

# THE ARCHITECTS' JOURNAL



## standard contents

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

## NEWS and COMMENT

*Astragal's Notes and Topics*

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## TECHNICAL SECTION

*Information Sheets*

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*Working Details*

*Questions and Answers*

*Prices*

*The Industry*

## CURRENT BUILDING

*Major Buildings described:*

*Details of Planning, Construction,*

*Finishes and Costs*

*Buildings in the News*

*Building Costs Analysed*

*Architectural Appointments*

*Wanted and Vacant*

No. 3416]

[Vol. 132

THE ARCHITECTURAL PRESS

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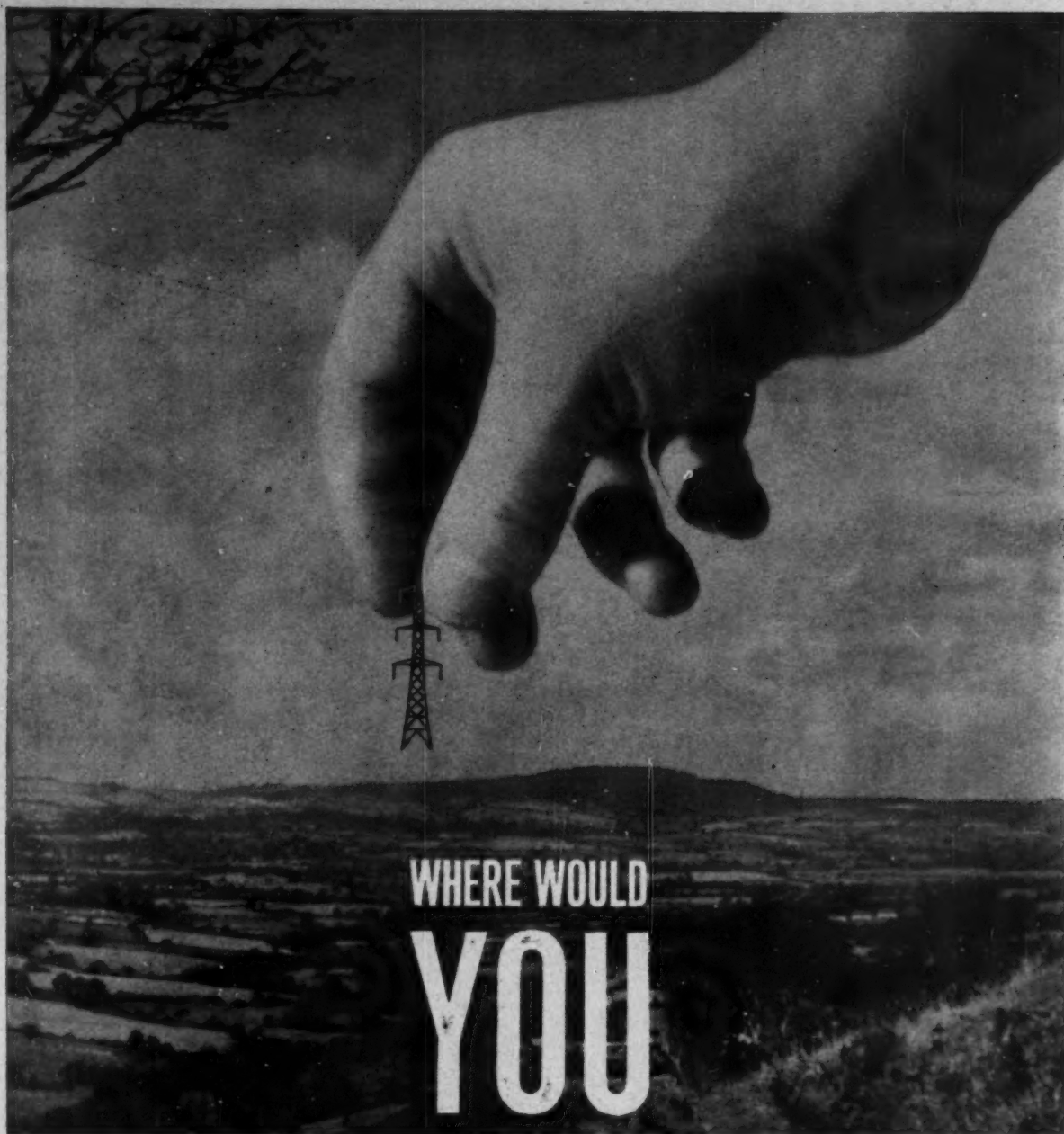
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★A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to I one week, II to Z the next. In all cases where the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

ILA	Institute of Landscape Architects.	1, Park Crescent, Portland Place, W.1.	Museum 3473
I of Arb	Institute of Arbitrators.	Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders.	48, Bedford Square, W.C.1.	Museum 7197
IQS	Institute of Quantity Surveyors.	98, Gloucester Place, W.1.	Wellbeck 1859
IR	Institute of Refrigeration.	Daimeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects.	68, Gloucester Place, W.1.	Wellbeck 9966
ISE	Institution of Structural Engineers.	11, Upper Belgrave Street, S.W.1.	Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee).	Fire Research Station, Boreham Wood, Herts.	Elstree 1341/1797
LDA	Lead Development Association.	18, Adam Street, W.C.2.	Whitehall 4175
LMBA	London Master Builders' Association.	47, Bedford Square, W.C.1.	Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food.	Whitehall Place, S.W.1.	Trafalgar 7711
MOE	Ministry of Education.	Curzon Street House, Curzon Street, W.1.	Hyde Park 7070
MOH	Ministry of Health.	23, Savile Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government.	Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service.	8, St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply.	Shell Mex House, W.C.2.	Gerrard 6933
MOT	Ministry of Transport.	Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works.	Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalt Mine Owners and Manufacturers Council.	14, Howick Place, Victoria Street, S.W.1.	Victoria 1600 & 6477
NAS	National Association of Shopfitters.	2, Caxton Street, S.W.1.	Abbey 4813
NBR	National Buildings Record.	31, Chester Terrace, Regent's Park, N.W.1.	Wellbeck 0519
NCBMP	National Council of Building Material Producers.	10, Storey's Gate, S.W.1.	Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalt Industry.	21, John Adam Street, Adelphi, W.C.2.	Trafalgar 3927
NFBTE	National Federation of Building Trades Employers.	82, New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives.	Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4459
NFHS	National Federation of Housing Societies.	12, Suffolk St., S.W.1.	Whitehall 1631
NHBRIC	National House Builders Registration Council.	58, Portland Place, W.1.	Langham 0064/5
NPL	National Physical Laboratory.	Head Office, Teddington.	Molesey 1380
NRDB	Natural Rubber Development Board.	Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
NSAS	National Smoke Abatement Society.	Palace Chambers, Bridge Street, S.W.1.	Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty.	42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning.	16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association.	94, Petty France, S.W.1.	Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland.	15, Rutland Square, Edinburgh.	Fountainbridge 7631
RIB	Rural Industries Bureau.	35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
RIBA	Royal Institute of British Architects.	66, Portland Place, W.1.	Langham 5533
RICS	Royal Institution of Chartered Surveyors.	12, Great George Street, S.W.1.	Whitehall 5322/9245
RFAC	Royal Fine Arts Commission.	5, Old Palace Yard, S.W.1.	Whitehall 3935
RS	Royal Society.	Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts.	6, John Adam Street, W.C.2.	Trafalgar 2366
RSH	Royal Society of Health.	90, Buckingham Palace Road, S.W.1.	Sloane 5134
SBPM	Society of British Paint Manufacturers.	Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SE	Society of Engineers.	17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association.	30, Cornhill, E.C.3.	Mansion House 3921
SIA	Society of Industrial Artists.	7, Woburn Square, W.C.1.	Langham 1984/5
SIA	Structural Insulation Association.	32, Queen Anne Street, W.1.	Langham 7616
SNHTPC	Scottish National Housing.	Town Planning Council.	Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.
SPAB	Society for the Protection of Ancient Buildings.	55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association.	28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association.	21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute.	18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation.	75, Cannon Street, E.C.4.	City 5040
WDC	War Damage Commission.	6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association.	34, Berkeley Square, W.1.	Grosvenor 6636



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to preserve the amenities of the country as they go.

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The illustration below explains why it is often found necessary to repoint joints in brickwork after only a few seasons of exposure



The cylinder marked 'A' consisted of mortar gauged 1 part cement to 6 parts sand by volume plus **FEBMIX ADMIX** Mortar Plasticiser. The cylinder marked 'B' was composed of 1 part cement to 1 part hydrated lime to 6 parts sand by volume. Both the cylinders of mortar were allowed to cure for one month and were then subjected to 30 cycles of freezing and thawing at which point the mortar cylinder containing **FEBMIX ADMIX** was unaffected. But, as can be seen from the above photograph, the cylinder of cement lime sand mortar had badly disintegrated.

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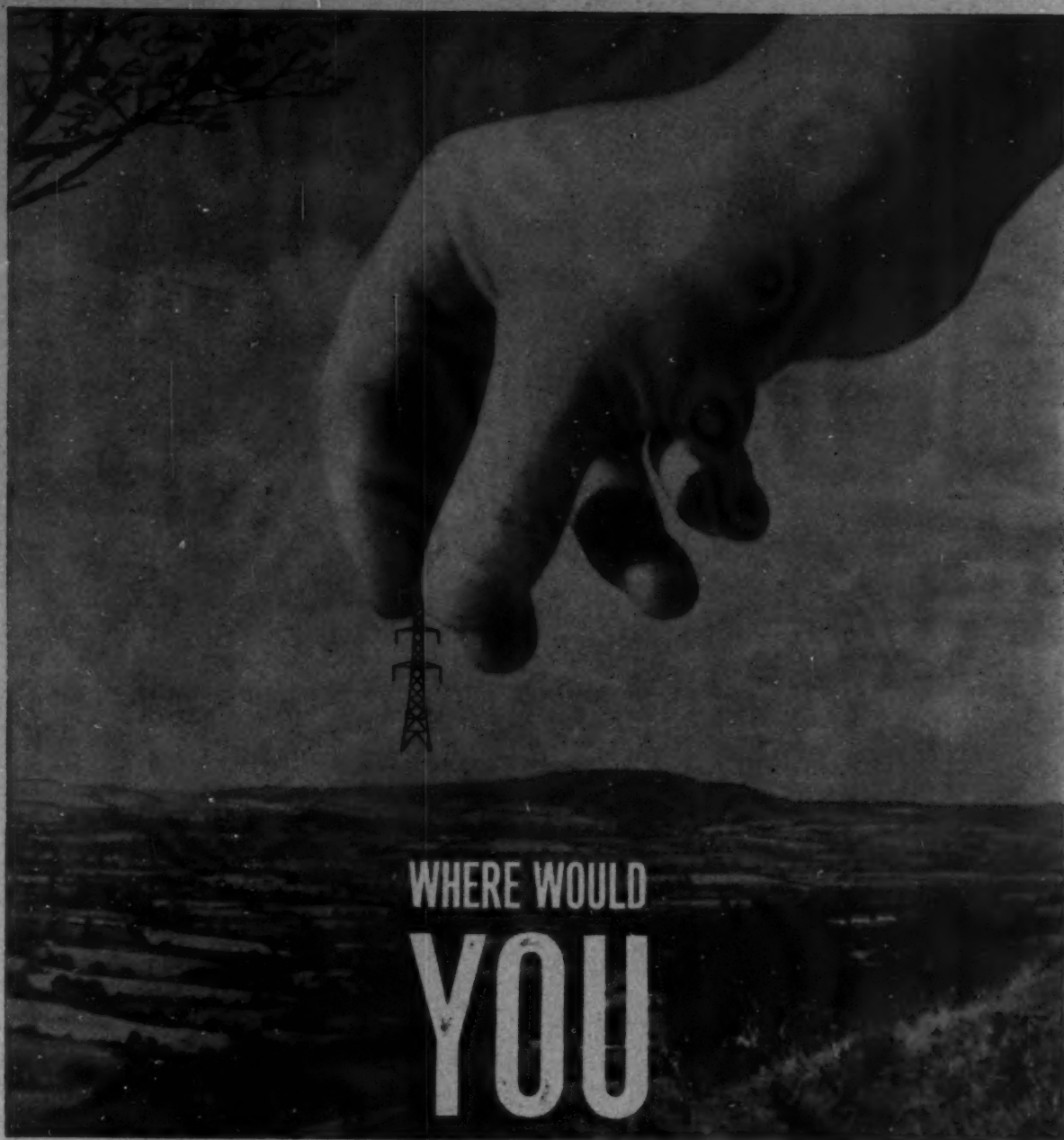
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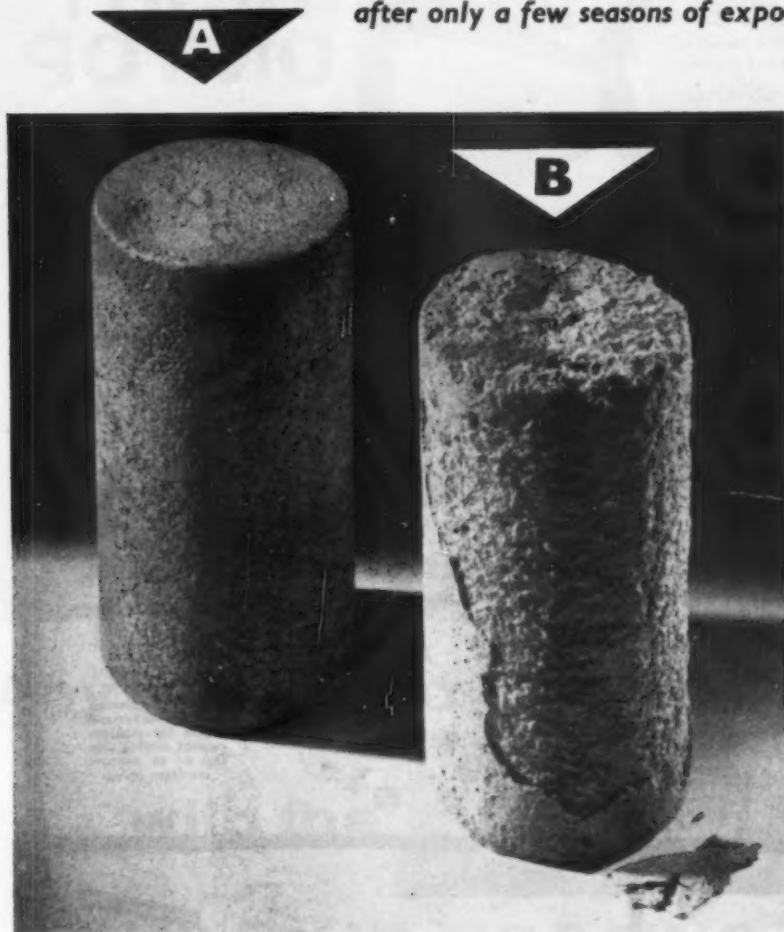
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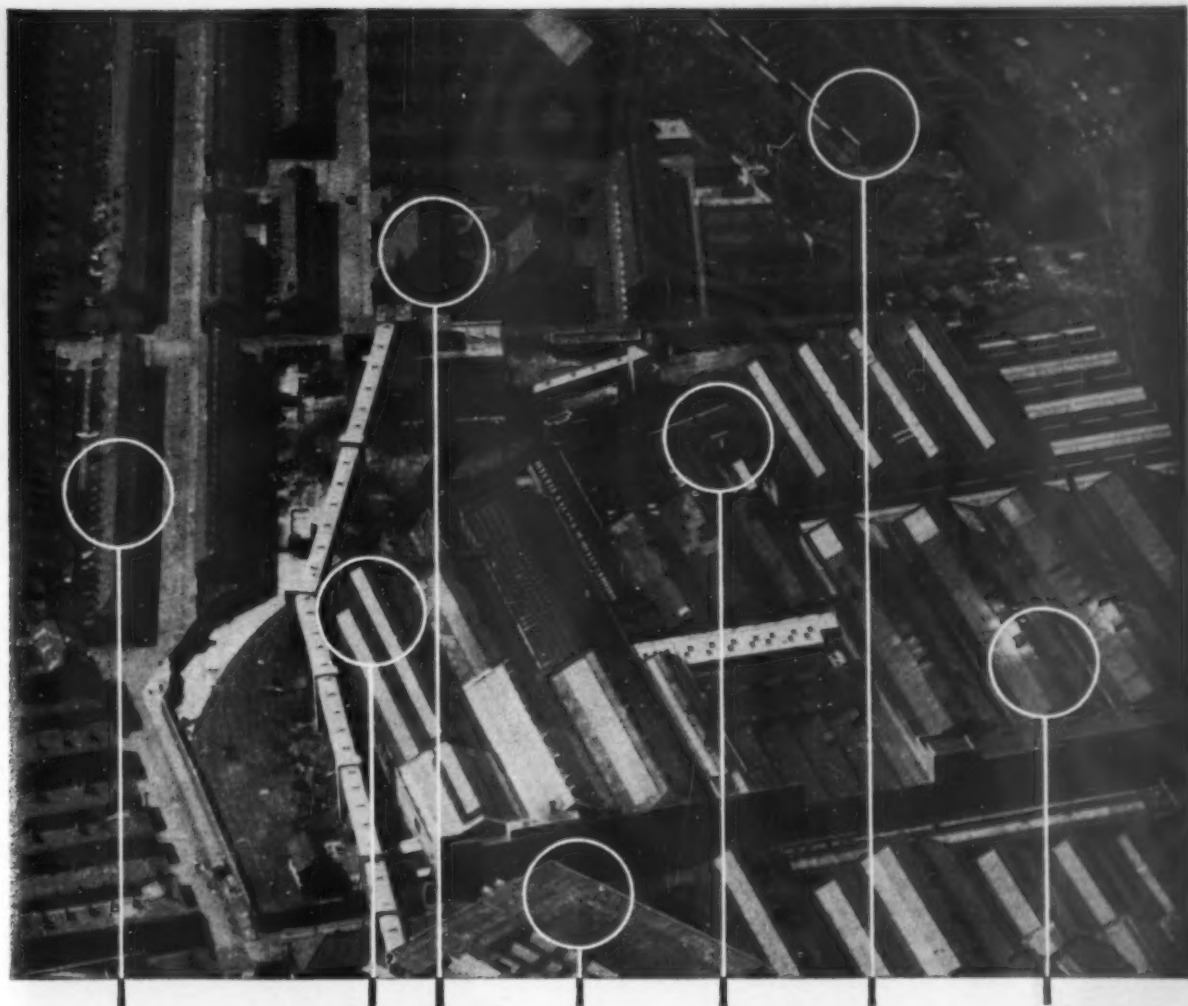


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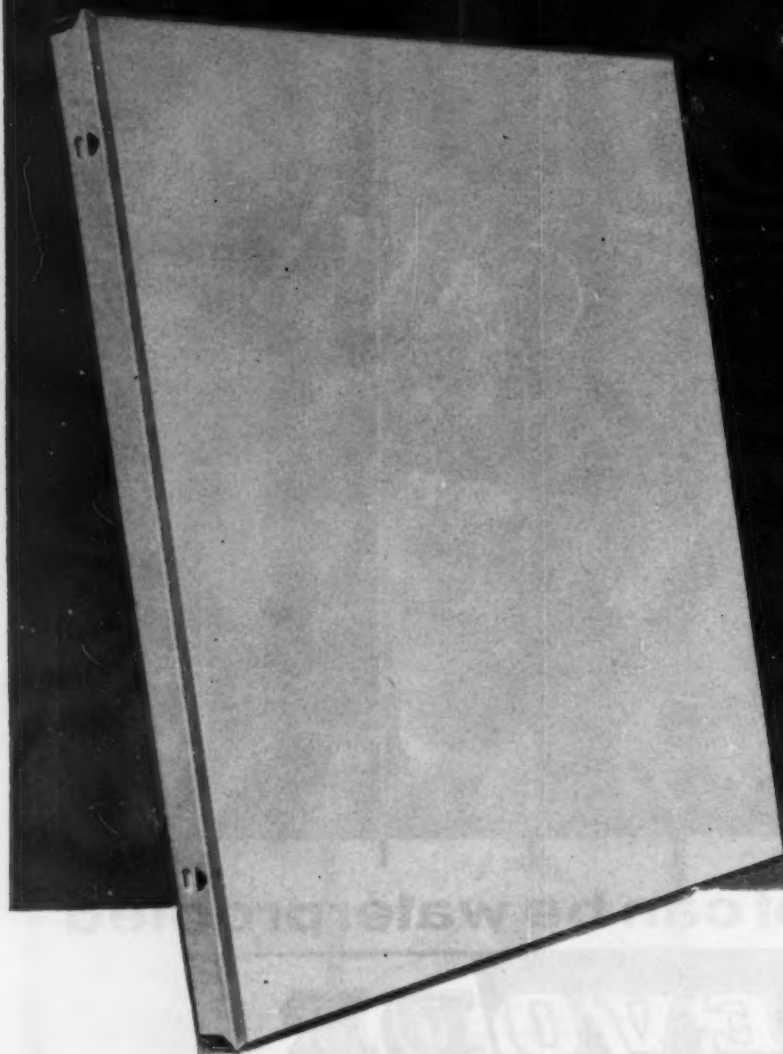
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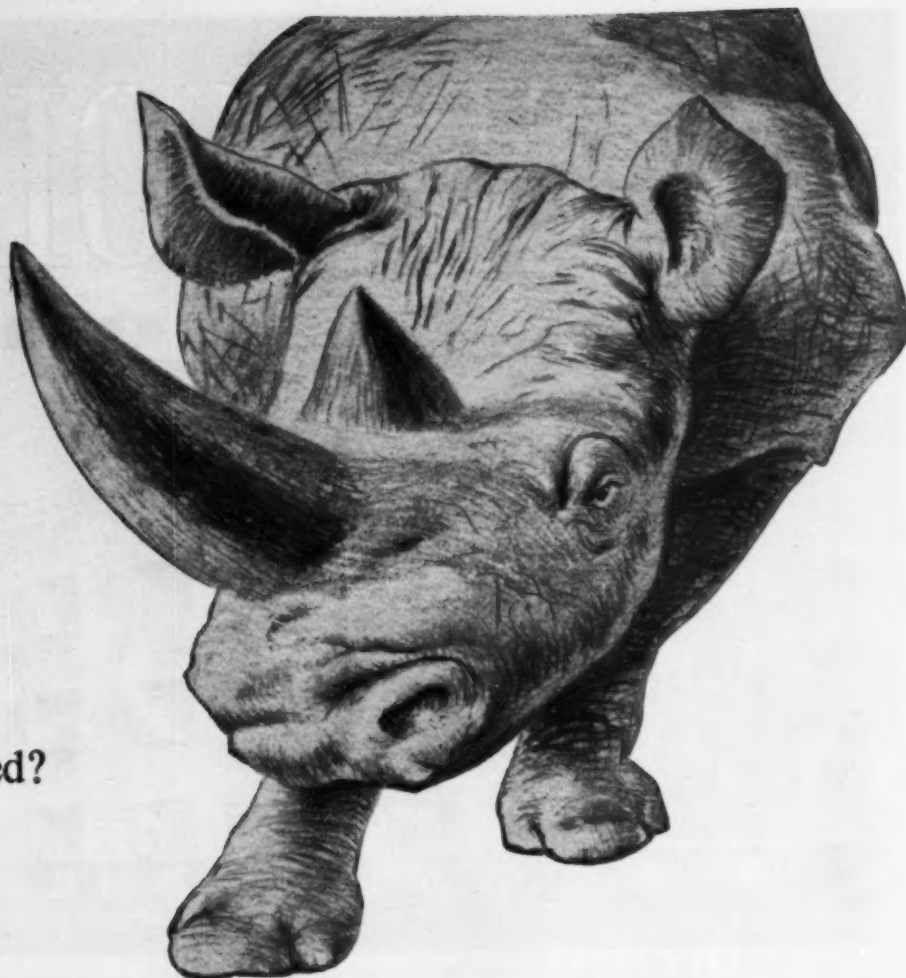
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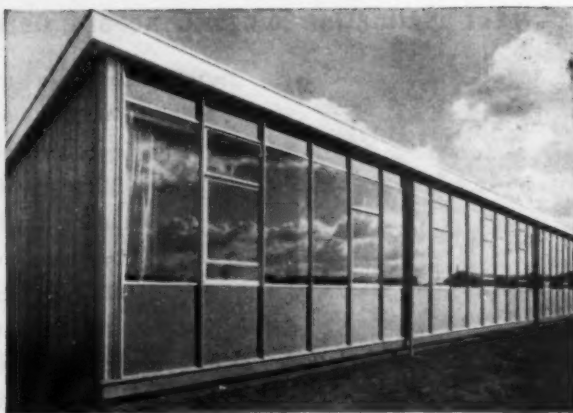
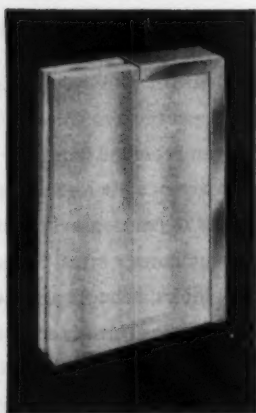
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*Left:* Modular lighting in the new library at Sheffield University is serviced by means of specially designed L.E.F. Gear.



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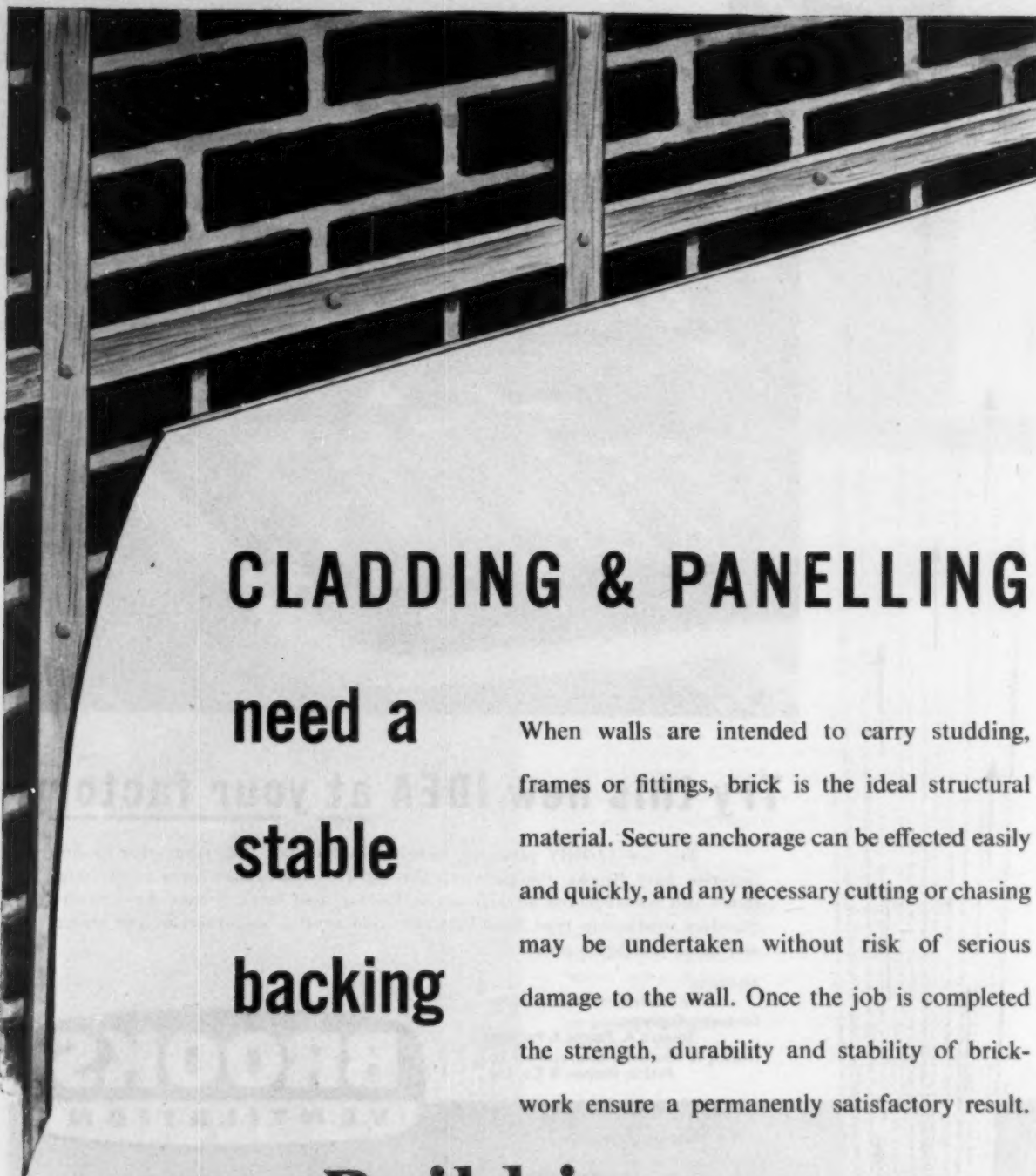
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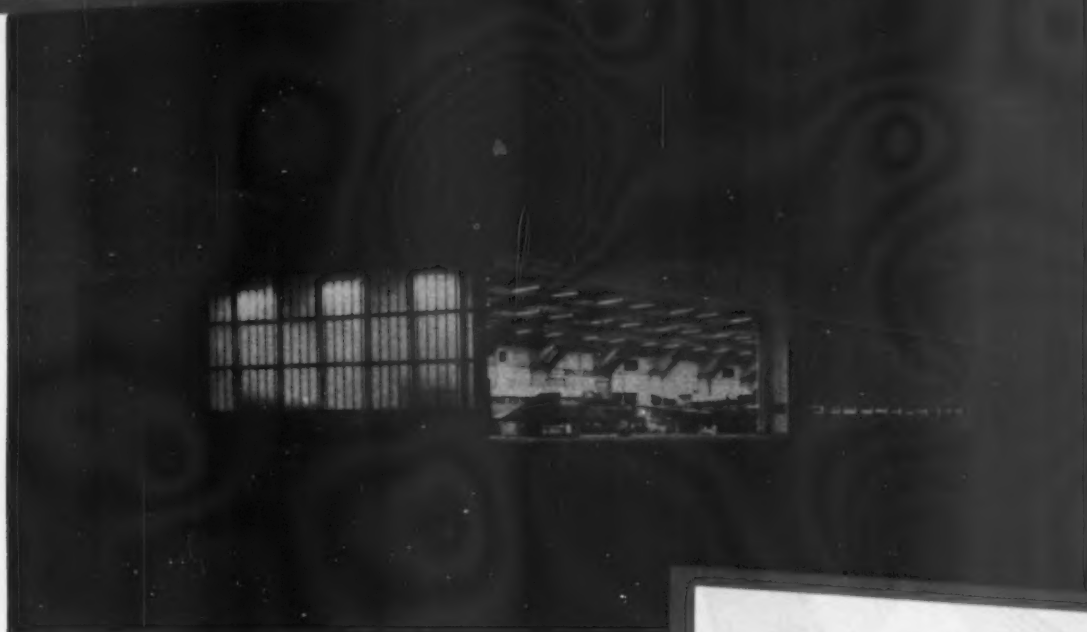
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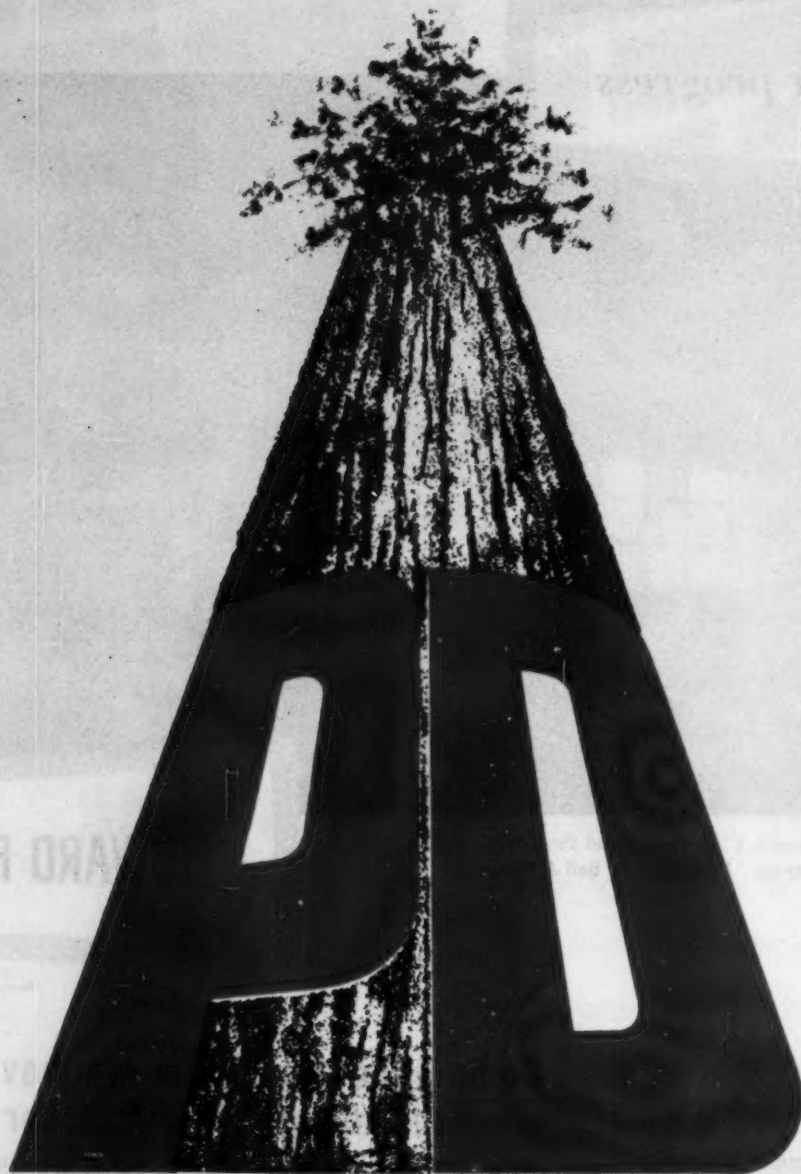
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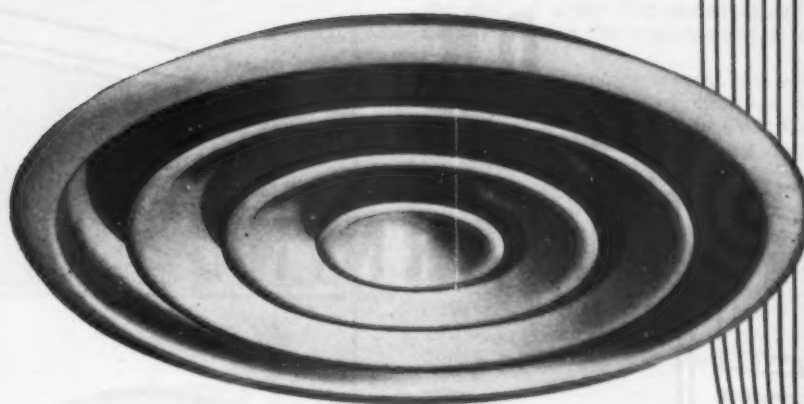
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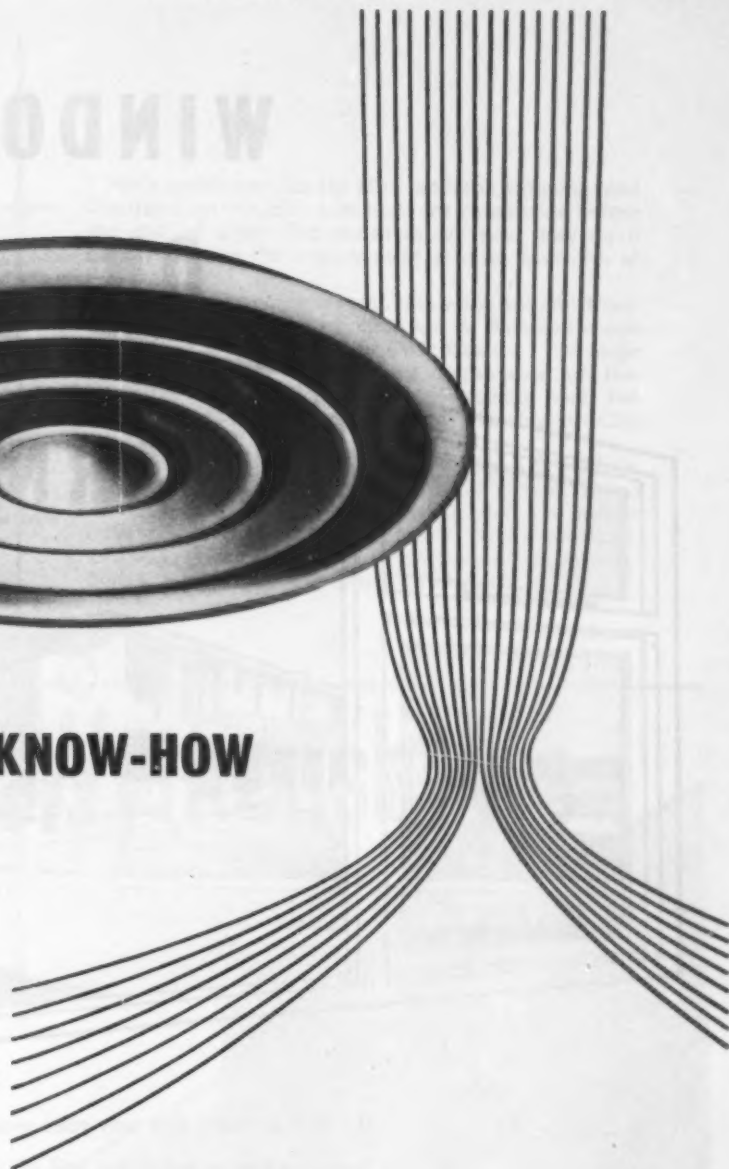
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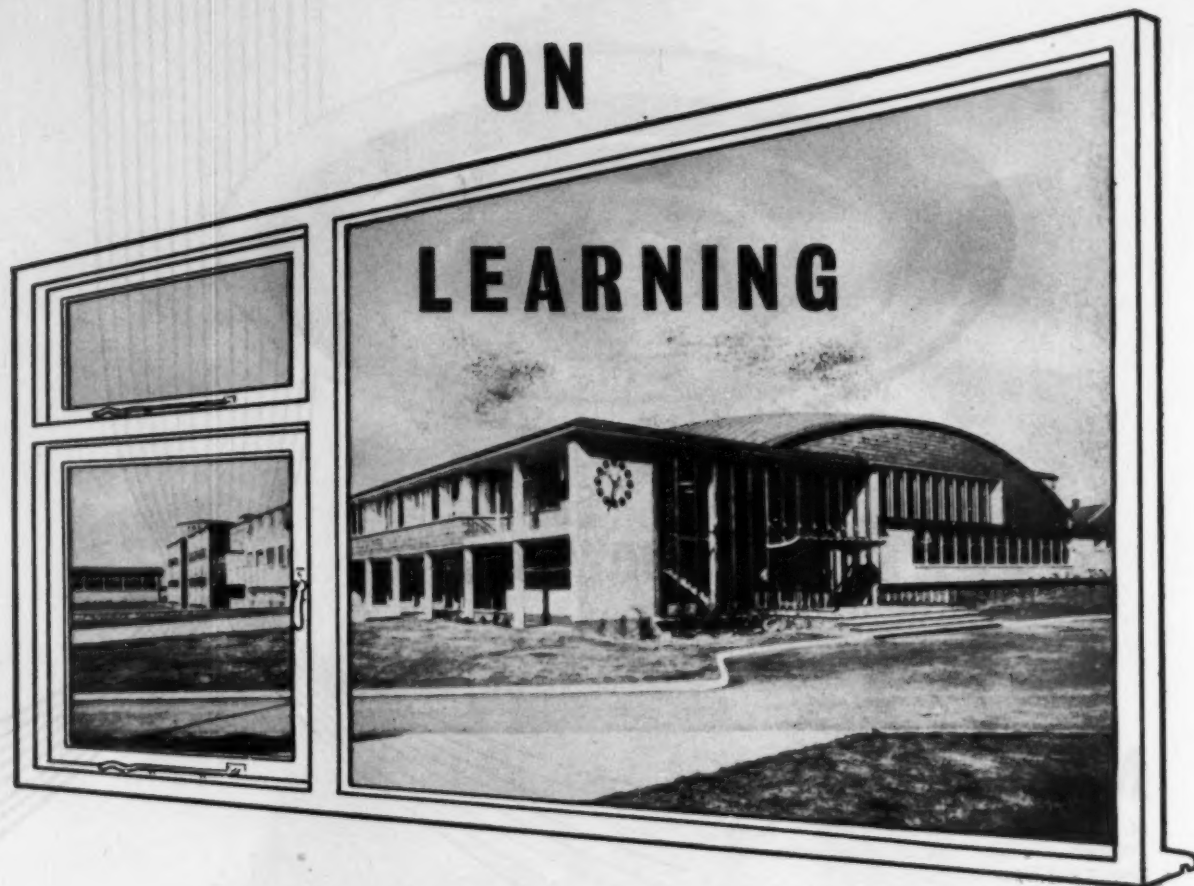
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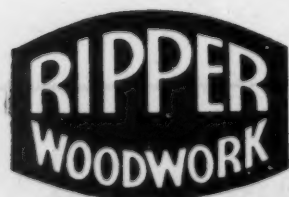
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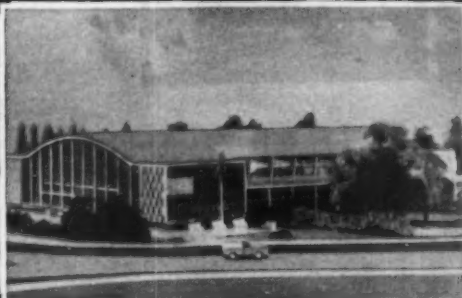
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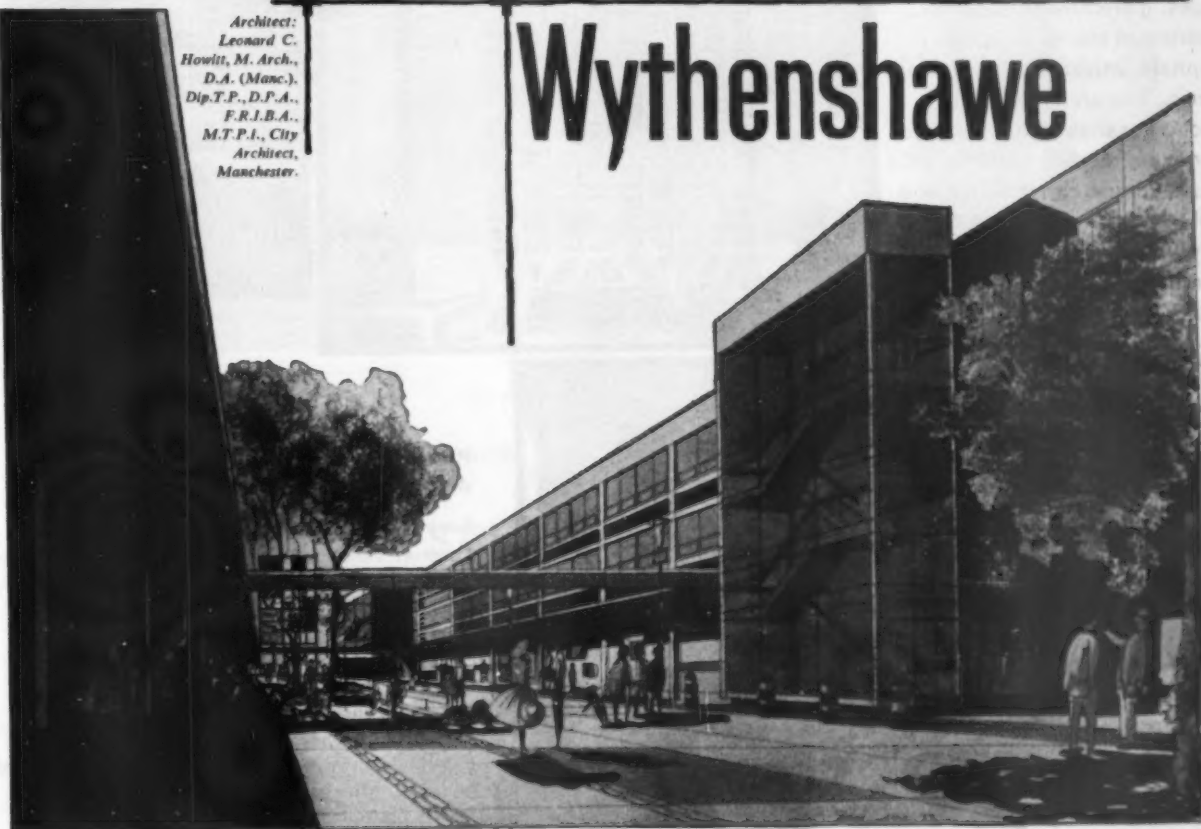
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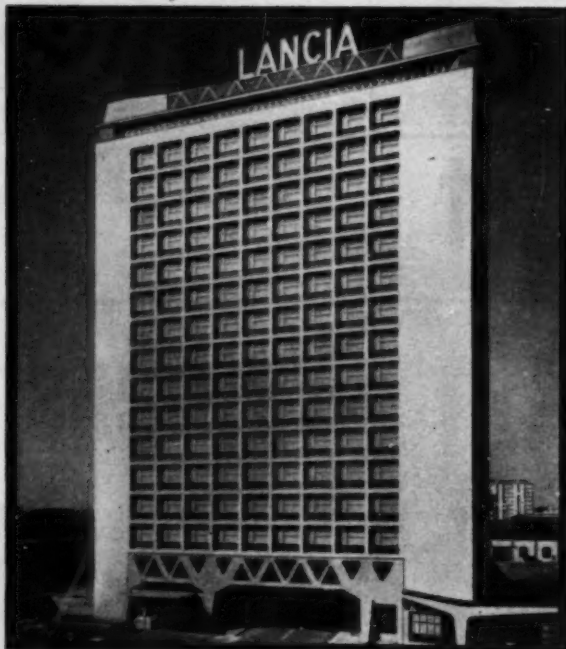


