

# THE ARCHITECTS' JOURNAL



## standard contents

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

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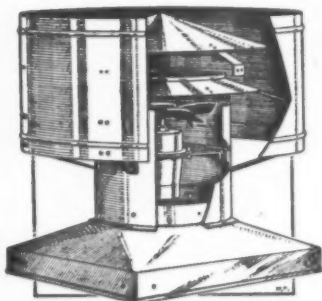
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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where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

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Sloane 3158/1601
ILA	Institute of Landscape Architects. 12, Gower Street W.C.1.	Euston 2450
I of Arb.	Institute of Arbitrators, 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Museum 1783
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Temple Bar 4071
IR	Institute of Refrigeration. Dalmeny House Monument Street, E.C.3.	Museum 7197/5176
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Avenue 6851
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Abbey 6172
IWA	Inland Waterways Association. 11, Gower Street, W.C.1.	Sloane 7128
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Museum 9200
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Whitehall 7264/4175
MARS	MARS Group (English Branch of CIAM). Secretary: Gontran Goulden, Building Centre, 9, Conduit Street, W.1.	Museum 3891
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Mayfair 8641
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Whitehall 3400
MOH	Ministry of Health. Whitehall, S.W.1.	Mayfair 9400
MOLNS	Ministry of Labour and National Service. 8, St. James's Square, S.W.1.	Whitehall 4300
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Whitehall 6200
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Gerrard 6933
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Whitehall 8411
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Reliance 7611
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 1010
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Abbey 4813
NCBMP	National Council of Building Material Producers. 10, Princes Street, S.W.1.	Kensington 8161
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Abbey 5111
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Langham 4041/4054
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Macaulay 4451
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Whitehall 1693
NPL	National Physical Laboratory. Head Office, Teddington.	Langham 4341
NSA	National Sawmilling Association, 14, New Bridge Street, E.C.4.	Molesey 1380
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	City 1476
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	S.W.1. Abbey 1359
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 0211
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Whitehall 7245
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Whitehall 9936
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Edinburgh 20396
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Langham 5721
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 5322/9242
RS	Royal Society. Burlington House, Piccadilly, W.1.	Whitehall 3935
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Regent 3335
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Trafalgar 2366
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Sloane 5134
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Wimbledon 5101
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Western 1571
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Abbey 7244
SIA	Structural Insulation Association. 14, Moorgate, London, E.C.2.	Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Central 4444
SNHTPC	Scottish National Housing & Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	Langham 1984
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. 75, Cannon Street, E.C.4.	City 4771
TGC	The Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 69, Cannon Street, E.C.4.	City 4444
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	Mayfair 8866
WEDA	Welfare Equipment Development Association. 74, Victoria Street, S.W.1.	Victoria 5783
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford	Oxford 47988



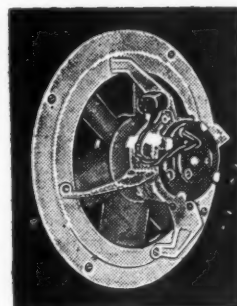
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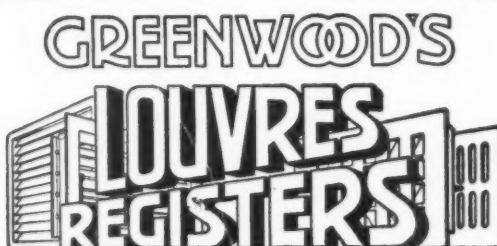
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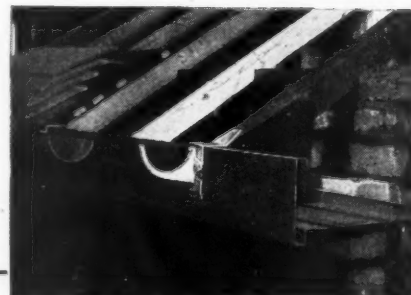


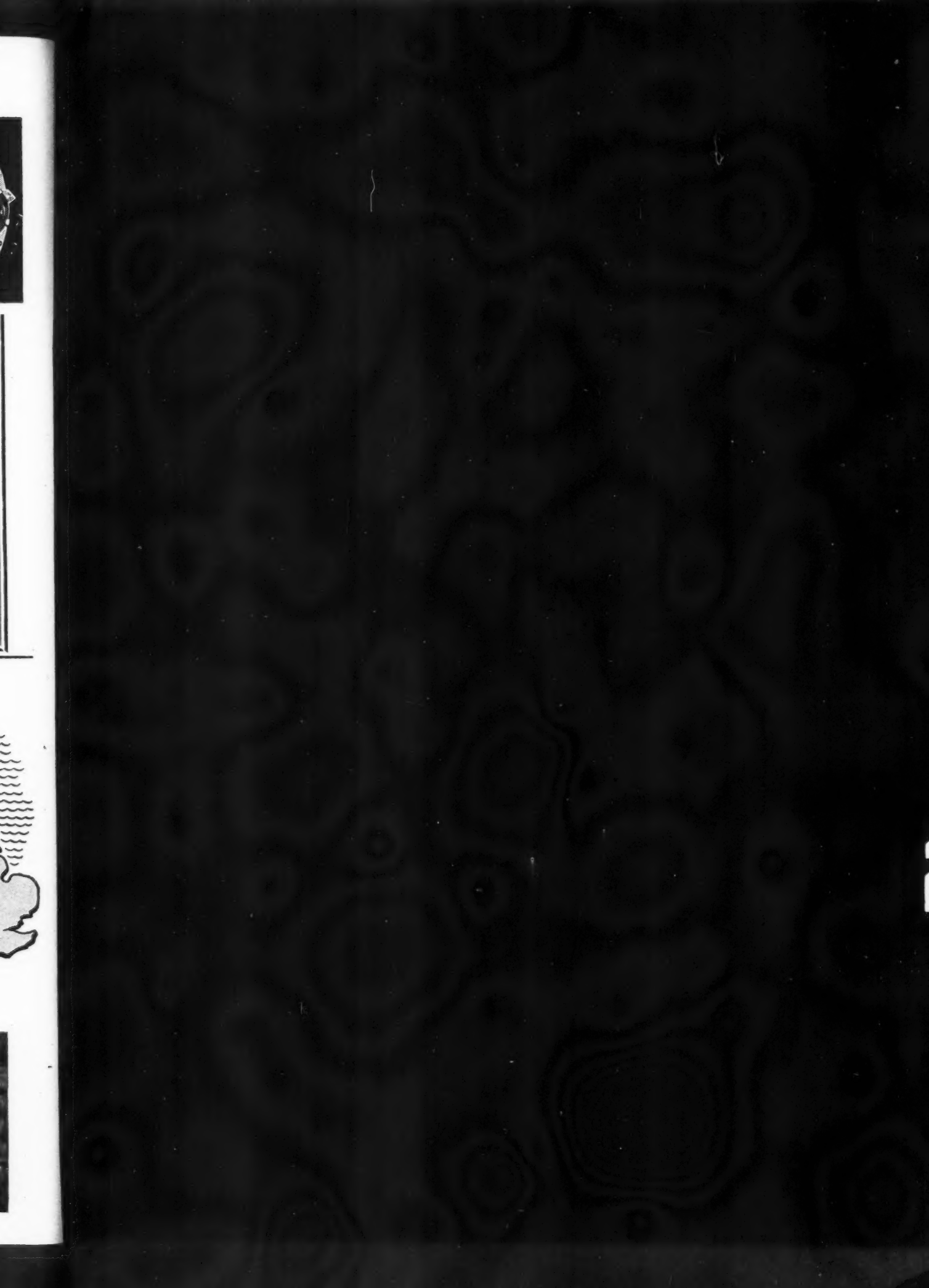
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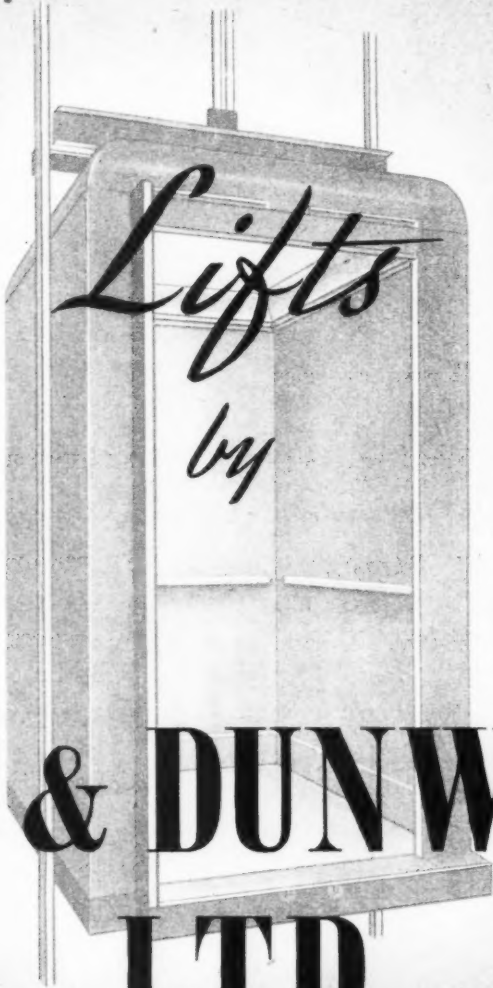








L I F T   E N G I N E E R S

A technical illustration of a lift car, showing its internal structure and the shaft it travels in. The car is depicted in a three-quarter view, highlighting its rectangular frame and the pulley system at the top.

