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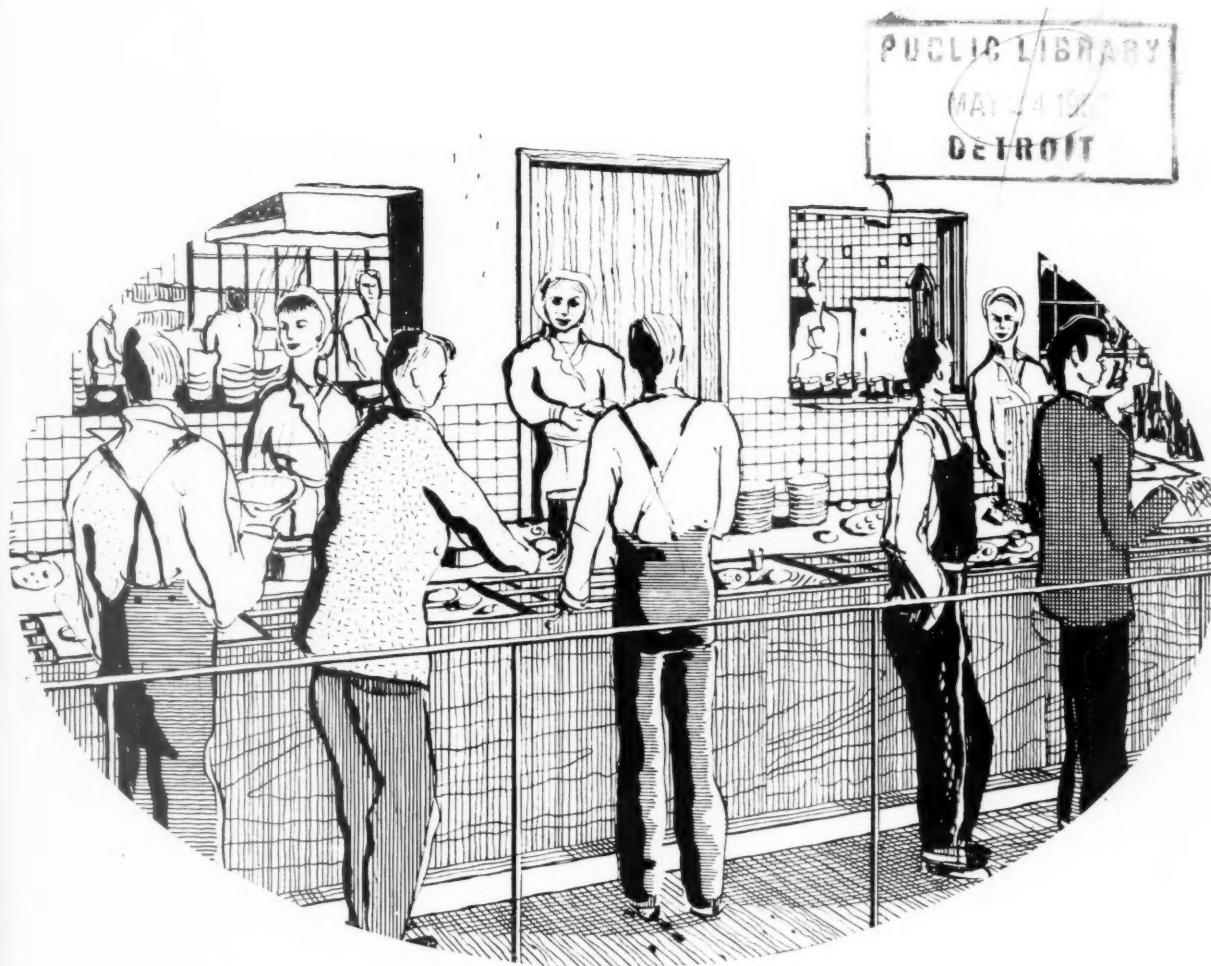
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No. 2984 Volume 115

The Architects' JOURNAL for May 8, 1952

# THE ARCHITECTS' JOURNAL

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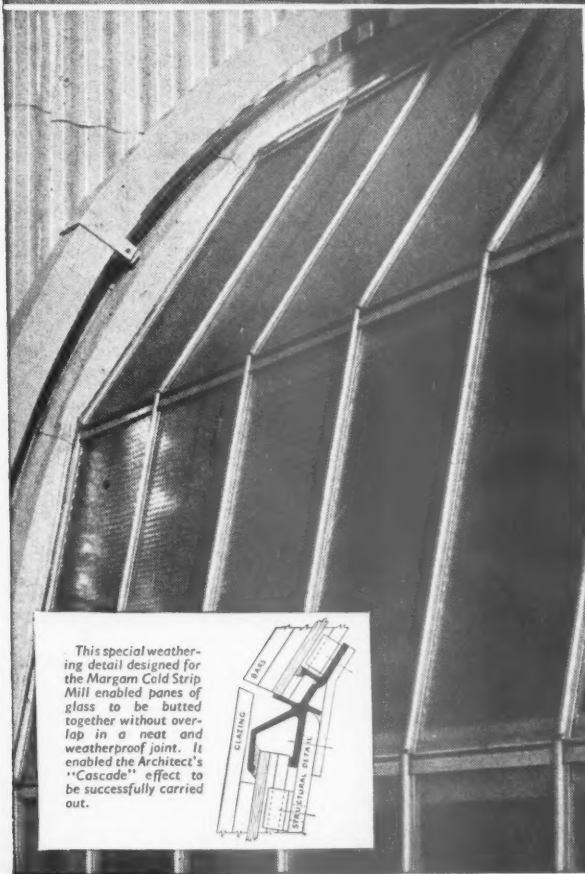
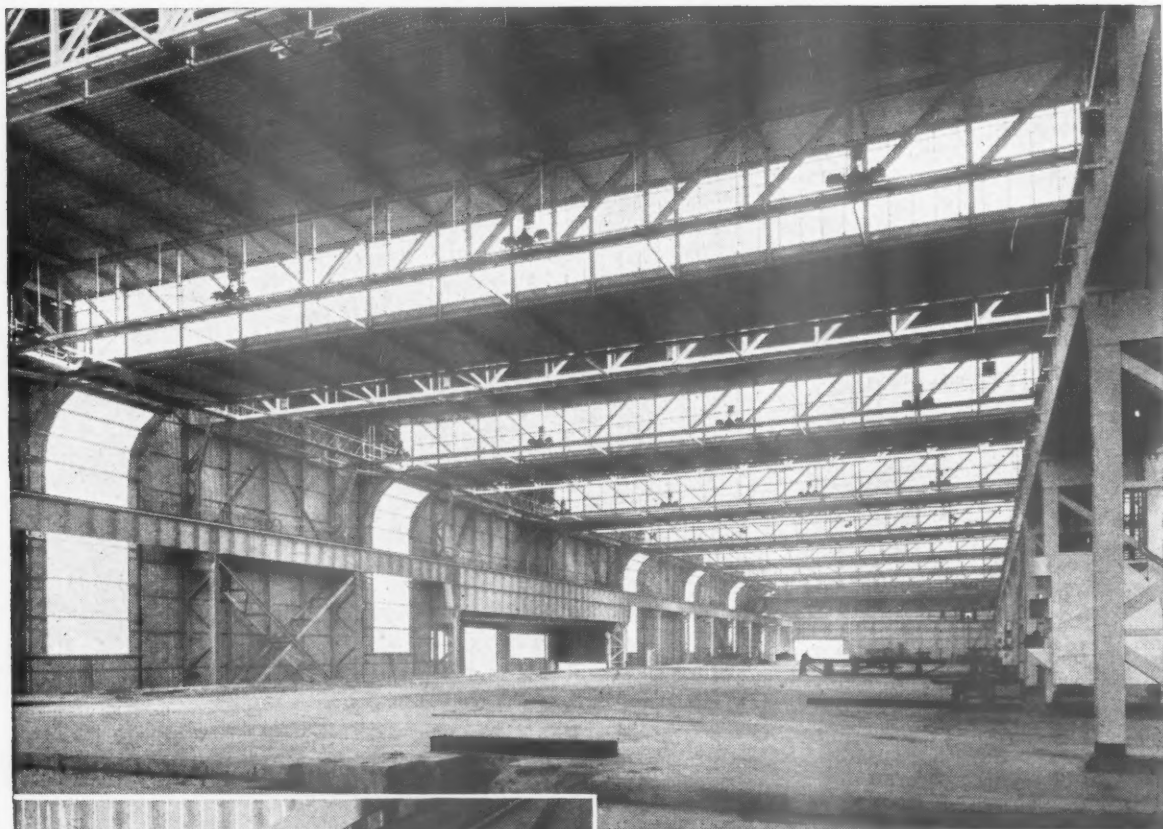
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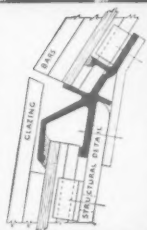
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## BRANCHES

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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.



## WILLIAMS AND WILLIAMS at MARGAM

### Further examples of the versatility of Aluminex Patent Glazing

The Abbey Works of the Steel Company of Wales, is the largest rolling mill in Europe and is one of the most outstanding engineering plants designed since the war. Working in conjunction with the Consulting Engineers, Messrs. W. S. Atkins & Partners, and the Architects, Sir Percy Thomas & Sons, Williams and Williams were able to produce glazing of a unique and impressive character, examples of which are shown in these pages. The cascade sidewall lights are of particular interest, being expressly designed to meet the exacting lighting requirements.

**CASCADE GLAZING** When it had been decided that Aluminex Patent Glazing provided all the features required for the sidewall glazing of the Steel Mills at Margam, certain technical difficulties were discovered. In order to produce even daylighting throughout the building it was necessary that the panels of sidewall glazing should curve inwards at the head. It was inadmissible to break the line of the curve by allowing the panes to overlap in a "lobster-back" fashion and curved glass was out of the question because of cost and difficulty of replacement. The effect had to be achieved by using flat panes of glass set out in a series of chords, and this arrangement presented special weathering problems, as also did the very flat pitch near the top of the cascade.



To overcome these the Aluminex engineers designed a new weathering detail which is shown in the drawing and in the photograph at the bottom of the opposite page, and is a development of the standard Aluminex "Z" weathering extrusion which is one of the special features of the Aluminex Glazing system. The remarkable effect achieved resembled cascades of glass and is vividly illustrated in the photographs. The cascades are each fourteen feet wide and range from fifteen feet to fifty-five feet high. The fifty-five foot cascades are composed of seven vertical tiers with a further curved portion of three tiers on a 9' 9" radius. The cascades were glazed in some instances with specially toughened glass in order to resist the thermal shock caused by hot ingots passing within a few feet of them.

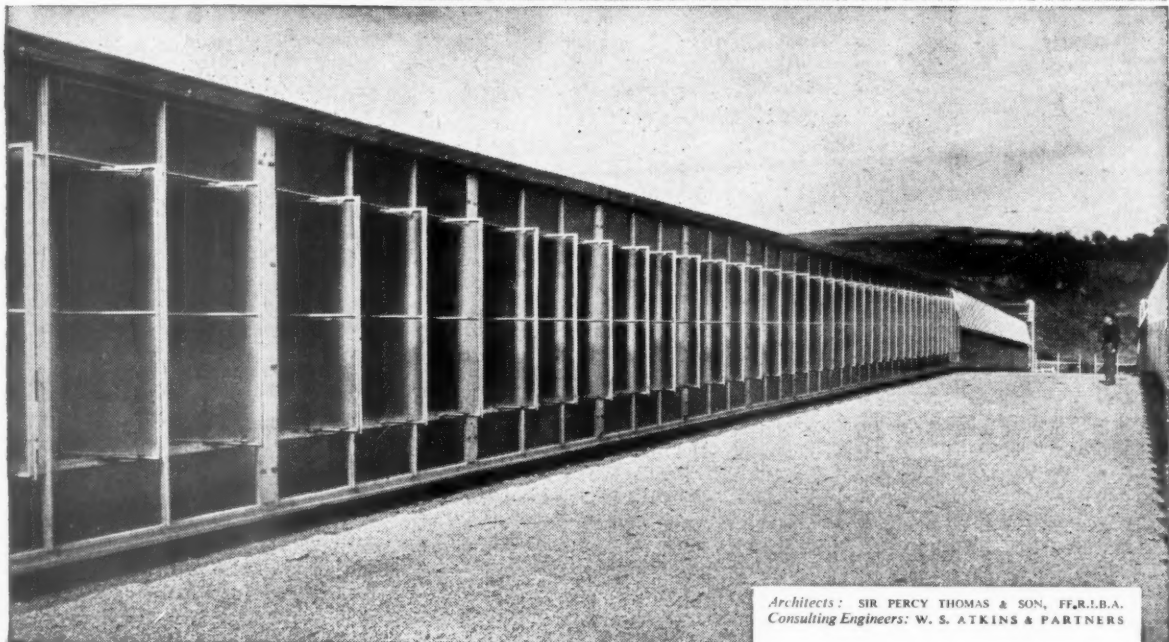
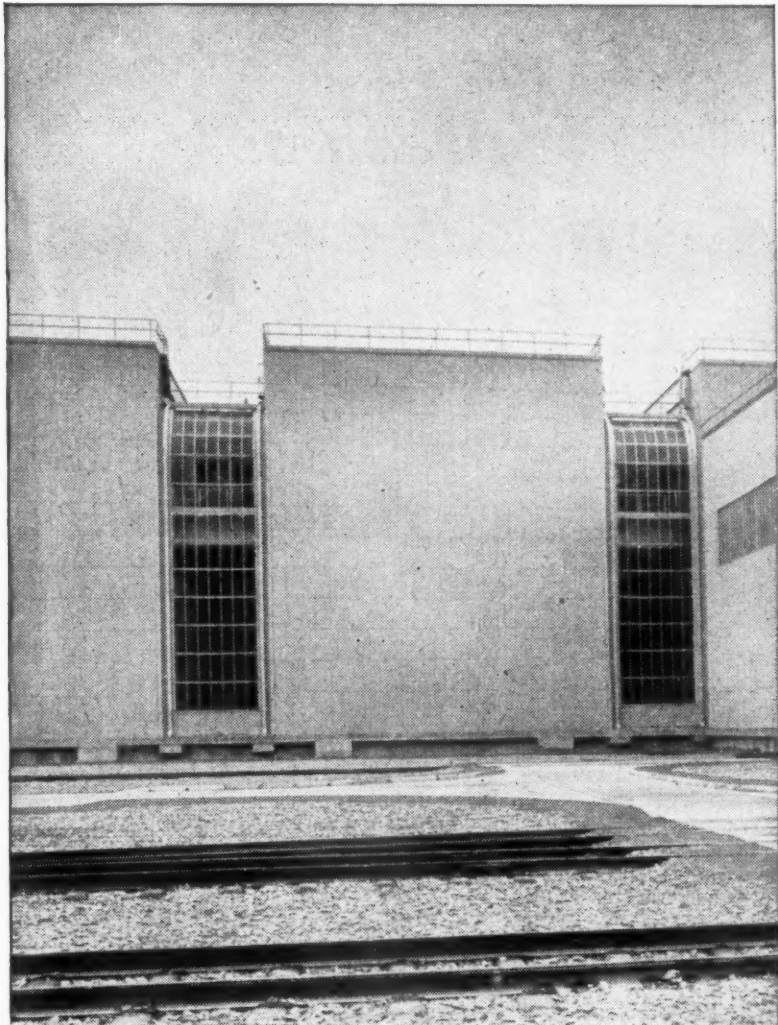
#### HIGH/LOW ROOF CONSTRUCTION

To provide controlled ventilation together with even distribution of light, the monitors in the Cold Mill Building are glazed partly with continuous top-hung Aluminex opening lights and partly with aluminium vertical pivot-hung windows made by the Reliance Division of Williams and Williams. Both are operated by Teleflex Gear with hand-operators placed so that they can be manipulated from walkways on the crane gantry. The vertical pivot-hung windows are arranged to open 135 degrees and are coupled together in ranges so that one gear operation opens the complete range. Thus ventilation can be controlled quickly to very fine degrees in accordance with either temperature or changes in wind direction.

#### Williams and Williams Ltd

Makers of Metal Windows, Doors and Aluminex Patent Glazing.

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Architects: SIR PERCY THOMAS & SON, FF.R.I.B.A.  
Consulting Engineers: W. S. ATKINS & PARTNERS

*"A job to be  
proud of!"*



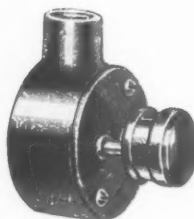
What satisfaction in  
a job well done.  
It is inevitable with  
Metallic quality and  
consistent accuracy.



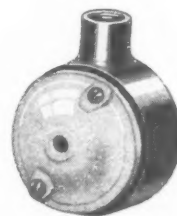
Screwed and  
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duit Thread



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Iron Cover



Sunk-type  
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Iron Cover



Direct Mount-  
ing, Flat type  
Ceiling Rose

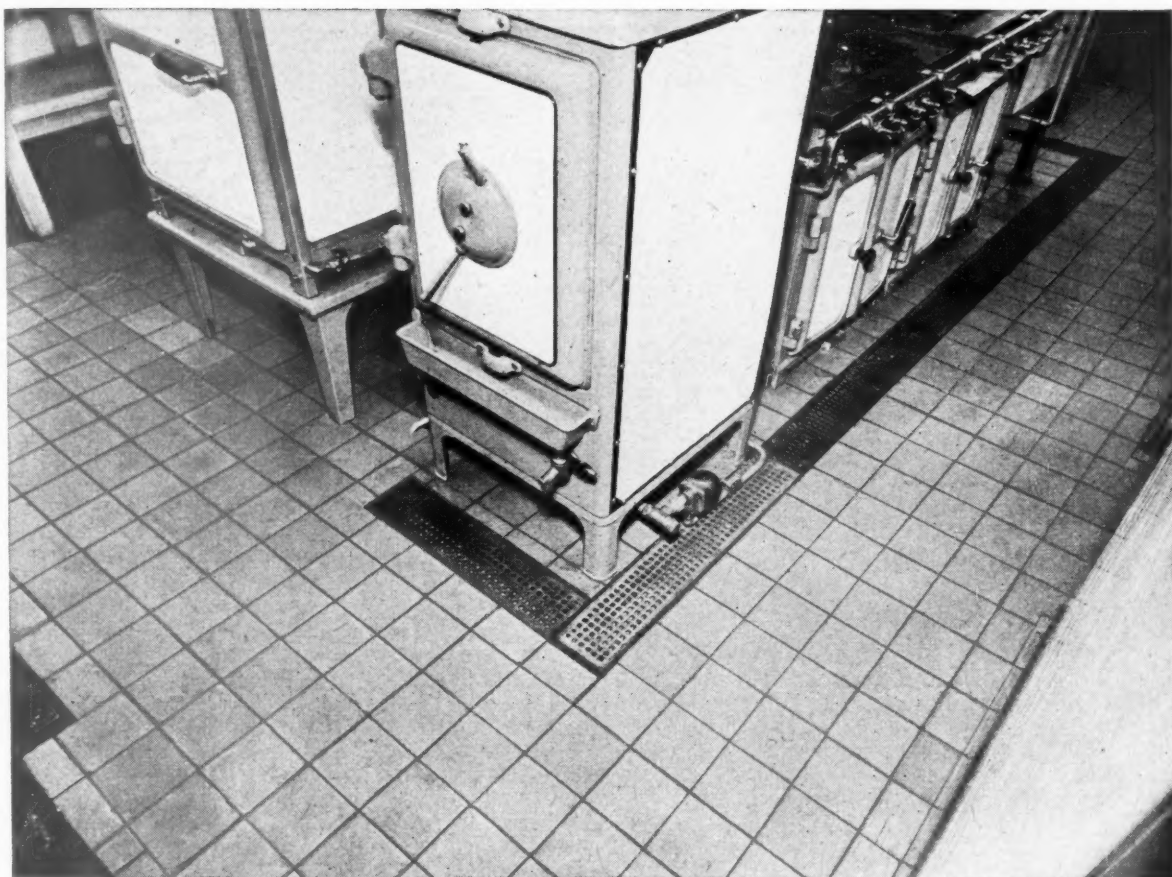
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County Architect, Middlesex County Council, C. G. Stillman, Esq., F.R.I. B.A.

## In Middlesex County Council Schools

# VENTILATION by **COLT**

The scientific knowledge and resources of Colt, called in at the drawing-board stage, solve yet another ventilation problem.

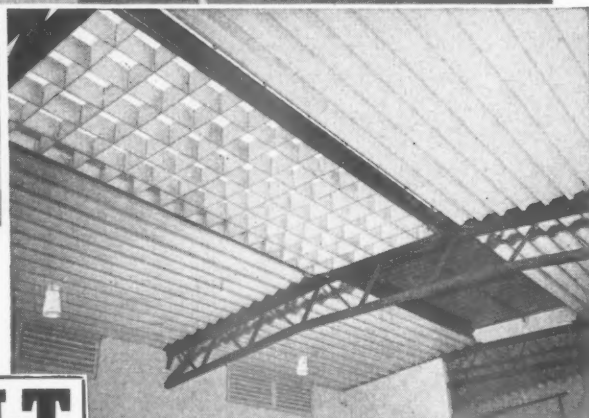
Many years' experience of all types of ventilation problems enables us to bring a supremely practical approach to the science of air induction and extraction. If you want maximum flexibility of ventilation in any new plans you are working on, we shall be glad to give our advice at the earliest possible stage. If your problem is one of improving existing conditions . . . then Colt again can call on a vast background of knowledge and experience. Our experts are always keen to tackle new problems or advise on more familiar ones.

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E.2



The large illustration shows the system designed by Colt to Middlesex County Council requirements. The Light Shutters are standard C.O. Type ventilators giving great flexibility of lighting. The shutters open for maximum light, close to shut out ALL light, or adjust to deflect the sun's rays in any direction.

The G.P. ventilators shown in the service ducting in this picture allow the vitiated air from the classrooms to be extracted into the corridor, whence it is extracted by the P.R. type ventilators—shown in the small illustration. The Light Baffles also seen here are to break up and diffuse the light thus preventing sun-glare.

These ventilators are being installed in the following schools:

Newnham Avenue School, Eastcote  
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Anson Road School, Willesden  
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East Lane School, Wembley  
Coteford School, Eastcote  
Grove Park School, Chiswick  
Dickens Avenue School, Finchley  
Broadfields Avenue School, Edgware  
Apex Corner School, Edgware  
Northolt Grange School, Northolt  
Matthew Arnold School, Staines  
Hounslow Town School, Hounslow  
Wilbury Way School, Edmonton  
Clitterhouse School, Hendon  
Sussex Road School, Ickenham  
Broad Lane School, Hampton  
Bullsmore Lane School, Enfield

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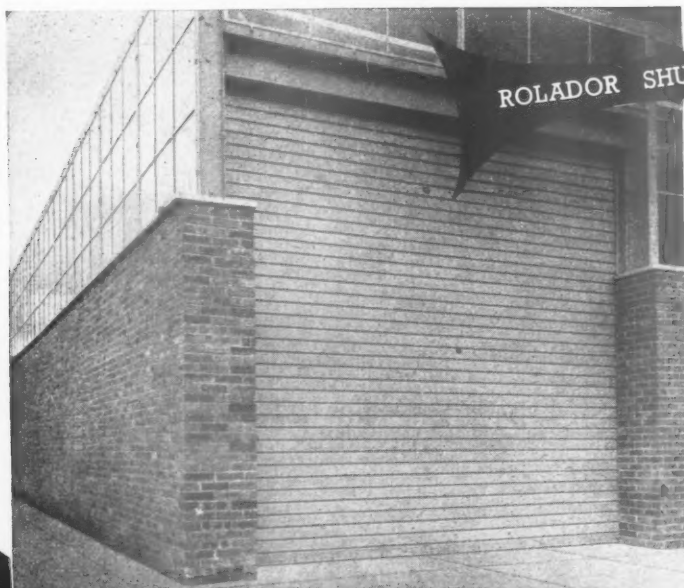
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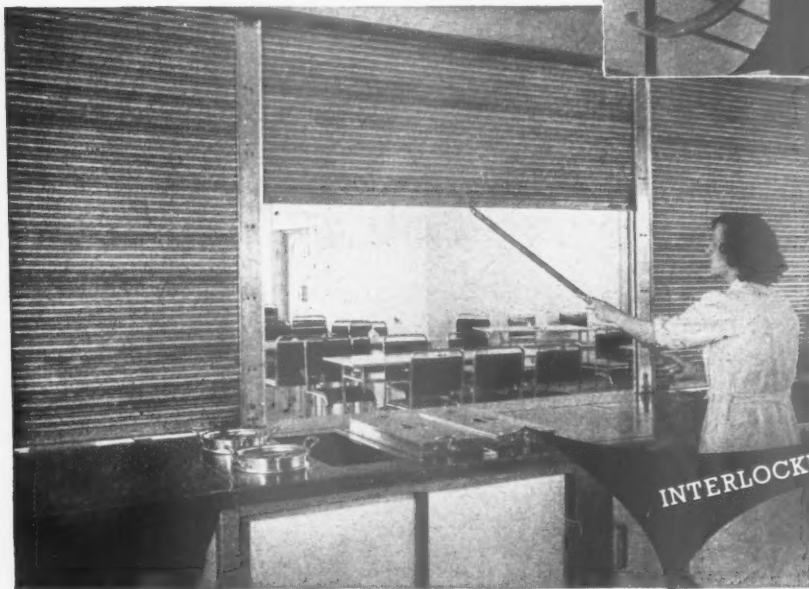
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# 44 HOUSING AUTHORITIES ADOPT ASCOT JIGGED WALL FITTING

## Cheap Installation of Alternative Hot Water System

The new Ascot jugged wall fitting which cuts the cost of installing gas water heaters at the kitchen sink to a few shillings, has had a tremendous reception. 44 housing authorities have already adopted it, and upwards of 20,000 have been installed. The Ascot jugged wall fitting is chased in by the sink during erection of houses or flats, leaving neat capped ends just exposed. The cost is negligible. A tenant can then arrange at any time for an Ascot sink heater to be fitted, a job which takes only 20 minutes

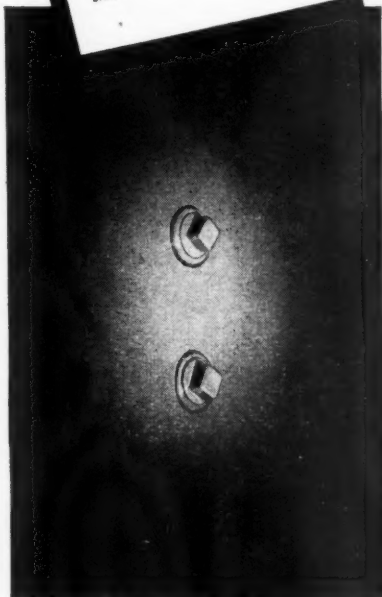


and leaves the surface decoration undisturbed. Housing authorities have adopted the Ascot jugged wall fitting because it provides at extremely low cost the means of obtaining an alternative supply of hot water at the kitchen sink. *Tenants particularly appreciate this convenient service which supplements the solid fuel heating system, especially in the summer, and at the same time saves money and fuel.* The jugged wall plate takes the Ascot 503 range of heaters and the Ascot RS 52/1 boiling water heater.

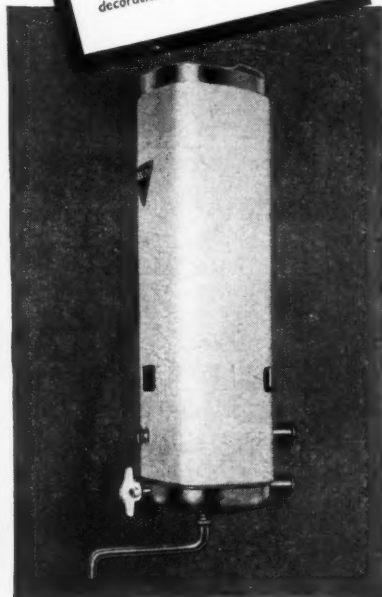
The jugged wall fitting consists of a back plate drilled with screwholes for fixing to wall, and two integral pipeways, one for gas and the other for water. (Photo by courtesy of North Thames Gas Board).



Supply pipes and jugged wall fittings are chased into the wall during construction and plastered over. Plugged ends neatly protrude as shown.



When the heater is fitted—at any time—the plugs are removed, the heater attached. Simple, cheap and reducing time of fitting to only 20 minutes—leaving surface decoration undisturbed.



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*where bituminous solutions and  
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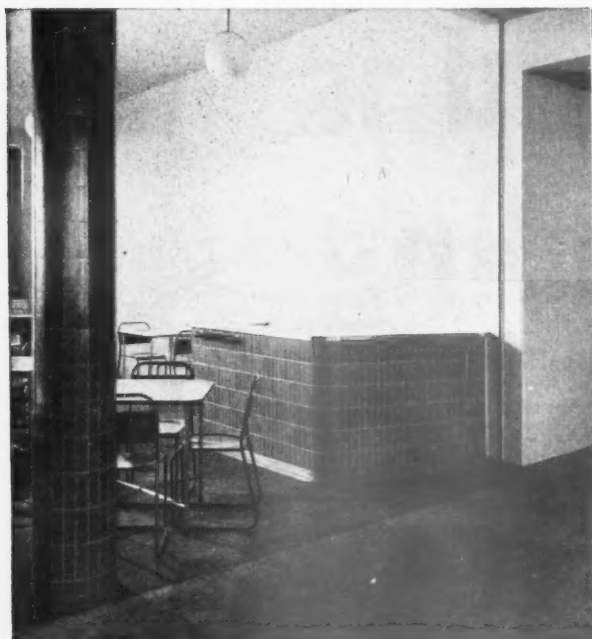
- 1** Evo-Led can be applied to moist and even wet bare metal surfaces. It displaces the water, absorbs it and allows it to evaporate together with the solvents during the drying period. The result is a perfect bond, quick-drying, quick-hardening.
- 2** Thus, following the use of 'Evo-Led', paints containing searching solvents such as benzole, can be applied after 24-48 hours, without risk of lifting and bleeding.
- 3** 'Evo-Led' is therefore a much more practical anti-corrosive primer for subsequent coatings of chlorinated rubber paints, bituminous solutions. Of especial value for work on sluice gates, floating docks, hydro-electric plants—in fact, all surfaces, damp or subject to submersion—even in sea water.

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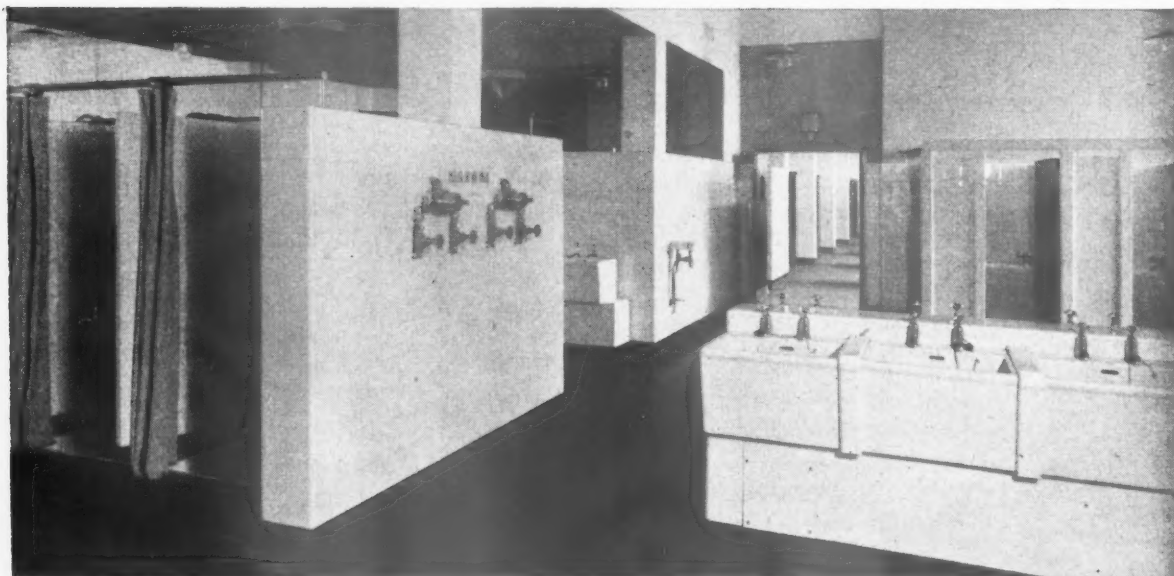


6" x 2" turquoise blue eggshell glazed tiles fixed to counter fronts, and similar tiles but made radiated on the circular columns in Main Canteen.



"Architects' Journal" photograph.

6" x 6" Dorset Red floor tiling, 6" x 6" cream glazed tiles to walls and column in Service area.



Tiling in Bath House in 6" x 6" cream earthenware glazed with black glossy skirting tiles. The intermediate shower partitions are formed in 1½" thick precast tile slabs. Similar slabs have been used to form W.C. partitions in the same building. The door frames and lintels to the bathroom cubicles are in cream terrazzo, precast at the works of Art Pavements and Decorations, Ltd., Camden Town.  
(Note slabbed access covers to pipe ducts underneath wash basins.)