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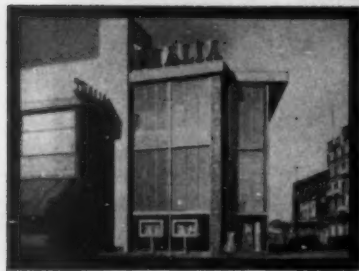
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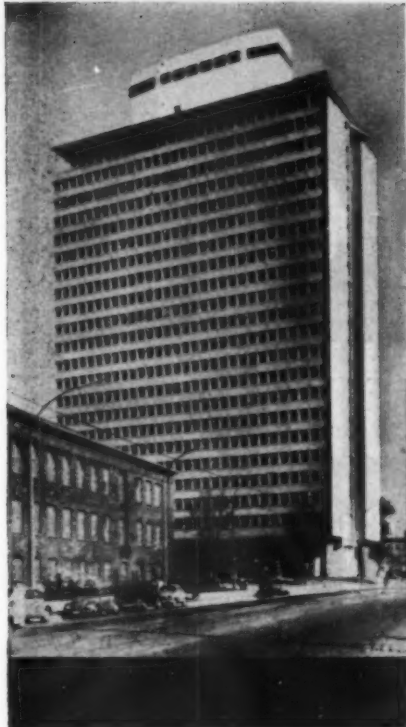
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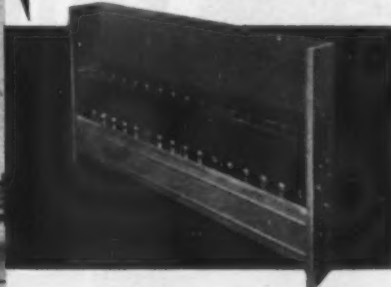
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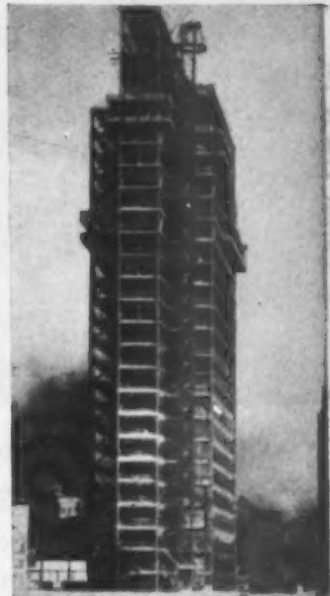
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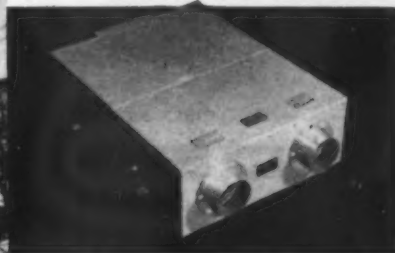
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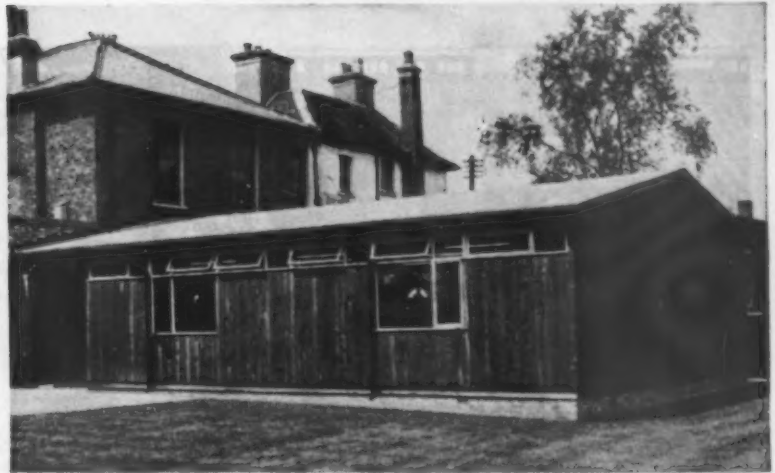
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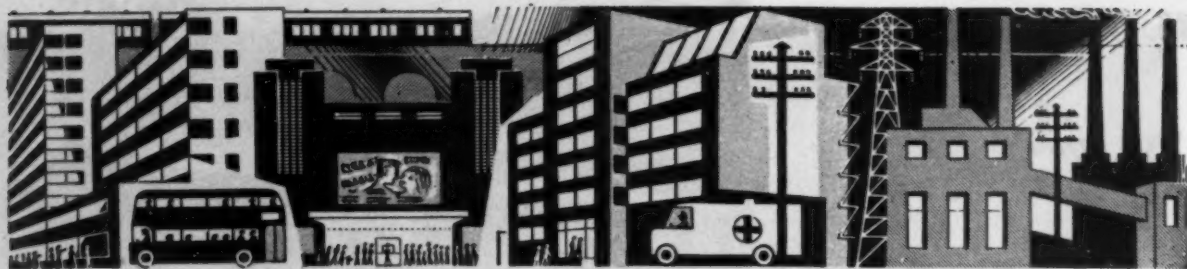
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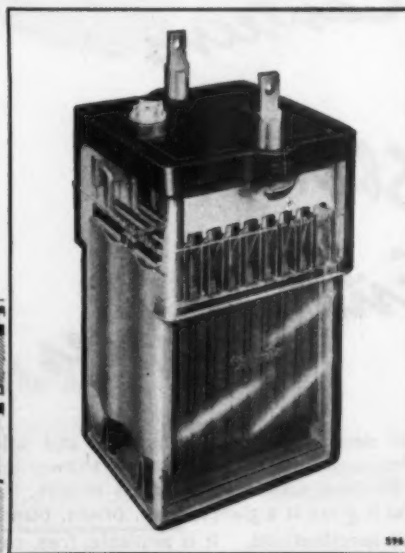
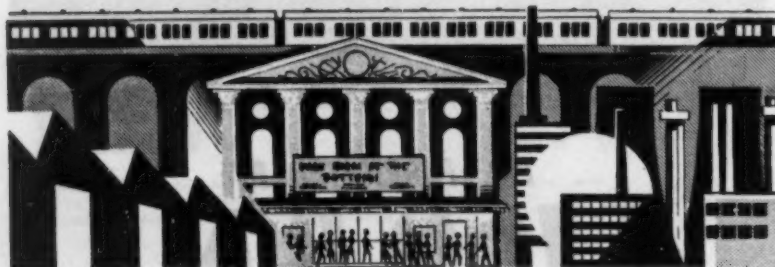
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*British Ceramic Tiles at the Kings Hall, Stoke-on-Trent  
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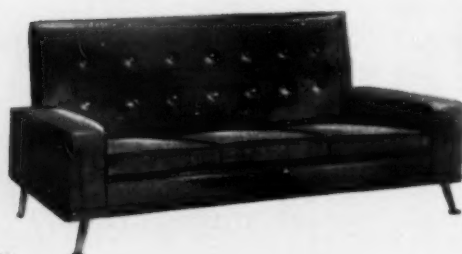
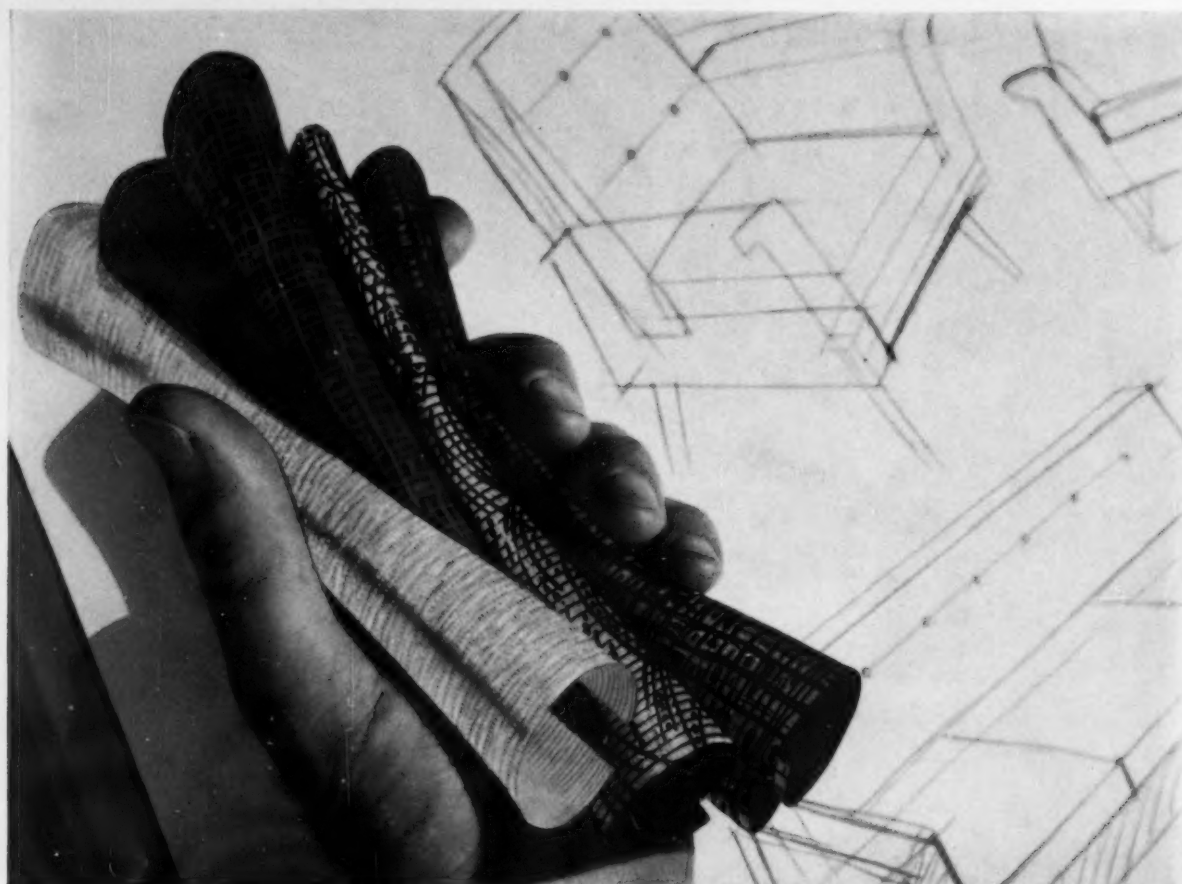
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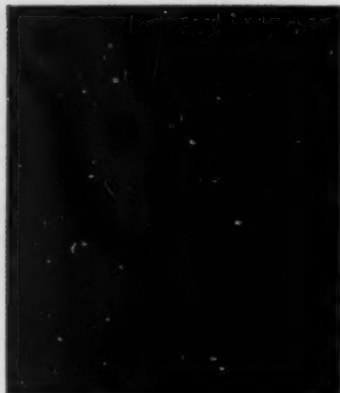
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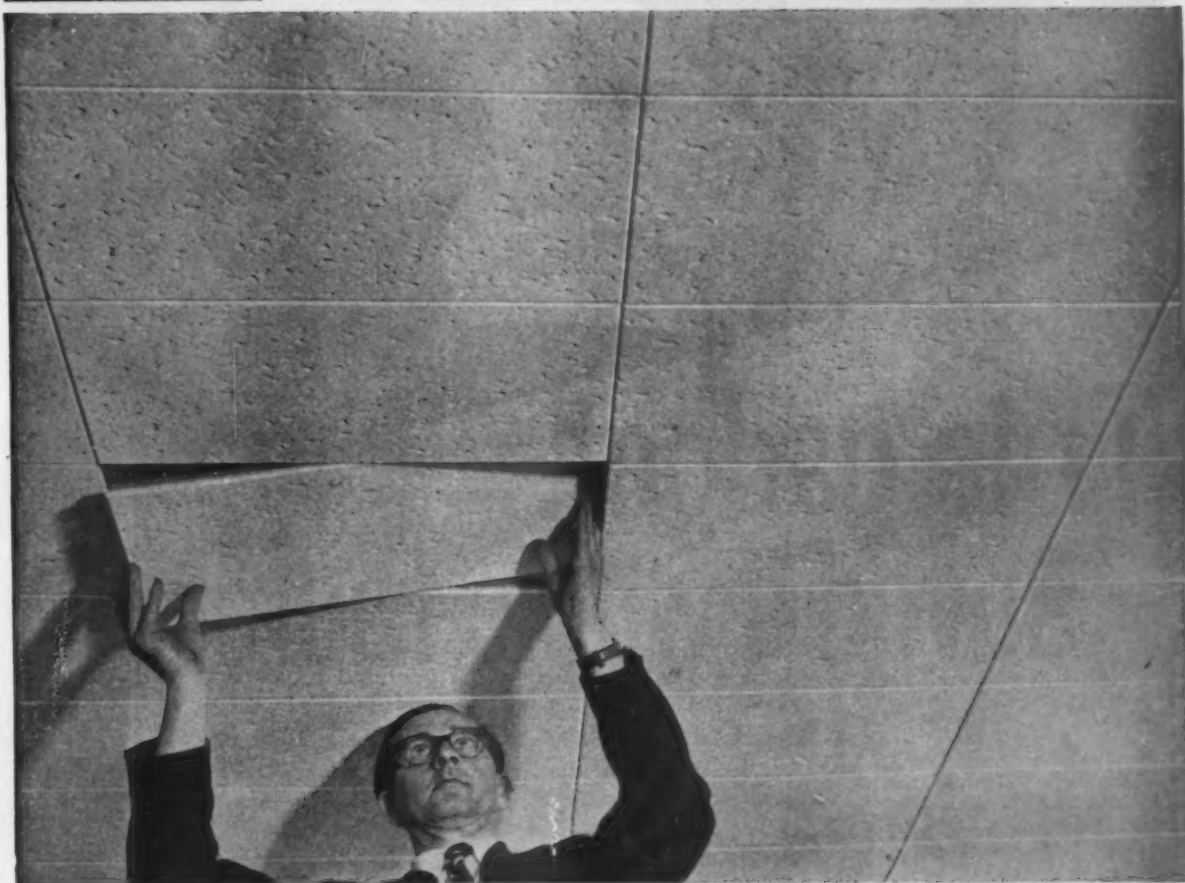
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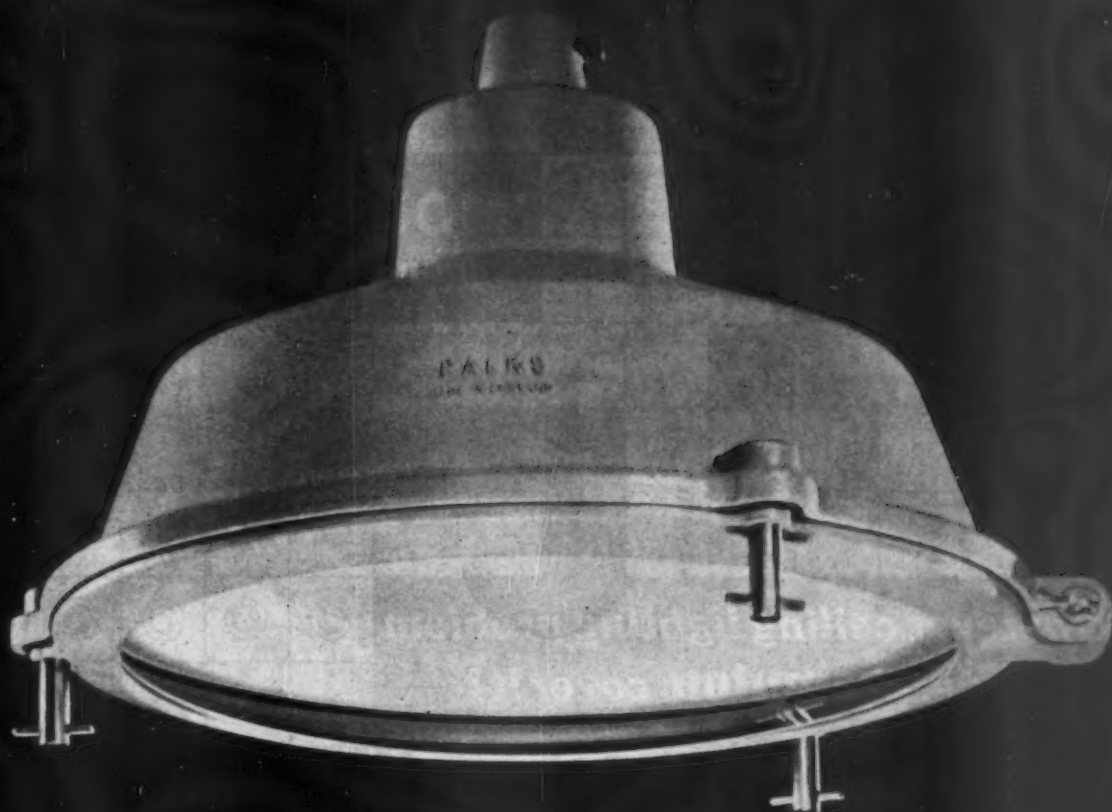


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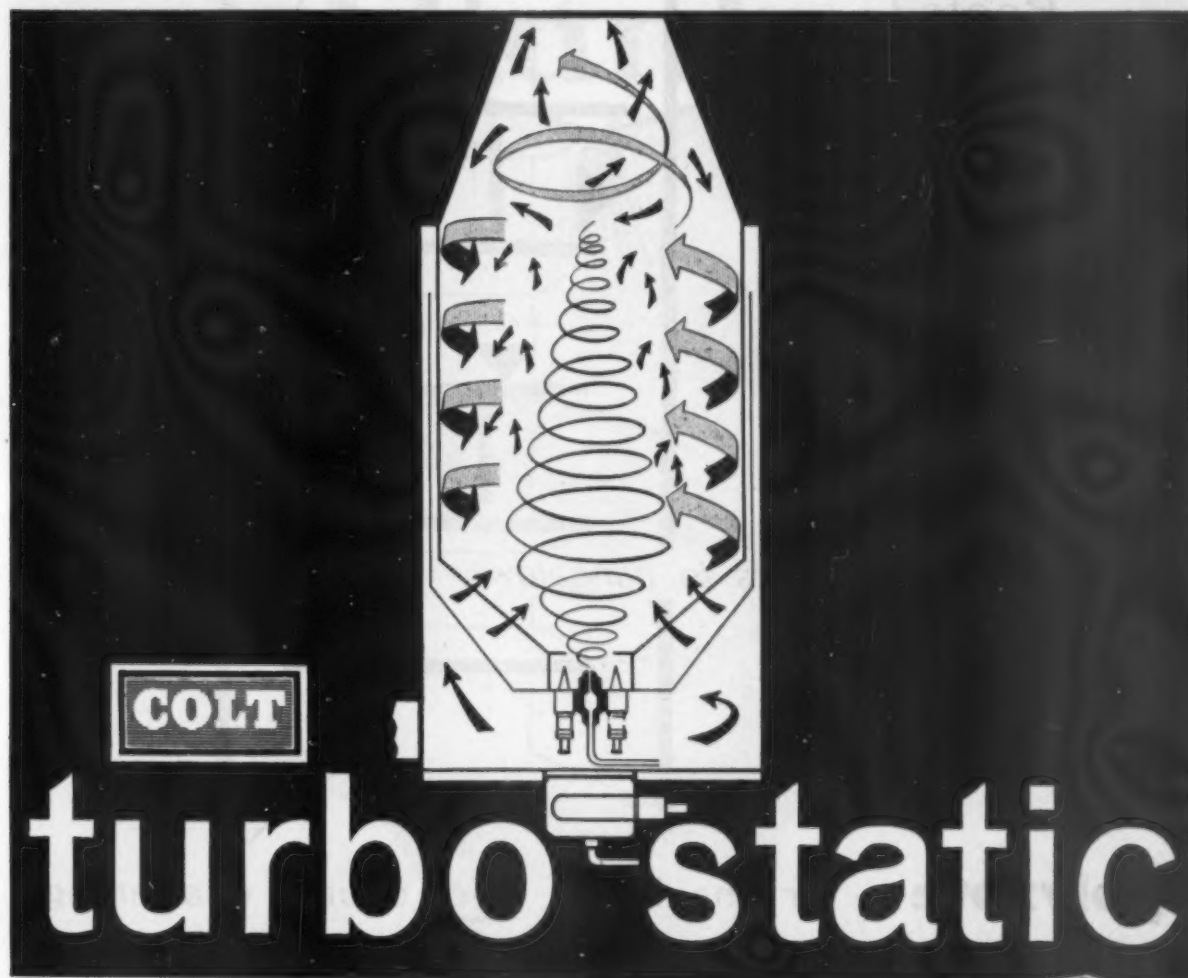
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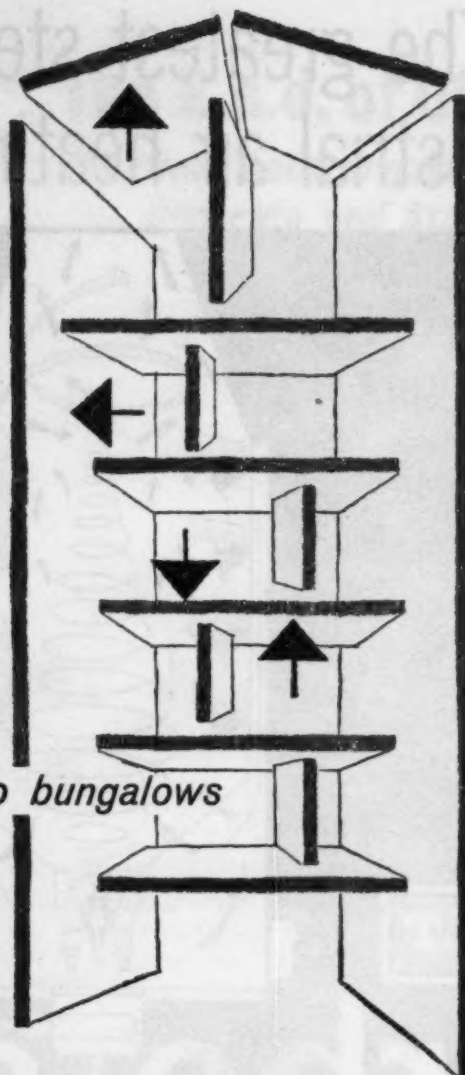
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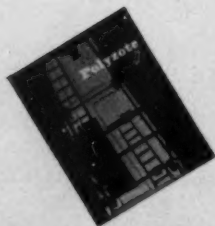
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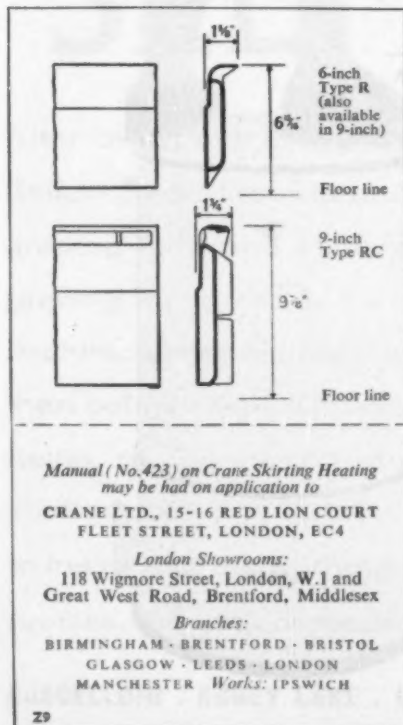
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Crane Skirting Heating panels are made in two types. Used here is the 9-inch Type R (radiant) which is also made in the 6-inch size for smaller heat requirements. Type RC (radiant-convector) is made only in the 9-inch size. All panels are in 2-ft and 1-ft lengths and are made of cast iron, which gives them considerable resistance to accidental damage. The operations of calculating heat requirements and designing the pipework are in principle no different from those for conventional radiator heating systems.

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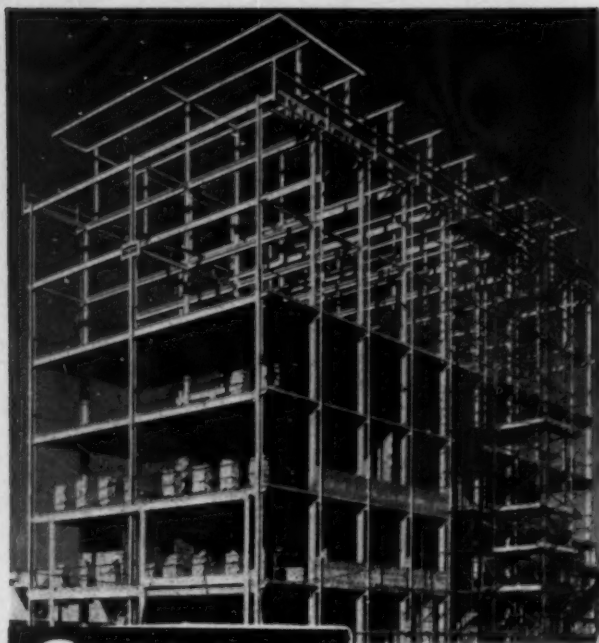
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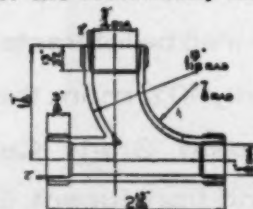
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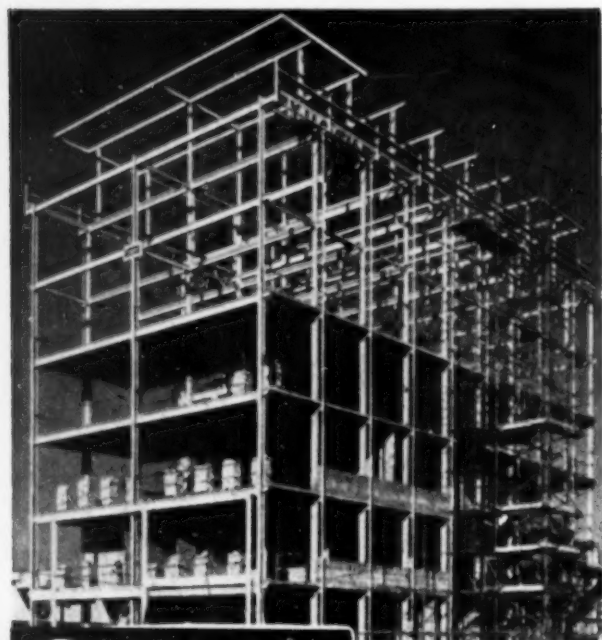
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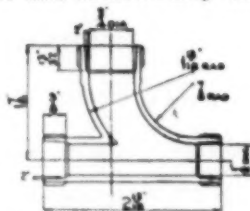


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1.3 mm		9" x 9"	10 1/2" x 10 1/2"	12" x 12"	
1.6 mm		9" x 9"	10 1/2" x 10 1/2"	12" x 12"	15" x 15"
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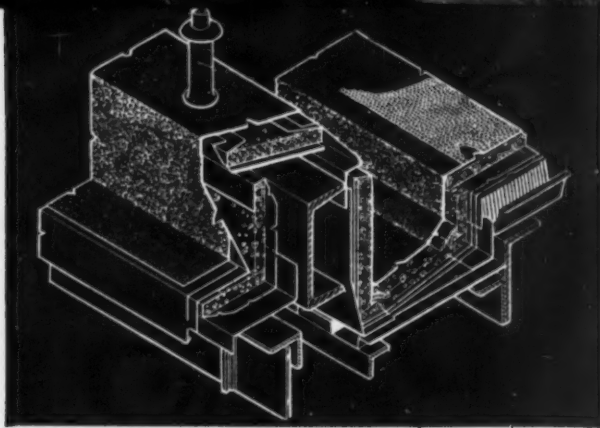
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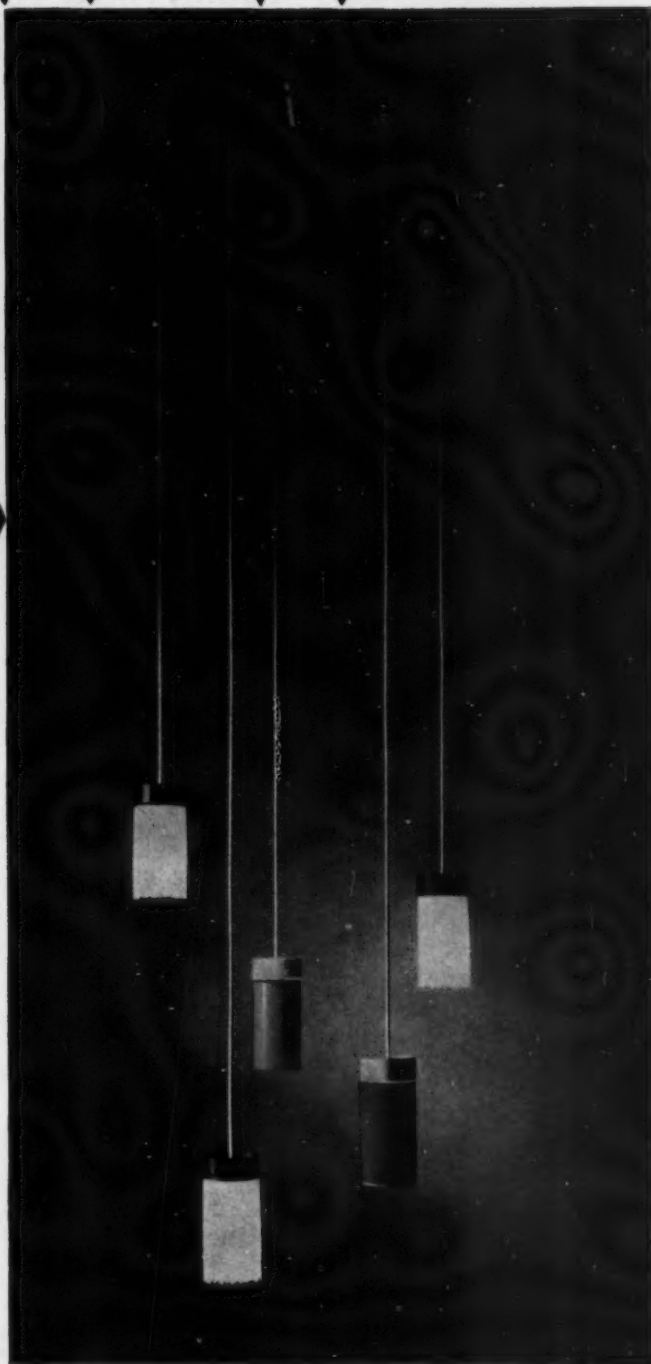
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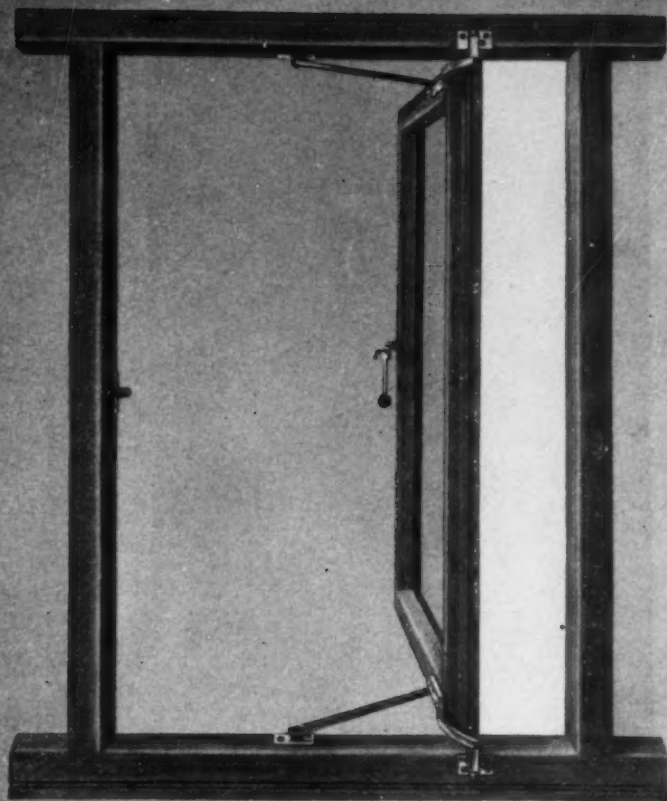
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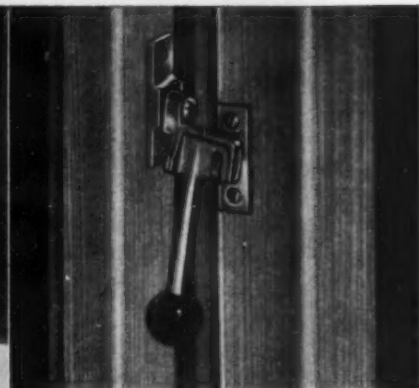
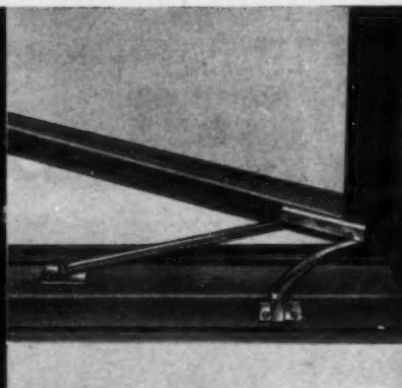
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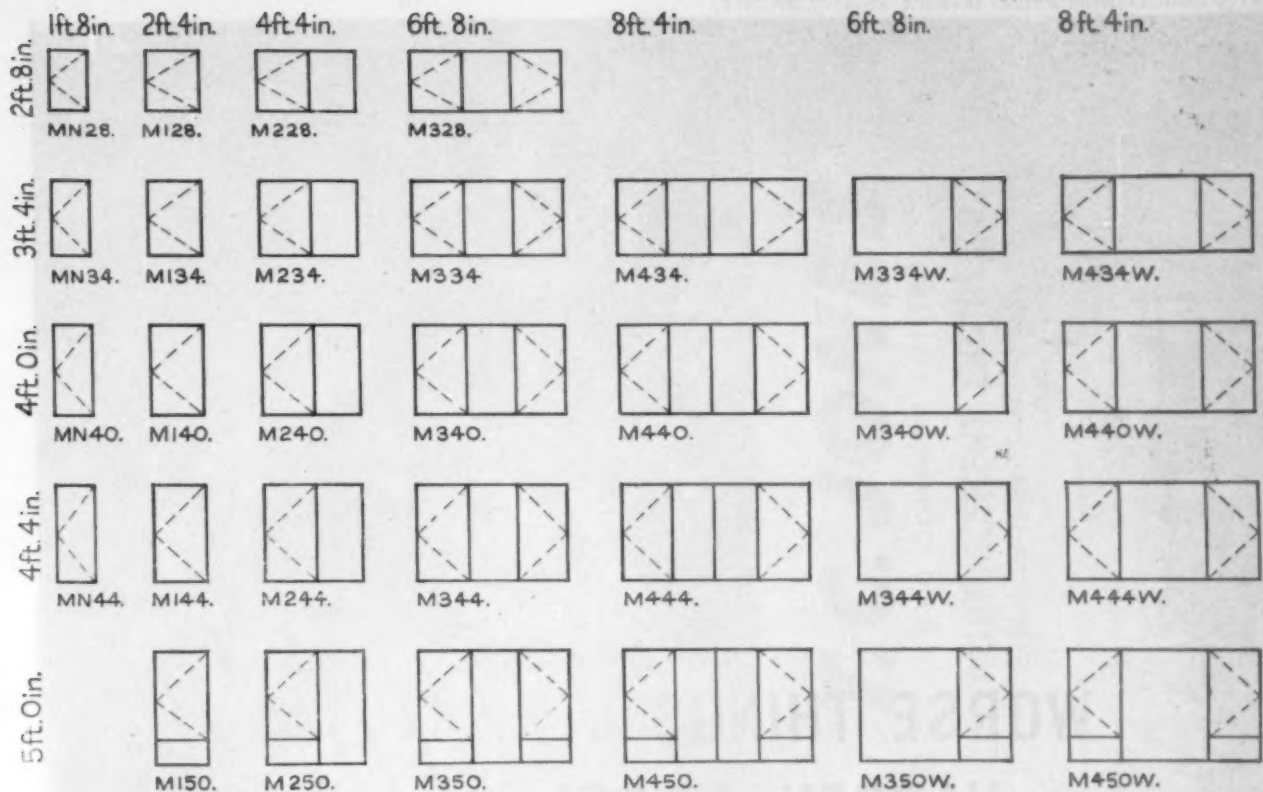
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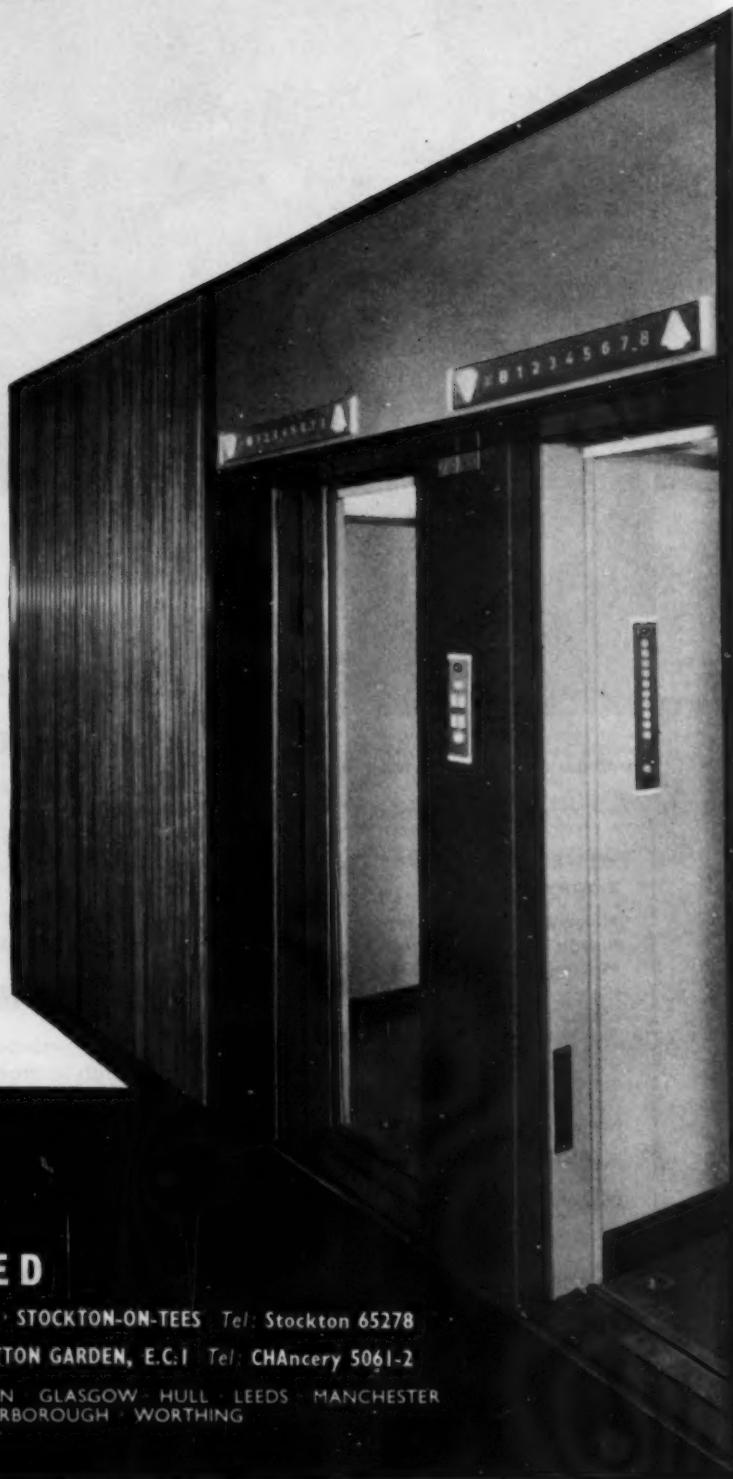
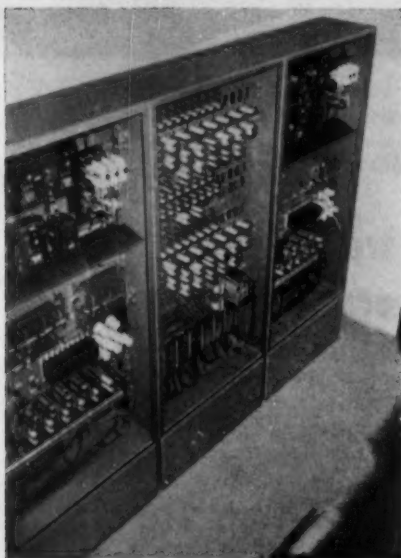
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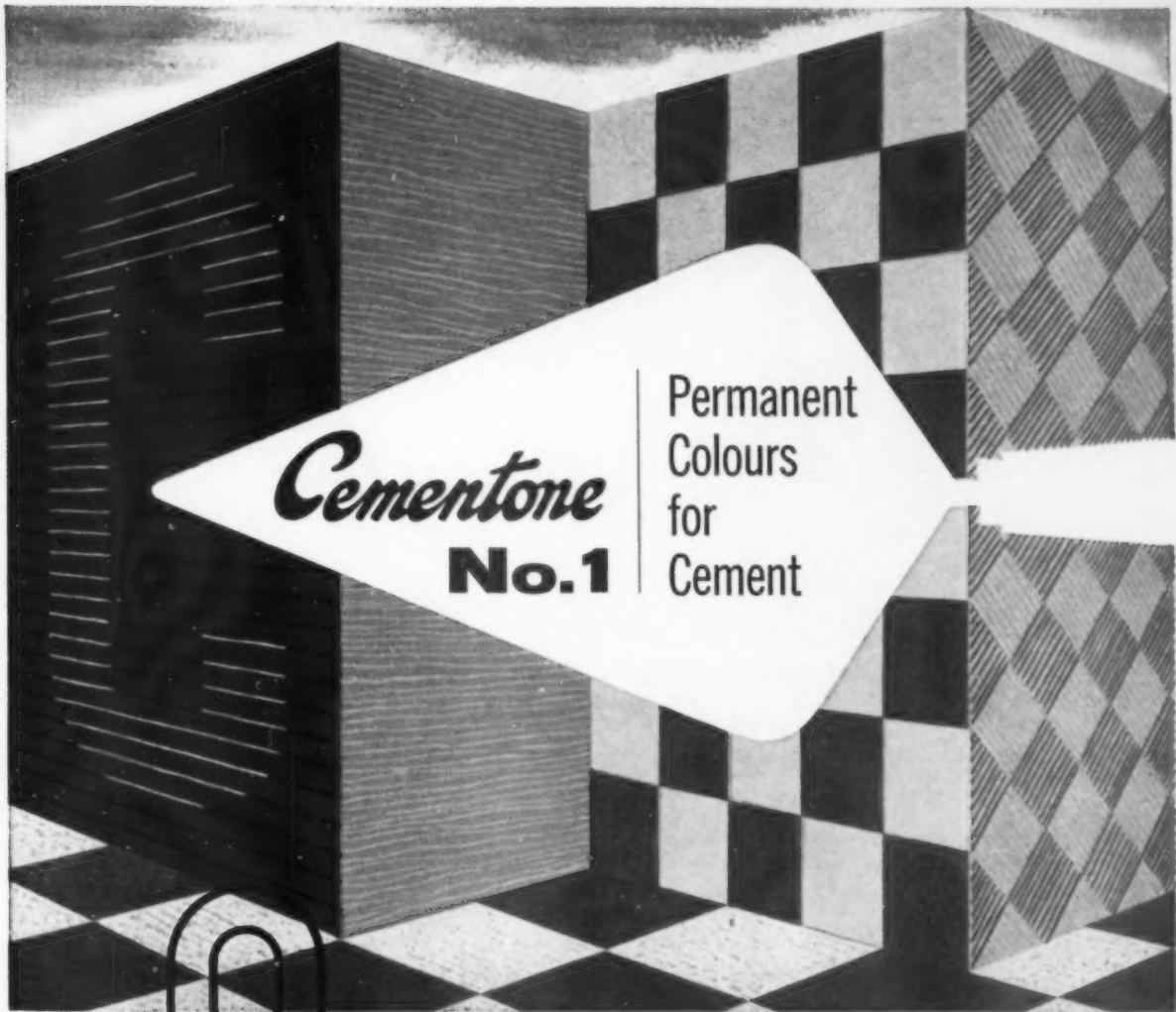
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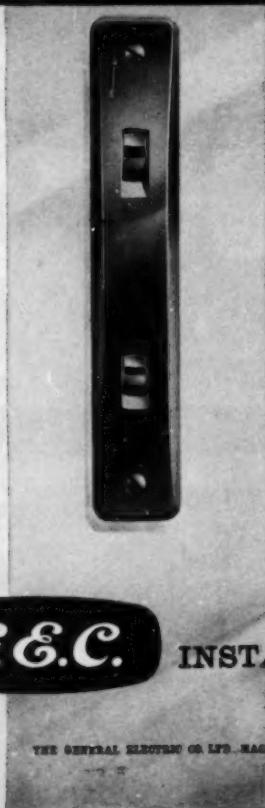
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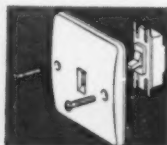
**ARCHITRAVE SWITCH ASSEMBLY**



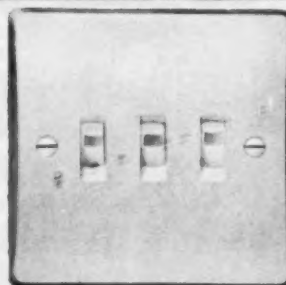
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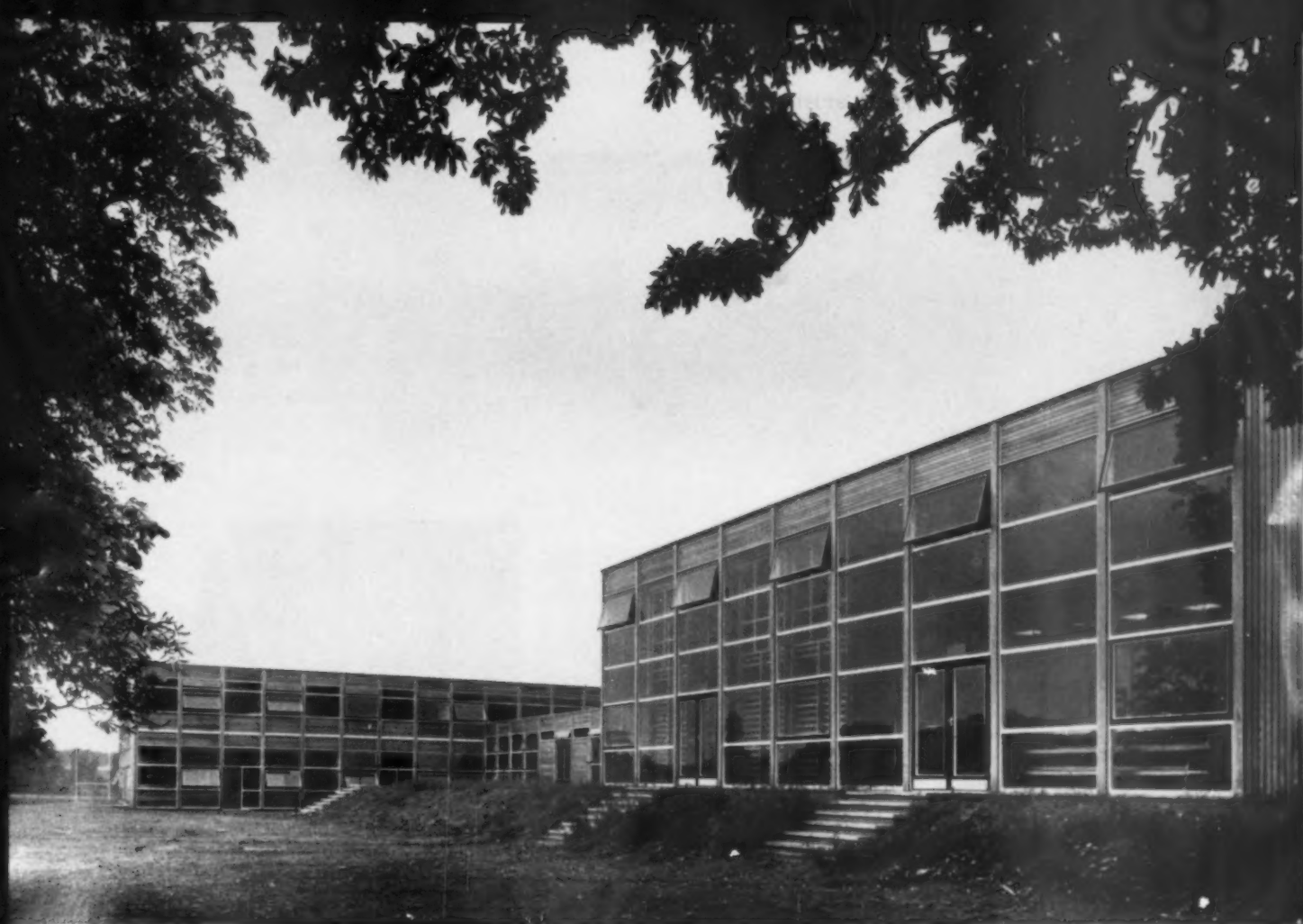


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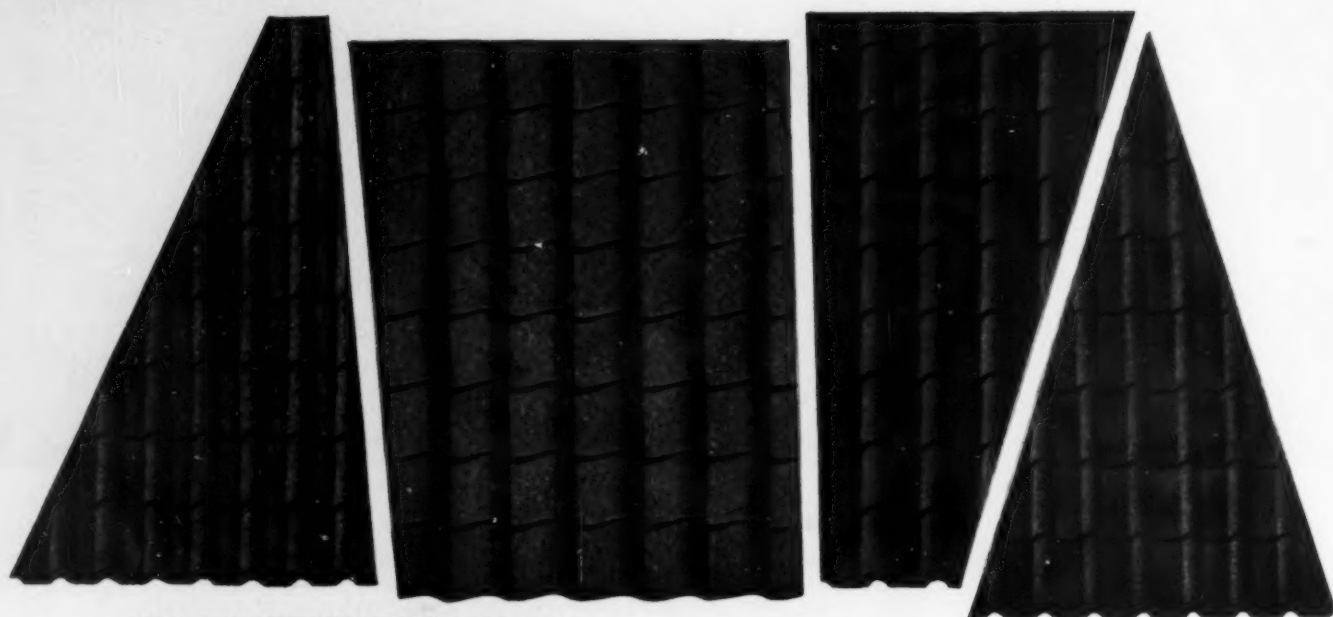
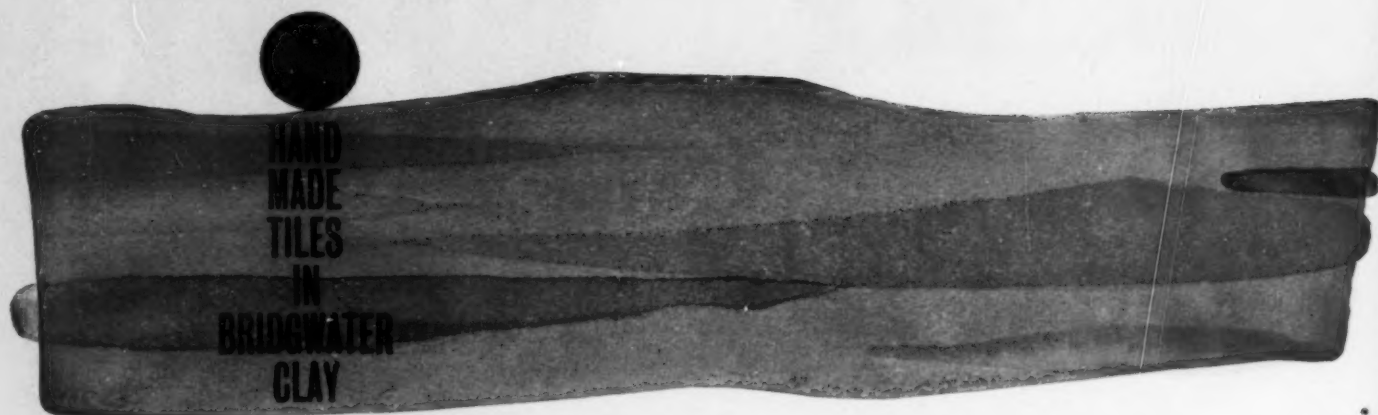


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but this new WALLSPAN  
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## FACTS

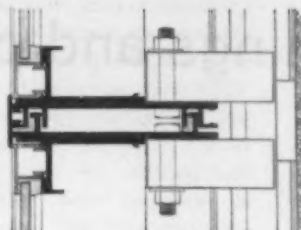
A new type of Wallspan makes its debut on the tower of Castrol House—a prefabricated Wallspan designed in collaboration with the architect that goes up more quickly than any curtain walling system yet devised. Williams & Williams developed it specially to fit in with a tight building schedule—18 months from start to finish.

The main feature of prefabricated Wallspan is that its mullion is split vertically in half. This allows it to be sup-

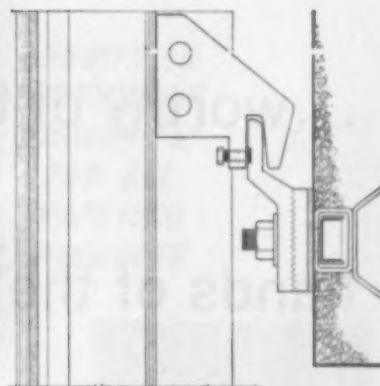
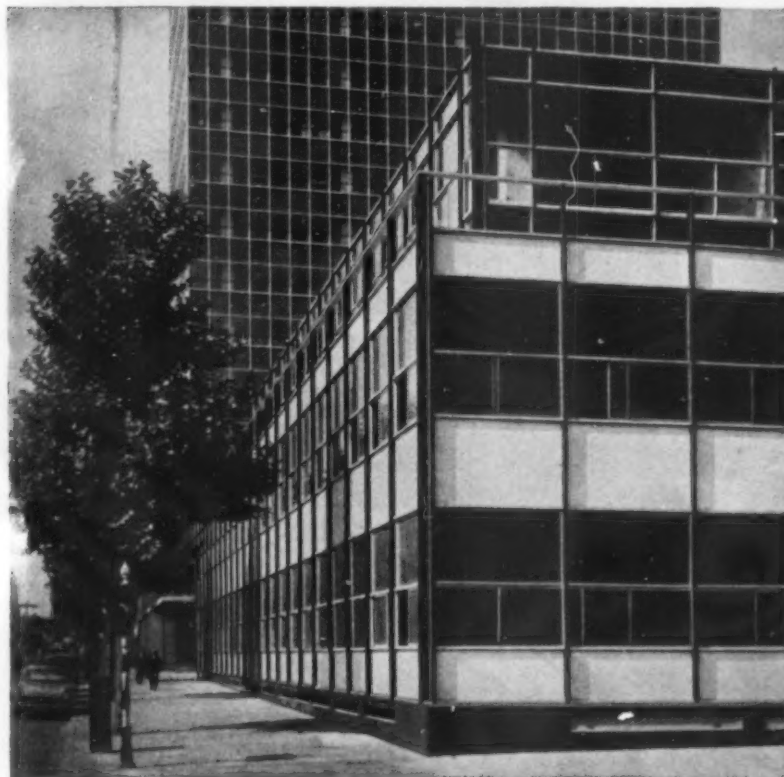
plied in complete prefabricated panels 2 floors high, with the double-hung windows already in place. Each panel is simply hung on to its fixing spigots, plumbed, then interlocked with its neighbour. The walls of the tower block were erected at the rate of 2 floors a week: the interior trades were able to move in and get on with their job fully protected while the floors above were still being clad.

The vertical section shows how the

prefabricated Wallspan is literally *hung* on to the frame. It is curtain walling in the truest sense, and although designed in the first place specifically for Castrol House, the system is now generally available—a classic example of co-operation between the architect and the curtain walling specialists.



Horizontal section at infill level. Each half mullion forms the edge of a prefabricated panel. When the two panels are brought together, the joint is sealed with Thiolok mastic and an aluminium capping is then clipped on to seal the joint finally.



Vertical section showing fixing detail. As the floor slab is cast, bolts are built in ready to receive the fixing spigots. These are adjustable vertically and horizontally to allow for slight inaccuracies. Hooks on the Wallspan panels engage over the spigots and are kept firmly in place by compression bolts.