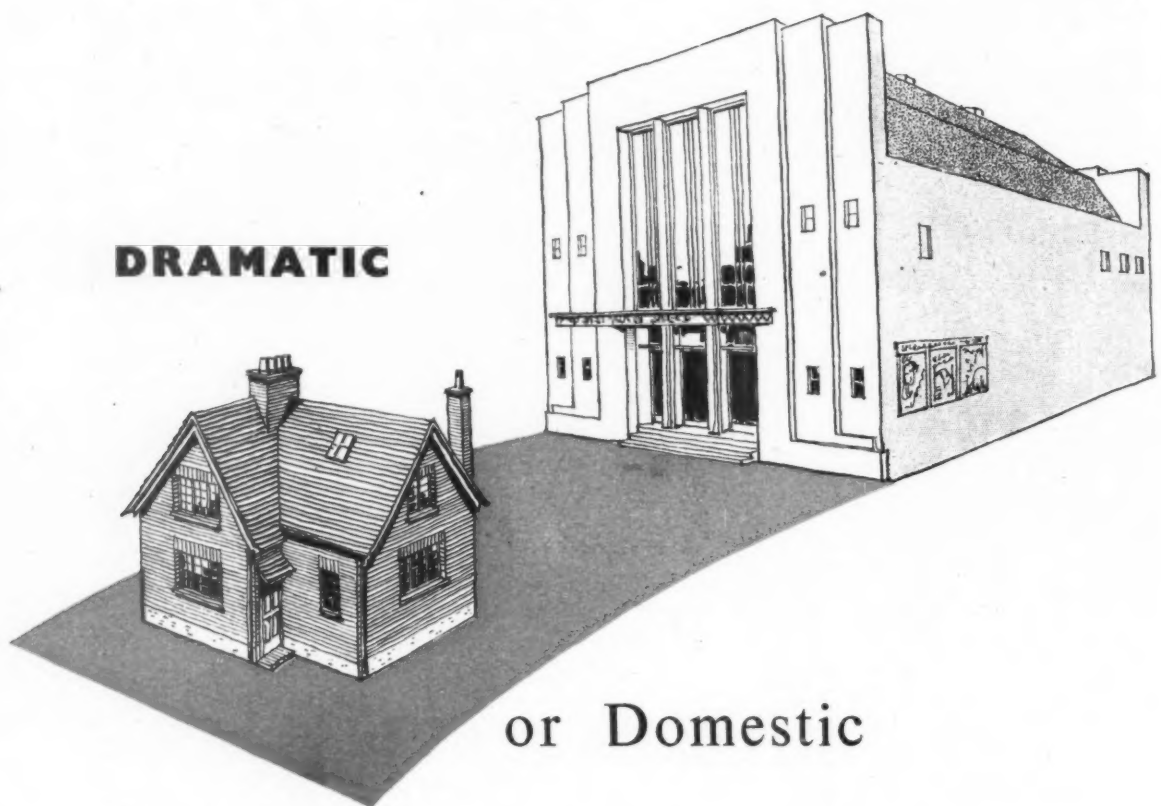
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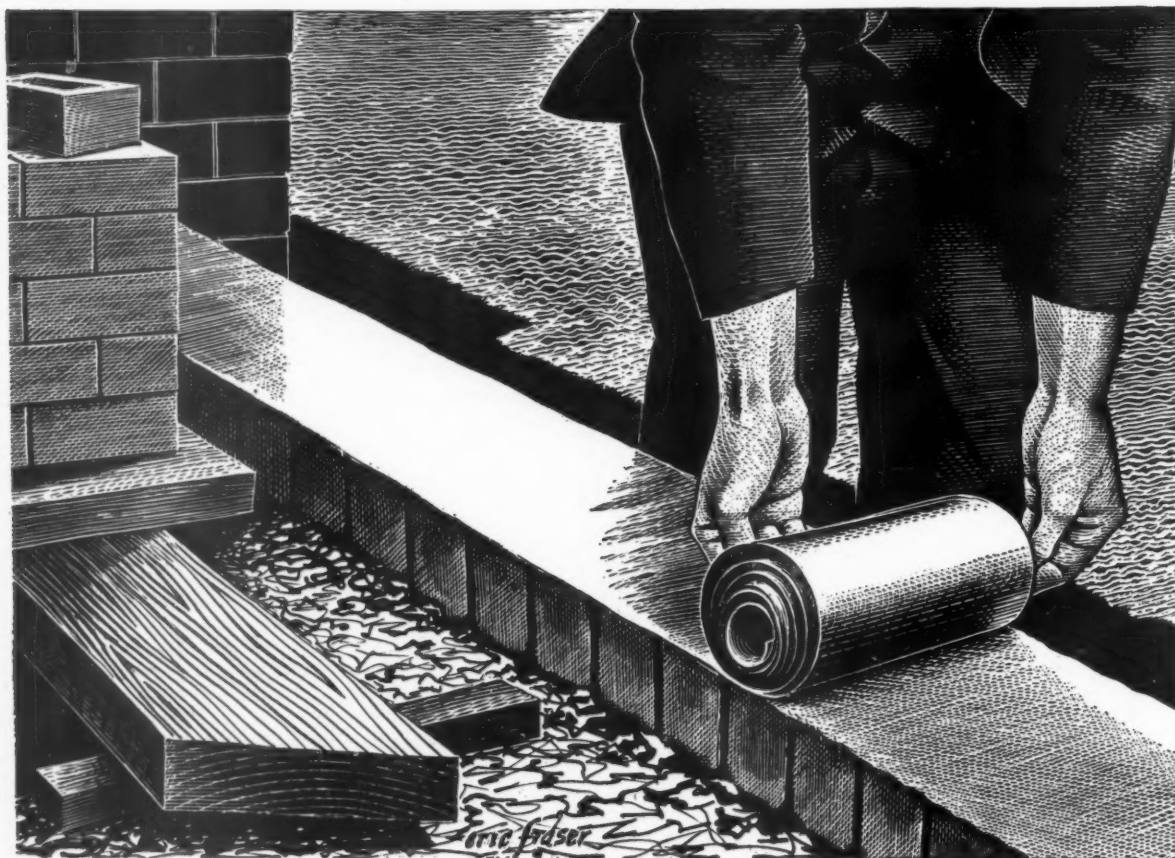
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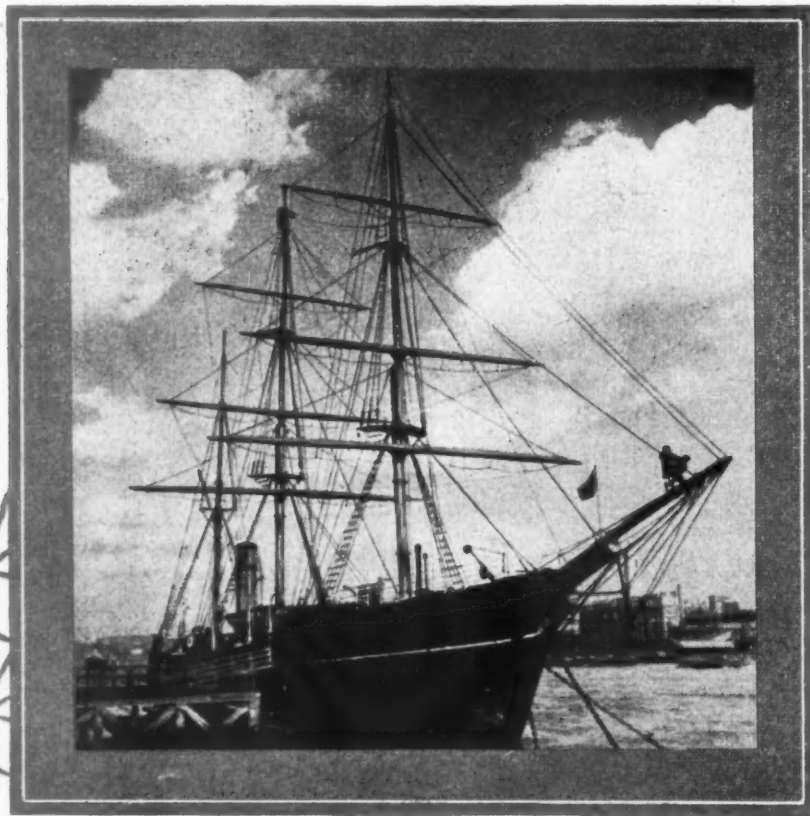
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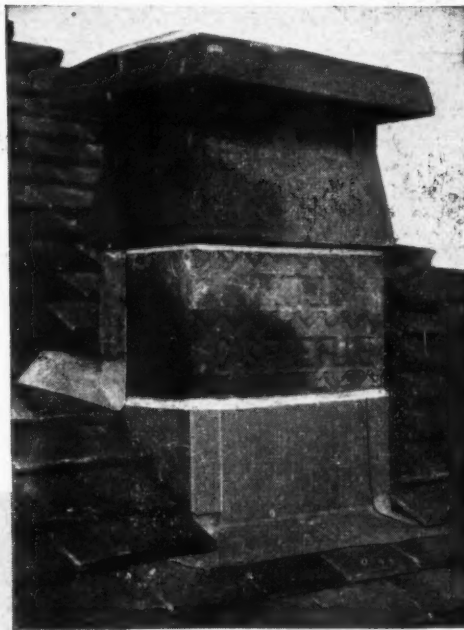
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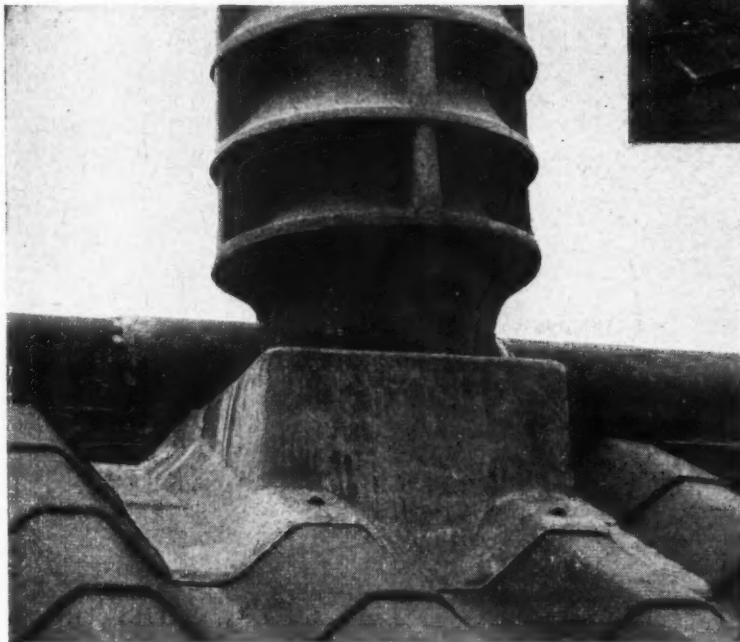
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— THE HOUSING MANUAL, 1949



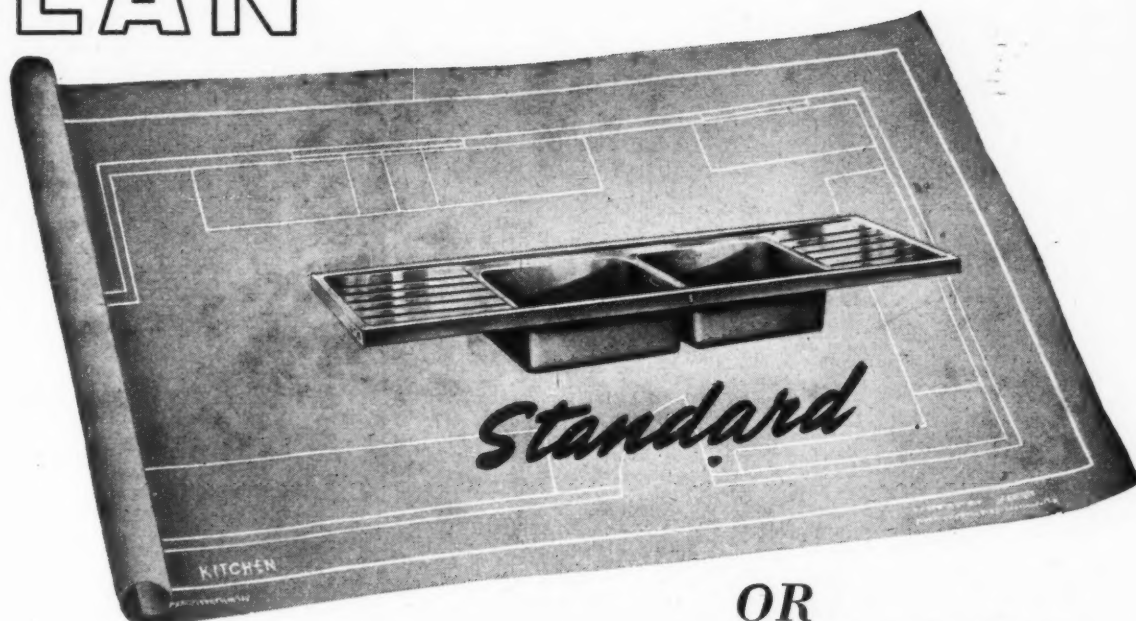
Flats for London County Council at Pembury Road, Hackney.  
Director of Housing and Valuer: Cyril H. Walker, O.B.E., M.C., F.R.I.C.S., L.R.I.B.A.

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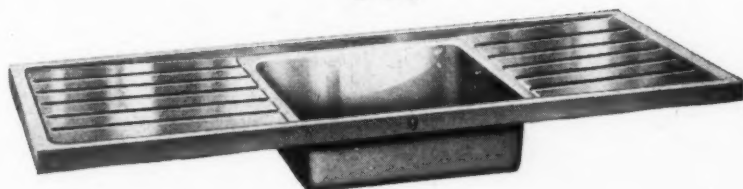
Issued by The National Federation of Clay Industries, London, W.C.1



# according to PLAN



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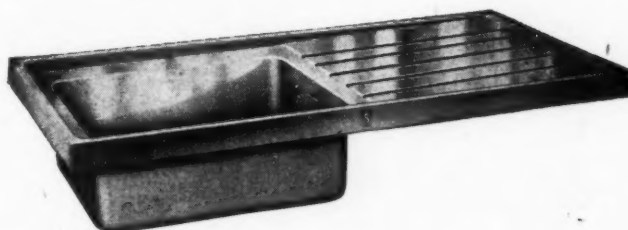


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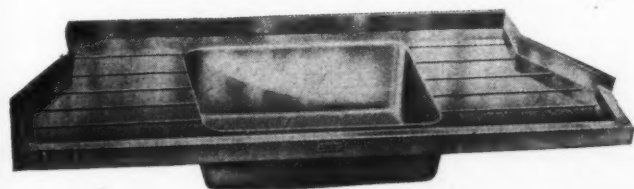


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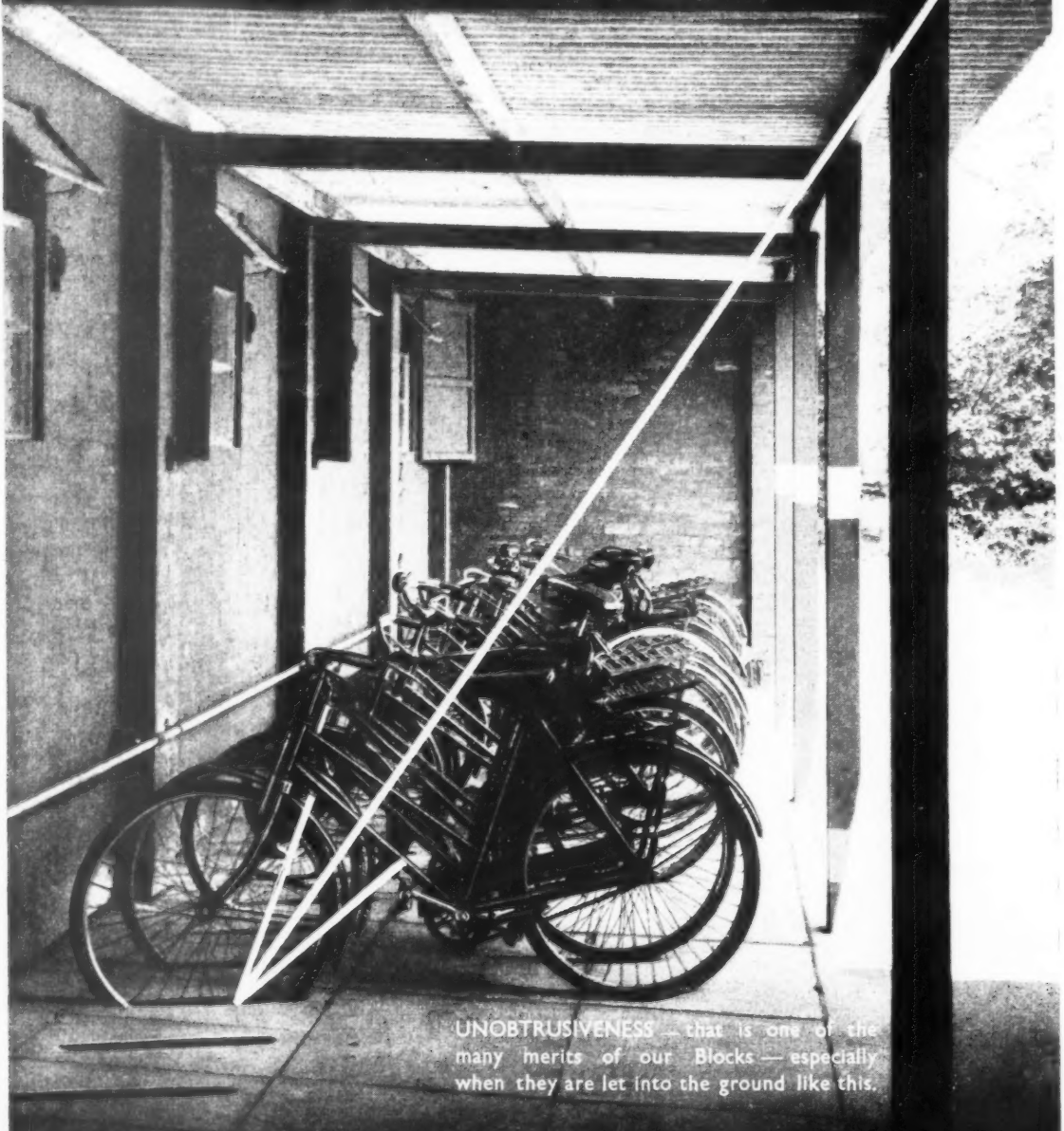
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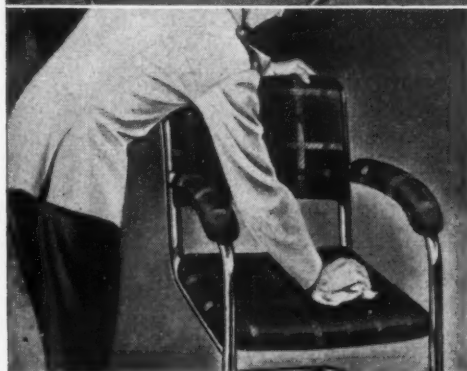
LIVERPOOL: 24, Cornhill,  
Park Lane, Liverpool 1.