## CARTER tiling at Welfare Centre, Beckton Products Works, East Ham

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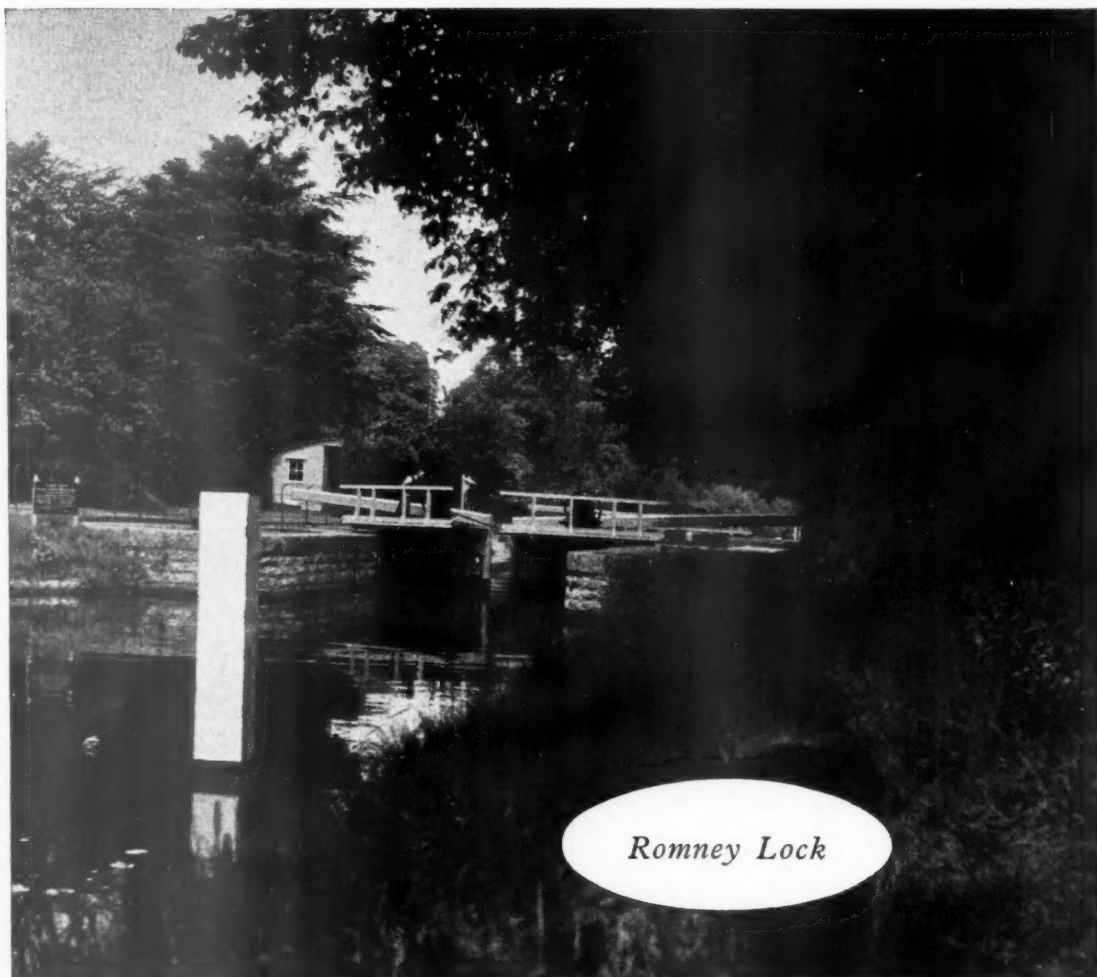
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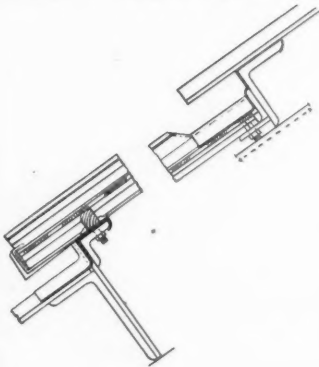
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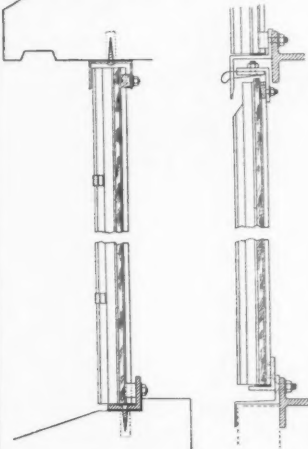


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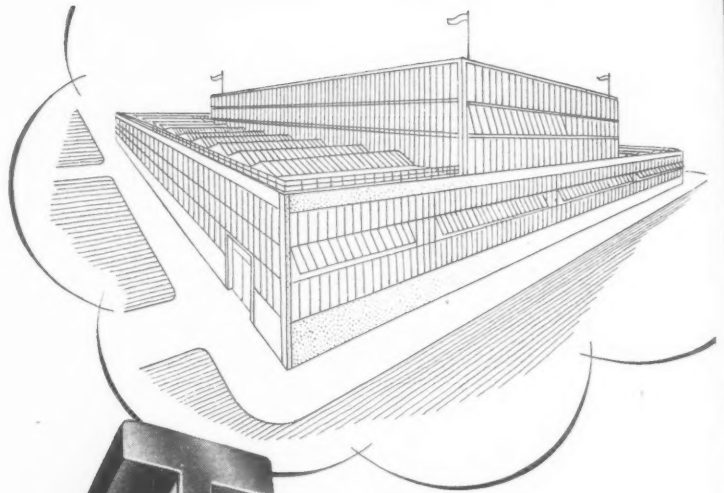
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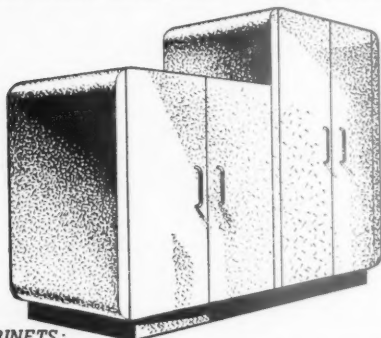
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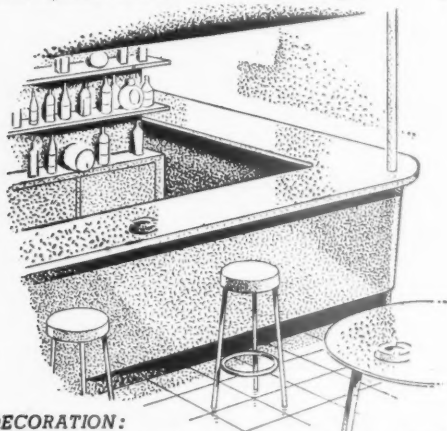
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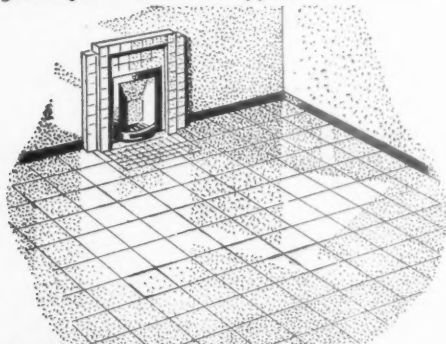
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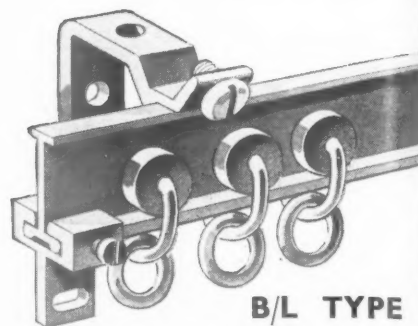
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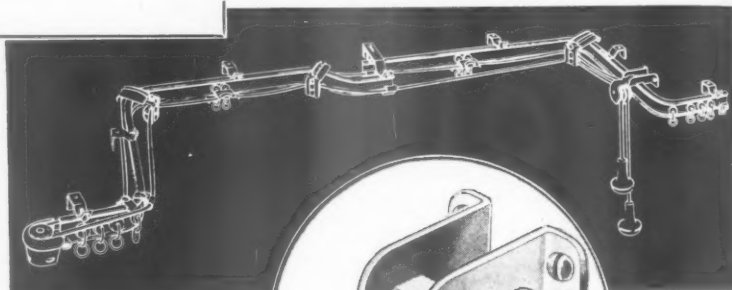


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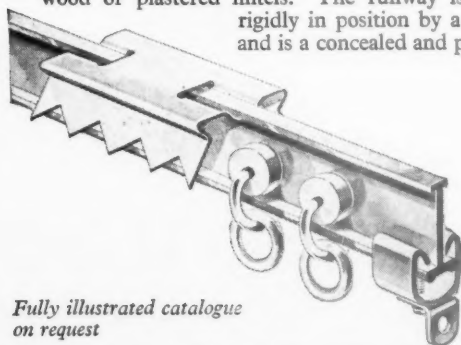
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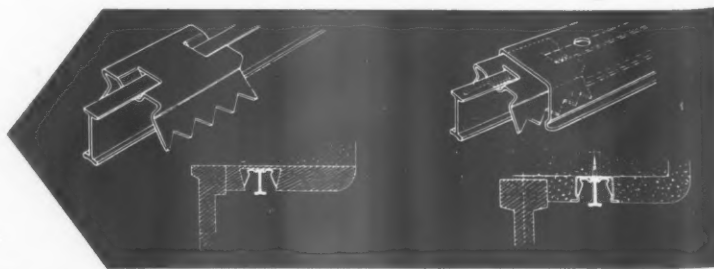
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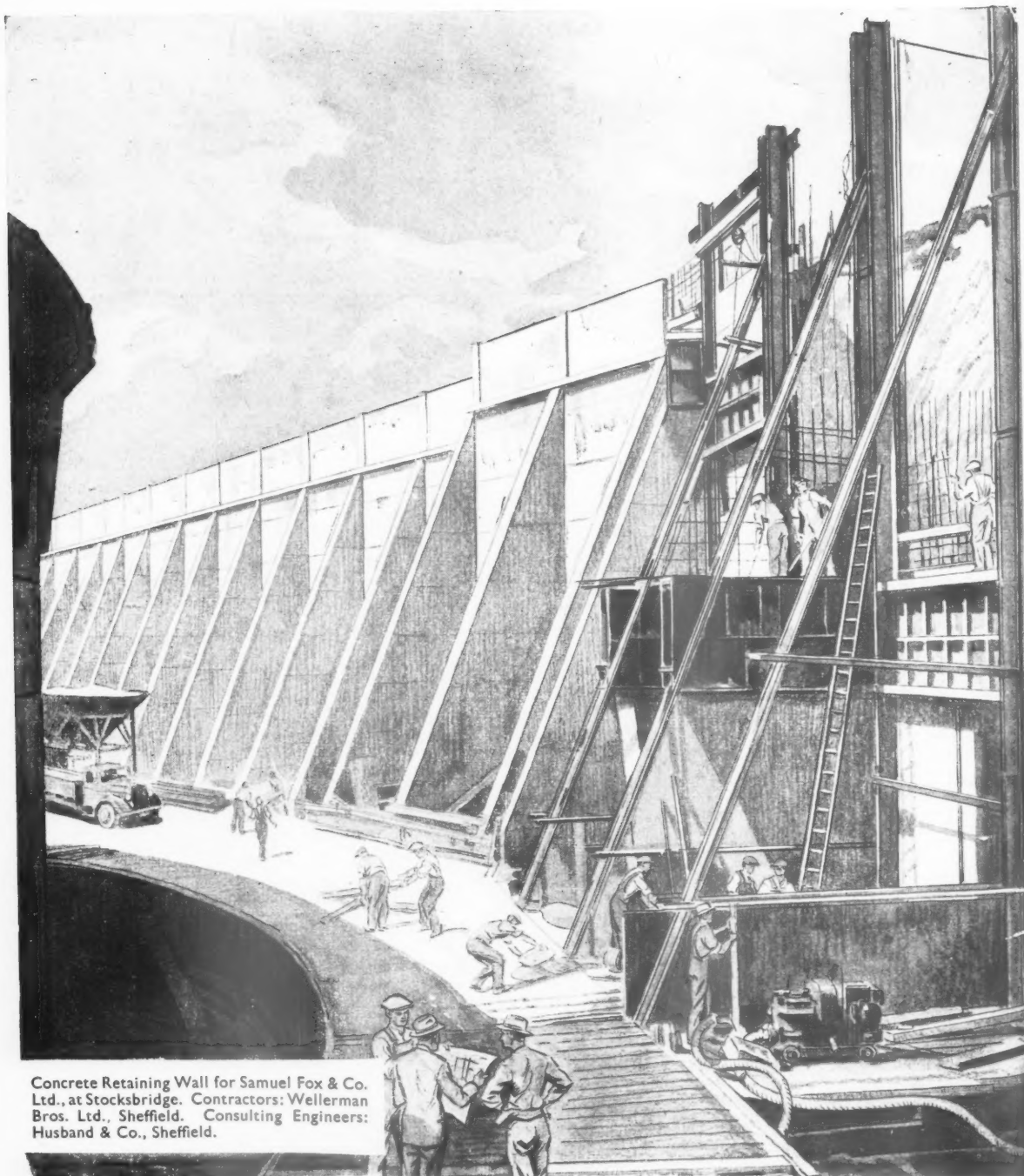
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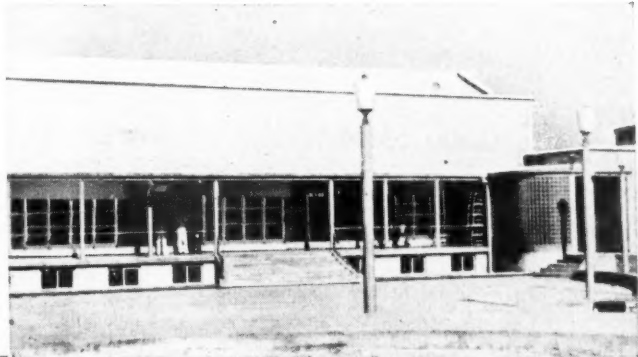
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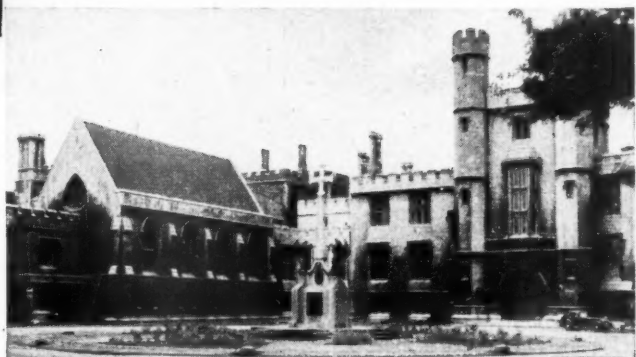
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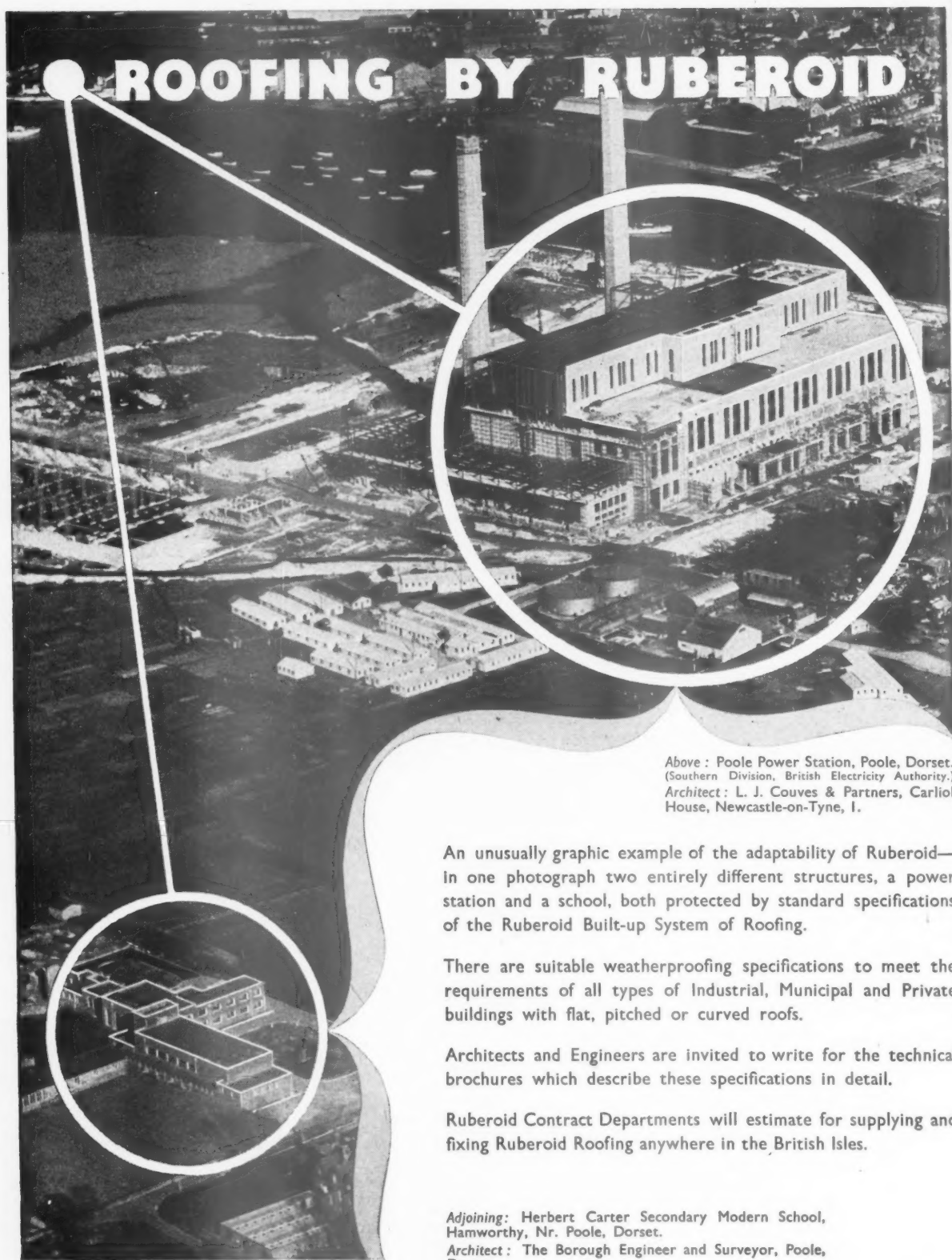
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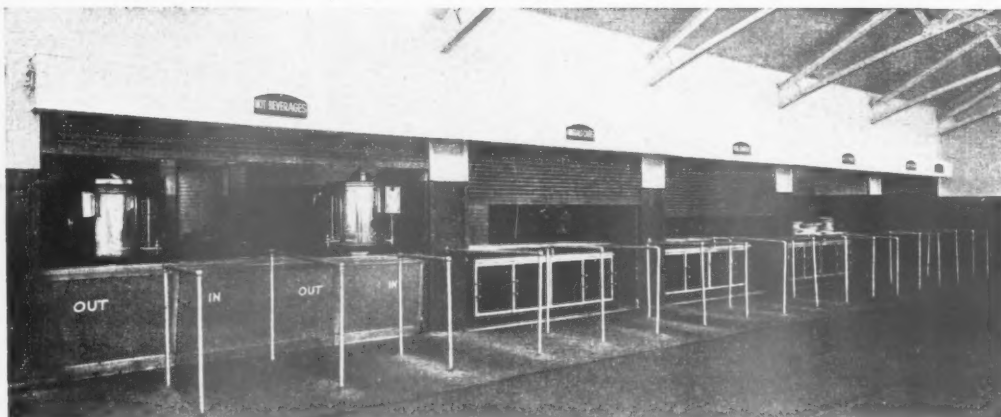
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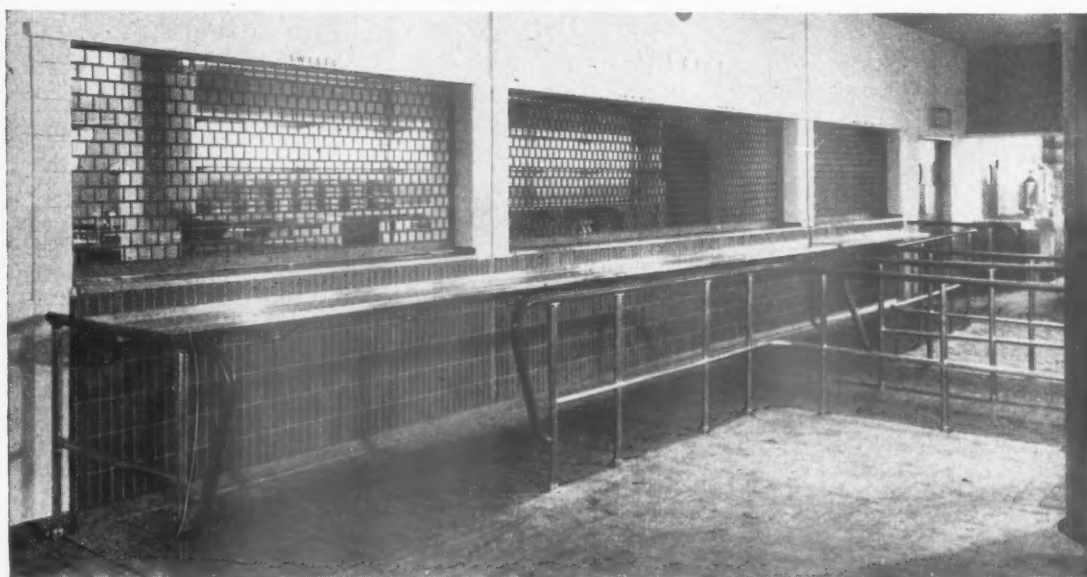


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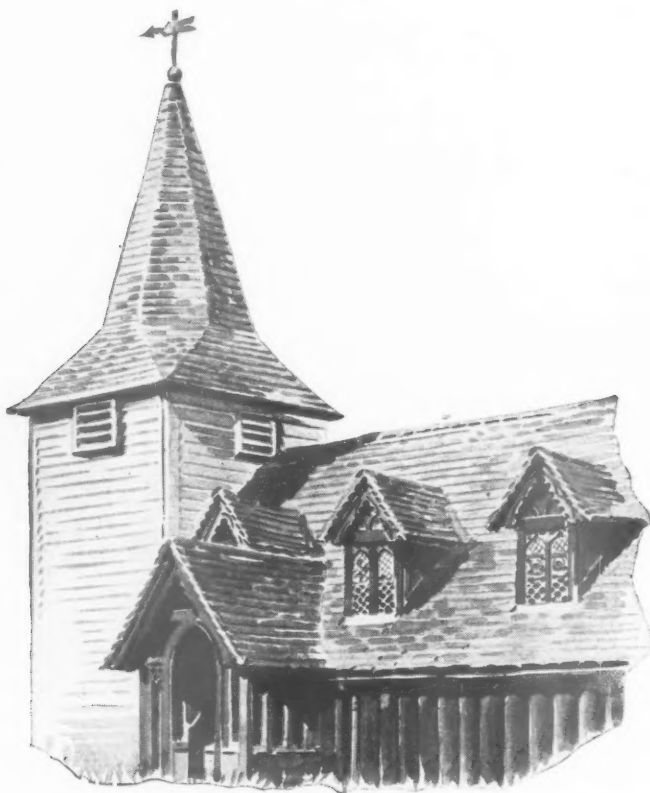
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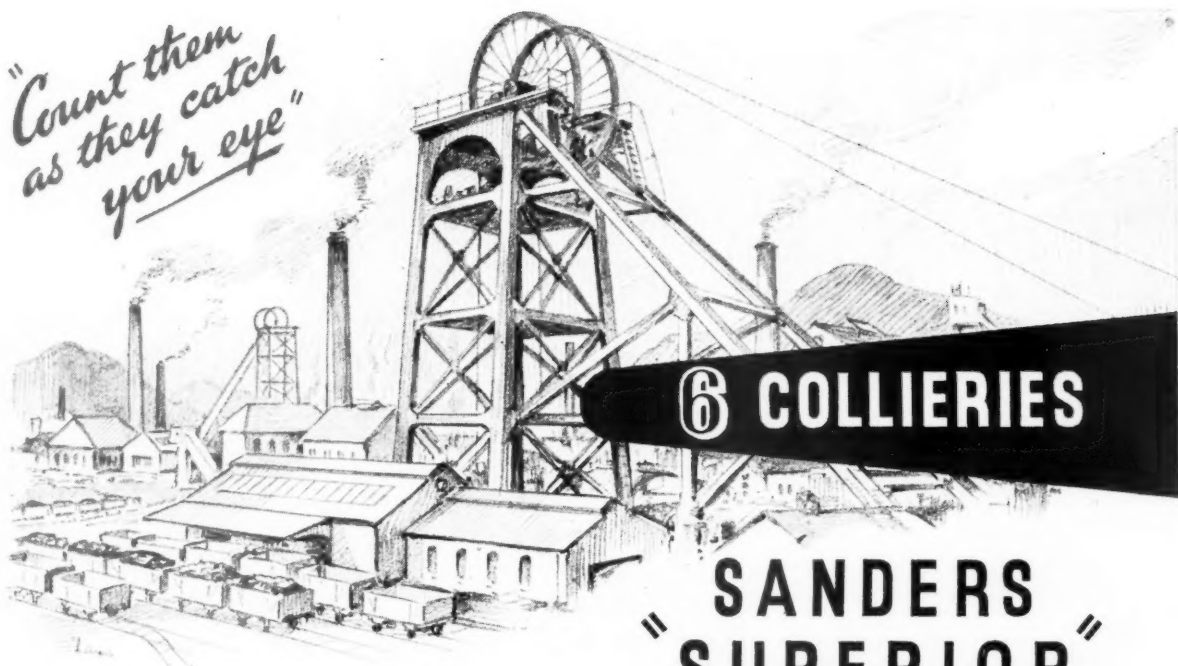
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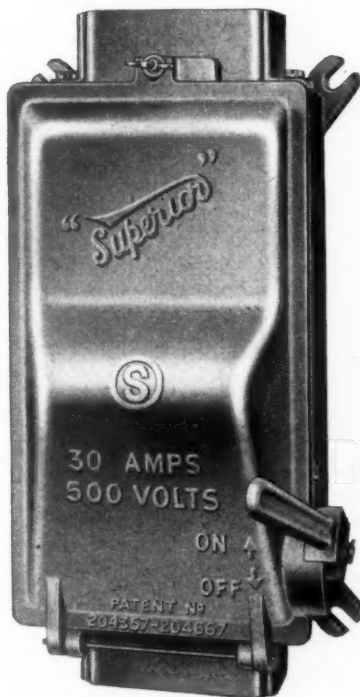
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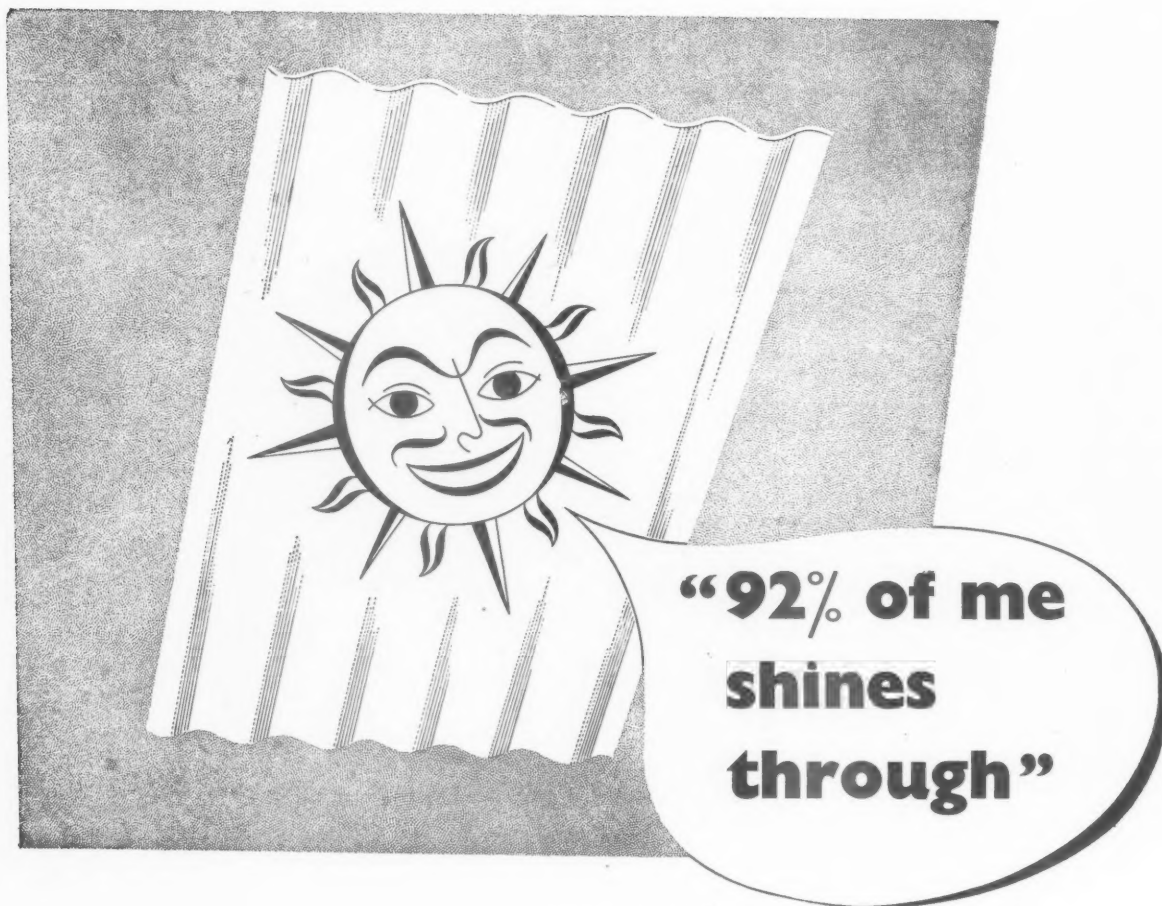
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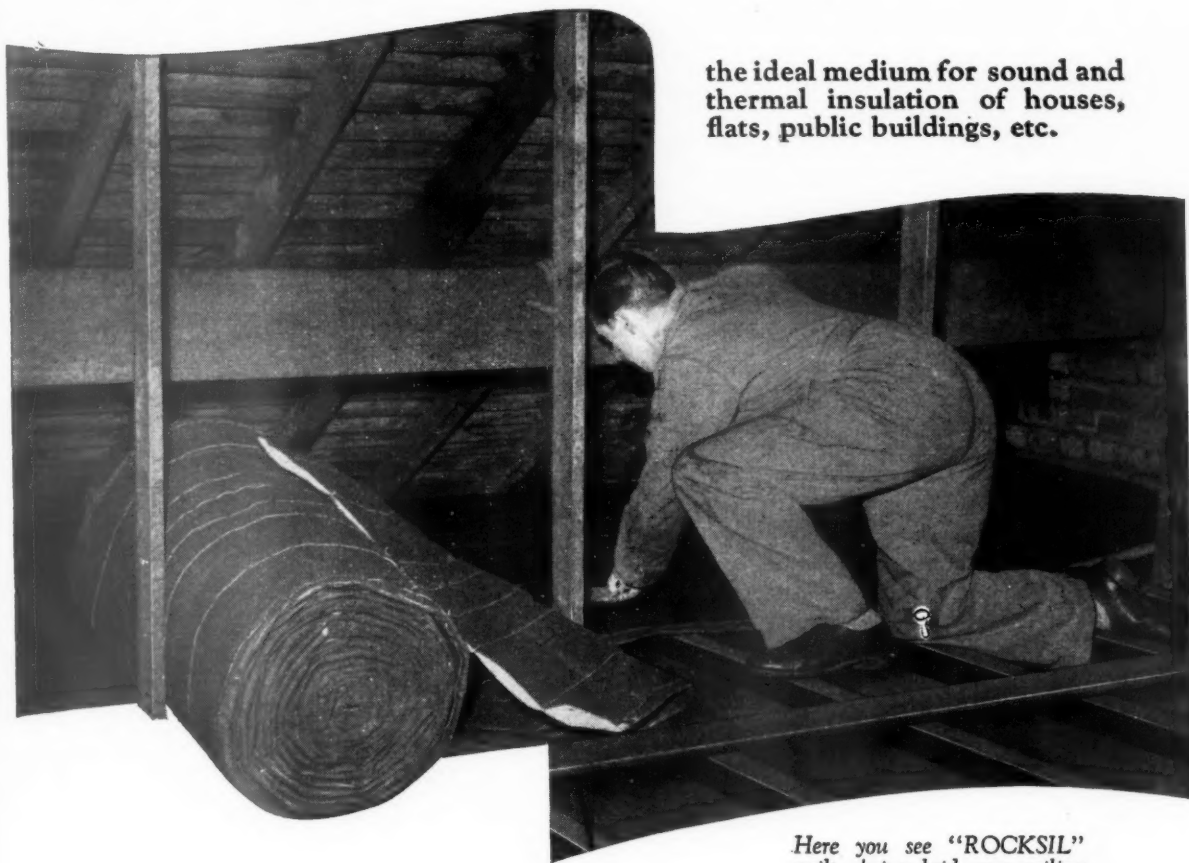
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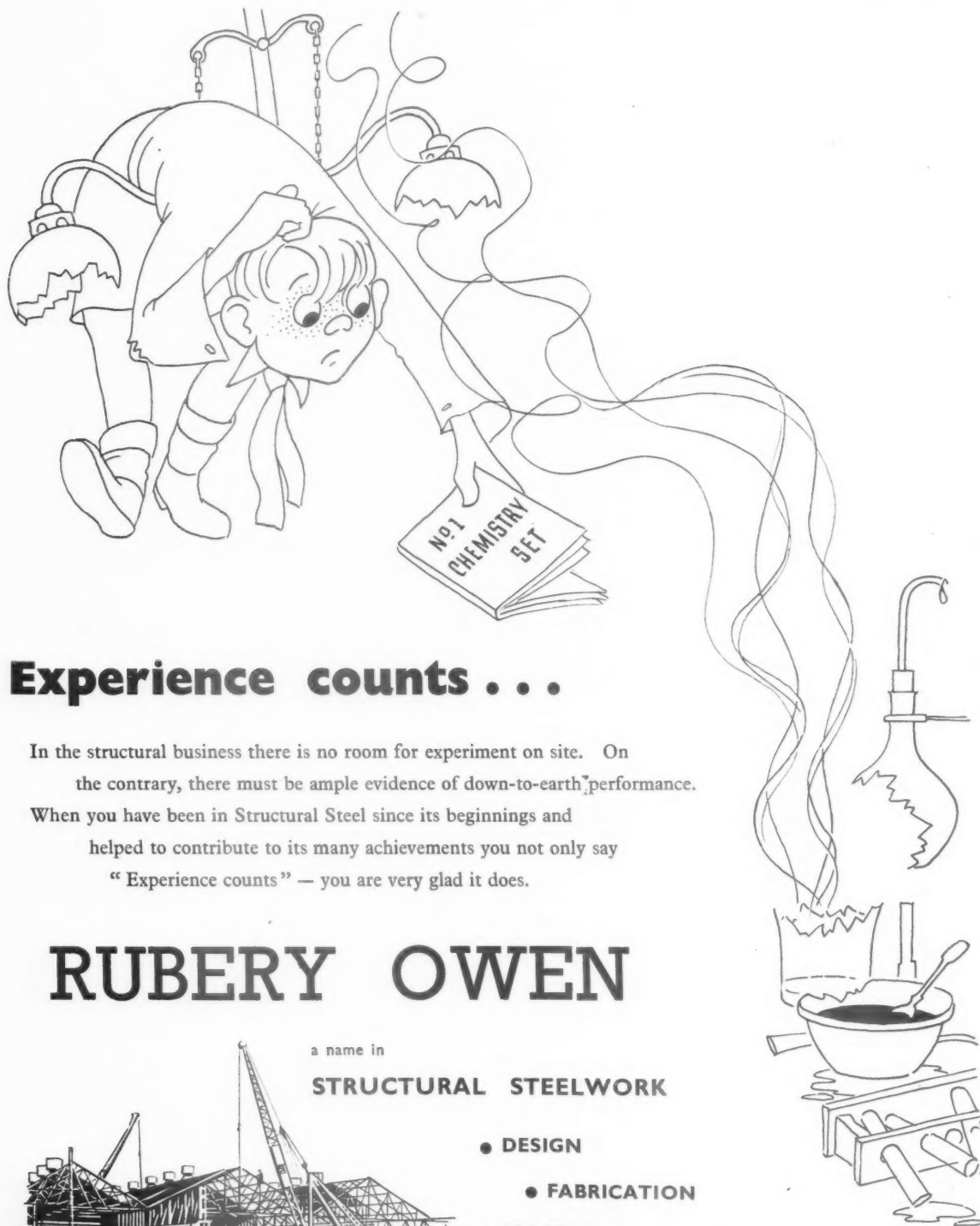
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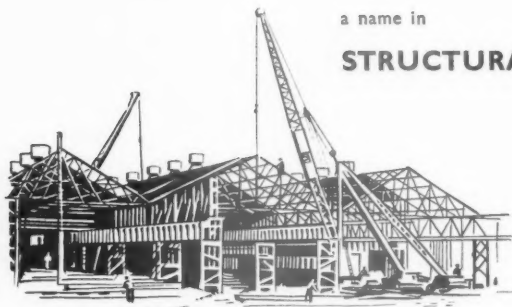




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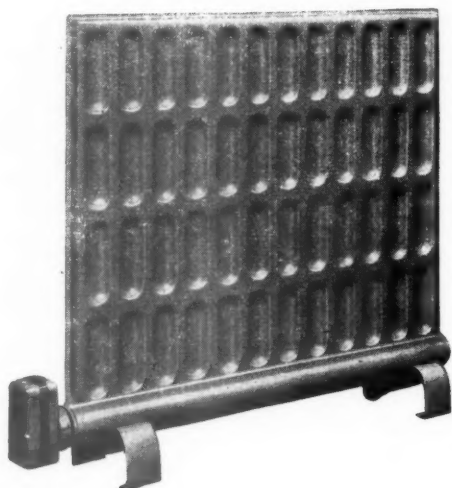
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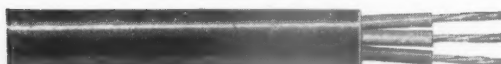
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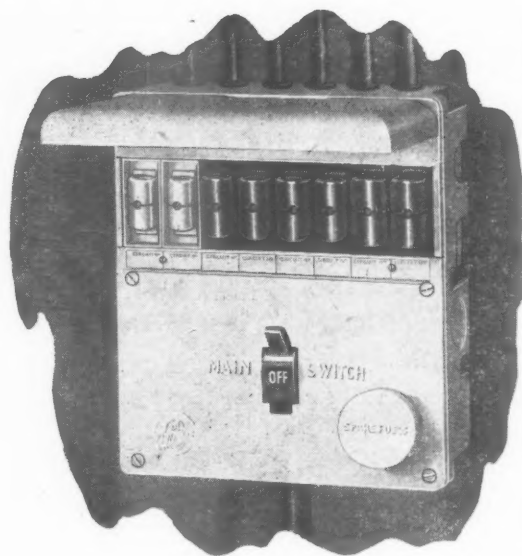
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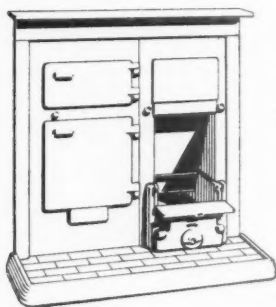
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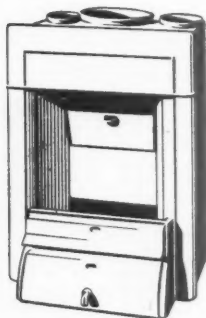
will be warmly welcomed at the  
Radiation stand (No. B501/400;  
Engineering and Hardware  
Section).