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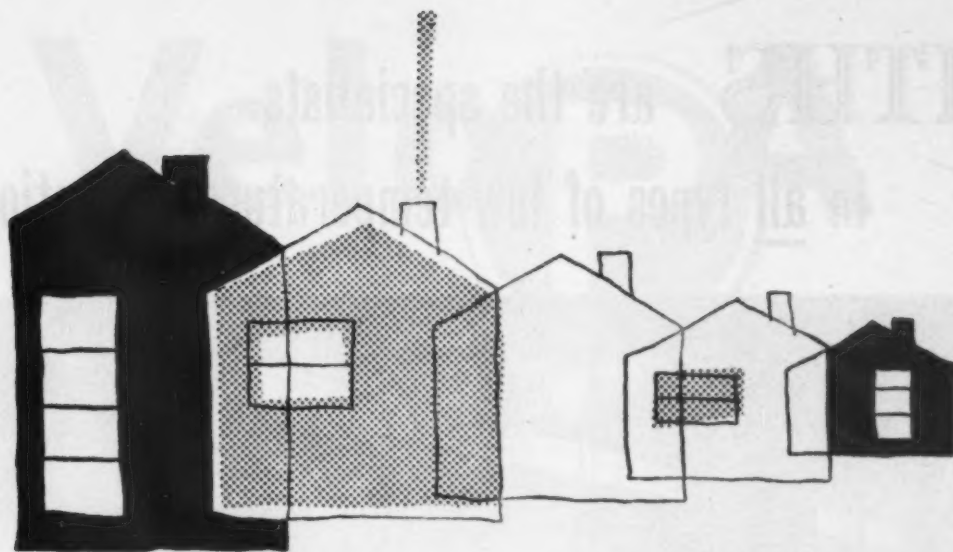
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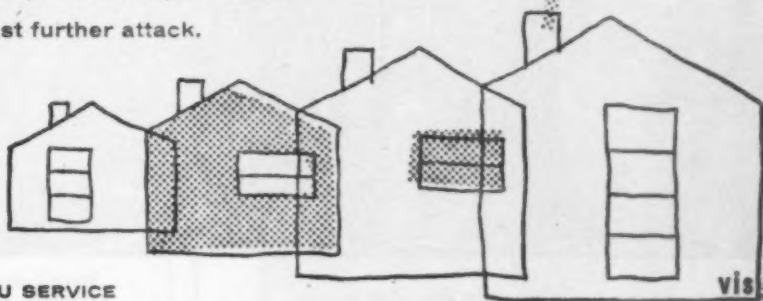
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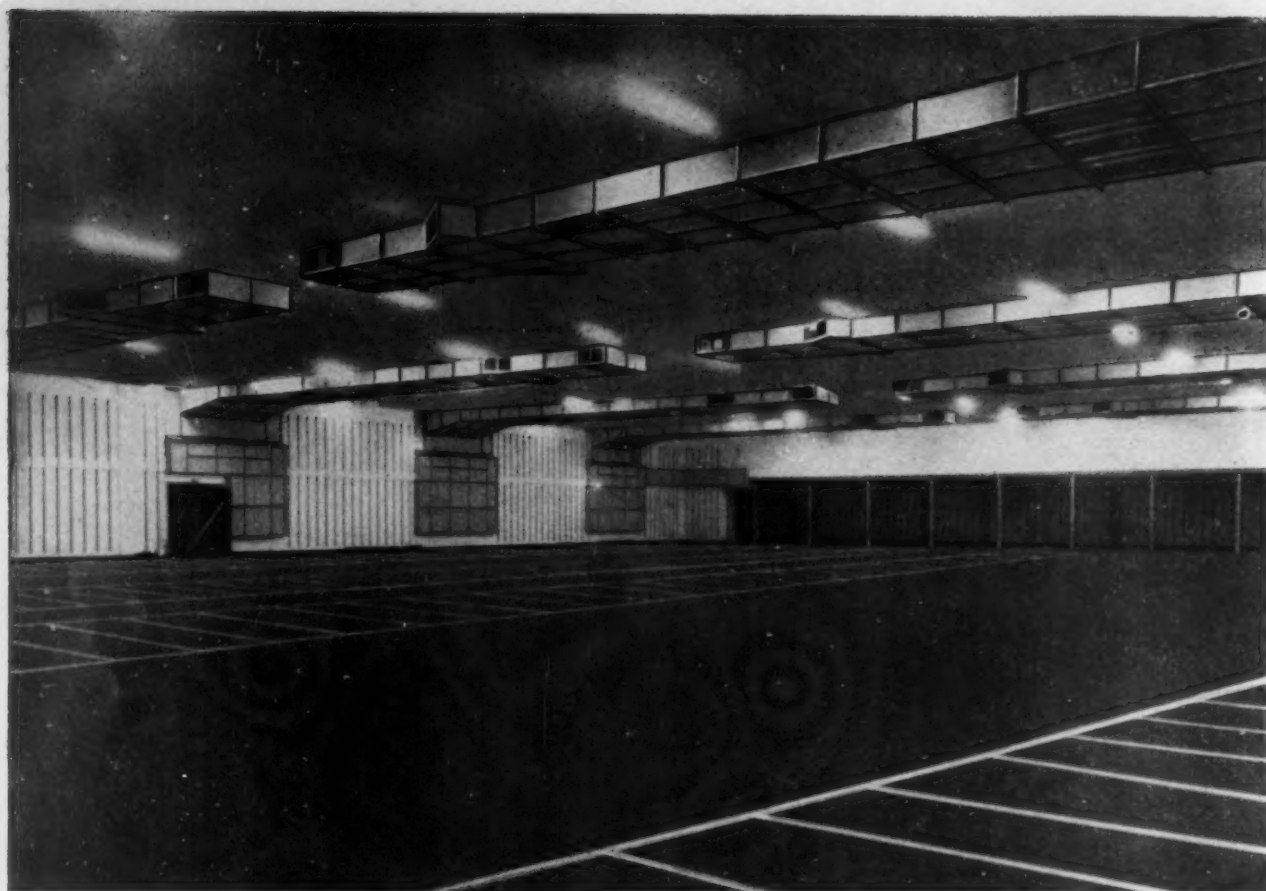
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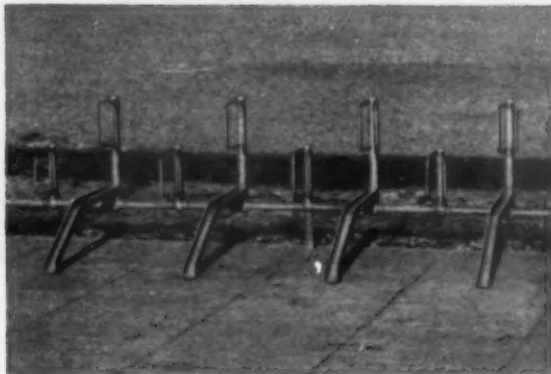




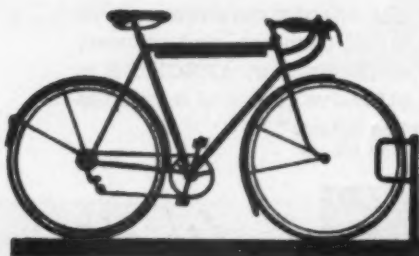
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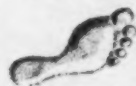
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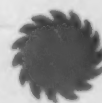
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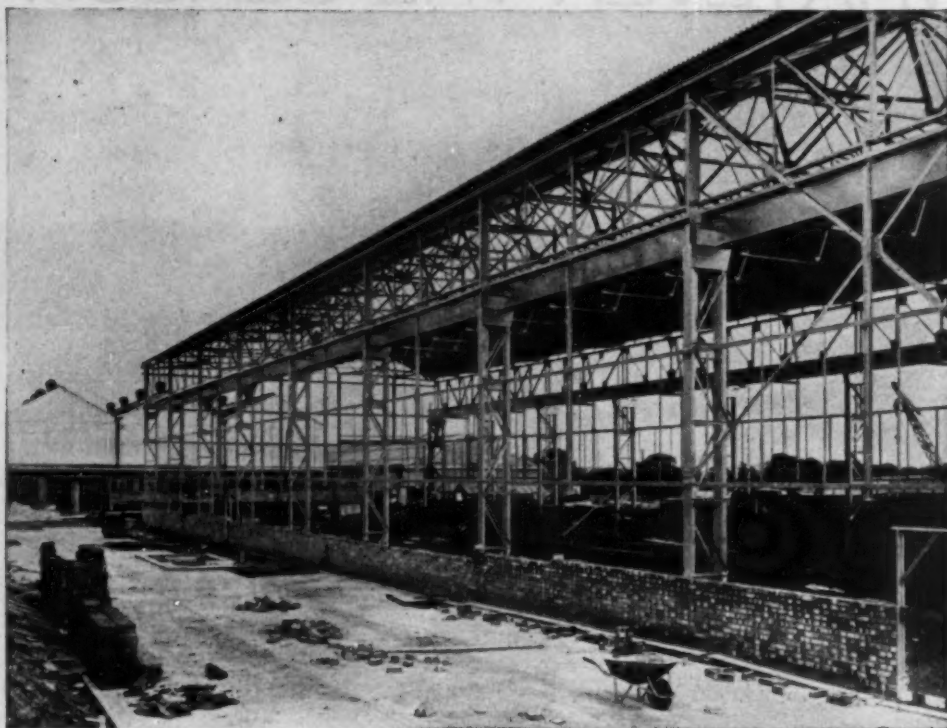
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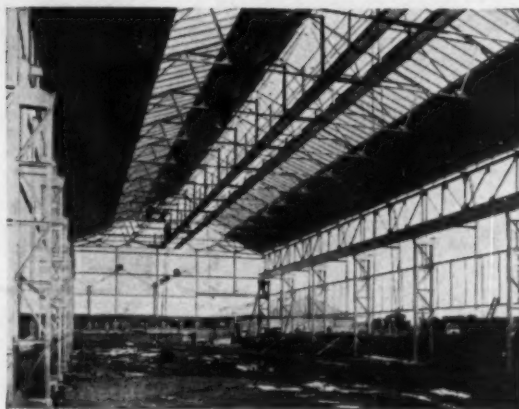
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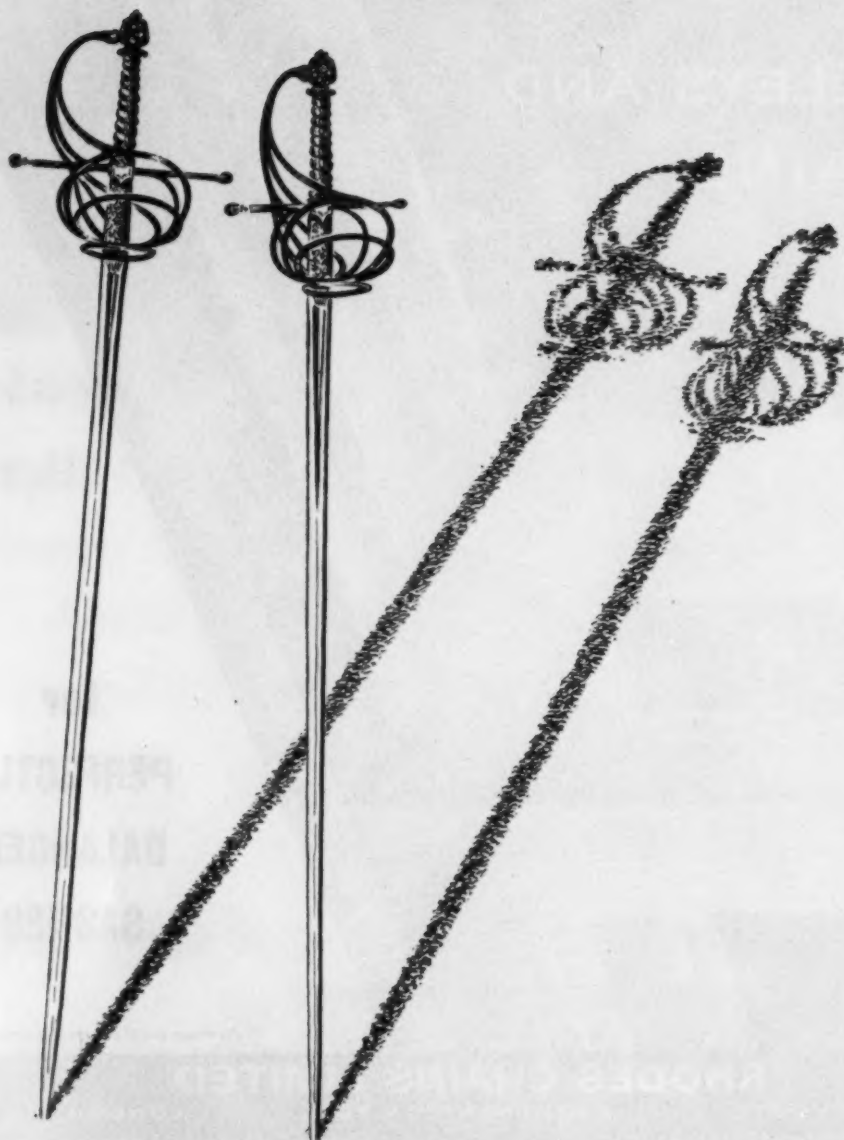
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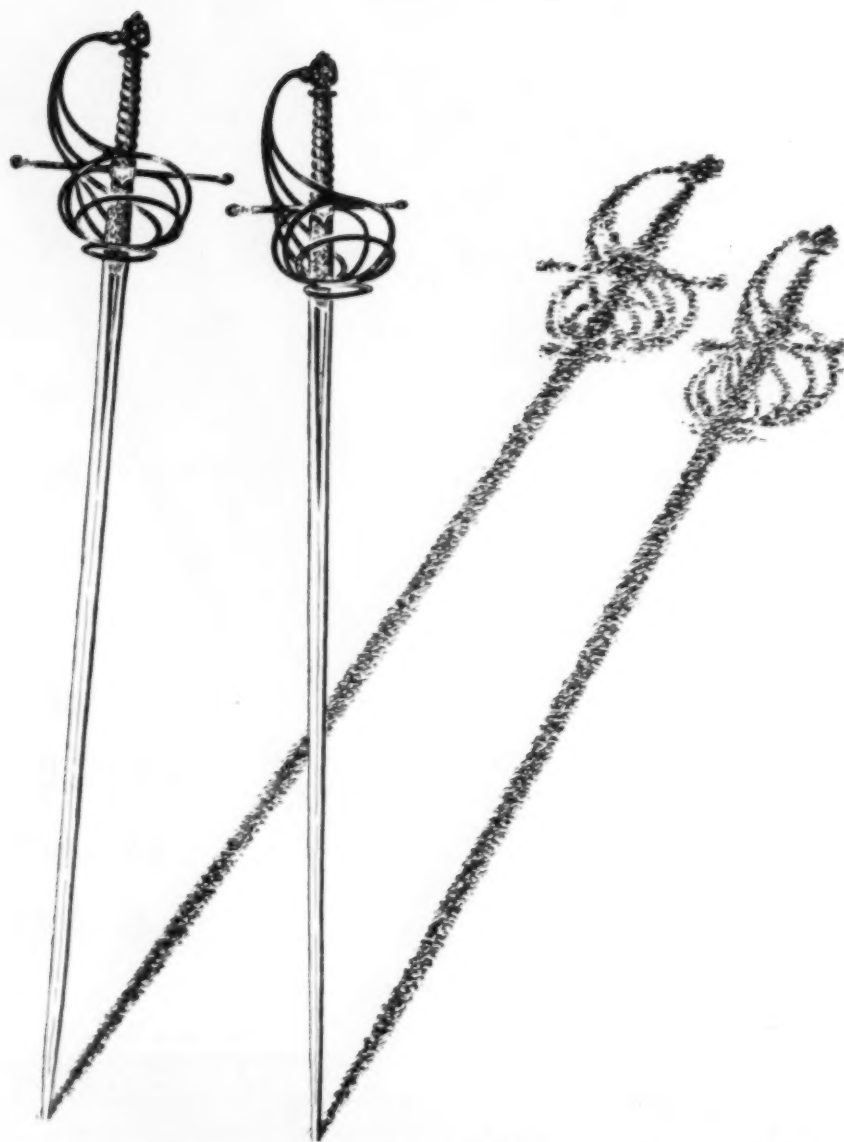
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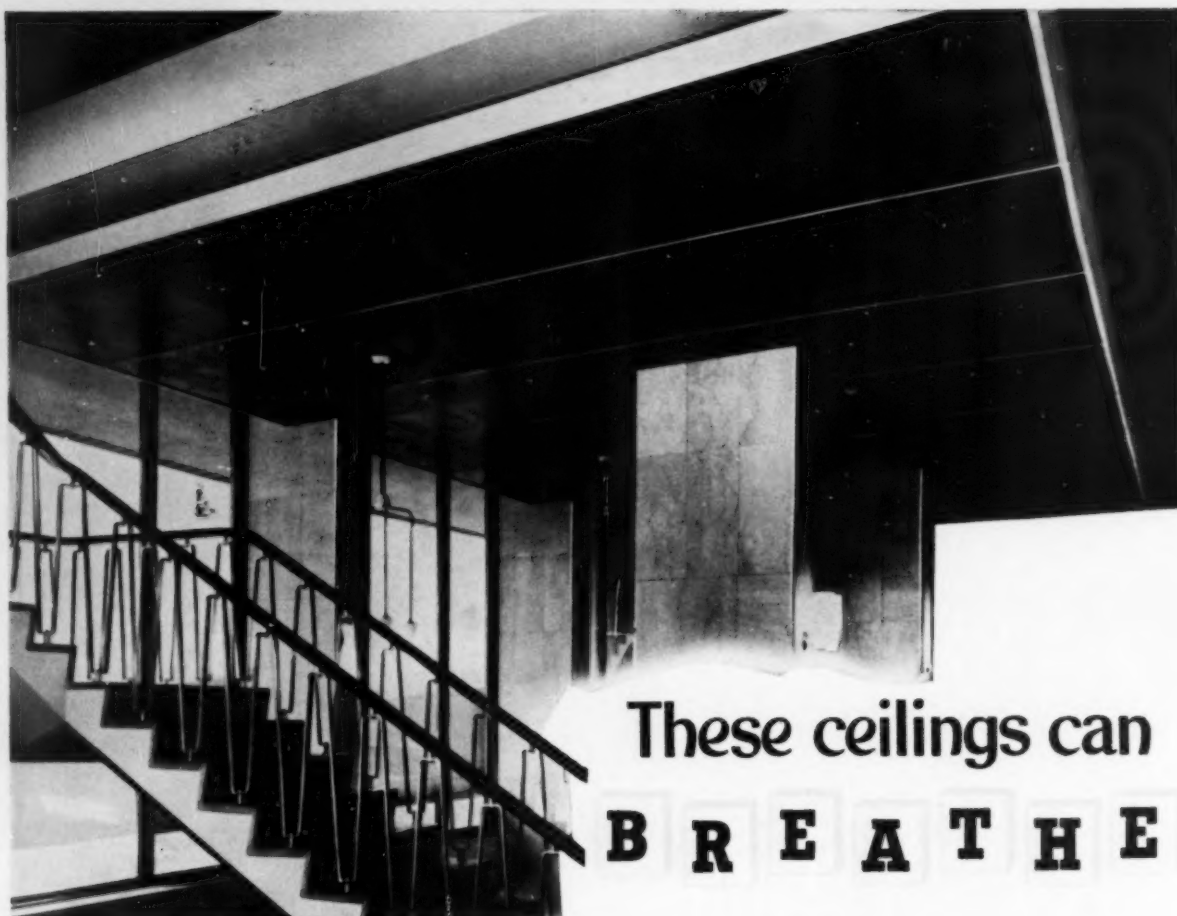


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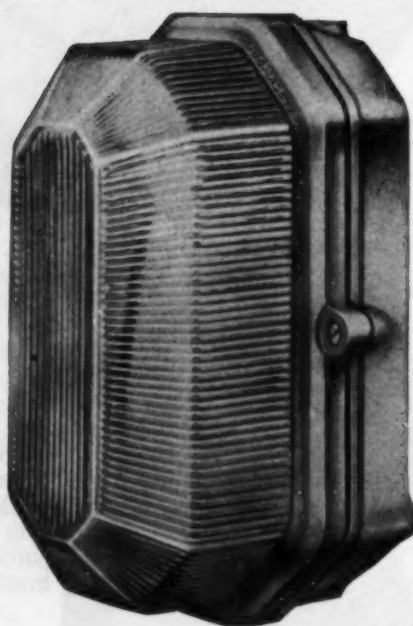
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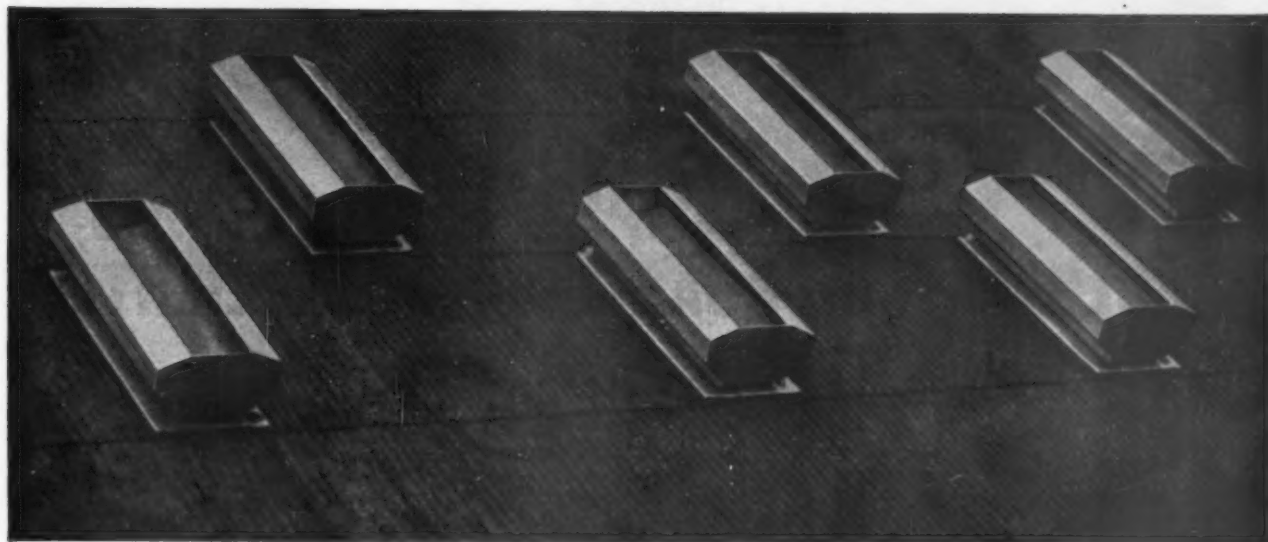


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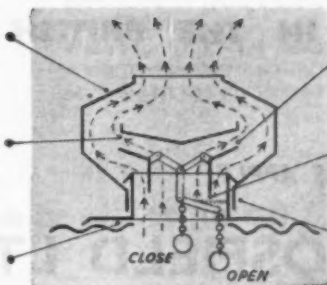
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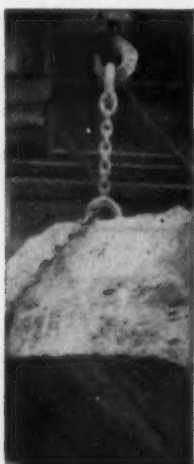
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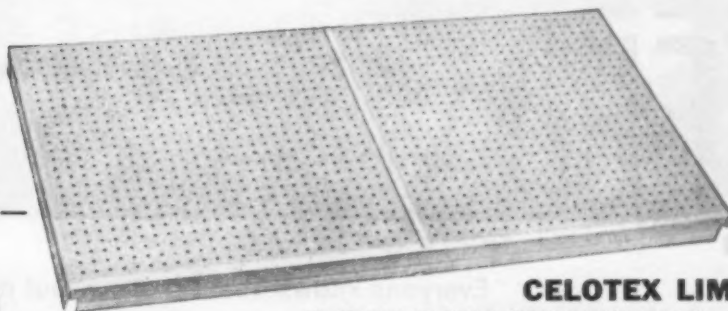
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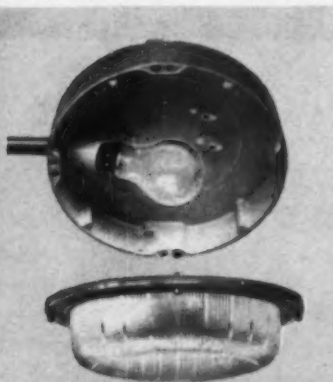
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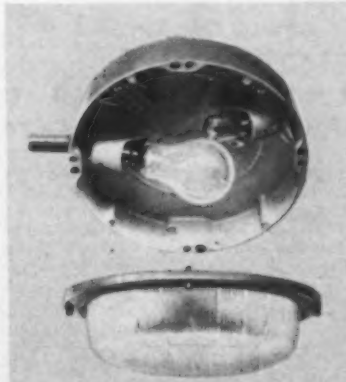
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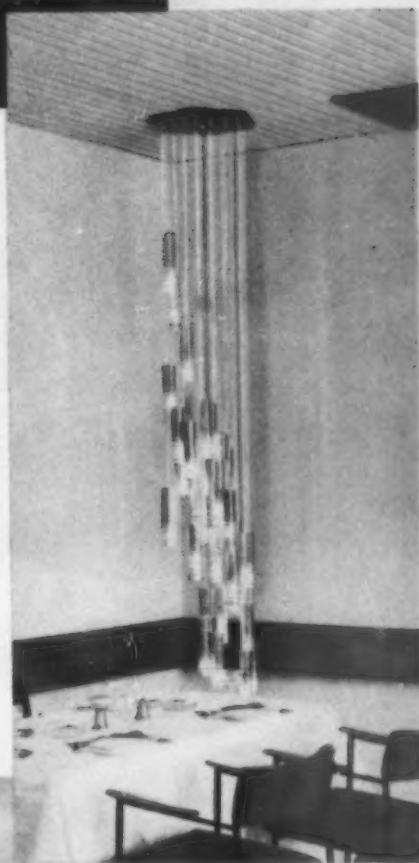
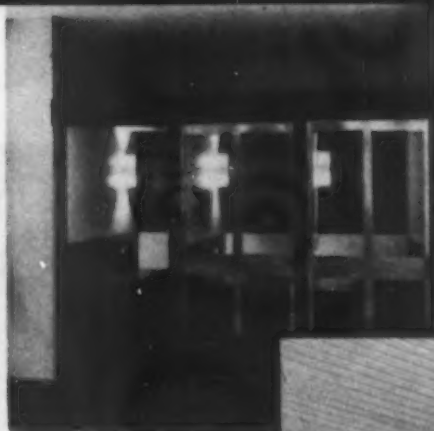
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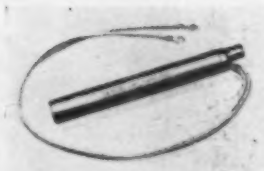
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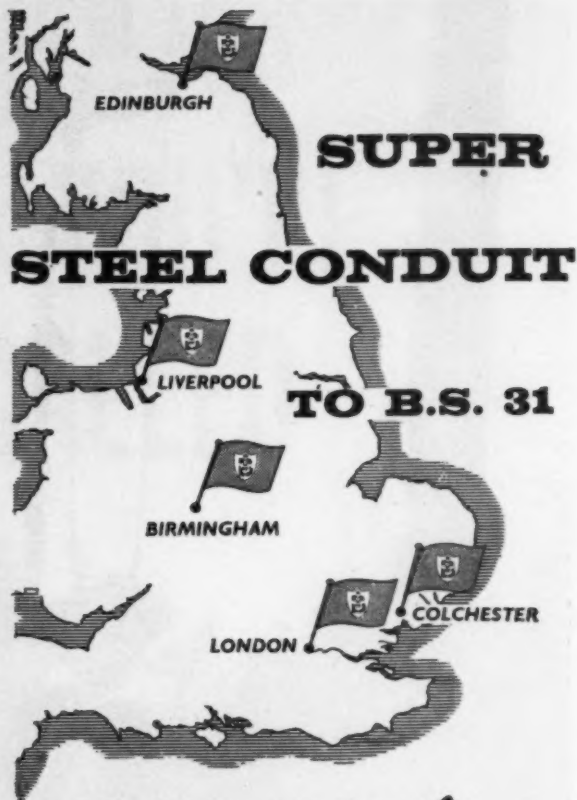
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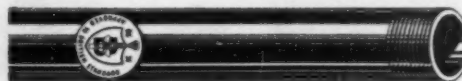
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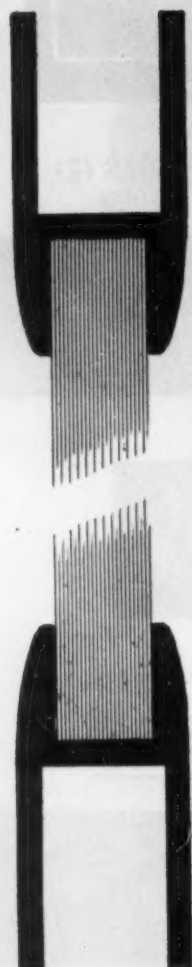
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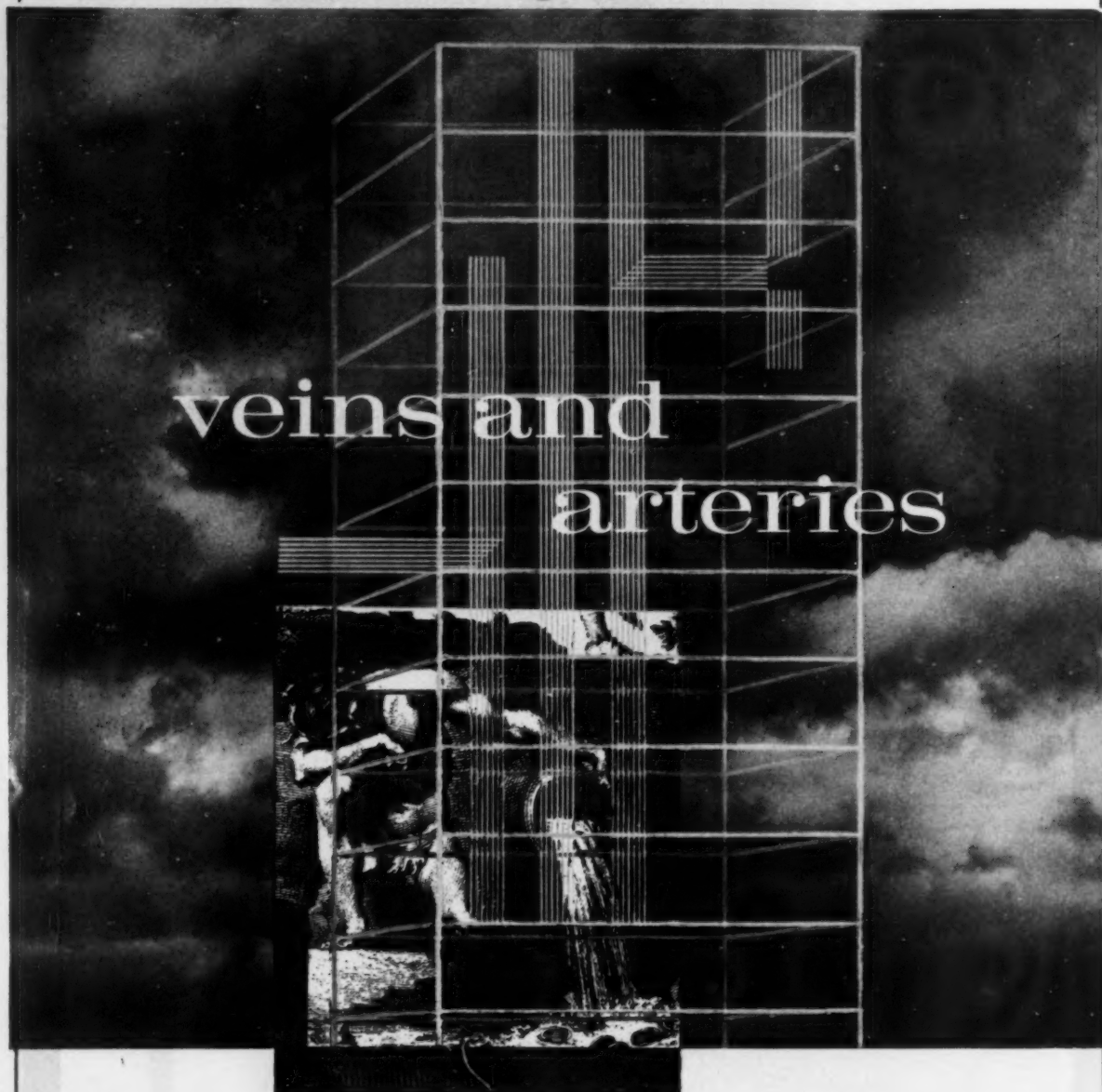
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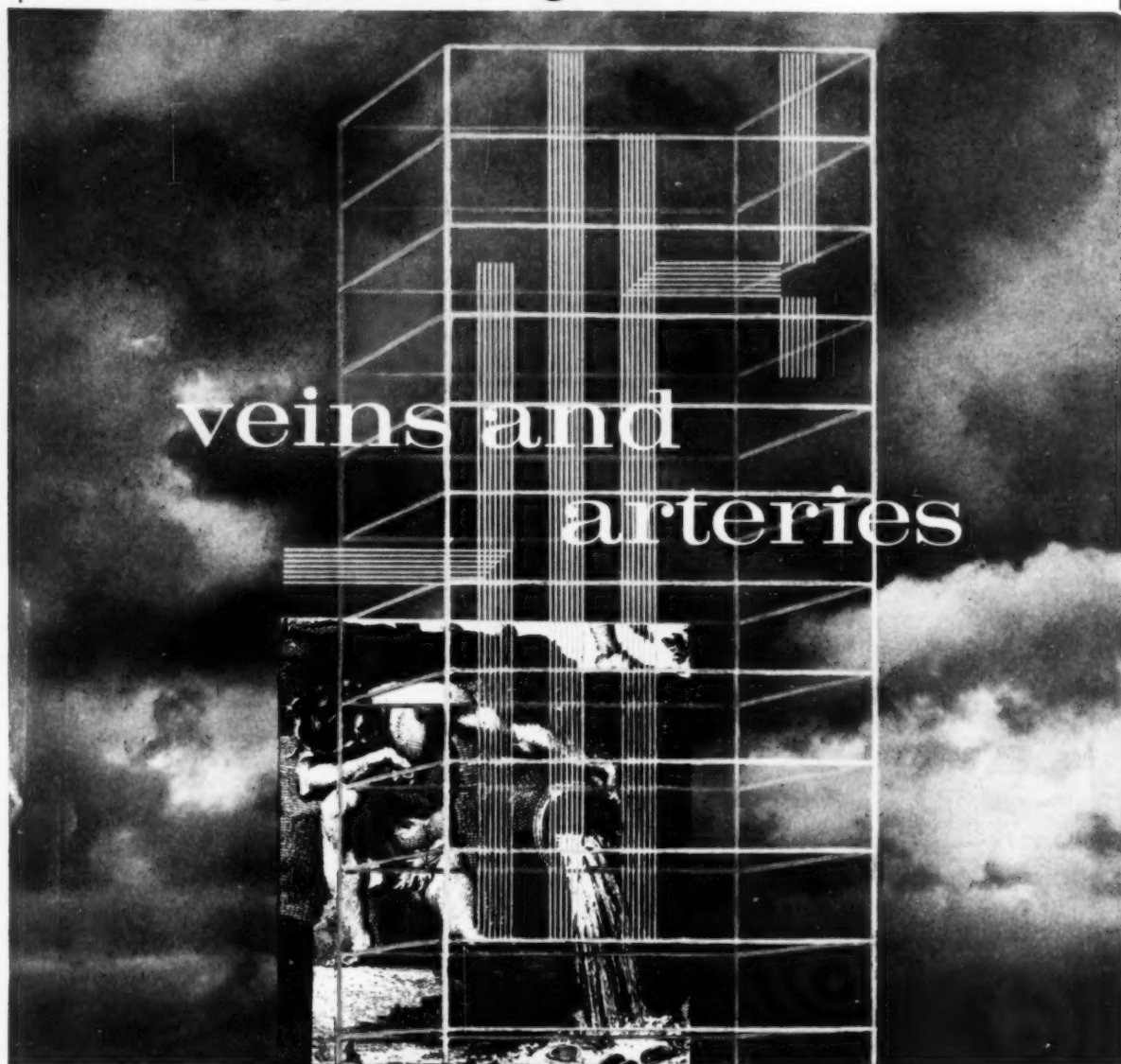
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THE ARCHITECTS' JOURNAL  
for October 6, 1930

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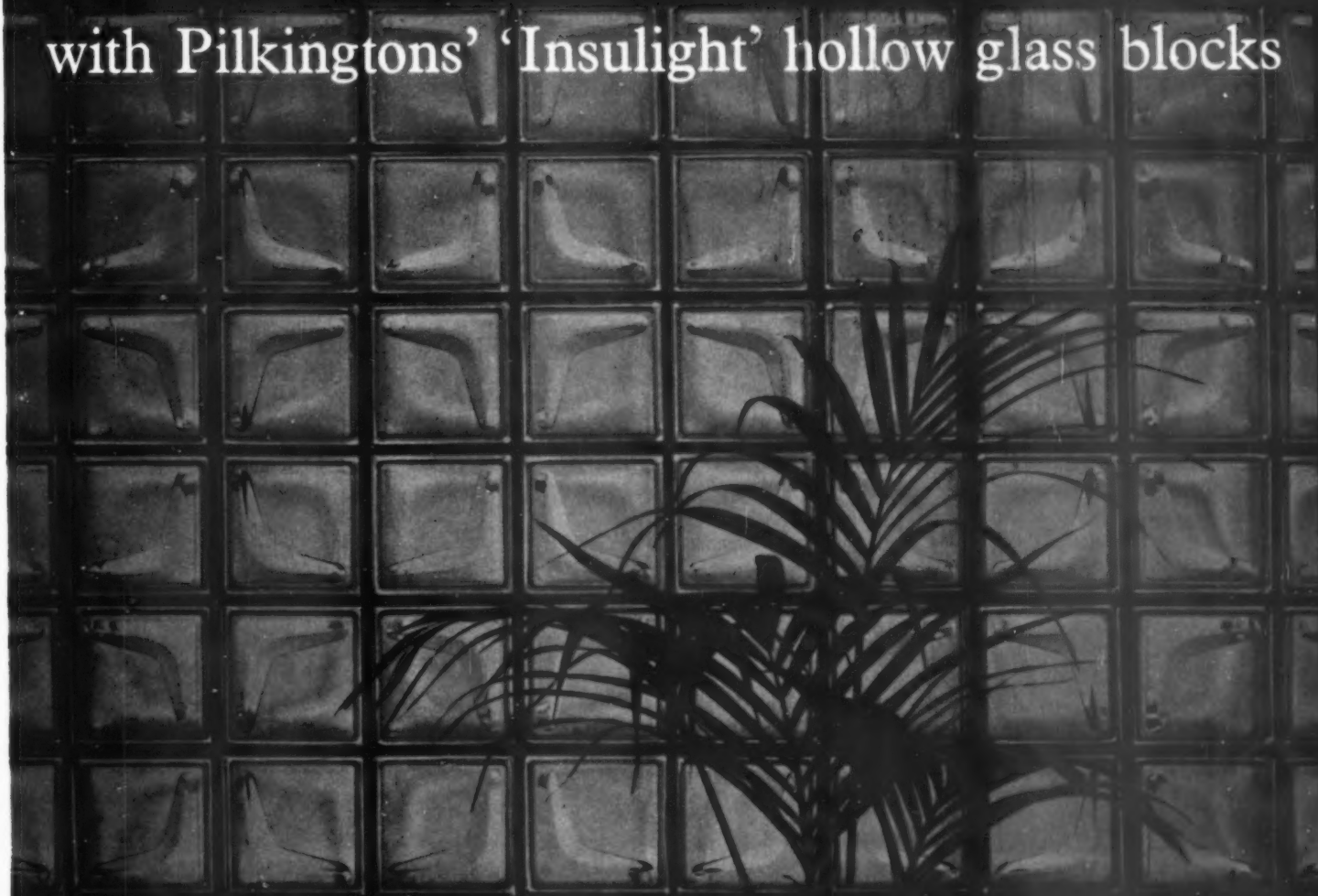
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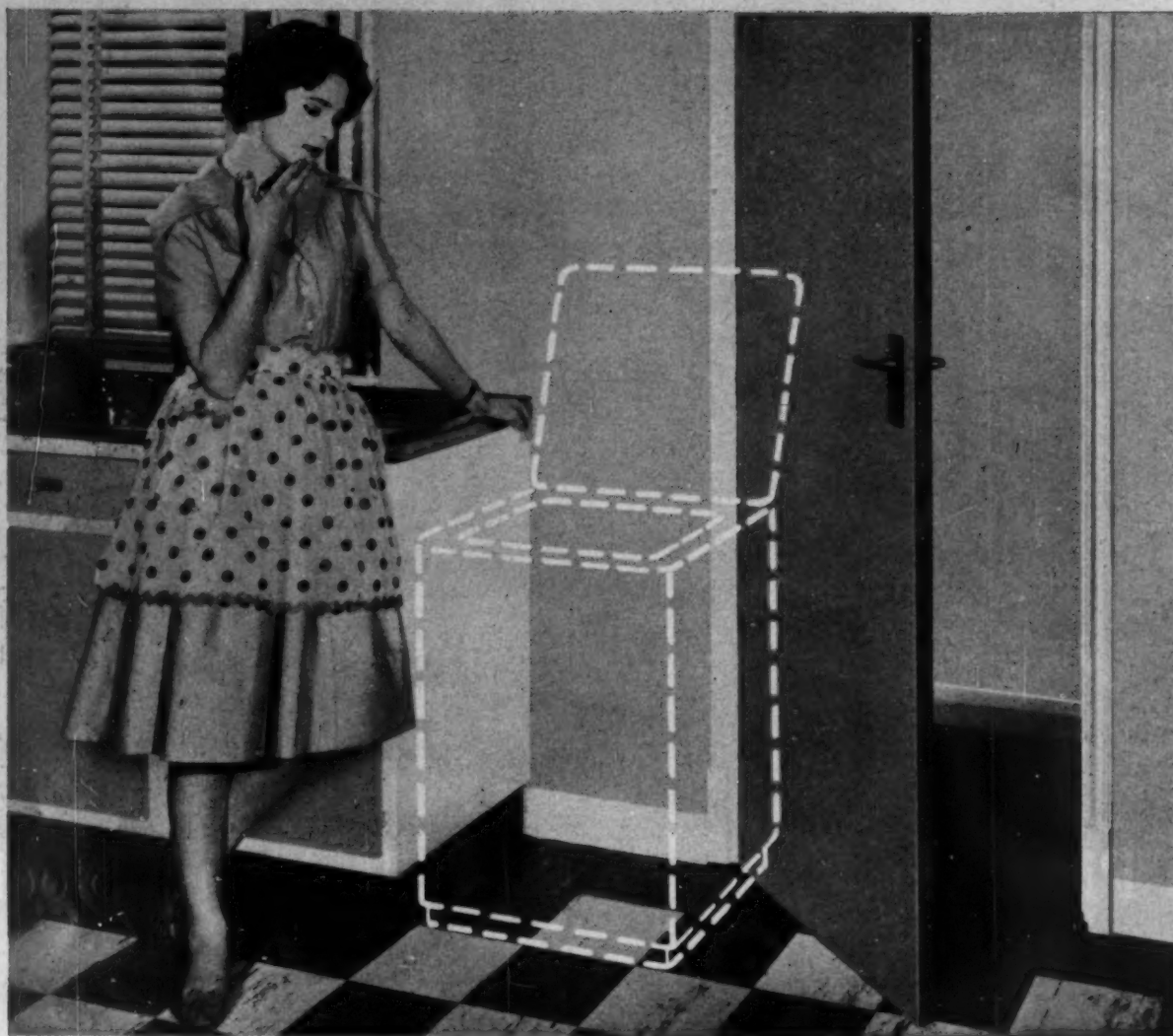
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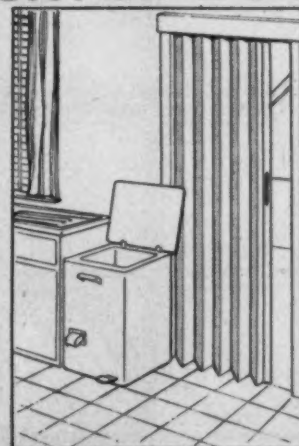
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**A J**

The Architects' Journal

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NOT QUITE ARCHITECTURE

*Scenario for Thursday week*

Scene: Smoky drawing office, 10.45 a.m.  
Two Inter-standards, already round should-  
ered and bleary-eyed, loll on padded stools.  
(Seen through an angle-poise forest.) Both  
speak:

"Where's our coffee?" Loudly and in  
unison, beating fists on drawing boards.  
Bored pause. Idle dialogue ensues:

"Hey! D'you know Topdog's leaving?"  
"About time." Muttered through Wood-  
bine and pencil clamped between teeth.  
"Bloody slave-driver."

TOPDOG passes along corridor, seen through  
glazed partition. Heads down, noise of  
pencils.

"Going back to school is he?"

"Naw. Hades Developments. Two thou-  
sand and car."

AJ spins across board; falls open, as usual,  
at Sits. Vac. page. Many red underlinings  
and question marks. Two black arrows  
indicate

"W.I. Developers require ARCHITECT  
with skill and initiative. Qualifications  
immaterial. £2,000 p.a. Car. Box —."

"He got it?"

"Yea, seen it on his desk."

"Well, so he goes. Well, so what?"

"So someone moves up."

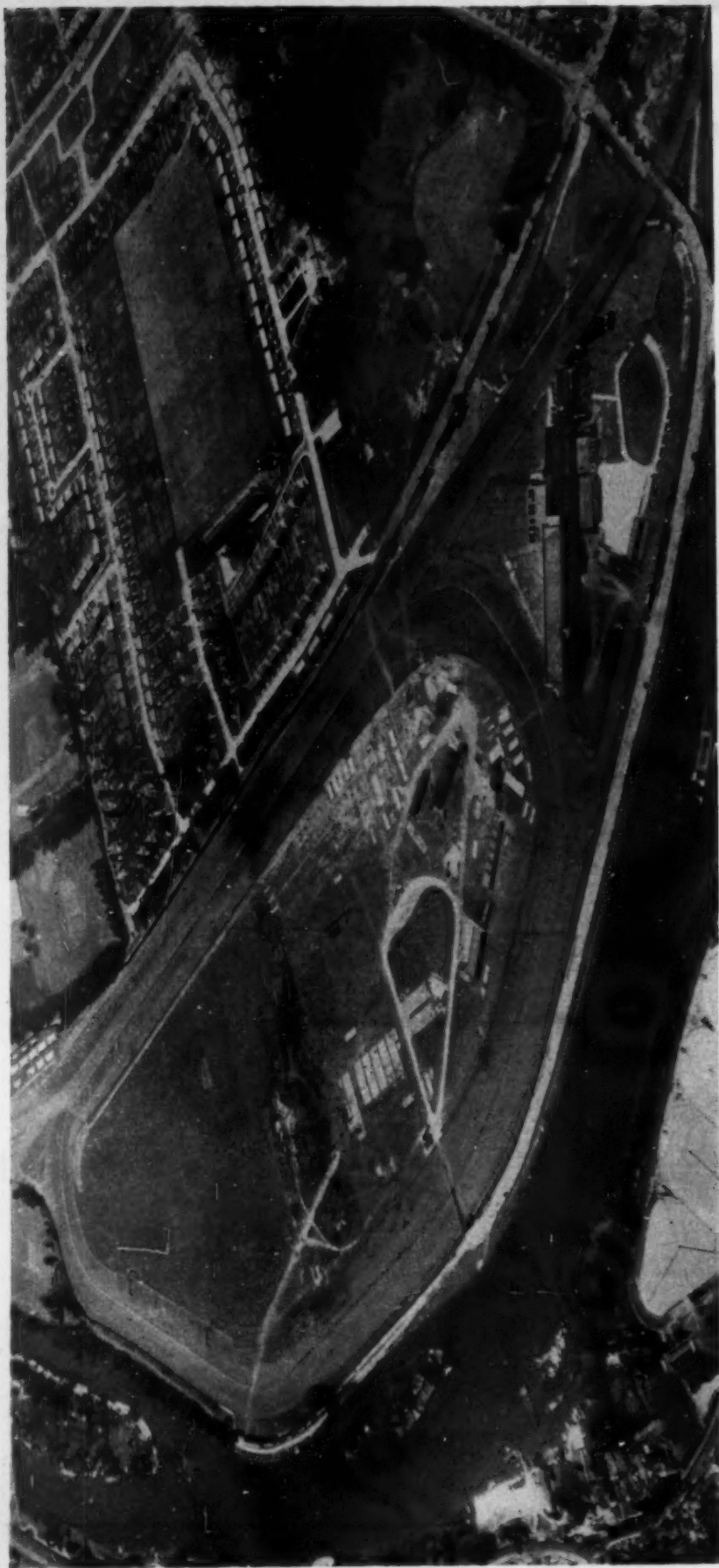
"Yes . . . perhaps Ken Guttinger down-  
stairs."

"Naw. J. G. wouldn't look at him."

"No . . . could be Mister Creep."

"Could be—God help us."

Fade into: close-up of CREEP's face, serious,  
sincere. Horn-rims, matt complexion, long



## *Houses or Horses or . . .*

Above is an aerial view of the Hurst Park race course from the west, showing the typical suburban surroundings, the bleak race course and the dreary towpath with its six-foot concrete wall. On left, a sketch plan of the low density housing development with riverside walk that Messrs. Wates Ltd. and the Hurst Park Club Syndicate wish to develop on the 120-acre site. Their application has been called in by the Minister of Housing and Local Government as a matter of public interest involving a substantial departure from the Surrey County plan. Open to the public only 20 days a year it is obviously ripe for more-intensive usage, but the Wolfenden report on sport puts in mind a better use for the area than as a housing estate. See leading article opposite and the report on page 490.



thin mouth. Track back to: CREEP leaning on board in "I always specify Noggin's" attitude. CREEP speaks, earnestly:

"It must be me. I mean, who else is there? Must show J. G. these approvals . . . fifteen hundred. . . . Yes J. G. Pretty straightforward J. G. Leave it to me J. G. What did he say yesterday? 'Good Man,' he said, I remember his hand on my shoulder. 'Good man,' he said . . . fifteen hundred a year . . . new car? House? I can handle it J. G. Well, I've been here six years. Pretty indispensable. I'll get it, I'll get it, I'll get it. . . ."

Cut to: close up of top of GUTTERING's head, Balding, dandruff, bent over drawing board. He speaks without looking up, whispering, a sigh between each sibilant phrase.

"I'll never get it. I know I won't. It would make all the difference . . . fifteen hundred . . ." His pencil continues to move feverishly, squeaking quietly. "Oh J.G., yes sir, I can cope. Yes sir, thank you sir. He wouldn't look at me. I'm not conspicuous enough . . . yes, that's it . . . as good as any of them but not self-advertising enough. Wear a lounge suit perhaps." Pan round to show leather-patched elbow and frayed cuff. "Yes, J.G. Thank you J.G. . . . another six pounds a week . . . he won't look at me."

Spin into: pyramidal composition comprising—

J.G.'s head

White telephones

Dictating machine

J.G.'s head is large on narrow shoulders, pale as a candle; mouth sucked in; domed, mechanistic forehead.

J.G. talks quickly, a cracked, harsh voice; the staccato phrases echo slightly. The dictating machine hums, scrapes.

" . . . resignation with regret—Happy associations etcetera. End.

"A.J.—ads—man replace Topdog—terms as Topdog—starting one month today—give our name.

"Memo to secretary—expect trouble re new senior from:

(1) Guttering—add twenty five p.a.—hint more later—bid to seventy five *if nec.*—underline that—then drop.

(2) Creep—add fifty p.a.—no further bid—can dispense. Neither of above until day before ad.—Comprey? End of tape."

Fade into placard "One Month Later" in italic (!) Playbill.

Mix into montage CREEP and GUTTERING, faces happy, staring short-sightedly up from drawing boards.

GUTTERING has a new ruling-pen.

CREEP a new tie.

Each is secretly ashamed of and quite baffled by the emotions that seized him a month ago. They speak in unison:

"I *did* think of leaving but . . . the opportunities are *here*."

STEPHEN HOLLAND

## The Editors

### PRIVATE GREED

THE public inquiry on the proposed development of Hurst Park racecourse demonstrates the dangers which exist when central government is reluctant to develop a positive planning policy or to allow local government to do so. It seems fantastic that 120 acres of open space in a built-up area near London should only be used for 20 days a year. Even more remarkable is that this lack of use is given as an argument for developing the race course as a private housing estate for 3,690 people.

The main arguments against this proposal put forward at the inquiry are that the local authority could not meet the increased burden on public services; that the amenities of the riverside should be preserved and that as the site forms part of the flood plain of the Thames it could not be raised and built on without increasing the risk of floods elsewhere.

The arguments for the development are that there is a growing demand for housing in the Greater London area, and that the development would be visually pleasing. Houses, flats and maisonette blocks of varying height are proposed; some of which would be grouped around greens beside a widened riverside walk. There would also be a shopping centre.

Opposition to all housing development is due in the main to one simple cause: the fear that the new estate will destroy or reduce the amenities enjoyed by the local residents. No one ever believes that any new development will enhance an area except at the mundane level of the commercial interests looking for more profits. This antipathy to new building estates partly reflects the lack of sympathy on the part of the general public with the ideas of architects and builders, but it also shows how deep rooted is the dislike of towns and how great still is the desire for sub-urban living, however false its values.

The depressing feature of this inquiry is the lack of any positive, creative policy, by planners or anyone else, for the area. No one suggests that Hurst Park is a key factor in the testing of British bloodstock, or that it is an indispensable part of a great Thames-side linear park. No one suggests that it could be the site for the type of high-density peripheral urban renewal (on the lines of the Boston Manor project) which would relieve the pressure on central London. The area is no asset visually or culturally. Its only positive virtue is as a flood plain. Given over to private housing it solves no housing problem while the government does so little to arrest the drift of work and population to the south-east of England. While the government falters, enormous pressures will grow on all open space which exists. Hurst Park is only the continuation of a lack of policy which allows the Royal Parks to be whittled away for traffic relief: the assets are endlessly being reduced and the compensations are always inadequate.





## A1 ETC. AT THE WAR OFFICE

I've never been able to find out how far an interest in the "A" series of paper sizes is characteristically an architect's ploy. When a great institution turns over to this series, it is usually because some architect in the building has been campaigning. The news, therefore, that the War Office has gone over to it makes me suspect the influence of its chief architect, Donald Gibson, especially as the War Office is not only using A4 and A5 for stationery, but is also trying out A1, A2 and A3 for architects' and engineers' drawings. A1 (the largest of the three) is 23½ in. by 33½ in. and is, therefore, a slightly inflated counterpart of the imperial (22 in. by 30 in.). It's difficult enough to get A4 and A5: goodness knows how hard it is to get the others. But no doubt everything comes more easily to the War Office.

