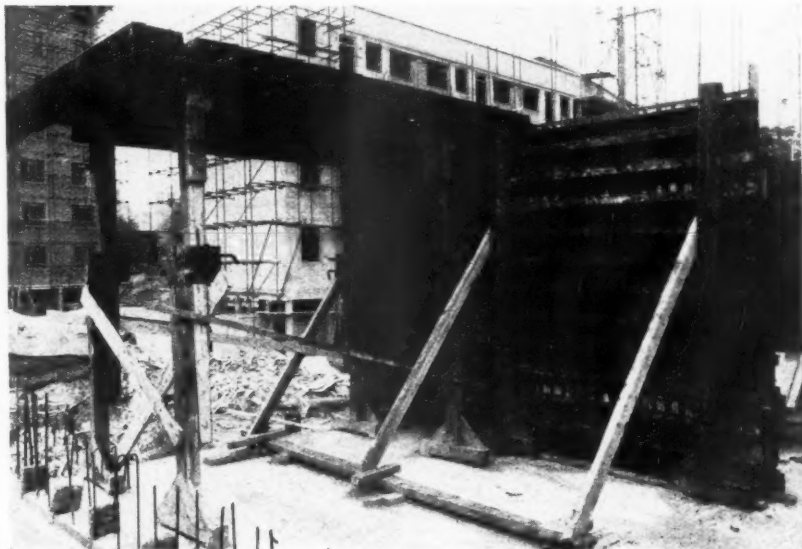
The cost of formwork for floor slabs is not quite so important, and, in any case, can be eliminated by using precast floor units. In this connection it is worthwhile to note, however, that a thorough investigation by the Chief Scientific Adviser's Division of the Ministry of Works⁽⁷⁾ showed that in 1949 the *in situ* reinforced concrete floor was the cheapest form of floor construction for housing with normal spans. There is no evidence yet to indicate any marked change in this situation. For longer spans, however, there is no doubt that the cost difference between *in situ* reinforced concrete slabs and prestressed floors is considerably reduced. In fact for 24-ft. spans a prestressed precast floor is slightly cheaper.

CONSTRUCTION TECHNIQUES

The possible techniques which may be used in slab construction range from the normal *in situ* reinforced concrete form to the completely prefabricated prestressed structure, and are briefly as follows:

Walls (a) *In situ* concrete, either plain or reinforced, constructed with shutters which are either continuous sliding, intermittent climbing, or standardized and prefabricated in large units for use with mobile tower cranes, or precast hollow concrete blocks, which, when concreted, will form an integral part of the wall.

(b) Precast, either on the ground where they could also be lightly prestressed to control shrinkage and lifted into position by the crane, or cast in position on the flat on the floor slab when they could be tilted up into position (see Fig. 9).



Above, Fig. 7, Danish laminated shuttering in use on the Rosebery Avenue flats. Right, Fig. 8, mobile tower crane suitable for flat construction.



Floors (a) *In situ* concrete, either reinforced or prestressed (post-tensioned), solid or hollow.

(b) Precast concrete, either reinforced or prestressed, with or without *in situ* concrete topping, or some combination of reinforced or prestressed precast concrete hollow or trough beams, with or without hollow tiles, all of which could also be post-tensioned for greater economy (see Fig. 10).

Of these possibilities, however, I think only four are worth further consideration at this time. Two are based on the use of the mobile tower crane (see Fig. 8); the other two are based on

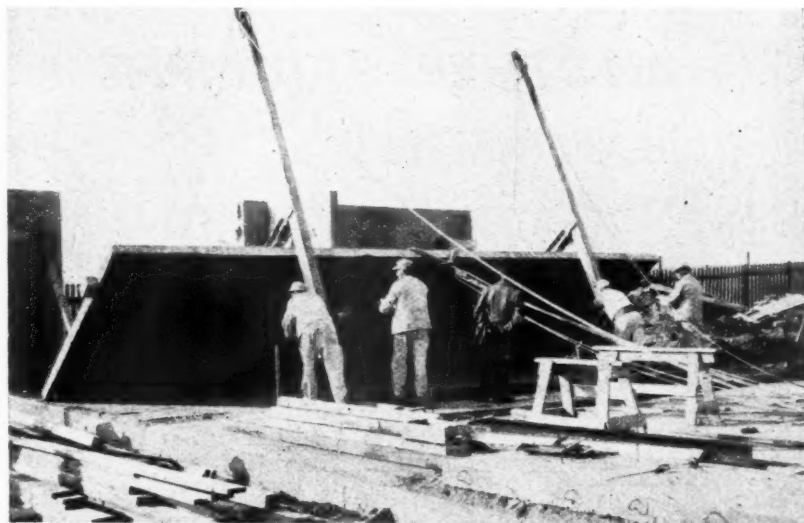


Fig. 9. Tilting up a wall slab cast flat on a floor slab, by means of hydraulic jacks.



**BISON
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the use of sliding and climbing shutters.

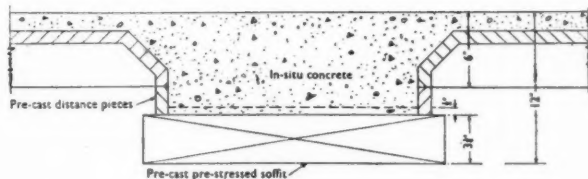
(i) *In situ reinforced concrete floor slabs with reinforced concrete or prestressed concrete walls precast on the site on the flat and lifted up into position by the crane, which would also be used for concrete placing.* This would eliminate the main wall shuttering. Similar schemes to this have already been carried out in the USA up to six-storeys high (*). Cost reductions up to nearly 30% are claimed. Alternatively, and as a point of interest, where the job is not of sufficient size to warrant a crane, the walls can be cast on the floor slabs and tilted up into position.