# Some examples of SOLID FUEL *Radiation* APPLIANCES for the 1952 housing programme



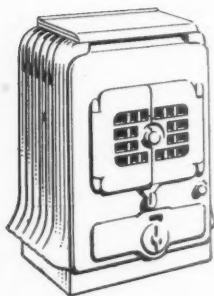
### No. 12 YORKIST Combination grate

- Low maintenance costs.
- Simple installation and trouble-free performance.
- Exceptionally fine open fire that burns continuously on any domestic solid fuel.
- Combines excellent cooking and heating performance with low fuel consumption.
- Simple damper control gives user complete command of oven heat and hot water output.



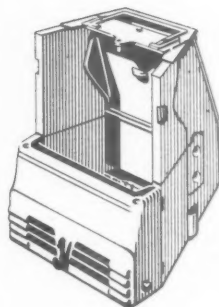
### CHEVIN Convector fire

- Provides far-flung warmth from any type of domestic solid fuel, also hot water.
- May be fitted with Chevin, Sutton, Fulham or Cheston all-fuel continuous burning inset grates.
- Built-in gas burner available for all these grates.



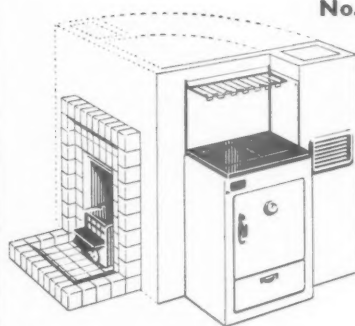
### SIESTA 2A Stove

- Noted for high efficiency and low fuel consumption, as are its companion models, the Yorkray and the Cozy.
- Burns day and night on any domestic solid fuel.
- Available as free-standing or built-in model with or without hot water boiler.



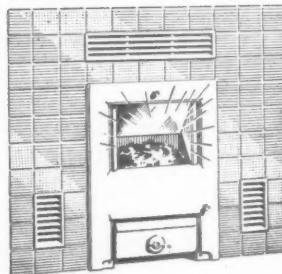
### EAGLE Flue set

- Shown here with Fulham grate, but can also incorporate the Cheston or Sutton grate.
- Free access to boiler and boiler connections.
- Boilers supplied in copper or wrought welded iron.
- Simple accurate control.



### No. 4 YORKDALE Back-to-back range

- The perfect installation where kitchen and living room adjoin.
- Cooks the meals, heats the water and warms the room from a single open fire in the living room.
- Specially designed to reduce building costs and save valuable floor space.



### RAYMAX No. 32 Convactor fire

- Three times the heat of a normal open fire from a given quantity of fuel.
- Works on down-draught principle . . . burning any domestic solid fuel smokelessly . . . providing direct and reflected radiant heat as well as convected warm air.
- Supplies ample hot water for all domestic purposes as well as for a radiator or towel rail.

✓ Approved by the Ministry of Fuel and Power.



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The Park Foundry (Belper) Ltd., Belper, Derbyshire.



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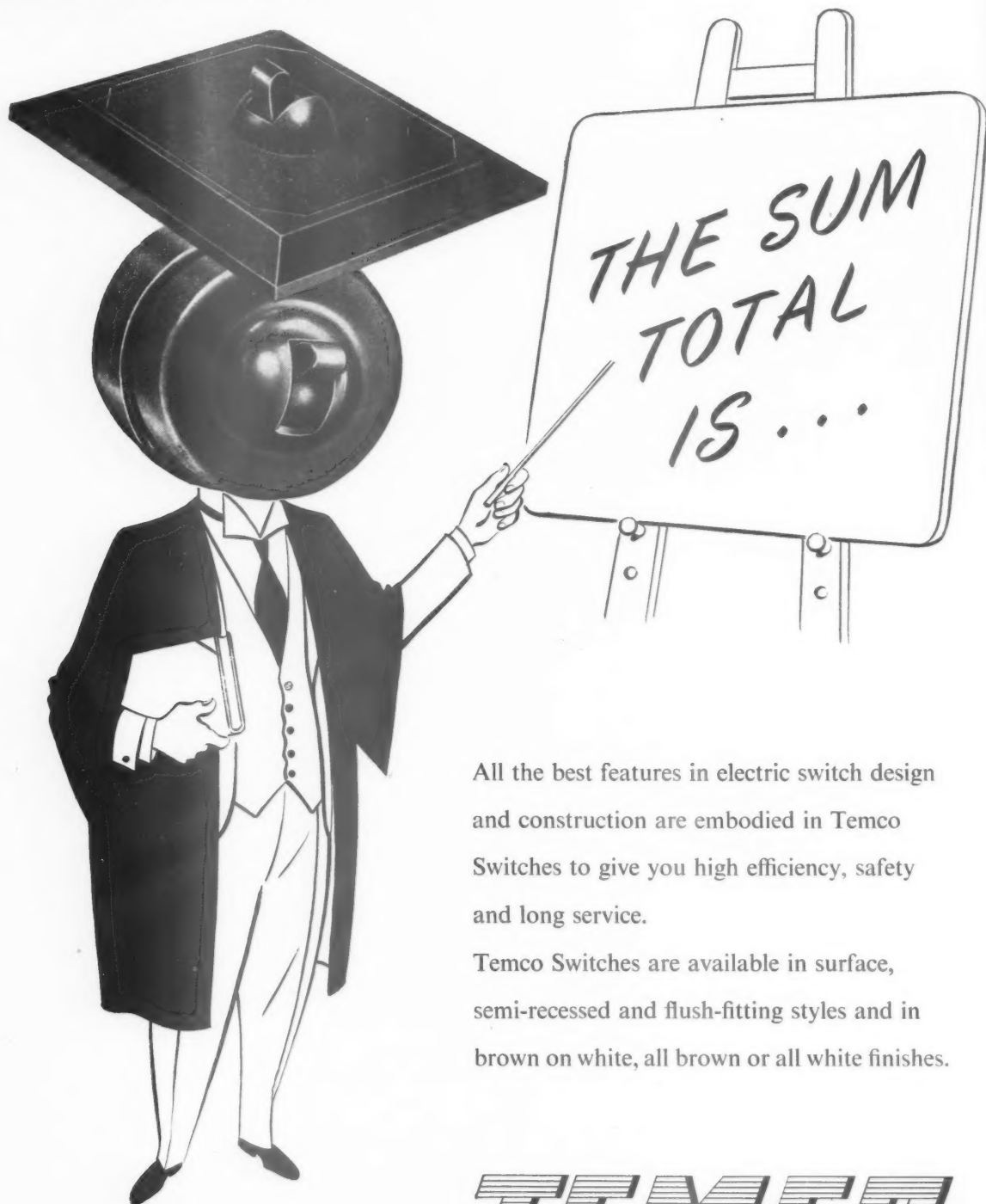
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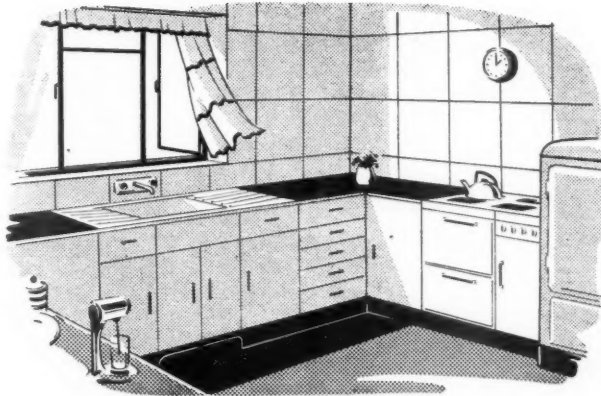
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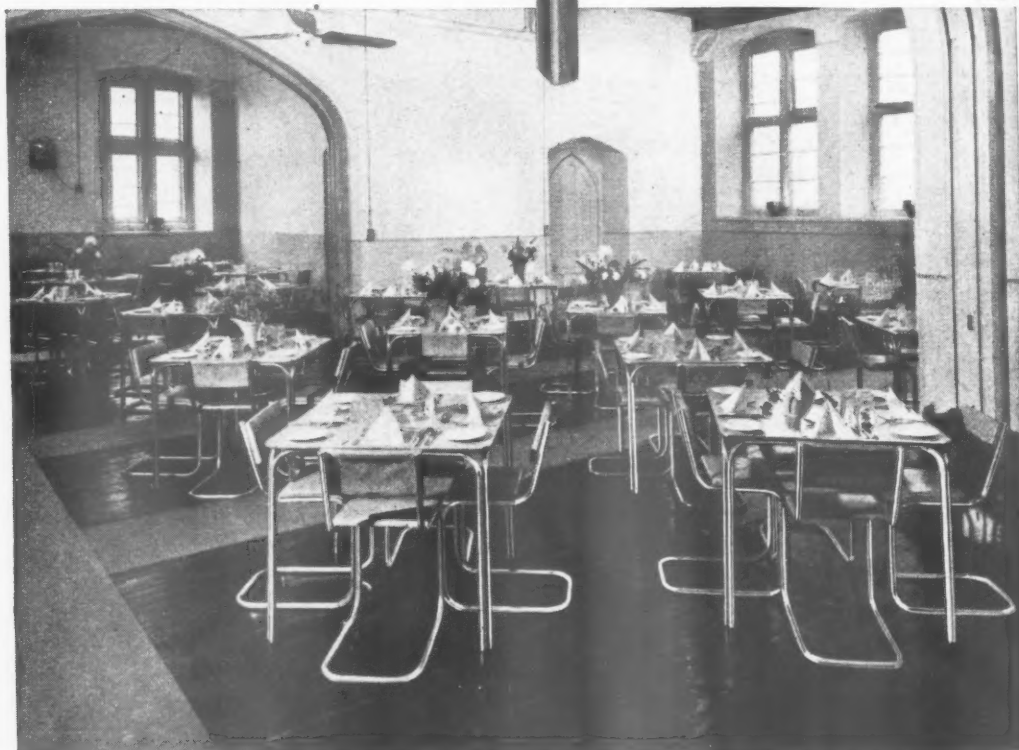
Fingers and forks, pots and plates, the continual spilling of food and drink give canteen table top and counter more than their fair share of drudgery. But where WARERITE Surfaces are used to meet this onslaught, even the most delicate patterns are safe from harm. WARERITE Plastics are hard wearing, hygienic, resistant to acids, alkalis—and to burning cigarettes, if required. There are 'Weaves' and 'Woodprints', and colours or patterns to order. Specify them for all cafeteria furnishing, including wall surfaces.



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Staff Cafeteria of Brentwood Mental Hospital. Tables surfaced with WARERITE Material in Birds' Eye Maple pattern.

W118

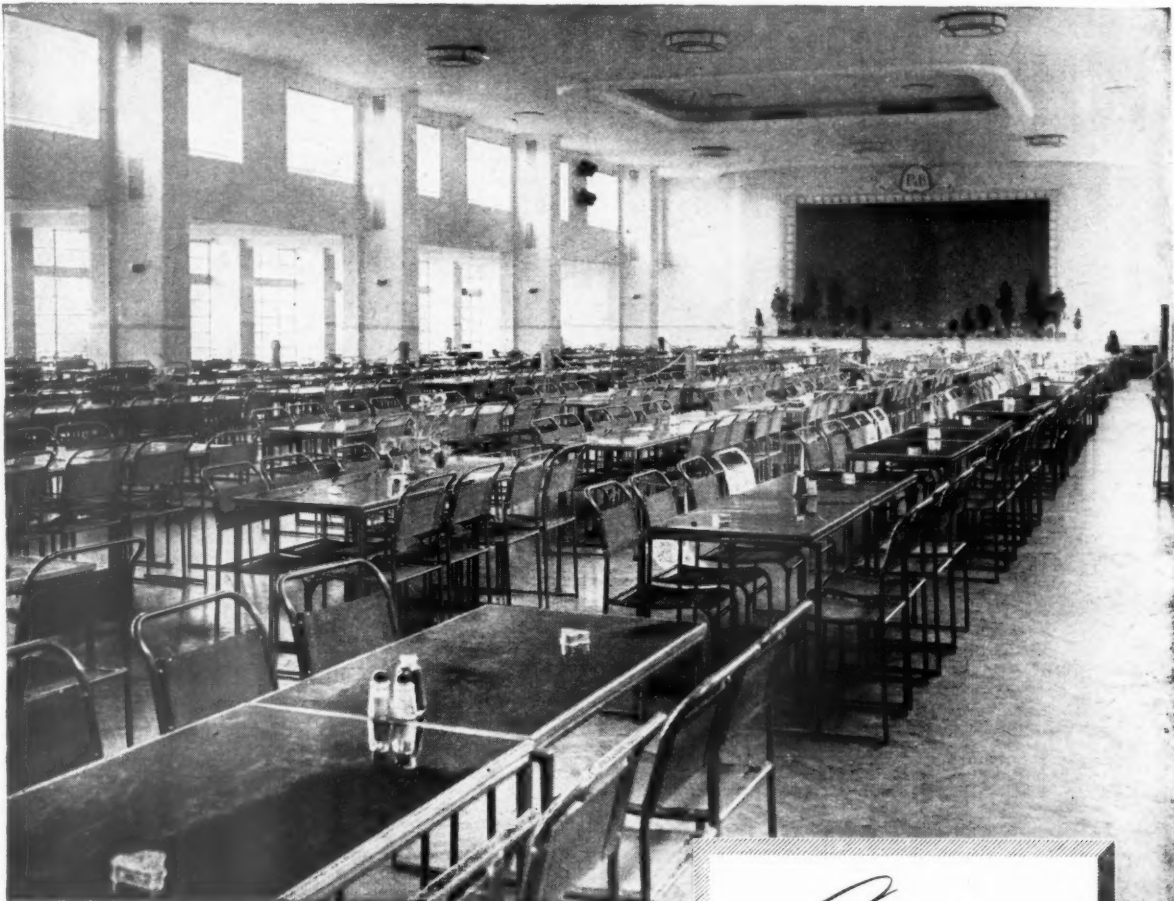


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Paton & Baldwin Ltd., Canteen—Darlington  
 Photograph by courtesy of Paton & Baldwin  
 Ltd. Architects: Sir Alex Gibbs & Partners,  
 Queen Annes Lodge, London, S.W.1.



NOWADAYS the works canteen often serves a dual purpose and for that reason permanent furniture is undesirable. When the last meal is served as likely as not preparations will commence for an evening concert or maybe a staff dance. In these circumstances Kingfisher space-saving furniture is the perfect answer. Strong, light and easy-to-handle it facilitates re-arrangement, removal and stacking in a matter of minutes and at the same time provides that degree of comfort which is looked for in furniture of a more permanent character.

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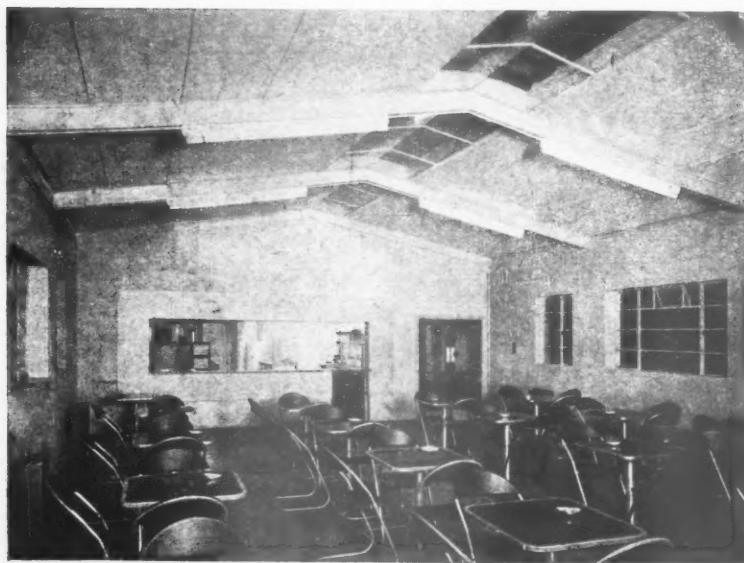


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### FULMER RESEARCH INSTITUTE INDUSTRIAL CANTEEN AT STOKE POGES, BUCKS

Illustration shows STRAMIT Roof Decking supported in aluminium sections and decorated on underside to form ceiling. Bituminous felt weatherproofing.

Architects : A. F. HARE AND PARTNERS, A.R.I.B.A.

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... this choice was not without good reason for STRAMIT being a 2 in. thick, large size, dry construction slab, ensures low costs without sacrificing quality of construction, thus bringing to the Architect and Builder a modern method with many advantages, proving itself the most practical method of ROOF DECKING on the market today.

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*National Coal Board Staff Canteen, Eastwood, Nottingham.*

*Architects : Vallance & Westwick, (Myles White, A.R.I.B.A.), Mansfield, Nottingham.*



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Available in Black, White and a range of clear, fresh colours, 'Vitrolite' is adaptable to gay or subdued schemes.

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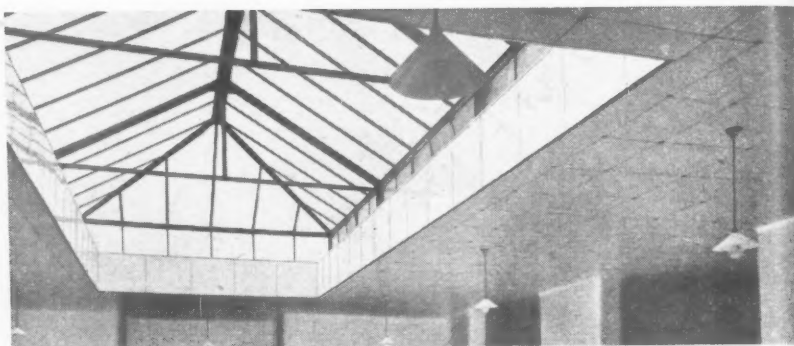
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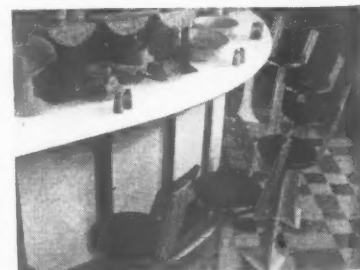
CANTERBURY, BOURNEMOUTH,  
EASTBOURNE, READING,  
OXFORD (H. Hunter & Co.)



Ceiling, and apron lining to lantern light, faced with White 'Vitrolite,' in the Kitchen, Romford Isolation Hospital.



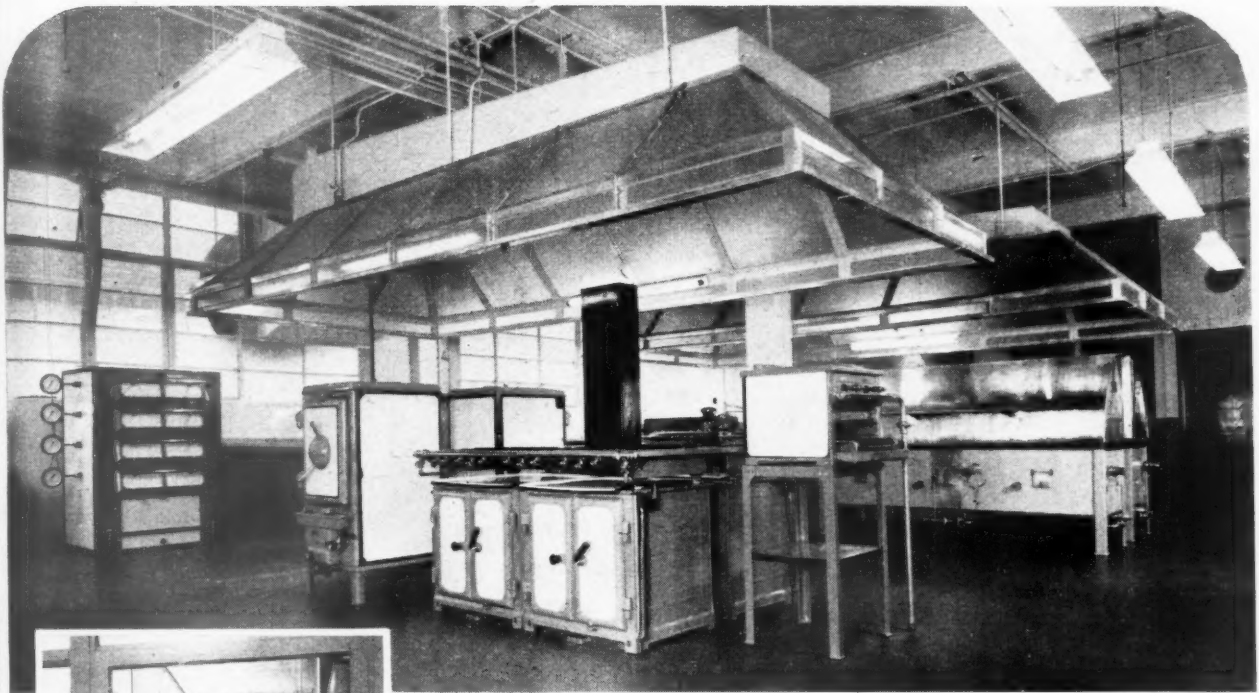
Coloured 'Vitrolite' is used on the walls and counter soffits in the Canteen, Bentalls Ltd., Kingston-on-Thames.  
Architect: C. Howard Crane, A.I.A. Contractors: W. H. Gaze & Son, Ltd.



The above Buffet Bar treatment, in 'Vitrolite,' speaks for itself.

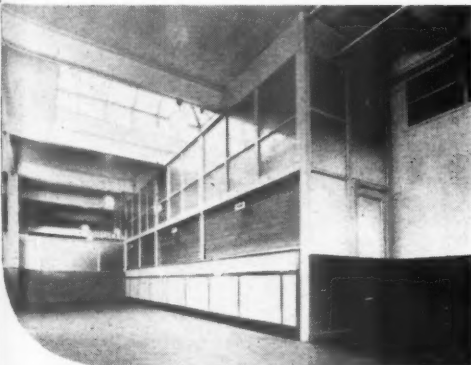
(Left) Toilets at the American Club. 'Vitrolite' facing and Mirrors cover the entire wall area, including recesses.  
Architect: C. Howard Crane, A.I.A.





Illustrated is Canteen provided for Howard Ford & Co. Ltd. Liverpool, makers of the well known Bear Brand Hosiery.

This Canteen provides meals for 1200 persons and has been designed for speedy and economical service. Top: Well ventilated kitchen. Above: Back of Service Counter with heat storage space. Below: Front of Service Counter and Metal Partition.



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GUTTED MAY 1951

# THE BURNING QUESTION!

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Photographs by courtesy of the  
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W. H. Heywood & Co. Ltd.

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*Incombustible Insulation Board*

**NO. 3 HANGAR AT LONDON AIRPORT** was gutted by fire last year, and the top photograph was taken immediately after the fire was extinguished. As the lower illustration shows, it has now been re-lined with the incombustible insulation board, ASBESTOLUX, each 8' x 2' panel being fitted to Aluminium T's. The burning question has been answered.

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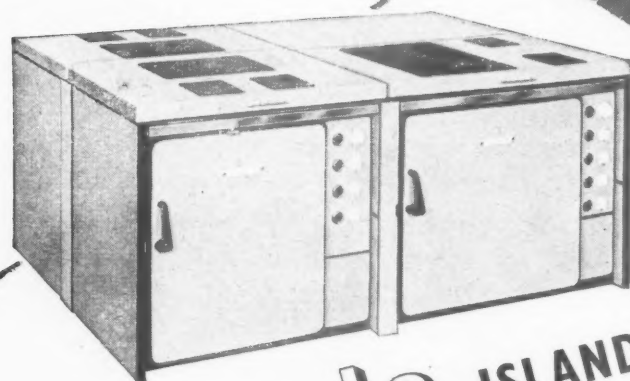
*Empire Creamery and Snack Bar, Quinton, Birmingham*

**Gaskell  
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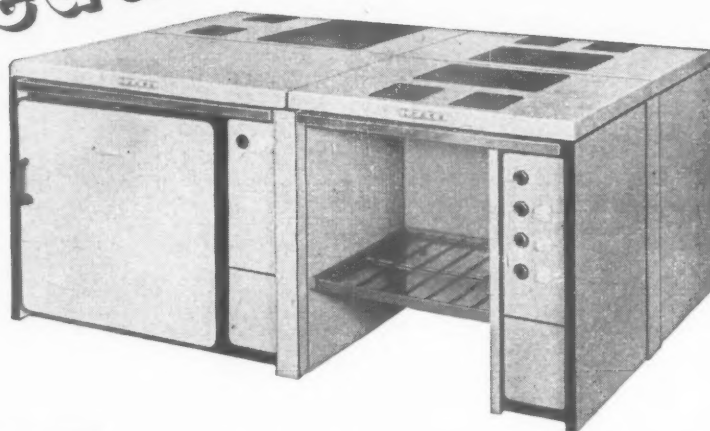
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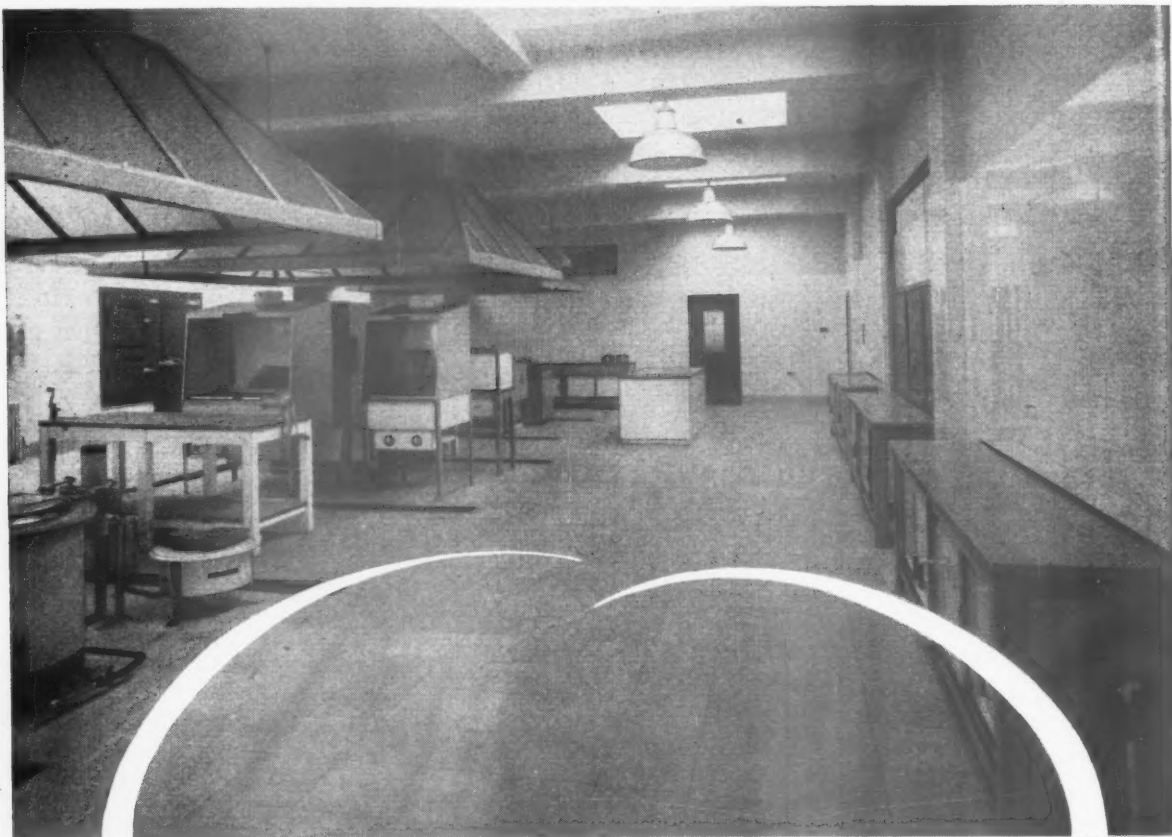
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by  
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*Architects: Maxwell Ayrton & Partners, FF.R.I.B.A.*

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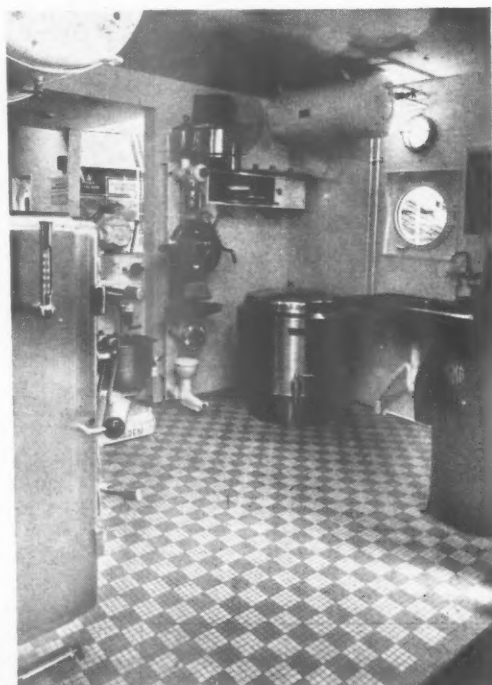
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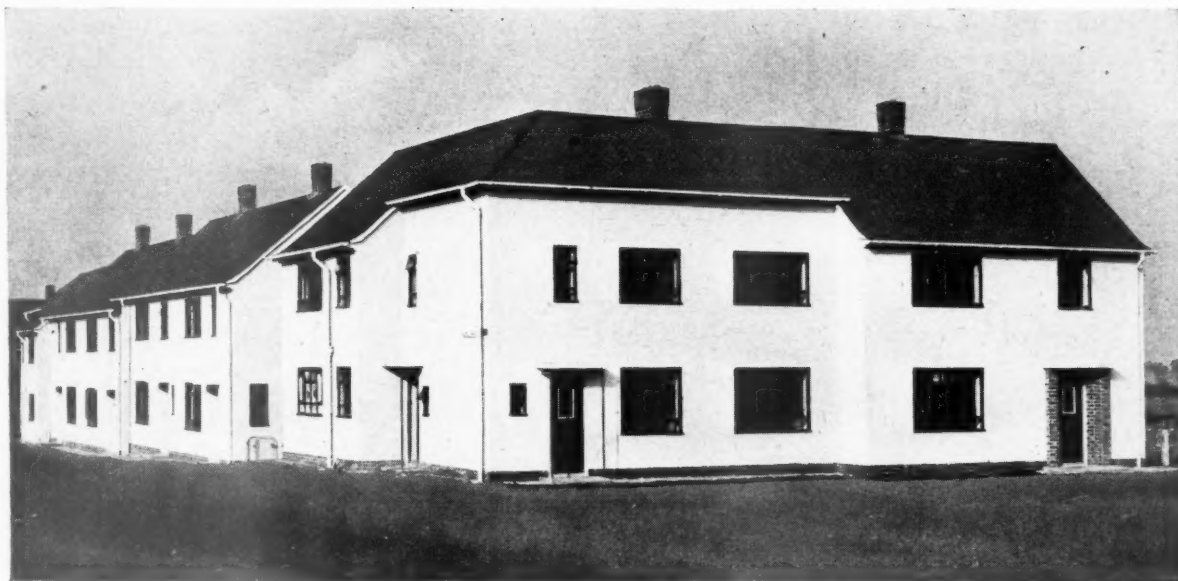
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*Architect : A. Mackenzie, L.R.I.B.A., Director of Housing, Manchester Corporation.*

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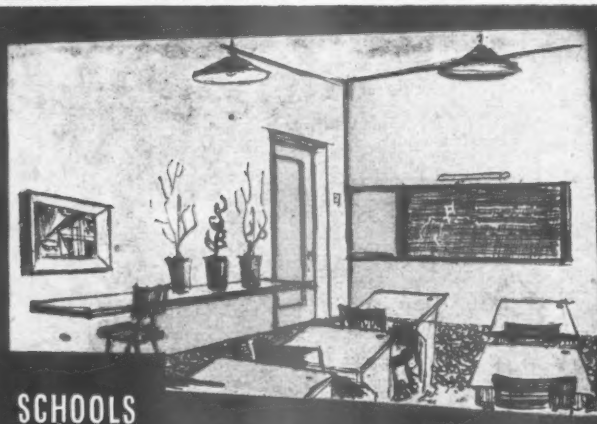
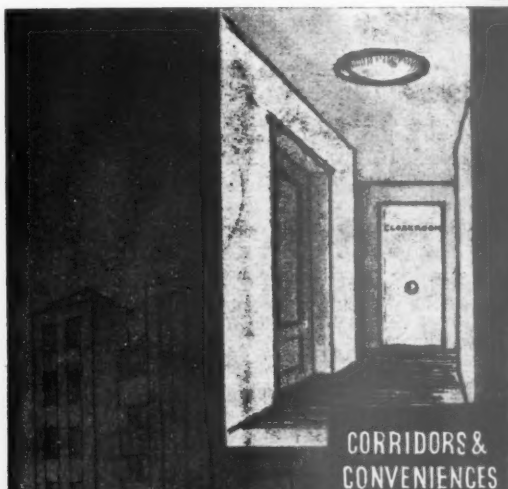
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## DESIGN IN REINFORCED CONCRETE



*Canteen for  
Mander Brothers,  
Wolverhampton.*

*Architect: S. N. Cooke & Partners*

*General Contractors:  
A.F.R. Godfrey & Co. Ltd.*

*Interior View of  
Canteen showing  
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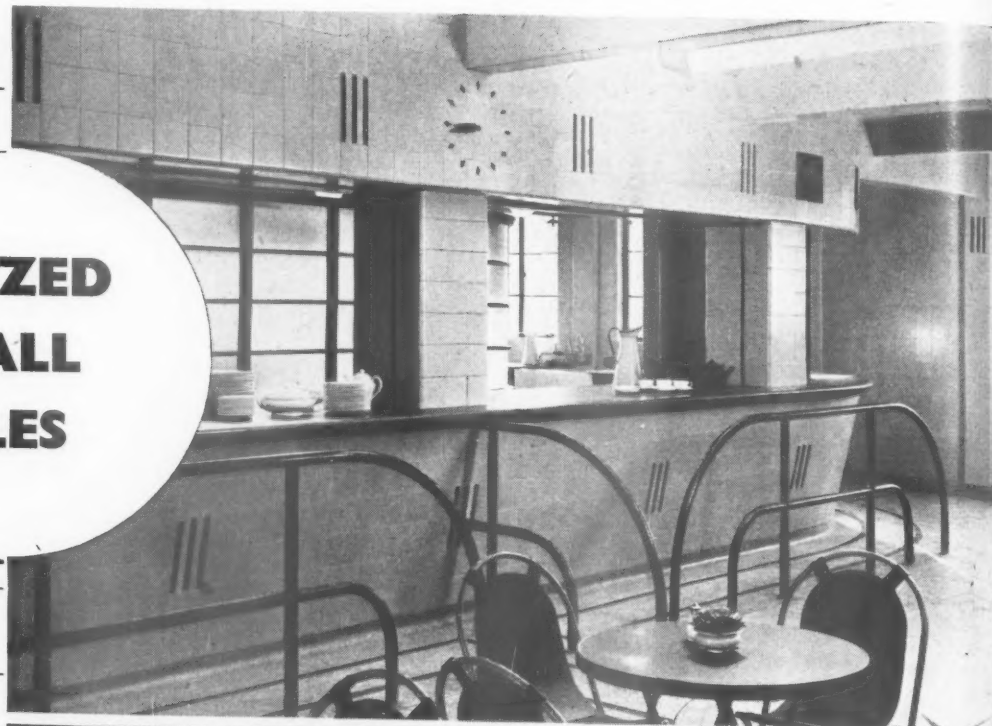
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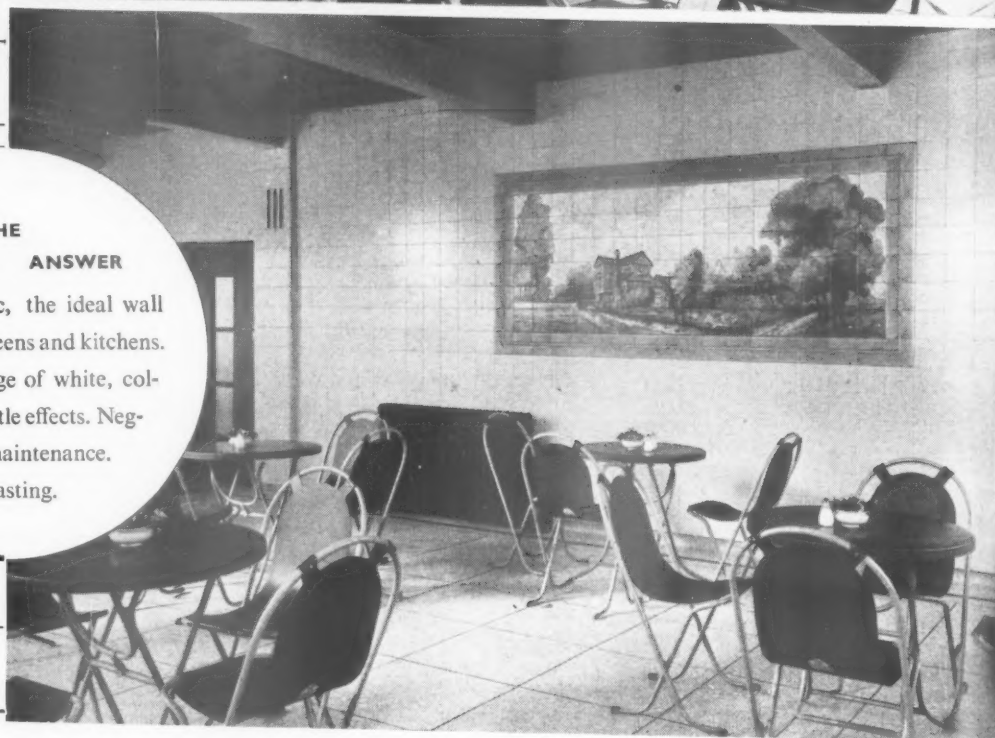


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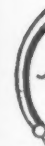
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THE ARCHITECTS' JOURNAL

No. 2984

May 8, 1952

VOL 115



## ACADEMIC INTERLUDE

It is unfortunate, to say the least, to find that half the designs shown in the architectural room of this year's exhibition of the Royal Scottish Academy are by foreigners. And this does not mean just by Englishmen or Welshmen (whose work in Burlington House will be dealt with in a moment), but from across the water—from, in fact, Holland. A selection of the work of Dudok, together with some photographs of the sculptures of H. Krop, though of considerable interest, could surely be exhibited at another time. In a Scottish Academy exhibition one should see Scottish work, otherwise the inference is that the native architecture is inadequate and that it has to be eked out with work from abroad. Is that true? It is hard to tell. Of the thirty or so works which remain when the

foreign work is removed, a third is sculpture and stained glass. The remaining designs, judging superficially and, of course, only visually, are perhaps slightly better than one sees in the London Exhibition.