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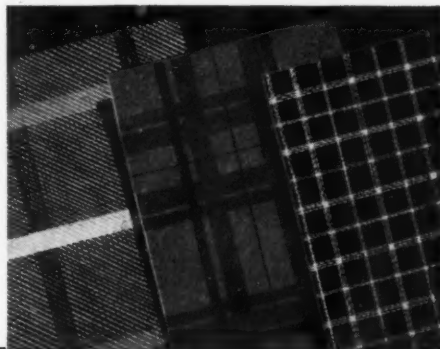
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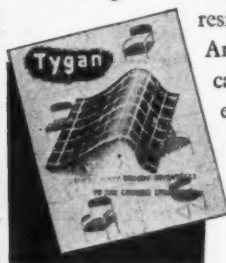
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## *The New House of Commons*

The first illustrations of the partly completed interior of the House of Commons appear in an article in the September issue of *The Architectural Review*, and the photo, above is reproduced from its pages. The article

is written by Tom Driberg (MP for East Maldon), and in it he criticises the work of Sir Giles Gilbert Scott, who designed the new House. For further illustrations turn to page 232

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# NEWS

## DSIR

### *Forest Products Research Reports*

Publication of the annual reports of the Forest Products Research Board ceased with the outbreak of war in 1939. Pressure of work and shortage of staff have caused delay in issuing the reports for the war years 1939-45, which, as a consequence, have been combined under a single cover with those for 1946 and 1947. These are now published for the DSIR by HMSO under the title *Forest Products Research, 1939-1947*, price 3s. 6d., by post 3s. 8d. The reports are each in two parts covering those of the Forest Products Research Board and of the Director of Forest Products Research.

A number of special problems arose during the war. These occupied the attention of the Forest Products Research Laboratory almost to the entire exclusion of its normal work. The present report gives a brief review of its activities during the war period, followed by a reference to proposals for post-war development of the laboratory.

The reports for the years 1946 and 1947 include descriptions in great detail of the work carried out by the laboratory during this period. Headings include Wood Structure, Physics, Seasoning, Wood Bending, Timber Mechanics, Composite Wood, Wood-working, Wood Preservation, Mycology, Chemistry and Entomology.

An account is given of the development of the work on composite wood products (e.g., plywood, improved wood and glues), which began in 1935, with a description of the new plywood laboratory for experimental work on timber, machinery and manufacturing processes.

## KENT

### *Protection of Trees at Shoreham*

Kent County Council has made a preservation order to protect several woodlands and groups of trees in the Sevenoaks rural district, and has submitted it to the Minister of Town and Country Planning for his confirmation. All the woodlands and groups of trees concerned are said to be of importance in the landscape, and the order has been made to ensure that felling shall be controlled and replanting shall take place.

## MOW

### *Office Building*

Offices on the Embankment-frontage of the new Government building known as Whitehall Gardens will be occupied in October by some members of the BOT staff; and the entire first section, providing 270,000 sq. ft. of accommodation, will be taken over next year by the BOT and Air Ministry.

The second section, on land extending from the site of Montagu House to Richmond Terrace, will give 200,000 sq. ft. of office space. It will not be finished until 1955, but this week the MOW has placed the contract for the foundations with Messrs. Trollope and Colls, who did the corresponding work on the first section, including the removal and lowering of King Henry VIII's wine cellar.

## The Editors

### NEW TOWNS: THIS YEAR, NEXT YEAR...?

**I**N assessing the speed at which the new towns are being built it is useful to look back at the views of the New Towns Committee and compare the standards put forward by the Committee on the desirable speed of building with the progress that is being achieved in practice. It is interesting to see that the New Towns Committee in their final report remark that the speed at which the new towns can be built is slower than some would expect. Even so the Committee suggest that the peak rate of building should be reached within three years of the date of the final selection of the site, assembly of sufficient staff and completion of preliminary surveys. During the period of maximum construction a labour force of about 5,000 persons will be required for the building of a town of approximately 50,000 people, and during this peak period about 2,000 houses would be built a year, with related buildings in proportion. The time required to build the new town is put at fifteen to twenty years of the original decision to create the town.

Concerning the progress being made in the new towns as a whole, to-day, it comes as a shock to realise that at the present general rate of progress *fifty years* or more are going to be required to build all the new towns. Mr. Dalton has agreed with the Minister of Health that the Development Corporation should aim at letting contracts for 2,260 houses during the current calendar year. It will be seen from the surveys published in *THE JOURNAL* that in none of the older new towns does the labour force yet reach beyond the 700-800 level. The question must be asked: how much longer will this be pace allowed to continue?

The national housing allocation is about 200,000 houses annually. Two months ago Mr. Bevan declared that the allocation will be maintained during 1951 and 1952. The share of this allocation that goes to the new towns this year is just over 1 per cent. It is to be hoped when the Minister of Town and Country Planning comes to announce the new towns share in the 1951 allocation that he will have agreed with the Minister of Health for the new towns allocation to be doubled or even trebled.

To carry out their building programmes the Development Corporations must be able to keep ahead sufficiently in the completion of their civil engineering works, including services, and this calls for the full co-operation and assistance of government departments, local authorities and the national boards. It is worth remembering that such services have to be provided whatever form the decentralisation of industry and population takes.

In speeding-up the development of the new towns there are two ways in which the greater amount of resources could be used. One, and this has been suggested elsewhere as policy for the London New Towns, is for all efforts to be concentrated on developing one particular new town outside the Green Belt.

This way, however, would seem to be an extremely wasteful use of resources. It would entail the abandonment of the other new towns for which Development Corporations and their staffs are in action, and in several cases are beginning to produce good results. Moreover, the over-rapid building of a new town is likely to raise many new social problems. The other method is to make the fullest use of the Corporations who are in being, and who are now beginning to get into their stride and to encourage them to build at a tempo recommended by the New Towns Committee.

A compromise solution, may well prove the answer. It would be extremely valuable if it would be possible to have a pilot town, an experimental town, or towns, built at a considerably faster pace than the others, from which it would be possible to profit from mistakes made and to take advantage of ideas which prove successful.



#### CHEAP AND FAST

Have you ever studied the expressions of your architectural colleagues at public meetings? If so you will be familiar with the slightly self-deprecating but smug smile of approval which passes over their faces when reference is made to their function as *artists*. To design functional sculpture, so to speak, plumbing, factory plant and parquet flooring, all nicely considered and related in space (or however the current jargon puts it) that is the architect's job. But watch the uneasy expression which grows when someone talks about building *faster*, and the sullen disinterest which spreads when someone speaks of

reducing costs. "Good design costs money," they cry, "and anyway reducing costs is the builder's or manufacturer's task, not ours." That is what they say, isn't it? Those other chaps, I mean, not you or I, or, for instance, those 700 odd delegates at the International Congress of Housing and Town Planning in Amsterdam.

I have just had a report of early proceedings there from a special correspondent, and apparently the Congress was truly international and started well with a demand by the Netherlands Minister of Works for an immediate solution to the problem of building faster and cheaper. An early blow at æsthetic wool-gathering which was followed up, needless to say, by R. Fitzmaurice, the JOURNAL's Technical Editor.

#### A JEWEL IN AN ASH BIN

This phrase was used in the parish magazine by the Vicar of Weaverham, near Liverpool, to describe a church in a new housing estate. Now that is the sort of criticism I like to hear, a tough, frank expression of opinion by the layman. Not the gentle toying with a reluctant phrase on architectural character which you may discover in this



"WHAT ARE PERCY'S PROSPECTS OF £5 PER WEEK AS AN ARCHITECT IN TEN YEARS TIME?"

column when I am in one of my fierce, fearless moods, but refreshingly outspoken stuff. Alas, the vicar has had to retract all the way. He was consulted when the layout was designed, and apparently failed to object then. In a letter to the rural council the vicar wrote: "Now that one of the houses near the church is almost finished externally, I realize that considerable trouble has been taken to tone down the colour so as to be in some sort of harmony with the church. . . . In view of this evident care I wish to withdraw my harsh and unmerited criticism."

This attempt at criticism which has been so quickly crushed intrigues me for two reasons: firstly, why are these local authorities so very thin-skinned? Secondly, why is there such a considerable aversion to new housing estates (described by the vicar in this instance as "a sprawling pink horror") on the part of many of the comparatively better educated public? Is it due to snobbery, bad taste, or dislike of change? Or could it be that most of these planned estates really are rather horrible compared with villages which "just grew"? Perhaps my readers will tell me the answer. After all, these estates are *your* designs.

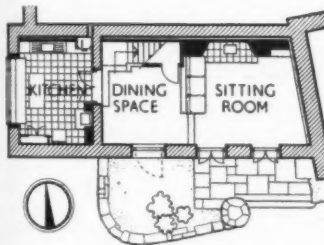
ASTRAGAL

LABOUR DIFFICULTIES IN THE PRINTING TRADE COMPELLED THE JOURNAL IN COMMON WITH MANY OTHER PERIODICALS TO MISS PUBLICATION OF THE ISSUE FOR SEPTEMBER 7, 1950, AND TO REDUCE THE NUMBER OF ITS PAGES IN THIS ISSUE. THIS REDUCTION IS A PURELY TEMPORARY MEASURE AND NORMAL PUBLICATION WILL BE RESUMED AS SOON AS CONDITIONS REVERT TO NORMAL.

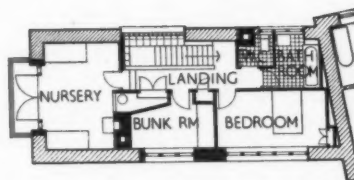
## CONVERSION OF A BARN BY BASIL DUCKETT



A barn, situated on steeply falling ground on the east side of Lake Windermere has been converted for use as a house. The lower part of the barn is built into the hillside. Thus it has not been possible to construct windows at ground floor level on the north side. The barn door opening has been filled with hollow glass blocks, giving light to the staircase. The greater part of the existing Lakeland stone shell of the building has been retained and new portions of stonework have been built in the local traditional manner. Pointing is in lime mortar. The ground floor is of



Ground floor plan



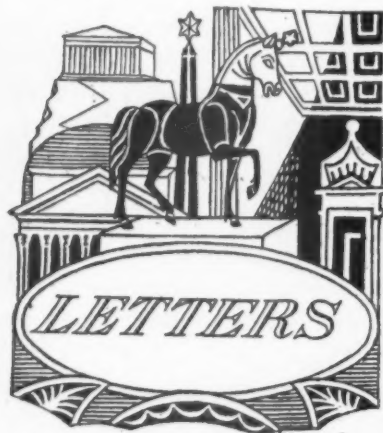
First floor plan [Scale: 3/4" = 1'0"]

KEY:  existing building  
 additions



concrete. The first floor and roof timbers have been replaced. The Westmorland slates have been refixed. The partition walls are of breeze block. The window frames are of wood. The soffits to eaves have been lime-washed. Westmorland slates have been bedded on external surfaces of the concrete lintels. Above left, a view of the house from the south-west. Above, the staircase and entrance to the kitchen. Left, the sitting room and dining spaces. The general contractors were P. A. Baines and Sons (Northern), Ltd.





Aditya Prakash

## Housing for India

SIR,—It was very encouraging to see housing in India discussed in your correspondence columns on August 10. Mr. Hare's defence of the criticism put forward by Mr. Datta is inadequate. It would not be out of place to say a few words about the importance of a courtyard in an Indian House, for the information of British readers. The courtyard is a large family bedroom for about eight summer months in a year; it is a working place throughout the year. All the family functions are held there. In winter, the bright warm sun makes the courtyard a most agreeable part of the house during the day; in summer, the cool breeze of the morning and evening does the same thing. Cooking and dining is usually done in the courtyard. Children play there. Washing and drying takes place there. Anyone fond of growing some vegetables or flowers uses part of the courtyard. A house with an adequate courtyard but inadequate rooms would be quite tolerable.

Neither of the plans shown with the letters published suggests where anything is stored. For any decency in living, it is silly to assume that all the cots and light bedding would be left in the courtyard. Both writers have failed to appreciate that cooking and eating will be done in the courtyard whether they wish it or not, for the simple reason that it is more agreeable. In Mr. Hare's plan one room is clearly nothing more than a passage, and it is no defence to say, "It is the practice . . . to have front door and rear door in one line," without giving any reasons for the practice. Mr. Hare doesn't seem to know what is done at the washing place in the kitchen. It is the cooking and eating utensils that are washed there. The clothes are generally washed in the bathroom. An outdoor washing place for kitchen things would be very desirable for many months in a year.