(ii) *In situ reinforced concrete floor slabs or precast prestressed floor units, incorporating an in situ concrete topping, with concrete walls cast in position between large standardized prefabricated shutters for whole wall units.* These shutters would be mounted and demounted by the crane, which would also be used for concrete placing. By this technique the structure is completely continuous vertically and horizontally, which is the natural form for structural concrete.

(iii) *In situ external concrete walls, constructed with hydraulically controlled climbing shutters, with reinforced concrete floor slabs cast in position by concreting the walls up to the underside of the floor slabs and then raising the shutters above the slab level to allow the slabs to be constructed.* The shutters would be mounted on an independent framework

Fig. 11. Box-frame construction. A progress photograph of the Rosebery Avenue flats. Engineers: Ove Arup and Partners.

Fig. 10. Composite floor construction. A combination of precast prestressed concrete, plain precast concrete and in situ filling.



from which the floor shutters could also be suspended. Alternatively the floor slabs could be precast as (ii).

(iv) *Similar to (iii), except the wall shutters would be of the continuous sliding type.* The floor slabs would be constructed later by building them into preformed chases in the walls.

Apart from the possible cost saving, the main advantage of (iii) and (iv) is the probable saving in construction time with the consequent earlier commencement of capital repayment. The main disadvantage is the problem of providing an economic, durable and aesthetically satisfying finish to the external concrete surfaces.

It is obvious in all cases that a mobile tower crane would be of considerable advantage, but the greatest use would be obtained, and therefore the lowest operating cost, if the crane were fully employed for all the primary construction operations.

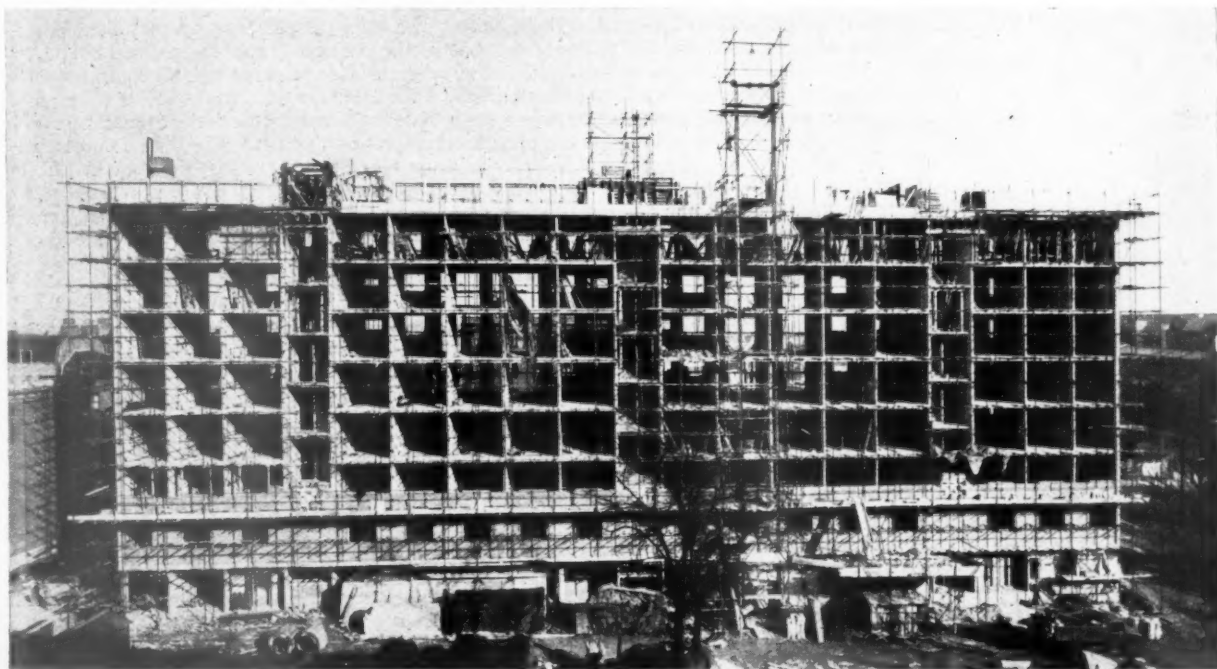
The Building Operations Research Unit of DSIR considers that these cranes will have considerable influence on the reduction of costs on multi-storey work. (S. F. Eden dealt with their use on the Continent in an article in the JOURNAL)(*). These cranes are now available in this country up to an operating height of 112 ft. and with a maximum radius of 82 ft., which would be sufficient to cope with the largest blocks envisaged at present.

REINFORCEMENT

At present steel reinforcement is in very short supply, and there is no indication that the situation will improve. Generally speaking, the reinforcement of slabs can be reduced to a minimum by the introduction of prestressing, either in the factory on precast units or by post-tensioning of the slabs after casting or precast units after erection. The Ministry of Works investigation referred to above suggested that for normal housing spans, say 10 to 12 ft., a prestressed floor, whether *in situ* or precast, would cost at least 30 per cent. more than an *in situ* reinforced concrete slab. This was confirmed by an investigation which was carried out about the same time into prestressing *in situ* concrete floor slabs on the Bishop's Bridge Road housing scheme, Paddington, where the floor spans were 23 ft.

The situation today is rather different. Although on the smaller spans *in situ* reinforced concrete floor slabs are still cheaper, for spans of 20 ft. and over, prestressed floors can be cheaper.