But the proportion of architecture to all the other arts on view in Burlington House is more than twice the proportion in the Edinburgh Academy. This may be because the Scottish hanging committee sets a higher standard, but it is more likely to be because the Scots are not building much and barely know what architects are for—by the word “architects” I mean, of course, the young brigade, not the old fogies (with one or two notable exceptions) on top. Perhaps a little more say in their own affairs would provide the impetus to allow this nation to achieve architectural greatness—would a few of those Scots now governing the Commonwealth please return home?

The link between the two academy exhibitions is, for architects at least, the design by Basil Spence for Coventry Cathedral. An excellently-made eight-scale model of the Cathedral, raised, sensibly, to eye-level, dominates the architectural room at Burlington House—the Scots have had to make do, which is reasonable enough, with some of Spence's clever sketches. This indefatigable architect is still refining and polishing the design—when interviewed last week he had several amendments of detail to show which make the model already out of date. If only all architects had such integrity and conscientiousness.

The other works on view are much as in previous years, only the steadily increasing number of contemporary

designs make the academic ones stand out like top hats in Piccadilly. Some of the most interesting of the former are: Associate-academician Brian O'Rourke's design for part of the new Royal Observatory at Herstmonceux; research laboratories in Beeston by C. St. Clair Oakes, and a very mysterious “Government Establishment” by John C. Clavering. Congratulations to the MOW on the last named for encouraging its architects to exhibit work. Why do not other public bodies do likewise?

My reference to top hats reminds me of that other delight of exhibitions—the visitors. A reception given at the Royal Scottish Academy confirmed that all such visitors, from which ever side of the border they come, are really more interested in each other, food and clothes, than in art. Scotland has, for my eyes at least, the advantage of the fascination of Highland dress and really handsome women. England has drab men, pretty women and too many slithy toves—if you know what I mean. But the art—the yards and yards of faces, flora and fauna—it is identical in both countries and equally neglected.

## JURY DUTY

UNESCO's five-man international jury held its first (and, if the original plans are kept to, its only) meeting in Paris on Friday, with what results has not yet been announced. Readers will remember that this jury of all the talents\* was appointed to examine the sketch designs for the UNESCO building which Beaudouin (who is to be the architect) and two consultants, Britain's Howard Robertson and America's Eero Saarinen, have been preparing since February.

\* Le Corbusier, Gropius, Rogers, Costa and Markelius.

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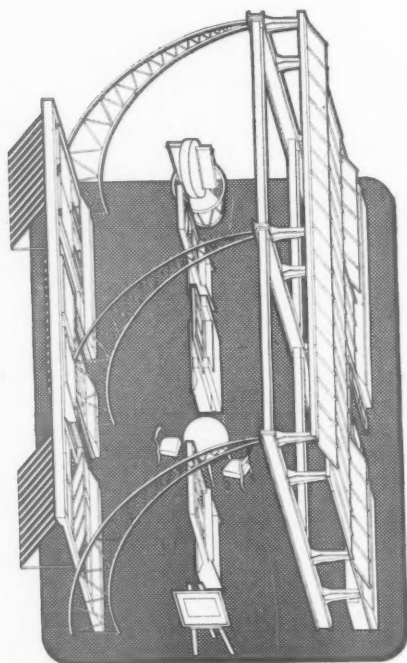
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\* To preserve freedom of criticism these editors, as leaders in their respective fields, remain anonymous

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It was a tough assignment for all three, and those who look for a spectacular structure on the lines of the UN Secretariat in New York are likely to be disappointed. The chief difficulty is the site. It has a fine situation, right behind the Ecole Militaire (that is, forming part of the monumental Trocadero—Champ-de-Mars—Eiffel-Tower axis); but the French Government, in offering UNESCO the site, made it a condition that the planning ordinance in force through the area must be complied with. This was reasonable enough as it would be obviously undesirable in any case to throw the symmetrical Place Fontenoy out of balance by putting up something too strikingly different from the buildings which occupy the corresponding site on the opposite side, and are conventional "1920-ish" Government buildings.



*The prestressed concrete footbridge on the South Bank collapsed last week during over-loading tests, after 88 tons had been placed on it. See ASTRAGAL's note on this page.*

But it seems that the French authorities haven't been too insistent on the same building lines and cornice heights being repeated, and Beaudouin, Robertson and Saarinen have therefore had a fair amount of freedom in planning. The result will be looked for with great interest.

#### GOT HIM!

The consultants' job—like that of the jury—finishes with the submission of the sketch plans, and nicely in time for Robertson to turn his attention to another (and in its way an equally complex) task that he has now undertaken. ASTRAGAL offers him heartiest congratulations on his nomination as the next RIBA President. The choice will please everyone. He is exactly the sort of vigorous, progressively minded president that every Institute prays for and so seldom succeeds in getting. It's difficult in fact to believe that he has escaped being our President for so long. How long, I wonder, will it be before we let him go again?

#### BURKE-AND-HARE-RAISING FEATS

Taking advantage, as they say, of last week's spring weather, ASTRAGAL thought he would spend his lunch-hour seeing how the knackers were getting on along the South Bank Promenade. The answer, he is reluctant to report, is "Fine." The Dome was half stripped, the Skylon had lost its point, and Transport looked as stricken as the Ministry that bears its name. Here

and there amongst the devastation the trees flourished greenly—those landscape boys planted better than they knew—and below Hungerford Bridge the LCC Parks Department were emptying wheelbarrows of earth along the Promenade, and motor boats nosed happily at Rodney Pier.

At the bottom of the Shot Tower . . . but what was this? Weights and pulleys, camera men and wires, dirty mackintoshes, ruffled hair, horn-rims and Biro's; yes, it was those building scientists at work upon the Fry-Drew prestressed concrete bridge. In a corner a PR man was explaining what was to happen to a girl reporter in a scarlet hat. "We load it, you see," he was saying, "until it starts to fail," and here he licked his lips. "That means that it does not return to its original shape. And then we load it more," and his eyes shone happily, "until it breaks." Automatically (for ASTRAGAL is a journalist before he is humanitarian), a photographer was 'phoned for to record the final rites, and the picture is reproduced above. How lucky, ASTRAGAL thought, as he wandered away with the Burke-and-Hare laughter of the scientists echoing in his ears, that Jane Drew and Maxwell Fry were far away in India and would not hear that final dreadful crack.

#### LINES FROM ELY

A colleague writes that he was sufficiently startled by the reported size of the Ely Lantern timbers (my note, page 383, March 27) to go and see for himself, and tells me that they *don't*, in fact, carry the 2 ft. 8 in. by 3 ft. 4 in. sections for their whole height, but finish up only about 12 in. square. He remained extremely impressed by an astonishing piece of construction. But he seemed even more diverted by an astonishing piece of doggerel on an 1845 monument. Called the "Rail Way Through Life," it is too long to quote in full, but I can't resist the last few lines.

"Come then, poor Sinners, Now's the time,  
At any station on the Line,  
If you'll repent and turn from Sin,  
The Train will stop and take you in."

This is in the south porch, and is very obvious, my colleague says, so it ought to be well known. Is it? Not to any of ASTRAGAL's acquaintances. And isn't it a bit early, anyway, for poems about railways, particularly in that part of the world?

#### DRAWING THE CROWDS

Whatever you do, don't miss the Steinberg exhibition which has just



### Academy Talking-Point

The Royal Academy's summer show is a happy hunting ground for members of the "I-know-what-I-like" school. There they can wander contentedly through cliché-lined halls, confident that apples on plates will sit firmly and un-Daliesquely on polished tables, and that sitters' eyes will seldom have strayed to their stomachs. And when they reach the Architecture Room they will, as a rule, find nothing to disturb them greatly. Municipal offices still flaunt classical details, and very often a hint of the contemporary idiom is softened by a broader hint of the traditional. The Architecture Room seldom produces a talking-point for public or Press. But in the last year or so building design has been brought to the layman's eyes and ears a great

deal. Today architecture makes news. And this year—perhaps for the first time in the Academy's history—many people will visit the summer exhibition especially to see the *pièce de résistance* in the Architecture Room—the model of Basil Spence's prize-winning design for Coventry Cathedral, whose porch is shown above. This model (also shown on pages 566-567) includes changes made by Mr. Spence. The vaulted roof of the (enlarged) porch is now level with the nave roof. And this roof no longer slopes down towards the altar. In addition, further alterations have been decided upon since the completion of this beautifully made model, which shows not only the cathedral itself, but the adjoining ruins and the nearby church of Holy Trinity.

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## POINTS FROM THIS ISSUE

Exhibits at the Royal Academy Summer Show ..	pages 564 and 566-568
AA President appointed .. .. .	page 568
The design of works canteens .. ..	pages 565 and 569 to 589

## The Editors

## THE DESIGN OF WORKS CANTEENS

THE works canteen—the subject of this issue—is, of course, more than a machine for eating in. It is the place where the worker should find rest for eyes and ears. It is important too that he should never, like the gentleman in *The Tempest*, be offended by “a very ancient and fish-like smell.” However, air circulation is one of the smallest of the architect’s problems in designing a canteen. This first concern should be to avoid giving the place an institutional atmosphere.

What, then, should the architect do to ensure that a canteen is a place for relaxation? He should make use of colours that are bright and in pleasant contrast to those the worker is surrounded by in the workshop. But the designer does not have complete freedom in the choice of colours. His colour scheme will often be influenced by the materials he uses. There are many parts of a canteen where paint would be scratched or rubbed off very quickly. And in choosing alternative materials for these places the architect will find his range of available colours is limited.

However, the problem of finding the right colour scheme is not such a difficult one to solve as that of keeping noise down to a minimum. It is true that most canteen supervisors provide relayed “playtime” noises. But at least these are well-organized noises. The irritating, nerve-jarring sounds that the designer must try to eliminate are the clashing of trays on table-tops (an opportunity here to use plastic instead of metal), kitchen noises and the scraping of chairs and tables on the floor. This last noise—and, indeed, several others—can be subdued by the use of absorbent surfaces.

So much for what the worker sees and hears *inside* his canteen. There is one other aspect of the design of such buildings that the architect will realize to be of some importance. Whenever site conditions allow it, the canteen should overlook a planned, green open space. However small this is, it can do more than any interior decoration to make sure that the canteen is a place where the worker can find mental refreshment.

There are, of course, many more questions to be considered in the design of factory canteens—among them the need to plan rooms so that they can be quickly adapted for recreational facilities. Some of these questions are discussed by Edward D. Mills on page 580.

opened at the Institute of Contemporary Arts. You no doubt know his work already but even if you think, like ASTRAGAL, that he's the greatest living satirical draughtsman, you still may not realize how wonderfully he draws architecture. Many of the drawings at the already highly successful ICA exhibition show him in this rôle. His brilliance in it isn't surprising, since he was trained as an architect.

Steinberg is Rumanian in origin and studied architecture in Milan, whence he emigrated to America in the thirties and before long achieved fame, like so many American artists and writers, in the pages of the *New Yorker*. He was present in person at the opening of his exhibition—edging away from the crowds, trying not to be noticed, because he is the most retiring of all celebrities—and left afterwards, for Paris. At the end of this month he is hurrying back to America to do a mural in a Boston department store—another link with architecture that his architect-admirers will welcome.

## NOT SO GOLDEN CITY

Reference in this column a week or so ago to the high salaries advertised for architectural assistants in South and East Africa has brought me a gipsy warning from a returned emigrant. Of current salaries quoted by the Overseas Technical Service, apparently most hover round the £750 plus bonus mark, and the cost of living being as it is, even that is not too easy to live on.

So maybe after all you should think a third time before you try to leave this Beloved Country.

## POST-SCRIPT

From Yale University News Bureau comes a pre-release of Professor Holford's address to the “Civic Art Conference” held recently in the Yale Art Gallery.

“Professor Holford,” says the Bureau, “was formerly a member of the British Ministry of Town and Country Planning and is considered one of the leading English authorities on the subject. He created a new plan for the ‘City of London’ which has recently been executed by the British Government.”

ASTRAGAL.



THE ROYAL ACADEMY EXHIBITION: MODEL OF BAS

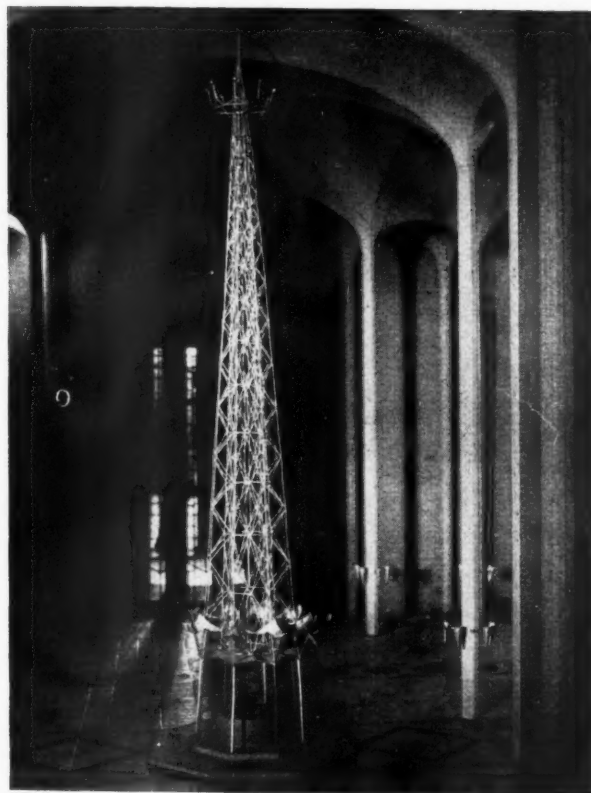
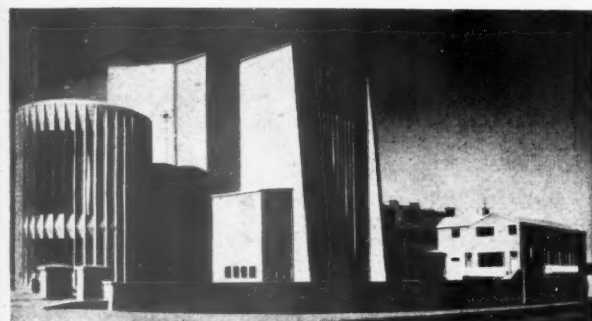
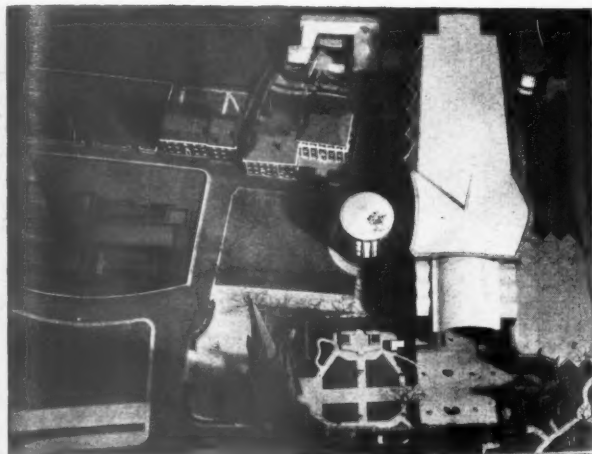


*The principal exhibit in the Architecture Room at this year's Royal Academy Summer Exhibition is a model of Basil Spence's prize-winning design for Coventry Cathedral. Above: a view from the west, showing the Chapel of Unity. Below: the east*

*side. Opposite page: top left, a plan view; beneath it, the north end, with Chapter House in foreground. Top right: the font. Bottom: two views looking towards the altar; one through glazed screen between new building and ruins of the old.*



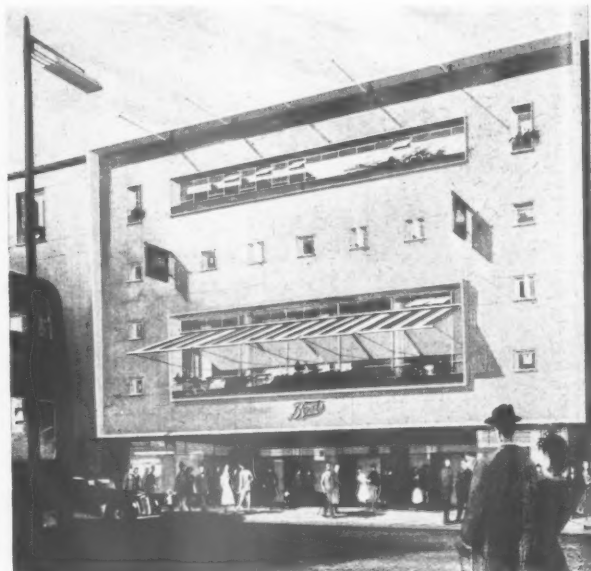
BASIL SPENCE'S DESIGN FOR COVENTRY CATHEDRAL



## THE ROYAL ACADEMY SUMMER EXHIBITION (continued)



Three more of the exhibits at the Royal Academy Summer Exhibition. Top left, Equatorial Group at the Royal Observatory, Herstmonceux, designed by Brian O'Rorke; beneath it, the Ceylon University, Sangharama and Vihara, by Sir Patrick



Abercrombie and M. Farey. Above right, shop premises above bar, Southampton, by C. St. Clair Oakes. (Drawings—in same order—by Lawrence Wright, M. Farey and Hugh Benson.) More of the Academy exhibits will be published next week.



AA

### President Appointed

A. R. F. Anderson has been appointed president of the Architectural Association for its 106th session. He will take up the appointment on June 1, 1952.

Mr. Anderson was educated at the High School, Dundee, was at the AA School from 1923 to 1925 and then for the follow-



A. R. F. Anderson, the new A.A. president.

ing four years was an apprentice and junior assistant in the office of Maclaren, Soutar & Salmond, Dundee. He returned to London in 1929 and joined the staff of Wimperis, Simpson & Guthrie. For the last eighteen years he has been in practice with his partners, E. Forster and J. W. Wilcox. The firm has designed a wide variety of buildings, including flats and housing in London and elsewhere in the British Isles, a shot gun factory in Australia, a departmental store in Spalding, extensions to the Royal Soldiers Daughters' School, Hampstead, and many jobs of war damage reinstatement. These include 83, Portland Place, the London Central YMCA and the rebuilding of Lincoln's Inn following extensive war damage. The three-year programme of reinstatement at Lincoln's Inn will be completed shortly. In collaboration with Sir Owen Williams & Partners, the firm is engaged on the design of a large newspaper office in Holborn Circus for *The Daily Mirror*.

Mr. Anderson has been on the Council of the AA since 1946 and has been honorary treasurer and vice-president. He represents the AA on the RIBA Council. He was a member of ARCUK from 1947 to 1952, has been on the Practice Committee of the RIBA since 1948, and is on the Joint Committee for Architects and Quantity Surveyors and the Joint Committee of London Architects and Builders.

### RIBA

#### Cultural Identity Cards

The RIBA wishes to remind architects and architectural students going abroad for study purposes that they may in certain circumstances obtain a Cultural Identity Card.

These cards, which are only valid in France and the Benelux Countries, entitle the holder to substantial privileges during his visit. Applicants should be either students travelling abroad to obtain information for their thesis or else they should be in receipt of a travelling scholarship or bursary.

Further particulars can be obtained from the RIBA, 66, Portland Place, W.1.

### SCOTLAND

#### Quicker House-building

Prompt payment of sums due to contractors, and the substitution of one material for another to prevent delays due to shortages, are among the suggestions for speeding up housebuilding made in a circular issued recently to local authorities by the Department of Health for Scotland.

The circular says that the Secretary of State has no doubt that "local authorities will bear in mind the need for prompt payment of sums due to contractors under the terms of housing contracts. He realises that local authorities must retain sufficient safeguards to ensure satisfactory and timely performance but contractors should not be involved in financial loss through avoidable delays in payment of sums due to them."

Periodic payments during work should be made as quickly as possible and "the minimum amounts should be such as to provide contractors with an adequate incentive to maintain steady progress." In this connection full account should be taken of increases in the cost of labour and materials.

Final payments to contractors, the circular adds, should be based on the dates of completion of individual blocks of houses rather than on the dates of completion of all the works in the contract.

### DIARY

*The Festival of Britain in Retrospect.* Sir Gerald Barry. (First of three talks.) At RSA, John Adam Street, Adelphi, W.C.2. 6 p.m.

MAY 12

*Exhibition of Colour and Lighting in Industry.* At BCC, 13 Portman Square, W.1. Monday to Friday: 10 a.m. to 4 p.m. Saturdays: 9.30 a.m. to 1 p.m.

UNTIL MAY 30

*Exhibition of Dual-Purpose Rooms.* At Heal and Son, 196, Tottenham Court Road, W.1. Usual shopping hours.

UNTIL MAY 31

# WORKS CANTEENS

DESIGN PROBLEMS: A TWENTY-PAGE SPECIAL FEATURE

The works' canteen, once considered a luxury, is now accepted as an essential industrial amenity. Under the Factories (Canteens) Order (Statutory Rules and Orders 1943 No. 573) any factory employing more than 250 persons can be compelled to provide facilities for the provision of hot meals for its employees. The Factories Act, 1937, prohibits the consumption of food in certain classes of industrial building, particularly where dusty conditions exist or poisonous substances are handled or prepared, and does not allow women or young people to remain in a manufacturing area during mealtimes.

The provision of a canteen is, therefore, usually an essential part of the design of an industrial or office building, and architects are often called upon to provide a canteen for, or in, an existing building. The canteen may be a large building, with several dining areas and extensive recreational facilities, serving a large number of varied meals each day, or it may be a simple mess room where food brought to the factory by the workers can be heated and eaten in hygienic surroundings. But, whatever their size, all canteens have a large number of requirements in common, and it is the purpose of this "Canteen" issue of the JOURNAL to explain these requirements and to show, by examples, how other architects have solved them.

In the following ten pages eleven canteens, varying considerably in size and complexity, according to particular local needs, are described and illustrated; on page 580 we publish an article by Edward D. Mills, in which he analyses problems of designing the works' canteen; on pages 584-587 a selection of canteen equipment is described and illustrated; and the issue finishes on page 589 with an article by Ernest Watkins, who discusses relevant legal matters.



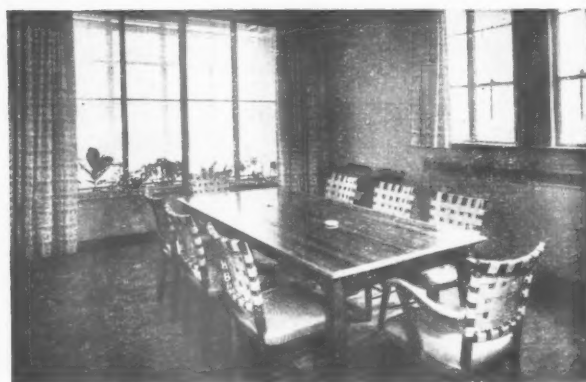
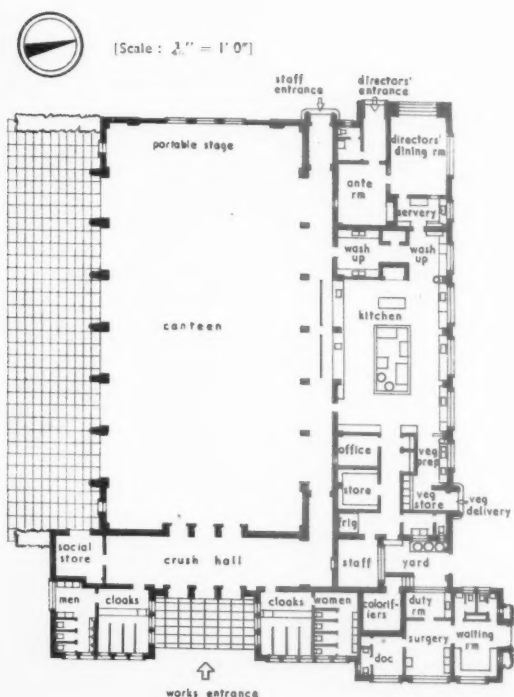
## CANTEENS

*This issue begins with ten pages of illustrations and descriptions of canteens recently designed and completed. Readers should find it interesting to compare the layouts shown in the light of the comments made by Edward D. Mills in his article on page 580.*

## ELEVEN RECENT EXAMPLES



*Left, interior of canteen; above, the entrance hall; below, the directors' dining room; bottom, from south-west.*



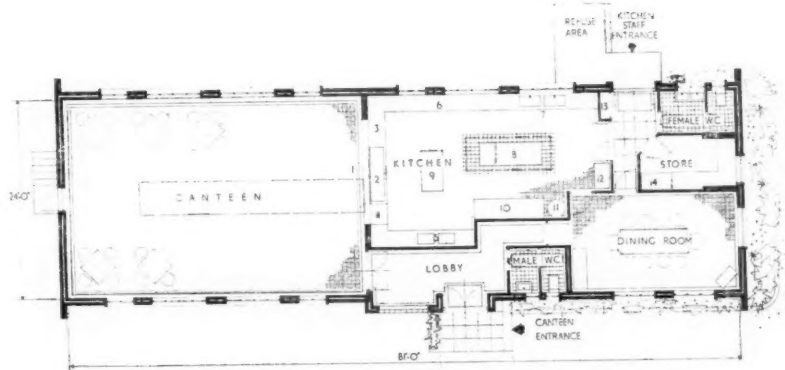
**STOKE POGES, BUCKS**

for the FULMER RESEARCH INSTITUTE  
designed by A. F. HARE AND PARTNERS

This canteen was planned to cater for the employees of the existing laboratories in one sitting, but also so that it could be adapted for two sittings when further laboratories are completed. The canteen comprises the first bay of a series of standardised single-storey buildings. These are all planned on a 3-ft. module in both directions. The structure is particularly interesting, consisting of aluminium portal frames, of 6-in. by 3-in. extruded box section, at 9-ft. centres. There are roof lights of curved translucent plastic sheets. Flooring is of synthetic wood blocks. (General contractor, William Hartley & Sons.)

**KEY**

1. Servery
2. Hot place
3. Tea service
4. Flap
5. Wash-up sinks
6. Preparation bench
7. Vegetable preparation
8. Cookers (hood over)
9. Table
10. General bench
11. Gas heater
12. Dining room hot plate
13. Meters
14. Refrigerator

**HEATH TOWN, WOLVERHAMPTON**

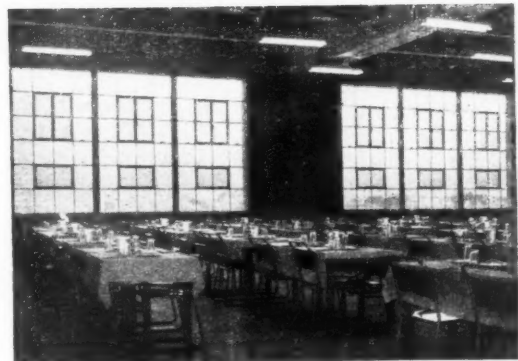
for MANDER BROS., LTD.

designed by S. N. COOKE AND PARTNERS

This canteen seats 500 persons at one sitting, in addition to the small dining room for directors and their guests. In the same building is a self-contained first aid unit for the use of the works, which are adjacent. Provision has been made for a stage and dressing rooms to be added to the end of the canteen at a later date. Wood floors in the canteen and directors' rooms are missanda. The kitchen floor is tiled and the crush hall and cloakrooms, etc., finished in terrazzo. Heating is by means of a plenum system in the canteen, with radiators elsewhere. (General contractors, A. F. R. Godfrey & Co., Ltd.)

**KEY**

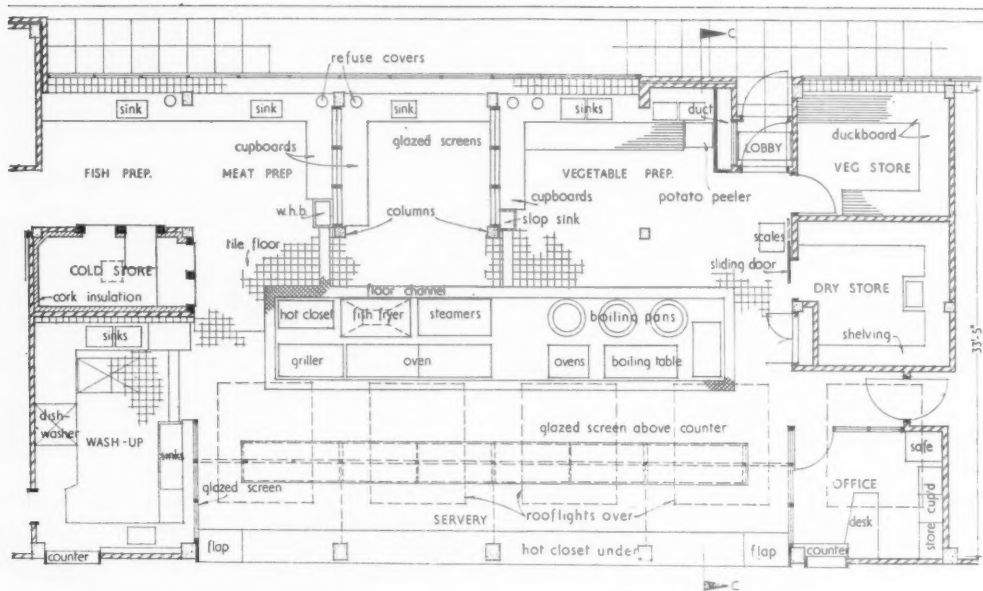
1. Bread slicing machine
2. Pan rack
3. Drinking water refrigerator
4. Refrigerator
5. Chopping block
6. Meat slicing machine
7. Oil-fired range
8. Electric grillers
9. Two steam-heated boiling pans
10. Two steam-heated steaming ovens
11. Extract canopy over
12. Electric mixer
13. Chipping machine
14. Dish washing machine
15. Plate racks over
16. Potato peeler
17. Steam-heated hot cupboard
18. Cold counter
19. Steam-heated water boiler
20. Weighing machine
21. Safe

**GIZA, EGYPT**

for the S.A.E. COMPANY

designed by NOEL DAWSON

The kitchens of this canteen have to cater for a staff consisting of Egyptians and Europeans of several different nationalities. The kitchen layout, extraction system and refrigeration were all designed by the suppliers in England, and the complete equipment was shipped to Egypt, together with detailed drawings of fixing. No visit was made to the site by the catering engineers; all contact being by air-mail letters. There is no gas supply at Giza and only a small electricity supply. Hence, the equipment is oil-fired and steam-heated. (Kitchen layout and equipment, Lockhart Equipment, Ltd.)



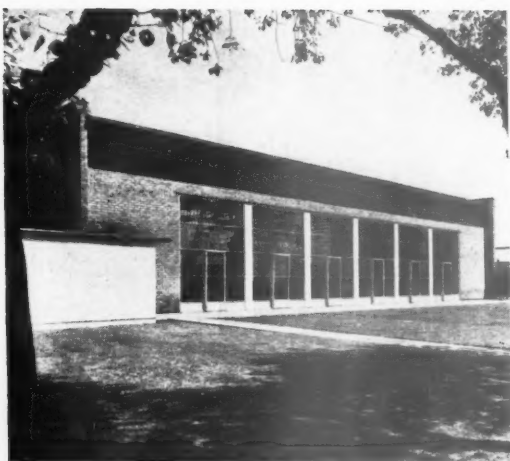
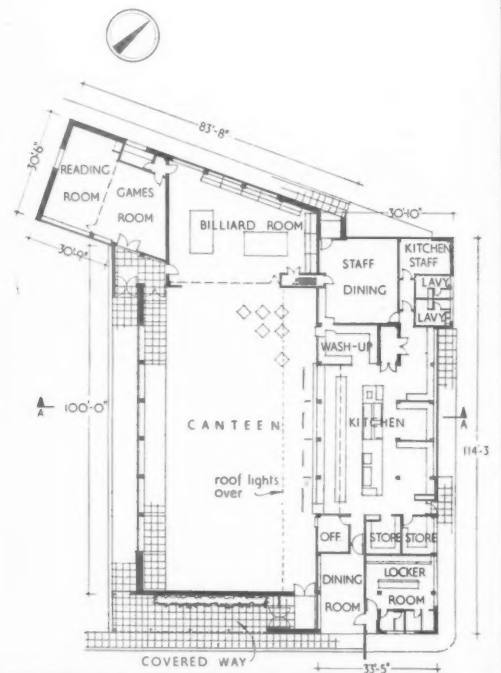
Left, plan of kitchen.

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

Below, part ground floor plan.