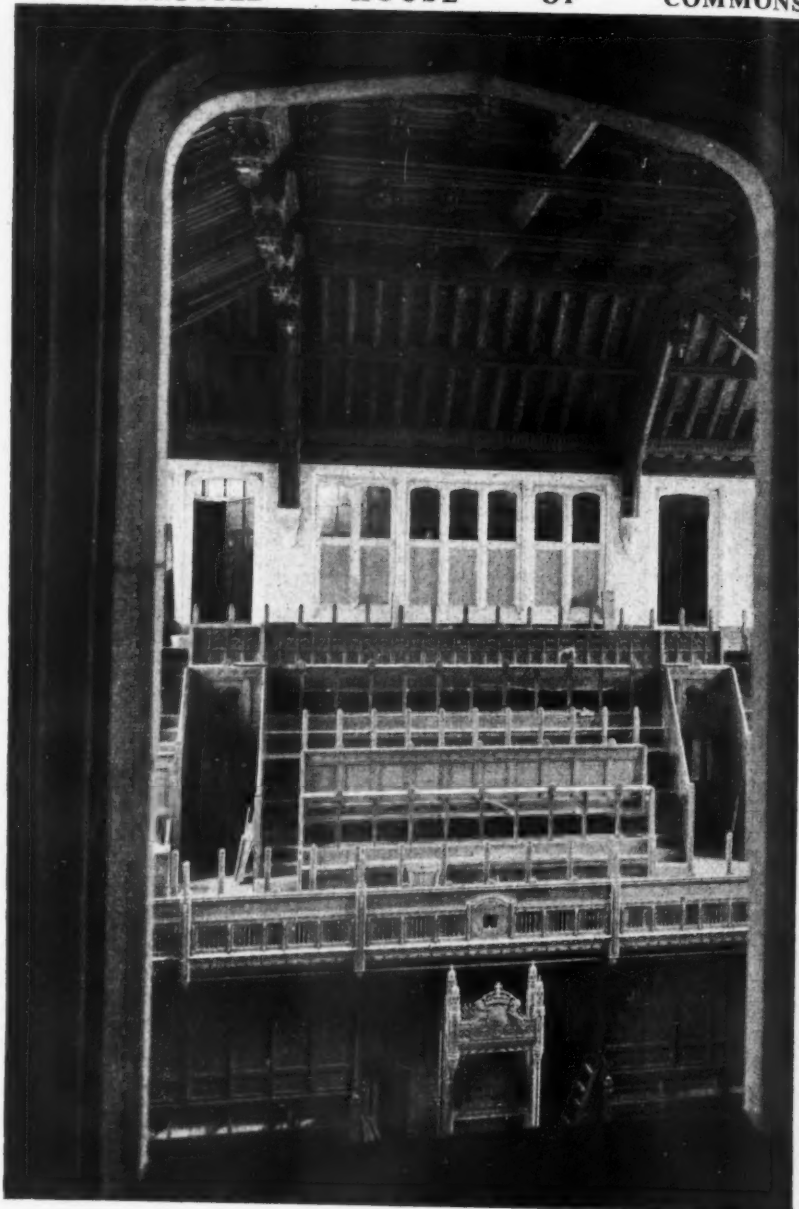
Imagine any of the activities listed above taking place in Mr. Hare's plan! Aesthetically it is of an odd shape. Mr. Datta's plan is certainly a great improvement, but it misses some of the essential things. What about an odd cycle or a child's pram? In the rainy season one cannot sleep inside. Are there enough verandahs for sleeping then. Where is the line for drying clothes supposed to be in the courtyard?

I would humbly suggest that a thorough research should be made into the Indian way of living and housing needs before it is too late.

ADITYA PRAKASH.

London.

## RECONSTRUCTED HOUSE OF COMMONS



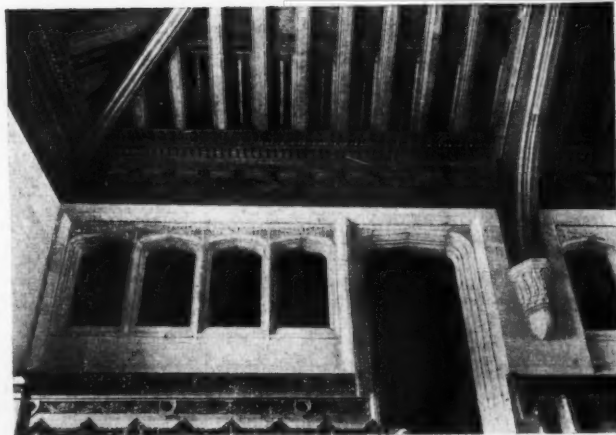
On October 6, the reconstructed House of Commons will be opened. We publish here and on page 228 photographs of the new building, which also appear, together with further illustrations and an article by Tom Driberg, M.P., in the September issue of *The Architectural Review*. Above, the Chamber of the new House is seen from the ordinary strangers' gallery at the south end. The Speaker's Chair, also shown below left, can be seen at the foot of the left-hand opening. On the right is a detailed view of the roof showing air inlets, and the stone screen in the south wall of the Chamber. In view of the varying conditions in different parts of the House, at different times, eight separate air-conditioning plants are provided. Each consists of preheating coils, viscous oil



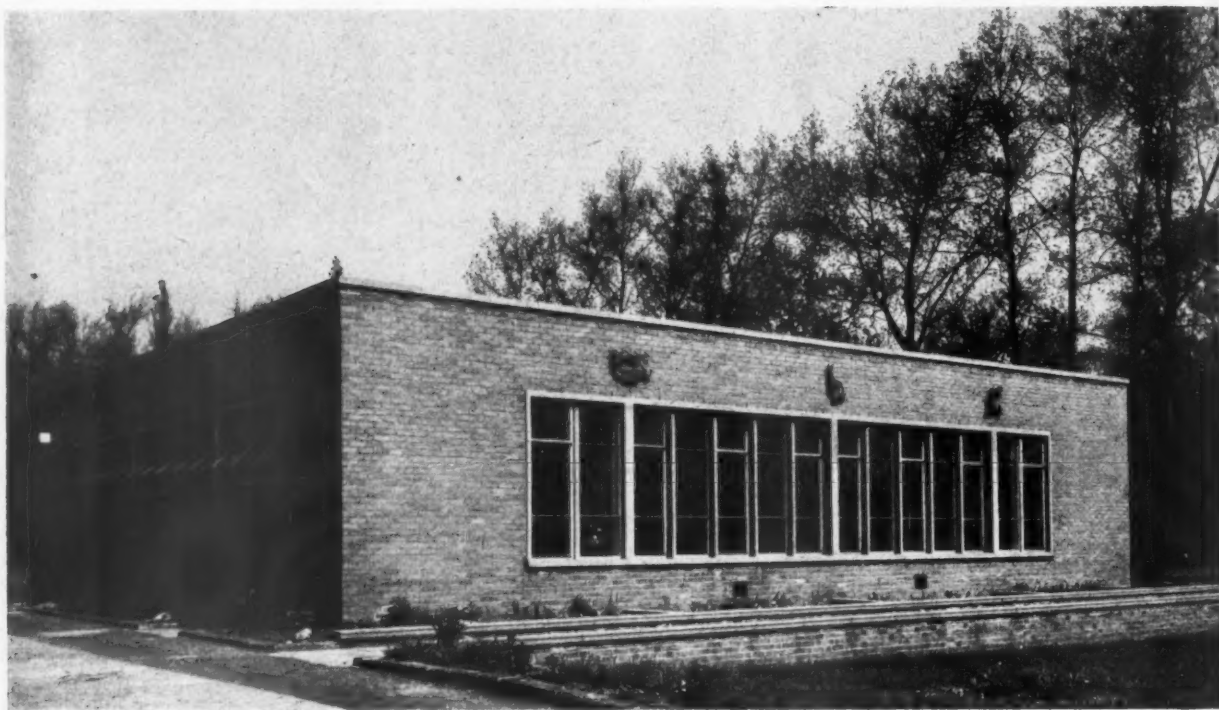
TO BE OPENED NEXT MONTH



filters, electrostatic precipitation filters, an air cooler using brine, air heaters using hot water, humidifying jets and a fan. A sound amplification system is provided in the form of one loudspeaker for each two members, situated in the back of the seats. Microphones are placed at intervals on arms which are cantilevered out from the base of the galleries. These can be turned on and off according to the position of the member who is speaking. Extra rooms have been provided in the reconstruction of the House of Commons by the addition of three floors. Two are in the vertical space of 27 ft. below the floor of the old Chamber where its heating and ventilation apparatus was housed. The third floor, for the Clerk of the House and his staff, is over the top of the new House.



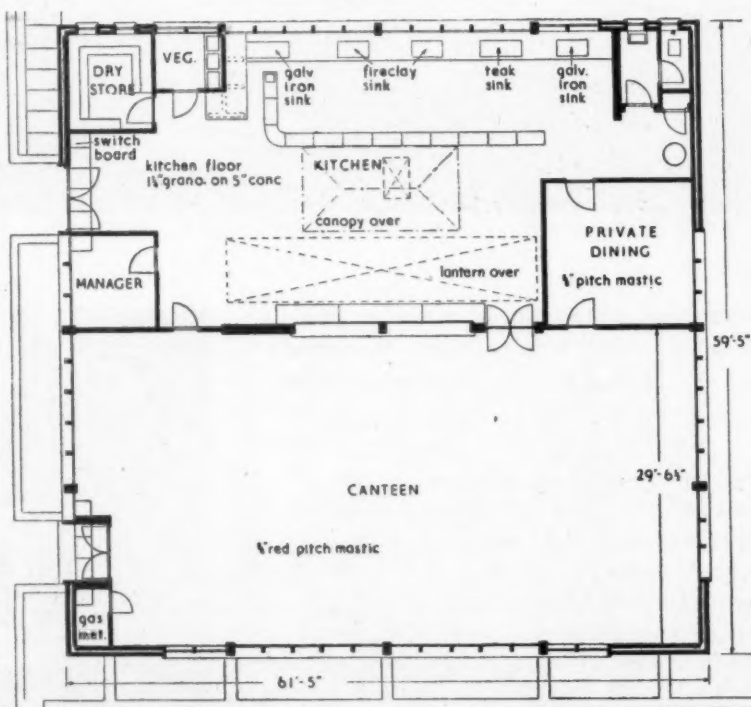
# CANTEEN AT GATESHEAD, NORTHUMBERLAND



The canteen at Gateshead Northumberland, for Mary Harris Ltd., was designed by Napper and Taylor and is used by employees of the firm. The site is open to the north, bounded by trees and an estate road on the east, by another estate road on the south and by the factory on the west. All sub-floors are of concrete. The 11-in. cavity external walls are of brick. The internal brick walls are 9 in. and 4½ in. thick. The roof is of wood wool cement slabs carried on inverted steel T-sections on purlins. The roof is carried by a steel frame. The sills, mullions, and copings are of artificial stone. The window frames are of metal. The finishes are as follow:—Canteen: floor, composition; walls, plastered and distempered, off-white above dado; ceiling panels, plastered; supporting T-sections and steelwork, silver grey; doors, turquoise; door frames, silver grey. Kitchen: floor, granolithic; walls, distemper on brick, terra cotta dado, off-white above dado; ceiling and steelwork, silver grey; bench tops, sycamore; door frames,

pale grey; canopy and trunking over range mist grey; servery counter, oak veneers stained and varnished. Heating; low-pressure hot water radiators and radiant panels connected to the factory system.

Hot water for washing purposes is provided from a separate storage cylinder. Above, the exterior of the canteen. The general contractor was Isaac Berriman.



Floor plan [Scale: ¼"=1'0"]

## OFFICES

at ST. LOUIS, MISSOURI, USA  
designed by HARRIS ARMSTRONG

The building contains the administration headquarters of the American Stove Company, which, in its five factories, makes more gas cookers than any other firm in the United States. Accommodation provided is for a staff of 107.

*The main entrance and lobby.*





*The offices from the south-east*

## OFFICES

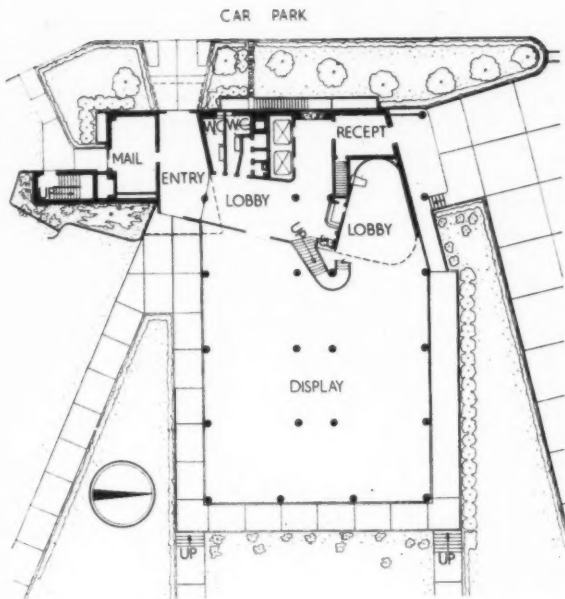
at ST. LOUIS, MISSOURI, USA  
designed by HARRIS ARMSTRONG

**SITE.**—The level of the site is slightly above that of its surroundings. Certain areas surrounding the building have been covered with gravel which is of the same colour as the brickwork of the building, and other parts have been planted with prostrate juniper.

**PLAN.**—The building is six storeys high. Provision has been made for an extension to be added on the west side, using the existing vertical communication system. Accommodation is allocated as follows :

Basement—boiler room and services. Ground floor—a display area for the company's products. First floor—offices for local sales. Second floor—accountancy department. Third floor—sales research and advertising departments. Fourth floor—engineering and president's offices. Fifth floor—library, board room and recreation. Executives' offices on the second, third and fourth floors, located in the north-west corner of the building, are directly above and below one another, facilitating intercommunication





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



Fourth floor plan



Fifth floor plan

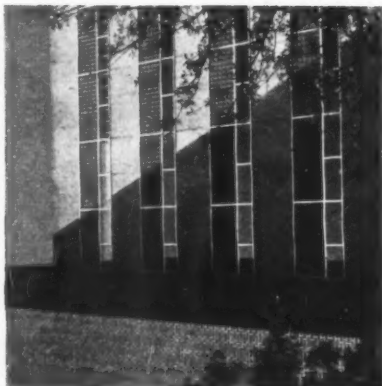
**CONSTRUCTION.**—The structural frame is of reinforced concrete. The panel floors are supported by joists. Ceilings to work areas are of perforated metal pans. Ceilings to other areas are plastered. Window frames are of aluminium; double glazing and glass blocks are used.

**EXTERNAL FINISHES.**—The building is faced with cut buff limestone and a locally made sand finish deep pink brick. Exposed aluminium is anodized.