## SIDEWALK SUPERVISORS

Viewing platforms have appeared on all sorts of building sites since Taylor Woodrow introduced the idea to this country five years ago. This firm's latest idea is closed-circuit television on a job in the city (on the Gracechurch Street-Fenchurch Street corner). This system has the advantage that it can go on when the job is above ground level, but on this site the camera seems too far away, as the operatives look like

pygmies and the audience seems to get more fun from working the camera's remote control than from looking at the picture. But the idea, even if expensive, was worth trying, and I shall be interested to see how it goes when the finishing work starts.

## A BLEEPING NUISANCE

Speaking of on-site electronics, I've just heard of something new that's going to infuriate operatives. An electrical company is developing a bleep-bleep staff-locating system suitable for use on building sites. Until now this sort of thing has been used in hospitals with an aerial for the transmitter fairly near to anyone it was meant to reach. You can't do anything like that in a forest of scaffolding and shuttering, but now that a single aerial system has been developed there won't be any point on even the most complex building site where the operative won't hear his master's bleep.

## ONE WAY

Tottenham Court Road and the Charing Cross Road are to be one way from south to north; the southbound traffic will come down Gower Street, through Bedford Square (the other side from the A.A.) and down St. Martin's Lane. There's been no comment so far from London Transport about all the buses they'll have to re-route, but the only taxi driver I've spoken to thought it was a good idea—"though they won't be able to park any more where it's narrow." Which reminds me that years ago the A.J. published a taxi driver's one-way scheme for the West End with traffic going north up Park Lane, east to Oxford Circus, down Regent Street and west again along Piccadilly, with more one-ways within the square. It's no longer valid, of course, now that the current Hyde Park schemes are under way, but this sort of large-scale, one-way system could improve things quite a lot, even if the shopkeepers put up a large squeal.

## VERY SECOND-CLASS

A few weeks ago I commented on the new Midland Pullman after dutifully attending a Press view. I must now add second thoughts written in *second-class* discomfort on the train itself. The discomfort is largely in the elbows and the lower small of the back. The

seat base tips slightly backwards and keeps the body pressed away from the dining table. This means that eating or writing are slightly painful operations—made even more painful by the position of the arm rests which persist in obstructing the elbows, and give a quaint navy's-club look to the whole car as its users tackle their swaying breakfast with arms akimbo. Yes, swaying: I've never lost so much coffee at a single sitting, and the waiter agreed (as he steadied himself on my kipper) that "there's more damned rock-and-roll on these than on the old stuff."

I would willingly swop the clean lines of the new Pullman, with its ever-so-modern-looking, aircraft-style seats, for the cluttered cosy look of the earlier version and the comfort it provides. I'm not blind to the virtues of the new train but it infuriates me to find something as essential as seating so painfully wrong. I wouldn't in the least mind sitting on something that made me look like an anthropometric diagram if it didn't make me feel like one too.

## BRACING CAFE

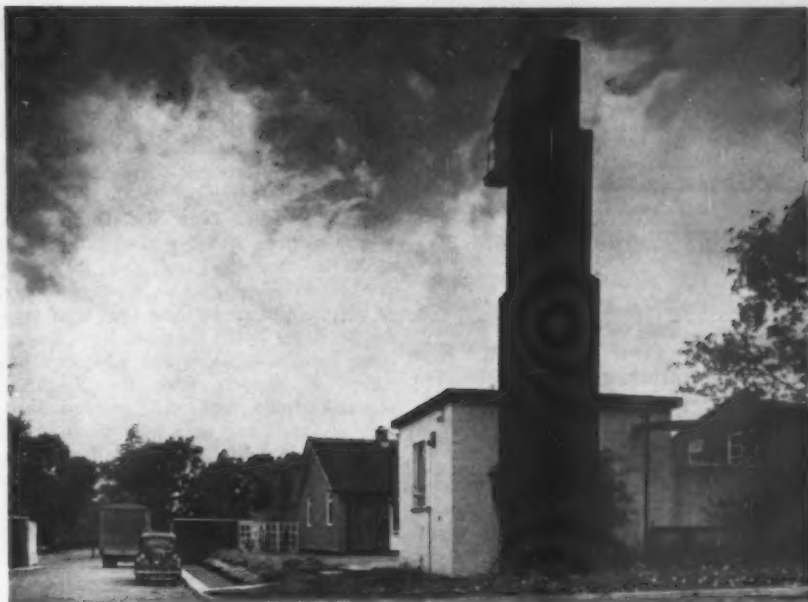
I don't recommend *Decorative Designs for Contemporary Interiors* (edited by K. Gatz, Peter Owen, 84s.). It doesn't even have the virtue of most lush books of being a pleasure to dip into. There are hideously-illustrated sections on such subjects as hotels, schools, restaurants and so on, and each section has a small preface (in English and German). Each preface is far too superficial (the interesting question of the use of colour in children's rooms is hardly touched on) and is neither interesting enough for the layman, nor detailed enough for the architect or designer.

However, three things fascinated me. One was a theatre auditorium at Mainz, in which colour had been superbly used to direct attention towards the stage (reds at the back, blues and greens at the front and a subtle converging of colour in the dome). Another was a children's rest room which looked like a recreation room for space travellers. And best of all was the description of a particular

restaurant as the sort of place suitable "for extended stays."

#### VICTORIAN SUBSTITUTE

When the M1 tore its way through Hertfordshire, a small corner was cut off the Building Research Station at Garston, including the entrance gates and the caretaker's cottage, which was a miniature version of the Victorian Gothic of the main mansion. This was not a great loss to our architectural heritage, but the ensemble has now been replaced a few yards away (see picture) by a new version of the same thing by MOW. The resiting has exposed to view some odd bits, including a water tower, left over from the RAF occupation during the war. Hardly the thing to give a good first impression to visitors.



The new entrance to the Building Research Station, Garston. See Victorian Substitute.

#### SITES FOR SALE: HYDE PARK?

Professor Joseph Allen, the president of the Town Planning Institute, obviously enjoys being given a difficult case to argue. During the Hurst Park inquiry he surmised that the London green belt policy allows the fullest possible use to be made of building land inside the urban fence, even to the extent of building on Hyde Park, apparently.

\*

Professor Allen qualified this fantastic piece of reasoning in later argument. He seems to defend the policy of building on Hyde Park only while the Government lacks a strong policy of decentralisation which would limit employment in south-east England.

\*

But Professor Allen has a reputation for embracing unpopular causes with an enthusiasm unexpected in a planning president. A colleague has recalled that Allen once defended a proposal to put a nuclear power station in a national park so enthusiastically that inspector Colin Buchanan asked, when he had concluded his evidence, "Can I take it, Professor Allen, that it is your considered opinion that no national park is complete *without* a nuclear power station?"

#### LIVING HIGH

Frederick MacManus and his associates gave a party last week to cele-

brate the completion of their highest building in London: a 17-storey block of flats for St. Pancras in a very attractive estate of four-storey maisonettes and flats near Regent's Park. The party, appropriately, was held in the top floor of the block, where guests had a wonderful view over London, and ASTRAGAL was able to confirm his opinion, having seen Castrol House, hull down on the horizon, that by and large office and flat blocks are too low in London. Too many are slabs, not towers, and serve only to raise a skyline which is already too high.

\*

The same firm of architects have also designed a great comprehensive school for the LCC which neatly anticipates the Wolfenden sports report by providing, at a very low estimated cost, a covered play area 70 ft. by 80 ft. This has been accomplished by putting the two gymnasia side by side in the air supported by columns round the edge, the spine wall between the two gyms becoming a deep beam.

#### CLEAN, DARK, AIRY, MODERN

Everyone knows that while the English, regrettably, build for ever, the Americans scrap and rebuild every generation or so—or so the story goes. It was intriguing to read, therefore, of the eight-storey, 1904 office block in Washington which has been refaced in aluminium to save "our

national capital's downtown from creeping dilapidation" (the words of a co-trustee of the property, Colonel Haskell Small). After ripping off parapets and balconies, removing internal columns and putting the air conditioning cooling tower in the basement to avoid spoiling the roof line the preservationists made a more startling change. I quote: "windows were reduced to modern sizes."

#### LIVING-IN SYNTHESIS?

It looks as if the University Grants Committee is about to start development work at last. An advertisement in the AJ for September 15 called for architects to "work as members of small team engaged on design of university hall of residence." This is good news—a chance for a few bright architects to get ideas for living-in synthesised.

#### CUTTING REMARK

In case you didn't see it, here is an advertisement from the Personal Column of *The Times*. "Lover of trains (who might like to erect facsimile signal box as home?) offered apex of land between two railway cuttings as a house site. Low cost subject to submitting the town planning application to the London County Council and the subsequent inevitable delays."

ASTRAGAL

# LETTERS

*Raymond J. Cecil, A.R.I.B.A.*

*Clive Peake, A.R.I.B.A.*

*C. Michael Pearson, A.R.I.B.A.*

*A. G. Elliott,*

*Managing Director, F.E.B. (Gt. Britain) Ltd.*

## Planning Sabotage

SIR: I would be interested to know whether other architects have had a similar experience to the following.

A client of mine with a factory in one of the London boroughs (but in the Administrative County of Middlesex) required additional office accommodation. A sketch scheme was prepared and taken to the Borough Planning Officer for comments. This official stated that the local borough exerted very little control on planning and referred me to the Middlesex C.C.

At Middlesex all the relevant points were discussed and resolved, the plans worked up to submission stage and a full application made. The application was delegated by Middlesex to the Local Authority, who have rejected it on the very points which had been verbally approved by the County. An appeal is pending and there can be little doubt as to the outcome.

In the meantime about three months will have been wasted and one more member of the lay public will have become hostile to the whole concept of Planning. The successful functioning of the Planning Acts depends on co-operation between the authorities and the individual architects, but what is the use of going through the motions of discussions with one authority, only to have the decision made by a subordinate authority who had declined to discuss the matter in the first place?

RAYMOND J. CECIL

London, W.1.

## Appeal Dismissed

SIR: I read Mr. Kilsey's and Mr. Jones's letters with a fellow feeling of sympathy for the chagrin felt by them in their loss of appeals, deepened by the failure to obtain some personal satisfaction. Such is not an uncommon experience.

When the soreness of losing wears off it is sometimes replaced by an appreciation of the following points: that the case was heard by a chosen professional technician whose duty it is to put the facts into what he considers to be their proper perspective; and the hearings are generally kept on a technical plane and not befogged by legal proceedings.

I suggest it is better as it is than for it to follow the pattern of established court procedure.

CLIVE PEAKE

Thurgoland, Sheffield

## International Standards

SIR: In a recent written contact with more than 120 architects, I was amazed to find that only seven, including one recently re-organised Government department, had changed their notepaper to the A4 International Standard Paper size. One realises that many firms probably have quite a large stock of stationery and also that most printers are charging up to 20 per cent more to cut their paper to these sizes until they can get larger orders for them. Nevertheless, some firms have added and subtracted the names of partners since the R.I.B.A.'s recommendation and still retained their previous sizes and only four members of the Council have, so far, followed the recommendation. Such a large number shows an indication of our apathy towards the adoption of International Standards and any co-operation with our neighbours in Europe.

C. MICHAEL PEARSON

## Frost Tests

SIR: While we would agree with Mr. Neville (AJ, Sept. 29) that accelerated laboratory tests do not completely reproduce actual site conditions, they do give some indication of the relative durability of different mortar mixes. That this is so is confirmed by the fact that our laboratory tests have produced similar results to those obtained by the Building Research Station which involved the testing of air entrained mortars and cement lime sand mortars under natural weather conditions over a period of three years.

Dr. J. W. Skeen of the Building Research Station has stated that cubes of mortar exposed under severe conditions composed of cement-lime-sand and gauged 1:1:6 and 1:2:9 were damaged by frost whereas mortar cubes composed of 1 cement to 6 sand plus an air entraining mortar plasticiser were unaffected.

We understand that in carrying out this test, the Building Research Station prepared cubes of cement-lime-sand mortar and air entrained mortar which were exposed in the open for a period of three years. At the end of this period, all the air entrained mortar cubes were unaffected by frost with the exception of cubes gauged 1 cement to 10 sand. These, of course, can be ignored as under no circumstances is it recommended that an air entraining mortar plasticiser should be used with such a weak mortar.

It is of interest to note that the result of the test is not queried, it being purely stated that it is an unreliable method of comparison. Yet the results obtained in our accelerated laboratory test really do no more than confirm the results obtained in the three-year natural weathering test carried out by the Building Research Station.

A. G. ELLIOTT

London, W.8.

# NEWS

## HURST PARK INQUIRY

### *Racing or Building?*

A public inquiry into the redevelopment of Hurst Park racecourse, Molesey, Surrey, as a low density housing estate has been going on all the week, and was still running at time of going to press.

It presents unusual interest, both because of the principles involved in deciding what is the best use to which this 120-acre, Thames-side site in a rapidly built up area, should be put, and because both sides have called distinguished expert witnesses—some of whom have appeared on the opposite side from where they might have been expected. Hurst Park Club Syndicate, Ltd., who propose to develop the site with Wates, Ltd., say that the racecourse, which is not in the Green Belt, is only used for racing 20 days a year, and *The Observer's* racing correspondent, John Hislop, supported the redevelopment plan on grounds that "there are too many racecourses chasing too few races."

The Syndicate and Mr. Norman Wates outlined a scheme which they claimed would be "quite beautiful and not at all what some people seem to fear" (see plan p. 486), which included a wide riverside walk of 50 ft. instead of the 6 ft. concrete wall which now divides the racecourse from the towpath.

Supporting their plea, Professor J. S. Allen, president of the Town Planning Institute and Professor of Town Planning at Durham University, said the development would be in the public interest and because of increasing pressure for building land, a re-appraisal of all land suitable for building should be made. If in ten years every family had a car, the need for open space in residential areas would be less, while the need for large open spaces—green belts—would become paramount. (Mr. Nigel Bridge for Esher Urban Council asked at this point, "You have no personal experience of driving out to the green belt for a lovely blow of fresh petrol fumes?")

Asked by Mr. Bridge whether he thought all land, open land, in greater London now used for recreation "should make a contribution to the residential problem," Professor Allen said he regarded it as "inevitable," adding, when asked about Hyde Park for example, "If pressure for residential development increases we may have to consider all open spaces in relation to their best use."

Mr. Norman Wise, for Middlesex County Council: "You have merely said you must continue feeding meat to this tiger." Professor Allen: "Until you limit employment in south-east England."

Opposing the development, Mr. A. N. Mundy for Surrey County Council said they were resolutely opposed to the development of Hurst Park: it was a substantial departure from the development plan, would place a



burden on public service (such as the Underground) they could not meet, and would mean building on part of the flood plain of the Thames.

The area is flooded on an average every seven years, Colonel Herbert Bowen, chief engineer for the Thames Conservancy Board, told the Inquiry: the proposal of Messrs. Wates to raise the area above flood level with filling material would raise flood levels above and below Molesey weirs by 1½ inches.

Opposing for Middlesex County Council, Mr. Norman Wise pointed to the recent Report of the Wolfenden Committee on Sport and said there were many sporting organisations which could use the racecourse area.

Mr. Kenneth Wood, chairman of the Molesey Society, said he had collected 2,876 signatures to a petition for the area to be developed as a riverside park.

## FIRE INQUIRY

### *Points on Store Design*

The Inquiry, which closed last week, into the serious fire at Hendersons Stores, Liverpool, in June, when 11 people died, brought out some points of importance on the design of large stores, apart from the five recommendations made by the jury. These recommendations were for:

1. Legislation for inspection of large stores by fire services and enforcement of adequate fire prevention, fire escapes and fire drills;
2. False ceilings must be constructed of and supported by fire resistant materials;
3. Staircases and escalators to be separately enclosed with fire-resistant material and the exit direct to the street;
4. Automatic heat detectors and water sprinklers inside and outside ceilings;
5. Exhaustive testing of all electrical installations with issue of test certificates.

Henderson's Store was partly an old store renovated, and was still in process of modernisation, and two enclosed concrete staircases were planned but not yet built. Ventilation and heating systems were being installed at the time of the fire, and air conditioning had been considered at a cost of £90,000 which after discussion was reduced to £40,000. No sprinkler system was installed.

On the day of the fire one of the extractor fans was not working and the temperature in the store was very high. The fireproof doors were hooked back for ventilation. The chief officer of Liverpool Fire Service gave his opinion that the store had been "conditioned for rapid burning," because the false ceilings and other inflammable materials became very dry. If there had been the additional concrete staircase and fire doors had been closed, there might have been a different outcome.

## *Fire Research 1959*

Fire Research 1959\* contains a number of

\* HMSO. 5s.

points of interest to architects, most of them concerned with materials. Tests have been made on fire-retardant paints and fears that they would quickly lose their effectiveness have generally been shown to be unjustified. Our regulations on the fire grading (4th schedule of the Model By-laws) have been based on American evidence: new tests show that they are too stringent and there is a case for making a distinction between load-bearing and non-load-bearing walls. As an example of these results, a 4 in. solid concrete block made of class 2 aggregate, unplastered, qualifies for a one hour fire rating; but tests show that it is good for 2 hours if non-load-bearing, 4 if load-bearing.

At the moment plastic roof lights are only generally allowed in isolated parts of a non-combustible roof. Tests show that if flame-retardant additives are used, they can give a very high resistance. The only question now is whether the additives will last when exposed to the weather.

## OXFORD ROADS

### *Inquiry, December 1*

The Minister of Housing and Local Government has appointed Sir Frederick Armer to hold the public inquiry into the various proposals for relief roads at Oxford, starting on December 1 at Oxford Town Hall. The inquiry was asked for by the city council, which was unable to make up its mind between three plans submitted.

Sir Frederick Armer is former deputy secretary of the Ministry of Health and is now chairman of the Board of Control. Meanwhile work is about to begin on the Donnington Road bridge, which will link the two southerly approaches to Oxford. The work is expected to take two years and the contract with the Cementation Company is for £310,000.

## YORK INSTITUTE

### *New Theatres*

A Conference on the Architecture of New Theatres was held in York at the Institute of Advanced Architectural Studies from the 9th to 13th September. To hold this conference after four-fifths of our provincial theatres have disappeared, with the remaining fifth seriously threatened, may appear somewhat belated, but this is not the case. It is only now that some of our actors have begun to find the 19th-century theatre-form restrictive to the development of their art, and here the architect was able to hear the first indistinct whispers of a new function which should eventually lead him to design new theatres.

These whispers disclosed a growing dislike for the division of actor and audience by the proscenium arch (the picture-frame stage), a desire for closer actor-audience relationship, for the abolition of scenery, and

the need to introduce other, daytime, functions such as catering and exhibitions, to make the theatre come alive by day, attract young people, encourage young playwrights, and make the theatre cheap to build, cheap to run and so within the reach of all.

Of the few British theatre projects of the second-half of this century only the New Playhouse, Nottingham, The Questors Theatre, Ealing, and the Mermaid Theatre, London, have a new basic form. Peter Moro speaking on "Problems of Modern Theatre Design," pointed out that in Britain £300,000 was considered a lavish sum to spend on a new civic theatre, whereas in Germany a large town would spend £500,000 a year in theatre maintenance alone. A paper on the "Open End Stage," with particular reference to the unique creation of the Mermaid Theatre, was read by Elidir Davies with a wealth of up-to-date cost data. Describing the Questors Theatre project, Alfred Emmet explained that they started with the picture-frame stage, developed a fore-stage for a production of Ibsen's "Doll's House" and afterwards found they were always using the fore-stage.

A highlight of the Conference was a visit to the Library Theatre at Scarborough where, under the direction of Stephen Joseph, interesting commercial experiments are being carried out in "theatre in the round," with Scarborough holiday-makers as the audience.

R. H. FRANKS

## ILA

### *Edinburgh Conference*

The proposal that the possibility of comprehensive landscape plans for the whole country should be explored and that every planning authority should have a "landscape watchdog" to watch the impact of all new projects on the landscape, looking for their creative possibilities as much as to preserve existing values, was made at the conclusion of the ILA Conference by Sylvia Crowe. Her suggestion reflected the whole trend of the conference discussion very clearly.

The tone was set by the first three papers, each of which dealt with a specific example of large-scale projects and underlined the fact that no development is self-contained: Sylvia Crowe gave an account of the landscaping of the nuclear power station at Trawsfynydd. Jean P. Bernard, a French landscape engineer, talked of the part landscaping plays in improving both the safety and appearance of the new motor roads, and Hugh Wilson, chief architect-planner of Cumbernauld, described the landscape pattern being created there—a talk which was followed by a visit to the new town.

In tackling the landscaping of Trawsfynydd, said Miss Crowe, there were three possibilities: the opportunity might be taken to create a new landscape; it might be in sympathy with the existing pattern but add a new element to it; or it might merge into the existing landscape.

The first course she thought suitable for

treating a spoilt or uninteresting landscape, the second would be appropriate in agricultural or fen-land, where a building would be an important focal point interlocked with its surroundings by shelter belts or canals.

She had chosen the third course at Trawsfynydd for psychological and visual reasons: "Psychological because in a National Park one seeks curlews rather than power stations. Visual, because the character of the hills is wild and remote and yet they are of a dangerously vulnerable, small scale."

For this reason the plan did everything possible to break down the rectangles and interlock all constructions with the landscape—as was explained in a series of slides—and all small ancillaries and the spiky substation were either concealed or united within the overall composition. "I think," she added, "we must realise that much of the work we do has this self-effacing quality."

In a brilliant talk, illustrated on two simultaneous screens, Percy Johnson-Marshall skimmed round the world showing the pattern of regional landscapes and the need for planning in Holland, China, Brazil, India and America. He cited the TVA as the supreme example of the importance of planning on a regional basis.

Roger Miles, Senior Planning Assistant to Somerset County Council, described what his county has done by co-operation with landowners and the Forestry Commission to safeguard woodlands. "A policy which seeks deliberately to influence the design of modern forestry so that it will contribute to amenity is much more positive and realistic than a policy of preservation alone," he said.

Speaking of the problems of the holiday trade, Mr. Miles pointed out that the expansion of the trade depends upon protection and enhancement of amenities, yet "if the economic attractions of the holiday trade in rural areas are unchecked by aesthetic reason the trade, by destroying beauty, may destroy itself." He thought the problems of caravans and camping sites had not yet been satisfactorily solved.

A series of brief talks by Scottish Planning Officers from various counties followed, in one of which Mr. R. Grieve, chief technical planner to the Department of Health for Scotland, gave landscape architects a pungent and salutary warning against making too big claims: "Have you limited your aims so as to strengthen them?" he asked. "Can you produce the goods when your bluff is called, so to speak? If you have still to clarify your aims and limit them to achievable objectives your bluff will be called and you will go into the wilderness with a bad smell attached to the label 'landscape architecture'."

Opening the conference the Hon. Thomas Galbraith, M.P., Joint Parliamentary Under Secretary of State for Scotland, spoke with encouraging warmth of the importance of landscaping, and of bringing the landscape architect into consultation at a very early stage in the planning of major projects. It should be the constant aim to safeguard the national landscape, in which he in-

cluded those delightful elements of the older man-made landscape of tree plantation and village, but preservation was only part of the task. We were not a static society and we must see that new development fitted into the existing landscape pattern.

We must also ensure that new areas of building and redevelopment generated a landscape pattern that was pleasant in itself, and Mr. Galbraith went on to give some examples of modern architectural offences. He was astonished, he said, at the care that was lavished on the façade of a building, compared with the apparent lack of care for the look of the skyline. A good layout could be ruined by the wrong kind of street architecture, the absence of the right colour, or by a single smokey chimney prominent on the horizon.

The new towns, he thought, had given "a stimulating lead" (perhaps he was thinking particularly of Cumbernauld?), but many local authorities had laid out thousands of acres of new housing which "could hardly fail to make our hearts sink."

## COMPETITION

### Office Furniture

The Council of the Timber Development Association has announced a second competition for the design and manufacture of furniture made mainly in wood and/or plywood. Competitors are invited to design any of the following, for which the following prizes are offered:

- (a) a desk for clerks, £200;
- (b) a manager's desk, £200;
- (c) a revolving posture chair for clerks (without arms), £150;
- (d) a revolving chair for managers (with arms), £150;
- (e) a storage unit, £350.

Designers are asked to work in collaboration with manufacturers, and the competition will be in two stages. Competitors will be asked to submit prototype furniture in the second stage. Prize winning and commended entries will be exhibited.

Assessors:

Prof. Robert H. Matthew, C.B.E., M.A., F.R.I.B.A., Department of Architecture, University of Edinburgh;

Prof. R. D. Russell, R.D.I., Principal, School of Furniture Design, Royal College of Art;

O. G. Pickard, B.Sc., M.COM., Ph.D., F.O.M.A., Principal, Ealing Technical College;

D. A. C. A. Boyne, executive editor, THE ARCHITECTS' JOURNAL.

Messrs. S. N. Abbott and Michael Carson, Office Appliance and Business Equipment Trades Association.

Manufacturers and designers who wish to enter should apply for details and copy of the rules before October 31, 1960, to: The Secretary of the Timber Development Association, 21, College Hill, London, E.C.4. Closing date for First Stage, February 28, 1961. Closing date for Second Stage, September 14, 1961.

## OBITUARY

### Charles Woodward

There is an old saying that no man is irreplaceable; but no man is likely to reproduce the combination of talents and personal qualities of Charles Woodward. For many years he was the fixed, guiding star in matters of professional practice for the architect. He knew his subject, in all its complexity, so broadly and in such detail that it was impossible to catch him out on any matter of building law and procedure, though many tried. He allied to this technical ability, a broad humanity, a sense of humour and a fearless honesty.

The son of an architect with a considerable London practice, he preferred to follow his own specialist line, even though it was never very remunerative. For many years he was one of the Joint Honorary Secretaries of the R.I.B.A. Practice Committee and a member of the Joint Tribunal on the Standard Form of Contract. He wrote the Practice Notes in the R.I.B.A. Journal and he lectured to students in several schools of architecture on professional practice. He was retained by the R.I.B.A. to deal with the tougher practice problems of members seeking help. Typically, he did not mind that his careful judgment of and advice on cases often went back to enquirers over the signature of the Secretary. Many hundreds of members have cause to be grateful to him, though some do not know it. Nor, I think, does the profession as a whole appreciate what he did for it during the changes of the past 40 years. Sometimes his advice was unpopular with architects who had got themselves into trouble by their own carelessness or ignorance of building law and procedure. But his honesty and judicial outlook would not let him depart from a strictly impartial and factual assessment of the facts of a case. Inevitably he made an excellent arbitrator and he must have performed this duty hundreds of times.

His sense of humour prevented his becoming a mere dry legalist. A smile or chuckle were never far away. Once after discussion of a particularly tricky case in which a well-meaning architect had been let down by an irresponsible client, he said to me, "Never practice architecture; it is much too risky. It ought to qualify for danger money." This jocular remark reflected his knowledge of the pitfalls which can beset the unwary or even the unlucky.

All who knew Charles Woodward held him in affection. It was typical of him that for many years he served the profession as Honorary Treasurer of the A.B.S.

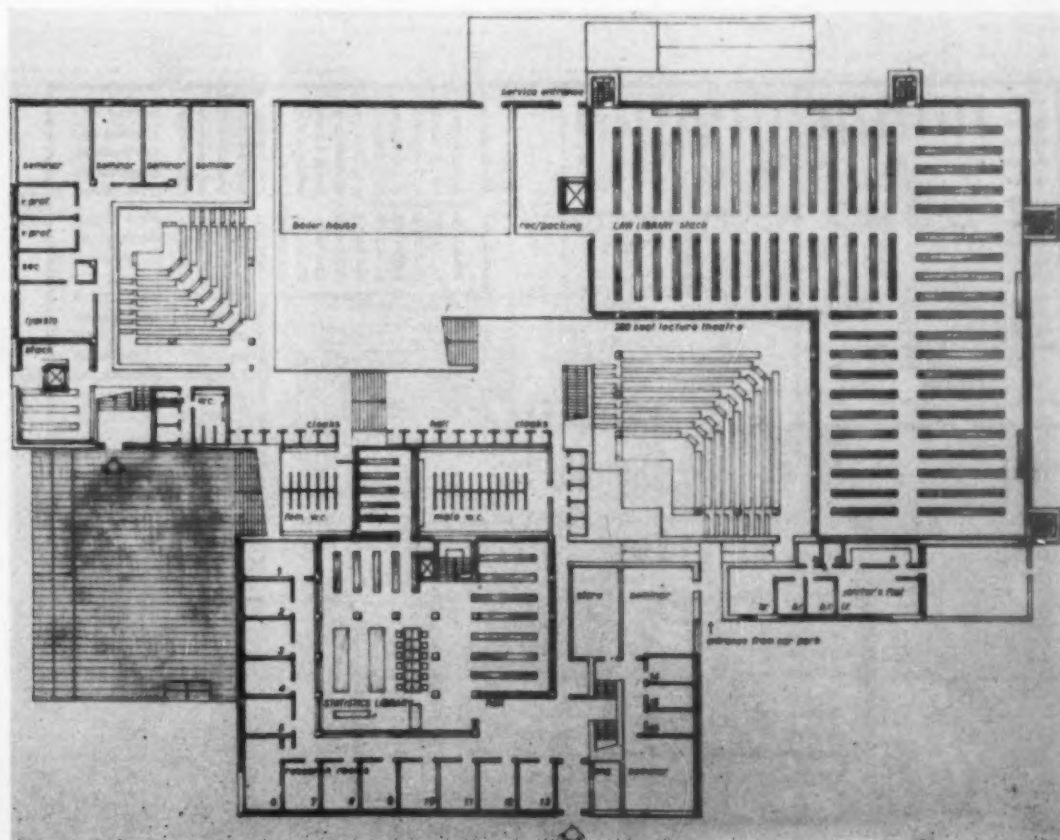
ERIC L. BIRD

### Robert Prentice

Robert Prentice, F.R.I.B.A., died last week at Eastbourne, aged 77. From 1910 to 1952, except for the period of the first World War, when he served in the R.F.C. and the R.A.F., he worked in South America, and he was the architect of the Adam-style British Embassy at Rio which provoked the controversy over the architecture of British official architecture abroad.

# New Group for Oxford

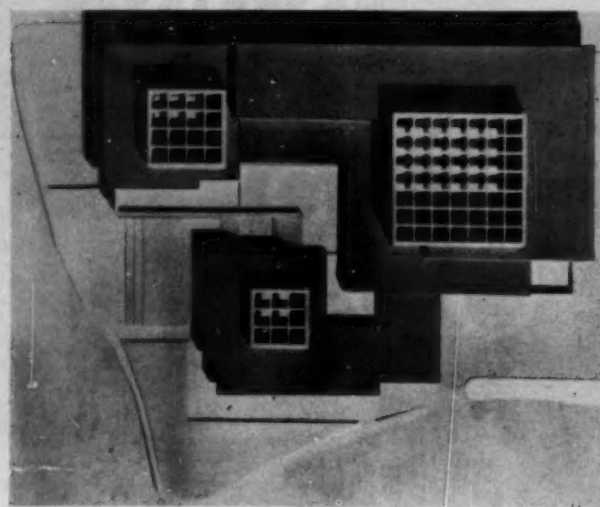
Professor Sir Leslie Martin, in association with Colin St. John Wilson and assisted by Patrick Hodgkinson, the architects for this composite group, were initially asked by the University to provide three separate buildings on the Manor Road site in Holywell, Oxford: a new Law library, a library for the English Faculty and permanent premises for the Institute of Statistics. It became clear in the early stages of design, however, that it would be difficult if not impossible for three individual buildings to be sited satisfactorily in the limited area available. The major problem, in both functional and visual terms, has thus been to combine into one complex what are essentially three separate entities.



Ground floor plan (Scale:  $\frac{1}{4}$ " = 1' 0")



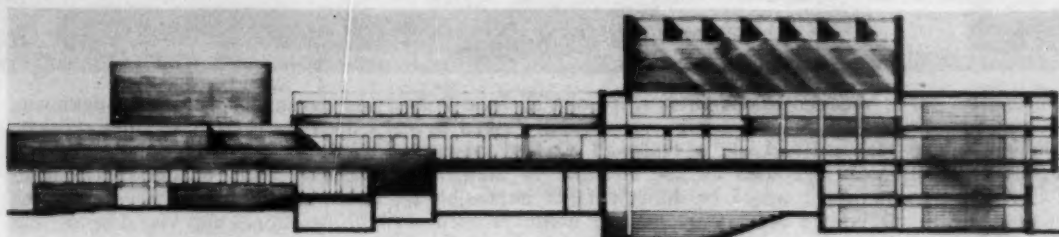
# New Group for Oxford



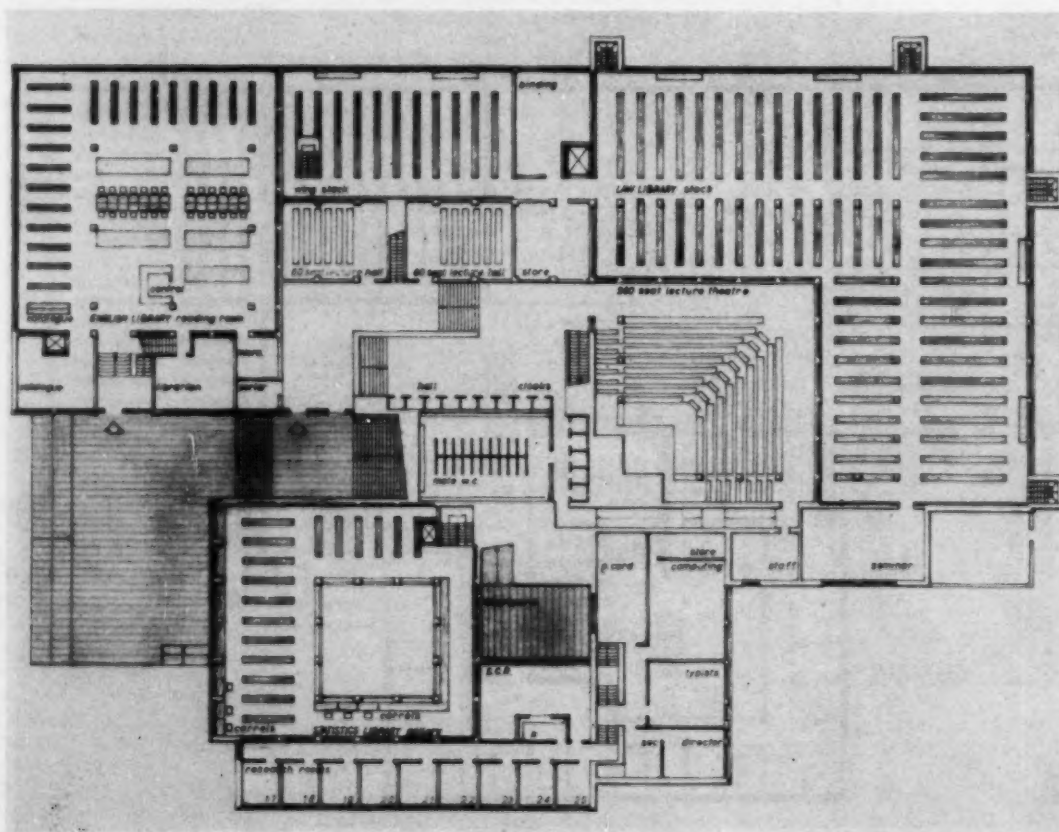
*The model from above*

Although the design is both richly developed and skilfully planned, the architects' approach to the problem is basically simple. The key element and focal point in each of the three faculty buildings is a central reading-room. The sizes vary, but all are square on plan. The dominance of this element in the planning has been reflected in the massing of the complex, each reading-room being top-lit from a ceiling rising definitively above the horizontal roof lines of surrounding accommodation to form a tower. The difference in size of these three volumes has been emphasised by having each reading-room at a different level. The largest, the Law library, dominates the whole complex, being placed at the highest level on the second floor. This technique has in general allowed closed stacks for books to be placed below the reading-rooms, a compact and logical arrangement which leaves the upper levels free for those areas which readers may use.

Reading-rooms above ground level might be thought to raise problems of access, since it is usually considered desirable to encourage the use of libraries and similar buildings by making entry into them as direct and easy as possible. The situation has been turned to advantage, however, by grouping the complex round a raised terrace at second floor level with broad steps sweeping up to it from the west. This method of giving cohesion to a variety of elements was used in similar circumstances by Aalto for his civic centre at Säynätsalo. At Oxford, however, the design is more inter-locked than Aalto's, the courtyard has been more tightly planned



*Section through entrance, Law library and large lecture theatre*



*First floor plan*

and the void under the terrace is used for ancillary accommodation and circulation.

Changes of level define the separate entrances to the faculty buildings. The Institute of Statistics is entered at ground level from Manor Road on the south side, the English library is accessible from the first landing of the steps, and the Law library is at the main courtyard level. Grouping the three faculties together makes it possible to provide additional accommodation which they can share. This has been designed as a self-contained suite, with a separate entrance at the second landing of the steps but linked internally with the three faculties. The suite consists of a large entrance hall, with cloakrooms opening off it at various levels, four lecture rooms and two lecture theatres, one for 250 and the other for 150. Both theatres have stepped seating and separate escape routes to the open air. There is also access from the entrance hall to the common-rooms on the floor above and to a secondary exit providing a direct route under cover to car and cycle parks on the south and west sides of the building.

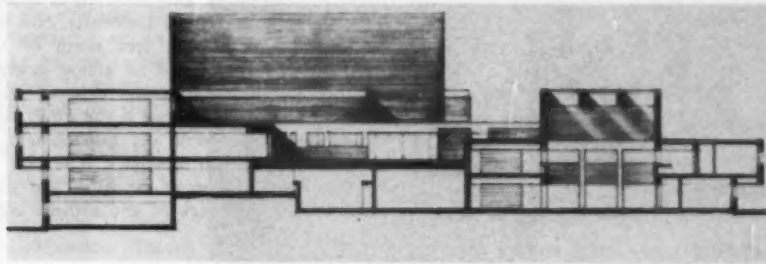
Most important in designing this type of library is the problem of growth: the stock of books inevitably increases every year and there is a continual demand for more space. In this case the clients agreed to the architects' proposal that the building should be executed now with enough elbow room to last for, say, 50 years (although it is obviously impossible to forecast precisely how soon the extra space will be filled in practice). In the Law library the aim is a long-term one: to form a comprehensive collection on

Commonwealth and American law. This will be administered by the Bodleian and gradually built up as funds become available.

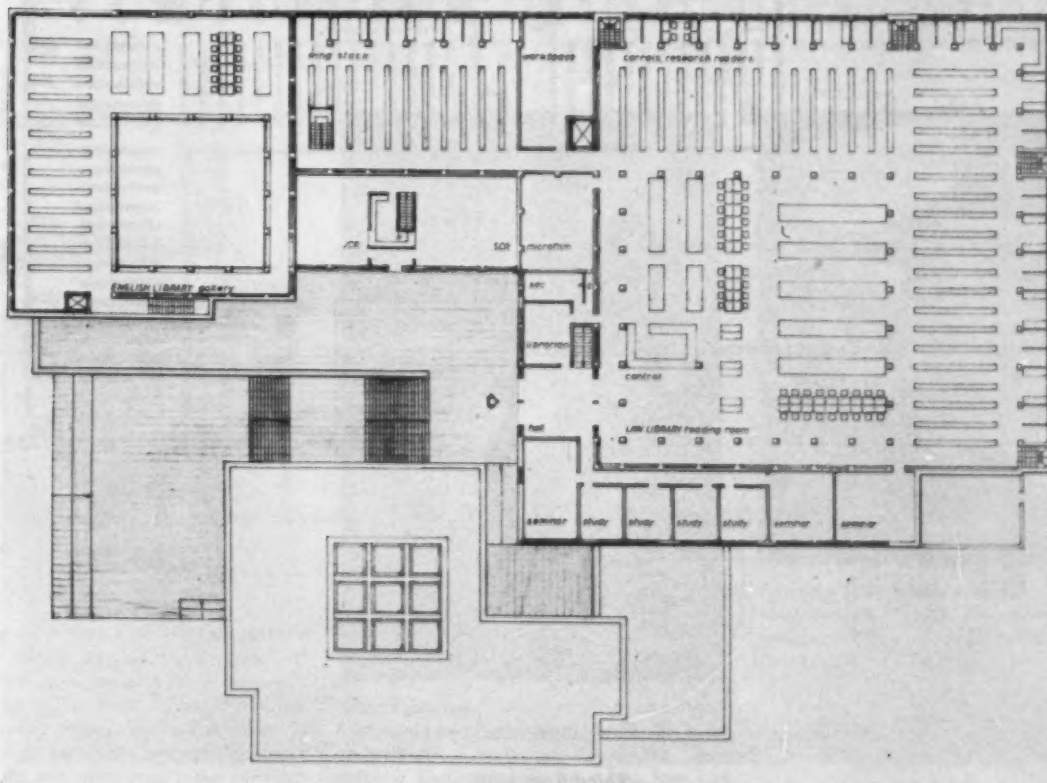
The Law library reading-room is about 76 ft. square and 30 ft. high. On two sides the open-stack space runs out to the periphery of the building where it is enclosed by a line of carrels for post-graduate and research students. This arrangement provides daylight for the carrels and direct access to the books for both types of reader. The pattern of carrels and open stacks is repeated at gallery level, and there are two floors of closed stacks below the reading-room. There is space for extension stacks on all four levels, these forming a connecting block with the English Faculty. Floors are linked vertically by staircases and a lift for book-laden trolleys. The design provides for about 350 readers, with over 200,000 books directly accessible and a further 250,000 in the closed stacks. Ancillaries such as offices, studies, seminar rooms and microfilm section are placed on the second-floor entrance level and are reached from separate circulation to avoid too much traffic in the reading-room.

The library for the English Faculty (to replace the seriously overcrowded existing one) is smaller than the Law library but similar in layout. The reading-room—about 44 ft. square, with adjacent open stacks at both main and gallery levels—is designed for about 150 readers and 84,000 books. On the ground floor below is closed stack space for a further 10,000 volumes.

The Institute of Statistics, at present housed in temporary huts, will have its first permanent home in the building. Its reading-room with gallery is the smallest of the three, but there is a large number of

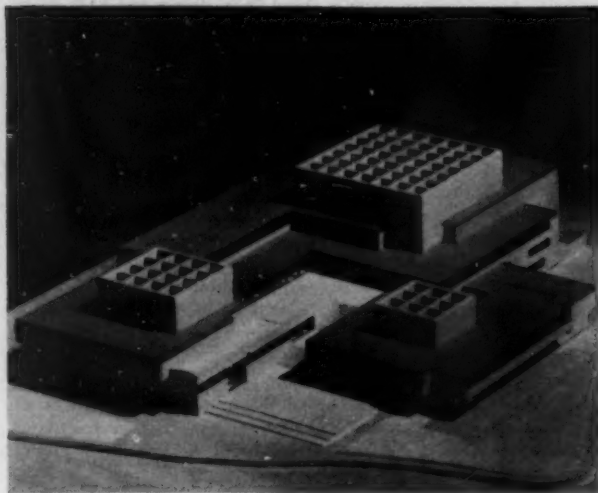


*Section through wing stack, entrance hall and statistics library*

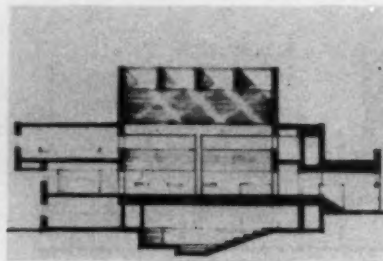


*Second floor plan*

## New Group for Oxford



*The model from the south-west*



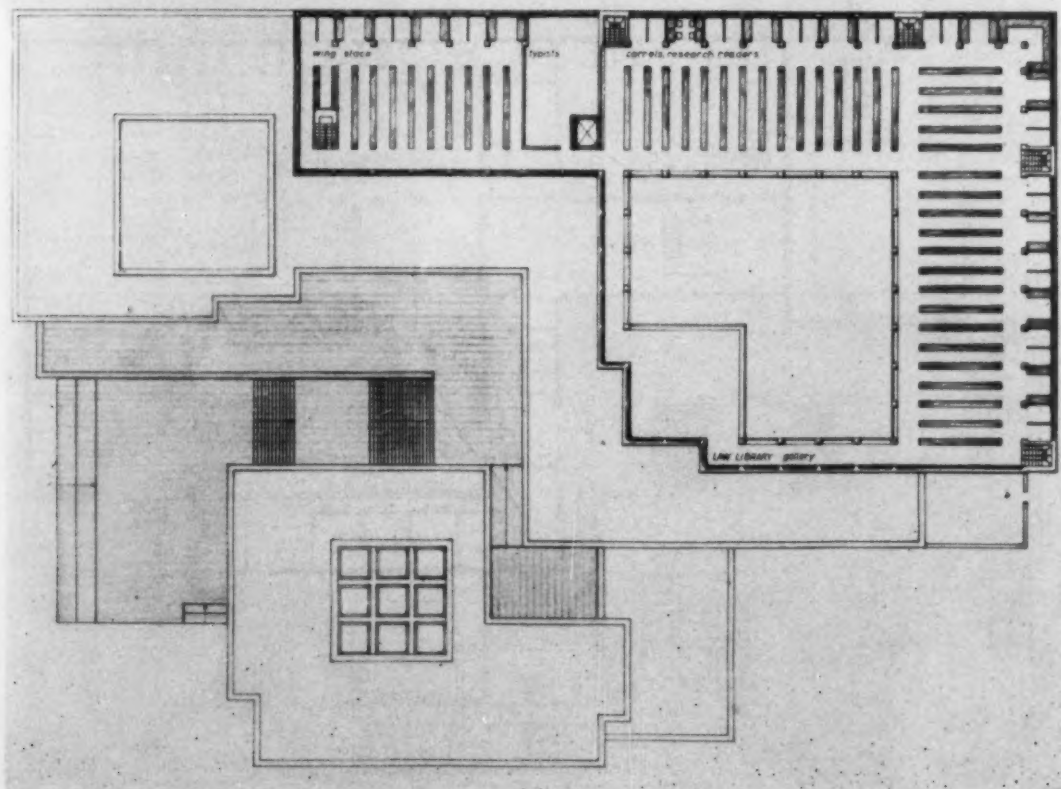
*Section through English library and small lecture theatre*

associated research rooms and offices arranged on two floors mainly on the south side. A small courtyard at first-floor level is accessible from the common-room and linked to the main entrance terrace.

Internally the design evidently relies to a considerable extent upon artificial lighting and ventilation: this seems to be inevitable in a compact and workable plan on a confined site. Much of the subtlety in the interior spatial relationships (not necessarily evident from the plans) will depend upon a skilful blend of natural and artificial lighting. Just as important will be a suitably high standard of environment for work, where there are no windows.

The structure, in reinforced concrete, is being designed in consultation with Ove Arup. Solid walls will be clad externally with a skin of light grey bricks. Darker grey bricks are intended for external paving. Window heads, sills and mullions will be clothed in black anodised aluminium, chosen primarily for neatness and ease of detailing. Evidently the broad aim is to treat the exterior in the simplest way, with the smallest possible vocabulary of materials and colour, so that the carefully counterpoised massing of the three faculties can be expressed with the utmost clarity. This is, of course, perfectly valid as a self-contained exercise, but the building must also be judged in relation to its surroundings and to the rest of the University's current building programme.

Admittedly the immediate environment of the site is not architecturally a very distinguished sector of Oxford, being mainly a nondescript miscellany of buildings along the backwater of Manor Road, with sports fields to the north and west. Nevertheless, the architects are introducing a design which in terms of massing, structural expression and materials is a departure from any other post-war building for the University. Not that this is anything new in Oxford. The science area north of Manor Road is an unhappy diversification and an almost complete catalogue of every possible variant of structure, external cladding and architectural expression. This, of course, is the direct outcome of the failure of the University to form any development plan or any consistent programme for their buildings. The lack of such rationalisation inevitably leads to more expensive and slower construction, quite apart from a total lack of any aesthetic cohesion.



*Third floor plan*



## Furniture Exhibition

If you think that craftsmen furniture makers make the finest furniture in the country, a visit to the exhibition staged by their association at the Building Centre will quickly convince you that they do not.

The exhibits fall into three categories, Folksy, Traditional Imitations, and Repro. Contempo. The Folksy range from fanciful *Art Nouveau* phantasies to clumsy country cottagey. They are made of fine woods and well finished. The Traditional Imitations again are well-made and as long as the makers have resisted the temptation to be clever or original they come off fairly well.

When the craftsmen go modern however the trouble really starts. The eye recoils before legions of applied clichés and misunderstood motifs. What a demonstration of a fundamental lack of appreciation of "design" this is.

Where he should revel in the subtleties of his craft and show the superiority of his skill over the mere machine he uses feeble adaptations of machine details. Nowhere is there anything to compare with the compound curvature and sculptural forms of modern Danish chairs which are similarly made. It is a great pity that the possessors of the wealth of manual skill evident in this exhibition are so completely lacking in any real appreciation of design. The Craftsmen Furniture Makers' Association should seriously consider a vigorous programme of education in design for its members. The exhibition will be open until October 7.