A more widespread use of precast prestressed units or planks which act as floor shuttering and reinforcement in combination with *in situ* concrete topping, as outlined in F. J. Samuely's recent paper(*) should enable designers to achieve their immediate task





This Specialized Age

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of producing floors which require the minimum quantity of steel and at the same time are cheaper than the normal reinforced concrete slab. There is no doubt that in time the potentialities of prestressing will be fully appreciated by architects, engineers and contractors. The basis of the design of flats will then undergo a marked change with considerable saving in structural cost.

So far as the walls are concerned, investigations carried out by BRS () () suggest that the main reinforcement in concrete walls can be omitted entirely, provided, firstly, there is no undue eccentricity in the application of the load, and, secondly, that the shrinkage problem is controlled either by the use of a light steel mesh reinforcement, by carefully controlling the quality of the concrete, or by prestressing.

The experimental flats constructed at Abbots Langley for the DSIR were designed as box frame structures, with unreinforced cross walls, except at the gable ends, which were reinforced to provide stability against longitudinal horizontal forces and reduce the bending moments in the end spans of the floor slabs.

It should be remembered, however, that the reinforcement in walls performs a dual function. Firstly, it assists in dealing with the vertical loads. Secondly, it enables the structure to be designed as a series of continuous horizontal and vertical slabs with rigid joints, and thus reduces the intensity of the bending moments in the floor slabs to the minimum, with a consequent saving in reinforcement in the slabs. A normal box frame structure in reinforced concrete designed on this basis uses approximately 1½ ton of steel, compared with an average figure of about 2.5 to 4.0 ton per flat for all systems.

EXTERNAL WALL CLADDING

The problem of external wall cladding for multi-storey blocks of flats has not been solved satisfactorily. Except for gable walls, 4½-in. brickwork has been used extensively on post-war schemes with a 2-in. cavity and a 2-in. or 3-in. inner leaf of some material with high thermal insulation value.

Concrete gable walls have had various treatments. On one unsubsidized scheme the walls were left untreated except for an application of cement paint. On a number of other schemes glazed frostproof tiling has been used successfully. On the six-storey blocks at Paddington precast concrete slabs with Portland stone facing are being used as permanent shuttering. I think this method has great possibilities, although it could curtail, if not preclude, the use of climbing shutters.

The disadvantages of rendering are well known, but some of these may be

overcome when we have more experience of the newer materials which are becoming available.

At the present stage of development, for the main external walling I am inclined to favour brick panels and insulating inner leaves, but, in my opinion, a complete investigation should begin as soon as possible into the potentialities of large, precast concrete panels backed with lightweight insulating concrete. Systems of vertical aluminium extruded sections with aluminium faced cork slabs and fixed and opening glazing where required would also be suitable for multi-storey work and would be worth some investigation.

FOUNDATIONS

Foundations for high blocks do not present any problems. An analysis of foundation costs of blocks varying from four to eleven storeys in height, for varying bearing pressures and at varying depths, shows that there is no increase in the cost of the foundations for the higher blocks. In fact, in some cases, there is a slight saving.

LONDON BUILDING ACT REQUIREMENTS

The present byelaws are out of date. New byelaws, incorporating some of the recommendations of two recent codes of practice for structural reinforced concrete and loadbearing walls () () have been issued for comment. I understand drafting of the new byelaws commenced in 1945. They may be issued in final form later this year. By then I think they will be out of date in some important respects. In any case, until the new byelaws are final it will still be necessary to obtain the Council's consent to any rationally designed box frame structure either under part IV of the London Building Act or, alternatively, by waivers to the existing byelaws. Therefore, until the Council has approved a design in principle, there is some element of risk in going forward with the final design and detailing of the structure.

CONCLUSION

I am of the opinion that the only way to make any real progress on this problem is for local authorities to abandon the usual system of competitive tendering for schemes of this type. When it is necessary to provide high blocks local authorities should set up a construction team consisting of architect, quantity surveyor, engineer and contractor, whose task would be to produce the most economical solution to the particular problem and then to build it.

REFERENCES

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- ² Progress Report No. 1. Illinois Institute of Technology in association with Howard T.

Fisher and Associates, Inc. for the Housing and Home Finance Agency.

³ Comparative Costs of Floors. C. J. Masterman, C.S.A. Division, Ministry of Works. ARCHITECTS' JOURNAL, July 13, 1950.

⁴ Precast Concrete Panel Multi-storey Construction. Journal of the American Concrete Institute. May, 1950.

⁵ The Use of Mobile Tower Cranes on the Continent. S. F. Eden. ARCHITECTS' JOURNAL, August 2, 1951.

⁶ Some Recent Experience in Composite Precast and In situ Concrete Construction with particular reference to Prestressing. F. J. Samuely. Structural and Building Engineering Division Paper No. 30. I.C.E. (See ARCHITECTS' JOURNAL, March 6, 1952).

⁷ Loadbearing Reinforced Concrete Walls and their use in the Construction of Multi-Storey Domestic Dwellings. A. E. Seddon, M.Sc., A.M.I.Struct.E., DSIR, BRS.

⁸ The Strength of Thin Concrete Walls in Axial Compression under Distributed Loading. A. E. Seddon, M.Sc., A.M.I.Struct.E., DSIR, BRS.

⁹ The Structural Use of Normal Reinforced Concrete in Buildings. BSC of P 114 (1948).

¹⁰ Structural Recommendations for Load-bearing Walls. BSC of P 111 (1948).

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Announcements

Messrs. Francis W. B. Yorke, F.R.I.B.A., & H. M. Barker, L.R.I.B.A., have moved to 191, Corporation Street, Birmingham, 4. (Tel.: CENTral 6901.)

Messrs. A. F. Hare and Partners have moved to 24, Baker Street, W.1. (Tel.: WELbeck 7091.)