## OFFICES

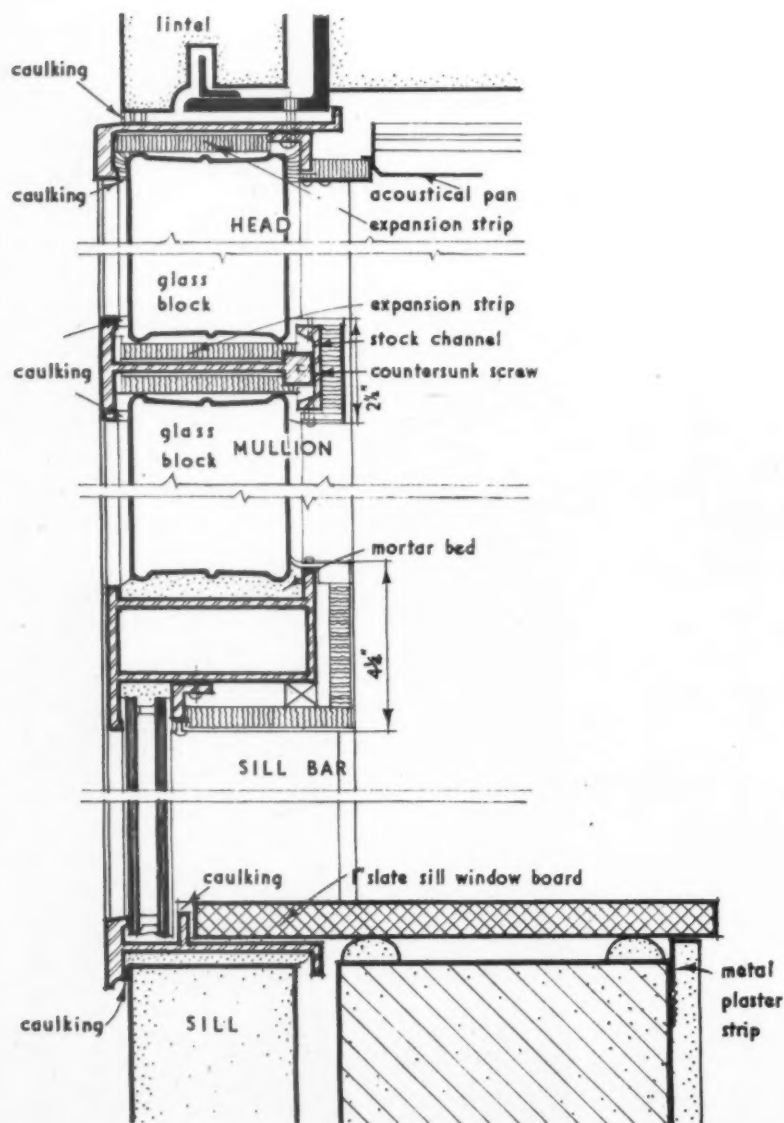
at ST. LOUIS, MISSOURI, USA  
designed by HARRIS ARMSTRONG



*The south wall*

**INTERNAL FINISHES.**—Floors are covered with terrazzo, asphalt tile and carpet. Walls in executives' offices are faced with cloth backed wood veneer. The ceiling to the ground floor display area is deep blue, to the recessed ceiling in the lobby, deep yellow.

**SERVICES.**—The air conditioning system draws hot and cold water from a centrally placed heater. A fan room is situated on each floor. Air distribution ducts are situated in the ceiling and return ducts are under the floor. Gas-fired boilers have been installed; facilities for using oil fuel are also available.



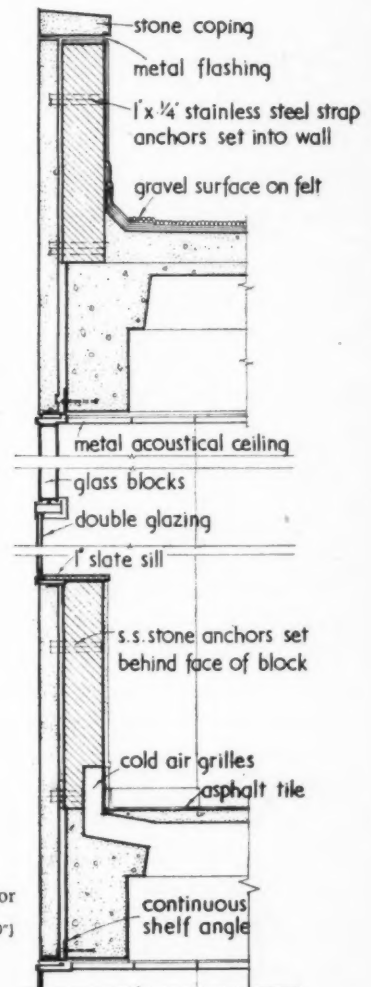
Section of typical south wall window  
[Scale: 3"=1'0"]

**MAINTENANCE.**—One man looks after all electrical and air conditioning apparatus and plumbing. The building superintendent employs three people full time and two charwomen five nights a week. Floors are waxed and cleaned by an outside contractor once a month. Windows are washed outside once a month and inside once every three months by a company which stated that it would charge the same price to clean windows, whether they used their own rigging or equipment which was part of the building. Window cleaning equipment has, therefore, not been incorporated.

**DAYLIGHTING.**—The attention given to daylighting of the 26-ft. deep offices is of interest. Windows face north and south only. The entire 10-ft. depth of the north wall is of glass, eliminating

the silhouette effect of any wall on this side and providing double the illumination of conventional fenestration. The 6-ft. 7-in. deep south wall windows are partly of clear glass, but mainly of glass block. The prismatic blocks refract rays of sunlight to the ceiling. This method provides adequate light on cloudy days, but not as much as

Section through fifth floor  
[Scale:  $\frac{1}{2}'' = 1'-0''$ ]



The showroom.

## OFFICES

at ST. LOUIS, MISSOURI, USA  
designed by HARRIS ARMSTRONG

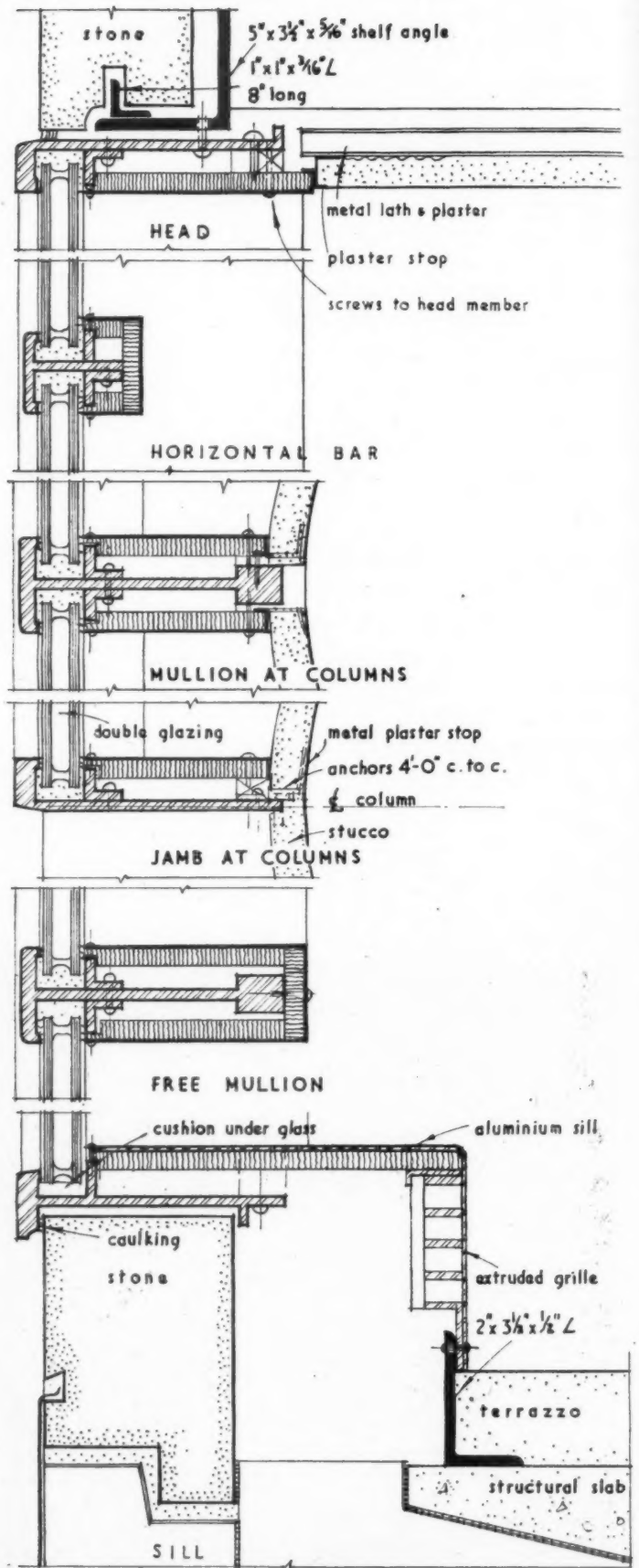
that provided by a clear glass window. Winter sunshine tends to make the glass blocks appear brighter than sunshine seen through clear glass, as compared with surrounding walls and the ceiling. Blinds eliminate the annoyance caused by spring and autumn sun shining on desks near the window. Blinds are not necessary in summer. Illumination on a desk 6 ft. away from the south window ranges from 180 ft. candles in winter to 280 ft. candles in spring and 145 ft. candles in summer. Similar readings for a desk 18 ft. away are 50, 80 and 45.



An office on the fourth floor.

Section through ground floor south wall

[Scale: 3" = 1'0"]





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QUESTIONS AND ANSWERS · CURRENT TECHNIQUE  
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## TECHNICAL SECTION

*A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order. Headings below.*

### INFORMATION CENTRE

#### 4.62 planning: urban and rural STOCKPORT TOWN CENTRE

*County Borough of Stockport: Town Centre Replanned.* Thomas Sharp. (Stockport Corporation. 1950. Copies obtainable from Town Clerk's Office, Room 43, Town Hall, Stockport. 1s.)

Pamphlet to stimulate public interest in the first instalment of Dr. Sharp's advisory proposals for Stockport development plan. 8 pp. text, 13 illustrations.

This pamphlet is decidedly pleasing; the planning proposals are reasonable and interesting; the format of the pamphlet is attractive and modest.

The central area of Stockport, which has an overall population of about 140,000 inhabitants, occupies an area of about 120 acres. During the last 75 years little rebuilding has taken place, except for the usual public buildings, cinemas and pubs, and at least 90 per cent. of the present buildings will have to be replaced by modern buildings as soon as conditions permit. Large numbers of shops are merely converted dwelling-houses. Within the area are a great many streets of densely-packed houses, or sites cleared of such houses before the recent war. Controlling factors in the replanning include the hilly nature of the site and the presence of two major roads (one of which is the A.6 London-Manchester Road), which meet at a junction within this area.

Description of the proposals is largely on the subject of main roads and traffic, the importance of separation of through from local traffic and the means of achieving this in the town centre.

From the aspect of siting planning, Dr. Sharp writes of a feature which has some of the spectacular quality of the Castle Rock, Edinburgh. This is Pickford's Brow,

which rises sheer 45 ft. above land which it is suggested should be turned into public gardens. Above the brow, on High Bank side, a fine opportunity exists for creating a piece of dramatic architecture. A good use of the site would be for new Law Courts.

The Council have published this pamphlet to stimulate Stockport people into expressing their views on these preliminary proposals before a draft development plan is prepared. The selling price of 1s. should ensure that many people at least buy a copy.

The contents are readable, the reproductions of two perspective drawings are charmingly realistic in the way they reflect the somewhat grimy beauty of the scene. The reproductions of the plans are large enough for details to be seen, but the task of deciphering the plans is probably too difficult for the average reader to master. The prime fault is an insufficiency of names, and this is especially the case in the monochrome reproductions of coloured plans.

#### 4.63 planning: urban and rural AYLESBURY ADVISORY PLAN

*Advisory Development Plan for Aylesbury.* Anthony M. Chitty. (Copies obtainable from W. H. Smith, Aylesbury. 1950. 2s. 6d.)

Report of the consultant appointed by Bucks. County Council, as the local planning authority, to prepare an advisory plan for the borough of Aylesbury. 46 pp., 4 diagrams, 4 folding maps.

The plan was prepared between January, 1949, and February, 1950. The survey material for the town and district was supplied by the county planning officer and area planning officer jointly on the lines set out by the MOTCP circulars 59 and 63.

Aylesbury is a local centre for agriculture and market interests. The present population is less than 20,000, and the extent to which the population should be allowed to grow is one of the chief topics of the report. The MOTCP view is that 17,000 Londoners should be introduced into the town of Aylesbury as part of the policy for the decentralization of population from London. This would mean that the total population, after allowing for any natural increases, would rise to 38,000. The consultant, in preparing the plan, has accepted this figure, but he puts forward his view that the total population should preferably not rise above 28,000 for reasons of drainage, water supply, communications, social considerations and difficulties of realization.

Turning, later in the report, to the subject of architecture and landscape, the consultant has a paragraph on gasworks, and as the location and design of new gasworks is a problem which is increasingly coming to the fore, it is worth quoting Mr. Chitty's remarks in full:

"Though not within the area of this town plan, the new regional gasworks at Bierton must be mentioned. The new works is one of the first modern plants to be built since the war, and in open countryside. The buildings will form a very large and conspicuous object in the green spaces of the Vale of Aylesbury, with gasholders 210 and 150 ft. in height and other high buildings and plant covering an area of some 26 acres. The works

is essential, but it is also essential that its elevations and the choice of colour, material and texture should be the work of a qualified designer. There is an opportunity here to create a really first-class design which will become a precedent for future gasworks throughout the country."

Through the publication of this booklet it should be possible for the borough council and inhabitants of Aylesbury, together with their county council and neighbouring local authorities, to have useful discussions about these advisory proposals, as the content and layout of the report is well suited to promote discussion. The two maps are among the best-produced maps of recent times.

#### 6.26 planning: social and recreational SPORTS REQUIREMENTS

*Games Compendium.* Edited by Richard Sudell. (J. Burley & Sons Ltd. 1950. 2s. 6d.)

Sizes and requirements for wide range of outdoor and some indoor games requirements. Pitches, etc., illustrated.

This is a useful reference book as it covers a wide range of sports. In addition to giving sizes, there are very brief notes on history, apparatus, etc. Most of the information seems fairly complete, but sizes suitable for children's pitches are not given, and in some cases additional information, such as height for Badminton, might have been added.