JOHN AND SYLVIA REID



*This well-made traditional chest in oak with ebony inlay is marred by its clumsy base. Crudely shaped legs and an awkwardly stepped bottom rail detract from otherwise clean lines. Several other examples of good chests of drawers are spoiled by ill-considered leg details.*



*A dressing table with a simple and pleasant form but lacking any of the subtleties of detailing that is expected from a craftsman who is true to his craft. This is machine detailing, and drawers that are a closer fit than those to be found on mass-produced furniture do not alone justify the considerably greater price.*



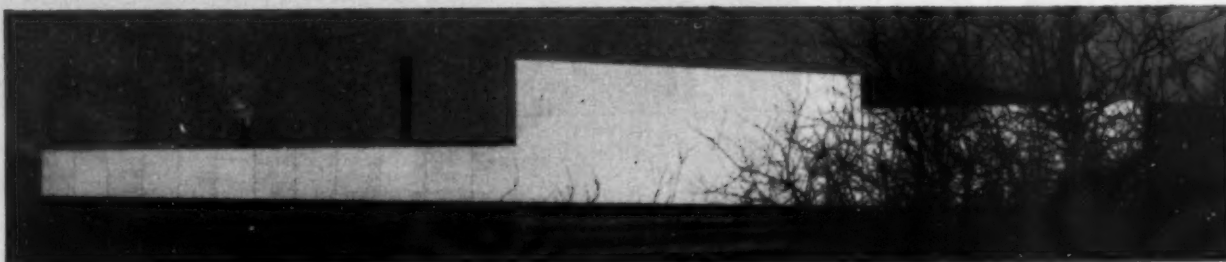
*This "modern" chair in teak and beech with a leather seat would make a good example for a lecture on the subject "anything a craftsman can do a machine can do better—and cheaper."*



*Compare this well-made but folksy children's chair with the clean lines and sculptural form of craftsman-made Danish furniture.*



## PRINTING HOUSE IN HELSINGBORG: SWEDEN



*This new printing house for the Aller Press was designed by Bengt Blasberg and Henrik Jais-Nielsen. The total floor area of the building is 55,000 sq. ft. and within this space are accommodated a paper store, printing halls, departments for make-ready and distribution, workers' rooms and a boilerhouse.*

*A horizontal module of 15 ft. has been employed together with a vertical module of 1 ft. 8 in. and the structure is of precast and prestressed concrete. 60-ft.-long precast concrete beams, brought over from Denmark, were fixed in position with the help of mobile cranes. The roof and the walls are of reinforced light-weight concrete planks (7½ in. × 1 ft. 8 in. × 15 ft.) which have a low coefficient of heat transfer. The walls are erected in such a way that*

*future extensions will be easy to carry out. The roof of the building has two layers of building board. Big double glazed glass fibre, plastic coated screens fitted into the roof let in daylight. These 3 ft. 4 in. × 15 ft. screens are glued onto the roof and mounted together with the roofing board. Artificial lighting is provided by fluorescent tubes running alongside the rooflights so that light always comes from the same direction. The building is planned as a series of identical sections the first one of which is illustrated here. In this way each section forms an independent unit having only short distances for circulation between the different printing processes. The sections are to be served by a common service duct carrying steam, electricity, water and compressed air.*



Paper store



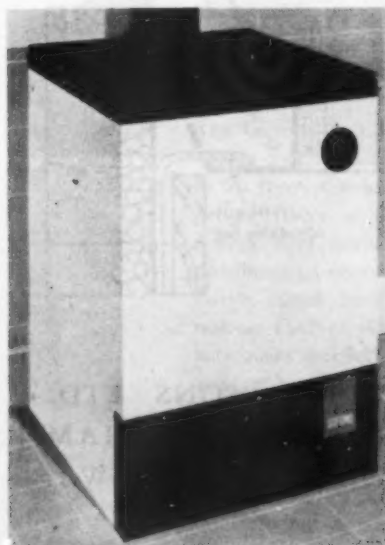
Canteen

## THE INDUSTRY

*This week Brian Grant describes some new solid fuel boilers, a new joint for waterstops, a set of data sheets, a new trade association, and a thermostatic radiator valve.*

**Solid Fuel Boilers**

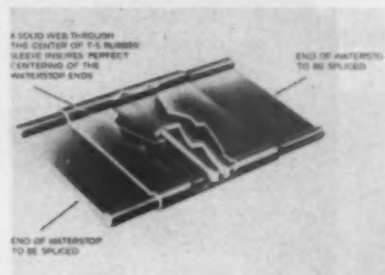
There are some additions to the range of Sofono heating appliances for the coming winter, notably the Sofonomatic boiler No. 3, with an output of 25,000 B.th.u. per hour, the original Sofonomatic (output 17,000) is now known as the No. 2, and there is a new No. 1 (output 12,000). All have easily adjustable thermostats and prices of the two new models are £44 and £26. There is also a further small model without thermostat at £21. (*Grange-Camelon Iron Co., Ltd., Falkirk, Stirlingshire.*)



*Grange-Camelon's Sofonomatic No. 3.*

**Site Jointing of Waterstops**

When rubber waterstops are used in expansion and other types of structural concrete joint the usual method of producing water-tight joints between butted ends is to employ a vulcanising unit. These are not always easy to use on site, and cold cemented splices are not always reliable. Tretol have evolved an improved method making use of a rubber sleeve which slips over the ends of the waterstop at the joints and is fixed by a cold cementing process. (*Tretol-Servicised Ltd., 2 Caxton Street, London, S.W.1.*)



*Tretol waterstop joint.*

**Data Sheets from UAM**

The new UAM manual of data sheets provides information about all the group's products, which include asbestos cement sheets, pitch fibre pipes, reinforced plastics sheeting and sprayed asbestos. Each data sheet conforms to a standard pattern and sequence of information for all products, so that cross references are considerably simplified, as the relevant information appears in approximately the same position on each page. British Standard references, with the relevant clauses, are given, as well as the authorities for any test results. There is also a very useful sheet giving an indication of prices. The manufacturers intend that this manual should be kept as a ready reference book and that any further information should be obtained through the group's information service. (*The U.A.M. Group Advisory Service, Tolpits, Watford, Herts.*)

**Laminated Plastics Fabrication**

Five fabricators of decorative plastics have formed a Laminated Plastics Fabricators Association with the primary objective of promoting the proper application of the material, and also to encourage its use by holding exhibitions and demonstrations. It is to be hoped that the Association will in due course draw up a proper code of practice for using laminated plastics which could ultimately lead to some sort of guarantee of good workmanship. So far there are five founder members, but other manufacturers are invited to join. The secretaries are *Peat, Marwick, Mitchell & Co., 11, Ironmonger Lane, London, E.C.2.*

**Controlling Radiators**

The Boss solenoid radiator valve allows individual room temperatures to be maintained with a central heating hot water system. The thermostat is electrically controlled and the valve is fitted to the radiator inlet, opening and closing with temperature variations. The valve is designed for use with low pressure gravity or accelerated hot water systems and allows a fixed temperature to be maintained whether windows are opened or not. (*The British Steam Specialties Ltd., Fleet Street, Leicester.*)



*British Steam's Boss radiator valve.*



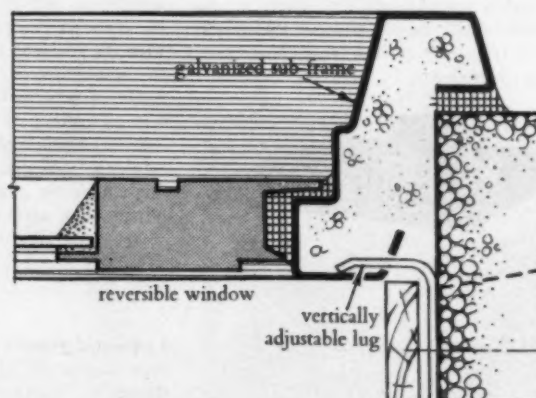
# HOPE'S Reversible Windows



WARING HOUSE, REDCLIFF REDEVELOPMENT AREA, BRISTOL

Albert H. Clark, F.R.I.B.A., Bristol City Architect    John Laing & Son Ltd., Building & Civil Engineering Contractors

1348 Reversible Windows are here ranged in groups of 2 and 3 in galvanized steel sub-frames which start at floor level and contain Georgian wired glass spandrel panels. The detail alongside shows how the sub-frame completely frames and weathers the concrete opening and at the same time absorbs any variation in opening sizes. The casements turn completely through 180° to permit easy cleaning and repainting from inside the flats.



**HOPE'S WINDOWS**  
*The Name Guarantees*



Send for List 380

HENRY HOPE & SONS LTD.  
SMETHWICK, BIRMINGHAM  
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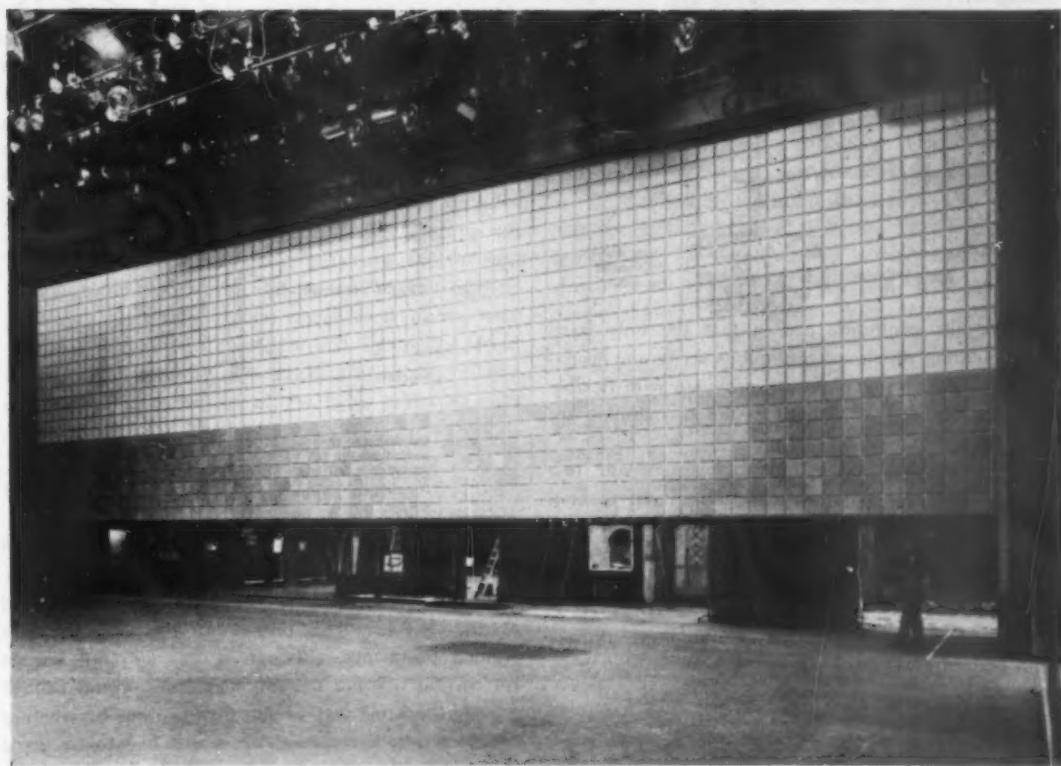
699.84

## 22 SOUND INSULATION AND ACOUSTICS

### The sound insulation design of a giant movable partition

On July 21 we published a Working Detail of the movable sound proof partition at the new Television Studio in Wembley. This partition is of great interest as it shows a method of overcoming the effect of the Mass

Law, according to which sound reduction is proportionate to weight. This account of the partition is by our Specialist Editor for Sound Insulation and Acoustics who was the acoustic consultant for the partition.

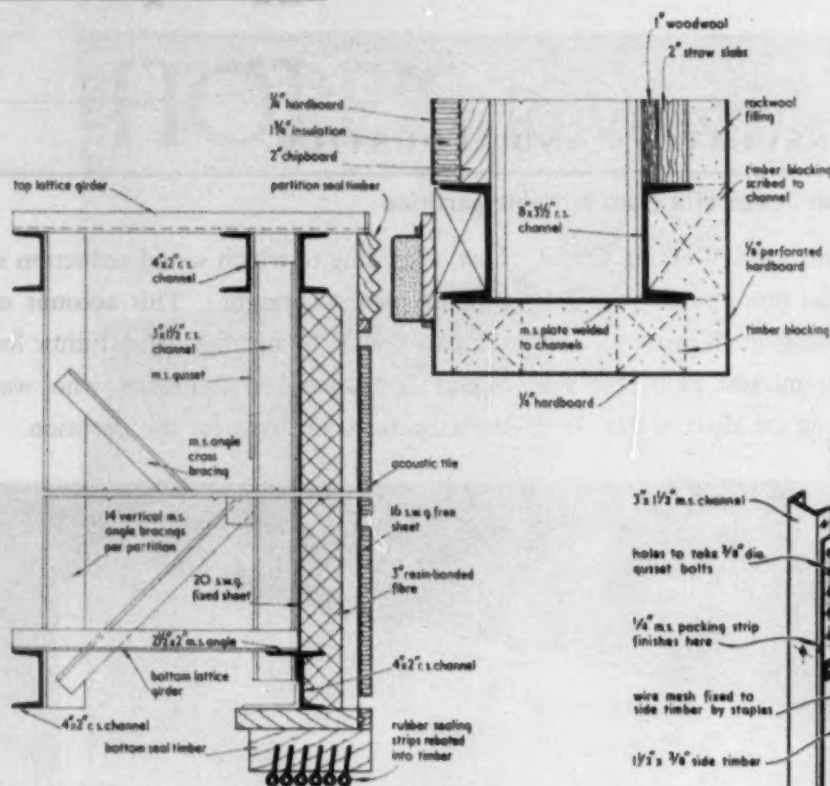


The decision to design Associated Rediffusion's new Studio 5 at Wembley (architects, Farms and Partners) in the form of two equal parts with a removable wall between them so that they could be combined into a very large studio, was strongly influenced by the possibility of obtaining enough sound insulation. The clients stated that it was required to conduct the noisiest kind of activities in one of the studios such as scenery erection or rehearsal of a large orchestra, and yet be able to broadcast a programme from the other studio at the same time without interference. To get an idea of the insulation required, measurements were made between two existing studios at Wembley which adjoin, but have no communicating doors except through devious routes. It was known from experience that the insulation between these studios was just barely sufficient. The results showed

an average sound pressure level difference over the frequency range 100-3,200 c/s of 58 dB and this was adopted as the rigid specification for minimum insulation of the new movable partition for Studio 5.

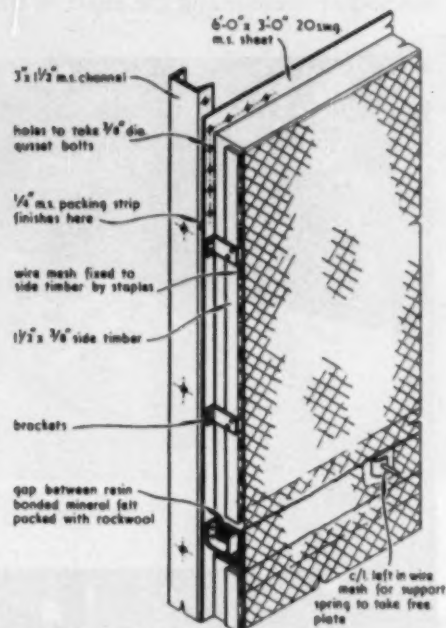
It was decided that the only hope of achieving a value as high as this was to employ two separate partitions with a large space between them so as to gain as much as possible from the "cavity" effect. To make a single leaf partition capable of providing the necessary insulation a mass value of about 100 lb./sq. ft. would have been needed and the door could have weighed 200 tons or even more. The use of two partitions also enabled the whole structure to be split into two parts with a superior kind of expansion joint down the middle so that any indirect transmission of sound would be kept down to a very low value. The ground underneath and the roof covering of

## technical section



Left, section through head and foot of door and the lintel (Scale: 1" = 1' 0")

Below, axonometric showing general construction of door



the door lift penthouse are in fact the only parts of the building which are continuous across the insulation joint. All service pipes are provided with flexible couplings and the air systems in the two studios are independent.

Messrs. George W. King undertook to provide two doors to meet the stated specification. Even making generous allowance for the enhanced insulation provided by the cavity, it still appeared to be necessary to think in terms of the two partitions with an acoustic weight of about 15 lb. per sq. ft. each. However, it was known that if a partition of minimum stiffness and a certain mass could be devised, an insulation in excess of the mass value might be obtained.

#### Evasion of "Mass Law"

In Germany, W. Kuhl had designed such partitions for television studios at Munich and had achieved a value of 49 dB from a pair of them. The method adopted was to form each partition of two thin steel sheets, one of which was rigidly secured to the supporting framework, the other being supported only at intervals by soft steel springs. This second sheet was thus a "non-stiff" leaf and could provide increased insulation. Sound absorbent material is enclosed between the two sheets. Although the insulation value given by the Munich doors was far below that required at Wembley, it was considered that with more care and attention to detailing and manufacture at edge seals and with a larger space between them, it was probable that even better insulation could be obtained.

To try and ensure a successful outcome it was arranged to make a prototype sample on the Kuhl principle

(only 7 ft. 6 in. by 9 ft. 6 in.) which was measured at the N.P.L. The results of the measurements seemed promising, although it was still not known for certain whether the full scale door would behave exactly the same way as the small sample or whether the necessary approximations which had to be made in edge treatment and sealing would invalidate the test.

To ensure maximum insulation gain from the cavity between the two partitions it was necessary to make this space acoustically "dead." This was done by mounting a very large quantity of sound absorbent material (rock wool mats) on the partition stiffening girders, and by treating all the available wall surfaces with sound absorbent materials. In this way the reverberation time in the cavity was kept to a value lower than that in the two studios themselves.

#### Use of multiple line seals

It was obviously necessary to ensure that all chances of sound leakage round or past the partition were eliminated because overall insulation always depends on that provided by the weakest path. The sealing problem is not too difficult with doors weighing many tons because large forces for compression are auto-



matically available. However, careful design is necessary to ensure reliable trouble-free operation and a system of multiple line seals was used in preference to simple compression between flat surfaces. The raising and lowering action is converted into an inward swinging action just before the door reaches its lowest position so that all seals are properly compressed. It was necessary to regulate the forces very carefully and provide properly adjusted checks so that, for example, the whole weight of the door could not be transferred on to the bottom seal and so crush it beyond its capabilities.

For the same reasons the spandrels above the door opening extending from about 30 ft. above studio floor to the roof at 55 ft., had also to be designed to give comparable insulation to that of the door. As these spandrels have to be carried by roof trusses they could not be made of heavy masonry, which would have ensured the necessary insulation without any possibility of failure. The construction adopted was a multiple barrier consisting of 2 in. strawboard over 1 in. wood wool slabs on both sides of the steelwork (see drawing). All joints and scriptions were carefully sealed with mastic, and on both of the outsides of this further sound absorbent treatment was applied. A number of personnel doors penetrate the division at the studio floor level and at the various lighting galleries. These are special sheet steel doors with excellent sealing arrangements and having a tested insulation of about 42 dB. There are, of course, two doors, one on each side of the large cavity at each access point.

#### Resulting sound reduction

The result (average sound pressure level difference) of the final tests was 68 dB, thus exceeding the specification value by a handsome margin. In fact, in the writer's experience this is the highest value of insula-

tion ever obtained from a movable partition. Some idea of its effectiveness was obtained at a preliminary trial when recordings of music were played through about fifteen very large loudspeakers fed with more than 400 watts of audio power in one studio (producing an almost literally deafening noise) and the sound on the other side was just barely audible if one listened very carefully.

To sum up the sound insulation achievement, a comparison is given below between the sound reduction index (a value which ignores the special acoustic conditions prevailing in studios and which enhances the overall insulation values) of a single door and the "mass" value which would be predicted from the weight used.

Single door sound reduction index 43 dB (average).

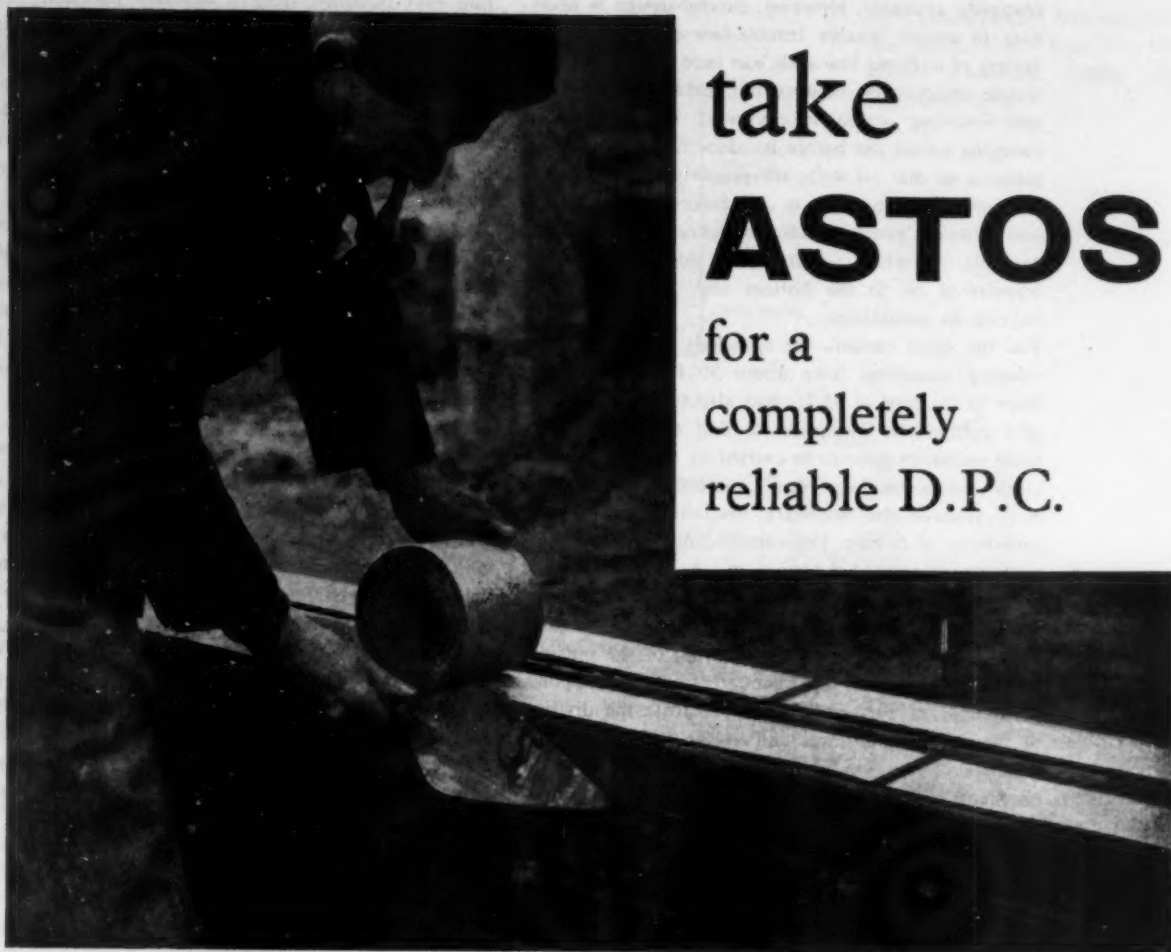
"Mass" value for single partition of the same weight 29 dB (average).

Finally, a few details of the mechanical design are appended. Each door is approximately 90 ft. long and 30 ft. high and weighs approximately 23 tons of which only 5 tons is "acoustic" weight, the remainder being for the stiffening structure. The doors were designed to withstand a wind pressure of 3 lb. per sq. ft. Each door is lifted through 30 ft. by two crab winches at a rate of 1 ft. per minute. Electronic control gear is employed to ensure that the door remains level throughout the lifting operation and to compensate for any uneven stretch of the steel ropes. Safety "snags" are incorporated to hold the door in any emergency, such as failure of the lifting gear or ropes. Operation is by push button control with emergency stop for any position. The surface towards the studios has acoustic tiles fixed to the spring mounted steel sheet to provide reverberation control in the studio. These tiles were found to give a very small improvement in the insulation value but this is not their primary object and the door would have provided the specified insulation without them.

A good DRAUGHTS  
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## technical section

INFORMATION  
CENTRE

(97)

727

10.193 design: building types

## FUEL CONSUMPTION

*Fuel Consumption in Schools. Second Supplement: Tests with Coal fired Automatic Stoker Warm Air System. MOE Bulletin 13. HMSO, 1s.*

The first supplement on fuel consumption in schools established that warm air heating using a fully intermittent heat source (oil) was economical. This supplement shows that warm air heating can also be provided economically using solid fuel. It shows too that the use of full automatic controls (including an outside thermostat) pays off handsomely.

A

711-1

4.88 planning: urban and rural

## CITIZEN'S GUIDE

*A Citizen's Guide to Housing and Urban Renewal in Philadelphia (2nd Edition). Philadelphia Housing Association, Philadelphia. Two dollars.*

The second edition of the *Citizen's Guide* is not only a comprehensive review of the current urban renewal schemes within the city of Philadelphia. It ranges widely over a number of topics and sets out the aims of city redevelopment together with the ideas behind them. Moreover, it explains in detail and step by step the processes by which redevelopment is achieved and which agencies are involved. "Citizen participation" is emphasised throughout and there is an extensive bibliography of American publications for further reading.

This makes the *Guide* an elaborate document for the ordinary citizen, but the concept behind it—that the public should know about and take a share in the complex process of redevelopment—is an excellent one. These techniques have been developed by American planning officials since they are more directly dependent on public support than is the case here. British planning officers would be well advised to look at this example, not to copy it (American city government is quite different from our own) but to see if they cannot learn to sell their own ideas on redevelopment a little more effectively. In a more specialised sphere the *Guide* is of particular value as a work of reference to planners interested in American cities and American urban studies.

US File No.

B

USC No.

69-003-13

From the beginning of the first full pay week in October, the following changes take place in the wages structure of the industry. There is now a uniform rate (which was the Inner London rate) in the London District and all remaining Grade A1 localities have been reclassified Grade A. Increases have taken place in the prices of certain types of bricks, sand, shingles and stone, but slight decreases are recorded in respect of lead and copper. The prices are prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors.

## 8 ESTIMATING

## current wage rates, market prices and measured rates

## Wage rates

Rates of wages as from October 3, 1960, are as follows:

	Craftsmen		Labourers	
	s	d	s	d
London District	5	1	4	5½
Liverpool and District	5	1	4	5½
Grade classification				
A	4	11½	4	4

## Market prices

Prices are given for the major items in each trade, they are intended as average prices and include delivery in the London area. They do not include overhead charges and profit.

## Measured rates

Prices are for work carried out in the London area and include 10% to cover overhead charges and profit except in the case of work which would be carried out by specialists when 5% has been allowed. The prices given in italics represent the total value of the materials included in the measured rates, including an allowance for waste and 10% for overhead charges and profit. The cost of labour included in the measured rates (including its proportion of overhead charges and profit) can be ascertained by subtracting the prices in italics from the prices in heavier type.

## Abbreviations

Inches: in. Feet: ft. Yards: Y. Yards cube: YC. Yards super: YS. Feet cube: FC. Feet super: FS. Ton: T. Feet run-FR. Thousand: M. Square: Sq. Number: No. Hundredweight: C. Pound: lb. Gallon: Gal.

## Preliminaries

To all estimates based on prices for measured rates add, if required, for Preliminaries, water, insurances, etc., depending on the nature of the job.

## Price changes

\* Shows changes in market prices and measured rates since the last issue (June 30, 1960).



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## technical section

## EXCAVATOR

## Market prices

Carting away, up to 8 miles	YC	s	d
Hand loaded	*7	9	
Machine loaded	*6	6	
Hardcore	YC	*10	6

## Measured rates

## Hand excavation and disposal

NB: the following are applicable to excavation in heavy soil.

Excavating over site to remove top soil and vegetable matter, 6 in. deep	YS	1	4
As above, 12 in. deep	YS	2	8

Excavating over site to reduce levels and getting out	YC	*10	9
---	----	-----	---

Excavating for basement and getting out	YC		
Depth up to 5 ft.	*12	1	
Depth between 5 & 10 ft.	*17	5	
Depth between 10 & 15 ft.	*22	10	

Excavating surface trenches and ditto	YC		
Depth up to 5 ft.	*14	9	
Depth between 5 & 10 ft.	*20	2	
Depth between 10 & 15 ft.	*25	6	

Excavating basement trenches and ditto	YC		
Commencing 5 ft. below existing ground level	*20	2	
Commencing 10 ft. below existing ground level	*25	6	
Commencing 15 ft. below existing ground level	*30	10	

Wheeling surplus excavated material not exceeding 100 yards and depositing	YC	5	4
--	----	---	---

Add to last for: Roughly spreading and levelling	YC	1	7
Spreading, levelling and consolidating to make up levels	YC	3	6

Returning, filling-in and well ramming excavated material around foundations	YC	*4	9
--	----	----	---

Loading surplus material into lorries and carting to tip, not exceeding 8 miles	YC	*16	0
---	----	-----	---

Excavating from spoil heaps selected top soil, wheeling not exceeding 100 yards, and spreading, levelling and consolidating, not exceeding 6 in. to receive turf	YS	2	4
--	----	---	---

## Mechanical excavation and disposal

Excavating for shallow surface excavation and loading into lorries or dumpers (using $\frac{1}{2}$ yd. cube excavator)	YC	3	0
--	----	---	---

Excavating for surface excavation and removing,			
---	--	--	--

spreading and levelling not exceeding 200 yds. (using 6 yd. cube scraper)	YC	2	11
---	----	---	----

Removing excavated material and depositing, not exceeding 200 yds. (using 3 yd. cube dumper)	YC	2	2
--	----	---	---

## Planking and strutting

Planking and strutting to sides of surface or basement excavation	FS		
---	----	--	--

Depth up to 5 ft.	*9		
Depth up to 10 ft.	*11		
Depth up to 15 ft.	*1	1	

Planking and strutting to sides of surface and basement trenches	FS		
--	----	--	--

Depth up to 5 ft.	2		
Depth up to 10 ft.	3 $\frac{1}{2}$		
Depth up to 15 ft.	4		

## Hardcore, etc.

Hardcore filled-in in layers, each layer well rammed	YC	*21	7
		14	5

Bed of ditto, 4-in. thick	YS	*3	7
		1	7

## CONCRETOR

## Market prices

Portland cement, 6 tons and over	T	111	6
----------------------------------	---	-----	---

Rapid hardening, 6 tons and over	T	122	0
----------------------------------	---	-----	---

$\frac{3}{4}$ -in. down, washed, crushed and graded shingle	YC	*18	6
---	----	-----	---

1 $\frac{1}{2}$ -in. ditto	YC	*18	0
----------------------------	----	-----	---

Sharp sand	YC	*21	6
------------	----	-----	---

$\frac{3}{8}$ -in. diam. mild steel rods to BS 785 delivered station	T	860	0
--	---	-----	---

$\frac{3}{8}$ -in. ditto	T	922	6
--------------------------	---	-----	---

## Measured rates

Portland cement mass concrete in foundations, etc.	YC		
--	----	--	--

1 : 12, 1 $\frac{1}{2}$ -in. "all-in" aggregate	*61	2	
	39	2	

1 : 3 : 6, 1 $\frac{1}{2}$ -in. aggregate	*70	10	
	48	11	

1 : 2 : 4, $\frac{3}{4}$ -in. aggregate	*77	9	
	55	10	

1 : 1 $\frac{1}{2}$ : 3, $\frac{1}{2}$ -in. aggregate	*83	2	
	61	3	

Add for: Working around rod or mesh reinforcement	YC	5	4
--	----	---	---

Walls not over 6-in. thick	YC	*26	10
Walls 6-in. to 12-in. thick	YC	*18	9
Walls over 12-in. thick	YC	*13	5

Columns not over 72 sq. inches	YC	*51	0
--------------------------------	----	-----	---

Columns 72 to 144 sq. inches	YC	*40	3
------------------------------	----	-----	---

Columns over 144 sq. inches	YC	*32	3
-----------------------------	----	-----	---

Suspended floors and roofs not over 4 $\frac{1}{2}$ -in. thick	YC	*21	6
--	----	-----	---

Suspended floors over 4 $\frac{1}{2}$ -in. to 6-in. thick	YC	*18	9
---	----	-----	---

Suspended floors over 6-in. to 12-in. thick	YC	*16	1
---	----	-----	---

Beds not over 4 $\frac{1}{2}$ -in. thick	YC	*10	9
--	----	-----	---

Beds 4 $\frac{1}{2}$ -in. to 6-in. thick	YC	*8	1
--	----	----	---

Beds 6-in. to 12-in. thick	YC	2	8
----------------------------	----	---	---

Hollow tile floor of clay tiles 4-in. thick at 15-in. centres laid on formwork (measured separately), nibs filled in with concrete (1 : 2 : 4) and finishing top of tiles with bed of concrete 1 $\frac{1}{2}$ -in. thick including tamping around reinforcement (measured separately)	YS	*18	3
		10	7

Ditto, but tiles 8-in. thick	YS	*28	0
		18	3

## Sundries

Finishing concrete with trowelled face to receive linoleum	YS	1	4
--	----	---	---

Applying horizontal damp-proof membrane of Synthaprupe in three coats to surface of concrete and blinding with sand to form key	YS	*5	11
		4	1

Supplying floor clips (p.c. 6d. each) and fixing	No.	1	1
--	-----	---	---

## Formwork

Formwork including strutting easing and striking:			
---	--	--	--

Vertical faces of foundation	YS	*19	8
		10	2

Vertical faces of wall	YS	*20	3
		7	3

Soffite of floors not over 12-ft. high	YS	*20	1
		9	0

Sloping soffit of stairs	YS	*24	3
		9	10

Sides of columns	FS	2	7
		11	

Sides and soffits of lintols and beams	FS	2	9
		1	1

Add to the above for wrot formwork including rubbing down concrete	YS	2	8
--	----	---	---

## Reinforcement

$\frac{3}{8}$ -in. diameter mild steel rods, hooked, bent and tied and fixing	C	*69	10
		52	3

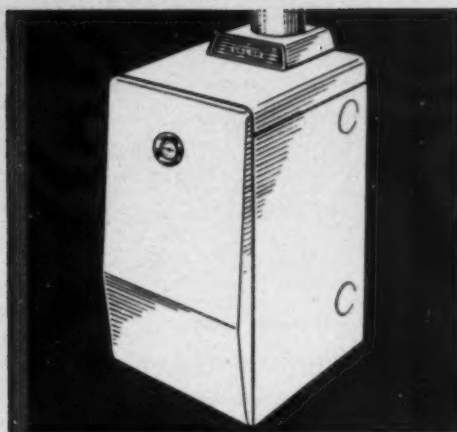
$\frac{1}{2}$ -in.	C	*75	5
		54	2

$\frac{3}{4}$ -in.	C	*82	4
		55	11

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Radiators only	3-4	5-8	8-11
Total loading including mains to radiators	100 sq. ft.	200 sq. ft.	270 sq. ft.
Hot water & radiators	30 galls. 50 sq. ft.	30 galls. 150 sq. ft.	30 galls. 220 sq. ft.
Maximum fuel consumption per hour	1 pt.	2 pts.	3 pts.



## technical section

## Concretor continued

1-in.	C	*96 8
		60 8

Steel wire mesh fabric weighing 4.32 lb. per yd. super and laying in concrete

YS	4 1
	3 5

Ditto weighing 6.57 lb. per yd. super

YS	6 0
	5 3

Ditto weighing 9.32 lb. per yd. super

YS	8 6
	7 4

## Precast concrete

Precast concrete (1 : 2 : 4) finished fair on exposed faces and hoisting setting and jointing:

4½-in. × 6-in. lintels reinforced with one ½-in. rod	FR	2 11
		2 5

4½-in. × 9-in. ditto with two ½-in. rods	FR	4 5
		3 7

## Piling

Reinforced pre-cast concrete piles, approximate prices for supplying, unloading, pitching and driving

12-in. × 12-in. up to 30 ft. long	FR	35 0
14-in. × 14-in. up to 50 ft. long	FR	41 0
Sheet steel piling, ditto	T	*1165 0
		to
		*1230 0

## BRICKLAYER

## Market prices

Soft sand	YC	*18 6
Hydrated lime	T	110 0
Plain Flettons	M	*122 0
Second hand stocks	M	335 0
Lingfield Engineering wire cuts Grade B	M	*275 0
Hessian base damp-course to BS 743	YS	5 8
Damp course slates, 14" × 9" 100		*73 9
Wall ties, galvanised	100	15 8

## Partitions

Clinker concrete, solid	YS	
2½-in.		5 7
3-in.		7 1
4½-in.		9 4

## Thermalite

YS	
2½-in.	7 0
3-in.	8 5
4-in.	11 0

## Hollow clay

YS	
2½-in.	*4 6
(6 cavity) 3-in.	*5 7
(ditto) 4-in.	*7 0

Normal quality wood wool slabs

YS	
2-in.	8 10
2½-in.	10 2
3-in.	11 5

## Measured rates

Reduced brickwork in cement lime mortar, Lingfields in cement mortar

YS	
Flettons	*34 11
	17 10
Second stocks	*57 10
	40 10
Lingfield Grade B	*54 6
	34 11

Half brick wall ditto

YS	
Flettons	*19 3
	8 6
Second stocks	*30 9
	19 11
Lingfield Grade B	*29 8
	16 11

11-in. hollow wall with 2-in. cavity and wall ties

YS	
Flettons	*41 11
	17 4
Second stocks	*64 11
	40 3

One brick wall built fair and pointed both sides

YS	
Flettons	*41 11
	17 10
Second stocks	*64 11
	40 9
Lingfield Grade B	*60 5
	34 11

## Sundries

Extra over common brickwork for internal fair face and flush pointing

Horizontal damp-proof course of two courses of slates and bedding and pointing	FS	*4	2
		2	

Horizontal damp-proof course of hessian base bitumen

FS	1 0
	9

## Facings

Extra over ordinary brickwork with bricks P.C. 122s. per 1,000 for facings as described

To solid wall in Flemish bond

YS	
Facings P.C. 250s. per M	*15 11
	9 4
Facings P.C. 350s. per M	*23 3
	16 7
Facings P.C. 450s. per M	*30 6
	23 10

To cavity wall in stretcher bond

YS	
Facings P.C. 250s. per M	*13 2
	7 1
Facings P.C. 350s. per M	*18 9
	12 8
Facings P.C. 450s. per M	*24 4
	18 2

Half brick wall in facings built fair and pointed on one side

YS	
Facings P.C. 250s. per M	*31 3
	16 1
Facings P.C. 350s. per M	*36 9
	21 7
Facings P.C. 450s. per M	*42 4
	27 2

## Partitions

Clinker concrete solid partition blocks and setting in cement lime mortar

YS	
2½-in.	*12 4
	6 10
3-in.	*15 1
	8 8
4½-in.	*19 1
	11 5

Thermalite ditto

YS	
2½-in.	12 11
	8 6
3-in.	*15 4
	10 3
4-in.	*19 6
	13 4

Hollow clay ditto

YS	
2½-in.	*11 1
	5 7
(6 cavity) 3-in.	*13 4
	6 11
(ditto) 4-in.	*16 4
	8 8

Wood wool slabs ditto

YS	
2-in.	*14 4
	10 6
2½-in.	*16 7
	12 2
3-in.	*18 10
	13 9

## DRAINLAYER

## Market prices

Salt glazed stoneware pipes and fittings. "Best" quality:

Ordinary pipes	FR	
4-in.		1 6
6-in.		2 3
9-in.		4 0½
Bends	No.	
4-in.		4 6
6-in.		6 9
9-in.		18 2½

Pitch fibre pipe

FR	
3-in.	1 10½
4-in.	2 6
6-in.	5 0½

Cast iron s. and s. pipe to BS 437

YR	
4-in.	29 7
6-in.	43 4
9-in.	81 1

Spun iron s. and s. pipe to BS 1211, Class B

YR	
4-in.	13 11
6-in.	21 10
9-in.	36 6

## Measured rates

## Trenches and beds

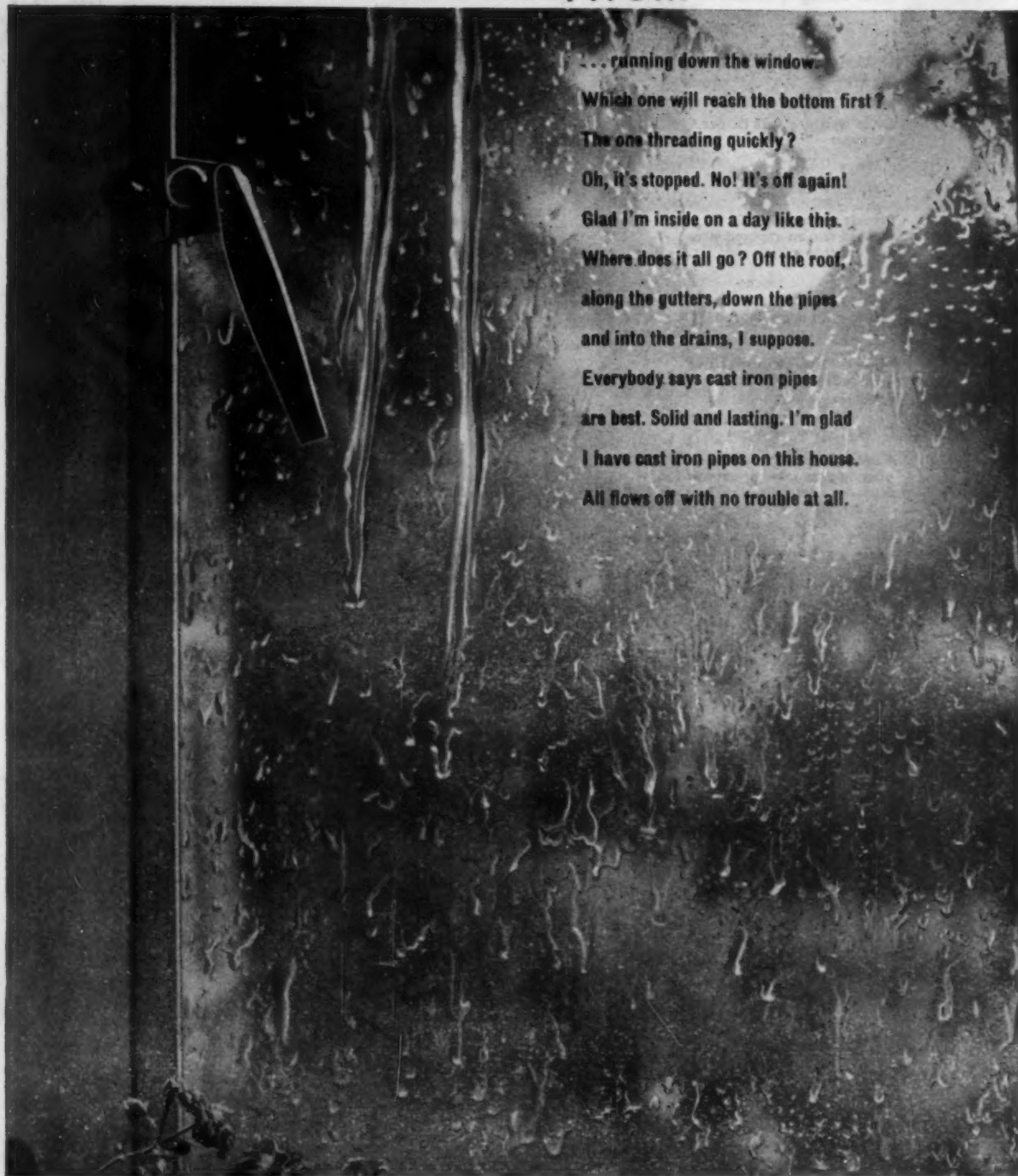
Excavate trenches by hand in heavy soil, including planking and strutting, part returning, filling and ramming and wheeling and spreading surplus, for pipes 4-in., 6-in. and 9-in. dia.

Average depth of trench	3-ft.	*18	0
	4-ft.	*24	0
	6-ft.	*41	3

Excavate trench as last but by mechanical trencher

Average depth of trench	3-ft.	*13	7
	4-ft.	*18	7
	6-ft.	*33	8
	9-ft.	*55	8

## WATCH THOSE TWO...



...raining down the window.  
Which one will reach the bottom first?  
The one threading quickly?  
Oh, it's stopped. No! It's off again!  
Glad I'm inside on a day like this.  
Where does it all go? Off the roof,  
along the gutters, down the pipes  
and into the drains, I suppose.  
Everybody says cast iron pipes  
are best. Solid and lasting. I'm glad  
I have cast iron pipes on this house.  
All flows off with no trouble at all.



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## technical section

## Drainlayer continued

6-in. concrete bed and benching for 4-in. pipes	YR	*9	9
		5	10
As above, for 6-in. pipes	YR	*11	5
		6	10
6-in. concrete bed and surround for 4-in. pipes	YR	*15	11
		9	6
As above, for 6-in. pipes	YR	*19	2
		11	6

## Stoneware drains

"Seconds" quality salt-glazed stoneware drain pipes and laying and jointing in trench

FR	
4-in.	2 4
	1 7
6-in.	3 4
	2 4
9-in.	5 5
	4 3

"Best" quality salt-glazed stoneware drain pipes and laying and jointing in trench

FR	
4-in.	2 7
	1 10
6-in.	3 9
	2 9
9-in.	6 2
	4 11

Extra over "Seconds" quality pipes for:

## Bend

No.	
4-in.	3 7
	3 0
6-in.	5 2
	4 6
9-in.	14 11
	14 2

## Single junction

No.	
4-in.	6 2
	4 7
6-in.	8 10
	6 11
9-in.	18 10
	16 7

## Double junction

No.	
4-in.	10 4
	7 8
6-in.	14 9
	11 7
9-in.	28 9
	25 0

## Stoneware gullies

Salt-glazed trapped gully with galvanised grating including setting gully on and surrounding with concrete and jointing to drain

No.	
6 in. x 6 in. grating 4 in. outlet	*25 2
	20 8

9 in. x 9 in. grating 6 in. outlet	*46 2
	40 6

Grease and mud gully 9-in. diameter with 4-in. outlet galvanised bucket and grating and setting gully on and surrounding with concrete and jointing to drain

No.	
	*87 0
	75 4

Road gully with 6-in. outlet including setting on and surrounding with concrete and jointing to drain

No.	
15-in. dia. 30-in. deep	*117 11
	94 2

18-in. dia. 43-in. deep	*235 9
	196 5

## Pitch fibre drains

Pitch fibre drain pipes and laying and jointing in trench

FR	
3-in.	2 3
	2 14
4-in.	2 11
	2 94
6-in.	5 10
	5 8

Extra over pitch fibre pipe for 45° sweep bend

No.	
3-in.	10 0
	9 1
4-in.	14 6
	13 7
6-in.	27 8
	26 7

## Cast iron drains

Cast iron spigot and socket drain pipes and laying and jointing in trench

FR	
4-in.	13 9
	11 6
6-in.	19 11
	17 0
9-in.	37 11
	31 9

Extra over cast iron pipes for bend

No.	
4-in.	*31 7
	24 11
6-in.	*73 9
	63 11
9-in.	*188 6
	171 7

Spun cast iron spigot and socket drain pipes and laying and jointing in trench

FR	
4-in.	7 8
	5 6
6-in.	11 6
	8 9
9-in.	*20 8
	14 9

## Cast iron gullies

Cast iron gully trap with high invert and setting on and surrounding with concrete and jointing to drain

No.	
4-in.	*44 7
	37 2
6-in.	*110 2
	99 7
9-in.	*247 7
	232 8

## ASPHALTER

## Measured rates

Damp proof course and tanking

1-in. vertical damp proof course in two thicknesses on brick or concrete

YS	
BS1097	17 4
BS1418	21 6

1-in. horizontal damp proof course in one thickness on brick or concrete

YS	
BS1097	10 6
BS1418	13 8

Vertical tanking in three thicknesses

YS	
BS1097	24 8
BS1418	29 11

Horizontal tanking in three thicknesses

YS	
----	--

BS1097	17 4
BS1418	25 2

## Roofing

1-in. flat laid to falls in two thicknesses on and including felt underlay

YS	
BS908	12 1
BS1162	18 5

6-in. skirting with angle fillet at bottom and rounded edge at top turned into groove

FR	
BS908	2 1
BS1162	2 7

6-in. fascia with solid water check roll at top and undercut drip at bottom

FR	
BS908	4 2
BS1162	4 9

## PAVING

## Market prices

Granite chippings, 1/2 in. to dust

T	*8 7
---	------

Red quarry tiles, 6 in. x 6 in. x 1/2 in.

YS	13 8
----	------

2-in. Noelite paving

YS	13 11
----	-------

## Measured rates

Cement and sand floated screed to receive pavings

YS	
1/2-in.	*4 3
	2 4
1-in.	*5 1
	3 0
1 1/2-in.	*5 9
	3 5

Cement and sand paving trowelled hard and smooth

YS	
1/2-in.	*4 9
	2 4
1-in.	*5 8
	3 0
1 1/2-in.	*6 3
	3 6

Granolithic paving laid on concrete

YS	
1-in.	*7 6
	5 3
1 1/2-in.	*9 7
	6 10

1-in. red composition paving laid on prepared screed

YS	16 6
----	------

1-in. terrazzo paving laid on prepared screed

YS	38 4
----	------

1-in. rubber flooring and laying in rolls

YS	39 5
----	------

1-in. rubber flooring and laying in rolls

YS	63 0
----	------

1/2-in. cork tile flooring, 12 in. x 12 in. and fixing with mastic and including polishing

YS	39 5
----	------

1-in. thermoplastic tile flooring and laying-on screed


YS	11 3
to	17 3

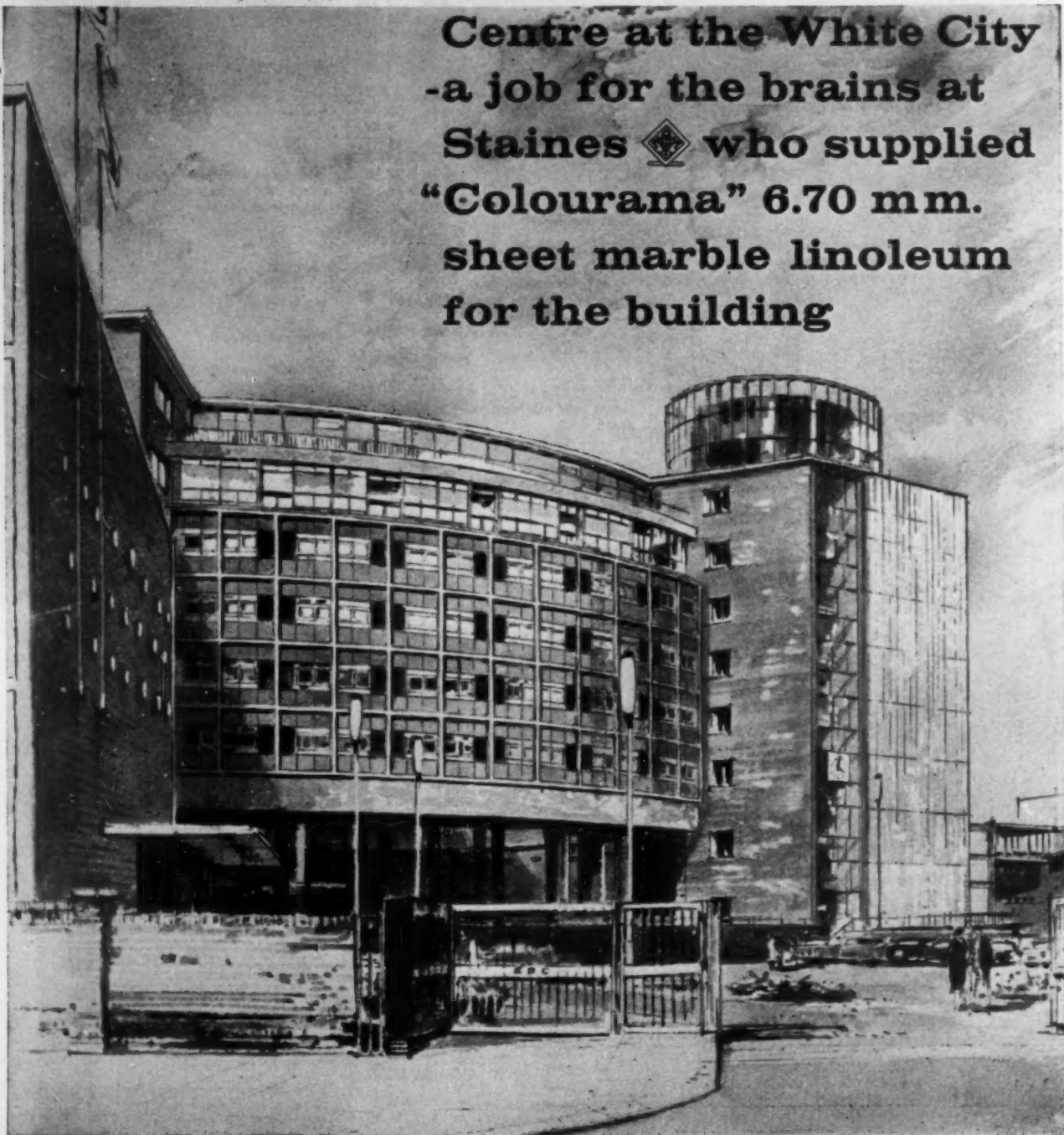
4.5mm coloured linoleum and fixing with mastic to cement screed or boards

YS	21 9
----	------



ARCHITECTS: *Norman & Dawbarn, 7 Portland Place, W.1.*  
*Staines Colourama Linoleum installation by*  
*The Limmer & Trinidad Lake Asphalt Company Ltd.*

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## technical section

## Pavior continued s d

3-2 mm. coloured linoleum and fixing with mastic to cement screed or boards YS 19 9

$\frac{1}{2}$ -in. red quarry tiles laid on prepared screed YS \*25 2

$\frac{7}{8}$ -in. red quarry tiles laid on prepared screed YS \*28 4

2-in. Noelite paving laid on prepared bed, in random sizes and mixed colours YS 20 5  
16 1

12 in. x 12 in. anchor steel plates laid complete YS 60 0

## MASON

## Market prices

Stone in blocks in truckloads at stations in the London area:

Beer FC \*10 6

Portland FC \*9 10

Woodkirk Blue building quality FC \*19 2

Broughton Moor slate in blocks at stations in the London area FC 60 0

Marble in blocks at works: Dove FC 70 0

Roman stone FC 65 0

## Measured rates

Stone and all labours in pilasters and quoins FC

Portland 55 2

Beer 52 6

Jambs FC

Portland 57 9

Beer 55 0

Lintels FC

Portland 58 10

Beer 56 0

Arches FC

Portland \*71 11

Beer \*68 6

Ashlar average 7-in. on bed with plain dressed face FS

Portland 32 7

Beer 31 0

Extra for each additional 1-in. thickness FS

Portland \*4 3

Beer \*4 1

$\frac{1}{2}$  in. x 4 in. sill sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar FR

Portland 11 9

Beer 11 2

Artificial \*5 1

4 in. x 12 in. coping, weathered and twice throated FR

Portland \*22 7

Beer \*21 6

Artificial \*12 3

## Marble and slate

$\frac{3}{4}$ -in. Dove marble lining and fixing on brick backings FS 37 10

$\frac{1}{2}$ -in. Roman stone lining FS 35 9

$\frac{1}{2}$ -in. Broughton Moor slate lining FS 27 3

## SLATER, TILER AND ROOFER

## Market prices

Welsh slates, best quality M

16-in. x 10-in. 1042 9

20-in. x 10-in. 1923 6

Best hand made sand faced plain tiles, 10 $\frac{1}{2}$ -in. x 6 $\frac{1}{2}$ -in. M 323 6

Grey corrugated asbestos cement sheets YS 7 0

## Measured rates

16-in. x 10-in. best Welsh slates laid 3-in. lap Sq. 293 0

20-in. x 10-in. best Welsh slates, 3-in. lap Sq. 397 0

Westmorland green slates in random sizes laid 3-in. lap Sq. 603 0

Best hand made sand faced plain tiles, 10 $\frac{1}{2}$  in. x 6 $\frac{1}{2}$  in. laid to a 4-in. gauge Sq. 215 6

Best hand made sand faced plain tiles, 10 $\frac{1}{2}$  in. x 6 $\frac{1}{2}$  in. hung vertically to 4 $\frac{1}{2}$ -in. gauge Sq. 236 0

Berkshire hand made sand faced red pantiles, 14 $\frac{1}{2}$  in. x 10 in. laid 2 $\frac{1}{2}$ -in. head and 1 $\frac{1}{2}$ -in. side lap Sq. 211 0

Grey corrugated asbestos cement sheets fixed to wood roofs Sq. 123 0

Grey corrugated asbestos cement sheets fixed vertically Sq. 133 0

Cedarwood shingles laid 5-in. gauge Sq. 245 0

Metal roof decking and fixing with hook bolts, finished with  $\frac{1}{2}$ -in. insulation board and three layers self finish felt roofing YS

18 gauge for spans up to 10 ft 60 6

20 gauge for spans up to 8 ft. 6 in. 52 6

Two layer one ply bitumen felt and fixing with bitumen to concrete or boarding YS 9 6

Three layer bitumen felt YS 12 7

Patent ribbed aluminium roofing and fixing to purlins Sq. 297 6

## CARPENTER

## Market prices

Softwood, carcassing quality Std. 1840 0

Softwood, joinery quality Std. 2300 0

$\frac{1}{2}$ -in. fibre board Sq. 46 6

$\frac{1}{2}$ -in. standard hardboard Sq. 40 0

$\frac{3}{4}$ -in. insulating gypsum wallboard YS 3 0

## Measured rates s d

Softwood and fixing in plates, sleeper joists and lintels FC 15 4  
13 4

In floor and ceiling joists FC \*17 11  
13 4

In stud partitions, purlins and struts FC \*20 2  
13 4

In hip and valley rafters FC \*23 0  
13 4

## Battening and boarding

Slate or tile battens 1 $\frac{1}{2}$  in. x  $\frac{3}{4}$  in. and nailing to fixing for Sq.