Mr. John F. G. Mack, A.I.A.S., building and quantity surveyor, has moved his office to 78, Fulham Palace Road, W.6. (Tel.: RIVER-side 1152.) Trade catalogues will be welcomed.

Messrs. Edward A. Pearce & Partners, consulting engineers, have closed their Harrow

office and all communications should be addressed to 28, Baker Street, W.1. (Tel.: WELbeck 3564.)

Mr. James A. Roberts, A.R.I.B.A., recently opened an office at 61, Sandon Road, Edgbaston, Birmingham, 17. (Tel.: Bearwood 2672.)

Mr. H. H. Clark, F.R.I.B.A., has changed his address to 71, Baker Street, W.1. (Tel.: WELbeck 1155.)

Mr. E. J. Knight, M.R.San.I., consulting sanitary engineer, announces that his office has moved from N. Harrow to "Bourne," West End Lane, Pinner. (Tel.: Pinner 3253.)

Mr. John Cassels Pinkerton, M.C., B.L., of Glasgow, was elected President of the RICS on May 26, 1952, in succession to Mr. J. A. Arnold-Forster, O.B.E. Since 1935, he has held the appointment with the Corporation of Glasgow of City Assessor and Surveyor of Local Rates.

Colin Laird, A.R.I.B.A., Dip.Arch., is opening a practice in Trinidad, British West Indies, where he will be pleased to receive trade catalogues and samples at the following address, c/o Pereira, 40, Ellerslie Park, Port-of-Spain, Trinidad, B.W.I.

George Ellison Ltd. announce that their Scottish area sales office is now accommodated at 7, Woodlands Terrace, Glasgow, C.3. The telegraphic address is INDUCTION, GLASGOW, C.3. (Tel.: Douglas 5335.)

Correction

In our issue for May 15, page 619, the range by Radiation Ltd., referred to as the "Yorkvale" back-to-back range, should read "Yorkdale" back-to-back range.

Buildings Illustrated

Muckamore Abbey Mental Hospital, at Muckamore, C. Antrim (pages 662-663 AJ May 29), for the Northern Ireland Hospitals Authority. Architects: Houston & Beaumont. Consulting Engineer (Heating and Lighting): J. R. W. Murland. Consulting Engineer (Sewage), Ernest Reid. General Contractors: H. Lavery & Sons Ltd. General Foreman: George Barlow. Sub-contractors: aluminium buildings, Short Bros. & Harland in association with the Bristol Aeroplane Co. (Housing) Ltd.; woodblock flooring, Heaton Bros.; patent flooring, Marley Tile Co. Ltd.; central heating and plumbing, G. N. Haden & Sons Ltd.; electric wiring, Electrical Equipment Co. (Leicester) Ltd.; electric light fixtures, Troughton & Young Ltd.; sanitary fittings, Shanks Ltd.; casements, Braby Ltd.

New Showroom for Pottery Manufacturer at Denby, near Derby. (Pages 688-689.) Designer: Robert Wetmore of Cockade Ltd.; Architects for the building: Wood, Goldstraw & Yorath. Sub-contractors: interior display, Cockade, Ltd.; plaster and decorating, Holland & Hannen and Cubitts, Ltd.

Extension to St. Andrew's Hospital, in Dollis Hill Lane, Dollis Hill, London, N.W.2. (Pages 694-695.) Architect: H. H. Clark, F.R.I.B.A. Quantity surveyors: Wakeman, Trower & Partners. General contractors: William Moss & Son Ltd. Clerk of works: A. C. Milne. General foremen: W. G. Broadwood and W. Ford. Sub-contractors: asphalt tanking, French Asphalte Co. Ltd.; common bricks and hollow tile partitions, London Brick Co. Ltd.; artificial

stone, Emerson & Norris Ltd.; grey asphalt balcony coverings, French Asphalte Co. Ltd.; patent flooring, Semtex Ltd.; central heating, Rosser & Russell Ltd.; electric wiring and fixtures, Troughton & Young Ltd.; heating panels in patients' disrobing cubicles, Dulrae Ltd.; sanitary fittings, Doulton & Co. Ltd.; stairtreads and terrazzo window cills, Art Pavements Ltd.; door furniture, James Gibbons Ltd.; casements and pressed steel door frames, Crittall Manufacturing Co. Ltd.; patients' call system bells, Gent & Co. Ltd.; telephones, Reliance Telephone Co. Ltd.; dark blinds, J. Avery & Co.; plasterers, N. A. Telling Ltd.; paint, Imperial Chemical Industries (Paints Division) Ltd.; railings, Frederick Jukes Ltd.; joinery, Sadgrove & Co. Ltd., John Sadd & Sons Ltd.; syapite plaster, Gypsum Mines Ltd.; tiling, Carter Tile Co. Ltd.; curtains and furniture, Druce & Co. Ltd.; disrobing cubicles, Venesta Ltd.

Experimental Abattoir at Slyfield Green, Guildford, Surrey, for MOF. (Pages 699-702.) Designed by Chief Architect's Division Ministry of Works. General contractor: C. F. Kearley Ltd. Sub-contractors: asphalt flooring & roofing, Highways Construction Ltd.; concrete roof lights, Lenscrete Ltd.; precast posts & fencing, Penfold Fencing & Engineering Co., Ltd.; metal windows & doors, Wainwright & Waring Ltd.; steel doors & frames & subsidiary steel, S. W. Farmer & Sons, Ltd.; lairage equipment, Geo. W. King Ltd.; electrical services, B. & S. Electrical Contractors Ltd.; heating & ventilation, Comyn Ching & Co. (London) Ltd.; bucket elevators, paunch handling plant, overhead runways for cattle, Lockerbie & Wilkinson Ltd.; overhead runways for sheep & pigs, Industrial Wastes Eliminators Ltd.; refrigeration plant, J. & E. Hall Ltd.; cattle stunning pens, North British Lifting & Moving Co., Ltd.