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

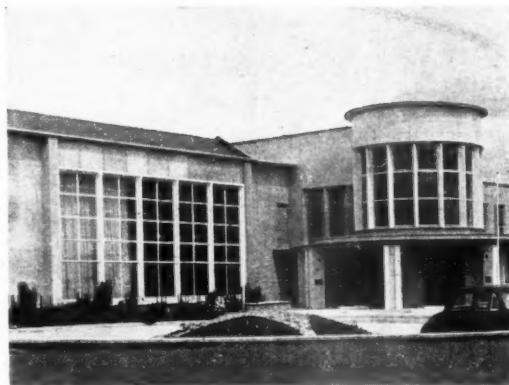
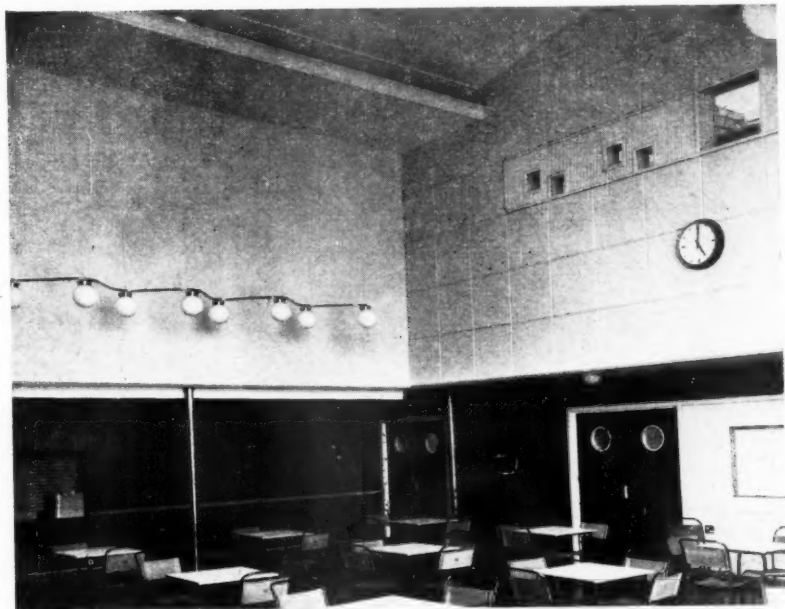
Centre, the servery. Bottom, left, the west facade; right, the main canteen.



**BROMLEY-BY-BOW, E.3**

for the NORTH THAMES GAS BOARD  
designed by ELIE MAYORCAS

← This canteen was erected in 1951 for the employees at the St. Leonard Street Gas Works. The canteen provides accommodation for 300 men, 24 foremen and 30 administrative and technical staff. The kitchen was designed to cater for three sittings at 20-minute intervals. The building also includes a reading room, a games room and a billiards room, which can also be used as a stage. A mess room for men who bring their own food is provided in an adjacent building (not shown). The building has an R.C. frame, with a roof (seen bottom right) of aluminium decking supported on lattice trusses. Floors are of a patent, sub-divided composition in kitchen staff rooms, lavatories, etc.; of hydraulic-pressed tiles in kitchen and stores; of muhuhu hardwood blocks elsewhere. Walls have cement-glazed dadoes to door height. The main canteen servery wall is covered with acoustic tiles. Ceilings are of 2-in. wood-wool, distempered; except the canteen, which has no ceiling, and the games, reading and billiards rooms, where acoustic tiles are applied to suspended ceilings. (General contractor; Thomas & Edge Ltd.)

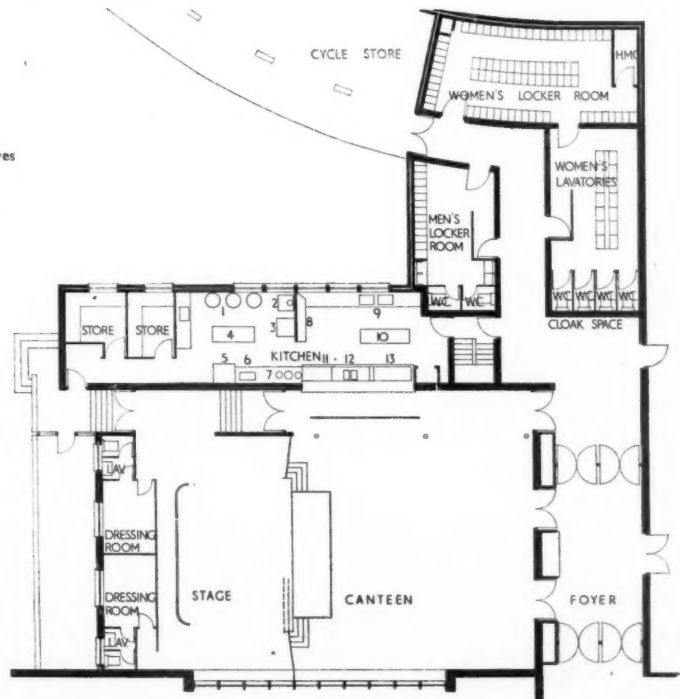


Above, the interior of the canteen, looking towards the doors to the foyer. Left, the canteen window, with the main entrance to the factory on the right. Below, ground floor plan (Scale: 1/4" = 1'0")

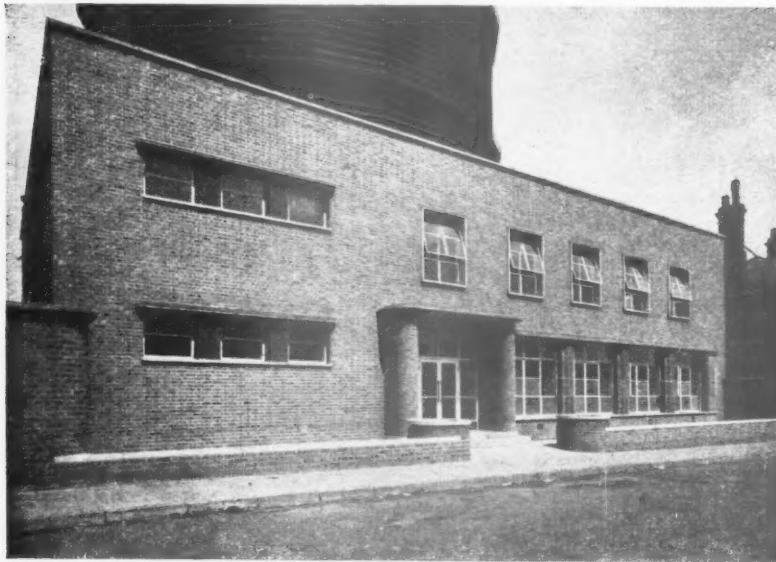
**INCHICORE, DUBLIN**  
for ASPRO (IRELAND) LTD.  
designed by ALAN HOPE

→ This canteen, which forms part of a factory building erected in 1950, can be sealed off from the working part of the factory, so that the hall, kitchen and lavatories can be used for private functions. There is a large, fully-equipped stage, extending, as does the hall itself, the full height of two storeys. Also on the first floor is the executives' dining room, served by a lift from the kitchen, and a projection room (the ports from the latter can be seen in the photograph at the top of the page). It is intended that the hall shall also be used for dancing and it has a sprung floor of birch. Heating is by means of steam which passes through gilled pipes in wall recesses. (General contractor, T. & G. Crampton, Ltd.)

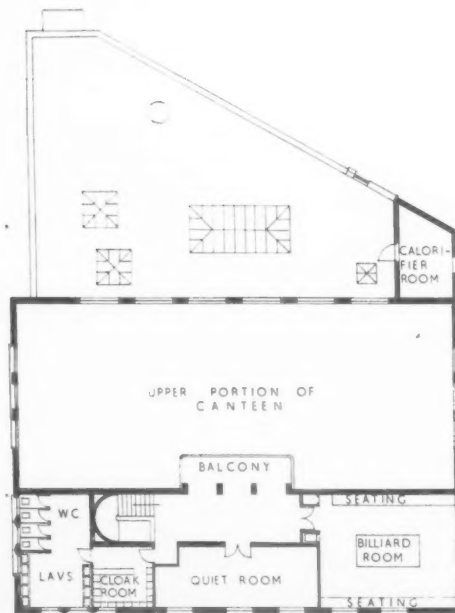
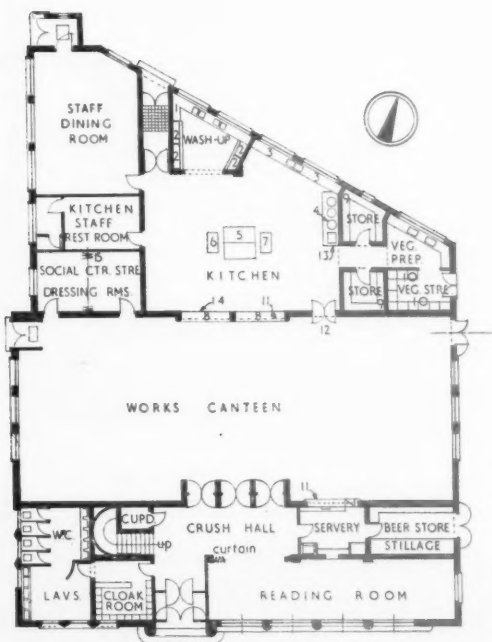
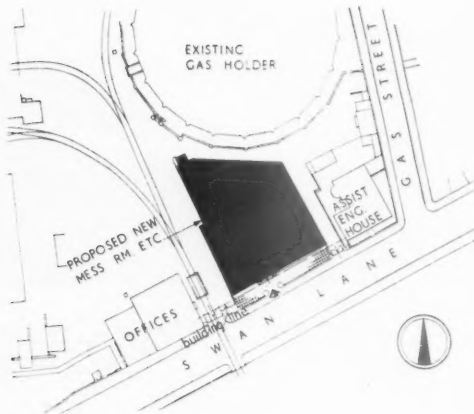
- KEY**
1. Stock pots
  2. Fish fryer
  3. Steamer
  4. Table
  5. Ovens
  6. Grill
  7. Cafe set
  8. Crockery shelves
  9. Wash up
  10. Table
  11. Cold counter
  12. Carving
  13. Hot table







Left, front elevation ; above, landing and gallery overlooking canteen ; below, general view of canteen.



# KEY

1. Rack
2. Cupboard units
3. Preparation
4. Steamer and boiling pans
5. Four-oven range
6. Grill
7. Two-pan fish fryer
8. Counter
9. Shelving
10. Bins
11. Roller shutters
12. Service doors
13. Hood over
14. Hot plates under
15. Folding screen

Left, ground and first floor plans. (Scale : 1/4" = 1'0")

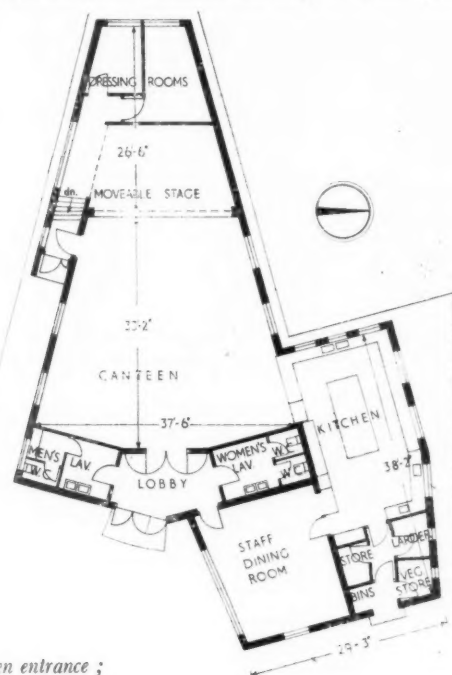
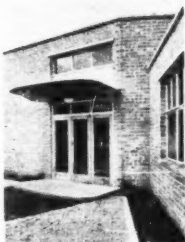
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**SWAN VILLAGE, WEST BROMWICH**

for the WEST MIDLANDS GAS BOARD

designed by S. N. COOKE AND PARTNERS

← This canteen has a capacity of 275 persons, in two shifts, including the staff dining room. The building also contains a bar, billiards room, games room, reading room, quiet room and lavatories for both sexes, and is constructed of load-bearing brickwork, with suspended floor and roof of precast concrete beams. The roof is covered with a vermiculite screed and asphalt. Floor finishes are: main hall, missanda wood blocks; staff dining room, reading room, quiet room, etc., beech and krabak wood blocks; kitchen and ancillary rooms, buff tiles; bar servery, composition tiles. Heating is by means of a low-pressure hot water system. Walls in the lavatories and kitchen are tiled to door height. There is a beer cellar beneath the bottled beer store, entered from a trap in the floor of the servery. Contract price, £27,759. (General contractor, Parsons & Morrin, Ltd.)



Top, main entrance: above kitchen entrance; above right, plan (Scale: 1/4" = 1' 0"). Below, view from east; bottom, interior of canteen looking towards main entrance; note aperture for film projection above double doors.

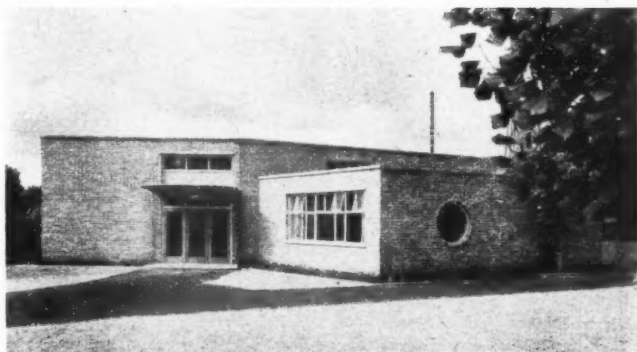
**DUDBRIDGE, STROUD**

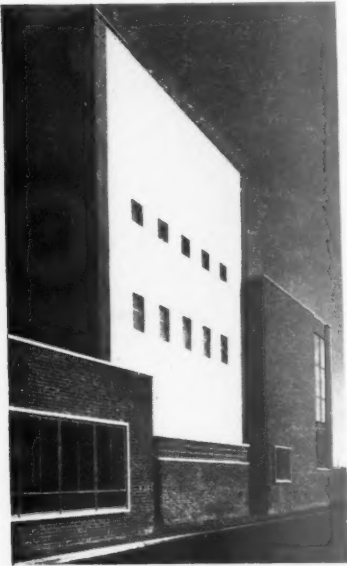
for REDLER CONVEYORS LTD.

designed by ELLERY ANDERSON, ROISER

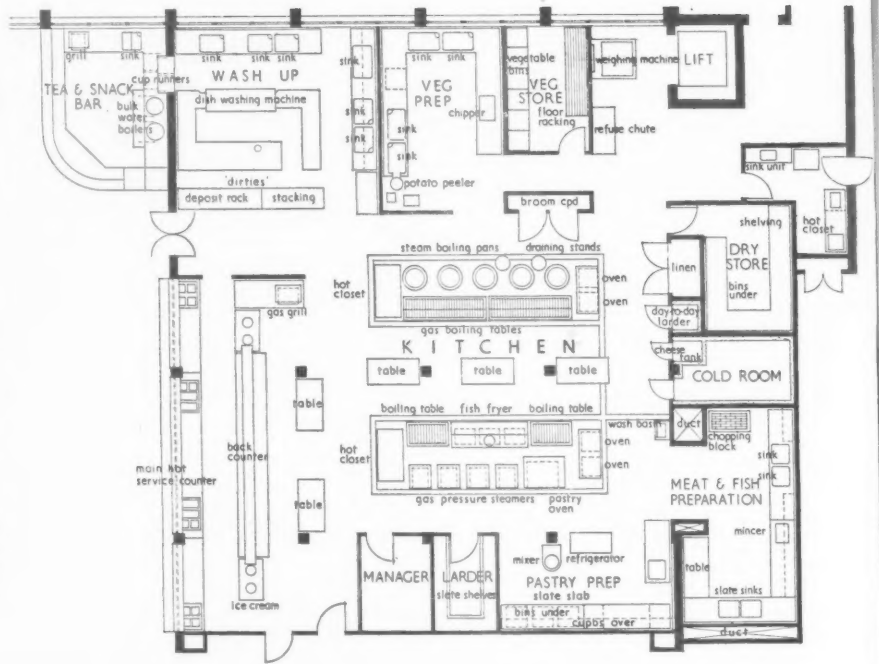
AND FALCONER

→ Although the site for this canteen is small and an awkward shape, the architects were able to take advantage of the good view of hills to the south and south-east. The main hall seats 106 and the staff dining room, 35. An average of 120 lunches are served each day. The variation in ceiling height permits high-level cross ventilation to kitchen and ventilation to the women's lavatory. White painted girders support a roof of aluminium decking. The staff dining room has a ceiling of acoustic tiles. Floors of the dining rooms are bright yellow magnesite, with coved skirtings and ebony panels and borders, 1/4-in. wide. Floors of the kitchen, hall and lavatories are of 9-in. by 9-in. cream terrazzo tiles. The main dining hall has good acoustics and is used for film shows. (A projection room is provided.) Cooking is by gas; heating, by electric convectors and radiators. Cost, including equipment, was under 30s. per sq. ft.; i.e., £27 per place. (General contractors, Orchard & Peet.)

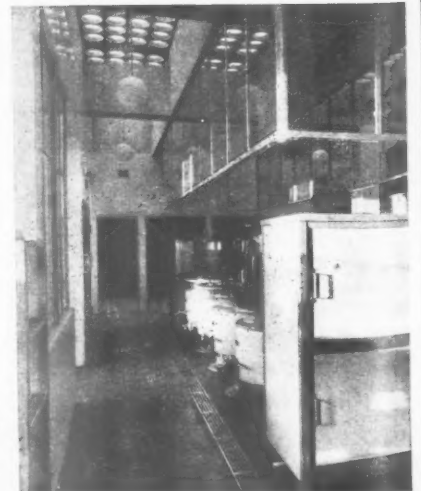
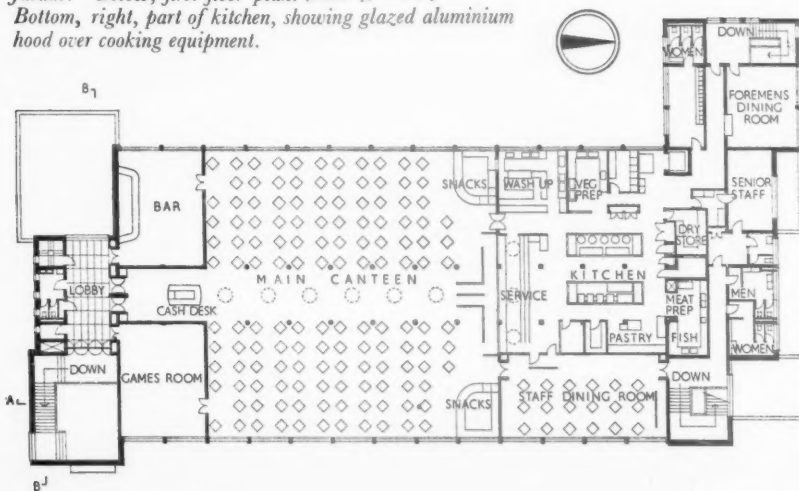




Above, the south facade. Right, plan of kitchen. [Scale:  $\frac{1}{8}" = 1'0"$ ]



Above, one of the snack counters. Above, right, the east facade. Below, first floor plan. [Scale:  $\frac{1}{8}" = 1'0"$ ].  
Bottom, right, part of kitchen, showing glazed aluminium hood over cooking equipment.



## WORKING DETAIL

STAIRCASE: OFFICES IN LONDON, S.W.1

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

STAIRCASES: 11



*The hardwood treads are supported on brackets cantilevered from the wall of the semi-circular recess which houses the staircase.*

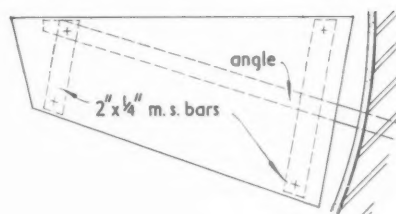
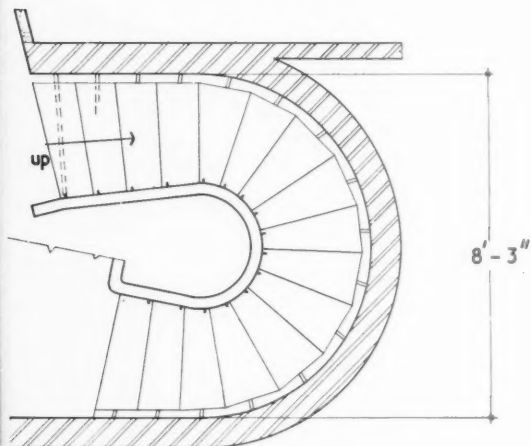


# WORKING DETAIL

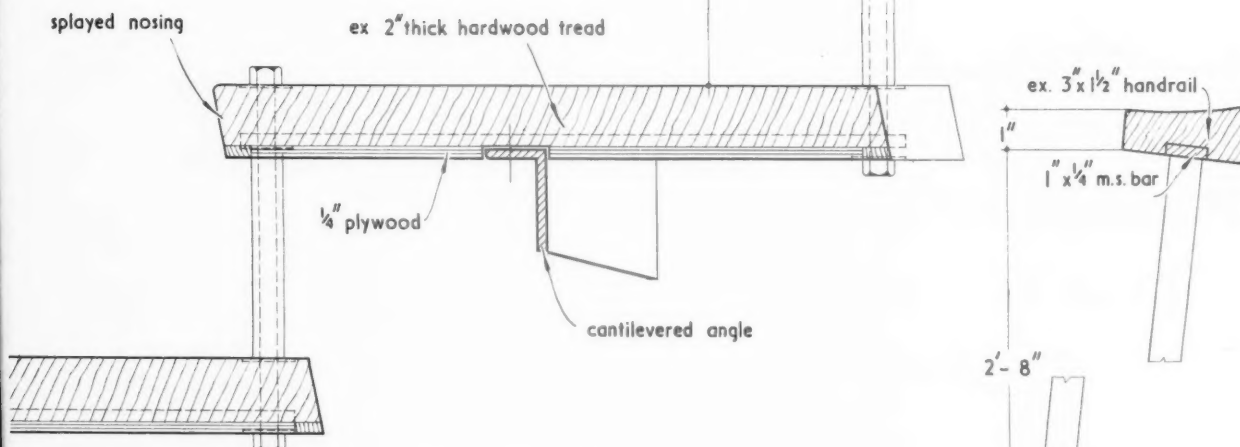
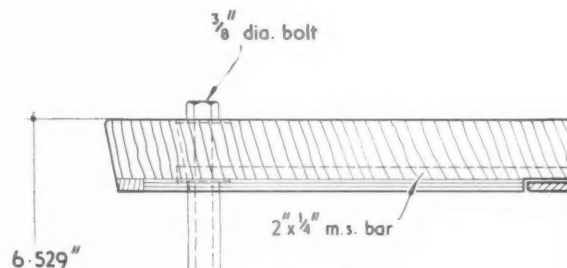
STAIRCASES: 11

STAIRCASE: OFFICES IN LONDON, S.W.1

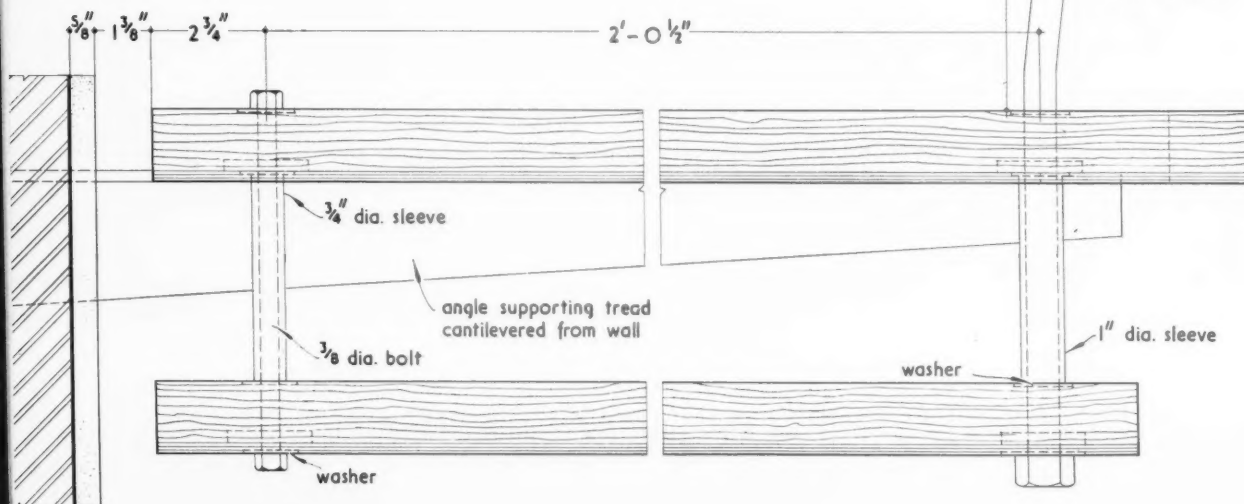
Bertram Carter in collaboration with Dyneley, Luker and Moore, architects



PLAN OF STAIRCASE.  
scale  $\frac{1}{4}'' = 1' - 0''$



LONGITUDINAL SECTION THROUGH STAIR scale  $\frac{1}{4}$  full size



CROSS SECTION THROUGH STAIR. scale  $\frac{1}{4}$  full size

SCREEN IN CANTEEN: BUS STATION, NEWBURY PARK, ESSEX

*Oliver Hill, architect: G. C. Manly, liaison architect, London Transport Executive*

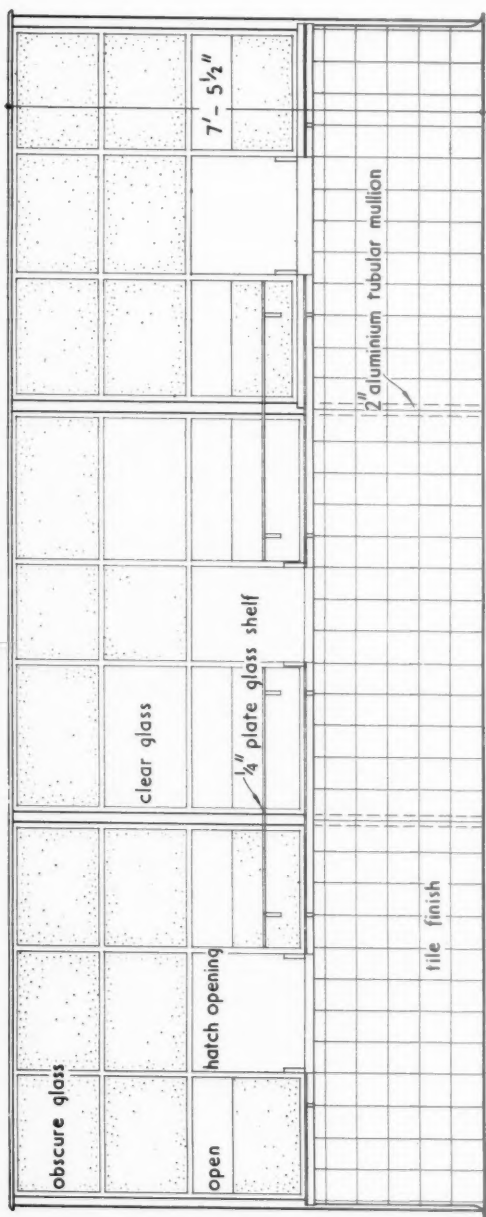
*The upper part of the screen is of glass framed in aluminium: there are movable aluminium shelves on the kitchen side and fixed glass shelves between the hatches on the serving side of the screen.*

## WORKING DETAIL

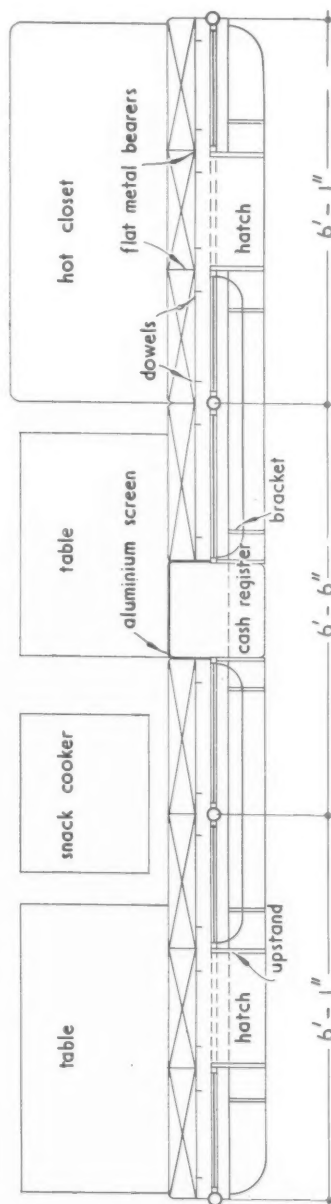
## WALLS AND PARTITIONS: 3

SCREEN IN CANTEEN: BUS STATION, NEWBURY PARK, ESSEX

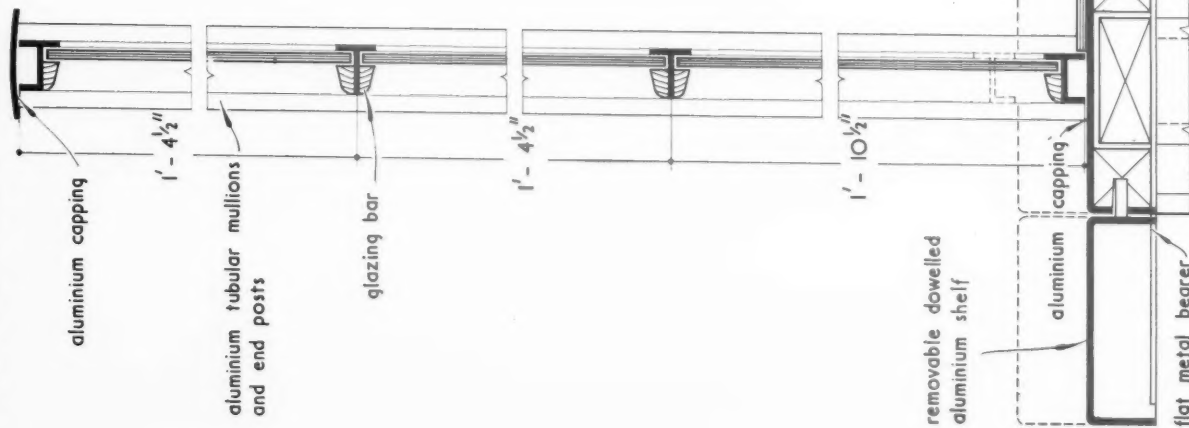
Oliver Hill, architect: G. C. Manly, liaison architect, London Transport Executive



ELEVATION OF KITCHEN SCREEN scale 3/8" = 1' - 0"



PLAN OF KITCHEN SCREEN scale 3/8" = 1' - 0"

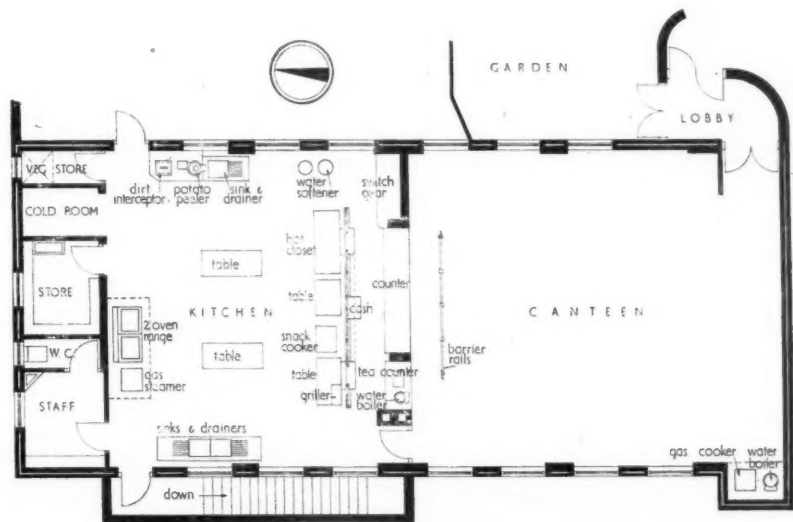


VERTICAL SECTION THROUGH SCREEN scale 1/4" full size

**BECKTON, EAST HAM**

for the NORTH THAMES GAS BOARD  
designed by BRIAN COLQUHOUN AND  
PARTNERS

← This canteen occupies the first floor of the welfare centre at Beckton. Erected in 1950, this was the first building of its kind. The ground floor (not shown; see JOURNAL for April 27, 1950) provides bathrooms, lavatories, locker rooms, and a billiards room. The canteen caters for 1,000 workers; both full hot meals and snacks can be obtained in it. One of the two snack counters is shown, centre left. The light alloy lettering is on a mushroom-coloured background and the bar counter is faced with turquoise blue tiles. The canteen, which is also used for social functions, dancing, etc., has hardwood strip flooring, and a ceiling of acoustic tiles, sprayed with vermiculite plaster. Flooring in the kitchen is of Dorset red tiles. The main service aisle has a false ceiling concealing a plenum duct for the warm-air heating. (General contractors, Taylor Woodrow Construction, Ltd.)