16-in. x 10-in. slating to 6 $\frac{1}{2}$ -in. gauge 39 9

20-in. x 10-in. slating to 8 $\frac{1}{2}$ -in. gauge 29 6

10 $\frac{1}{2}$ -in. x 6 $\frac{1}{2}$ -in. plain tiling to 4-in. gauge 58 0

14 $\frac{1}{2}$ -in. x 10-in. pantiles to 12-in. gauge 21 0

S.E. boarding in batten widths close jointed and fixing to flat or sloping roofs Sq.

$\frac{3}{4}$ -in. 120 0

85 0

1-in. 147 0

112 0

T. & g. boarding in batten widths close jointed and fixing to flat or sloping roofs Sq.

$\frac{3}{4}$ -in. 140 0

96 0

1-in. 171 0

127 0

$\frac{3}{4}$ -in. wrot and cross tongued eaves soffit FS 2 3  
1 0

$\frac{3}{4}$ -in. x 6-in. wrot and grooved eaves fascia p.o. FS 10 6

Wall and ceiling beads fixed to softwood YS

$\frac{1}{2}$ -in. fibre board 6 10  
5 0

$\frac{1}{2}$ -in. hardboard 5 10  
4 4

$\frac{3}{4}$ -in. insulating gypsum wallboard 5 7  
3 9

$\frac{3}{8}$ -in. asbestos cement flat sheeting \*8 11  
4 11

$\frac{1}{2}$ -in. asbestos cement flat sheeting \*10 8  
6 8

2-in. Stramit, showerproof quality fixed to joists with butt joints \*16 1  
11 6

## JOINER

## Measured rates

## Floors and skirtings

Tongued and grooved soft wood flooring and nailing to joists Sq.

$\frac{3}{4}$ -in. 165 0

124 0

1-in. 190 0

149 0

1-in. nominal double grooved t. and g. Swedish softwood



*Architects:* Messrs. Lanchester & Lodge

10 Woburn Square, London W.C.1.

*Building Contractors:* Messrs. F. B. McKee & Co. Ltd.,

Belfast, Northern Ireland.

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## technical section

## Joiner continued

	s	d
block flooring set in mastic and polished	YS	30 0
European beech	YS	32 6
African Muhuhu	YS	*36 9
Burma teak	YS	*38 9
Moulded skirtings, 3-in. to 6-in. sectional area planted on (per inch in sectional area)	FR	
	Softwood	3 2½
	Oak	10 9
Extra for grounds plugged to brickwork	FR	
	Softwood	10 2
Windows		
2-in. rebated and moulded sashes divided into squares	FS	
	Softwood	3 11
	Oak	11 10
Extra for side hanging	Each	
	Softwood	3 0
	Oak	4 6
Doors		
2-in. framed, ledged and braced doors, filled in with 1-in. t. and g. and V jointed boarding and hanging	FS	
	Softwood	6 8
		5 10
Four panelled door square both sides and hanging	FS	
	Softwood	7 2
		6 5
	Oak	21 2
		20 1
1½-in. Standard flush door, hardboard faced size 2 ft. 6 in. × 6 ft. 6 in. and hanging	No.	*44 6
		32 5
Linings and frames		
Window and door linings, 6-in. to 12-in. sectional area (per inch sectional area)	FR	
	Softwood	4 3
	Oak	10 9
Frames wrought all round and framed (per inch sectional area)	FR	
	Softwood	3½
	Oak	10
Mullions, transoms and sills (per inch sectional area)	FR	
	Softwood	4
	Oak	10
Mouldings, architraves, etc. 4-in. to 6-in. sectional area (per inch sectional area)	FR	
	Softwood	4 3
	Oak	11 10
6-in. window boards, 1-in. thick with rounded nosing tongued at back and including bearers	FR	
	Softwood	3 3
		1 9

	s	d
Oak	*5 10	3 8
Shelving and fittings		
¾-in. shelving of 2-in. slats spaced 1-in. apart on bearers (measured separately)	FS	
	Softwood	2 8
		2 0
¾-in. solid shelving on bearers	FS	
	Softwood	2 5
		2 0
	Oak	4 11
		4 4
2-in. shelf bearers plugged to wall	FR	
	Softwood	8 5½
	Oak	1 4
		1 1
Staircases		
1-in. treads and ¾-in. risers tongued together on and including framed carriages	FS	
	Softwood	5 0
		3 10
	Oak	14 10
		13 2
1½-in. × 11-in. wall string plugged to brickwork	FR	
	Softwood	4 10
		3 9
	Oak	12 7
		11 1
1½-in. × 9-in. outer string	FR	
	Softwood	3 9
		3 1
	Oak	8 0
		7 2
Ends of treads and risers housed to strings	No.	
	Softwood	1 4½
	Oak	7 2
2½-in. × 3-in. moulded handrail	FR	
	Softwood	3 4
		2 8
	Oak	7 1
		6 2
1½-in. × 1½-in. square balusters	FR	
	Softwood	9 6½
	Oak	1 5
		1 2
Framed ends to balusters	No.	
	Softwood	7
	Oak	10

## IRONMONGER

## Market prices

As prices for ironmongery vary so greatly depending upon the type and quality required, no prices are quoted here

## Measured rates

The rates which follow are for fixing only and are inclusive of profit

	s	d
3-in. steel butts	Pr.	
	to softwood	*4 10
	to hardwood	*6 5
Double action floor springs	No.	
	to softwood	*24 2
	to hardwood	*32 2
6-in. barrel bolts		
	to softwood	2 2
	to hardwood	2 11
Cupboard locks		
	to softwood	4 6
	to hardwood	6 0
Cylinder night latch		
	to softwood	*7 7
	to hardwood	*10 1
Mortice latch		
	to softwood	6 0
	to hardwood	8 0
Mortice lock		
	to softwood	*7 7
	to hardwood	*10 1
Casement fastener		
	to softwood	1 10
	to hardwood	2 5
Casement stays		
	to softwood	1 10
	to hardwood	2 5

## STEEL &amp; IRON WORKER

## Market prices

Structural steel joist sections, basis sizes, ex mills T 792 6

Extras for other than basis sizes vary between 10s. and 70s. per ton

## Measured rates

Rsj in steel framed structures hoisted and fixed complete T 1625 0

Riveted compound girders including plates and rivets T 1915 0

Rs stanchions including caps, bases, cleats, etc. T 1885 0

Metal windows including cutting and pinning lugs to brickwork and bedding frames in cement mortar No.

Domestic type 4 ft. high to BS 990

Type ND2F 3 ft. 3½ in. wide \*95 3

Type HD2F 3 ft. 3½ in. wide \*106 3

Type ND11F 6 ft. 6½ in. wide \*162 7

Type ZND1 2 ft. 0½ in. wide \*63 10

Type ZND4F 6 ft. 0½ in. wide \*165 2

Type ZND1 2 ft. 0½ in. wide \*52 5

Type ZND1 2 ft. 0½ in. wide \*134 11

## PLASTERER

## Market prices

Plastering sand YC \*21 6

Plaster to BS 1191

## technical section

## Plasterer continued

Class B in loads of 2 tons  
to 3 tons 19 cwt.

T		
Browning	168	9
Fibred browning	171	9
Board finish	168	9

 $\frac{3}{4}$  in. plaster lath, over  
600 yds.YS 2 3 $\frac{1}{2}$ 6 in.  $\times$  6 in.  $\times$   $\frac{1}{4}$  in. white  
glazed wall tiles

YS 18 3

## Measured rates

## Metal lathing

No. 24 gauge expanded metal  
lathing and fixing

YS

To softwood soffits

6 11  
4 3

To metal

7 8  
4 3

## Lime plaster

Render float and set on brick  
walls and partitionsYS \*7 6  
2 3R.F. and S. on concrete  
including hackingYS \*9 4  
2 3R.F. and S. on expanded  
metal lathingYS \*7 8  
2 5

## Gypsum plaster

Render in cement-lime-sand  
(1 : 1 : 6) and set in gypsum  
plaster on brick walls and  
partitionsYS \*6 0  
1 11Render in gypsum fibred  
browning-sand (1 : 1 $\frac{1}{2}$ ) and  
set in gypsum on concrete  
soffits including bonding  
coatYS \*9 8  
3 7Render and set on expanded  
metal lathing including  
pricking up coatYS \*9 2  
3 11

## Plaster board

 $\frac{3}{4}$ -in. gypsum plaster lath  
fixed to softwood soffits  
finished to receive plasterYS 4 10  
2 10Gypsum board finish setting  
coat on lastYS 4 5  
1 2

## Plain face

 $\frac{1}{4}$ -in. Portland cement and  
sand (1 : 3) plain face  
trowelled smooth on brick  
wallsYS \*6 10  
1 10

## Tyrolese rendering

Render in cement, lime, sand  
(1 : 1 : 6) and finishing with  
three coats patent coloured mix  
preparations applied with  
hand operated machineYS 10 5  
2 5Spreayed "Limpet" asbestos  
Approximate prices for sprayed  
"Limpet" asbestos on the  
following surfaces to the  
thickness shown for  
quantities of 1,000 yds. super.  
Normal pressed finish.  
New concrete soffits and  
beams

YS	
$\frac{1}{4}$ -in.	14 5
$\frac{1}{2}$ -in.	19 8
1-in.	21 9

## New structural steelwork

YS	
$\frac{1}{4}$ -in.	16 6
$\frac{1}{2}$ -in.	21 9
1-in.	23 10

Extra over the above prices  
for coloured texture finish

YS 3 5

## Wall tiling

6 in.  $\times$  6 in.  $\times$   $\frac{1}{4}$  in. standard  
quality white glazed wall  
tiles set and jointed on  
prepared screed

YS \*43 9

Egg shell matt or glossy  
glazed enamelled tiles

YS \*53 9

## EXTERNAL PLUMBER

## Market prices

Sheet lead, 3 $\frac{1}{2}$  lb. and  
upwards, in quantities of  
5 cwt. to 1 ton

C\*111 0

Copper sheeting, 23 gauge,  
in 1-ton lots

C\*330 0

Zinc sheeting, 14 gauge, in  
1-ton lots

C 130 0

Aluminium sheeting 20 SWG C  
Super purity 522 8  
Commercial quality 336 0Cast iron rainwater and  
soil goodsMedium weight pipe to  
BS 416 and BS 460 in  
6 ft. lengths

No.	
3-in.	21 5 $\frac{1}{2}$
4-in.	27 5

Half round gutter in 6 ft.  
lengths

No.	
4-in.	10 6 $\frac{1}{2}$
6-in.	17 3 $\frac{1}{2}$

The above are Standard-List  
prices plus 25%.

## Measured rates

Milled sheet lead

C

Flat roofs\*197 0

Gutters and flashings\*197 0

24 SWG copper sheet

FS

Flat roofs \*5 9

Gutters and flashings \*5 9

23 SWG copper sheet

FS

Flat roofs \*6 6

Gutters and flashings \*6 6

14 gauge zinc

FS

Flat roofs 3 7

Gutters and flashings 3 7

20 SWG super purity  
aluminium

FS

Flat roofs 5 4

Gutters and flashings

s d

5 4

20 SWG commercial quality  
aluminium

FS

Flat roofs

4 1

Gutters and flashings

4 1

## Rainwater gutters and pipes

 $\frac{1}{2}$ -in. cast iron half round eaves  
gutter jointed and fixed to  
fascia with brackets

FR

4-in.

3 7

2 3

6-in.

5 3

3 8

18 gauge pressed steel half  
round eaves gutter

FR

4-in.

3 2

1 11

6-in.

4 3

2 8

Asbestos cement half round  
eaves gutter

FR

4-in.

2 11

1 7

6-in.

4 2

2 7

Aluminium half round  
eaves gutter

FR

4-in.

4 3

2 11

Cast iron medium section  
rain water pipes jointed and  
fixed to walls with pipe nails

FR

3-in.

6 0

4 6

4-in.

7 6

5 9

## Pressed steel

FR

3-in.

4 6

3 0

4-in.

\*6 5

4 7

## Asbestos cement

FR

3-in.

3 10

2 3

4-in.

4 11

3 1

## Aluminium

FR

3-in.

\*5 7

4 0

4-in.

\*7 6

5 8

## Soil and ventilating pipes

Lead soil, waste and ventilat-  
ing pipes (15 lb. per yd. for  
3-in. and 19 lb. per yd. for  
4-in. diameter) fixed to walls  
with lead tacks

FR

3-in.

\*11 6

8 4

4-in.

\*16 0

10 2

Cast iron soil, waste and  
ventilating pipes with caulked  
joints fixed to walls with pipe  
nails

FR

3-in. heavy

7 4

5 3

4-in. heavy

8 11

6 7

Asbestos cement soil and  
ventilating pipe fixed to walls  
with holderbats

FR

3-in.

3 11

2 4

4-in.

5 0

3 2

## technical section

## INTERNAL PLUMBER

## Market prices

Lead pipe in quantities of  
5 cwt. to 1 ton

C	
BS 602*113	3
BS 1085*120	3

Polythene tubing, heavy  
gauge, in quantities of 500  
to 999 ft.

per 100 ft.	
$\frac{1}{4}$ -in. 112	0
$\frac{1}{2}$ -in. 152	6
1-in. 194	6

Steel tubes to BS 1387

medium weight galvanised FR

$\frac{1}{4}$ -in.	0	9
$\frac{1}{2}$ -in.	1	1
$\frac{3}{4}$ -in.	1	5
1-in.	1	8

The above are Standard List  
prices less 37%.

Galvanised malleable fittings.

Bend

No.	
$\frac{1}{4}$ -in.	*2 10½
$\frac{1}{2}$ -in.	*4 4
$\frac{3}{4}$ -in.	*6 2

Tee

No.	
$\frac{1}{4}$ -in.	*1 0½
$\frac{1}{2}$ -in.	*1 5½
1-in.	*2 0½
$\frac{3}{4}$ -in.	*2 10½
$\frac{1}{2}$ -in.	*4 1½

The above are Standard List  
prices less 21½%, less 6½% plus  
40%.

Copper tubes to BS 659

$\frac{1}{4}$ -in.	1	0
$\frac{1}{2}$ -in.	1	4
1-in.	2	1
$1\frac{1}{4}$ -in.	2	6

The above are calculated on a  
basic price of 2s. 3½d. per lb.  
plus C.T.A. extras.

## Measured rates

Lead pipe to BS 602

Main supply and laying in  
trench (measured separately)  
at the following sizes and  
weights in lb.

FR	
$\frac{1}{4}$ -in. 7	*3 9
	2 9
$\frac{3}{4}$ -in. 11	*5 7
	4 4
1-in. 16	*7 10
	6 4
$\frac{1}{2}$ -in. 28	*13 3
	10 11
$\frac{3}{4}$ -in. 35	*17 0
	13 7

Main supply fixed to walls  
and ceilings

FR	
$\frac{1}{4}$ -in. 7	*4 4
	2 10
$\frac{3}{4}$ -in. 11	*6 3
	4 4
1-in. 16	*8 7
	6 5
$\frac{1}{2}$ -in. 28	*14 0
	11 0
$\frac{3}{4}$ -in. 35	*18 4
	13 8

Distributing pipes fixed to  
walls and ceilings

FR	
$\frac{1}{4}$ -in. 4	*3 2
	1 8
$\frac{3}{4}$ -in. 5	*3 8
	2 1
1-in. 7	*4 10
	3 0
$\frac{1}{2}$ -in. 9	*5 8
	3 10
$\frac{3}{4}$ -in. 12	*7 4
	5 1

Flushing and warning pipes  
fixed to softwood

FR	
$\frac{1}{4}$ -in. 4	*3 6
	1 7
1-in. 5	*4 5
	1 11
$\frac{1}{2}$ -in. 6	*5 6
	2 5
$\frac{3}{4}$ -in. 7	*6 0
	2 9

Waste pipes and fixing to  
softwood

FR	
$\frac{1}{4}$ -in. 6	*5 7
	2 7
$\frac{1}{2}$ -in. 7	*6 1
	3 0

Joints to fittings

No.	
$\frac{1}{4}$ -in.	*6 10
	1 11
$\frac{3}{4}$ -in.	*7 7
	2 7
1-in.	*8 2
	3 3
$\frac{1}{2}$ -in.	*8 8
	3 10
$\frac{3}{4}$ -in.	*9 9
	4 9

Extra for:

Bend No.	
$\frac{1}{4}$ -in.	*3 0
$\frac{1}{2}$ -in.	*4 3

Branch joints

No.	
$\frac{1}{4}$ -in.	*8 9
	1 11
$\frac{3}{4}$ -in.	*9 11
	2 7
1-in.	*10 4
	3 3
$\frac{1}{2}$ -in.	*12 5
	3 10
$\frac{3}{4}$ -in.	*13 11
	4 9

Polythene tubing to BS 1972

Heavy gauge as supply pipe  
laid in trench (measured  
separately)

FR		
$\frac{1}{4}$ -in.	1	8
	1	3
$\frac{3}{4}$ -in.	2	2
	1	9
1-in.	2	8
	2	3

Heavy gauge as supply or  
distributing pipe fixed to  
walls

FR		
$\frac{1}{4}$ -in.	2	6
	1	4
$\frac{3}{4}$ -in.	3	0
	1	10
1-in.	3	6
	2	4

Galvanised steel tubing to BS 1387

Heavy weight with screwed red  
lead joints as supply pipe  
laid in trench (measured  
separately)

FR		
$\frac{1}{4}$ -in.	2	9
		10
$\frac{3}{4}$ -in.	3	2
	1	0
1-in.	3	4
	1	5
$1\frac{1}{4}$ -in.	3	11
	1	10
$1\frac{3}{4}$ -in.	5	1
	2	

Medium weight tubing fixed to  
walls

$\frac{1}{4}$ -in.	2	8
		10
$\frac{3}{4}$ -in.	3	1
	1	0
1-in.	3	4
	1	3
$1\frac{1}{2}$ -in.	3	10
	1	8
$1\frac{3}{4}$ -in.	5	0
	2	0

Extra for malleable iron:

Bend No.

1-in.	*5 5
	3 2
$\frac{1}{2}$ -in.	*7 10
	4 9
$\frac{3}{4}$ -in.	*10 0
	6 10

Tee No.

$\frac{1}{4}$ -in.	*3 5
	1 1
$\frac{3}{4}$ -in.	*3 10
	1 7
1-in.	*4 6
	2 3
$\frac{1}{2}$ -in.	*5 11
	3 2
$\frac{3}{4}$ -in.	*7 5
	4 7

Copper tube

Copper tube to BS 1386 as  
supply pipe laid in trench  
(measured separately) to the  
following size and gauges

$\frac{1}{4}$ -in. 18	1	11
	1	3
$\frac{3}{4}$ -in. 17	2	10
	2	1
1-in. 16	4	0
	3	0
$1\frac{1}{4}$ -in. 16	5	4
	4	1
$1\frac{1}{2}$ -in. 15	6	11
	5	4

Copper tube to BS 659 as  
distributing pipe fixed to  
walls

$\frac{1}{4}$ -in. 19	2	0
	1	1
$\frac{3}{4}$ -in. 19	2	8
	1	6
1-in. 18	3	7
	2	4
$\frac{1}{2}$ -in. 18	4	6
	2	9
$\frac{3}{4}$ -in. 18	5	3
	3	5

Extra for brass compression  
fittings joining copper to  
copper

No.

Coupling $\frac{1}{4}$ -in.	*5 2
	3 3
$\frac{3}{4}$ -in.	*6 5
	4 0
1-in.	*9 1
	5 10
$\frac{1}{2}$ -in.	*11 4
	7 7
$\frac{3}{4}$ -in.	*15 5
	11 0

Bend $\frac{1}{4}$ -in.	*6 5
	4 6
$\frac{3}{4}$ -in.	*8 0
	5 6



## technical section

## Internal plumber continued s d

1-in. *11	6
8	3
1½-in. *14	4
10	6
1½-in. *23	4
18	11
Tee ½-in. *9	5
6	1
½-in. *11	0
7	0
1-in. *16	0
11	4
1½-in. *21	8
16	5
1½-in. *32	4
26	5

## GLAZIER

## Market prices

Sheet glass cut to size	FS
24 oz.	0 11½
32 oz.	1 6½

½-in. polished plate glass, glazing quality in plates not exceeding:

2 ft. super	4 1½
5 ft. super	5 0½
45 ft. super	6 1
100 ft. super	6 7½

Rolled plate glass	FS
½-in. rolled plate	1 2½
½-in. Georgian wired	6 2

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

## Measured rates

## Glazing to wood

Ordinary quality sheet glass and glazing with putty in squares	FS
24 oz. O.Q.	1 6
32 oz. O.Q.	2 1

½-in. rolled plate glass 1 8

½-in. rough cast glass 2 1

Prismatic glass 2 9

½-in. wired glass 2 5

½-in. Georgian wired plate glass 8 4

½-in. polished plate glass (glazing quality) in plates 5 to 45 ft. super 7 11

## Glazing to metal

Add to above rates 1d. per ft. super

## Sundries

Hacking out broken sheet glass FS 1 3

Black ribbon velvet and bedding to edge of glass FR 8

Double glazing  
Insulight units of two skins of glass with lead spacers

and glazing with mastic or beads (supplied). In panels 16 to 40 ft. super FS  
32 oz. sheet 10 11  
½-in. polished plate 22 3

## Patent glazing

Patent glazing with rolled steel lead capped bars for 8-ft. spans and glazing with ½-in. Georgian wired cast FS 4 9

Aluminium alloy patent glazing FS 4 8

## PAINTER

## Market prices

Washable distemper C 120 0

Emulsion paint Gal. 45 0

Hard gloss paint: Gal.  
Undercoat 46 0  
Finishing 46 0

## Measured rates

On walls and ceilings YS

Twice whitened plastered ceilings 1 6  
3

Two coats distemper on plastered walls or ceilings 2 3  
1 0

Two coats distemper on fair-faced brick or concrete walls 2 9  
1 3

Two coats emulsion paint on walls or ceilings 2 11  
1 8

Prepare, prime and apply one coat oil colour on plastered walls 3 11  
1 9

Add for each additional coat 1 9  
10

## On metal

Prepare, prime and apply one coat oil colour on general surfaces YS

Basis price 3 8  
1 6  
Add for each additional coat 1 8  
10

On windows in squares YS  
Basis price 5 2  
9

Add for each additional coat 2 2  
5

On bars, angles, etc., not exceeding 3-in. girth YR  
Basis price 6  
2

Add for each additional coat 3  
1

On small pipes YR  
Basis price 1 0  
3

Add for each additional coat 5  
2

On large pipes YR  
Basis price 2 0  
6

Add for each additional coat 10  
3

Prepare, prime and apply one coat heat-resisting paint on heating surfaces of radiators YS

Basis price 4 3  
1 4

Add for each additional coat 1 11  
8

## On wood

Knot, prime, stop and apply one coat oil colour on general surfaces YS

Basis price 4 1  
1 8

Add for each additional coat 1 8  
10

On work not exceeding 3-in. girth YR

Basis price 7  
1½

Add for each additional coat 2½  
1

On work 3-in. to 6-in. girth YR

Basis price 10  
2½

Add for each additional coat 4  
1½

## Stain and varnish

Prepare, size, stain and twice varnish on general surfaces of woodwork YS 4 6  
1 9

On work not exceeding 3-in. girth YR 7½  
1½

On work 3-in. to 6-in. girth YR 11  
2½

## Oiling and polishing

Twice oiling general surfaces of hardwood with linseed oil YS 2 7  
1 1

On work not exceeding 3-in. girth YR 3  
1

On work 3-in. to 6-in. girth YR 4½  
1½

Staining and wax polishing general surfaces of hardwood FS 1 1

Staining bodying-in and fully French polishing on general surfaces of hardwood FS 2 8

## Papering

Preparing and sizing walls and hanging plain lining paper Piece \*11 2  
3 3

Hanging wall paper, p.c. 10s. per piece Piece \*21 2  
12 9

Hanging border p.c. 1s. per yd. YR 1 9  
1 3

# BASA

Monthly supplement

The BASA Editors  
The Building Centre  
Store Street  
London, WC1

## "READING MAKETH A FULL MAN, CONFERENCE A READY MAN, AND WRITING AN EXACT MAN." —BACON, *Studies*.

BASA's second conference on education was held at Balliol College, Oxford, at the end of September. Why was the conference held, with what purpose, and what value will it have? Did we gain anything from the conference—was it justified?

BASA was originally formed as the result of a common interest in and dissatisfaction with the present system of education. The conference was basically an opportunity for people with a common interest to come together for consultation, discussion and instruction. It formed a medium for interview and for the comparison or interchange of ideas. BASA stood to gain, not only in these general terms, but also in more particular and more personal ways. Societies such as BASA, loosely knit geographically and run on a national scale, face the problem of inter-communication, because of which it is possible for the head of the animal to be ignorant of the wants and needs of the body and to forget about the existence of the tail altogether. By using these eight monthly conferences partly as policy making meetings BASA's action is formulated by a cross-section representative of student thought throughout the country, so that the executive implements the wishes of a broad body of opinion rather than dictating to its members. In this way not only is dissent possible for its own sake, but also as the spark from which new policies may emanate from all sources within BASA. Naturally, it is important that opinion should be informed. The papers which we heard at the conference supplemented by the subsequent discussion and conflicting opinions have helped us to see the problem of education more clearly and to see what we must do with regard to that problem. From the acquisition of opinion and conflicting views has emerged perhaps the most significant advance BASA has made since it first began to consider architectural education. It is that all preconceived ideas must be abandoned. Suggestions for changing or patching up existing courses are useful only in a short-term policy of making the best of a bad job. BASA has fully realised that it must go beyond such improvisations to an overall and searching reappraisal of architectural educational requirements. This reappraisal will be continued in subsequent conferences.

A more domestic problem which BASA is faced with because of its wide-flung character is that of anonymity. The conference was an opportunity for us to attach faces and personalities to those names which had often previously been nothing more than the source or target of an occasional letter. Personal contacts and friendships established at Balliol should do much to strengthen BASA.

The BASA conferences are a forum of views, opinions, and facts, from the consideration of which policy can be developed with regard to the internal organisation of BASA, the improving of immediate conditions, and the reformation of architectural education in the long term.

## STUDENT'S VIEW

### Liverpool R.C. Cathedral Competition

I may be a bit late on this one but I cannot let it pass without some sort of comment. I was hoping that this competition would be the means by which some new architectural star would emerge. Fate and a low standard of entry combined to decree otherwise. The first prize was awarded to Mr. Frederick Gibberd's entry. The present trend in cathedrals is apparently towards jet propulsion. Many of the entries looked like improbable space rockets. Even in this, however, the winning design fell short of the real thing, being an Emmett-like caricature of a rocket. More seriously, I think the design lacks any real sense of scale. It will in fact be big, but from the drawings I saw it could have been any size. As for the crown of thorns idea—well, that's just childish!

### University of Leeds Development Plan, 1960

Chamberlin, Powell and Bon have recently completed their report on proposals for the way buildings could be planned and laid out to accommodate both the present needs and the growth in the size of the university which may be expected during the coming decade. Chamberlin, Powell and Bon's report includes a vast amount of research which gives their suggestions an air of authority. This authority is somewhat undermined, however, by the detail to which the planning, not only of the campus, but of the individual buildings, has been taken. Surely to have been really useful, planning of this kind should embody suggestions which could be carried out by more than one architect and which would be fluid enough in conception to allow for constantly developing and changing needs. Chamberlin, Powell and Bon's scheme is obviously designed with the idea of Chamberlin, Powell and Bon developing the site while it is difficult to see how changing needs could be accommodated without drastic re-planning.

STUDENT



## SECOND BASA CONFERENCE ON ARCHITECTURAL EDUCATION

Balliol College, Oxford

September 19-21, 1960

### INTERIM REPORT

The most significant papers given at the Conference, together with reports of the discussion groups etc., will be published in full in subsequent BASA supplements

Over eighty students representing nineteen schools of architecture gathered at Balliol College, together with several members of the profession including some lecturers, for BASA's second conference on education. The first had been at Bristol in January. At Bristol we had discussed "The Function of the Architect in Society" in an attempt to establish what the architect's job is or should be. Oxford welcomed us with torrential rain and a chronic traffic problem. During the evening of the first day the ice was broken by a party in a private room of one of Oxford's many pubs. However, on Tuesday, the second day of the conference, we were faced with a more exacting programme.

The first paper given was a report on the Bristol Conference which served as a summary of BASA's thought so far and as an introduction to the progress which we hoped to make at Oxford.

This was followed by a paper on the "General Theory and Practice of Education," by J. H. Burrows of London University. In the afternoon there followed two further papers, the first on the "Technical Aspects of Architectural Education," by J. Gowan, A.R.I.B.A., and the second on "An Overall View of the Architect's Training," written by Sir Leslie Martin, though read in his absence by Kenneth Campbell of the L.C.C.

These three main papers were followed that evening by two papers on the historical background of architectural education, given by two students, Rodney Mace and Michael Cassidy.

Following this the conference split up into discussion groups to listen to further papers and to discuss their implications particularly with regard to the earlier papers and the discussions which they had evoked. It was significant that more so at this conference than at previous ones students played a great part in the discussions. Time was the most inhibiting factor in the lively arguments. The discussions covered such topics as trends in the building industry, teaching methods, examinations, the architect's responsibilities to his client and to society.

On Wednesday, the third and last day of the conference we reassembled and the various groups submitted the reports of their discussions based on the papers which had been given to them. The conference concluded with BASA business, which included the election of next year's Executive, which takes office in January 1961.

During the Conference one's mind had been forced to act like a sponge, always absorbing ideas as quickly as possible. Now we have time to digest, and to more calmly evaluate what we have heard.

The new executive: standing; Michael Cassidy (BASA Editor), Adrian Sansom (ordinary member), Brian Gough (Assistant Secretary): sitting; Ken Claxton (secretary), Chris Musson (president), Hilary Chambers (past president), Jeremy Hodgson (treasurer).





#### BASA RESOLUTIONS:

1. The RIBA should reconsider subscription rates and examination fees for students with a view to reducing them.
2. The money obtained from these sources should be used for carrying out research into architectural education, improvement of architectural education generally, and establishment of fellowships.

#### Questionnaire

BASA has set itself the task of initiating a campaign to improve school facilities. The first move in this campaign is a comprehensive questionnaire, already prepared, the purpose of which will be to find out exactly how schools are equipped with libraries, studios, workshops, etc. The information collected will contribute to a report designed to show how the lack of facilities affects the efficiency of teaching, and what the minimum standards of equipment should be. The report will be used to influence the RIBA to show leadership in persuading local and central government and industry to invest more money in architectural education, particularly in view of the fact that building accounts for a third of the country's total investment per year and that therefore the country cannot afford to neglect the training of the architect.



#### Scale of subscriptions

It was decided at the conference that a discount should be allowed to schools having 100 per cent membership of its full-time students in BASA, as an incentive to membership. The Executive will be circulating full details to representatives subsequently. Subscriptions are due at the beginning of October and will be considered overdue by December 31. The treasurer will send out reminders to schools on December 1.



The new President of BASA, Chris Musson, with last year's secretary Colin Taylor.

#### BASA FACILITIES

It was decided that BASA's facilities should continue to be open to all architectural students, but that only subscribing members should be subsidised by BASA. For example, for a subscribing member attending the conference might cost £3 while others would be expected to pay, say, £3 10s.



Evening meal in Balliol Refectory—from l. to r., Lance Wright of the AJ, Mrs. Ruth Glass, Sociologist, of the centre for Urban Studies at London University, Kenneth Campbell of the LCC, and Hilary Chambers, President of BASA.

#### Vac. Work

The organising by BASA of work for students in this country during the vacs. has been discontinued for the present as it was felt that there is insufficient demand by students for this service. Should such a demand develop no doubt the service could be reconstituted. Finding work for students abroad will be continued on an exchange basis. Full details can be had from John Clarkson of the Durham School.



W. L. Stuart talks to last year's BASA Editor, Dave Ackerman.

#### Regional Exhibitions

New regional organisers have been appointed. It has been suggested that the use of Photostats be replaced by slides supplemented by programmes. Further information will be circulated.



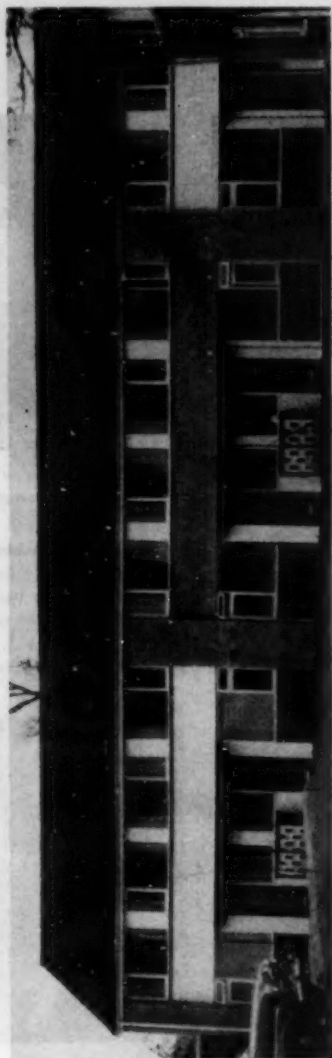
Informal discussion group, with Paul Ritter (centre) and W. L. Stuart (right).

#### Pool of Lecturers

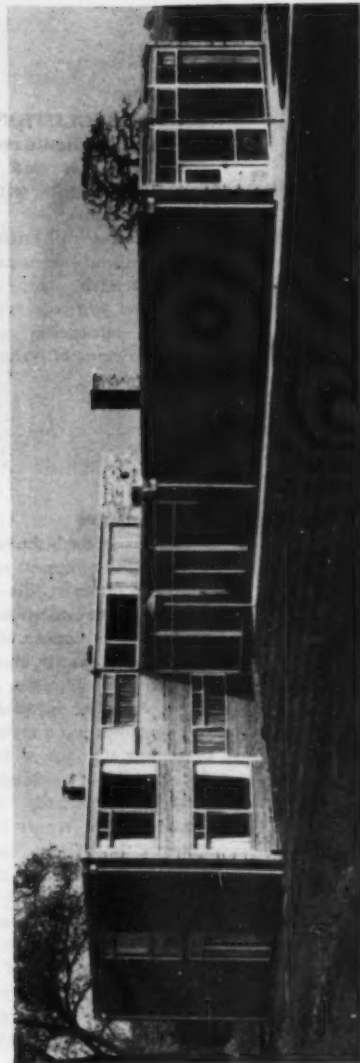
This is about to become operational. Martin Harvey will be sending out material to schools within the next few days. Suggestions of lecturers who might be approached would be welcomed.



Part of the Hammersmith School's contribution to the Photostat exhibition being prepared by Stafford Holmes and Paul Harris.



# LIVE E PRO JEC TS



Under the Directorship of A. Douglas Jones, F.R.I.B.A., the Birmingham course includes craft training, live building and designing, and office practice.

During the summer of 1959 two self-build projects were constructed. The first during the last 7 weeks of the 1958-9 third year, and the second during the first 7 weeks of the 1959-60 third year. The schemes were a logical step in a thought process initiated ten years ago by the first live project and now take a permanent place in the school syllabus.

Preliminary craft training is received in the first year, followed by the construction of a "conglomerate" and a self-build project. The theme is continued with a live project, one term of office practice and a fourth year frame structure conglomerate.

## Traditional Conglomerate

Second-year students, having obtained a basic knowledge of the use of tools and materials, each prepared designs for a "conglomerate." This is an assembly of building elements, designed, not to produce a usable building, but rather to contrive a number of

constructional situations, for example: junctions in walls and roofs, openings, joinery, fittings, etc.

A schedule of available materials and a site plan were given. Until then the exercise had been carried out in a basement with limited headroom. The year was divided into three groups and three designs were chosen. The designer then acted as site-architect/foreman. Three weeks, that is twelve working days, were allowed for the erection of each conglomerate, which was then dismantled during the week before the next exercise, since much of the material was re-used.

## Live project

As well as the self-build project, two orthodox live projects were being dealt with by the school. A nurses' hostel for an isolation hospital and a village hall. The clients for live projects are normally local authorities, public bodies or other people sympathetic to the live-project idea. The designs were set as normal studio programmes to the third year. The best four or five schemes were shown to the client and the approved scheme worked up by their

authors. Working drawings were prepared and the scheme sent to the quantity surveyor at the beginning of the long vacation. By the beginning of the academic year bills of quantities had been prepared and tenders received. In the autumn term of the fourth year site supervision was undertaken and great pains are taken to ensure that the whole year had accurate knowledge of the latest developments. The sites were used by all other years for construction visits. For this reason the location of the sites is ideally within a bus ride of the college.

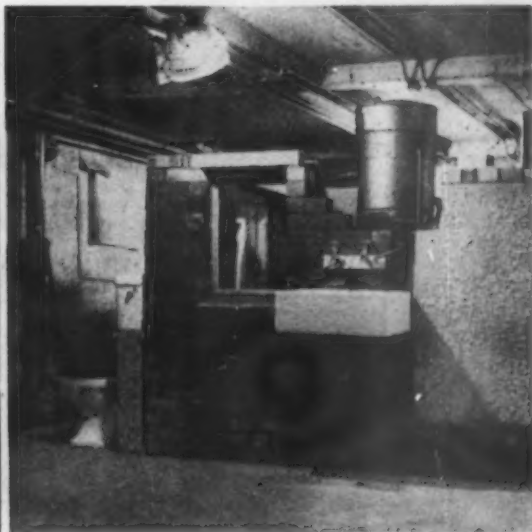
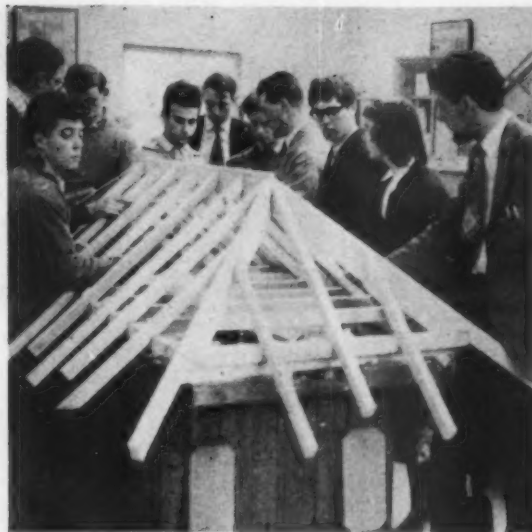
Fees are paid at the normal rate into a school fund and are used partly to cover working overheads, which, due to producing duplicate drawings and travelling, are high, but are offset by the absence of bills for rent, heating, lighting, and of course assistants' salaries. The account is drawn upon to subsidise a wide range of student activities. During the last two years a live-project office and students' common room were built, each costing £350.

*Far left: the second of two terraces, completed in seven weeks.*

*The latest conventional live project to be completed, a nurses' home, was opened in June by the then Minister of Health, the Right Honourable Derek Walker-Smith, MP.*



## AT THE SCHOOL OF ARCHITECTURE BIRMINGHAM by Colin J. Davis



*Preliminary craft training is received by first-year students of the Birmingham School of Architecture; this knowledge is used to construct a "conglomerate," an assembly of building elements designed to contrive a number of constructional situations.*

### Post Intermediate

Three years ago the fourth year became a two term course, with the third term devoted to office practice. This has continued and forms a unique opportunity for students to go abroad for a worth-while period without interrupting their course. The period of office practice has now been changed to the first term leaving five clear terms for the final thesis, interspersed with smaller stimulus programmes.

One such programme will be the fourth year conglomerate, an assembly of a frame structure and cladding units which has been donated by Messrs. W. J. Whittall Ltd. The erection, to a fourth year design, will be first constructed next autumn, dismantled, and re-erected by subsequent groups.

### Self build projects

The self-build projects were incorporated into the syllabus to give a comprehensive understanding of traditional building and a "feeling" for three-dimensional construction. Enthusiasm was electric, possibly because of the pioneer quality of the schemes but was accentuated by the real conditions

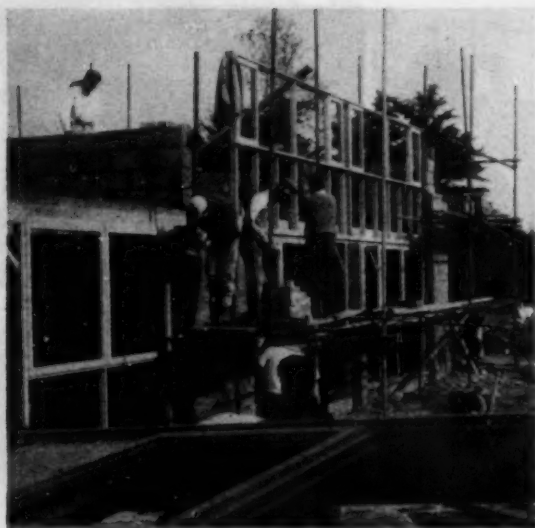
and responsibilities involved.

Both projects were on a site at Water Orton a village 10 miles from Birmingham and consisted of a terrace of six houses divided by a clinker block party wall. Brickwork was reduced to the ribs of these and to gables. All were set on a ground slab, finished without a screed by power float. Front and rear walls were prefabricated, each in two sections, and largely glazed. Roof members and floor joists, spanned between cross walls, the plastering of which was replaced in the second terrace by plaster board, incorporating another trade under the non-skilled student labour bracket, and allowing the whole cottage to be wall papered.

The design was by the builder and site developer, V. H. Johnsson, and embodied his experiences of low labour content and economic building. All normal sub-contracted work, plumbing, tiling, glazing and electrical installation were not carried out by the students. A 40-hour week was worked and payment based on work completed each week was paid into the school fund from which expenses were allowed.

The garages of the cottages had already been constructed and three of these were used as site huts, two for personnel and one as a perishable material store. The project was supervised by a full time member of staff, two student foremen and the builder's foreman who visited the site fairly frequently to advise and instruct. No drawings were kept on the site except for a rather grubby eighth scale, mounted on a tin sheet and referred to as "the plan." Originally it was intended to keep a drawing board on the site, so that the relationship of drawing to actuality could be readily seen; however, the prefabrication of door and window units made this unnecessary. All instructions were given by word of mouth from the foremen, and an explanation of a section would be scratched out, full size, on a piece of plaster board. If a difficult fixing was to be performed a small team was instructed by the builder's foreman in the "first" house. This team would then pass on their skill to subsequent teams as similar details were assembled in each of the six separate houses.





*Prefabricated rear wall units, largely glazed, are seen being built into the end two bays of a terrace of six dwelling units by third-year students. All except normally sub-contracted work was carried out.*

The individual was able to participate in every activity and trade. Jobs were allocated every morning by mutual consent. Most of them required teams or gangs of up to six people but these were not rigidly adhered to, and teams were formed and disbanded as requirements dictated. If a lorry arrived, everyone turned out to unload, irrespective of what they were doing.

Of the 24 students engaged on the first project only one had had any experience of bricklaying, under working conditions, yet one gable was the effort of five novice bricklayers and could be compared favourably with professional work by the same builder. Enthusiasm, patience and conscientiousness more than made up for lack of speed, skill and experience. An early concept that any mistake would be covered by the next trade proved to be a fallacy. Lack of forethought and mistakes in setting out could not be erased by reaching for a rubber. When a group of ceiling joists were found to be below bye-law height they had to be painstakingly repositioned.

An insight was given into the problems of a contractor operating more than one

site. More than the normal amount of scaffolding erection and dismantling was necessary on the first terrace, as a shortage was caused by requirements on other sites. Work was slowed occasionally by material delays or inclement weather. In order that sub-contractors could be dovetailed into the schedule, a time limit was placed on many of the jobs; this was not unlike working to a deadline on a normal studio programme. Other subtle but more permanent impressions were received from actually taking part. The architect could be observed with a detached critical eye. The sense of creating and achievement was quickened as the dwellings slowly became a reality. Every problem was seen from the builder's position. Time has put the stronger pro-builder emotions into true perspective, but a deeper acknowledgment of the contractor's contribution to the building team will remain.

The shortcomings of the pioneer schemes, from all points of view, were fully discussed in a general meeting of everyone concerned. The schemes had been thrust into the middle of a planned syllabus, and suffered from lack of

experience of administration. Insufficient technical advice was available on the site. Future schemes will benefit from continued improvement and adjustment. At Water Orton the only design decisions the students were able to make were those concerning interior decoration; these were finalised on the spot by mutual consent, usually by the team that was about to carry out the work. The next scheme to be constructed by the third year, next summer, will be designed as a conventional live project by the fifth year. This shows the builder's attitude towards the projects, as he has left the brief as open as possible, the only qualification is that the site be developed profitably. The following project will be built by second year students to a design by third, thus completing the combined schemes by intermediate.

Craft training, conglomerates, self-build, live projects and office practice form part of a progression towards, not a forced growth in a hot house atmosphere, but a training aimed at preparing students for the cool winds of reality.

COLIN J. DAVIS

working detail

(63)  
LIGHTING: 23

LIGHTING TROUGH: POST OFFICE IN LONDON, W.1

*Design Research Unit and Sir Hugh Casson, architects.*



*The fluorescent tubes illuminate the counter positions,  
through plastic louvers, and the signs above them.*

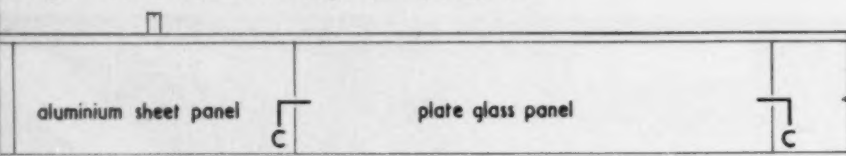
## working detail

LIGHTING TROUGH: POST OFFICE IN LONDON, W.1

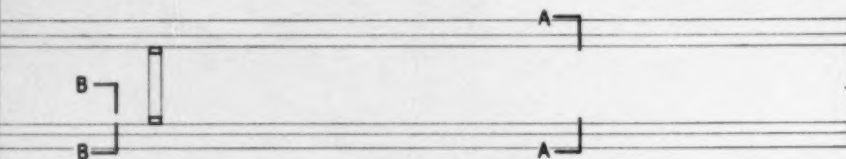
Design Research Unit and Sir Hugh Casson, architects.

(63)

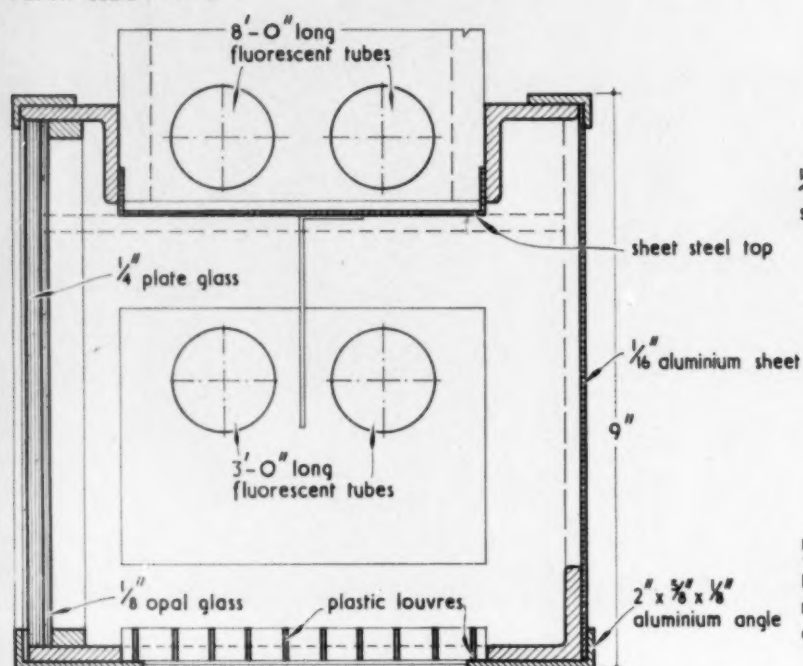
LIGHTING: 23



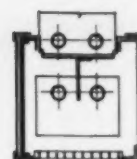
ELEVATION. scale 1" = 1'-0"



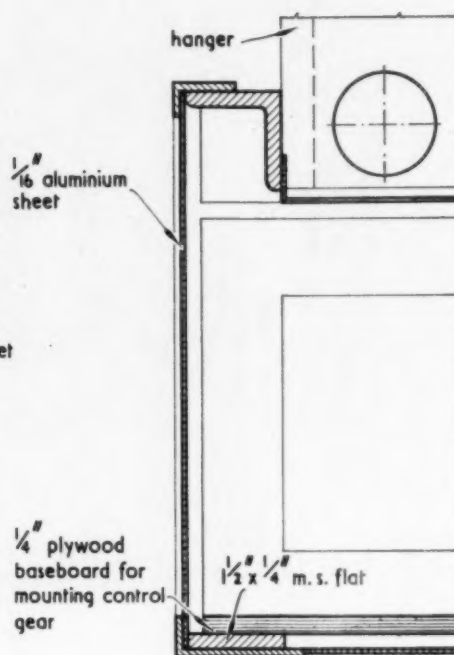
PLAN. scale 1" = 1'-0"



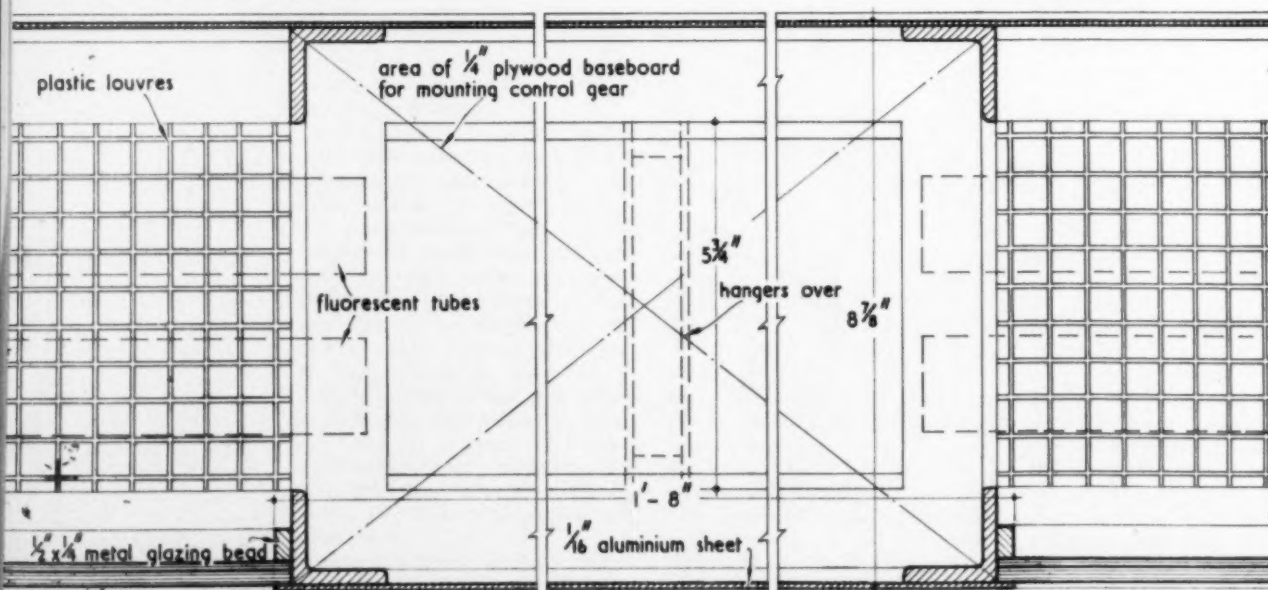
SECTION A-A. scale 3/8 full size



SECTION. scale 1" = 1'-0"



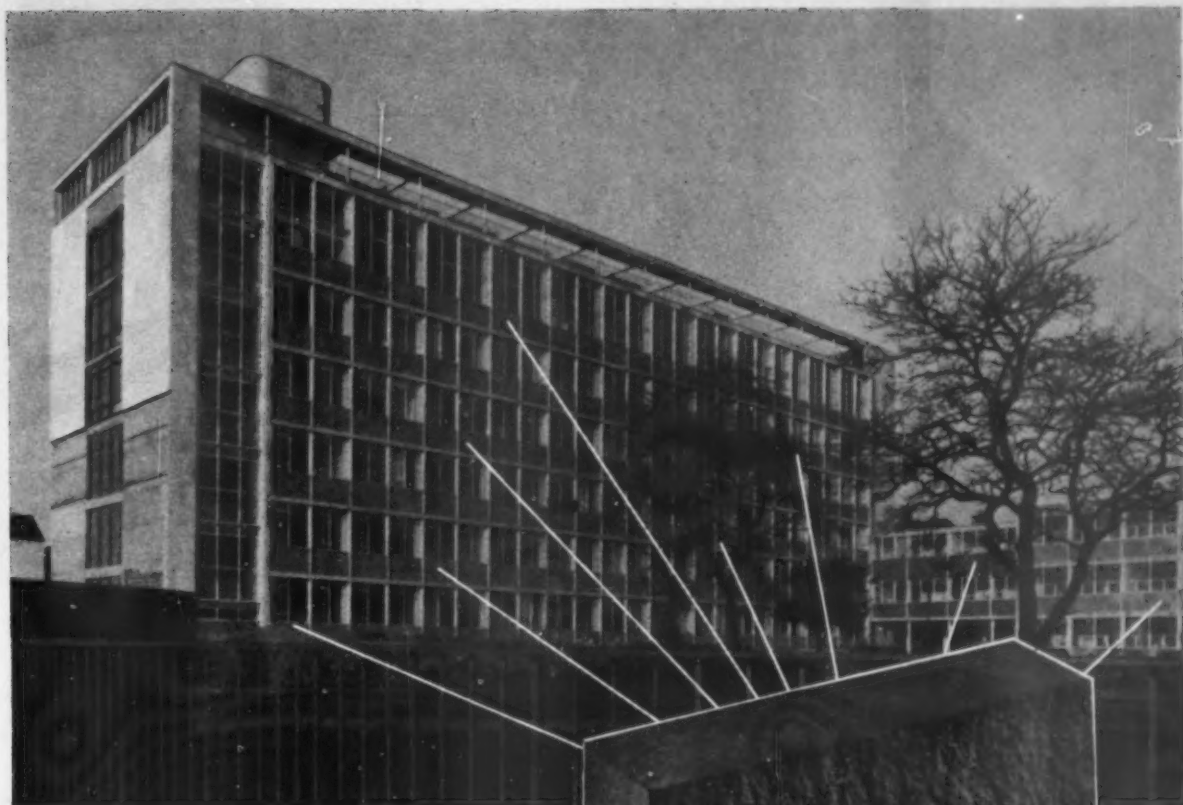
SECTION B-B.