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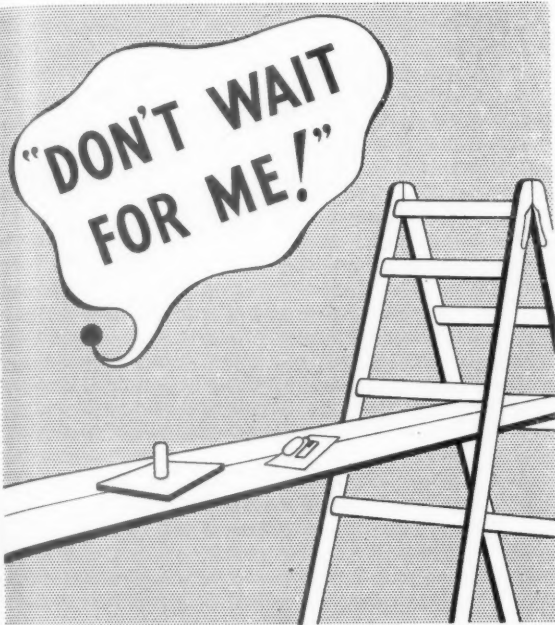
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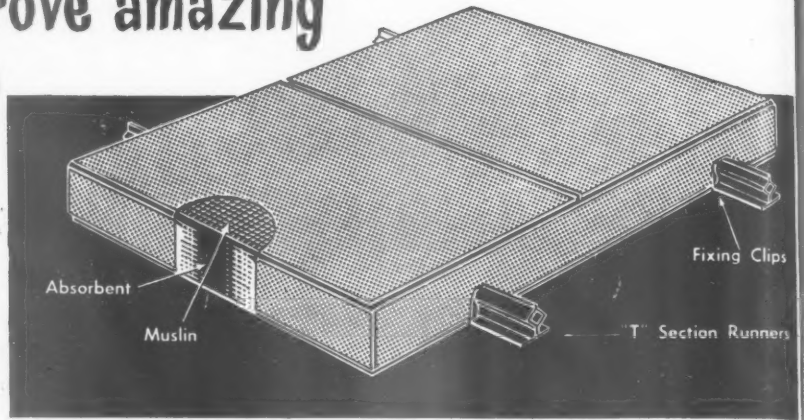
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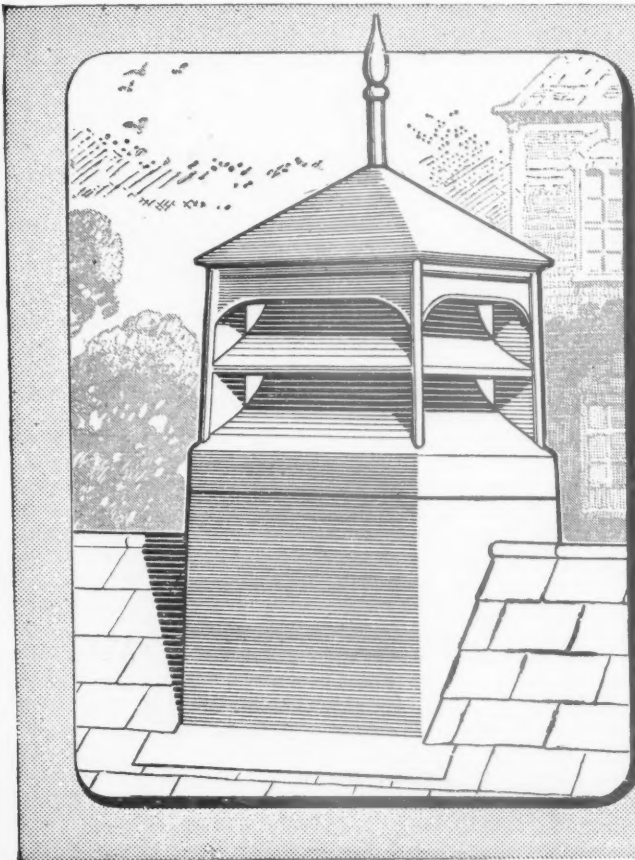
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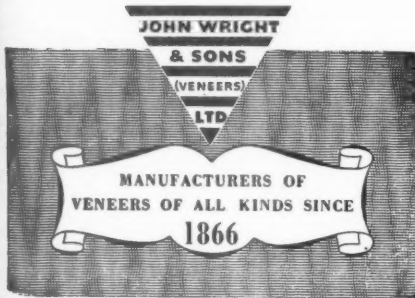
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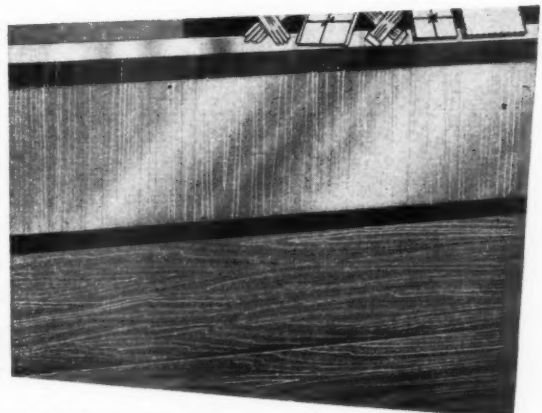
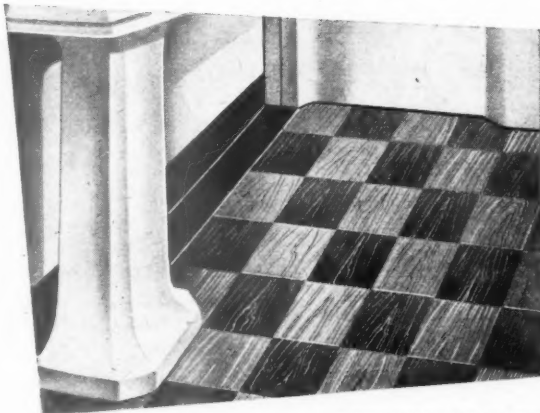