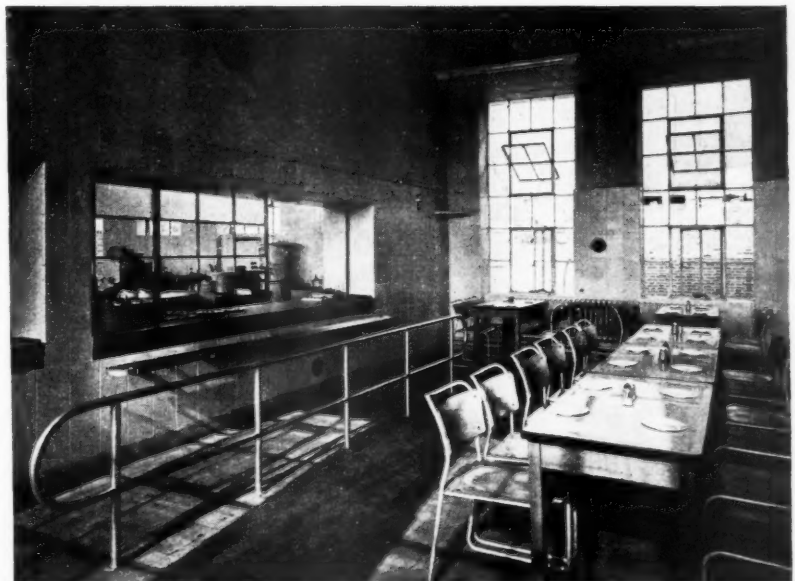
*Above, plan  
[Scale: 1/4" = 1' 0"].  
Right, the kitchen  
looking towards  
the servery;  
below, part of  
the canteen, with  
the servery on  
the left, looking  
towards the  
garden.*

**NEWBURY PARK, ILFORD**

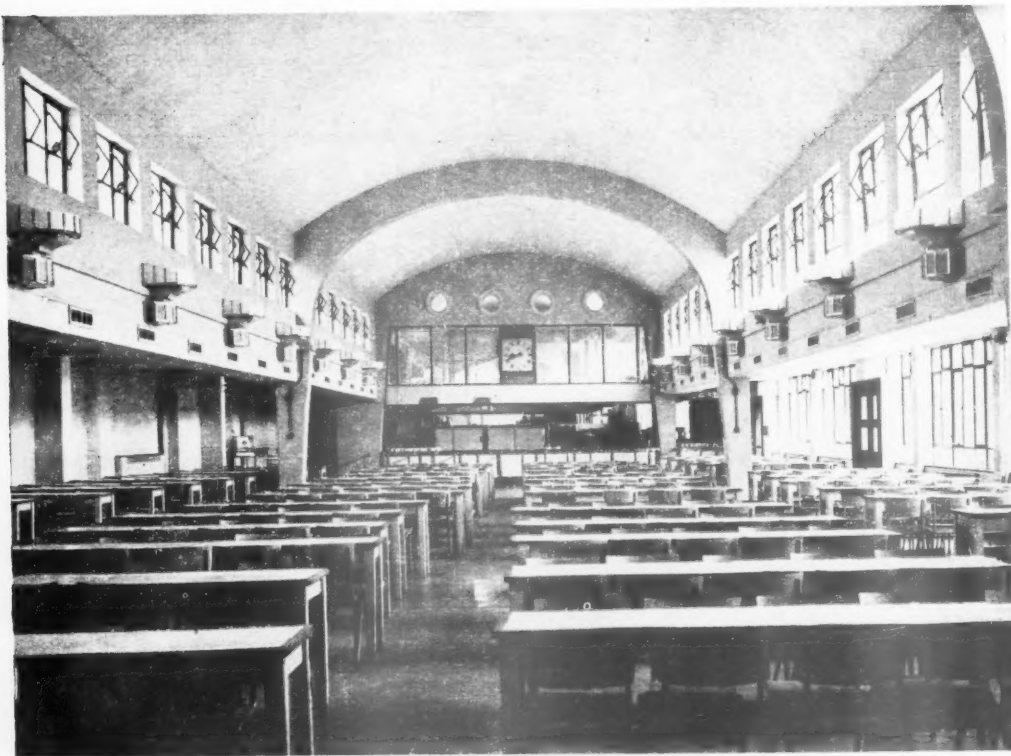
for the LONDON TRANSPORT EXECUTIVE  
designed by OLIVER HILL

Part of the long-term development at Newbury Park station (of which the famous bus station was the first step). →

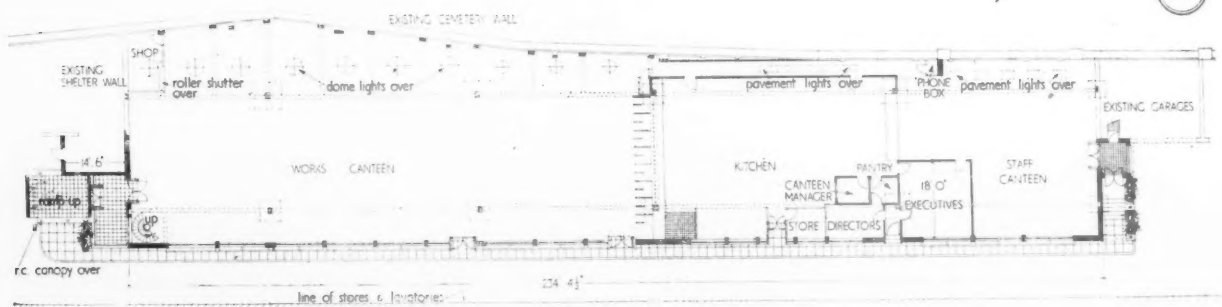
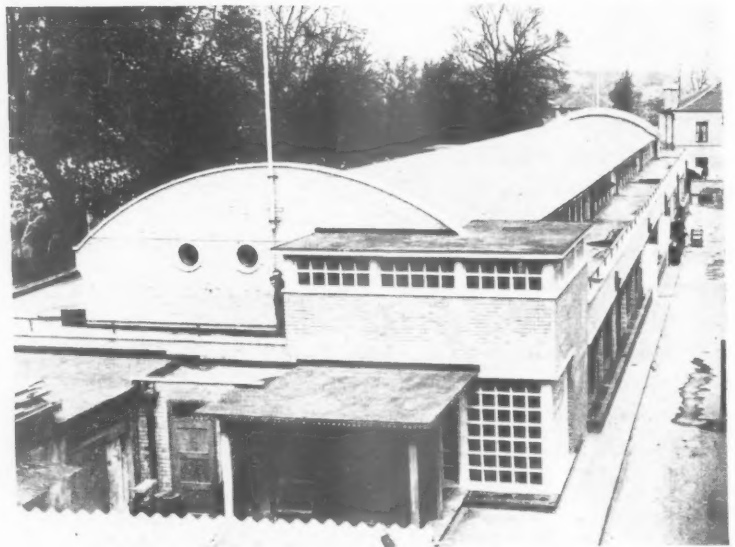
This canteen provides accommodation for 60-80 transport workers. Meals and snacks are served throughout the day, and a cooker is provided in the canteen itself, so that men on duty during the early hours of the morning (when the kitchen is closed) can heat up food they bring with them. Floors are composition tiles throughout and walls are also tiled; egg shell to a height of 7 ft. in the canteen glazed the full height in the kitchen. In the servery the walls are lined with plastic panels to match the tiling, removable to provide access to the switch panel, the roller shutter mechanism and the various services. There is a false ceiling, with a 3-in. air space, below the R.C. roof, for ventilation and insulation. Heating is by hot-water radiators; ventilation through inlets beneath the windows. (General contractors, Higgs & Hill, Ltd.)







*Left, interior of the main canteen looking towards the kitchen; below, the exterior, looking north; below left, the main entrance; bottom, plan.*  
[Scale:  $\frac{1}{4}'' = 1'0''$ ]



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**MARTELL ROAD, DULWICH**

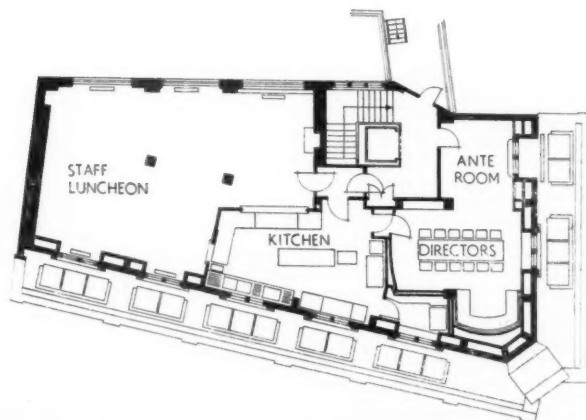
for the TELEPHONE MANUFACTURING CO., LTD.

designed by A. C. FAIRLOUGH AND

D. R. MORRIS

← This canteen, which provides accommodation for 1,000, can also be used for social functions. The site, which is long and narrow (hence the central position of the kitchen), was previously occupied by brick surface shelters; those on the east side have been retained and adapted as stores, lavatories, etc. Construction is of R.C. with barrel-vault roof, covered with asphalt. Floor finishes: canteen, jointless composition in squares divided by ebonite strips; kitchen, quarry tiles. Ceiling was sprayed with asbestos, as the barrel-vault section gives bad acoustical effects. Heating is by warmed and filtered air supplied through ducts. The warm air passes from the canteen into the kitchen, where it is extracted through the hoods over the cooking equipment. Cost was approximately 46s. per sq. ft. (General contractors, Haymills Contractors, Ltd.)

Right, plan of canteen (Scale:  $\frac{1}{8}" = 1'0"$ ). Below, the interior with the serving hatch on the left.

**GREAT TOWER STREET, E.C.3**

for HARRISONS AND CROSFIELD LTD.

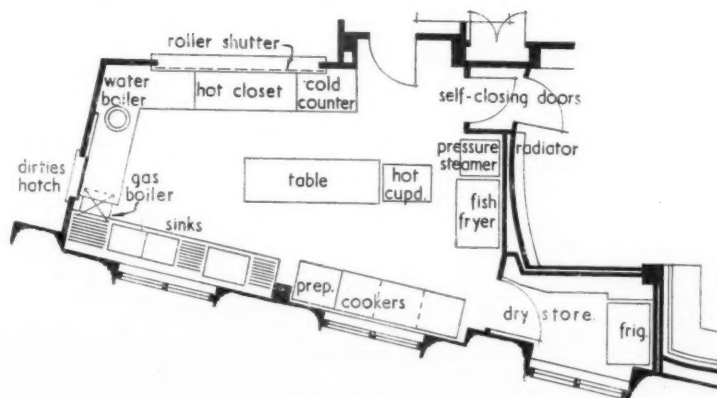
designed by ERNEST BATES AND

W. G. SINNING

This office block in the city was damaged extensively by fire during the war. It was decided to reinstate part of the sixth floor, originally offices, as a staff canteen, to cater for 150 workers in two sittings, and a directors' luncheon room. The space available was barely adequate and the kitchen is small, but compact and well-equipped. As can be seen in the photograph, the canteen is in the mansard roof of the building. Flooring in the canteen is of sheet rubber; in the kitchen, *in situ* terrazzo; in the directors' rooms, oak blocks. The hot water supply for the canteen is provided by an independent gas-fired boiler in the kitchen. (General contractor, Trollope & Colls, Ltd.) →



Left, a general interior view looking towards the entrance with the "dirties" hatch on the right. Below, plan of kitchen. (Scale:  $\frac{1}{8}" = 1'0"$ )



## CANTEENS

*In the following article, Edward Mills, the author of a recently published book, The Modern Factory, discusses the design of works' canteens. Although an architect, he writes from the clients' point of view and gives in detail the various requirements of canteens. To begin with there is the question of the site and the immediate environment. Mr. Mills stresses that the atmosphere in the canteen should in no way suggest the factory and the workshop. He goes on to deal with questions of dining room and kitchen layout, storage, etc. Finally, he outlines the main considerations for the architect who plans multi-purpose canteens.*

## REQUIREMENTS AND DESIGN OF WORKS CANTEENS

Edward D. Mills

The site selected for a canteen must be considered in relation to the rest of the factory. Ideally the buildings should be situated away from the noise and atmosphere of the manufacturing area, in a position that allows the provision of gardens and trees as a setting. Where such siting is possible the canteen should be planned in a central position so that access from all parts of the factory is as direct as possible. There should also be easy communication with an access road for the delivery of supplies to the kitchen stores. If the buildings are to be used after normal working hours for recreational activities, access must be planned so that it is not necessary for workers and friends to pass through the factory to reach the canteen. (See Fig. 1.) Space for parking cars and bicycles is essential. Lawns or terraces where meals can be eaten out of doors in fine weather are greatly appreciated. If sufficient space is available, tennis courts or other amenities can add a great deal to the popularity of the canteen as a social centre and at the same time, in conjunction with well maintained gardens, can help to create an atmosphere not suggestive of the factory.

Where it is not possible to plan a canteen away from the manufacturing area, as in the case of a small single-unit factory, it is still important that it should be reached easily from all parts of the works. In addition there should be adequate access for the delivery of food, etc. These delivery arrangements should, if possible, be kept separate from the normal delivery routes for the ordinary products and materials of the manufacturing area.

Even where the canteen is planned to relate closely to the working area of a factory, care should be taken to exclude as far as possible the noise, smells and atmosphere of the manufacturing areas from the dining rooms. The rooms should be arranged so that they overlook a pleasant scene and not the factory buildings where workers spend the major part of the day. A canteen can often be planned on the flat roof of another building with considerable advantage, if a suitable ground level site is not available. In such a position roof gardens can be made and a pleasant non-factory atmosphere developed.

In areas where a number of small industrial units are situated close together, for example, on a factory estate, a communal canteen service can be considered. The sharing of the capital and administration costs by a number of firms will not only be economically beneficial but will also allow the larger canteen to be better equipped and provided with additional amenities. This arrangement has been developed with considerable success on the government-sponsored trading estates.

### PLANNING AND ACCOMMODATION

Following the selection of a suitable site, the next important consideration is the size and scope of the canteen to be built. It has already been stated that this may vary from a single room to a large and complex building. The canteen accommodation required for any particular industrial undertaking will depend upon a number of factors: population of the factory, number of workers who can be expected to use

the facilities provided, the amount of money available for expenditure on the project. Certain outside factors should also be considered, such as the proximity of the factory to commercial restaurants, for if the factory is well placed in relation to public restaurants and the employees' homes, a large proportion of the workers may prefer to use these alternative facilities.

Whatever size of canteen is finally decided upon, certain accommodation must be considered as essential, and this can be scheduled as follows:—

- i. Dining rooms. (One or more according to the catering policy adopted.)
- ii. Service space. (Cafeteria service, hatch and barrier, or waitress service.)
- iii. Washup room. (With storage for crockery and cutlery and trolley parking space.)
- iv. Kitchen. (With preparation bays, tea and coffee preparation area, and cooking equipment.)
- v. Storage. (Stores for food, vegetables, equipment and space for refuse.)
- vi. Office. (Accommodation for canteen manager, supervisors, clerks, etc., according to size of staff.)
- vii. Staffrooms. (Lavatories, cloak-rooms and common room; for both sexes.)
- viii. Cloakrooms. (Lavatories, cloak-rooms for diners if canteen is away from factory.)
- ix. Recreation facilities. (Games rooms, stage, dressing rooms, etc., if the building is to be used for social functions.)

DINING

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## DINING ROOMS

The area provided for dining space depends to a large extent upon the type of seating layout to be adopted, and the size and type of furniture to be used. Where long tables to seat 12 people or more are provided, with forms instead of individual seats, the amount of space per person can be reduced to as little as 6 sq. ft. This, however, is not to be recommended, as endless rows of tables and forms give a canteen an institutional appearance which should be avoided. The alternatives are square tables seating four persons, oblong tables for 6-8 diners, or a mixture of the two. (Figure 2).

Dining rooms should be designed with adequate natural daylight and ventilation, and preferably arranged with a sunny aspect. Proper heating is, of course, essential with a temperature of 60-65° F. An extract ventilation system may be of considerable advantage if more than one sitting is arranged for main meals. Such a system can be switched on during the break between sittings and can be useful in clearing the atmosphere of stale smoke, etc., produced by the earlier diners.

The materials used in a canteen dining room must be capable of withstanding hard wear. Walls will generally be plastered, but the use of coloured brickwork can make an effective contrast with painted surfaces. A flat oil paint is preferable to distemper for wall decorations, and a hard wearing dado of coloured tiles, polished hardwood, etc., can reduce damage to walls. In any case, a chair rail should be fixed to prevent damage to plaster surfaces. Colours should be bright and fresh, and garish colour schemes should be avoided.

It is preferable for dining room floors to be finished with hardwood blocks or strips laid in the normal manner. Such a floor can be used for a variety of purposes, including dancing, indoor games and normal canteen purposes. The wearing qualities of such floors are excellent; they are easily cleaned, and they retain their good appearance with the minimum of maintenance. The wide range of licence-free imported hardwood now available offers a considerable choice of suitable timbers.

The furniture provided in a factory canteen must be strong and light. Tubular metal tables and chairs are especially suitable. Furniture of this type is usually well designed, and is strong enough to withstand hard use. It can be stacked into a small space when the dining room is required for another purpose. As cloths are seldom used, table tops can be finished with coloured linoleum or sheet plastic. Chair seats and backs can be made of coloured sheet plastic or plywood. The number of dining rooms provided depends on the catering policy of the firm concerned and the type of meals to be provided. In some cases

## KEY

1. Car and cycle park control
2. Weighbridge
3. Gatehouse, enquiry and waiting rooms
4. Covered way
5. Medical and personnel department
6. Entrance to canteen
7. Meeting rooms and cloak-rooms
8. Stage
9. Canteen
10. Stores
11. Kitchen
12. Canteen staff rooms
13. Executives' canteen
14. Pond
15. Bowling green
16. Netball court
17. Tennis courts

- a. Car and cycle park entrance
- b. Main works' entrance
- c. Canteen service and recreational entrance after factory hours
- d. Entrance to canteen and recreation ground during factory hours
- e. Pedestrian exit from car and cycle park

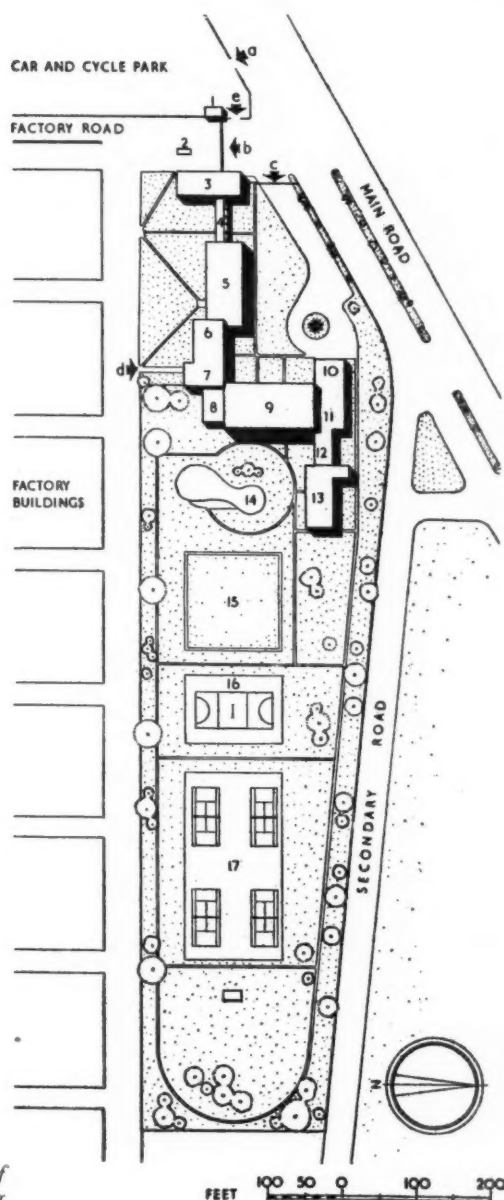


FIG. 1. The layout of a large welfare group for a factory. (Architect: Edward D. Mills.)

only full meals are available; in others both full meals and light snacks can be purchased. One large dining room may be provided for all employees with a separate small room for special visitors. In such cases two sittings are often arranged with the works staff dining from 12 o'clock to 1 o'clock and the office staff from 1 o'clock to 2 o'clock. Alternatively, a number of dining rooms can be planned for the various grades of employees and meals provided at different prices. In very large factories separate facilities are often provided for full meal service and snack service.

## SERVICE SPACE

The type of service space provided in addition to the kitchen and dining areas

will depend upon the catering policy adopted, as mentioned earlier, and the number of meals to be served. The three major service methods are described later, when their respective requirements will be noted. Where more than one dining room is provided the type of service may vary with the status of the diners. Figure 3 shows the general space requirements for each of the three service systems described.

**Waitress service.** Due to the shortage of suitable waitress staff, this form of service is not common in industrial canteens and is rapidly disappearing even in popular commercial restaurants. It is, however, sometimes employed for canteen dining rooms serving directors



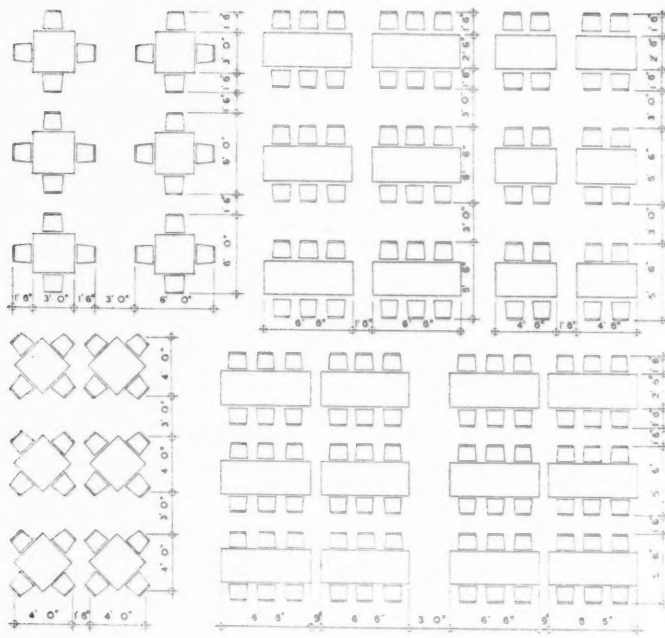


FIG. 2. The space requirements for alternative canteen seating arrangements.

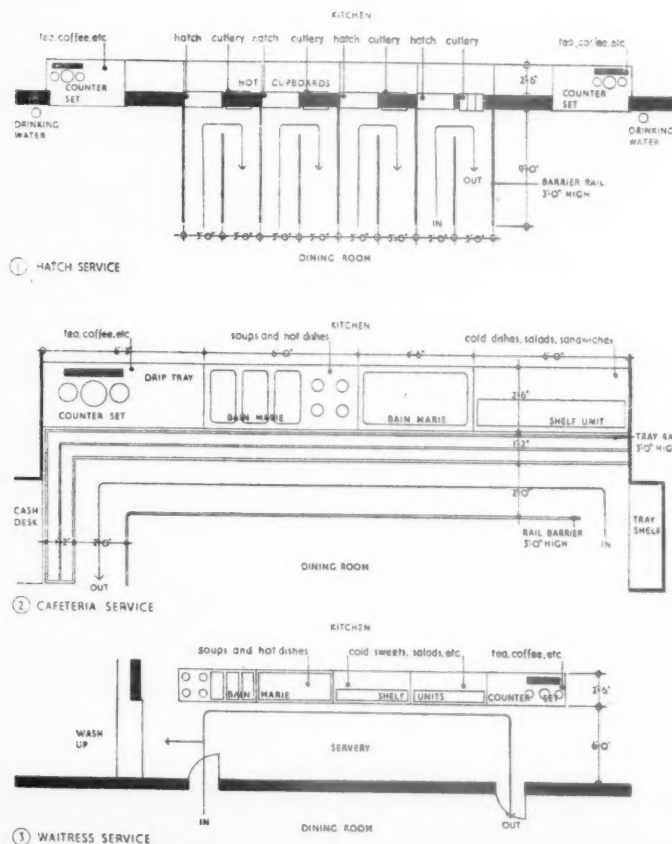


FIG. 3. Alternative canteen service layouts, giving typical dimensions.

and senior executives who pay higher prices for the extra service.' One waitress can reasonably serve 16-17 diners and the layout of the tables and chairs should be arranged so access to the diners from the service area is as direct and unobstructed as possible.

**Cafeteria Service.** This specialized system of service was introduced into this country from the United States and is now widely used, not only in industrial canteens and civic restaurants, but also in many well-known commercial restaurants. The cafeteria system consists of a long counter set out in sections, on which are displayed portions of food for sale. The customer collects tray, food, crockery and cutlery, and pays for the food collected at the end of the counter. The essentials for providing speedy service by this method are, firstly, a continuous supply of food and crockery, etc., to keep the counter permanently stocked, and, secondly, a service counter of adequate length for the number of customers requiring service. The counter should consist of lengths of metal topped hot cupboards, hot counters with *bain maries*, and shelving linked together. The total length should provide approximately 12 in. of counter for every 12 diners. The counter must be separated from the dining area by a continuous tubular barrier rail to allow for a circulation passage of about 30 in. wide between the rail and the tray rail. This tray rail should be fixed to the front of the counter. The normal sequence of display on a cafeteria counter is as follows: trays; cold dishes, salads, sandwiches; hotplate with soup, fish, entree, joints; hotplates with vegetables, hot sweets, etc.; cold sweets, cakes, sundries; tea, coffee, milk, etc.; cutlery; cash desk. It is often appreciated by diners if tea and coffee can be obtained separately from the main meal. A tea bay can therefore be arranged as a separate unit outside the service counter.

**Hatch service.** This consists of a series of counters or hatches where a meal on a plate is handed to each person in turn. It is usual to reserve certain hatches for the service of the different courses and to have them clearly marked. Payment is made by the exchange of a ticket or disc, purchased previously, for the food received, or cash payment to a cashier at the end of the barrier rail. Under no circumstances should coins be handled by the kitchen or serving staff. Meals provided in this manner are usually standard and at a fixed price with a very limited choice of dishes. Cutlery and trays, if required, can be collected at the entrance barrier. The food awaiting service should be kept in hot cupboards beneath or behind

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the service hatches. Tea and beverages are normally served from a separate point. Hatch service can be the most economical in labour costs and the most speedy of the three methods described, providing an adequate number of service points is provided and sufficient staff and prepared food are available to eliminate any delay in service.

Where hatches are formed through the wall dividing the kitchen from the dining room, they can be closed by roller shutters or vertical sliding sashes when the dining room is used for recreational purposes. It is desirable that a screen should be erected behind the serving space so that the direct view through the hatch to the kitchen is obscured.

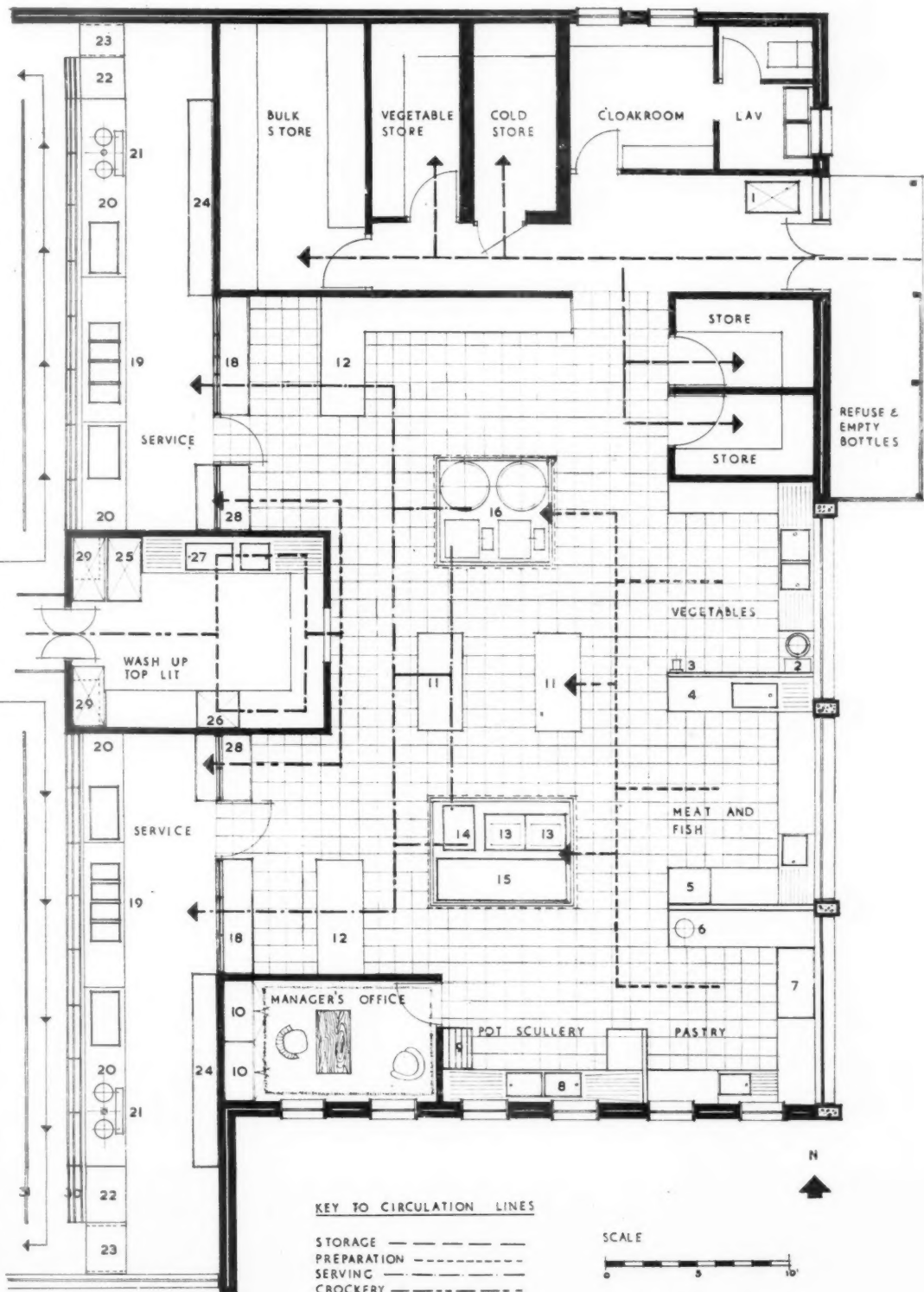
#### WASHUP ROOM

With all self-service arrangements provision for the collection of dirty crockery is necessary, as no satisfactory system involving the return of dirty crockery by the diners has yet been devised. Tubular metal trolleys with rubber tyred wheels and enamelled or stainless steel trays are most suitable. Special

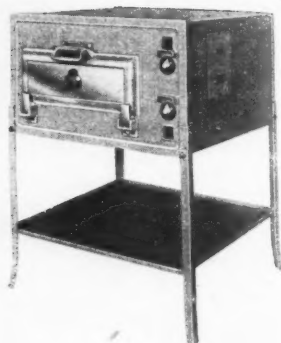
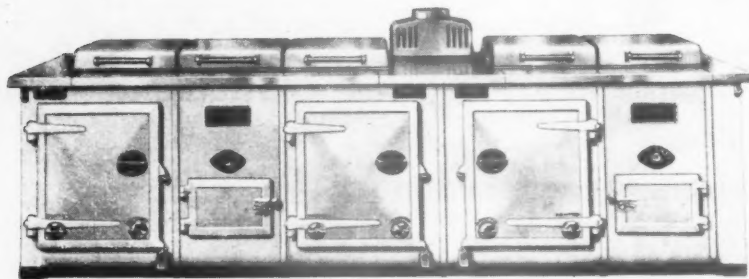
#### KEY

1. Washing machine
2. Potato peeler
3. Potato chipper
4. Sink and slab for fish preparation
5. Meat chopping block
6. Mixer
7. Pastry slab
8. Galvanised sinks for pot washing
9. Pot rack
10. Cupboards for best crockery and linen
11. Serving and distributing tables
12. Plating up tables
13. Fish fryers
14. Grill
15. Oven range with hot plate top
16. Cooking unit including two steam cookers and two boiling pans
17. Dotted lines showing hood over cooking unit and drain channel in floor
18. Hot cupboards with doors on both sides
19. Hot service counter
20. Cold service counter
21. Cafe set
22. Cashier
23. Access flap from canteen to service area
24. Display
25. Trolley parking area
26. Dishwasher
27. Sinks for silver and glassware
28. Crockery storage
29. Tray storage above level of parked trolleys
30. Tray rail
31. Guard rail

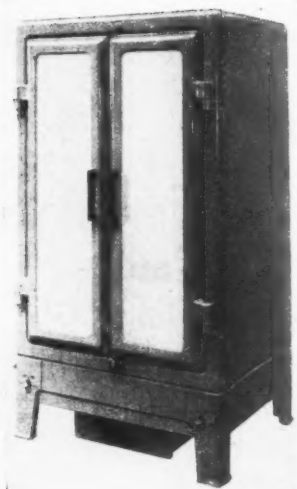
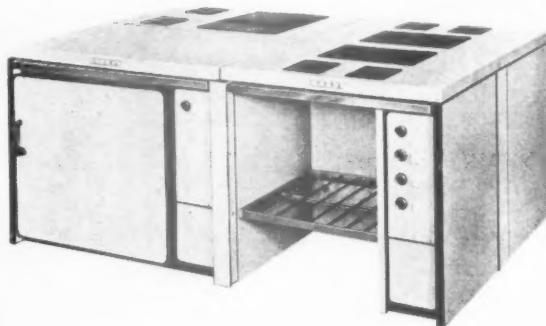
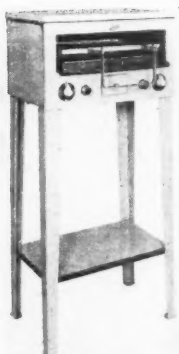
FIG. 4. Diagrammatic plan of kitchen and stores for a factory canteen, showing work flow. The kitchen designed to serve two dining rooms, each seating approximately 100 people, with probably two sittings for main meals.



## COOKING EQUIPMENT FOR CANTEENS



"Esse" 680 x B solid fuel (anthracite coke charcoal) heat storage stove, above, for all-purpose cooking. Construction: mainly cast iron. Front and sides finished with porcelain enamel, polished hot plate and other bright parts chromium plated. Two fires; two ovens. Boiling surface 9.3 sq. ft. Average fuel consumption: anthracite 90 lb.; coke 102 lb. per 24 hours. Width 10 ft. 8½ in.; depth 2 ft. 6 in.; height 2 ft. 11½ in. (Smith & Wellstood Ltd.). Pastry oven operated by electricity, left. Construction: steel. Interior finish of oven: vitreous enamel. Drop-down cast-aluminium door. Oven size 24 in. by 28 in. Overall dimensions: width 36 in.; depth 33 in.; height 48 in. (G.E.C., Ltd.)



Above, right, a group of the "Creda" heavy duty electric cooking equipment. Unit type, designed to avoid traps when units are grouped together as shown here. Consists of roasting oven, boiling table. Standard dimensions of units: widths 2 ft. 11 in. and 3 ft. 5 in.; depth 2 ft. 4 in.; height 2 ft. 10 in. Above, left, "Creda" electric grill, with three-position controls. Overall dimensions with stand: widths 20 in., 26 in., 34 in.; depths 16 in., 18 in.; heights 45 in., 46 in. (Simplex Electric Co. Ltd.). Roasting oven, left, operated by gas. Construction: generally of cast iron. The interior is fitted with enamelled steel linings and has three grid shelves carried on removable side hangers. Oven heated by two burners. Dial type thermometer or thermostatic control can be fitted, if required. Overall dimensions: width 3 ft. 1 in.; depth 2 ft. 10 in.; height 6 ft. (R. & A. Main Ltd.).

staff are necessary for the purpose of clearing tables as soon as meals or courses are finished. The sight of piles of used crockery on dining room tables is depressing, and should not be tolerated by an efficient canteen manager. The washup room should be separate from both kitchen and servery and will normally deal only with the washing up of china, glass and cutlery from the dining rooms: the washing up of pots and pans, etc., being dealt with in the kitchen scullery. A well planned washup room should have good access from all dining areas, with double swing, spring hinged doors, fitted with bumper plates so that the crockery trolley can be used to push open the door. If necessary the doors can be automatically operated by means of an electric or solenium cell mechanism. The room must be sufficiently large to allow easy circulation and parking space for loaded trolleys. A reliable type of automatic dishwashing machine is desirable if a large volume of crockery needs to be washed in a short time, but it is essential that adequate hot water should be available for its efficient operation, at the temperature recommended by the manufacturers. Normal domestic hot water is not usually hot enough for clean washing, and as a result many dishwashing machines have been unfairly condemned when they have failed to produce clean work. Glassware and cutlery are normally washed by hand in a standard double sink, as the average machine cannot do this job adequately. Racks for the storage of both clean and dirty crockery should be constructed of tubular metal, galvanized to prevent rusting. This type of rack is easier to clean and maintain than those constructed of solid timber. Washup room floors and walls should be tiled, and floor drainage with adequate falls is essential. In view of the amount of steam in rooms of this sort, mechanical ventilation is desirable, and the ceilings should be treated with an anti-condensation paint.

## KITCHEN

However well planned the dining and service areas of a canteen may be, the efficiency of service and the quality of the food depends upon the kitchen and its arrangement. It is necessary that the kitchen must be conveniently placed in relation to service, dining and storage areas. Although an accurate estimate of kitchen area in relation to the number of diners is difficult to attain, it is generally agreed that from 3 to 5 sq. ft. of kitchen space, including stores and washup, but excluding servery and staff accommodation, is required for each diner. A well planned kitchen must be arranged so that all unnecessary cross traffic and wasted effort on the part of the kitchen staff is avoided (see Fig. 4). Adequate space for food preparation is essential and the bench top area, excluding sink

# Here...



# there...



*Above right: Canteen, Chrysler Motors Ltd., and Dodge Brothers (Britain) Ltd., Kew, Surrey.  
Centre: Inver Court, Bishops Bridge Rd., W.2.  
Below right: Nurses' Rest Room, Edgware General Hospital.*

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one man is able to excel in everything and in the field of human endeavour the final product is inevitably the result of co-operation by specialists. So it is with architectural planning. Working under the captaincy of the architect, the team of specialists all play their part and take responsibility for different sections of the project.

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## COOKING EQUIPMENT AND HOT CUPBOARDS

and draining boards, should be not less than 10 per cent. of the total kitchen floor area. Bench tops should normally be constructed of hardwood, except for marble or a similar material which is used for pastry preparation. The cupboards and drawers beneath kitchen benches, which tend to harbour vermin and accumulate rubbish, should be avoided in favour of open slatted shelving which can be removed for easy cleaning. Kitchen space should be set aside, in the form of special bays for vegetable, meat and fish preparation, pastry making and kitchen washup, together with space for the actual cooking and serving of the food.

A variety of fuels is available for the operation of cooking equipment; i.e., steam, gas, electricity, or solid fuel according to local conditions and supplies available. Each has its particular advantages and in many industrial catering establishments two or three alternatives will be found in use for different appliances. A final decision regarding the fuel to be used in any specific case can only be reached after discussion between architect, management and canteen manager.