PLAN C-C. scale 3/8 full size



## BROUGHTON MOOR OLIVE GREEN SLATE RIVEN FINISH



RUTHERFORD COLLEGE, NEWCASTLE-UPON-TYNE  
Architect: George Kenyon, A.R.I.B.A.  
Contractors: Messrs Leslie & Co Ltd., London and Darlington

Ideally suited for internal and external facings, Broughton Moor Green Slate can be supplied in a variety of finishes— and remains sound for centuries. These characteristics made it an ideal choice for the Rutherford College of Technology, Newcastle-upon-Tyne, architect: George Kenyon, A.R.I.B.A., City Architect. For this contract, Broughton Moor Olive Green naturally riven slate was used, approximately 16,000 square feet being supplied in the form of Ormecraft panels, to which the Broughton Moor Olive Green Slate was cramped and bonded. About 5,000 square feet of the same slate was fixed traditionally.

*An example of Broughton Moor Green Slate showing the naturally riven finish. Finely rubbed, sanded and frame sawn finishes are also supplied and all available in three distinct colours: Light Sea Green, Olive Green and Pale Green Barred. Technical pamphlets showing typical methods of fixing are available as follows:*

1. Flooring. 2. Facing. 3. Coping.
4. Cills. 5. Riven Face Slabs.

## Broughton Moor

GREEN SLATE QUARRIES LTD

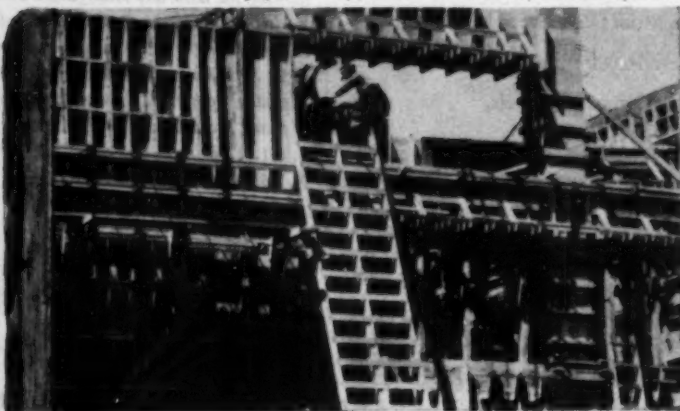
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Canadian spruce is prized for its light weight and resilience. It is soft of texture and even of grain. It handles easily, takes a smooth finish and holds nails well. When properly seasoned, it will not warp, twist or check. These properties strongly recommend Canadian spruce for light and medium construction work, boat building, case-making, scaffold planks, aircraft manufacture, musical instruments and many other purposes. *For further information, contact The Commercial Secretary (Timber), Canada House, London, SW1*

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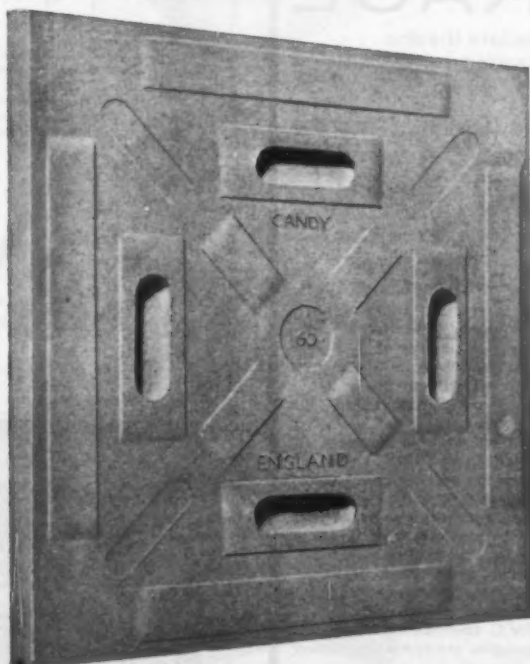
Construction framing  
with tough  
resilient Canadian  
spruce

## RYE HILL ESTATE EXTENSION, CAMBERWELL



*The current trend in LCC housing sites is towards a higher proportion of relatively small sites, each with its special design problems. In this case the difficulties included steeply sloping ground which had been partly terraced, sterilisation of a strip of the site because of an existing large water main, and the fact that the area was hemmed in by existing development. To offset the high density of the surrounding pre-war estate, the number of persons per acre has been limited to about 50. Buildings consist of a six-storey block of maisonettes, offset*

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Candy & Co. Ltd., Newton Abbot, Devon.



RYE HILL ESTATE continued



by two-storey terrace housing, two-storey flats and bungalows for old people. Altogether 69 dwellings have been provided (18 of them for old people), together with 10 garages and a playground, at a tender price of £185,878. The estate was designed by Hubert Bennett, Architect to the LCC; Deputy, F. G. West, Principal Housing Architect, Kenneth Campbell; Job Architect, G. F. Bailey, assisted by M. J. Honigsfeld.

Race seating, now specified by many universities, is here shown in the new Medical School, University of Liverpool (architects: Weightman & Bullen)



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lecture theatre  
seating

Race lecture theatre seating provides a series of components from which rows of any length can be economically assembled on site

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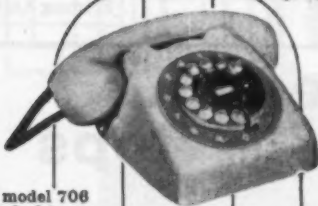


In these days of high labour costs, it is even more essential that employers obtain the fullest possible return from highly paid staff. Key personnel should be kept as much as possible at their desks—you pay them for working and not walking. The answer of course is

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"TRIP-L-GRIP"  
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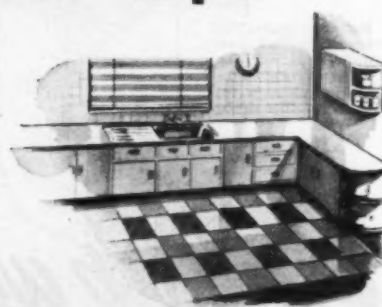
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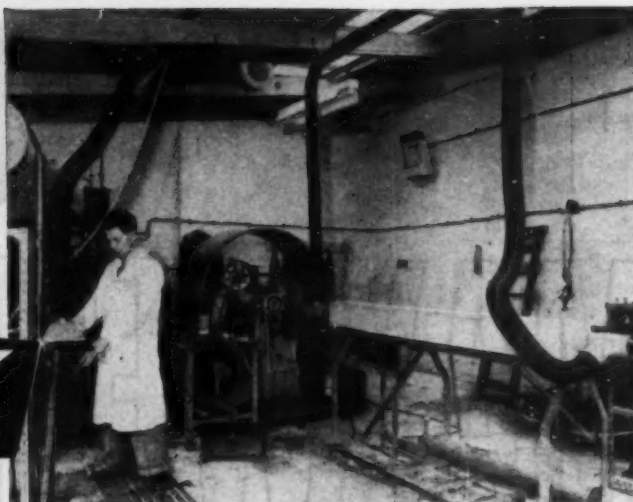
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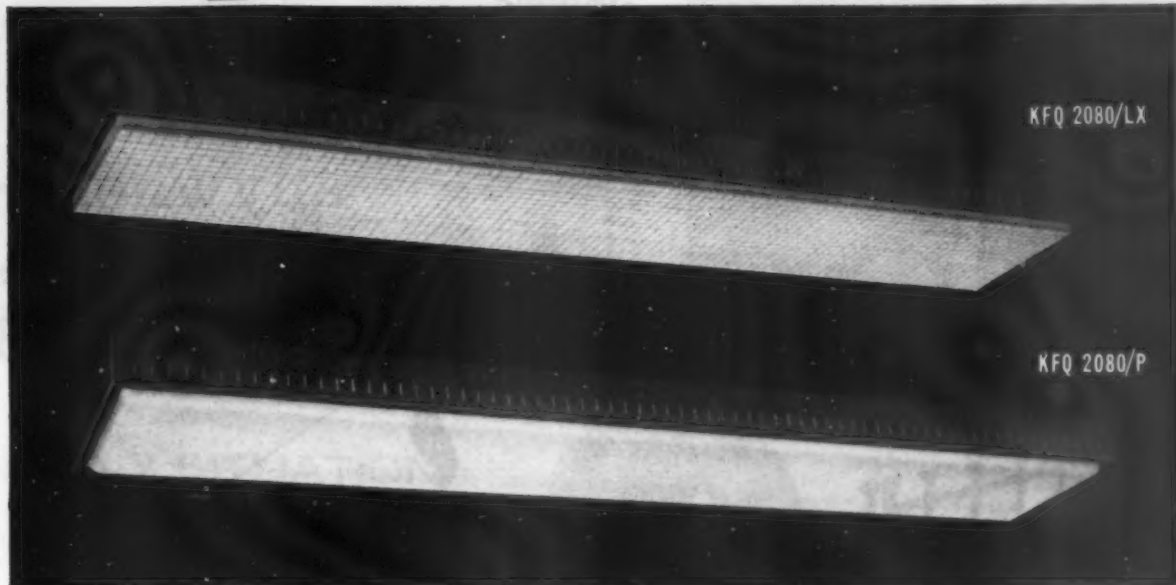


The selective eyes of architects are taking a long look at the Strongarm new look Door Closer. For the first time in the world door closer design, in making a bold break with its rather ugly past, has reached the highest concepts of present taste and preferences. The Strongarm encompasses an efficient mechanism of watch-like precision in its beautiful, compact shape. The quiet perfection of its operation is accountable to the skill, ingenuity and knowledge pooled by some of Britain's foremost hydraulic engineers. Fresh, current thinking has blown away the cobwebs of antiquated design and produced the clean, simple, dustfree lines of the Strongarm. It is the most advanced Door Closer design in Europe or the U.S.A. We suggest you write soon for substantiating data Sales Leaflet APL-Q/8.



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These latest additions to the Atlas KE and GJ ranges of fluorescent fittings are specially designed for use in offices and stores, where both decorative effect and efficiency must be of a high order. They provide wide scope for variation in ceiling layout, and incorporate many unique features for extreme ease of installation and servicing.

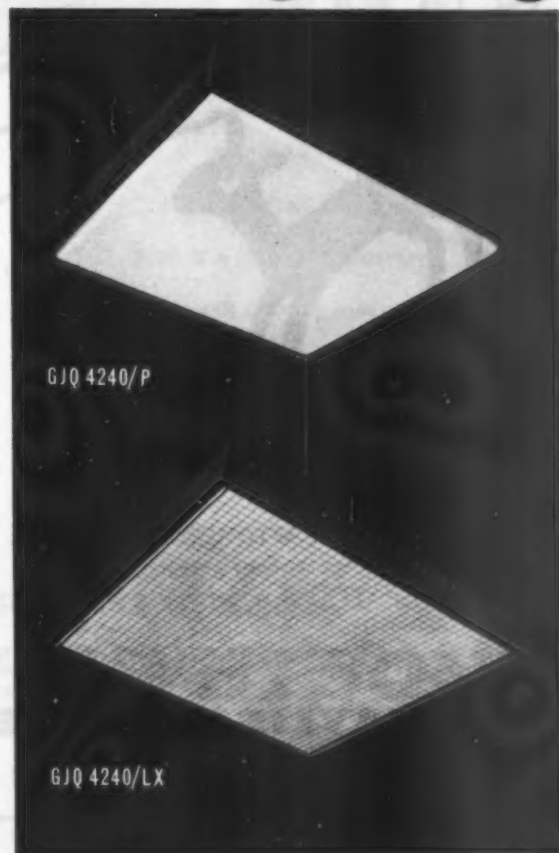
**KFQ/2080/P and /LX** are based on a simple batten fitting, with an extremely neat section, and house two 5ft. 80w. tubes with quick-start control gear. Spring-loaded lampholders facilitate fast re-lamping. The metal frame of both fittings is finished in mushroom grey, and slotted on all four sides. The type P incorporates an opal 'Perspex' dish, and the type LX has a Louverex diffuser.

**GJQ/4240/P and /LX** are slim 'wafer' fittings, square in shape (28" x 28"), for surface mounting. They incorporate four 2ft. 40w. tubes and quick-start control gear. The type P has an attractive single-piece 'Perspex' diffuser, fitting neatly into a mushroom grey metal frame, slotted to give an added degree of sparkle. The type LX also incorporates the slotted frame, with a 'Louverex' diffuser giving a greater concentration of downward light.

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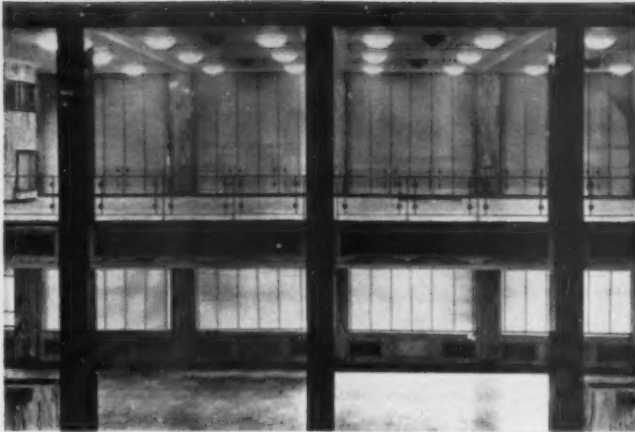
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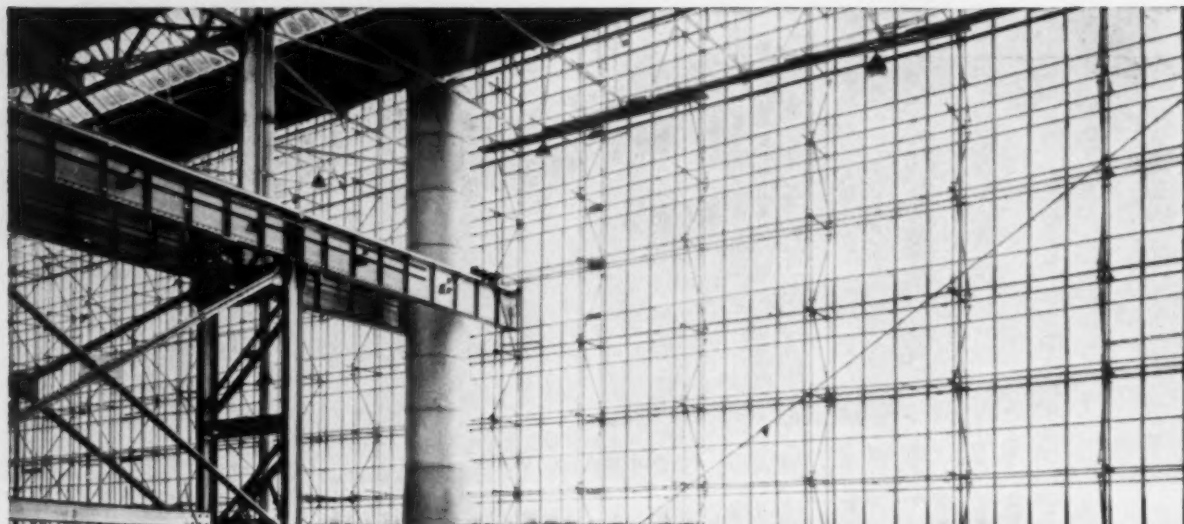
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The foundry at Midland Rollmakers Ltd., Crewe, protected from the weather by a screen of 'Visqueen' building sheet after the demolition of a complete wall to make way for extensions. The sheeting is supported on vertical timbers clipped to the scaffolding.  
Contractor: Sir Alfred McAlpine & Son Ltd.  
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## 'Visqueen' clips £1,000 from weather screen cost on foundry extension



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## VISQUEEN polythene building sheet

The outside of the screen showing how the 'Visqueen' was secured by nailing through laths into the timber battens behind. As an added precaution, overlaps in the 'Visqueen' were sealed with bituminous adhesive, and the base of the screen was protected with 8" high plimber board.

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BARNHURST, BRISTOL, THE AVONGLAVAL, 1100.  
A subsidiary company of Imperial Chemical Industries Limited.



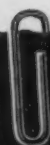


*Decide on linoleum, decide on*

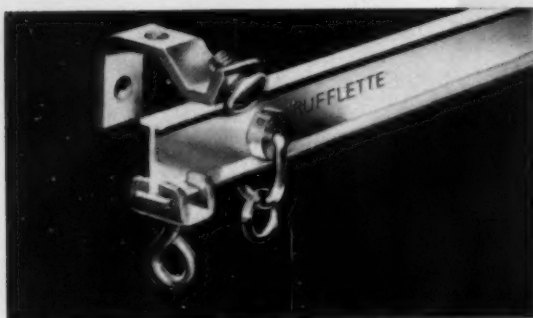
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*Pattern shown: Quince 173*

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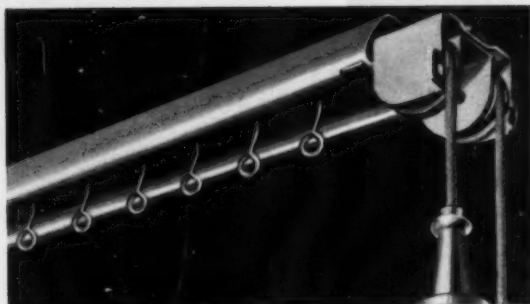


# always specify **'Rufflette'** brand curtain track systems



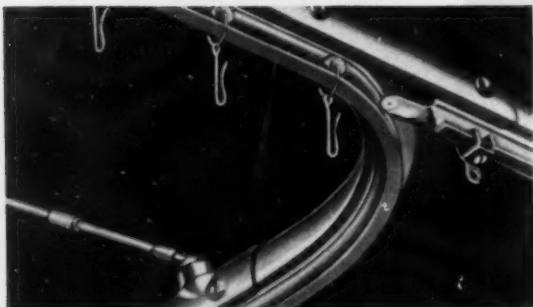
## **'Rufflette'** BRAND CURTAIN TRACK

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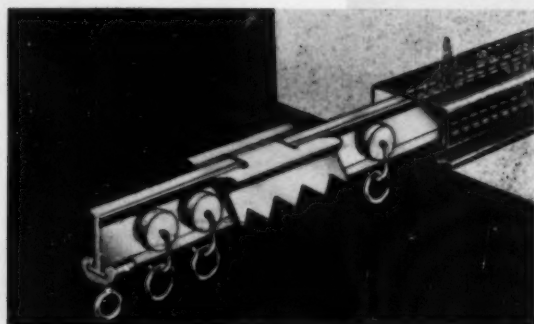
## **'Rufflette'** BRAND DOUBLE TRACK

This is a complete unit suitable for straight windows only and is supplied to the width of the individual window. It is smooth and easily operated by a concealed cord control unit. Each curtain runs on a separate track, suspended on silent-running nylon gliders for noiseless operation. The track can be fitted flush to the ceiling or lintel, is neat and unobtrusive, making it specially suitable for hotels, hospitals, schools, large commercial buildings as well as private homes.



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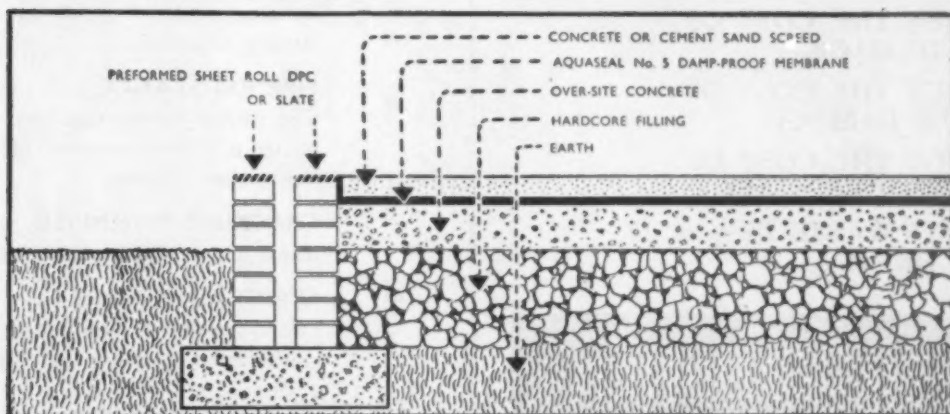
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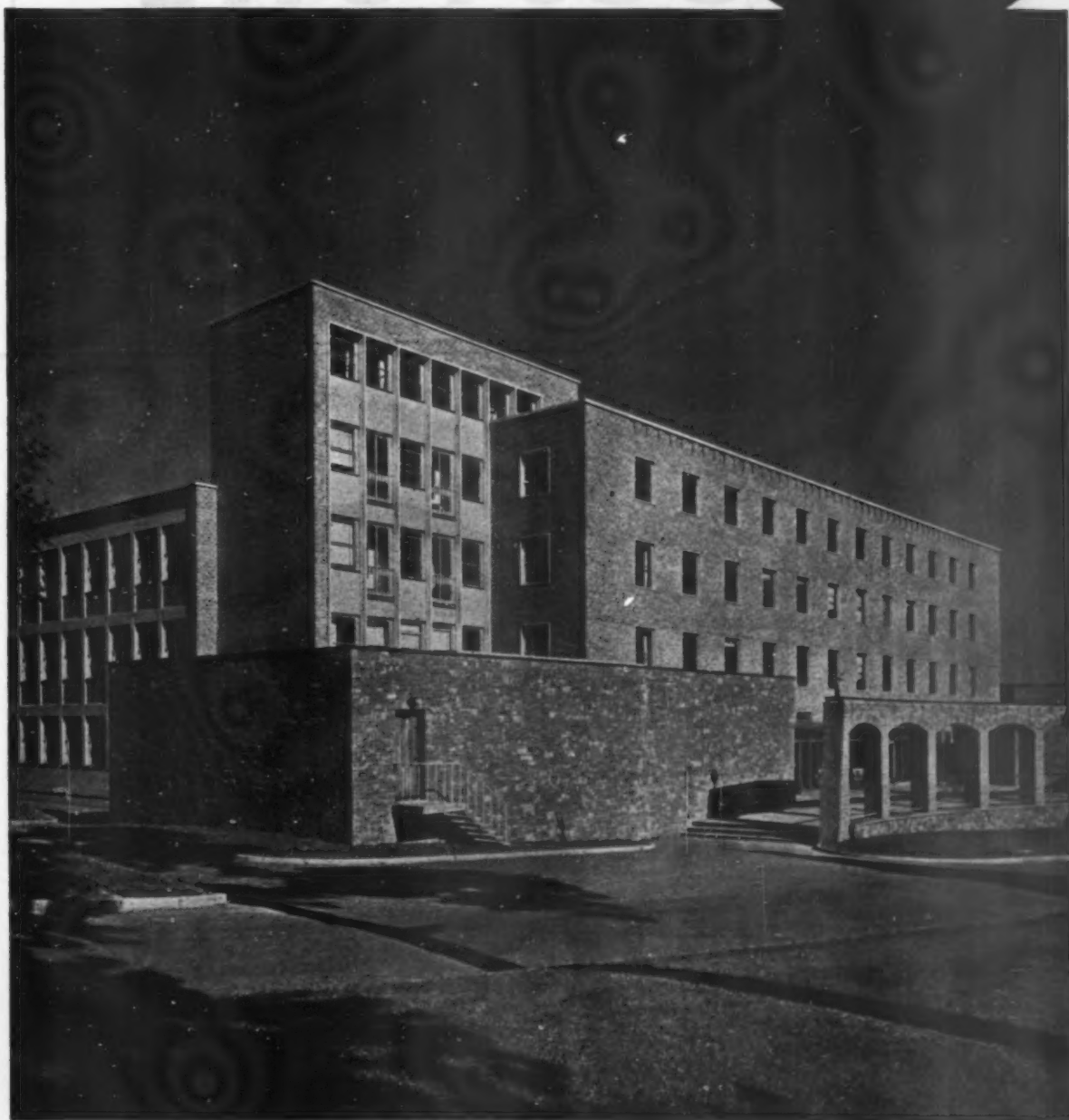
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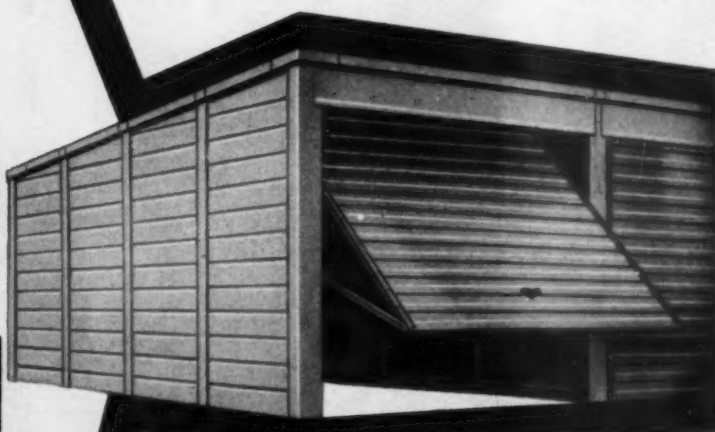
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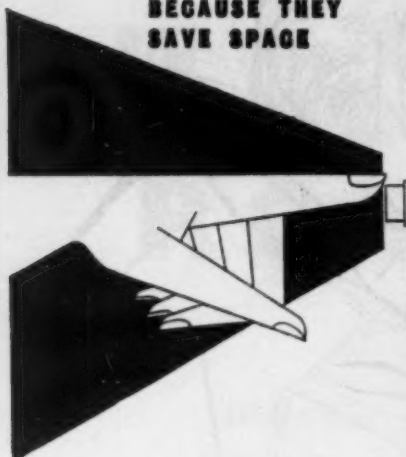
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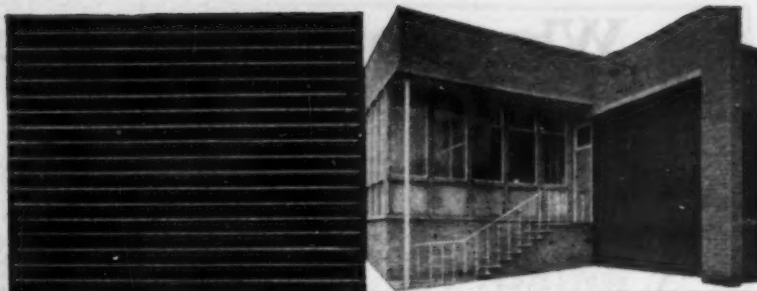
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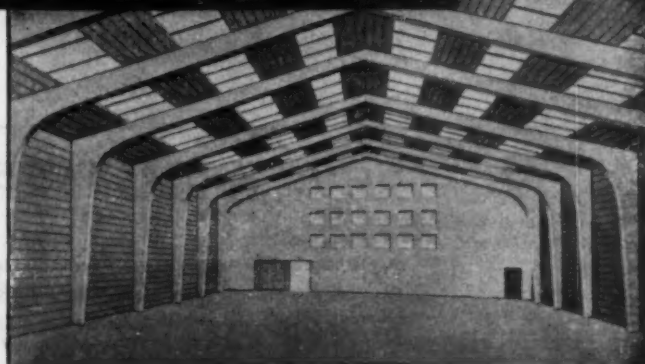


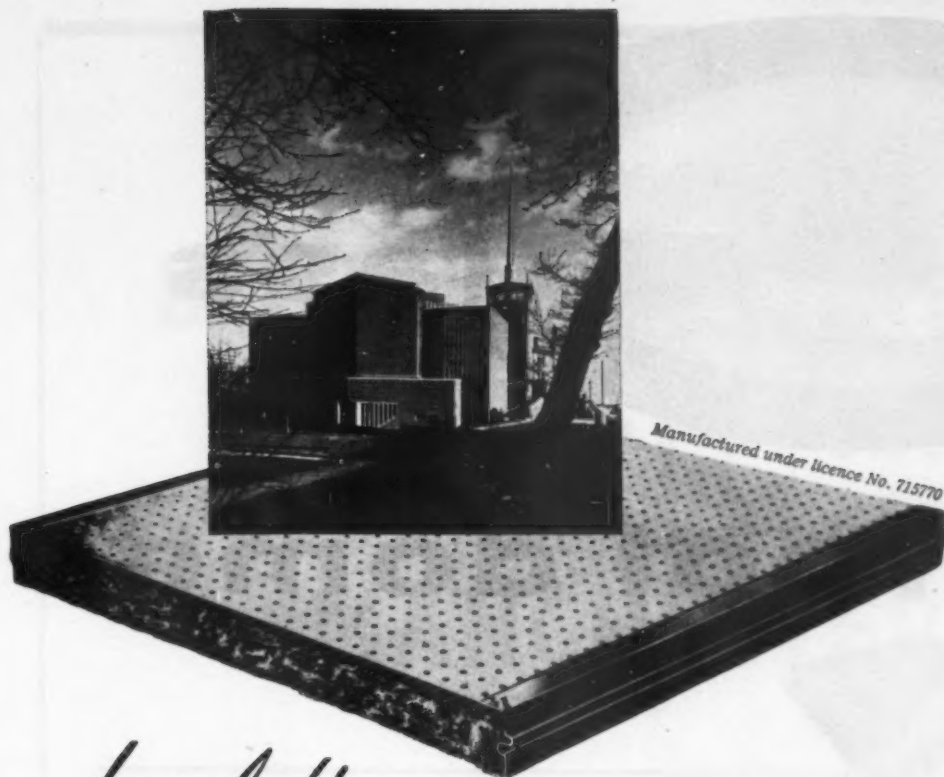
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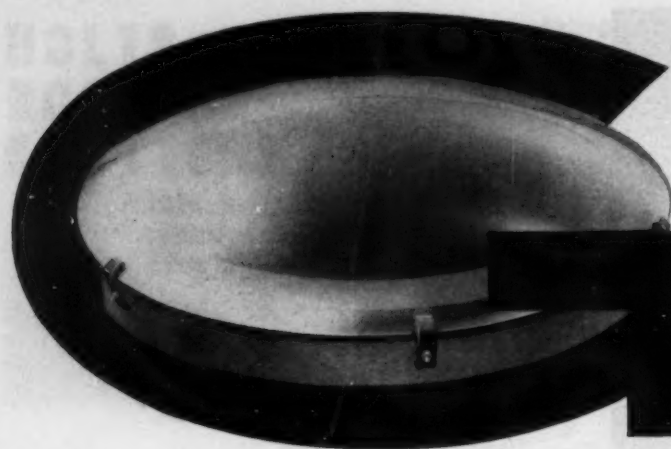
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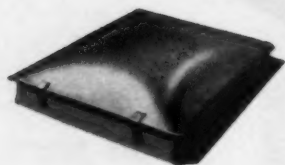
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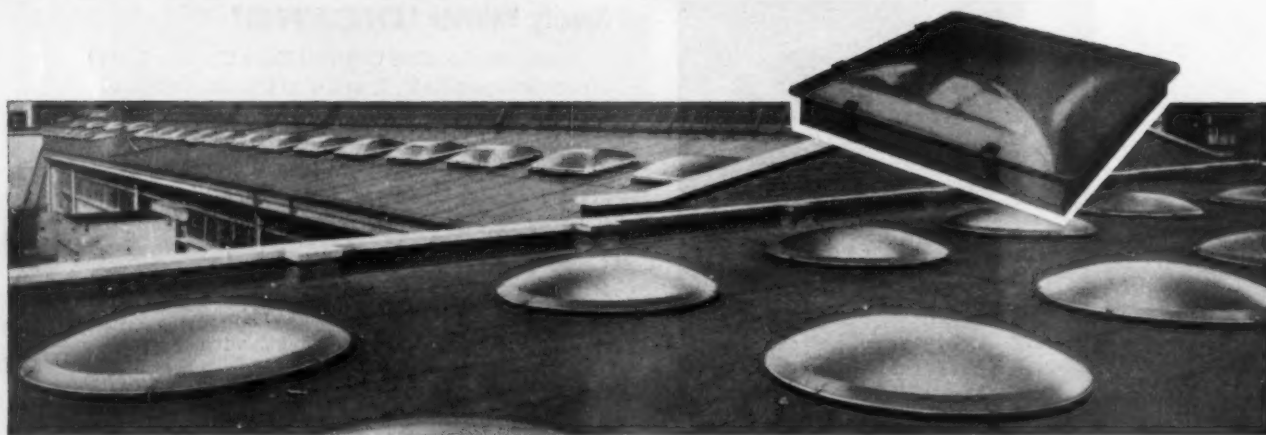




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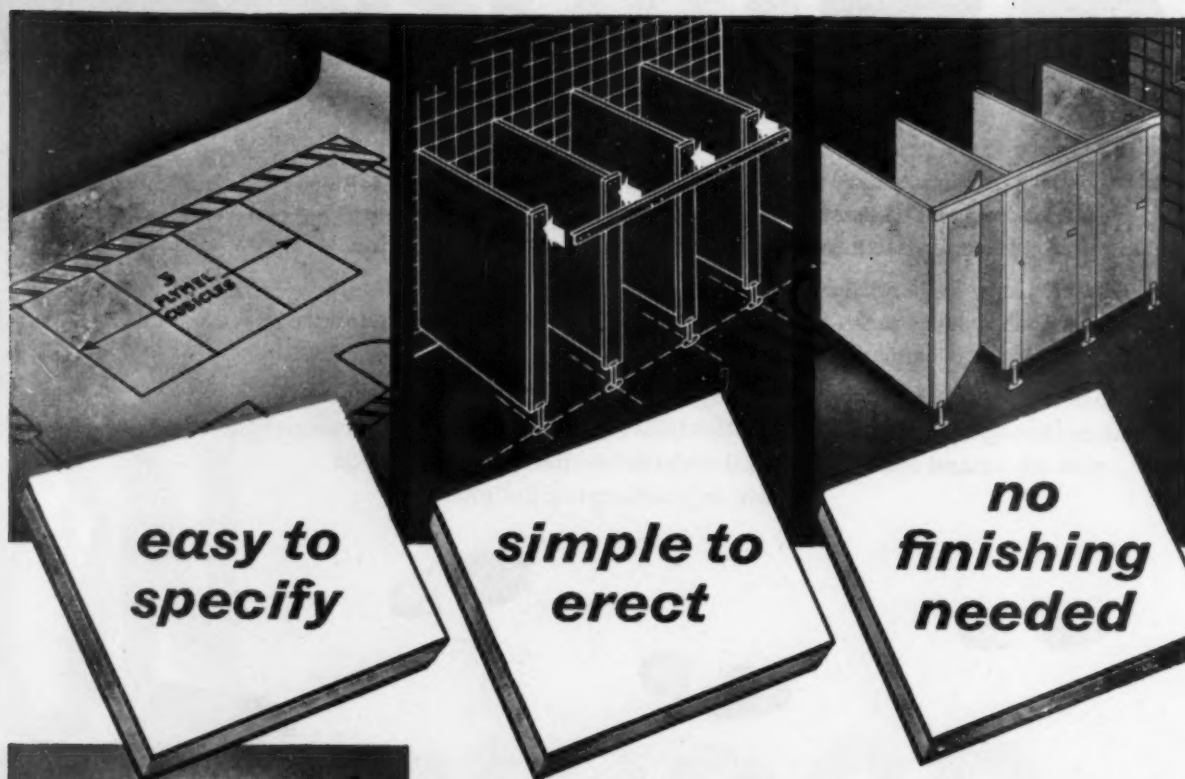
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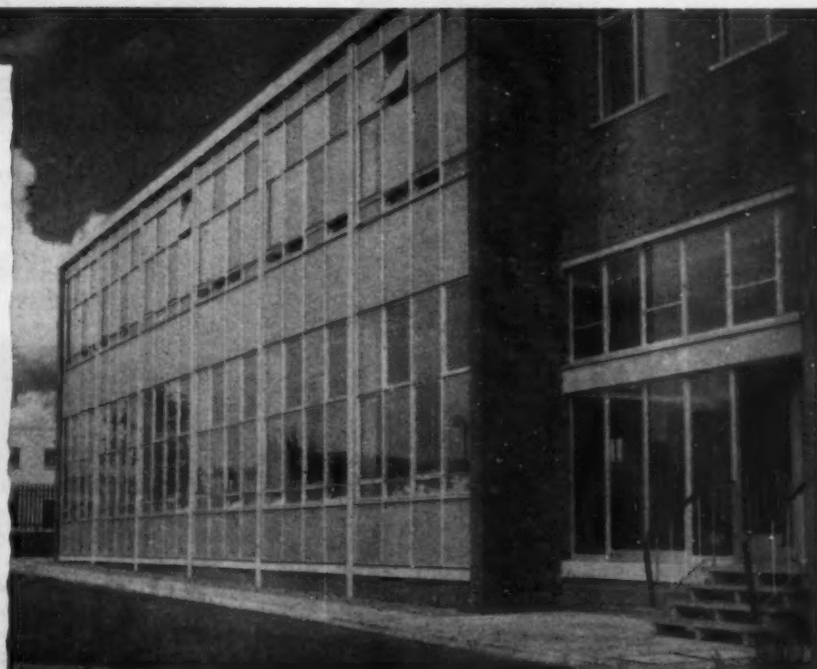
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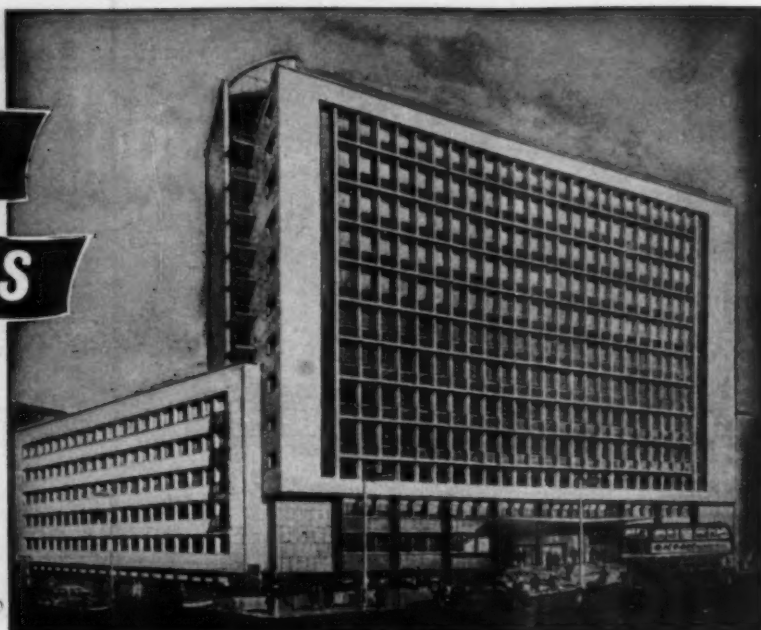
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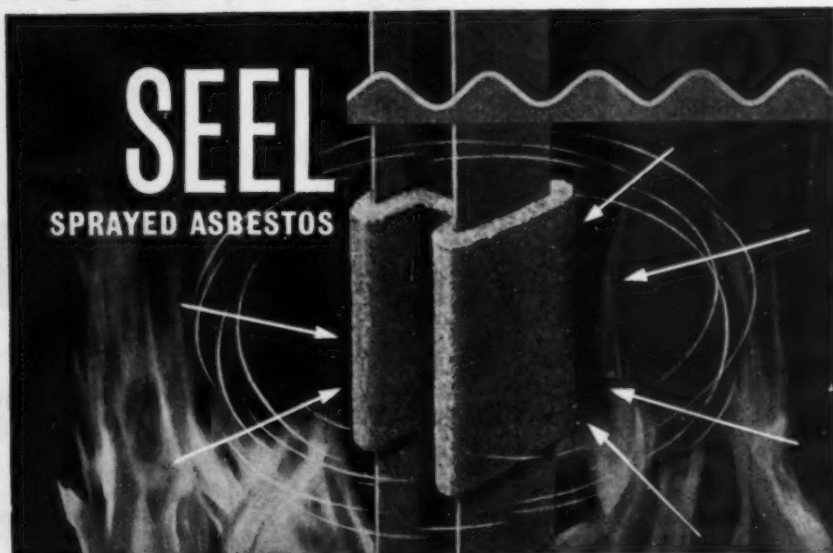
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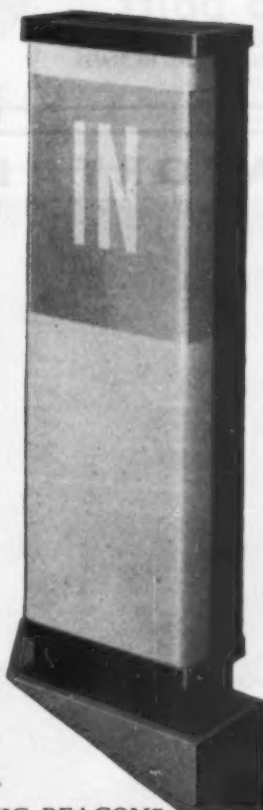
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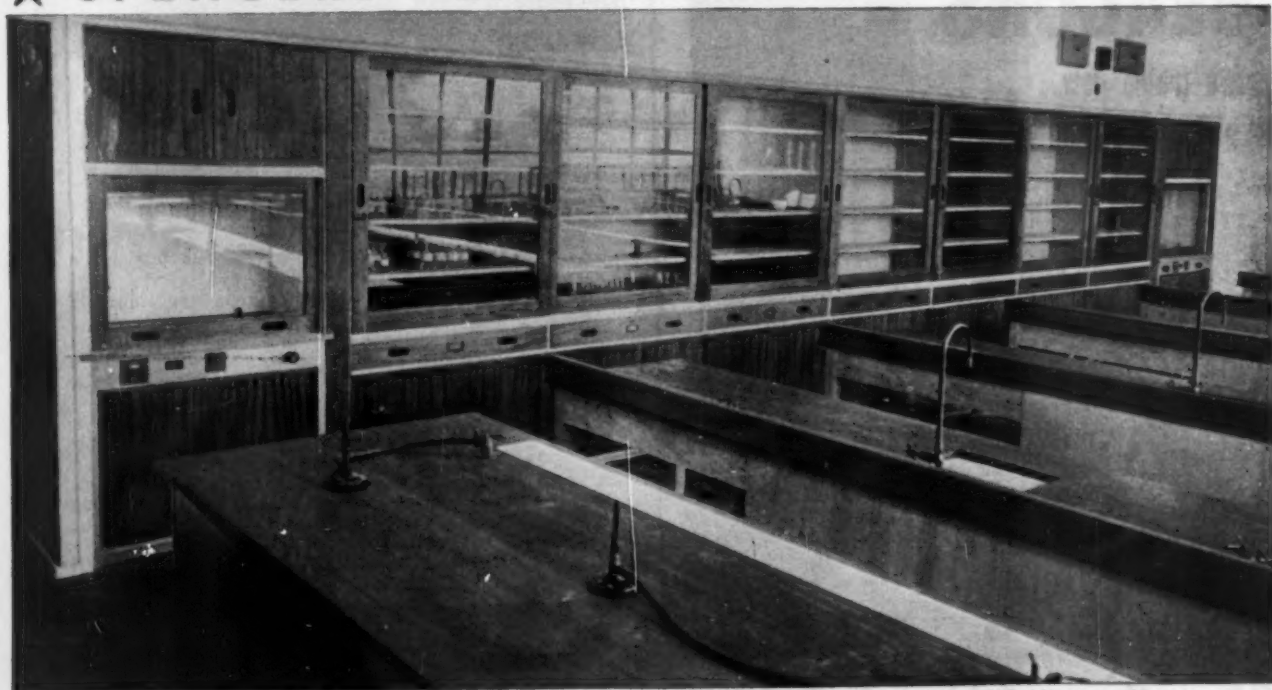
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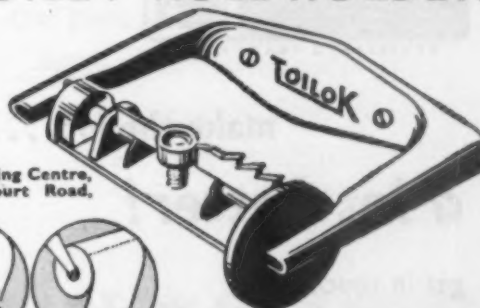
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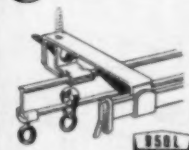
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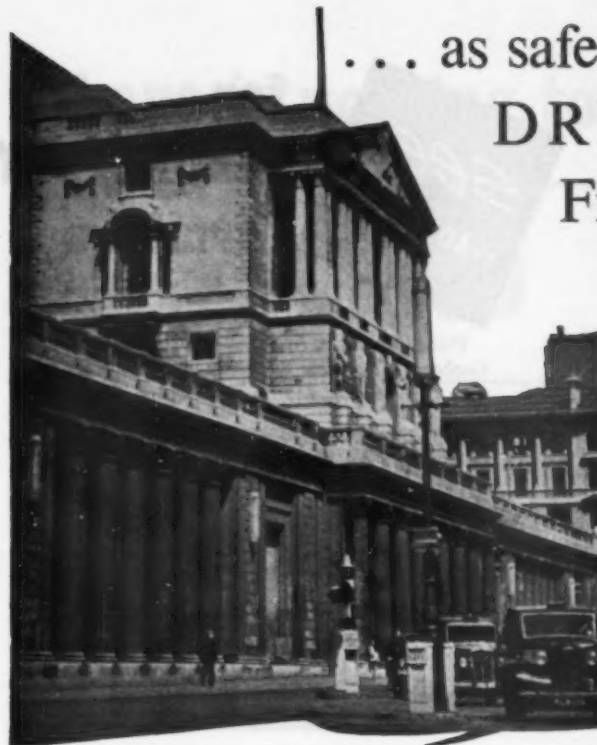
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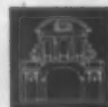


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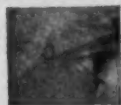
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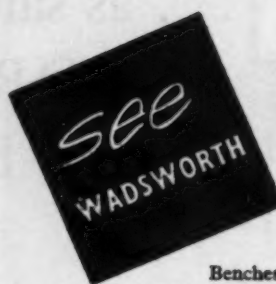
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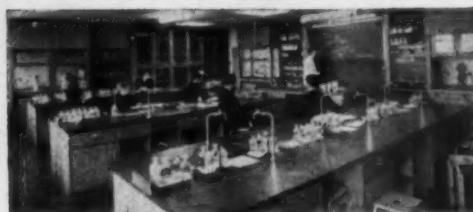
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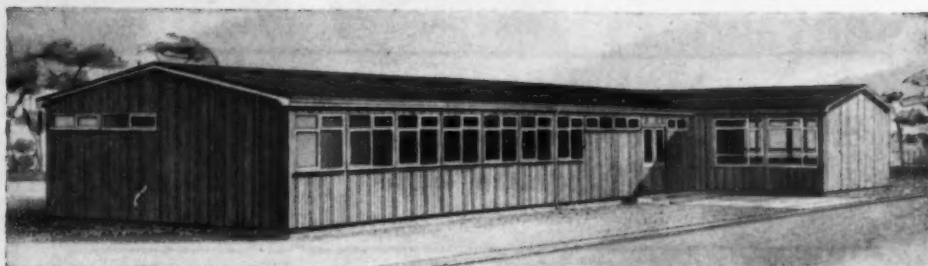
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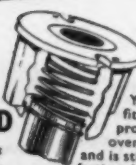
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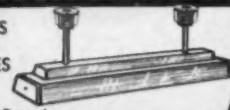
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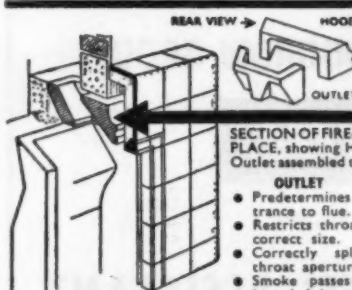
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Special Grade (£785-£1,070).

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A. C. AYWARD.

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County Buildings, Huntingdon. 3426

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Grade A.P.T. IV

Candidates should preferably have passed the Final Examination of the R.I.B.A. or equivalent, but holders of the Intermediate Examination will be considered.

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## THE COUNCIL PREPARED TO CONSIDER, IF NECESSARY, THE PROVISION OF HOUSING ACCOMMODATION.

Application forms obtainable from the Borough Engineer, Town Hall, Ilford, should be returned not later than 17th October. 3412

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Applications are invited for the above permanent appointment in Grade C of the lettered scales commencing at £1,445 per annum and rising to £1,620 per annum. A car allowance is payable.

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The person appointed will be responsible to the Chief Architect for the control of a staff of 20. Full particulars and application forms may be obtained from the Borough Engineer, Town Hall, Woolwich, S.E.18, and applications are to be received by the Town Clerk not later than 12th October, 1960. 3416

## BOROUGH OF HIGH WYCOMBE

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Applications are invited for the appointment of an Architectural Assistant in the Borough Engineer and Surveyor's Department within the salary scale A.P.T. II (£765-£880 per annum).

Applicants should have good general experience in Local Authority Housing work.

The successful applicant will be required to pass a medical examination.

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Applications, together with the names of two referees, must be sent to J. A. Parkinson, M.A., A.M.I.C.E., Borough Engineer and Surveyor, Municipal Offices, High Wycombe, not later than Tuesday, 18th October, 1960.

J. A. PARKINSON, M.A., A.M.I.C.E.,

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## CITY OF LEEDS

## CITY ARCHITECT'S DEPARTMENT

## AMENDED ADVERTISEMENT

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(b) ASSISTANT CITY ARCHITECT (Education and General).

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The salaries quoted are subject to revision. Applicants for the senior posts must hold appropriate professional qualifications and should have had a wide experience in either housing, education or other types of large public building work and will be required to design and work on these projects to completion. Applicants will be considered on their capability for design, experience, contemporary outlook and suitability.

The appointments are superannuable—medical examination.

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Further details and application forms obtainable from the undersigned, are to be returned by 12 noon on Friday, 21st October, 1960.

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City Architect.

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21st September, 1960.

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## LONDON COUNTY COUNCIL

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Forms and particulars (returnable by 26th October) from Hubert Bennett, F.R.I.B.A., Architect to the Council, (EK/AJ/2468/10), County Hall, S.E.1. 3440

## CITY OF LEEDS

## CITY ARCHITECT'S DEPARTMENT

## QUANTITY SURVEYING STAFF

## AMENDED ADVERTISEMENT

A number of vacancies occur in the Quantity Surveying Section which deals with the preparation of bills of quantities and other work in connection with the large building programmes of the department. These programmes include schools, housing with multi-storey flats, hostels and other interesting projects and the posts offer opportunities to work as part of a team in a progressive office.

Post No.