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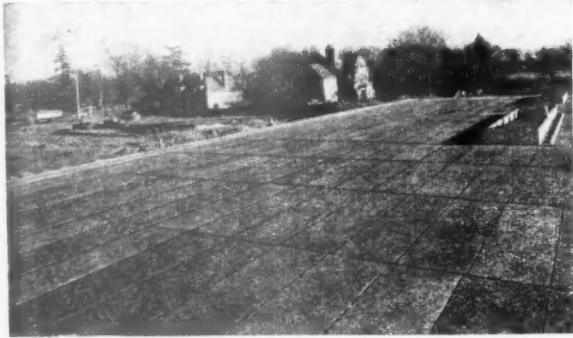
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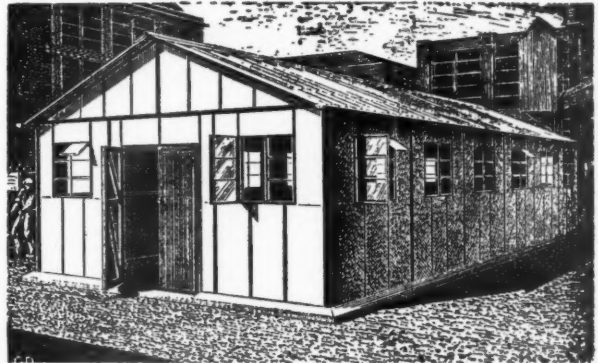
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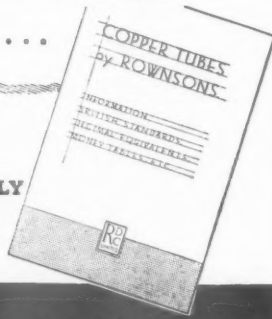
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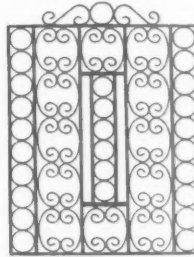
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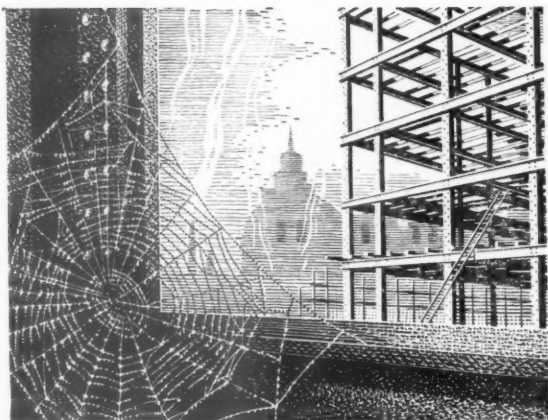
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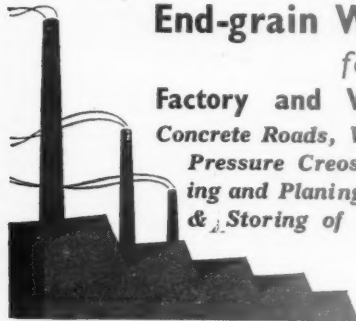
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 Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

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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 exempted from the provisions of the Notification of Vacancies Order, 1952.

**BRITISH ELECTRICITY AUTHORITY.
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Applications are invited for the following posts in the Construction Department of the Division:—

**2ND ASSISTANT ENGINEERS (CIVIL).
 VACANCY No. 44.**

Applicants should hold a degree in Civil Engineering, be Corporate Members of the Institution of Civil Engineers or possess equivalent qualifications.

They should have had experience in the design and construction of heavy foundations, river works, structures in reinforced concrete and steel, and other civil engineering works associated with the design and construction of power stations.

Experience in the preparation of specifications, bills of quantities and estimates will be an advantage.

Salary will be within Schedule C, Class AX/DX, Grade II (£809-£1,028 per annum) of the National Joint Board Agreement.

**2ND ASSISTANT ENGINEERS (MECHANICAL).
 VACANCY No. 45.**

Applicants should hold a degree in Mechanical Engineering, be Corporate Members of the Institution of Mechanical Engineers, or possess equivalent qualifications.

They should be experienced in the design and construction of turbo-alternators, boilers, coal and ash handling plant, high-pressure steam and water piping and other ancillary work.

Experience in the preparation of specifications and estimates and a knowledge of thermodynamics and hydraulics will be an advantage.

Salary will be within Schedule C, Class AX/DX, Grade 2 (£809-£1,028 per annum) of the National Joint Board Agreement.

**2ND ASSISTANT ENGINEERS (ELECTRICAL).
 VACANCY No. 46.**

Applicants should hold a degree in Electrical Engineering, be Corporate Members of the Institution of Electrical Engineers, or possess other equivalent qualifications.

They should have had experience in the design and installation of turbo-alternators, switchgear, transformers, and cables up to 33 kV, and other electrical equipment associated with modern power stations.

Experience in the preparation of specifications and estimates will be an advantage.

Salary will be within Schedule C, Class AX/DX, Grade II (£809-£1,028 per annum) of the National Joint Board Agreement.

**CIVIL ENGINEERING DRAUGHTSMEN.
 VACANCY No. 47.**

Candidates should preferably have had experience in:—

- (a) design and detail of steel frame buildings, bridge and gantries, etc., or
- (b) design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., or
- (c) general building construction, drainage and sanitation schemes, associated with offices and administrative buildings.