#### 13.60 materials: timber PLYWOODS

*Plywoods.* A. D. Wood and T. H. Linn. (W. & A. K. Johnston Ltd. 2nd Edition. 1950. 40s.)

First published in 1942, present edition includes the many developments which have since occurred. Undoubtedly the "standard work" on plywoods, and likely to remain so.

Over 500 pages, admirably printed, well illustrated, and containing much statistical data and a good index. This revised edition of a book well known to be reliable in its facts will almost certainly remain a standard work for many years. Although sufficiently full of technical data to be valuable to the specialist, it is sufficiently clear to be useful as an architect's reference book. In particular, architects may find Part VII, which describes various types of wood most useful, as it includes information on many of the lesser known types.

A criticism, from the architect's point of view, is that many applications are illustrated only by photograph when drawings would be so much more helpful, especially so in view of the fact that there is so little good information on new techniques in building construction which make use of plywood. More details of the kind which illustrate the construction of corners and jointing methods would be useful.

#### 14.32 materials: concrete BREEZE AND CLINKER BLOCKS

*One-time Symbol of Poor Work, Breeze Block gets a New Status.* T. W. Parker. (Municipal Journal. July 14, 1950.)

Short article by Dr. Parker, of BRS staff. Useful notes on improvement of blocks, references to British Standards and ideas for future research and development.

The mere fact that so many people still speak of "breeze" blocks rather than "clinker" is itself some indication of how little awareness there is of the research and development that has taken place in recent years. The old breeze block was a poor material, rightly regarded as a sign of cheap work. Now, the clinker block, though far from perfect, can be regarded as a valuable building material if it is

1 Sociology. 2 Planning: General. 3 Planning: Regional and National. 4 Planning: Urban and Rural. 5 Planning: Public Utilities. 6 Planning: Social and Recreational. 7 Practice. 8 Surveying, Specification. 9 Design: General. 10 Design: Building Types. 11 Materials: General. 12 Materials: Metal. 13 Materials: Timber. 14 Materials: Concrete. 15 Materials: Applied Finishes, Treatments. 16 Materials: Miscellaneous. 17 Construction: General. 18 Construction: Theory. 19 Construction: Details. 20 Construction: Complete Structures. 21 Construction: Miscellaneous. 22 Sound Insulation-Acoustics. 23 Heating, Ventilation. 24 Lighting. 25 Water Supply, Sanitation. 26 Services Equipment: Miscellaneous. 27 Furniture, Fittings. 28 Miscellaneous.



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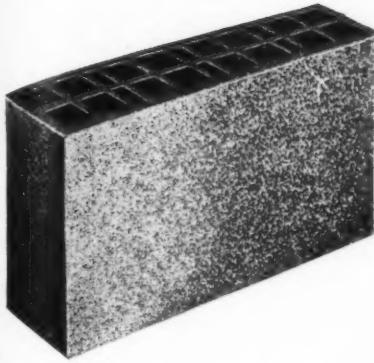
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Modern Breeze Block.

properly made. Research has shown how quality can be controlled, and this article serves as a useful reminder of the need for control over the quality of clinker aggregate as well as over the quality of manufacture. With the greatly increasing use of lightweight blocks for the inner leaf of cavity walls because of their good heat insulating properties it becomes increasingly important for both architects, builders and surveyors to local authorities to be aware of the facts. In addition to giving information on the present state of affairs the author refers to efforts being made to improve the quality of aggregate by cleaning and purifying, he also refers to the possible advantage of a quick drying block in reducing cracking.

#### 18.56 construction: theory BUILDING SCIENCE

*Building Science III.* S. C. Gibbins. (Pitman. 1950. 8s. 6d.)

An elementary book intended for junior building students. Good condensation of accurate information.

Although intended for junior building students and of an extremely elementary nature, there is a good deal in this book for young architectural students. Heating, comfort, sound, and electricity are competently dealt with. Common materials are covered rather less adequately, but all information shows an awareness of up-to-date information.

#### 19.101 construction: details

##### COMPOSITE ROOF TRUSSES

*Bauformen Stählerner Verbund-Fachwerkträger* (Types of Composite Steel Concrete Lattice Girders). O. Steinhardt. (Die Bautechnik [Germany], July 1950, pp. 216-217.)

Composite steel and concrete construction, previously of full web types, now suggested for open web lattice girders. Economy claimed in roof trusses with concrete slab rafters. Promising development.

Steel joists and concrete slabs have been successfully integrated in composite girders for floors and bridges, the saving in steel

being due to replacing the steel compression flange by reinforced concrete. The main problem is the efficient bonding of the steel parts into the concrete flange, and this has been achieved by various types of riveted or welded cleats, or wire spirals welded to the steel top flange, as used in a bridge in Holland. The latest development is represented by the composite roof truss. This consists of continuous solid round steel bars bent to a zig-zag form and welded to a straight lower chord. A temporary steel top chord carries timber shuttering on which the concrete slab can be poured. After the concrete has set, the zig-zag diagonals are firmly bonded, and the steel top chord, together with the timber shuttering, can be struck by simply undoing a few bolts. Thus the top chord and shuttering are only used during construction, usually in the horizontal position, leaving the concrete slab acting as the compression chord of the truss. While somewhat similar ideas have been tried before, the tests at the Karlsruhe laboratories may well provide results of considerable value where slabs with continuous surfaces are required for roofing or flooring

mation such as slab thicknesses and concrete mixes is tabulated.

For builders there is a useful appendix giving names and addresses of firms manufacturing machinery suitable for use in concrete road construction.

Readers requiring up-to-date information on building products and services may complete and post this form to *The Architects' Journal*, 9, 11 and 13, Queen Anne's Gate, S.W.1.

### ENQUIRY FORM

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

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Please ask manufacturers to send further particulars to:—

NAME

PROFESSION or TRADE

ADDRESS

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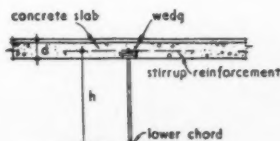
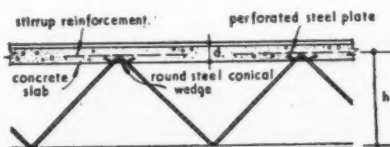
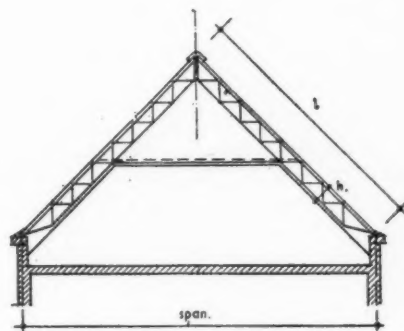
#### 21.35 construction: miscellaneous CONCRETE ROADS

*Questions and Answers on Concrete Road Construction.* Road Research Laboratories. (Issued by Cement and Concrete Association. 1950.)

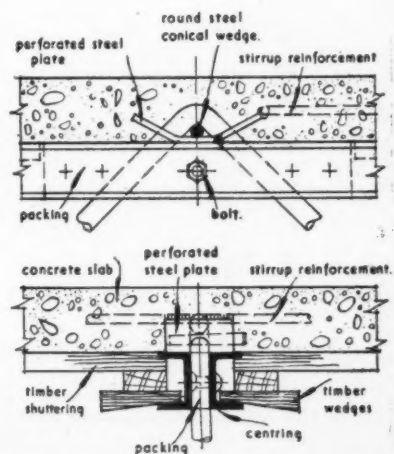
Excellent authoritative information on design and construction of concrete roads. 44 pp. Easy for reference.

This publication is a result of co-operation between the Government's Road Research Laboratory and the Cement and Concrete Association. In 44 pages there are 15 sections each dealing with one aspect such as design, reinforcement, joints, surface finish, curing, service trenches, etc. The information is given in the form of question and answer, a method which in this case seems to have been handled very well indeed as it seems to give all that is required in a clear and reasonably brief form which is easy for reference.

Architects should not dismiss this subject as being beyond their interests for they will find it valuable in housing work and many other places such as approach roads or factory roads and yards. Some useful infor-



THE FINISHED TRUSS WITHOUT CENTRING





## A SERVICE FOR ARCHITECTS

As pioneers of fluorescent lighting in Britain we naturally desire it to be used correctly. Fluorescent lighting has certain definite advantages—and it has its limitations.

Atlas lighting advisory experts have very great experience in the solution of lighting problems and they are always available for consultations. This unbiassed Atlas service is yours without obligation—it is our contribution to better lighting.

*We pride ourselves, not only on the extent of our research and knowledge but on the design of the actual fluorescent lighting fittings. A folder illustrating some of our recent decorative fittings is now available and a copy will gladly be sent to you, free, on request.*

\* \* \*

# ATLAS FLUORESCENT

COMMERCIAL, INDUSTRIAL AND DOMESTIC

THORN ELECTRICAL INDUSTRIES LIMITED · LONDON W.C.1

***All the better to see with***

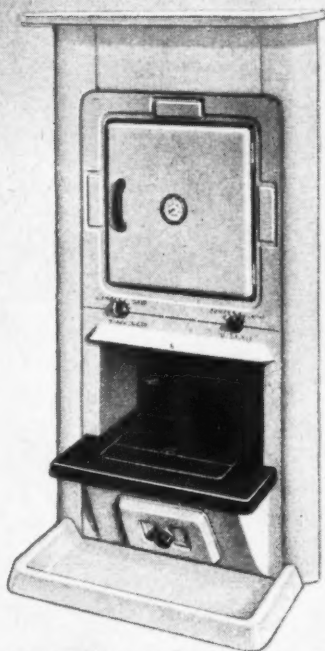








APPROVED BY THE MINISTRY OF FUEL  
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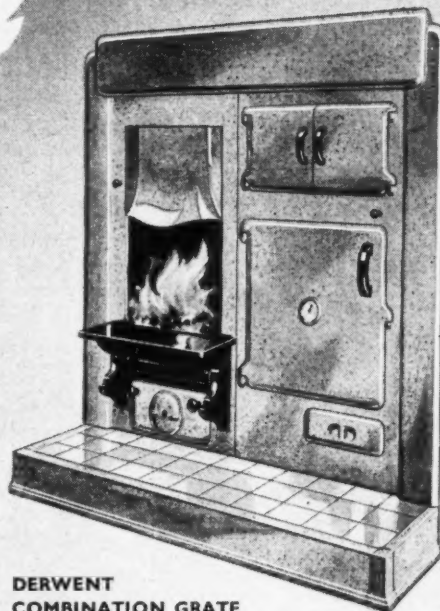


**MILFORD OVEN-OVER-  
FIRE COMBINATION GRATE**

Similar to the "Derwent" but without hot  
closet. Boiling space for five saucepans. Flue  
cleaning without removing ovens.

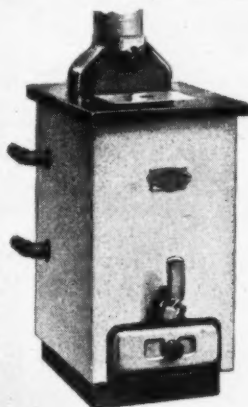
WRITE FOR LEAFLET

**GLOW-WORM**



**DERWENT  
COMBINATION GRATE**

Efficient and economical fire provides heat for a large  
oven, fast-boiling hotplate with extension hob; hot  
closet. Ample domestic hot water and controlled  
room warmth. Overnight burning.



**BOILERS B33 AND B22**

Waterway encircles fire and gives high output per  
square foot of heating surface. Bright, clean finish,  
minimum cleaning. B33 has steel water jacket, B22  
cast-iron.

**GLOW-WORM BOILERS LTD. • DERWENT FOUNDRY • MILFORD • NR. DERBY**

London Showrooms: 22-24, Buckingham Palace Road, London S.W.1

## M.K. CARTRIDGE FUSE-LINKS

B.S.646: 1944 TYPE A



B.S.1362: 1947 TYPE C

B.S.646: 1944 Type A. 250 volts — 1, 2 and 5 amp. current-ratings. For use in plugs, socket-outlet adaptors and the like.

B.S.1362: 1947 Type C. 250 volts — 3, 7 and 13 amp. current-ratings. Primarily for use in plugs for domestic purposes.

All types attractively packed in cartons of one dozen — colour coded in accordance with B.S.646 or B.S.1362.