1 SENIOR ASSISTANT QUANTITY SURVEYOR

Grade II Salary Scale £1,320-£1,485

Applicants should have wide experience in the preparation of bills of quantities for major works including schools.

2 SENIOR ASSISTANT QUANTITY SURVEYOR

Grade A Salary Scale £1,310-£1,420

Applicants should have considerable experience in taking off and preference will be given to those with experience in cost analysis and cost planning.

3 SENIOR ASSISTANT QUANTITY SURVEYORS

Grade A.P.T.V Salary Scale £1,220-£1,375

Applicants should have considerable experience in taking off, in the measurement of work in progress and the settlement of final accounts for major schemes.

4 SENIOR ASSISTANT QUANTITY SURVEYORS

Grade A.P.T.IV Salary Scale £1,065-£1,220

5 SENIOR ASSISTANT QUANTITY SURVEYORS

Grade A.P.T.III Salary Scale £880-£1,065

Applicants for posts Nos. 4 & 5 should be experienced in the measurement of variations and the settlement of final accounts for large schemes and should have some experience of taking off.

6 SENIOR WORKER-UP

Grade A.P.T.III Salary Scale £880-£1,065

The salaries quoted are subject to revision. It is essential that applicants for this post should have the ability to write a good bill for major schemes and should have wide experience of this type of work in a professional office.

Applicants for posts Nos. 1, 2 & 3 should hold appropriate professional qualifications and applicants for posts Nos. 4 & 5 should have reached the appropriate standard of qualification and preference will be given to those qualifying for the Quantities sub-division of the R.I.C.S.

The appointments are superannuable—medical examination.

ASSISTANCE WILL BE GIVEN IN PROVIDING HOUSING ACCOMMODATION IN APPROVED CASES, IF REQUIRED.

Further details and application forms may be obtained from the undersigned and applications are to be returned by 12 noon on Friday, 21st October, 1960.

Canvassing disqualifies.

J. R. SHERIDAN-SHEDDEN,

City Architect, Priestley House, Quarry Hill, Leeds, 9. 3459

21st September, 1960.

## CARDIGANSHIRE COUNTY COUNCIL

## APPOINTMENT OF COUNTY PLANNING OFFICER

Applications for the post of County Planning Officer are invited from persons with considerable experience of planning administration. Applicants must be Members or Associate Members of the Town Planning Institute.

The successful applicant must be able to drive a car and an Essential Car Users' Travelling Allowance will be payable.

The salary is in accordance with J.N.C. Scale E (£1,655 a year, rising by three increments of £50 and one increment of £50 to £1,955 a year). The commencing salary will be fixed with due regard to the qualifications and experience of the successful applicant.

The post is superannuable and the appointment is subject to a satisfactory medical report.

Application Forms are obtainable from me. The last date for the receipt of applications is the 19th October, 1960.

J. E. R. CARSON,

Clerk of the County Council, County Office, Marine Terrace, Aberystwyth. 3367



# LONDON COUNTY COUNCIL ARCHITECT'S DEPARTMENT

## General Division

At the London County Council there is a unique opportunity for efficient and competent architects to see a building project through from beginning to end. This is particularly so in General Division, which has a large programme of very varied types and size of building, most of which are required urgently. The Division handles out-County housing, new Old People's Homes, flatted and unit factories, hostel accommodation, teachers' training colleges, warehouses and depots, modernisations and conversions. The Division also contains a design section, responsible for furniture, exhibitions, colour schemes and graphic design.

Applications are now invited for Architectural Assistants, Architects Grade III and Architects Grade II.

Promotion from grade to grade is by merit. Within the grades the scales are flexible and individuals whose performance merits rapid advancement can be reviewed to higher points in the scale in addition to normal annual increments.

All positions are pensionable, and except for a small number of special appointments, permanency is granted after two years' satisfactory service.

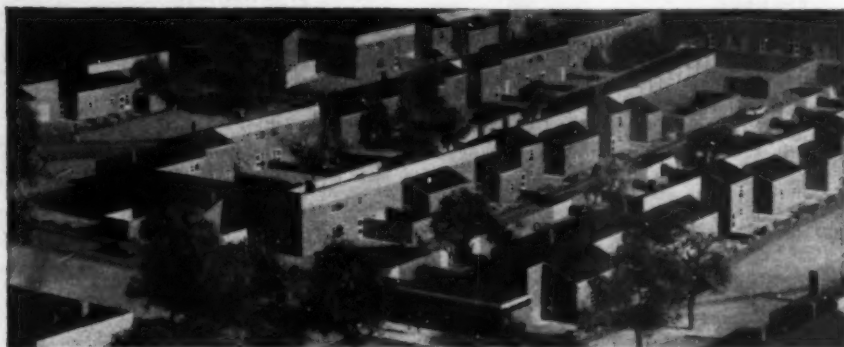


The London County Council on 21 June 1960 approved the following new salary scales:

Architectural Assistants	up to £950 - (221)
Architects Grade III	£830 - £1250 - (223)
Architects Grade II	£1250 - £1500 - (117)
Architects Grade I	£1500 - £1700 - (41)
Principal Assistants (Professional)	£1700 - £1950 - (7)
Assistant Senior Architects	£1750 - £2050 - (9)

The figure in brackets give the total number of positions in each grade in the four new building division and improvements division.

Similar salary improvements have been made for architect planners, structural engineers, surveyor planners, building surveyors, quantity surveyors. Those interested in any of these opportunities please call, write or telephone for further details to Hubert Bennett, F.R.I.B.A., Architect to the Council, Room 163 (North Block), County Hall, S.E.1., telephone WATerloo 5000, Extension 7335, quoting reference EK/2358/AJ/10.



Other constructional divisions for which applications are similarly invited are:

**HOUSING** All types of dwellings, flats, maisonettes and cottages.

**SCHOOLS** All types of schools.

**SPECIAL WORKS** Crystal Palace National Youth Centre and Sports Arena, completion of South Bank with Royal Festival Hall extensions and a varied programme of other buildings.

**IMPROVEMENTS** Conversions and improvements to existing buildings and adaptations for Council purposes. Individual jobs up to £20,000.

There is also a considerable programme of modernisation and rehabilitation of older type dwellings, both Council built and acquired properties.

**Planning Division** **VACANCIES FOR ARCHITECT/PLANNERS UP TO AND INCLUDING GRADE III.** Three dimensional planning in Comprehensive Development Areas and all other important areas of new development throughout London including those associated with Road Improvements.

# CITY OF WORCESTER APPOINTMENT OF CHIEF ASSISTANT ARCHITECT

Applications are invited for this post within A.P.T. Grade V (Salary £1,310-£1,480). Candidates must hold the A.R.I.B.A. qualification and have had considerable experience in housing and other general municipal works.

A house will be made available to the successful candidate, and an essential users' car allowance is applicable to the post.

The appointment is superannuable and conditional upon the passing of a medical examination.

Applications, together with the names of two referees, stating age, qualifications and experience, are to be sent to the City Engineer and Surveyor, 22 Bridge Street, Worcester, to reach him not later than Friday the 14th October.

BERTRAM WEBSTER,  
Town Clerk.

Guildhall, Worcester. 3461

# COUNTY BOROUGH OF BARNSLEY BOROUGH ENGINEER AND SURVEYOR AND PLANNING OFFICER'S DEPARTMENT

Applications are invited for the following appointments:—

(a) BUILDING INSPECTOR, APT III (£960-£1,140).

(b) ARCHITECTURAL ASSISTANT (SPECIAL CLASSES), APT I (£645-£815), or Special Grade (£640-£1,145).

(c) ASSISTANT ARCHITECT, APT II (£815-£960).

(d) ENGINEERING ASSISTANTS (SPECIAL CLASSES), APT I (£645-£815), or Special Grade (£640-£1,145).

Commencing salaries may be fixed above the minimum of the grades according to experience and qualifications.

For appointment (a) applicants must be suitably qualified and have had considerable experience with a local authority in a similar capacity and should be fully conversant with building bye-laws and other relevant statutory powers. For (b) and (c) candidates should have had previous experience in the design of housing and public buildings, although municipal experience is not essential. For post (d) candidates should have had previous municipal engineering experience.

Candidates for appointments (b) and (d) requiring Special Grade should be suitably qualified.

The posts are superannuable and subject to passing of medical examination. N.J.C. conditions of service and one month's notice on either side.

Housing accommodation can be provided if necessary and 50 per cent of removal transport expenses will be paid in approved cases.

Applications, stating age, present and previous appointments, qualifications, experience, etc., together with the names of two persons for reference, should reach the Borough Engineer, Town Hall, Barnsley, by Friday, the 21st October, 1960.

Canvassing will disqualify.

A. E. GILFILLAN,  
Town Clerk

Town Hall, Barnsley. 3437

September, 1960.

# METROPOLITAN POLICE RECEIVER'S OFFICE requires staff

for interesting and varied work in connection with an extensive Police Building Programme.

## BASIC GRADE ARCHITECTS

Salary: £630 per annum at age 25 rising by annual increments to £1,300 per annum. (Maximum salary on entry: £1,125 being age 34 point on scale.)

Qualifications required: Applicants must be registered Architects.

## LEADING DRAUGHTSMEN/WOMEN (New Works and Sanitary Engineering)

Salary: £980 per annum at age 21 rising by annual increments to £1,145 per annum.

Qualifications required: Inter-R.I.B.A. Higher National Certificate or equivalent training.

## BASIC GRADE DRAUGHTSMEN/WOMEN (New Works)

Salary: £600 per annum at age 21 rising by annual increments to £980 per annum. (Maximum salary on entry: £885 being age 28 point on scale.)

Qualifications required: Ordinary National Certificate or to be of Inter-R.I.B.A. standard.

## TECHNICAL ASSISTANT II (New Works)

Salary: £975 per annum rising by annual increments to £1,115 per annum.

Qualifications required: Ordinary National Certificate as a minimum qualification or to be of Inter-R.I.B.A./R.I.C.S. (Building) standard.

## TECHNICAL ASSISTANTS III (New Works and Maintenance)

Salary: £820 per annum at age 26 rising by annual increments to £975 per annum. (Maximum salary on entry: £875 per annum being age 28 point on scale.)

Qualifications required: Ordinary National Certificate as a minimum qualification or to be of Inter-R.I.B.A./R.I.C.S. (Building) standard.

## ASSISTANT SUPERINTENDENT OF WORKS III (Maintenance)

Salary: £820 per annum at age 26 rising by annual increments to £975 per annum. (Maximum salary on entry: £875 per annum being age 28 point on scale.)

Qualifications required: Ordinary National Certificate or City and Guilds.

Application forms can be obtained from Chief Clerk, Architect and Surveyor's Department, New Scotland Yard, S.W.1.

# METROPOLITAN BOROUGH OF HAMPSHIRE Require in the Housing Architect's Department:

## (1) TWO ARCHITECTURAL ASSISTANTS

(temporary) on A.P.T. Grades I/II (£610-£890 per annum plus London weighting) for Intermediate R.I.B.A. or Special Scale (£785-£1,070 plus London weighting) for Final R.I.B.A.

## (2) JUNIOR ARCHITECTURAL ASSISTANT

(temporary) General Division (£210-£730 per annum plus London weighting).

Commencing salaries according to qualifications and experience.

Successful candidates will work on area redevelopment and the design and construction of new flats and houses.

Applications, giving training, experience, previous appointments and the names of two referees to the Town Clerk (A.J.), Town Hall, Haverstock Hill, N.W.3, by 12th October, 1960. No housing provided.

3469

# SALOP COUNTY ARCHITECTS' DEPARTMENT SENIOR ARCHITECT required to act as

Deputy Group Leader for new work of an interesting character. Salary Grade A.P.T. V (£1,220-£1,375 p.a.). Applicants must be Associate R.I.B.A. N.J.C. Conditions. Five-day week. A disturbance allowance or weekly separation allowance will be paid to a married man taking up this appointment. Conditions of service and application forms obtainable from Ralph Crowe, A.A.Dip., A.R.I.B.A., A.M.T.P.I., County Architect, Column House, London Road, Shrewsbury. Closing date 15th October, 1960.

3432

# ARCHITECTS AND QUANTITY SURVEYORS

Donald Gibson (Director General) invites you to apply for an appointment in the newly formed WORKS DIRECTORATE of the WAR OFFICE at Chessington, Surrey where there are vacancies for Architects and Quantity Surveyors.

There is now a unique opportunity to re-accommodate the army and the intention is to focus the best architectural and allied skills on the needs of the modern technical soldier. The work will comprise living accommodation, messes, clubs, offices, technical and educational buildings, hospitals, and everything that is necessary to accommodate the soldier and his family in peacetime. Warlike installations do not form part of the programme.

Whilst most of the design work and preparation of contract documents is done at Chessington, work overseas provides the opportunity for travel, particularly during preliminary and supervisory stages of the work.

Working conditions include 35 to 5 weeks leave a year in addition to public holidays.

ARCHITECTS are organised in small self-contained teams, each team being fully responsible for design, construction and management of projects. Within the team, responsibility is delegated to job architects, in rotation. Teams study user needs at first hand and are briefed to produce buildings that are both practicable and imaginative. There is no limit to the opportunities presented to progressive architects.

QUANTITY SURVEYORS are similarly organised in small self-contained teams on a fully professional "practice" basis, each team being responsible for estimating, cost planning, preparation of bills of quantities, valuations and settlement of final accounts for all projects assigned to it. Team Leaders have the responsibilities of partners in private practice. There is an approved Training Programme designed to help young surveyors studying for their examinations and a copy of this programme will be sent to you on request.

YOUR FUTURE—The work of the Directorate embraces all aspects of the architects' and quantity surveyors' profession on a large and varied programme. The aim, whether you are qualified or unqualified, is to provide you with experience that will command a premium in public service or private practice at any time in the future. If you wish to make the public service your career there will be opportunities for pensionable appointments with transfer of existing superannuation where possible.

Salaries:

(i) Senior Grade, £1,940 to £2,120.

(ii) Main Grade, £1,325 to £1,700.

(iii) Basic Grade, £825 to £1,300.

(iv) Technical, £660 to £1,115.

(v) Trainee Architects, £615 to £745.

Chartered architects and quantity surveyors only will be eligible for posts (i) to (iii). Post (iv) is for quantity surveying assistants only. Post (v) is for trainee architects who have not yet taken their professional practice examination.

Architects should write to Mr. D. E. E. Gibson, C.B.E., F.R.I.B.A., and quantity surveyors to Mr. J. Nisbet, F.R.I.C.S., War Office, Chessington, Surrey, giving full details of your qualifications and experience and stating the grade for which you wish to apply. You may apply at any time.

3490

# BOROUGH OF ILKESTON

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT within the Grade APT IV (£1,065-£1,230).

Commencing salary to be according to qualifications and experience.

Housing accommodation available. Canvassing disqualifies.

Application forms and conditions of appointment obtainable from A. O. Marshall, Borough Surveyor and Water Engineer, Town Hall, Ilkeston, to whom they are to be returned by Friday, 14th October, 1960.

J. YATES,  
Town Clerk

3424

# COUNTY OF DENBIGH COUNTY PLANNING DEPARTMENT

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

(a) ASSISTANT COUNTY PLANNING OFFICER (Control of Development) J.N.C. Scale B. (£1,285-£1,485).

(b) CHIEF COUNTY PLANNING ASSISTANT (Research) APT IV (£1,065-£1,230).

(c) SENIOR COUNTY PLANNING ASSISTANT (Development Plan—Town Maps) APT IV (£1,065-£1,230).

(d) ARCHITECT, Special Scale (£785-£1,070).

(e) COUNTY PLANNING ASSISTANT (Development Plan—Town Maps) APT I (£615-£765).

The above appointments are to the Headquarters Staff of the County Planning Department at Ruthin.

Application forms and further particulars can be obtained from the undersigned.

Completed Applications, giving the names of two referees, must be returned not later than Saturday, 15th October, 1960.

W. E. BUXTON,  
Clerk of the County Council

County Offices, Ruthin. 3422

# METROPOLITAN WATER BOARD ARCHITECTURAL STAFF

Applications are invited for the following appointments in the Surveyor's department:—

(a) ASSISTANT ARCHITECTS.

Salary scale £1,180-£1,300 per annum.

(b) TECHNICAL ASSISTANT.

Salary scale £730 (at age 21)-£1,110 per annum.

Commencing salaries within the above scales according to age and experience.

Applicants for posts (a) must be corporate members of the Royal Institute of British Architects and should have had experience in the design, preparation of plans and working drawings and specifications for the erection of houses and offices. The provision of housing accommodation would be considered.

Applicants for post (b) must have passed the Intermediate examination of the Royal Institute of British Architects.

These are permanent pensionable posts offering interesting work with good conditions of service. Forms of application from the undersigned (quoting ref. A.J. and position applied for) to be returned by 24th October, 1960.

S. D. ASKEW,  
Clerk of the Board.

New River Head, Rosebery Avenue, E.C.1. 3446

# ARCHITECTURAL APPOINTMENTS VACANT AUSTRALIA

Architects for our three offices.

Sydney ..... 2 Architects.

Goulburn (N.S.W.) ..... 1 Architect.

Orange (N.S.W.) ..... 1 Architect.

This is an established and expanding firm of young men. Yours is the opportunity to share in this firm and this country's growth.

SALARY: £40 per week (Aust.) to start.

FARES: We will arrange this with no resultant cost or obligation to you (including families) through the assisted Passage Migration Scheme.

Contact Chief Migration Officer, Mr. K. J. Smith, Australia House, London, for details.

ACCOMMODATION: We will have accommodation available to suit your needs on arrival.

QUALIFICATION: A.R.I.B.A. or equivalent (min.). Age max. 35.

APPLICATION: Give full details of training and experience. Forward to:

Brown, Brewer & Gregory, Architects,

26, Alfred Street, Wilson's Point,

SYDNEY, AUSTRALIA. 3471

# UNIVERSITY OF DURHAM KING'S COLLEGE.

NEWCASTLE UPON TYNE, 1.

The Council of King's College, in the University of Durham, invite applications for the post of ARCHITECT/PLANNER. The person appointed will be required to work under the general direction of the Consulting Architect, who is also the Professor of Architecture, on collecting and analysing information, preparing and presenting a report to the Council, and creating certain design drawings to give effect to an outline Development Plan already drawn up for the University in Newcastle upon Tyne. Suitable supporting staff will be engaged. Candidates must have a recognised qualification of a Professional Body. The appointment will be a whole-time one for a period of three years in the first instance. The starting salary will be fixed, according to the experience and qualifications of the person appointed on an incremental scale ranging from £1,650 to £2,550 a year. The Architect/Planner will be required to join the Federated Superannuation System for Universities. Child allowance will be paid.

Further particulars may be obtained from the Registrar, King's College, to whom applications should be submitted not later than Saturday, 22nd October, 1960.

3494

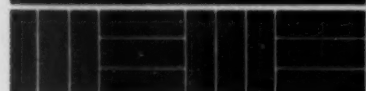
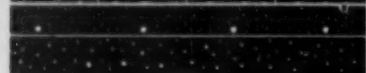
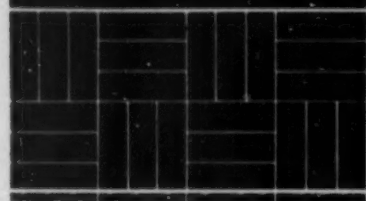
# BRITISH RAILWAYS ASSISTANT ARCHITECTS

Assistant Architects required for the Architect's Office of British Railways, 32, Elmbank Crescent, Glasgow. Good designing ability and A.R.I.B.A. qualifications essential. Commencing salary between £1,100 and £1,300 per annum.

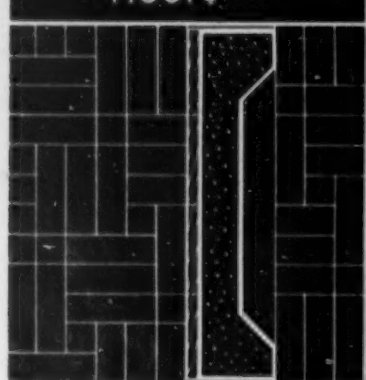
Candidates should apply in writing to the Chief Civil Engineer, British Railways, St. Enoch Station, Glasgow, C.1.

3280

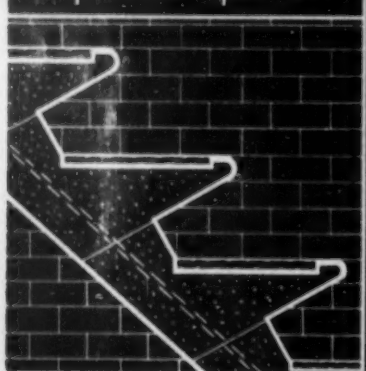
## DURABELLA



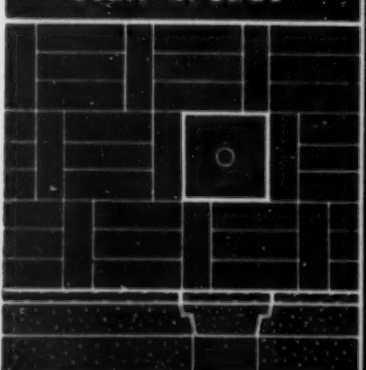
for floors



for precast panels



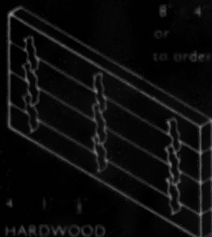
for stair treads



for duct covers

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# **BOROUGH OF OLDBURY BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT**

Applications are invited for the following appointments on the staff of the Borough Surveyor's Department.

(a) **ARCHITECTURAL ASSISTANT**, salary A.P.T. II (£765-£880).

Candidates should be well trained and experienced in the design and preparation of schemes and supervising contracts in connection with general housing including multi-storey flats, public buildings, school buildings, and minor improvements and maintenance works.

The appointment will be superannuable subject to the National Conditions of Service and to the selected candidate passing a medical examination.

Applications giving particulars of age, qualifications, experience, and the names of two referees, should be delivered to the undersigned not later than the 14th October, 1960.

**KENNETH PEARCE,**  
Town Clerk.

Municipal Buildings,  
Oldbury.  
September, 1960. 3510

# **BOROUGH OF WALTHAMSTOW**

**BOROUGH ARCHITECT'S DEPARTMENT**  
Walthamstow is a municipal borough within the County of Essex, population 113,000, rateable value £1,747,737. It is a progressive authority and there is a large programme of interesting architectural and redevelopment schemes to be undertaken.

Applications are invited for the undermentioned vacancies on the permanent staff of the Borough Architect:

(a) **ONE SENIOR ASSISTANT ARCHITECT**, £1,185-£1,355 per annum inclusive of London weighting.

(b) **TWO ARCHITECTURAL ASSISTANTS**, £645-£960 per annum.\*

\* Plus an additional allowance of £25 or £40 depending upon age.

Applicants for post (a) must be professionally qualified and have had extensive experience, and applicants for posts (b) should have the appropriate qualifications.

The Council will make 100 per cent. advances to successful applicants for house purchase within the Borough or in adjoining Boroughs.

Application forms, obtainable from the Borough Architect, Town Hall, Walthamstow, London, E17, must be returned to the undersigned by noon on Friday, 21st October, 1960.

**G. A. BLAKELEY,**  
Town Clerk.

Town Hall,  
Walthamstow, E17.  
26th September, 1960. 3497

# **CITY OF CANTERBURY**

**SENIOR ASSISTANT ARCHITECT** £840-£1,310  
Applications are invited for the above appointment in the City Architect and Planning Officer's Department.

Commencing salary within Special Scale to A.P.T. IV according to ability and experience. The successful candidate will be engaged initially on the new Technical College project and must have attained the necessary standard of professional qualification.

Housing accommodation available if required.

Applications, with the names of two referees, to the City Architect and Planning Officer, John L. Berbers, F.R.I.B.A., A.M.T.P.I., by Saturday, 22nd October, 1960.

Canvassing will disqualify.

**J. BOYLE,**  
Town Clerk.

Municipal Buildings,  
Canterbury. 3498

# **LONDON COUNTY COUNCIL BRIXTON SCHOOL OF BUILDING FERNDALE ROAD, S.W.4**

Required as soon as possible **ASSISTANT LECTURER** (Grade B) in Department of Architecture.

The duties will include teaching and studio supervision and the inauguration of a College Planning research project for which time and suitable facilities will be given. Salary £700 x £27 10s. - £1,150, plus London Allowance £38 or £51 and additions for qualifications and training. Increments within the scale for approved professional experience. Candidates should be corporate members of R.I.B.A. preferably with a Diploma of a Recognised School. Application forms (foolscap s.a.e.) from Secretary, returnable within 2 weeks.

Please quote (Estab.6/AJ/2545/10). 3531

# **NEWTON-LE-WILLOWS URBAN DISTRICT**

## **COUNCIL APPOINTMENT OF ARCHITECTURAL ASSISTANT**

Applications are invited for this post. Salary Grade A.P.T. II. Usual service conditions. Provision of housing accommodation considered.

Preference will be given to applicants who have had experience in municipal housing.

Applications, stating age, qualifications and experience, and the names of two referees, to be received by Clerk of the Council, Town Hall, Market Street, Newton-le-Willows, Lancashire, not later than 17th October, 1960.

3499

# **COUNTY BOROUGH OF BLACKPOOL APPLICATIONS are invited for the following Appointments in the BOROUGH SURVEYOR'S DEPT.**

## **ARCHITECTURAL ASSISTANT.**

A.P.T. I. £610-£765.

## **ASSISTANT ARCHITECTS.**

SPECIAL GRADE. £785-£1,070.

## **ASSISTANT QUANTITY SURVEYORS.**

SPECIAL GRADE. £785-£1,070.

Particulars and Forms of Application from Borough Surveyor (Arthur Hamilton, B.Sc., A.R.I.B.A.), P.O. Box 17, Municipal Office, Blackpool.

2996

# **PLANNING OFFICERS**

## **DEPARTMENT OF HEALTH FOR SCOTLAND**

Four pensionable posts in Edinburgh for men or women at least 30 on 1st June, 1960, with practical experience in town and country planning; must be corporate members of Town Planning Institute. In addition, they must either

(i) have been registered as Architects, or (ii) have achieved corporate membership of R.I.C.S., Institute of Civil Engineers, Institute of Municipal Engineers, Institute of Landscape Architects or Chartered Land Agents' Society or (iii) have a university degree in an appropriate subject.

Duties include collaboration with local authorities on development plans, reports on housing and industrial development proposals and special studies in planning technique, new towns, etc. Male salary scale £1,365 (at age 35 or under)-£1,725. Write Establishment Officer, Department of Health for Scotland, Room 30, St. Andrew's House, Edinburgh, for application form. Closing date 24th October, 1960.

3186

# **CUMBERNAULD DEVELOPMENT**

## **CORPORATION**

Vacancies exist within the Department of the Chief Architect and Planning Officer for the undernoted staff:-

## **(1) ASSISTANT PLANNING OFFICERS (Grade B).**

A.R.I.B.A. and A.M.T.P.I. required. Salary Scale A.P.T. V/VI (£1,230-£1,390).

## **(2) ASSISTANT ARCHITECTS (Grade B).**

A.R.I.B.A. required. Salary scale A.P.T. V/VI (£1,220-£1,390).

## **(3) ASSISTANT ARCHITECTS (Grade C).**

A.R.I.B.A. required. Salary scale A.P.T. III (£880-£1,065).

## **(4) ARCHITECTURAL ASSISTANTS (Grade D).**

Intermediate A.R.I.B.A. required. Salary scale A.P.T. I/II (£610-£880).

## **(5) ENGINEERING ASSISTANT (Grade B).**

University degree, and/or A.M.I.C.E. or A.M.I.Mun.E. required. Salary scale A.P.T. V/VI (£1,220-£1,390).

## **(6) ASSISTANT ELECTRICAL ENGINEER.**

H.N.C. or Grad. L.E.E. required. Salary scale A.P.T. III (£880-£1,065).

## **(7) ARCHITECTURAL/PLANNING DRAUGHTSMAN.**

The scope of work for this post is wide and applicants should be able to develop finished drawings from sketch plans. Experience in preparation of free hand sketches, perspectives and colouring would be an advantage. Salary scale A.P.T. I (£610-£765).

All these posts offer excellent experience in a variety of projects in the development of the New Town.

In all cases the salary scales are at present under review.

Commencing salaries within the above grades will be fixed according to qualifications and experience.

Five-day week.

Local Government Superannuation, subject to medical examination.

Canteen facilities.

Assistance will be given with housing where appropriate.

Application forms which can be obtained from the General Manager, Cumbernauld Development Corporation, Cumbernauld House, Cumbernauld, Glasgow, should be returned not later than Monday, 17th October, 1960.

3672

# **AIR MINISTRY require JUNIOR WORKERS**

UP in Quantities Division in London. Must be fully experienced and competent to work up entire Bills of Quantities. Candidates must hold O.N.C. or C. & G. (Quantities) or equiv. technical qualifications. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 10 days' paid leave a year initially.

Salary ranges from £620 (at age 25) to £975. Applicants who must be natural-born British subjects, should write stating age, qualifications, and exp. to the Manager (FE1234), Ministry of Labour, Professional and Executive Register, Atlantic House, Farringdon Street, London, E.C.4. No original testimonials should be sent. 3085

# **DEVON COUNTY COUNCIL require 2 SENIOR ARCHITECTS on A.P.T. V (£1,230-£1,370), 5 SENIOR ARCHITECTS on A.P.T. IV (£1,065-£1,220) and 4 SENIOR ARCHITECTS on N.J.C. Special Scale (£785-£1,070).**

In approved cases, loans for house purchase and removal expenses are available—also lodging allowance for married officers while seeking accommodation.

Particulars and Application Form, returnable by 21st October, 1960, from County Architect, 97 Heavitree Road, Exeter. 3481

# **BOROUGH OF WORTHING APPOINTMENT OF TWO SENIOR ASSISTANT ARCHITECTS**

Applications are invited for the appointment of two Assistant Architects in the Borough Engineer's Department on Grade A.P.T. IV, i.e. £1,140-£1,310 per annum.

Candidates must have passed the Final Examination of the R.I.B.A. or its equivalent at a recognised school of Architecture.

The appointments will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the provisions of the Local Government Superannuation Acts, and to the successful candidates passing satisfactorily a medical examination.

Applications, stating age, qualifications, experience, present and past appointments, with dates, and accompanied by copies of two recent testimonials, should be submitted to the Borough Engineer and Surveyor, Town Hall, Worthing, not later than the 17th October, 1960.

**ERNEST G. TOWNSEND,**  
Town Clerk. 3522

# **SOUTHAMPTON BOROUGH ARCHITECT'S DEPARTMENT**

Applications are invited for the following permanent posts:-

## **Architects' Section**

## **(a) SENIOR ASSISTANT ARCHITECTS**

A.P.T. V (£1,310-£1,490).

## **(b) ASSISTANT ARCHITECTS**

A.P.T. III/IV (£960-£1,310).

Applicants for post (a) should be members of the R.I.B.A. fully experienced in the design and administration of major building projects.

## **Quantity Surveyors' Section**

## **SENIOR QUANTITY SURVEYORS**

(c) SENIOR QUANTITY SURVEYORS

A.P.T. III/IV (£960-£1,310).

## **(d) ESTIMATING ASSISTANT**

Miscellaneous Grade VI (£760-£825).

Applicants for post (d) should be experienced in estimating for small jobbing works and knowledge of working up and/or site measuring will be advantageous.

## **Building Inspectors' Section**

## **(e) BUILDING INSPECTOR (Improvement Grants) A.P.T. II (£815-£960).**

Applicants for post (e) must be conversant with Improvement Grant procedure and have had wide experience in general building construction.

**HOUSING ACCOMMODATION** available in approved cases, and approved removal expenses reimbursed up to a maximum of £50.

Applicants should possess appropriate qualifications. Commencing salary within grade according to experience and qualifications.

Application forms from the Borough Architect, Civic Centre, Southampton, returnable by 17th October, 1960. 3556

# **AIR MINISTRY require SENIOR TAKERS OFF**

in the Quantities Division, London. Must have wide experience of all classes of work and preferably be A.R.I.C.S. (Sub-Division III Quantities). Salary scale £1,375 to £1,785. (Commencing salary A.Q.E. Non-pensionable but long term. Good prospects of establishment and/or promotion. Five day week. 22 days' paid leave. Applicants must be natural born British subjects. Forms from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.1. Quoting J.340/OA. 3564

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**THE ARCHITECTURAL ASSOCIATION  
SCHOOL OF ARCHITECTURE**  
**APPOINTMENT OF FIFTH YEAR MASTER**  
The Council of the Association offers an appointment for the Fifth Year Master at the Architectural Association School of Architecture. The appointment is full time for four days a week during the academic year. The salary is £1,250 per annum. Full details of the appointment may be had on application to the Secretary, Architectural Association, 35 Bedford Square, London, W.C.1. 3519

**GOVERNMENT OF WESTERN NIGERIA  
VACANCY FOR SENIOR ARCHITECT**

Applications are invited from suitably qualified candidates for the post of Senior Architect (on Contract).

**Qualifications:** Degree or Diploma of a recognised School of Architecture and Association of Royal Institute of British Architects, plus not less than six years' practical experience since qualification.

**Duties:** Liaison between Chief Architect and other Architectural staff, qualified and unqualified. Designs and preparation of working details of Building projects as directed and supervision of drawing office staff in connection with these schemes. Site survey work and limited supervision of buildings in progress.

**Terms of Appointment:** On a contract of two years of 12 months each in the first instance on a Consolidated salary of £2,748 per annum. Gratuity at the rate of £37 10s. for each completed three months' service. Free first class passages for officer and his family on first appointment and when proceeding on leave; free medical treatment for officer and his family. Accommodation is provided at low rentals.

Application should be completed in triplicate on the prescribed form obtainable from the Official Secretary (Recruitment Branch), Office of the Commissioner for Western Nigeria, 178/202, Great Portland Street, London, W.1, from whom further particulars may also be obtained.

Closing date: October 26th, 1960. 3554

**COUNTY BOROUGH OF BURTON  
UPON TRENT**

**BOROUGH ARCHITECT'S DEPARTMENT**  
Applications are invited from suitably qualified persons for the appointment of an ASSISTANT QUANTITY SURVEYOR and an ASSISTANT ARCHITECT each in the Special Grade (£340 to £1,145) of National Scheme of Conditions of Service. Salaries in accordance with qualifications and experience.

Housing accommodation, at a rent, will be provided for the successful candidates if required. Applications giving age, qualifications, full details of experience and names of two referees, to the Borough Architect, Town Hall, Burton upon Trent, by 25th October, 1960.

H. T. MEADES,  
Town Clerk.

Town Hall,  
Burton upon Trent.  
September, 1960. 3516

**CANNOCK URBAN DISTRICT COUNCIL**  
(Population 45,920)

**SENIOR ARCHITECTURAL ASSISTANT  
ARCHITECT'S DEPARTMENT**

Applications are invited for this appointment at a commencing salary within Grade A.P.T. III (£960-£1,140) or IV (£1,140-£1,310). The successful applicant will have an opportunity of gaining experience on a variety of capital schemes including new swimming baths, public offices, etc., in addition to a continuous housing programme.

**HOUSING ACCOMMODATION AVAILABLE**, if married.

Further particulars may be obtained from the undersigned to whom applications should be submitted by 18th October, 1960.

The area of the Authority is not adversely affected by proposals of the Local Government Commission.

H. C. ALLEN,  
Clerk of the Council.

Council House,  
The Green,  
Cannock,  
Staffs.  
September, 1960. 3514

**LONDON COUNTY COUNCIL  
BREXTON SCHOOL OF BUILDING**

Required as soon as possible ASSISTANTS Grade B to teach in Surveying courses:-

1. Building Construction and Quantities.
2. Legal subjects and Valuations.

Candidates should be corporate members of R.I.C.S. with experience of professional practice, teaching experience a recommendation.

Salary £700 x £27 10s. £1,150 London Allowance £39 or £51, with increments for approved professional experience. Additions for qualifications and training.

Application forms (foolscap a.s.e.) from Secretary (FE.3/A/2534/10), Ferndale Road, S.W.4, returnable within two weeks. 3543

**DURHAM COUNTY COUNCIL  
ARCHITECT'S DEPARTMENT**  
**ARCHITECTURAL STAFF-Grade A.P.T. IV.**  
£1,965 to £1,220 p.a. Must be A.R.I.B.A. Particulars from County Architect, South Street, Durham, to whom completed application forms returnable by 19th October, 1960. Personally canvassing the members of the Council is prohibited, and the Council may declare any candidate infringing this rule to be disqualified for election.

J. K. HOPE,  
Clerk of the County Council. 3565

**ARCHITECTURAL ASSISTANT OR  
DRAUGHTSMAN**

Required by KENYA GOVERNMENT MINISTRY OF WORKS on contract for one tour of 36-45 months in first instance. Commencing salary according to age and experience in scale (including inducement addition) £879 rising to £1,422 a year (Architectural Assistant) or £813 rising to £1,341 a year (Draughtsman). Gratuity at rate of 15 per cent. of total substantive salary drawn. Outfit allowance £46. Free passages. Liberal leave on full salary.

Candidates, 22-45, must possess Intermediate R.I.B.A. for Architectural Assistant post or have had a minimum of four years post apprenticeship experience in Architects' office with sound knowledge of building construction for Draughtsman post.

Write to CROWN AGENTS, 4, Millbank, London, S.W.1. State age, name in block letters, qualifications and experience and quote M2B/51158/AG. 3568

**READVERTISEMENT  
NORTHUMBERLAND COUNTY COUNCIL  
COUNTY PLANNING DEPARTMENT**

Applications are invited for the following posts in the County Planning Department:-

- (a) PLANNING ASSISTANT (Special scale, £785-£1,070).

(New scale £840-£1,145, subject to approval of County Council.)

This post is in the Development Plan section and the successful applicant will be engaged on the review of the County Development Plan and on research into specific problems. Applicants should have an analytical approach to planning problems, a good knowledge of statutory planning and experience of work on research and development plan matters, and be capable of writing clear and concise reports. Applicants should be Corporate Members of the Town Planning Institute or hold a suitable alternative qualification.

- (b) PLANNING ASSISTANT, Temporary (Special scale, £785-£1,070).

(New scale, £840-£1,145, subject to approval of County Council.)

This appointment is in the Development Plan section and initially will be for a period of approximately two years. The successful applicant will be engaged on the preparation of Town Maps including schemes for the comprehensive redevelopment of central area. Applicants should have experience of Town Map work, an ability to put forward constructive suggestions for future planning policies, and be capable of viewing problems objectively and producing clear, concise reports. Applicants should be Corporate Members of the Town Planning Institute or hold a suitable alternative qualification.

- (c) LANDSCAPE ASSISTANT (Special scale, £785-£1,070).

(New scale £840-£1,145, subject to approval of County Council.)

The post is in the Design Section and the successful applicant will be a member of a small landscape team. Applicants should have a good knowledge of all aspects of landscape work in connection with the preparation of schemes for various types of development in urban and rural areas, and in addition be capable of reporting on the problems of afforestation etc. which will arise mainly in the Northumberland National Park area. Applicants should be Associate Members of the Institute of Landscape Architects or hold a suitable alternative qualification, with experience in the wider aspects of landscape planning.

The salary for each post will be fixed according to previous experience and ability.

Application forms are obtainable from the County Planning Officer, County Hall, Newcastle upon Tyne 1, and must be returned not later than 21st October, 1960. 3553

**EAST BARNET URBAN DISTRICT COUNCIL**  
Applications are invited from suitably qualified persons for the following permanent appointments:-

- (i) SENIOR ASSISTANT ARCHITECT, A.P.T. IV plus London weighting.
- (ii) ARCHITECTURAL ASSISTANT, A.P.T. II plus London weighting.
- (iii) ARCHITECTURAL DRAUGHTSMAN, A.P.T. I plus London weighting.
- (iv) SENIOR ASSISTANT ENGINEER, A.P.T. IV plus London weighting.
- (v) ASSISTANT ENGINEER, Special Grade plus London weighting.

Application forms, obtainable from the Engineer and Surveyor, Town Hall, Station Road, New Barnet, Hertfordshire, must be returned by not later than Monday, 24th October, 1960. 3558

**BOROUGH OF SUTTON AND CHEAM  
BOROUGH ENGINEER AND SURVEYOR'S  
DEPARTMENT**

Applications are invited for the following appointments in the Architects' Section of the Borough Engineer's Department:-

- (A) ARCHITECTURAL ASSISTANT, Grade A.P.T. IV (£1,140-£1,310 p.a.) plus London weighting £45 per annum.

Candidates must be qualified members of the Royal Institute of British Architects. Work is on an interesting programme of public buildings and housing.

- (B) ARCHITECTURAL TRAINEE, General Division (£250-£530 p.a.) plus London weighting £15 per annum (minimum).

To train as an architect and the person appointed will be expected to pursue a part-time day release course of study for the R.I.B.A. examinations. Applicants must have attained the appropriate educational standard required by the R.I.B.A. (e.g. G.C.E. with five prescribed subjects at "O" level).

- (C) ASSISTANT BUILDING SURVEYOR, Grade A.P.T. II/III (£815-£1,140 p.a.) plus London weighting £25/£45 per annum.

To be engaged generally on the work of maintaining public buildings and other Corporation properties. Applicants should have a good general experience of the building trades and be capable of inspecting and reporting on buildings, preparing estimates and specifications, arranging contracts and supervision of the works, etc.

The commencing salaries will be according to ability and experience.

In the case of appointments (A) and (C) the Council may consider the provision of housing accommodation where necessary.

The appointments which are terminable by one month's notice in writing on either side, are on the permanent staff of the Corporation, each subject to the provisions of the Local Government Superannuation Acts, 1937-53, and to the National Scheme of Conditions of Service.

The successful candidates will be required to pass a medical examination. Forms of application may be obtained from Mr. C. Needham, M.I.C.E., M.I.Mun.E., A.M.I.Struc.E., Borough Engineer and Surveyor, to whom they should be returned accompanied by copies of two recent testimonials, not later than 22nd October, 1960, endorsed "(A) Architectural Assistant, Grade A.P.T. IV," "(B) Architectural Trainee, General Division," or "(C) Assistant Building Surveyor, Grade A.P.T. II/III," whichever applies.

Applicants must state whether they are related to any member or holder of any senior office under the Borough Council. Canvassing in any form will disqualify.

ARTHUR PRIESTLEY,  
Town Clerk.

Municipal Offices,  
Sutton,  
Surrey.  
September, 1960. 3517

**BOROUGH OF KEIGHLEY  
BOROUGH ARCHITECT'S DEPARTMENT**

Applications are invited for the following positions:-

- ASSISTANT ARCHITECT, Grade A.P.T. V, Salary Scale £1,220-£1,375. Applicants must be Associate members of the R.I.B.A., possess good experience in architectural design and building work under construction, and be capable of controlling contract works in their entirety. Quantity surveying experience an advantage.

**ARCHITECTURAL ASSISTANT (Temporary)**, Special Grade, Salary Scale £785-£1,070. Applicants must have had good experience in architectural design and building work under construction. Other things being equal, preference will be given to applicants who have passed the examination for Associateship of the R.I.B.A. Commencing salary to be in accordance with experience.

Applications to be made upon the prescribed form to be obtained from the undersigned, to whom same must be returned, accompanied by copies only of two recent testimonials, not later than first post Tuesday, 18th October, 1960.

E. G. FELGATE, A.R.I.B.A.,  
Borough Architect.

Borough Architect's Department,  
College Street, Keighley. 3520

**HORNCHURCH URBAN DISTRICT COUNCIL  
ENGINEER AND SURVEYOR'S DEPARTMENT**

**APPOINTMENT OF ARCHITECTURAL ASSISTANTS**

Applications are invited for the appointment of Architectural Assistants at salaries in accordance with the Special Grade (£840-£1,145 per annum) with a plusage equivalent to London "weighting." The commencing salaries will be fixed according to the ability and experience of the successful candidates.

Housing accommodation will be provided if required.

Candidates for these posts should have passed the Final Examination of the R.I.B.A., and in addition to general architectural work, the duties will include work on plans for the re-development of the central area of Hornchurch and the erection of a civic centre.

Forms of application can be obtained from the undersigned, to whom completed forms should be returned not later than noon on Monday, 17th October, 1960.

P. L. COX,  
Clerk of the Council.

Council Offices,  
Billet Lane,  
Hornchurch, Essex. 3524



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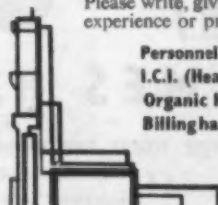
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**ARCHITECTURAL ASSISTANT**

in a small Architectural Section led by an Architect, within the Engineering Department. The work calls for close liaison with chemists and engineers in the design of buildings associated with chemical plant, including offices, laboratories, workshops and general amenity buildings.

The assistant should have a sound knowledge of modern building construction and good design ability allied with a clear appreciation of the inter-relationship between structure, cladding services and cost. Membership of the R.I.B.A. is desirable but not essential.

The Company offers attractive salaries, pension fund and profit-sharing scheme. Removal expenses and assistance in house purchase are available to married men.

Please write, giving brief details of qualifications, experience or present course of study to:—



Personnel Manager.  
I.C.I. (Heavy Organic Chemicals) Limited  
Organic House,  
Billingham, Co. Durham,

quoting reference ED/WH/1.



**QUANTITY SURVEYING ASSISTANTS**  
GRADE III required by AIR MINISTRY in the PROVINCES. Duties include abstracting and billing, site measurement and preparation of estimates. Candidates must hold O.N.C. (Building or Builder's Quantities) or equiv. and have good experience under Quantity Surveyor or Building Contractor. Knowledge W.D. Schedule an advantage. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 13 days' paid leave a year initially. Overseas tours for which special allowances granted.

Salary ranges from £770 (at age 26) to £925. Commencing salary dependent upon age, qualifications and exp. Applicants, who must be natural born British subjects, should write stating age, qualifications and previous appointments including type of work done, to Manager (P.E.2), Ministry of Labour, Professional and Executive Register, Atlantic House, Farringdon Street, London, E.C.4. No original testimonials should be sent. Candidates selected will normally be interviewed in London and certain expenses reimbursed. Only applicants selected for interview will be advised.

3084

**BOROUGH OF NUNEATON**

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department—

(a) **JUNIOR ARCHITECTURAL ASSISTANT.** Grade A.P.T.I to II (£645—£960) according to qualifications and experience.

This post provides scope and opportunity for a varied experience as the Borough Council have varied engineering and architectural work in hand.

(b) **TRACER.** Grade General Division (£250—£530).

Forms of application which must be returned not later than 21st October, 1960, may be obtained from the Borough Engineer and Surveyor, Council House, Nuneaton.

A. A. CRASTREE,  
Town Clerk.

Council House,  
Nuneaton,  
29th September, 1960.

3513

**VACANCIES FOR ASSISTANT ARCHITECT**

in the Office of Public Works, Dublin (at least six). Maximum Salary: (Man) £1,235; commencing salary up to £1,110. Maximum Age Limit: 40 years. Application forms, etc., from Secretary, Civil Service Commission, 45, Upper O'Connell Street, Dublin. Latest date for receiving completed application forms extended to 21st October, 1960.

3455

**COUNTY BOROUGH OF WOLVERHAMPTON**

**BOROUGH ENGINEER'S DEPARTMENT**  
Applications are invited for the following appointments:—

(a) **PRINCIPAL ASSISTANT ARCHITECTS**—salary within Grades A.P.T. IV to V (£1,140—£1,480).

(b) **SENIOR ASSISTANT ARCHITECT**—salary Grade A.P.T. IV (£1,140—£1,310).

(c) **ASSISTANT ARCHITECTS**—salary in accordance with the Special Scale (£840—£1,145).

(d) **ARCHITECTURAL ASSISTANTS**—salary within Grades A.P.T.I to II (£645 to £960).

(e) **ARCHITECTURAL DRAUGHTSMEN**—salary Grade Miscellaneous Scale IV (£625—£855).

Commencing salaries according to qualifications and experience.

Housing accommodation and car allowances may be made available in respect of posts (a) and (b).

Applications, stating age, qualifications, training and experience, and naming two referees, to the Borough Engineer, Town Hall, Wolverhampton, by Monday, 24th October, 1960. 3525

**COUNTY BOROUGH OF NORTHAMPTON**

**TWO SENIOR ASSISTANT ARCHITECTS**

A.P.T. IV/V (£1,140—£1,480)  
Applications are invited for these appointments in Northampton which has an interesting programme of new schools, municipal buildings and multi-storey flats in redevelopment schemes.

Commencing salaries will depend upon ability and experience.

Full particulars and application forms, returnable by 19th October, from Borough Architect, Guildhall, Northampton.

C. E. VIVIAN ROWE,  
Town Clerk.

3515

**COUNTY BOROUGH OF SUNDERLAND**

**BOROUGH ARCHITECT'S DEPARTMENT**

Applications are invited for posts in the above Department, viz:

(a) **CHIEF ASSISTANT ARCHITECTS**—Grade A.P.T. IV.

(b) **SENIOR ASSISTANT ARCHITECT**—Special Grade.

(c) **SENIOR ARCHITECTURAL ASSISTANTS**—Grade A.P.T. I/II.

Salaries according to experience and qualifications. Application forms obtainable from Borough Architect, Grange House, Stockton Road, Sunderland, which, duly completed, must be received at my Office, Town Hall, not later than 28th October, 1960. Canvassing will disqualify.

G. S. MCINTIRE,  
Town Clerk.

3526

**Tenders Invited**

36s. per inch; each additional line 3s.

**BOROUGH OF SCUNTHORPE**  
**TENDERS FOR THE ERECTION OF ONE 14-STORY BLOCK OF 79 FLATS ON THE WESTCLIFF ESTATE, SCUNTHORPE**

The Council invite Contractors who have previously undertaken similar contracts and who wish to submit a tender for this work to forward their names to the undersigned not later than Monday, 10th October, 1960.

The Council reserve the right to select from the applicants a list of firms who will be invited to submit tenders and does not bind itself to accept the lowest or any tender.

A deposit of five guineas will be required from those firms selected which will be returned on the receipt of a bona-fide tender or return of the Bill of Quantities.

T. M. LISTER,  
Town Clerk.

Municipal Offices,  
34, High Street,  
Scunthorpe.

26th September, 1960.

3485

**Auctions**

3s. per line; minimum 12s. Box Number, including forwarding replies, 2s. extra.

**BY DIRECTION OF ST. THOMAS' RURAL DISTRICT COUNCIL**  
**NEAR EXETER at ALPHINGTON.**

**5 ACRES**  
**FREEDHOLD BUILDING LAND.**  
Roaded and all Main Services.

Planning Permission for a Suggested Lay-out of 64 DWELLINGS & GARAGE BLOCKS.

For Sale by Auction in 5 Lots with Possession by RICKEARD, GREEN & MICHELMORE.

At The Rougemont Hotel, Exeter, Wednesday, October 26th, at 3 p.m.

(Subject to Conditions and unless sold beforehand).

Auction Offices: 82, Queen Street, Exeter. phones: 74072/3.

Solicitors: Messrs. Daw & Sons, 19, Richmond Road, Exeter, phone 95231, and at 15, Rolle Street, Exmouth. Phone 4153. 3569

**Architectural Appointments Vacant**

3s. per line; minimum 12s. Box Number, including forwarding replies, 2s. extra.

**ARCHITECTURAL ASSISTANTS** required for interesting work on new Colleges. One Senior and one Junior. Good salaries according to ability. H. V. Ashley & Winton Newman. (HOLBORN 2804.) 2828



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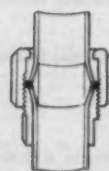
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London Office:

NORFOLK HOUSE, LAURENCE POUNTNEY HILL, E.C.4

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## PARTITIONS



FOR THE NEW OFFICES OF

**THE BANKERS TRUST COMPANY  
BUCKLESBURY HOUSE**

Queen Victoria Street, E.C.4.

Architect: O. Campbell Jones, F.R.I.B.A.

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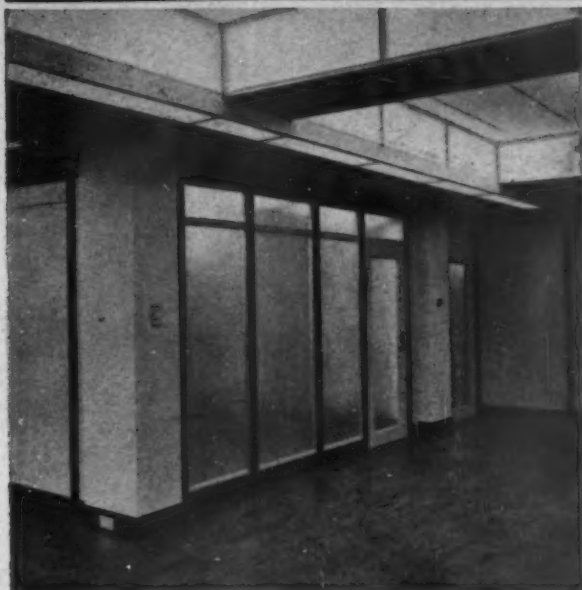
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