**MECHANICAL ENGINEERING
 DRAUGHTSMEN.
 VACANCY No. 48.**

Candidates should have had experience in the layout of boilers and turbines and auxiliary equipment. Condensing plant, coal and ash handling plant, H.P. and L.P. pipework installations.

**ELECTRICAL DRAUGHTSMEN.
 VACANCY No. 49.**

Candidates should have had experience in the layout and installation of E.H.T. and L.T. switchgear, transformers, E.H.T. and L.T. cabling. The salary for Vacancies Nos. 47, 48 and 49 will be within Grade V (£547-£651 p.a.) or Grade VI (£413-£547 p.a.) according to experience and qualifications.

The posts will be pensionable within the provisions of the Authority's Superannuation Scheme.

Applications should be submitted on the official form which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, stating vacancy number, and should be returned not later than 14th June, 1952.

L. F. JEFFREY,
 Divisional Controller.

15th May, 1952. 6880

NATIONAL COAL BOARD—WEST MIDLANDS DIVISION.

Applications are invited for a vacancy for a QUANTITY SURVEYOR, Grade I, in the Divisional Architect's Department, with headquarters at Himley Hall, Dudley, Worcs.

Applicants should be Corporate Members of the Royal Institute of Chartered Surveyors (Quantities Sub Division), with experience in the preparation of estimates, bills of quantities, measuring up, and adjustment of final accounts.

The appropriate salary scale is £855×£35 to £1,100, but the starting salary will depend on experience and qualifications of the successful applicant, and the post is superannuable.

Applications, giving age, education, qualifications and experience, with dates in chronological order, should be made to the Divisional Establishment Officer, National Coal Board, West Midlands Division, Himley Hall, Dudley, Worcs. 6895

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Application forms and further particulars may be obtained from the Chief Education Officer, Education Offices, Deansgate, Manchester, 3, to whom completed applications should be returned by not later than 21st June, 1952. 6891

**WEST SUSSEX COUNTY COUNCIL.
 COUNTY ARCHITECT'S DEPARTMENT.**

Applications are invited for the appointment of a SURVEYING AND ARCHITECTURAL ASSISTANT, at a salary in accordance with Grade I, A.P.T. Division (£440 to £485 per annum) of the National Scales of Salaries.

The person appointed will be required to carry out surveys of land and buildings, and should also have some architectural knowledge.

Further particulars should be obtained from the Manager, Employment Exchange, St. Pancras, Chichester, quoting Order No. 551, to whom detailed applications must be submitted not later than the 18th June, 1952.

T. C. HAYWARD,

Clerk of the County Council.
 County Hall, Chichester. 6893
 23rd May, 1952.

**COUNTY OF LINCOLN—PARTS OF
 KESTEVEN.**

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of HEATING AND ELECTRICAL ENGINEER, in the County Architect's Department, at a salary within A.P.T., Grade VI (£645×£20×£25×£710 per annum), according to experience and qualifications.

Applicants must be experienced in the design and installation of Heating and Electrical Schemes. Preference will be given to Corporate Members of the Institution of Heating and Ventilating Engineers.

Travelling allowance for an 8 h.p. car and subsistence allowances will be paid on the National Scales. The Council cannot offer housing accommodation, but will consider a lodging allowance to a married man for a period up to six months whilst he is living away from his family.

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

Applications, stating age, qualifications, present appointment and previous experience, together with the names and addresses of two referees, should reach the undersigned not later than the 14th June, 1952.

J. E. BLOW,

Clerk of the County Council.
 County Offices, Sleaford, Lincs. 6898
 24th May, 1952.

**CORPORATION OF MANCHESTER.
 CITY ARCHITECT'S DEPARTMENT,
 MANCHESTER.**

Applications are invited from suitably qualified persons for the following appointments at salaries in accordance with the National Joint Council's Scheme of Service Conditions:—

(a) TEMPORARY ASSISTANT ARCHITECT (Civil Defence). Salary A.P.T., Grade V (£570-£620 per annum) and

(b) PERMANENT ARCHITECTURAL ASSISTANT. Salary A.P.T., Grade IV (£530-£575 per annum).

Further particulars and forms of application may be obtained from the City Architect, Town Hall, Manchester 2, and should be returned to the same address by 21st June, 1952. Canvassing is prohibited. 6906

LONDON COUNTY COUNCIL invites applications for the superannuable post of ARCHITECT in charge of the Historic Records Section of the Architect's Department (Grade I, £1,002-£1,143). Skill and experience in classification, recording and restoration of buildings and objects according to period and style required. Duties include drafting material for publication.

Application forms, to be returned by 30th June, from Architect (quote EK/HR/3), County Hall, S.E.1. (549) 6892

**CORPORATION OF LONDON.
 APPOINTMENT OF ARCHITECTURAL ASSISTANTS, AUXILIARY STAFF.**

Applications are invited for the following appointments:—

An ASSISTANT within the range of the General Grade scale (£418×£20—£568) including present cost-of-living addition, the commencing salary related to scale by age, minimum age 23 years, maximum salary at 30 years. Applicants should have had good office experience and have passed or be preparing for Intermediate R.I.B.A. or R.I.C.S. Examinations.

An ASSISTANT within the range of Higher Grade I (£500×£25—£758) including present cost-of-living addition, the commencing salary to be subject to age, experience and qualifications. Applicants should have had good office experience and have passed or be preparing for the Final R.I.B.A. or R.I.C.S. Examinations.

The appointed officer will require to pass a medical examination and to contribute to the Corporation's Superannuation Fund as maintained under the City of London (Various Powers) Acts, 1931 and 1950.