### M. K. ELECTRIC LIMITED

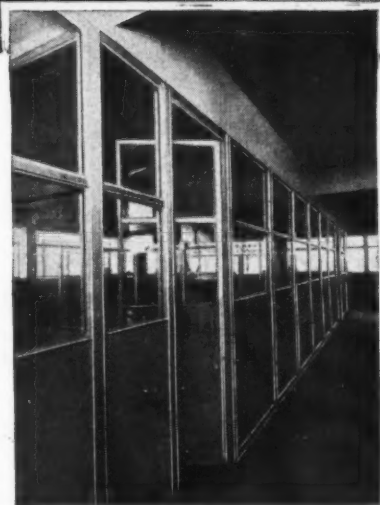
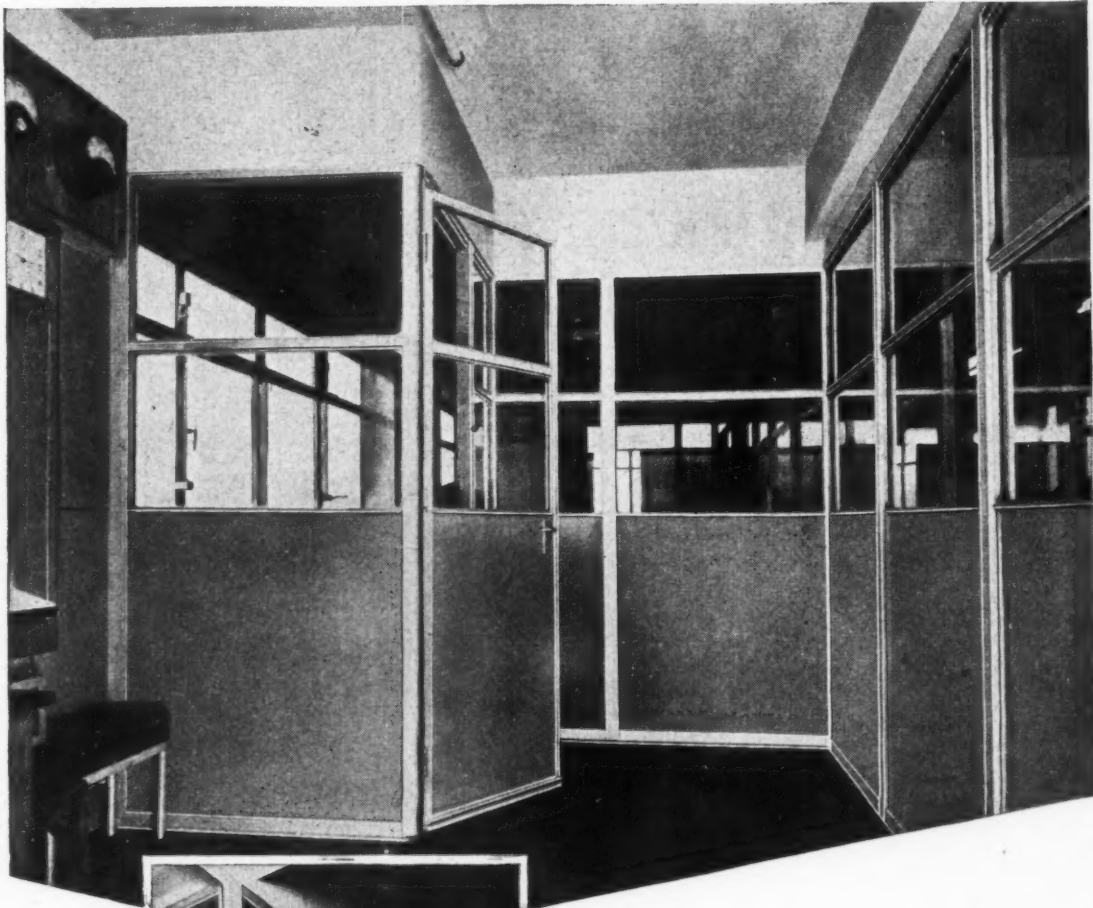
WAKEFIELD STREET · EDMONTON · LONDON, N.18

Telephone: Tottenham 5151 (6 lines).

Telegrams: Multicontra, Southtot, London



# Bar-Form Metal Partitions



One of our recent "Bar-Form" Partition contracts for a block of offices.

Brochure giving full details on request.

*One of the wide range of*

## **BRABY**

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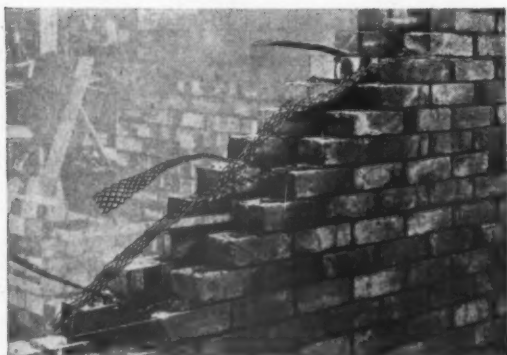
Also manufacturers of Metal Windows,  
Pressed Steel Stairs and Door Frames,  
etc.



**FREDERICK BRABY & COMPANY LTD**  
ECLIPSE WORKS, PETERSHILL ROAD, GLASGOW, N. TEL: SPRINGBURN 5151

OTHER FACTORIES AT: 352 EUSTON ROAD, LONDON N.W.1 TEL: EUSTON 3456 • IDA WORKS, DEPTFORD, LONDON S.E.8 TEL: TIDEWAY 1234 • HAVELOCK WORKS, AINTREE, LIVERPOOL 10 TEL: AINTREE 1721 • ASHTON GATE WORKS, BRISTOL 3 TEL: 64041 • ALSO FALKIRK & MOTHERWELL  
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# REINFORCEMENT *for* BRICKWORK



"Exmet" is embedded in the normal thickness of a brick-work joint and because of the mechanical bond of the diamond-shaped meshes it develops its ultimate strength without slipping.

To reinforce a wall against the effects of settlement, or to stiffen a thin panel wall, a continuous strip of "Exmet" should be embedded in every horizontal course or, where the bearing capacity of the foundations or the size of the panel will allow it, in every alternate course.

"Exmet" is made in  $2\frac{1}{2}$ , 4,  $4\frac{1}{2}$ , 6, 7 and 12 inch widths. The width should be chosen so that the material is embedded not less than 1 inch from each wall face. For walls thicker than 14 inches, two widths are combined.

## 'EXMET'

Reinforcement for Brickwork  
in 270' and 75' coils



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## EXPAMET

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Burwood House, Caxton Street, S.W.1. WHITEHALL 1736.

STRANTON WORKS, WEST HARTLEPOOL, HARTLEPOOLS 2194.

ALSO AT: ABERDEEN, BELFAST, BIRMINGHAM, CAMBRIDGE, CARDIFF, EXETER, GLASGOW, LEEDS, MANCHESTER



# EMERGENCY

# LIGHTING

Mains interruption can carry serious risks in the modern laboratory.

Risks of loss and damage—and sometimes danger. When new laboratories are built, emergency lighting will be installed, and the architect will plan the installation.

Chloride Batteries Ltd., makers of Keepalite, the automatic emergency lighting system, offer the advisory services of their engineers to architects in any part of Great Britain.



A Product of Chloride Batteries Limited 77 King Street Manchester 2 and 137 Victoria Street London SW1



## Versatility of the ALUMINEX patent glazing system

The designers of the Aluminex Patent Glazing system intended to invent something more than a new "dry glazing" technique. They set out to re-think patent glazing from first principles and create a versatile form of glazing of great simplicity that would be an integral part of the design of a building, not a mere appendage.

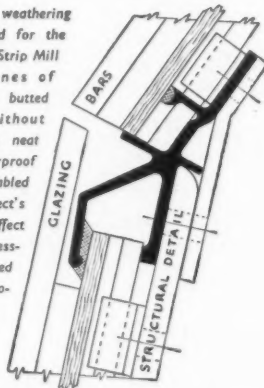
When the system was designed Architects were invited to take the extruded aluminium alloy glazing bar, the glazing cover strip, the Zed weathering and other fittings and clothe their buildings in walls of glass or ranging series of roof lights, making the appearance and function of Aluminex contribute directly to the overall styling of each building.

The response of Architects to this invitation was immediate. Indeed, the designers' first notions of the possible uses of Aluminex were soon left far behind. New potentialities were discovered by imaginative minds and the process of creative development is still going on.

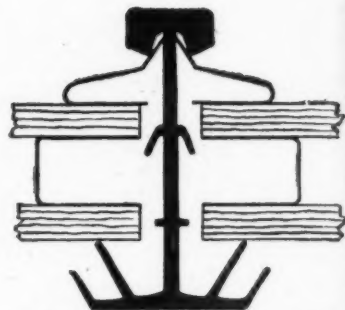
### Architects and Aluminex

On some occasions the Architect's conception of the role of Aluminex patent glazing in his building constituted a new challenge to the engineers. For instance, when Sir Percy Thomas & Son, F.R.I.B.A., designed the Cold Mill building of the Steel Company of Wales' great plant at Margam Abbey they decided that Aluminex patent glazing provided all the features required for the distinctive sidewall lights of the building. The general character of the building is enhanced by the neat and clean lines of these curved-top "Cascade" windows shown below.

This special weathering detail designed for the Margam Cold Strip Mill enabled panes of glass to be butted together without overlap in a neat and weatherproof joint. It enabled the Architect's "Cascade" effect to be successfully carried out. See photograph below.



But the technical problems which confronted the Aluminex engineers were unexpected. A special virtue of the system had always been considered to be its long, straight lines. Now a curved effect was required. The effect was to be gained by a succession of straight planes but it was inadmissible to break the outline of the "Cascade" by allowing panes to overlap each other in a "lobster back" pattern. Therefore the panes had to be butted together. This raised serious difficulties in maintaining the watertightness of the installation. For this job the



This is an Aluminex Patent Glazing bar designed for double glazing. It is of special aluminium alloy extruded to the profile patented by Williams & Williams Ltd. The thermal efficiency of double glazing built with Aluminex is high.

Aluminex engineers designed a new weathering detail. This was in conformity with the normal policy of the Division—to take every necessary action in order to reproduce, by means of Aluminex, the Architect's own design. This new weathering detail took the form shown in the drawing on the left. It is a development of the standard Aluminex Zed weathering extrusion which is one of the notable features of this glazing system.

### Large scale glazing

This remarkable versatility of Aluminex applies also to the size of the area to be glazed. The biggest composite plate glass window in the world is the north side-wall window of the Brabazon hangar at Filton (1,052 ft. long by 50 ft. high). Yet it is made of normal Aluminex glazing as used in the smallest of industrial buildings.

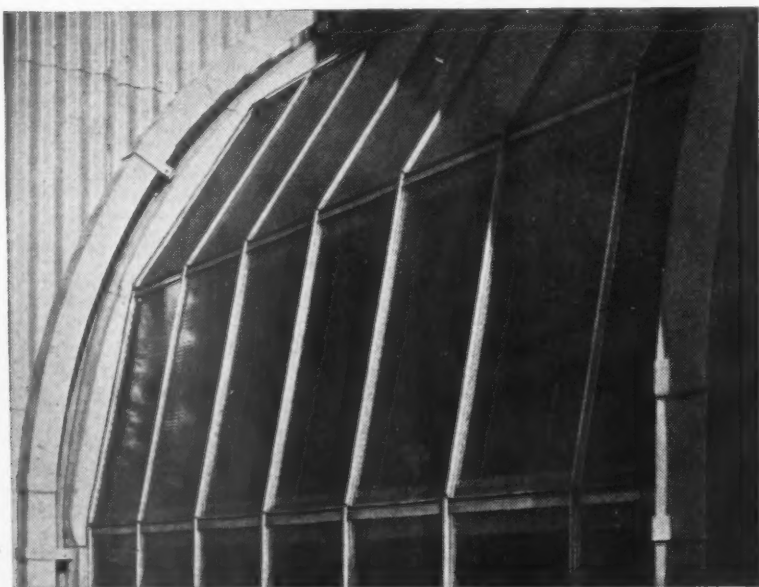
There is a further consideration. Aluminex is also designed for double glazing. This has high insulating properties as well as lightness and attractive appearance to recommend it.

### Continuous ventilation

Yet another aspect of this versatile patent glazing system is the provision of ventilators hung on continuous hinges. Aluminex sidewall and roof opening lights are constructed in lengths of 200 ft. for manual operation and in 300 ft. lengths when the opening gear is electrically driven.

Therefore it is no exaggeration to say that when an Architect turns to Aluminex patent glazing he has at his service a method of construction capable of versatile applications. It is, moreover, a method susceptible of continuing imaginative development particularly in the field of industrial architecture. The company is actively interested in all such developments and offers the fullest co-operation with all Architects who might wish to discuss the realisation of new ideas and projects.

For further information please communicate with the Aluminex Division of Williams & Williams Limited, Reliance Works, Chester. Telephone: Chester 24624 (10 lines). Telegrams: Reliance, Chester. And at Victoria House, Southampton Row, London, W.C.1. Telephone: HOLborn 9861.



A detail of the Cold Strip Mill of the Steel Company of Wales, at Margam, showing the new "Cascade" windows in Aluminex Patent Glazing. Architect: Sir Percy Thomas & Son, F.R.I.B.A. Engineers: W. S. Atkins & Partners.





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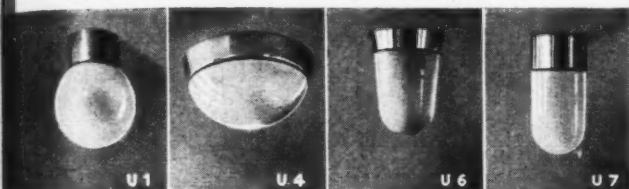
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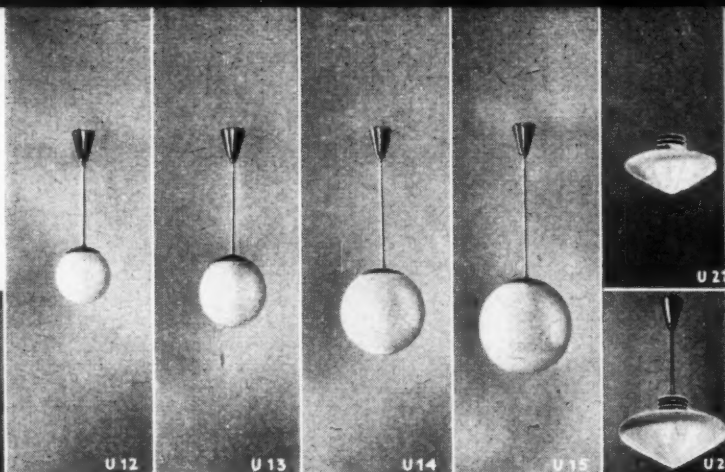
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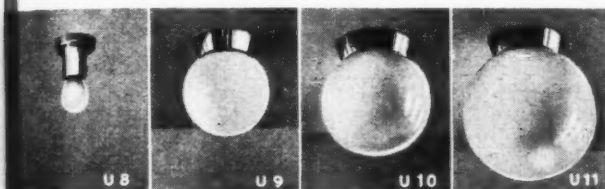
# ULTRALUX



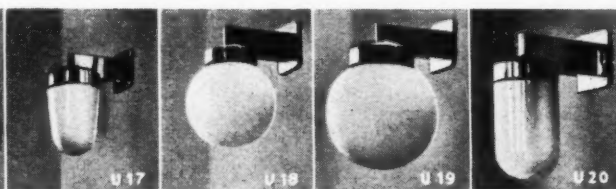
U1 Glass: 6" dia. Depth: 7 1/2" Lamp: 60 watt B.C.  
 U4 Gallery: 9" dia. Depth: 4 1/2" Lamp: 60 watt B.C.  
 U6 Gallery: 5 1/2" dia. Depth: 7" Lamp: 60 watt B.C.  
 U7 Gallery: 3 1/2" dia. Depth: 7 1/2" Lamp: 60 watt B.C.