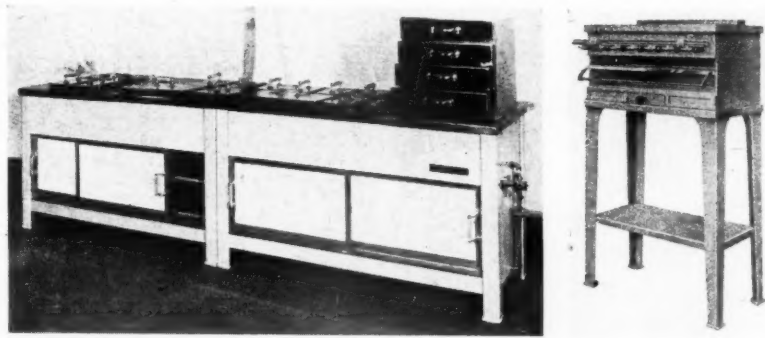
Cooking equipment requires a considerable amount of space if it is to be efficiently operated, cleaned and maintained. Adequate floor drainage to all kitchens is essential and a recessed floor channel with a removable metal grating should be constructed around banks of equipment. There should be a low-level water point for floor cleaning. Floors should be laid to falls and tiled. Walls should also be tiled.

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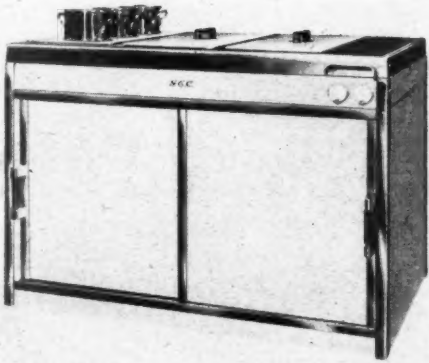
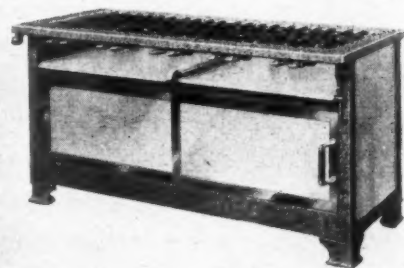
Heating is not necessary in a canteen kitchen, because the problem is normally one of disposing of surplus heat and steam from cooking equipment, hot cupboards and the like. An electrically operated extract ventilation system should be installed over all cooking apparatus. In no circumstances should this be connected with the general canteen ventilation system owing to the danger of the dispersal of cooking smells over the entire building. Good natural and artificial lighting is essential. A southern aspect should be avoided, but windows at eye level overlooking pleasant surroundings help to improve the working conditions of kitchen staff. Electric light fittings should be totally enclosed and easily cleaned.

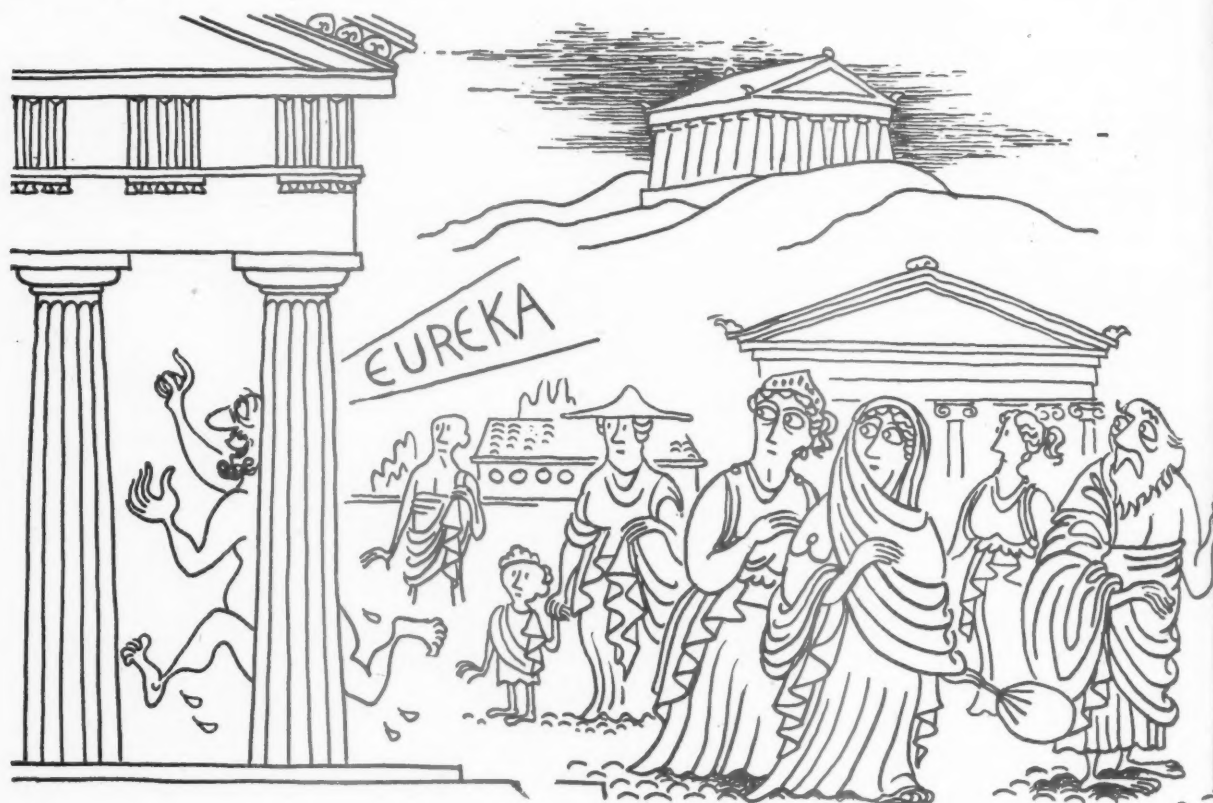
## STORAGE

Adequate storage space must be provided with easy access from outside for delivery, and have direct communication with the kitchen. It is preferable that stores should face north. Separate stores should be provided for the following: bulk goods such as sacks of flour and sugar; dry goods such as tinned food and bottled goods; vegetables; perishable food such as milk, meat, butter and fish; spare



Hot cupboard, above, left, operated by electricity as shown, or gas or steam. Steel panels: vitreous enamelled inside and out. Two shelves, sliding doors on one or both sides of cupboard. Widths, 3 ft. 6 in. to 12 ft. 6 in.; depths 2 ft. to 2 ft. 6 in.; height 2 ft. 9 in. (Jas. Stott & Co. (Engineers), Ltd.) "Salamander," grill, above, right, operated by gas. Construction: cast iron. Heated by atmospheric burners arranged with cast deflectors, with fire bricks above. Grill fitted with fat-collection tray and storage drawer. Overall dimensions: widths 2 ft. to 4 ft.; depth 1 ft. 6 in.; height 1 ft. 6 in. (R. & A. Main, Ltd.) Deep fat fryer, right, operated by gas or electricity. Heat exchanger to heat the oil, consists of series of tubes running through the oil. To be used separately or incorporated with similar unit cooking range. Finish in black heat-resisting paint and white vitreous enamel panels or stainless steel and black vitreous enamel. (Benham & Sons, Ltd.) Combination service hot-closet, right, centre, operated by gas. Top of closet consists of boiling table. Front is fitted with sliding doors and closet is arranged with centre and bottom shelves. Lift-out panel-type hot plate bars are fitted over burners. Enamelled splashback obtainable. Overall dimensions: widths 3 ft. 5 in. to 5 ft. 2 in.; depth 2 ft. 3 in.; height 2 ft. 9 in. (R. & A. Main, Ltd.) Hot cupboard, right, operated by electricity. Top consists of polished mild steel hot plate. Interior finish of cupboard vitreous enamel. Access through sliding doors. Width 48 in.; depth 30 in.; height 34 in. (The General Electric Co., Ltd.)





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## WATER BOILERS AND MISCELLANEOUS ITEMS

equipment; cutlery, crockery and linen; refuse, empty bottles and containers. This latter requirement is often overlooked, and results in an untidy and even unhygienic kitchen. The space provided for bottle crates, dustbins and returnable containers should be in the form of a roofed-in annexe with screen walls allowing ample ventilation. For a small canteen a large refrigerator will provide adequate cold storage, but a larger establishment will require a proper cold storage room for meat, milk, etc., with a separate compartment for fish. For all storage areas slatted or wire-mesh shelving is preferable to solid shelving, and care should be taken to avoid forms of construction which will harbour vermin. All store rooms should be dry, ventilated, and maintained at an even temperature. Vegetable stores should be separated from the other storage rooms. In a large canteen the arrangements for the delivery of goods require consideration and a receiving bay is necessary where goods are checked in by the storekeeper. Space should be provided for a 5-cwt. platform scale and a writing shelf for recording goods delivered.

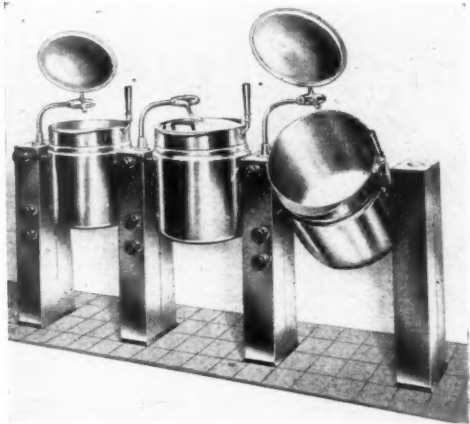
## OFFICE AND STAFFROOMS

For canteens of any size an office will be needed for the canteen manager where he can interview staff, travellers, etc. This should be equipped with a telephone, the usual office furniture, and a reliable safe. It should be about 200 to 250 sq. ft. in area, and should be situated as centrally as possible with an observation window overlooking the kitchen. It must, however, be properly screened from the kitchen so that noise and smells do not enter. Adjoining this office and communicating with it should be the general office, which will vary in size according to the degree of independence enjoyed by the canteen organization. In some factories all canteen accounting and office work is carried out by the general accounts department.

## CLOAKROOMS AND RECREATION FACILITIES

The kitchen staff requires lavatory accommodation for both sexes in accordance with the Factories Act, 1937, together with a properly ventilated cloakroom with lockers, seating space, and first-aid equipment. This accommodation must be independent of any lavatories or cloakrooms provided for diners, and in some instances a staff rest room or meals room is provided.

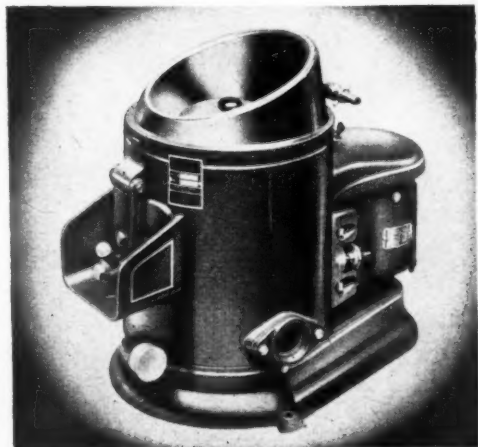
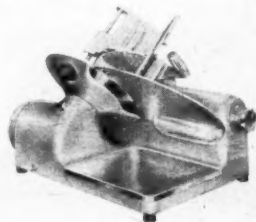
If the canteen is situated away from the rest of the factory, lavatory accommodation for diners of both sexes will be necessary. The extent of this and of cloakroom accommodation will be determined by the uses to which the



*Above right, range of three steam-heated tilting kettles. Stainless steel jacketed containers and pedestals, enclosing pipes and control valves. (Benham & Sons, Ltd.) Above, "Pioneer" one-piece steam-jacketed boiling pan. Right, larger pan of similar design, available with pedal-operated cover. (Smith & Wellstood, Ltd.)*



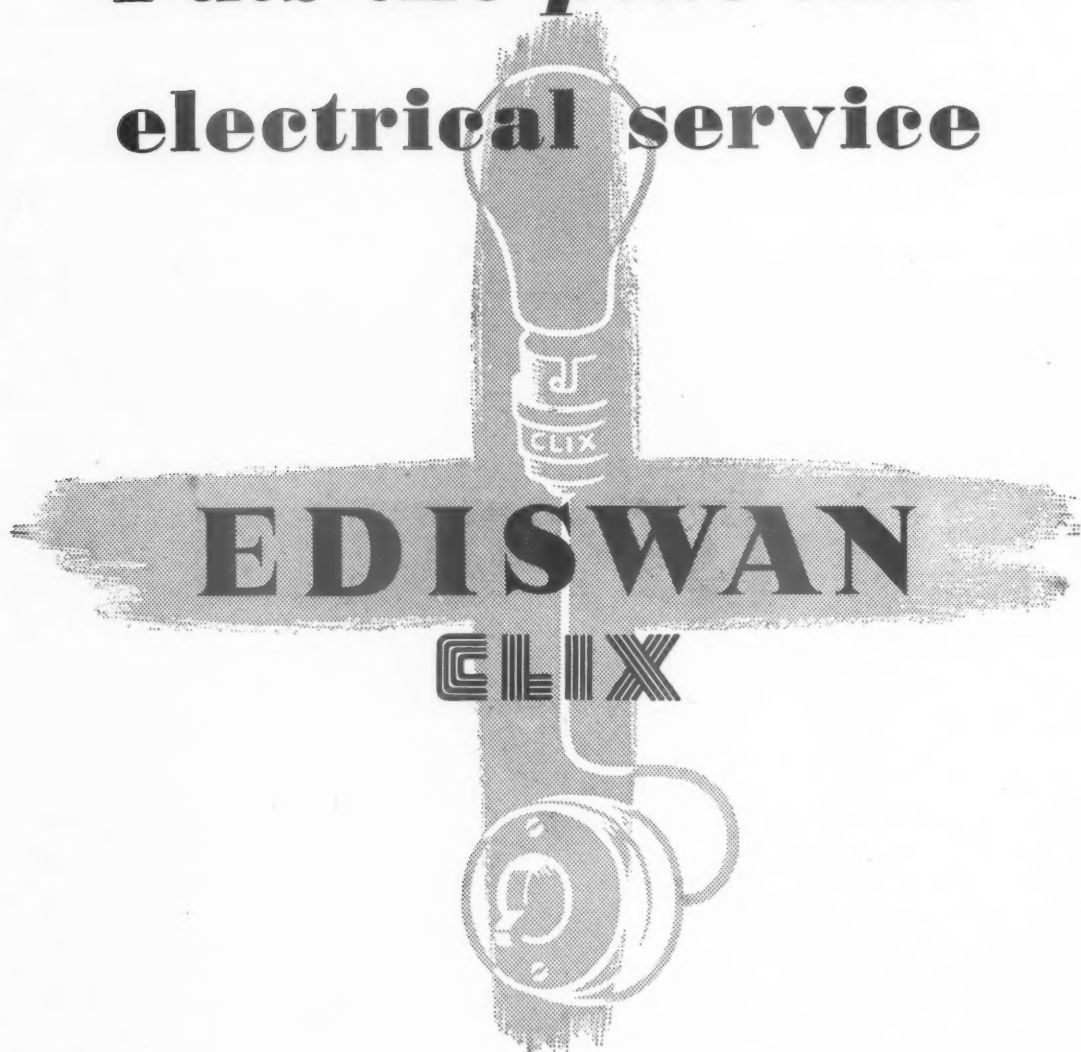
*Above, "Snackmaster" urns, gas or electric. Urns chromium-plated copper, glass lined. Base: width, 24 in.; depth, 12 in.; height 5 in. (Staines Kitchen Equipment Co., Ltd.) Right, "Filter" coffee and tea maker, gas operated. Working parts chromium plated or stainless steel. Width: 30 in.; depth 22 in.; height 38 in. (G.F.E. Bartlett & Son, Ltd.)*



*Above, an electric slicer for meat, fish, fruit, vegetables, etc. (The Hobart Manufacturing Co., Ltd.) Right, electrically operated potato peeling machine. Capacity 10-14 lb. Suitable for bench mounting. (Aramore Engineering Co., Ltd.)*



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building is put apart from the service of meals. Such accommodation should be planned near to the entrance of the canteen.

The purposes for which a factory canteen is used will vary with each manufacturing unit. Among the more common uses outside working hours are dances, indoor games, concerts, stage plays, film shows and exhibitions. If concerts and plays are to be given frequently a proper stage and dressing rooms are necessary, and a Stage Play and Music and Dancing Licence is required from the county authority.

#### SUMMING UP

Today, the factory canteen plays an increasingly important part in industrial life. Apart from providing meals at a low price to industrial workers, it has become, in some cases, the only centre of community life they know. It is often in the factory canteen after working hours that they meet their friends, play darts, act in a play, or rehearse in an amateur orchestra or choir. It is essential, therefore, that industrial canteens should be designed as more than glorified mess-rooms: they must have the atmosphere of a club or community centre where barriers between employee and employer can be broken down and a feeling of unity encouraged.

#### BIBLIOGRAPHY

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C. G. Gardiner, *Canteens at Work*, Oxford University Press.

Jack Hampton, *Factory Canteen*, Leonard Hill Ltd.

Edward D. Mills, *The Modern Factory*, The Architectural Press Ltd.

## DISHWASHING: HAND AND MACHINE

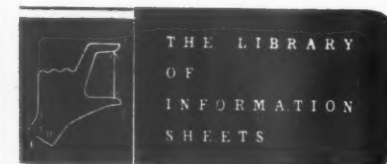
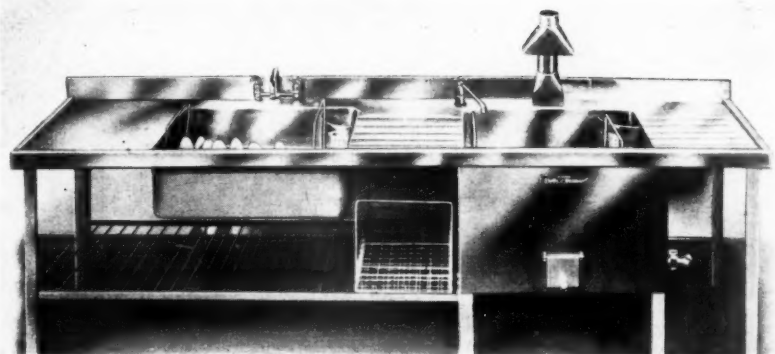
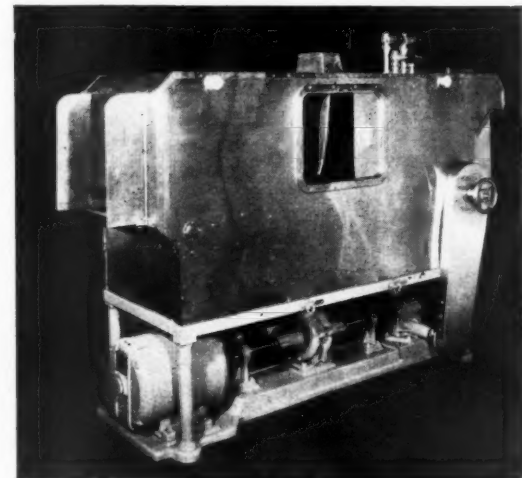
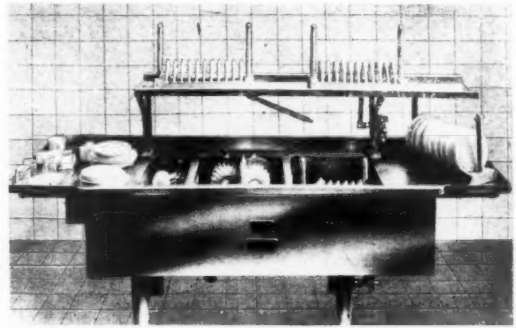
"Junior" dishwashing machine, right, top, operated by electric motor; water heated by steam or gas. Construction; stainless steel or hardwood. Crockery is fed into machine by hand and mechanically brushed under water. Widths

7 ft. 1½ in., 8 ft. 3 in., 8 ft. 10½ in.; depths 2 ft. 4 in., 2 ft. 8 in.; height 4 ft. 4 in. (Staines Kitchen Equipment Co., Ltd.). Dishwashing machine, right, centre, operated by electric motor.

Washes and rinses crockery, supported in racks, in one continuous through movement at rate of 150 loads per hour. Wash tank heated by gas, steam or electricity. Rinse tank consumes 100 gall. hot water per hour. Width 53 in.; depth 30 in.; height 58 in. (The Hobart Manufacturing Co., Ltd.)

The "Hercules" dishwashing machine, right, bottom, can be used with water heated to 180°/190° F. by gas, electricity or steam, and consumes 60 gall. of water per hour. Operated by 2½ h.p. totally enclosed electric motor. The body is stainless steel. Cleans each hour a maximum of 6,000 assorted items of crockery, glassware, cutlery, etc. Width 7 ft. 2½ in.; depth 3 ft. 1 in.; height 5 ft. 3½ in.; weight 12 cwt. (Benham & Sons, Ltd.)

Wash-up and sterilizing sink, below, gas operated, and designed in accordance with the recommendations of the Catering Working Party. After washing, crockery is immersed in boiling water and then dried by its own heat. Construction of stainless steel, which is lagged. (J. A. S. Stott & Co. (Engineers), Ltd.)



#### 30.D12 REFERENCE BACK

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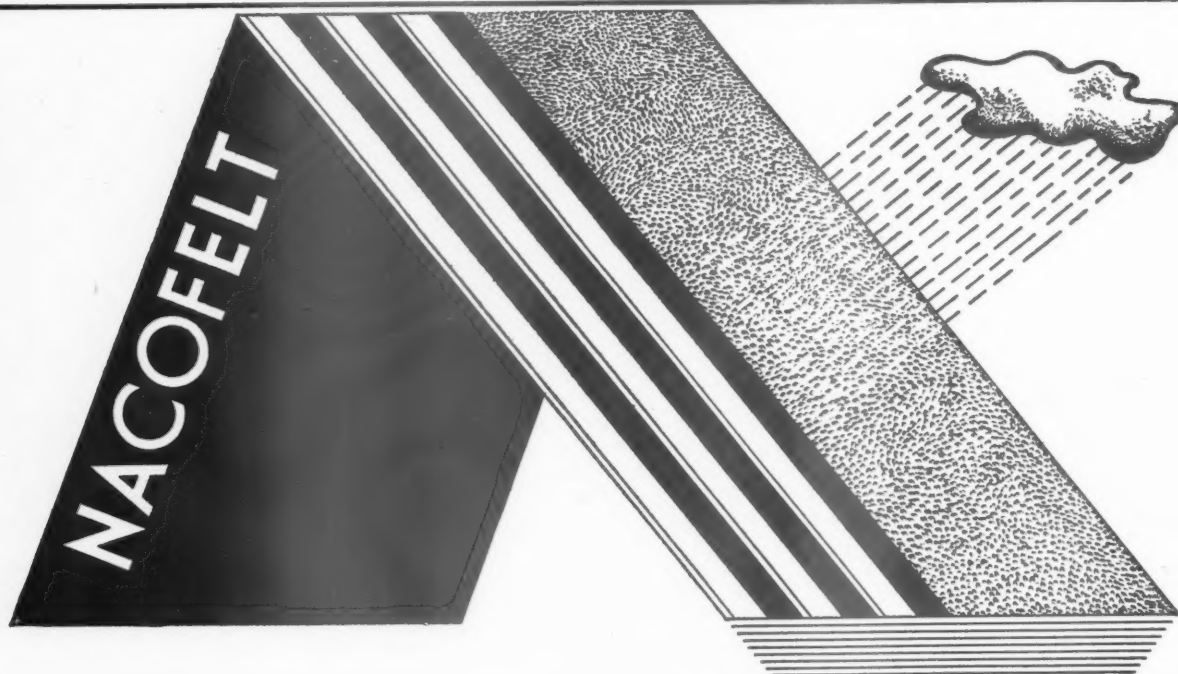
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## CANTEENS

*As a final section in this issue on works' canteens, Ernest Watkins describes some of the more important legal aspects which architects and clients building canteens should take into account. He deals with the original motives for providing canteens, the various Parliamentary Acts to be observed, and concludes with references to safety in canteens and standards of food quality.*

It is inconceivable that works' canteens will disappear. It is almost as unlikely that the all-pervading demand of the welfare state for more and better canteens will ever decrease. But, at the moment, the powers which the authorities have to compel the installation of works' canteens rest on two curiously uneven footings. Some are to be found in the Factories Acts themselves, but others, so far, have no greater prospect of permanence than that given by the temporary authority of the Defence Regulations.

### WHERE CANTEENS ARE NECESSARY

The temporary powers may be considered first and, after all, perhaps only a purist would insist on using the word "temporary" in connection with the Defence Regulations. By the Mines and Quarries Canteens Order of 1941, the Board of Trade may require the occupier of any mine or quarry to establish and maintain a canteen in which "suitable food may be purchased" and the Docks (Provision of Canteens) Order of 1941 made corresponding provisions for docks and wharves, providing that in these canteens "hot meals can be purchased at reasonable prices." Two years later, the obligation was generalized. Under the Factories (Canteens) Order, 1943 (SR & O 1943, No. 573), all factories employing more than 250 people must, if so directed by the Chief Inspector of Factories, provide a canteen where hot meals may be purchased, and this Order gives the Chief Inspector power to require any defects in the canteen (even in the meals and service provided) to be remedied under pain of prosecution. These orders were made under the Safety and Welfare group of Defence Regulations (Nos. 59, 60 and 60A) which remain in force until the end of this year.

Subject to political accident, it is unlikely that these Regulations will be allowed to lapse before they are replaced by some equivalent and more permanent provision. What is doubtful is the scope to be expected for any more permanent provision: e.g., will the limit of 250 people be retained or lowered? At the moment it seems possible that the limit will be lowered and the regulations of the jute industry (mentioned later) suggest how this will be done.

### FACTORIES ACT, 1937

The permanent powers rest on Section 46 of the Factories Act, 1937. That section empowers the Minister to make special regulations for factory welfare where the "conditions and circumstances of employment or the nature of the processes carried on" require it. And in this case the word "welfare" . . . includes the provision of a canteen. However, the wording of this section imposes on the Minister the need to plan for each industry separately. By implication he may not use this section to order that all factories should be equipped with canteens, regardless of their conditions, circumstances, or the processes carried on.

But very many orders for separate industries have been made under Section 46. The

Act is, of course, one in a series of Factories Acts and the process of requiring management to make some provision for mess-rooms and eating places began over 30 years ago. The first orders made covered those industries in which the industrial processes themselves made it essential, for the sake of health or safety, that the worker should wash before handling food and not eat in the place in which the processes of the factory had been carried on. Chronologically, health was the first motive for requiring canteens. Generally speaking, the orders made before the war require managements to make available places where food may be eaten and water boiled. This might be called the passive phase, the mess-room rather than the canteen, and many industries still work under regulations that impose no greater obligation than this.

The transition can be seen in the Flour Mills (Hours, Safety and Welfare) Order, 1942 (SR & O 1942, No. 202), which requires the occupiers of factories in that industry to provide and maintain "adequate and suitable accommodation for taking meals . . . with sufficient tables and seats and adequate means of warming food and boiling water." Under that order only if the Chief Inspector of Factories insists, is management obliged to arrange for the supply of "hot meals for purchase by the workers." Compare this with the Jute (Safety, Health and Welfare) Regulations, 1948 (SI 1948, No. 16963). This makes the canteen serving hot meals compulsory in all factories where 250 or more people are employed. Where fewer are employed, the occupier must either provide such a canteen or a mess-room where food may be warmed and water boiled, and, if the District Inspector requires it, where light refreshments and hot drinks are also to be on sale.

### CANTEEN LAYOUT

It seems reasonable to take the Jute Industry Order as a guide to the future and to assume that the obligation to provide the canteen and the hot meal will extend gradually over the smaller factories, very possibly preceded by the provision of light refreshments and hot drinks. The Jute Order is also useful in that it contains the standard official provisions on the siting and layout of the canteen. It must be at, or in the immediate vicinity of, the factory, the rooms must be properly ventilated and warmed at mealtimes and they must be separate from the washing, lavatory and cloakroom accommodation. There is little point in listing the orders for each industry now covered by regulation. The orders can be obtained from the Stationery Office and the Ministry of Labour, and the Safety, Health and Welfare Museum in Horseferry Road, London, S.W.1, maintains a useful and comprehensive exhibit showing the technical problems to be taken into account when planning a works' canteen.

There are two other aspects of a factory occupier's liability with regard to his works' canteen. First, how far is he liable for the safety of the place itself, and of its equipment? Second, how far is he liable for the purity and quality of the food which is sold there?

### SAFETY IN CANTEENS

Generally speaking, a works' canteen on a factory site, whether a detached building or not, will be a part of the factory itself. In consequence, it is subject to the general safety regulations made by and under the Factories Acts. The equipment, floors and means of access must be safe to use. It has been held that a factory canteen employing its own manual labour is in itself a "factory" within the meaning of the Factories Acts, but this was a decision made in connection with a rating question and was not followed in the Scottish courts. Another relevant decision was that a factory may be taken out of the scope of the Factories Acts if, and when, it is used for another purpose. In this case a part of a factory was cleared for a Christmas party and it was held that the cleared part ceased to be a factory while it was in that state for that purpose.

The dividing line would seem to be this: while the canteen is used by factory employees within the normal hours of work at the factory for meals, and rest in the intervals between work, the factory occupier must take precautions against accident parallel to those he takes in the operating sections of the factory. When used outside those hours for other purposes, the Factories Acts will not apply and the liability of the management will be that of the owner of any building into which the public is invited.

### QUALITY OF FOOD

The owner's liability for the standard of food—the obvious risk is poisoning from bad or dirty food—is, basically, a matter of contract. The orders laying down the requirement that hot meals shall be served, say that they shall be available for purchase by the workpeople. This means that factory management is in the same position as the proprietor of a restaurant or café. He must observe the regulations governing sale of food and avoid any carelessness which might cause injury or damage to a customer. But here a fresh factor arises. Management cannot contract out of its liabilities under the Factories Acts, but it can employ an independent catering contractor to run the canteen when provided. How far does this relieve management from responsibility for accidents arising under this heading?

The answer depends, roughly on what the management tells its employees; in other words, since the sale of food is a contract, to which the worker is a party, has he contracted with the management or with the caterer? Normally, a workman using his works' canteen would assume, and would be entitled to assume that the canteen was run by his own employers and that he was buying his food from them. Management can then do one of two things. It can accept that contention and treat the catering contractor as its agent. That means, in case of trouble, that the workman claims on his own management and the management, subject to its own contract with the caterers, looks to them for indemnity. Alternatively, management can give full notice (in writing in the canteen itself) stating explicitly by whom the canteen is run and who is responsible for it, and so ensure that the users of the canteen do know with whom their contracts are made when they buy food over the counter. This is primarily a question of policy. It is obviously desirable to make a decision one way or the other and not to leave the matter uncertain. Equally, it is desirable to insist that the catering contractor takes out insurance cover.

No matter who operates the canteen, the management still has a moral responsibility to see that the caterers it chooses are clean and competent in their conduct of the canteen and in its kitchens.

ERNEST WATKINS



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## Buildings Illustrated

**Canteen and First-Aid Unit for Mander Bros. at Heathtown, Wolverhampton.** (Page 570.) Architects: S. N. Cooke (F) & Partners. General contractors: A. F. R. Godfrey & Co., Ltd. Sub-contractors: curtains in canteen, Primavera Ltd.; furnishing (directors' rooms), Storey & Co., Ltd.; heating and hot water services, Brightside Foundry & Engineering Co., Ltd.; light-fittings, The General Electric Co., Ltd. (canteen), The Merchant Adventurers of London Ltd.

(director's rooms), Best & Lloyd Ltd.; metal doors, windows, lanterns and domelights, Henry Hope & Sons Ltd.; reconstructed stonework, Empire Stone Co., Ltd.; reinforced concrete, Johnsons Reinforced Concrete Engineering Co., Ltd.; sanitary fittings, The Associated Clay Industries Ltd.; stainless steel counter top, drip tray, tray slides, barrier rail, aluminium panels, etc., Gaskell & Chambers Ltd.; sun blinds, Hills (West Bromwich) Ltd.; vermiculite screed, Metamica Ltd.; wood block flooring, Hollis Bros. Ltd.

**Canteen at Swan Village Gas Works, West Bromwich, for the West Midlands Gas Board.** (Page 574.) Architects: S. N. Cooke (F) & Partners. General contractors: Parsons & Morrin, Ltd. Sub-contractors: precast floors and roofs, The Siegwart Floor Co., Ltd.; metal windows, doors and lantern lights, Henry Hope & Sons Ltd.; precast stone and precast staircase, The Empire Stone Co., Ltd.; heating installation, Hope's Heating & Engineering Ltd.; goods service lift, Evans Lifts Ltd.; bar fittings, sliding hatches, billiard room seating, Gaskell & Chambers, Ltd., Bigwood Bros. (B'ham) Ltd.; wood block floors, Hollis Bros., Ltd.; composition tile floors, Semtex Ltd.; sanitary goods, Rowe Bros. & Co., Ltd.; asphalt, Val de Travers Paving Co., Ltd.

**Canteen at Dudbridge, Stroud, Glos., for Redler Conveyors Ltd.** (Page 575.) Architects: Ellery Anderson, Roiser & Falconer, Partner in charge, Peter Falconer, A.R.I.B.A.; assistant, Eric Hill. General contractor: Orchard & Peer, Stroud, Glos. Sub-contractors: roofs, William Briggs & Sons Ltd.; windows, Crittalls Ltd.; electrical fittings, Troughton & Young; switches, New Day Ltd.; water heaters, Aidas Ltd.

**Canteen and Welfare Centre, Beckton, East Ham.** (Page 576.) Designed by Brian

Colquhoun & Partners. Chief Architect: A. H. Shearing, A.R.I.B.A. Quantity Surveyor: F. Stanley Griffith & Partners. General contractor: Taylor Woodrow Construction Ltd. Sub-contractors: bricks, Wiggins Sankey Ltd.; partitions, London Brick Co., Ltd.; aluminium windows, Williams & Williams Ltd., suppliers of aluminium, Northern Aluminium Co., Ltd.; gas fixtures, William Sugg & Co.; heating and air conditioning, Matthew Hall & Co., Ltd.; electric light fixtures, Troughton & Young, Merchant Adventurers Ltd.; back counter fittings, Pollards Ltd.; bells, General Electric Co., Ltd.; entrance gates, Scaffolding (Great Britain) Ltd.; rolling shutters, Arthur L. Gibson; tiling, Carter & Co. (London) Ltd.; furniture, Permatops Ltd. (tables); kitchen fittings, Benham & Sons Ltd.; paint and distemper, W. & J. Leigh, Ltd., Imperial Chemical Industries Ltd. (cellulose); cold rooms, J. & E. Hall Ltd.; lifts, Marryat & Scott Ltd.; clocks, Gent & Co. Ltd.; sound equipment, General Electric Co., Ltd.; roof lights and glass concrete construction, Lenscrete Ltd.; acoustic tiling, Horace W. Cullum Ltd.; drainage, G. N. Haden & Sons Ltd.; curtain track, Thomas French Ltd.; gas fire, Radiation Ltd.

**Canteen at Hollingsworth Works, Martell Road, Dulwich, for the Telephone Manufacturing Co., Ltd.** (Page 578.) Architects: A. C. Fairtlough and D. R. Morris, F./A.R.I.B.A. Quantity surveyors: Wood & Weir. Reinforced concrete consultant: H. G. Cousins, B.S.C., M.I.C.E., M.I.STRUCT.E. General contractors: Haymills Contractors Ltd. Sub-contractors: artificial stone, Girlingstone; patent flooring, Hardrox Flooring Co.; heating and ventilation, G. N. Haden & Sons Ltd.

The remaining lists of sub-contractors for the canteens illustrated in this issue will appear next week.