Applications, giving full personal details, particulars of qualifications, experience, age, past and present appointments and the names of two persons to whom reference may be made, should be sent to the City Surveyor, Corporation of London, 55/61, Moorgate, E.C.2, not later than Monday, 16th June, 1952. 6908

BUCKS COUNTY COUNCIL.

The County Architect invites applications from qualified ASSISTANT ARCHITECTS. Candidates should preferably have been trained at a recognised School of Architecture. Salary: Grade VI, £645-£710 per annum.

The appointment is superannuable and subject to medical examination.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Further particulars and form of application may be obtained from the County Architect, County Offices, Aylesbury, to whom applications must be delivered by 14th June, 1952. 6897

**MALVERN URBAN DISTRICT COUNCIL.
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Applications are invited for the appointment of a Second Architectural Assistant, on the staff of the Surveyor and Water Engineer, at a salary in accordance with the National Scale, A.P.T., IV or V (£530, rising to £575 or £570, rising to £620), according to qualifications and experience.

A house will be available at normal rent, if required by the successful applicant, should he be married.

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

Applications, stating age, qualifications, experience and previous appointments, with names of two persons to whom reference can be made, in envelopes endorsed "Architectural Assistant," should be forwarded to the undersigned not later than 23rd June, 1952.

J. BULMAN,

Clerk of the Council.
 The Council House, Malvern. 6896
 21st May, 1952.

STEVENAGE DEVELOPMENT CORPORATION

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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 exempted from the provisions of the Notification of Vacancies Order, 1952.

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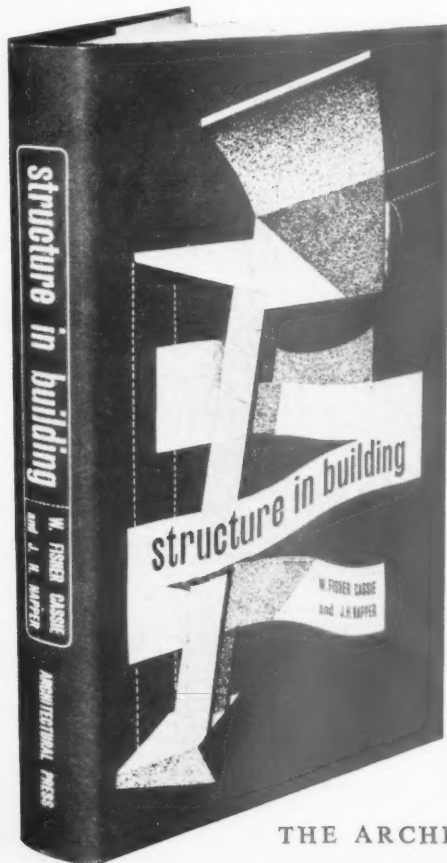
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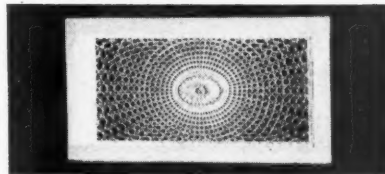
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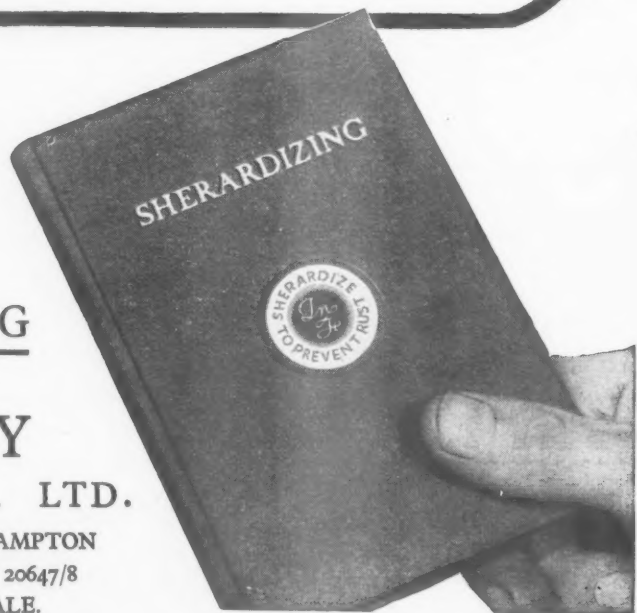
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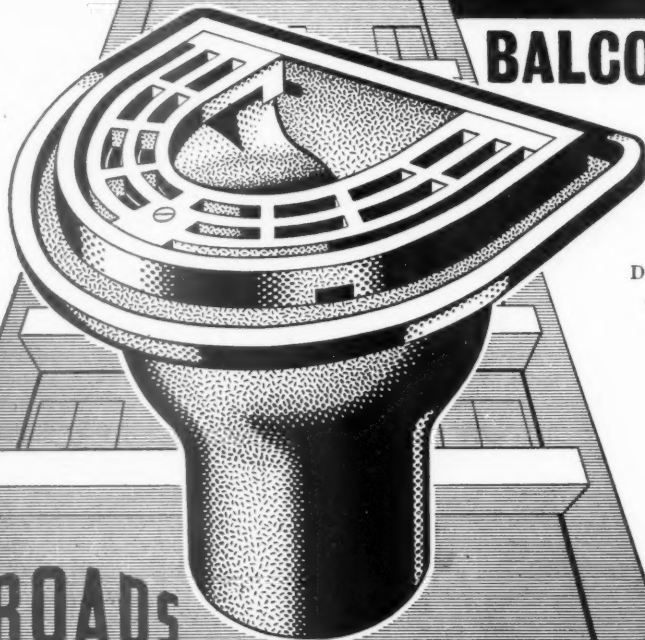
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