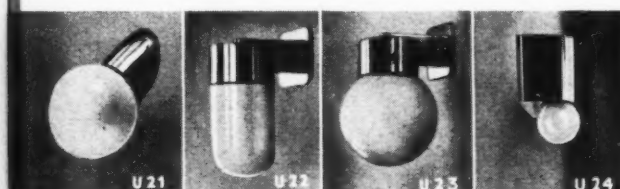
U12 Glass: 8" dia. Lamp: 60 watt B.C.  
 U13 Glass: 10" dia. Lamp: 100 watt B.C.  
 U14 Glass: 12" dia. Lamp: 150 watt B.C.  
 U15 Glass: 14" dia. Lamp: 200 watt E.S.  
 U21 Glass: 16" dia. Depth: 9 1/2" Lamp: 150 watt B.C. (with or without suspension).  
 U22



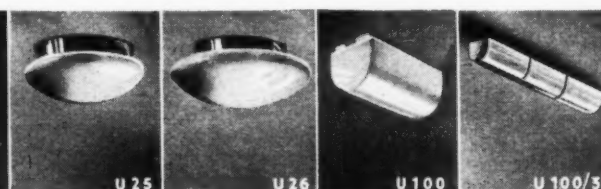
U8 Gallery: 3 1/2" dia. Depth: 5 1/2" including lamp. Lamp: 60 watt B.C.  
 U9 Glass: 6" dia. Depth: 6 1/2" Lamp: 60 watt B.C.  
 U10 Glass: 8" dia. Depth: 8 1/2" Lamp: 100 watt B.C.  
 U11 Glass: 10" dia. Depth: 11" Lamp: 150 watt B.C.



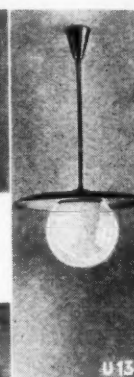
U17 Height: 9 1/2" Projection: 7 1/2" Lamp: 60 watt B.C.  
 U18 Glass: 6" dia. Height: 9" Projection: 8" Lamp: 60 watt B.C.  
 U19 Glass: 8" dia. Height: 11" Projection: 9" Lamp: 100 watt B.C.  
 U20 Glass: 3 1/2" dia. Height: 9 1/2" Projection: 7" Lamp: 60 watt B.C.



U21 Glass: 6" dia. Height: 8 1/2" Projection: 7" Lamp: 60 watt B.C.  
 U22 Glass: 3 1/2" dia. Height: 9" Projection: 5 1/2" Lamp: 60 watt B.C.  
 U23 Glass: 6" dia. Height: 9" Projection: 6 1/2" Lamp: 60 watt B.C.  
 U24 Height: 6 1/2" including lamp. Width: 3" Projection: 3" Lamp: 60 watt B.C.

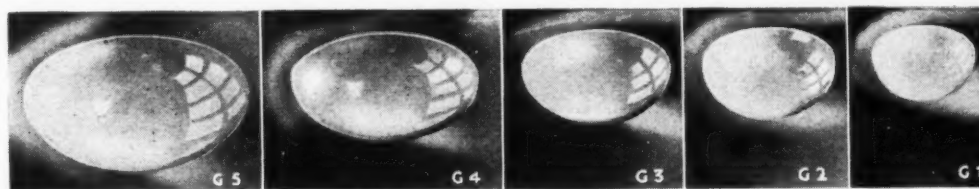


U25 Glass: 11" dia. Depth: 5" Lamp: 60 watt B.C.  
 U26 Glass: 14 1/2" dia. Depth: 6" Lamp: 100 watt B.C.  
 U100 Length: 8 1/2" Width: 4 1/2" Depth: 4" Lamp: 60 watt B.C.  
 U100/3 Length: 27" Other details as for U.100. Lamps: Three 60 watt B.C.



U13R Glass: 10" dia. Reflector: 20" dia. Lamp: 100 watt B.C.  
 U12R Glass: 8" dia. Reflector: 20" dia. Lamp: 60 watt B.C.  
 U14R Glass: 12" dia. Reflector: 20" dia. Lamp: 150 watt B.C.

## ULTRALUX 'G'



G5 Glass: 16" dia. Depth: 5 1/2" Lamps: Two 100 watt B.C.  
 G4 Glass: 14" dia. Depth: 5" Lamps: Two 75 watt B.C.  
 G3 Glass: 12" dia. Depth: 4 1/2" Lamps: Two 60 watt B.C.  
 G2 Glass: 10" dia. Depth: 4 1/2" Lamp: 60 watt B.C.  
 G1 Glass: 8 1/2" dia. Depth: 4 1/2" Lamp: 40 watt B.C.

These are some of the many fittings available in our famous Ultralux series. Also shown are some fittings from the 'Ultralux G' range, in which the metal fixing-plates are concealed so that the whole fitting is luminous. There is a large variety in stock, which we invite you to inspect at the Lighting Centre.

## TROUGHTON & YOUNG (LIGHTING) LTD.

THE LIGHTING CENTRE, 143, KNIGHTSBRIDGE, LONDON, S.W.1

Telephone: KENSINGTON 7457 (15 lines).



**PRODORITE LTD**

**INDUSTRIAL FLOOR SPECIALISTS**

*Acid and Non-acid Proof*

**TO SUIT EVERY TRAFFIC CONDITION**

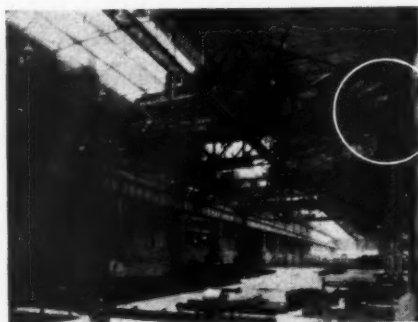
*A Guaranteed Job by Experts!*

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 Telephone: Wednesbury 0284 (5 lines) **ABBEY 3816 (5 lines)**  
 London Office: Artillery House, Artillery Row, S.W.1.



*Aluminium Alloy* **CRANE GIRDERS**

**H-W-A**  
**HEAD WRIGHTSON ALDEAN LTD**



"Noral aluminium was used for the construction of Wellman crane girders, for installation at the Rogerstone Works of Northern Aluminium. Prefabricated by Head Wrightson Aldean to meet specific needs, they combine lightness with great strength and durability. Lighter girders allow a corresponding increase in the actual load, thus saving both time and power, as well as reducing freight charges, handling and erecting costs. Moreover, the construction of aluminium alloy girders is not hindered by shortage of material. This development in the application of aluminium alloy is one of many made by the Head Wrightson Aldean Organisation.

Photograph by courtesy of  
 Northern Aluminium Co. Ltd.

Enquiries to: **HEAD WRIGHTSON ALDEAN LTD., THORNABY-ON-TEES**





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# CORK, THE FLOOR THAT'S HALF AIR

is not only **QUIET, WARM, LUXURIOUS**  
but **TOUGH, LONG-LASTING, ECONOMICAL**

## IMPACT NOISE

*Cork's air-cellular structure kills noise. Tests of impact noise produced by dropping a steel ball gave the following comparative values for different floors:*

HARDWOOD, taken as	100
MARBLE - - - -	47.4
QUARRY TILE - -	12.3
CONCRETE - - -	10.5
LINOLEUM - - -	2.74
RUBBER TILE - -	1.37
CORK TILE - - -	.46

**C**ORK, most luxurious of floors, has long been the architect's first choice where silence is essential, or comfort more important than cost.

But this resilient material, more than half air, is also exceedingly tough. It stands years of heavy foot traffic in busy shops, offices, hospitals, schools, restaurants, even in buses, with scarcely perceptible wear. In domestic use, it may well last a lifetime.

So cork is truly *economical*—far more so, when you count the years, than 'cheaper' floors that can never give the same satisfaction. Even first cost is competitive, normally lower than for wood blocks. And with this warm, quiet surface there is far less need for carpeting.

## PURE CORK IN TILE FORM

Armstrong's Cork Tiles, famous since 1896, are made of nothing but pure, resilient Spanish cork, bonded under heat by its own resins—no dust or gritty granules, no adulterant. A special feature of Armstrong's Cork Tiles is that they are supplied not only straight-edged but also tongued and grooved, which obviates sanding after laying and prevents lipping and curling. You are invited to write for further particulars.



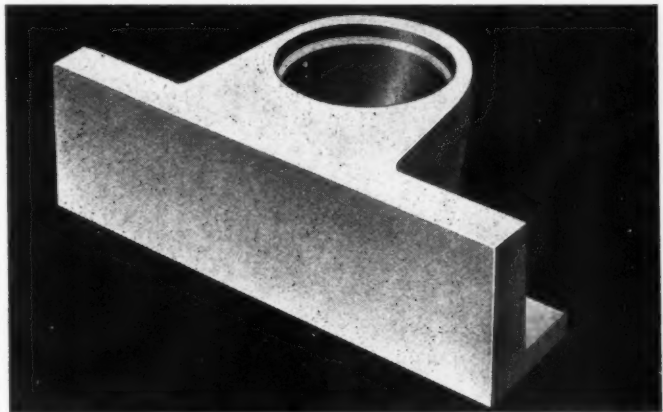
## ARMSTRONG'S CORK TILE FLOORING

ARMSTRONG CORK COMPANY LTD., FLOORING DEPARTMENT,  
IMPERIAL BUILDINGS, 56 KINGSWAY, LONDON W.C.2  
Telephone: Chancery 6281

SCOTTISH BRANCH:  
5 OSWALD STREET, GLASGOW C.1  
Telephone: Central 5703

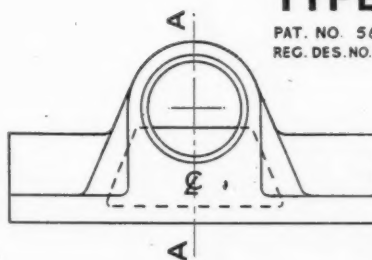
# For every type of fire there is a TRUE FLUE (PATENTED) LINTOL BLOCK

The unit illustrated, in refractory material, is for use with the standard open fire and forms a stream-lined connection between the fire and the flue. The surfaces above the fire are rapidly warmed, resulting in improved combustion of the gases, elimination of eddies and minimisation of smoke. Combined with this "gather-over" block is the lintol; thus, in one piece and in one operation, the usual reinforced lintol or chimney-bar and arch; together with the costly and often inefficient gathering over, are dispensed with. The underside of this unit conforms with the line of the fire-back and has a weir-shaped front. The top is designed to take "True Flue" circular rebated flue linings or it can be used with the traditional 9in. by 9in. parged brick flue. As indicated above, other designs of lintols to suit any type of stove on the market are available for immediate delivery, together with ample stocks of circular rebated flue linings.

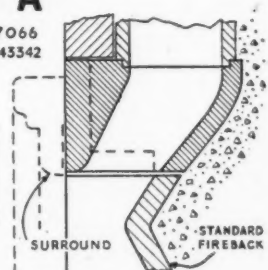


## TYPE 'A'

PAT. NO. 567066  
REG. DES. NO. 843342



PLAN



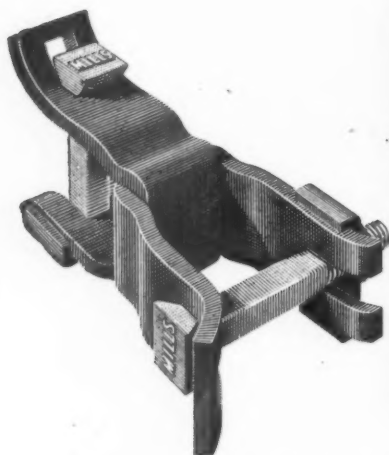
SECTION AA

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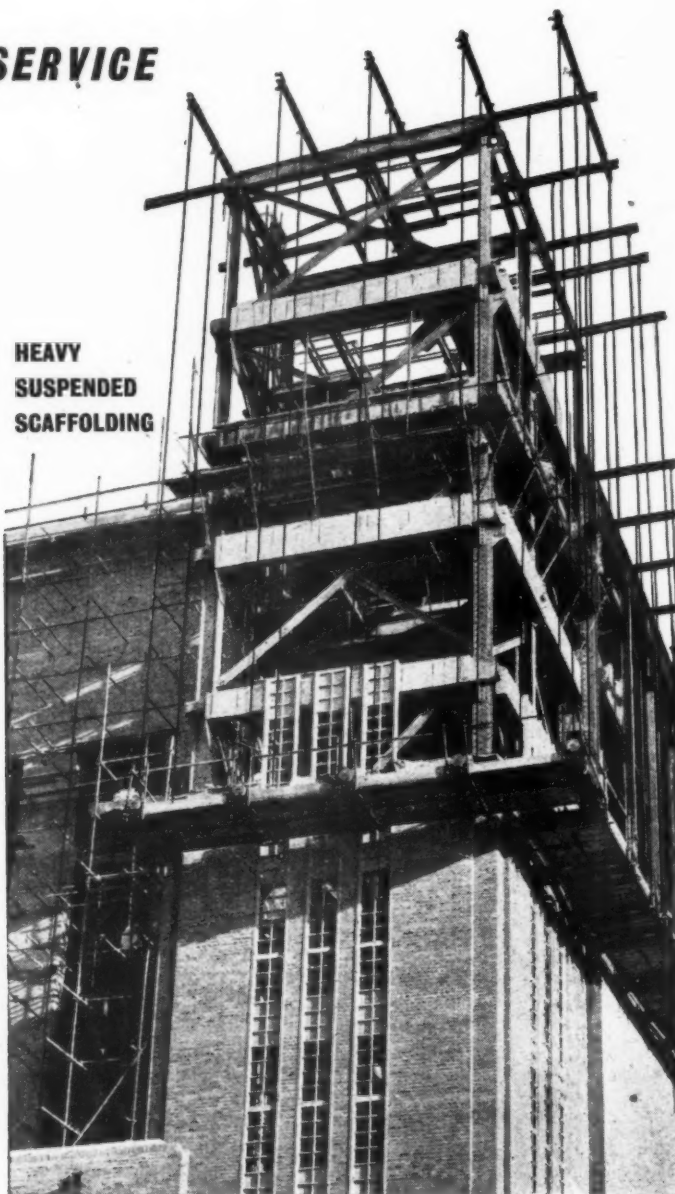
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