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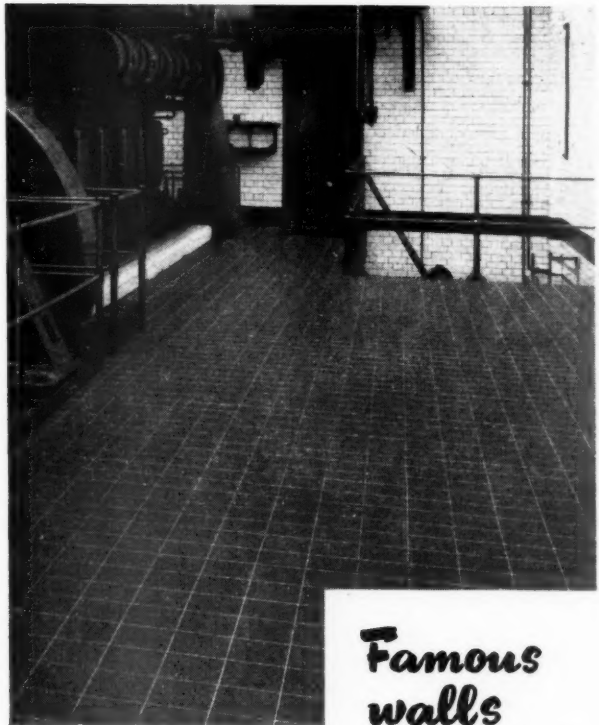
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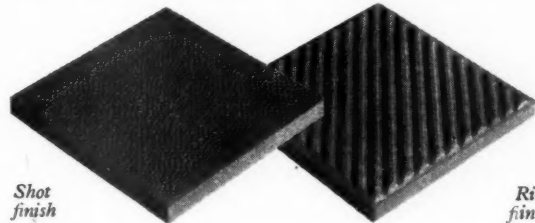
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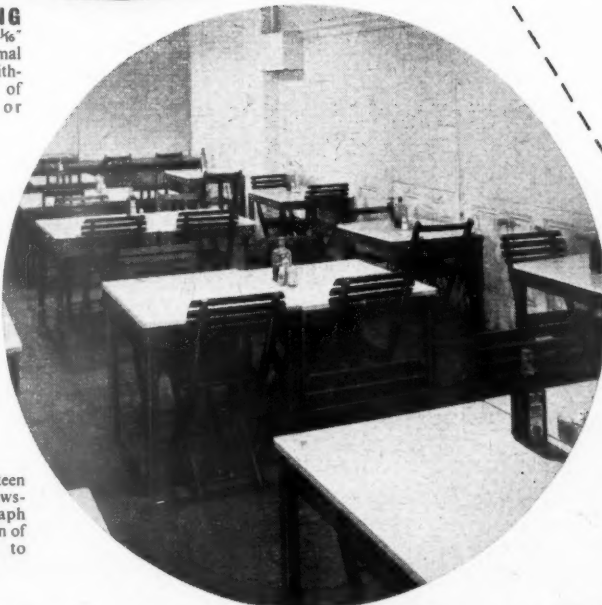
#### WALL PANELLING

This photograph depicts  $\frac{1}{8}$ " Formica veneered to normal cement-rendered walls without the introduction of backing materials or grounds.



#### FOOD COUNTERS

This photograph shows a counter top constructed from 19mm. blockboard, surfaced and edged with Grey Linette Formica.



#### TABLE TOPS

Taken in the Staff Canteen of a large London newspaper, this photograph illustrates the application of decorative laminates to existing canteen tables.

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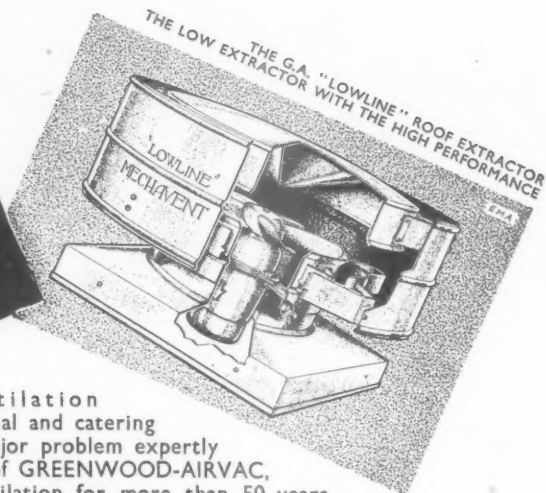
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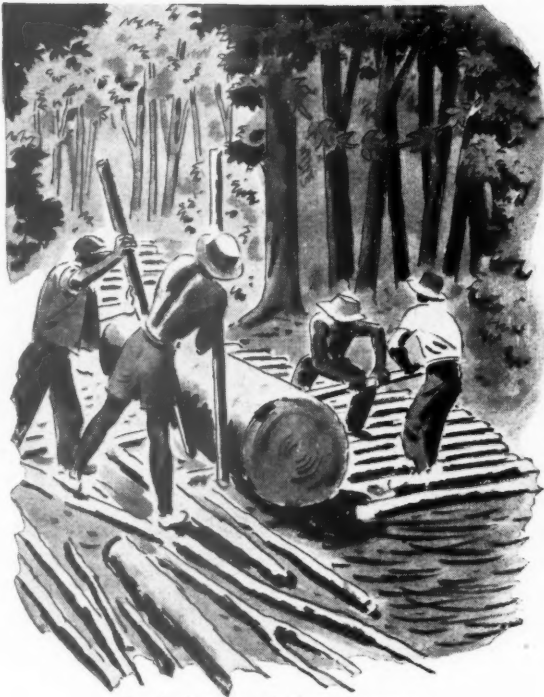


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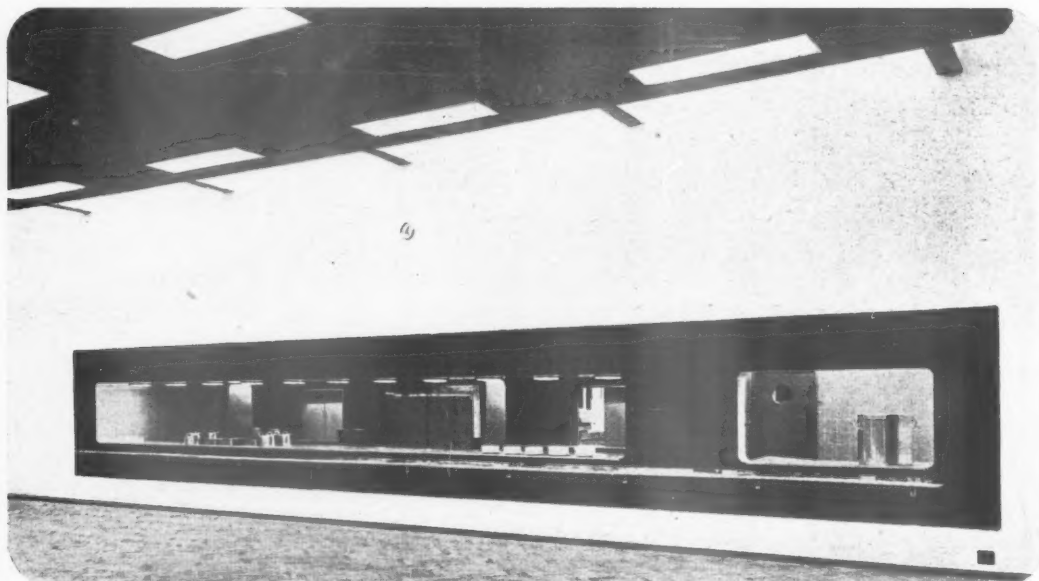
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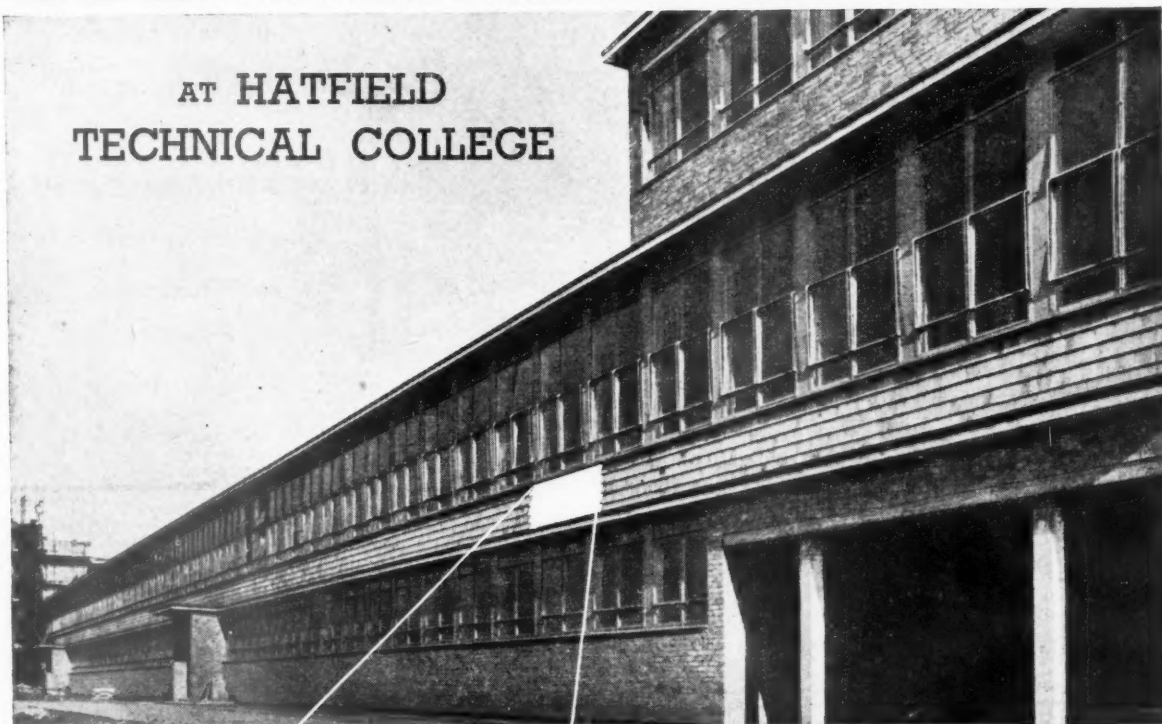
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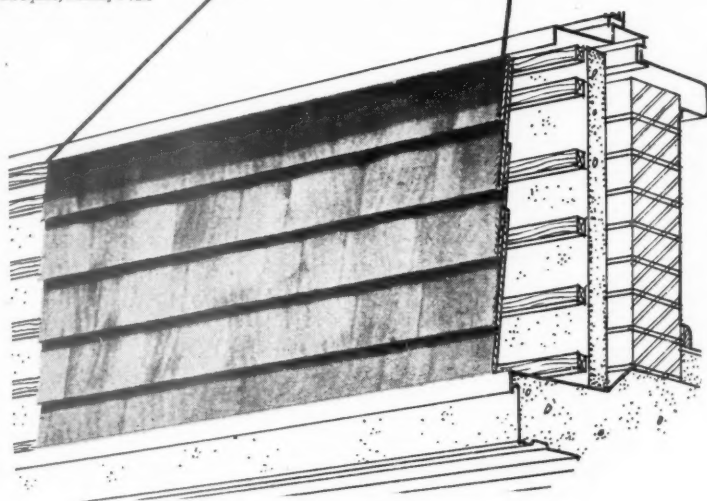
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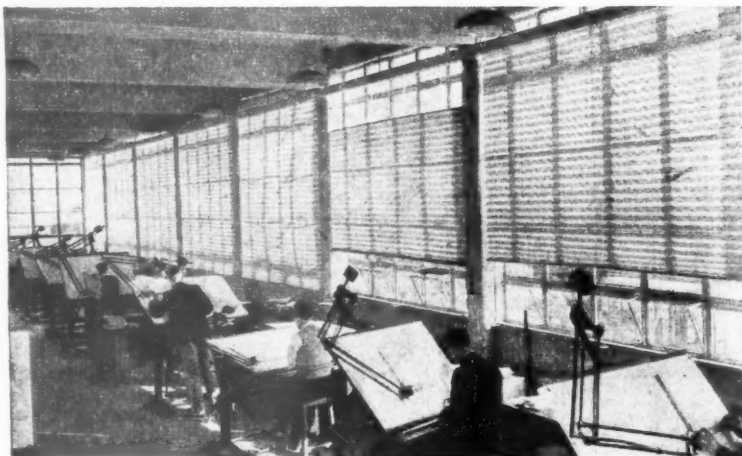
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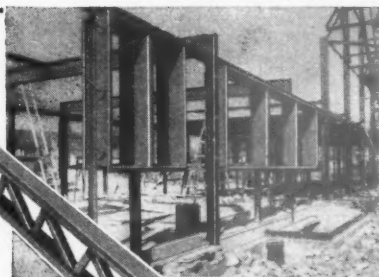
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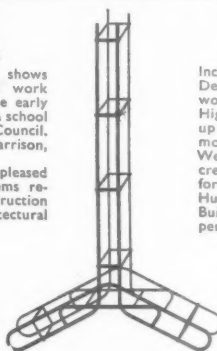
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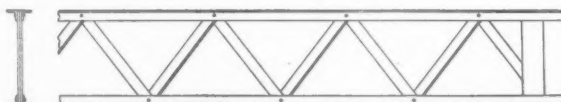
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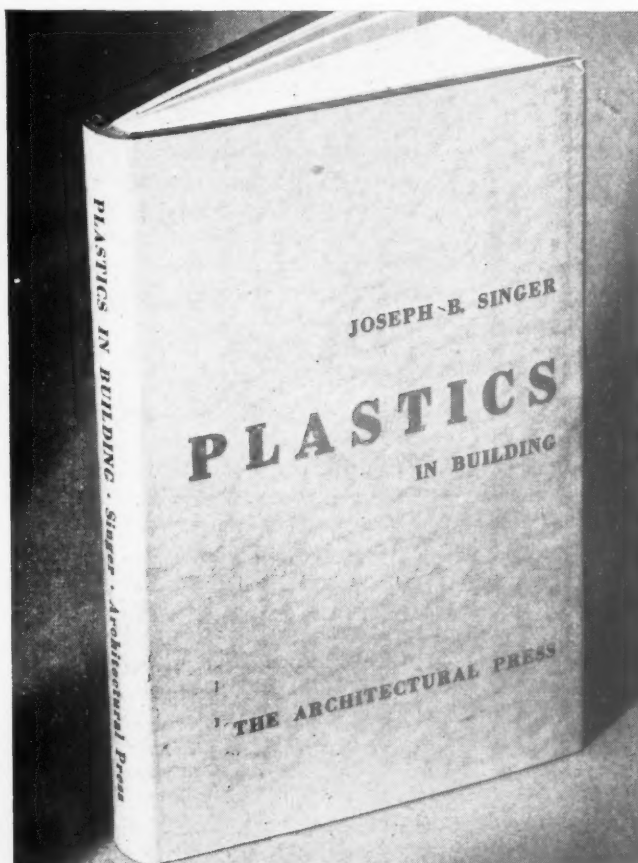
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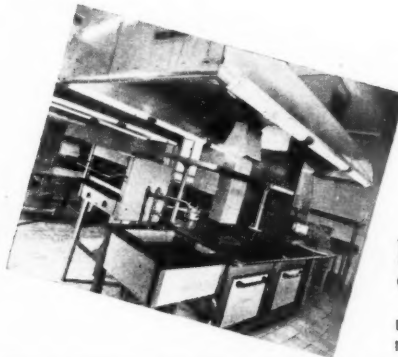
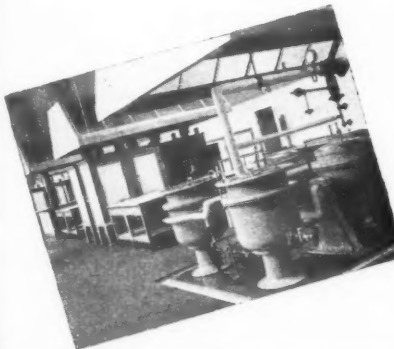
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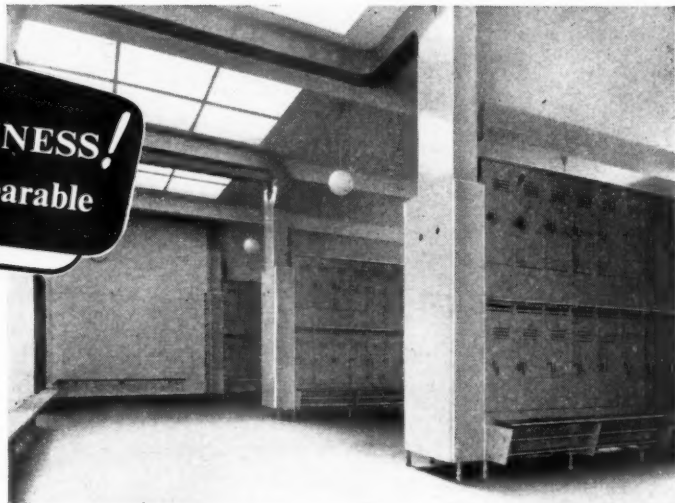
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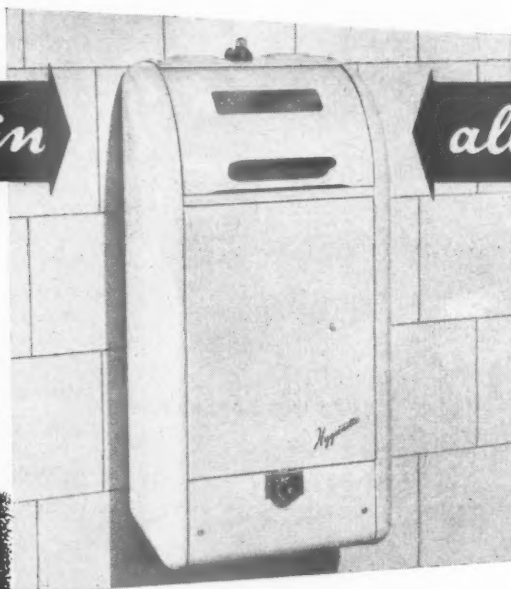
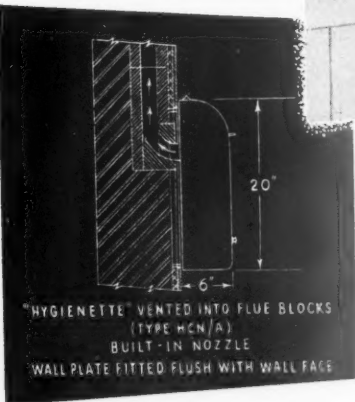
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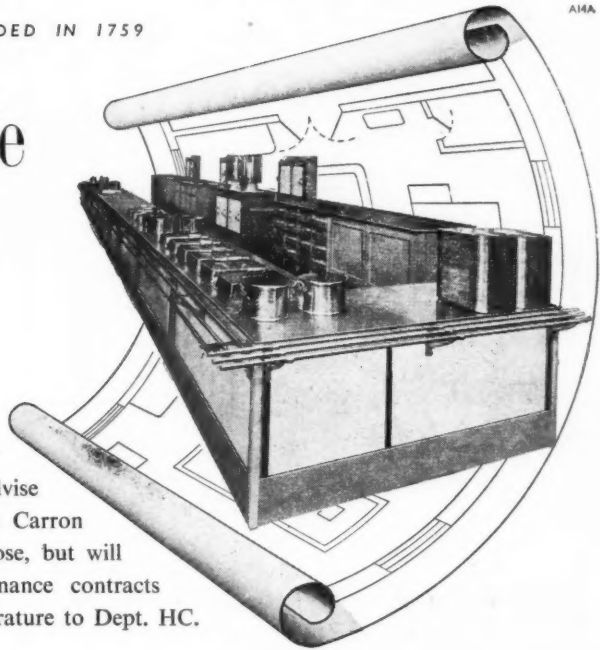
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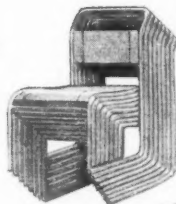
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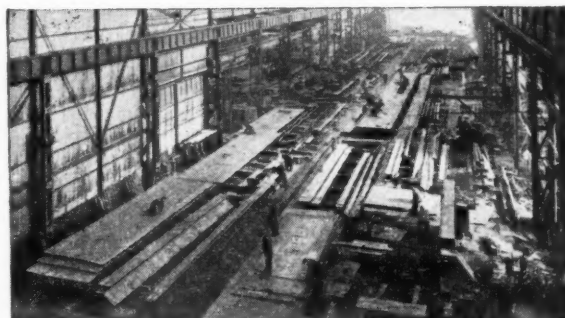


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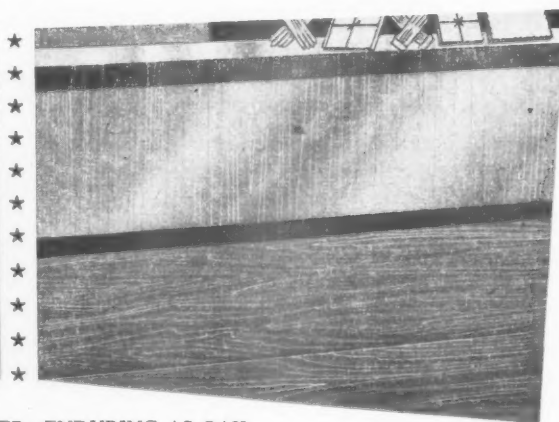
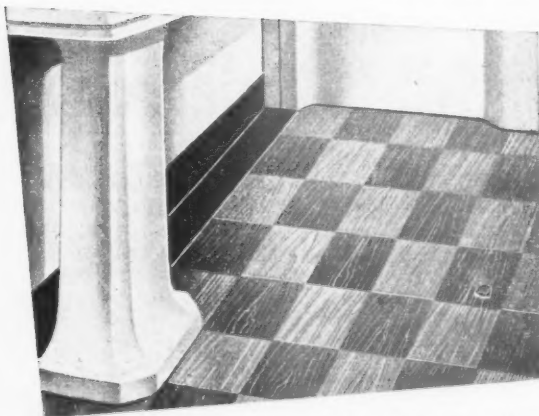
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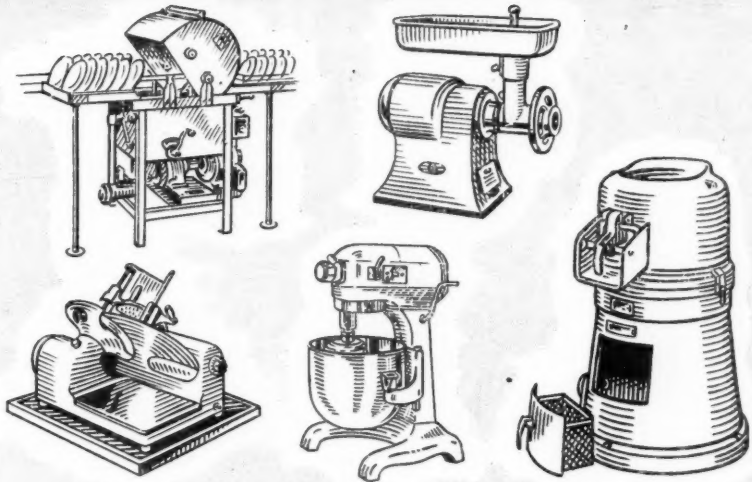
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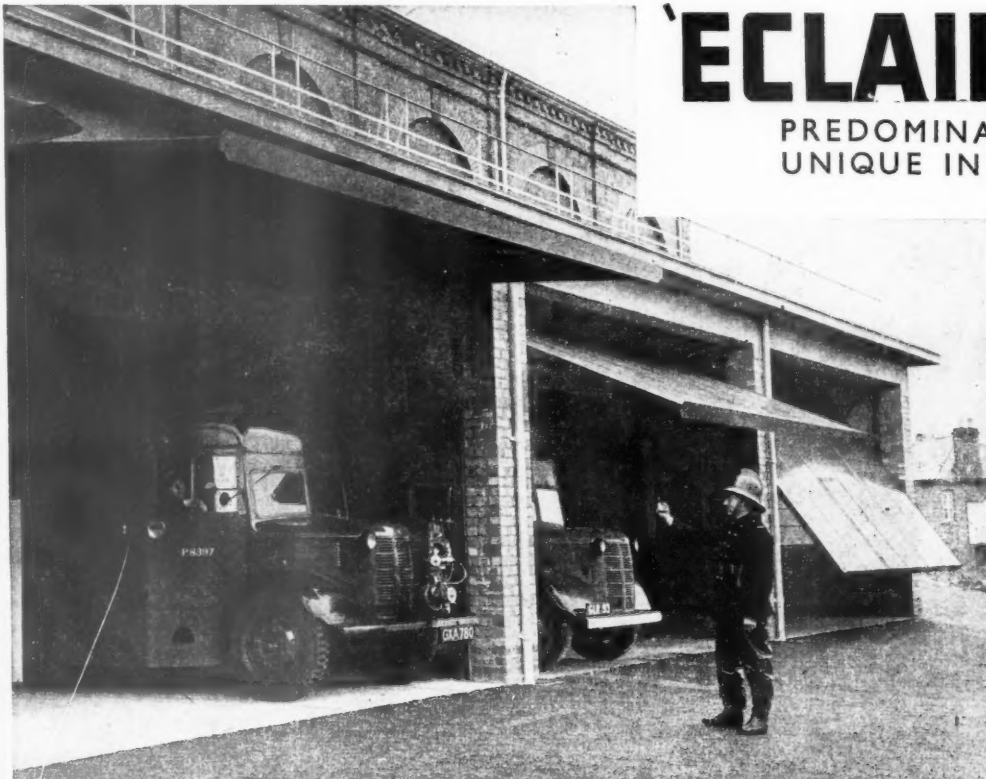
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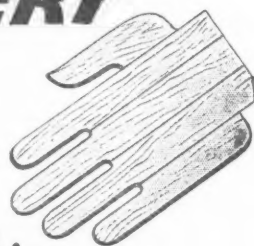
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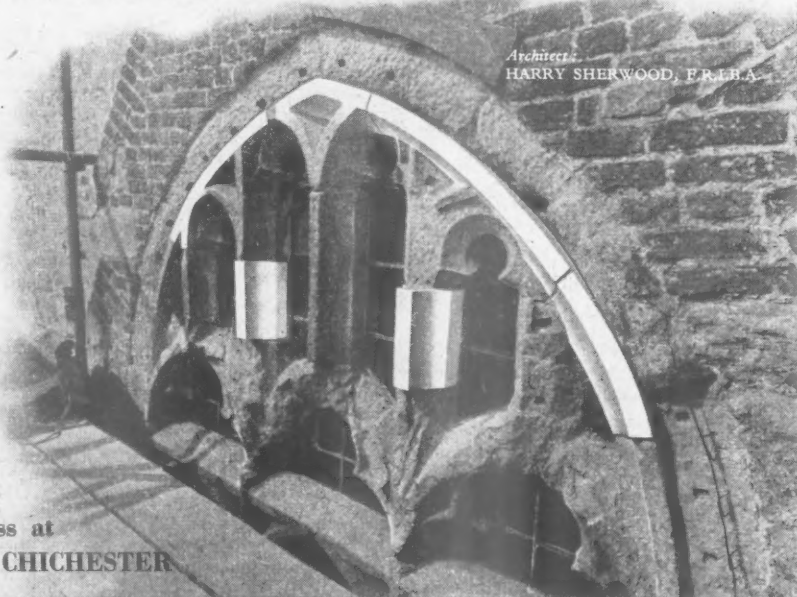
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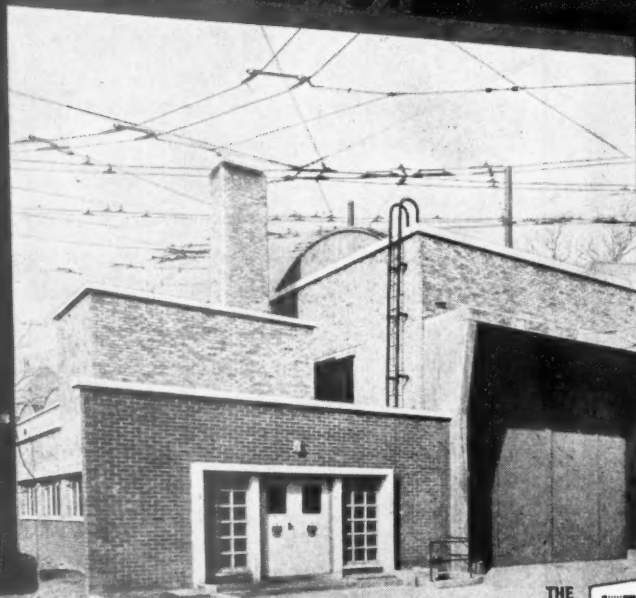
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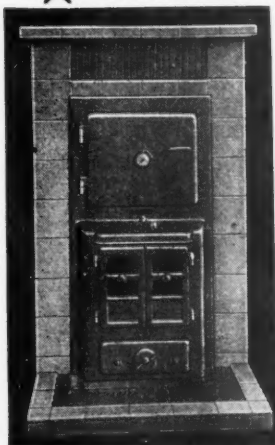
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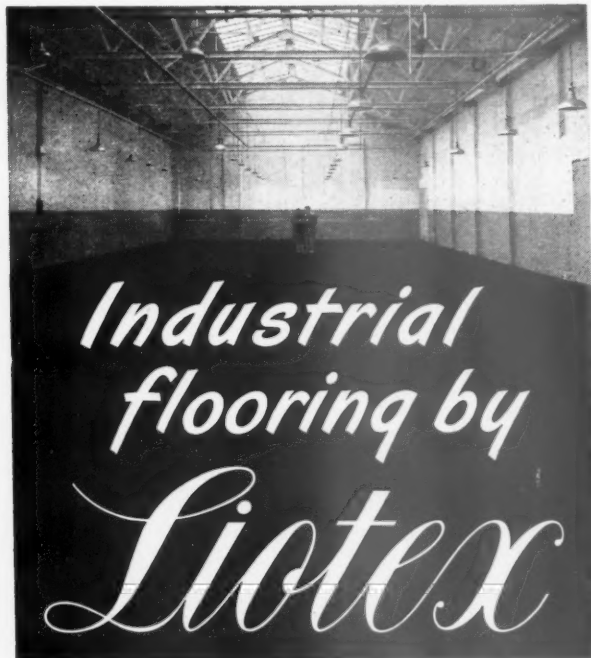
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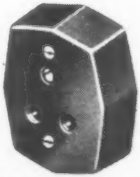
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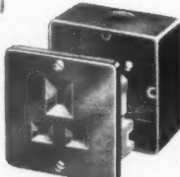
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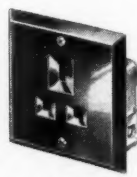
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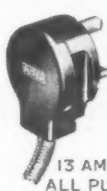


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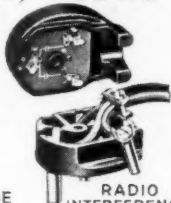
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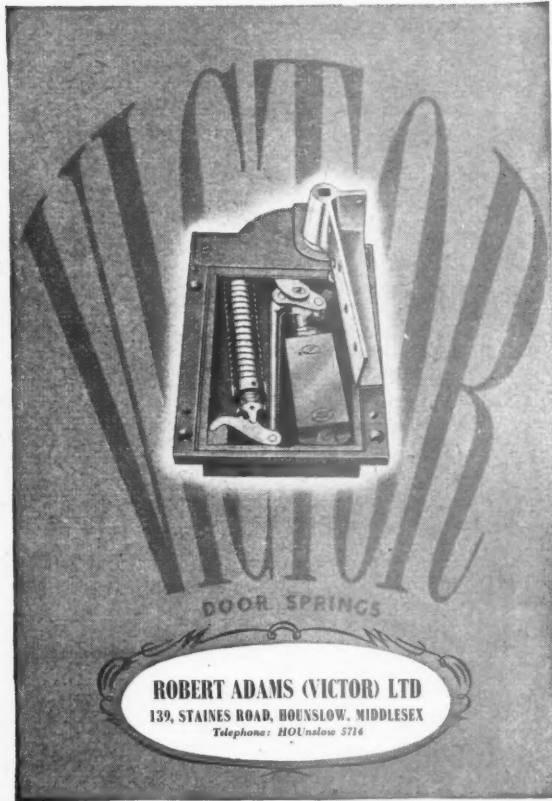
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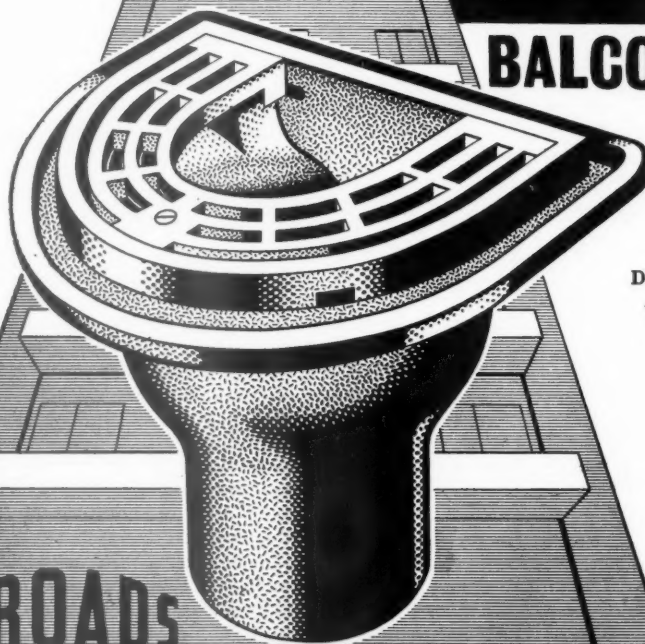
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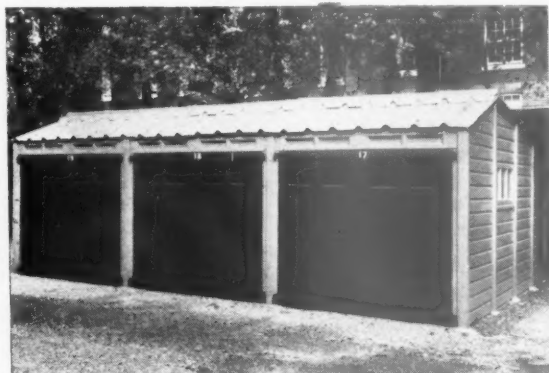
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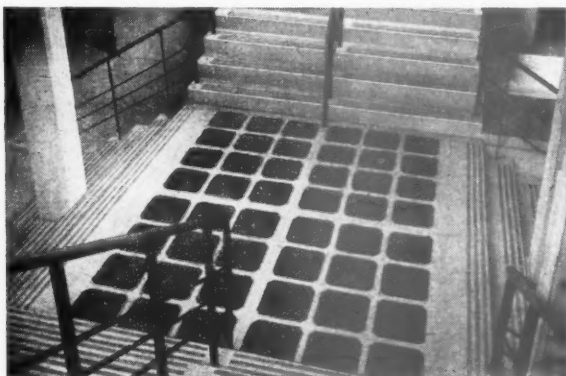
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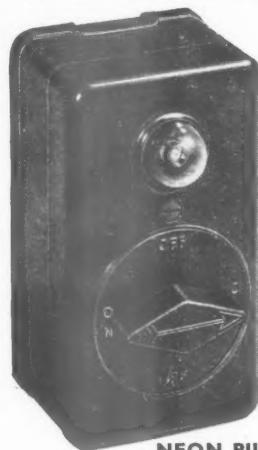
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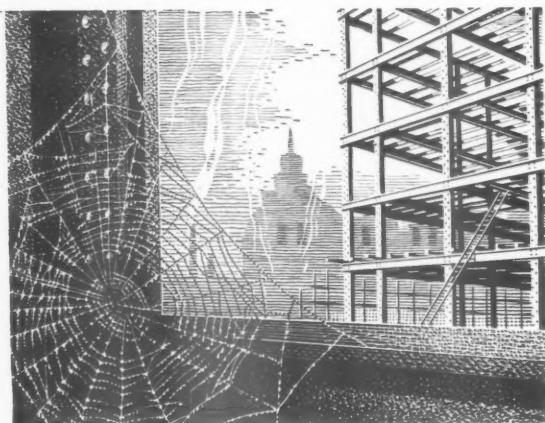


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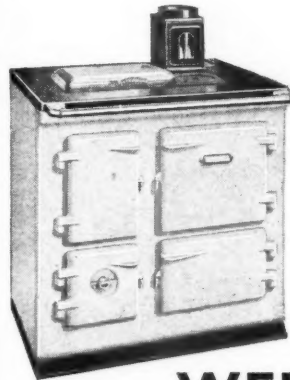
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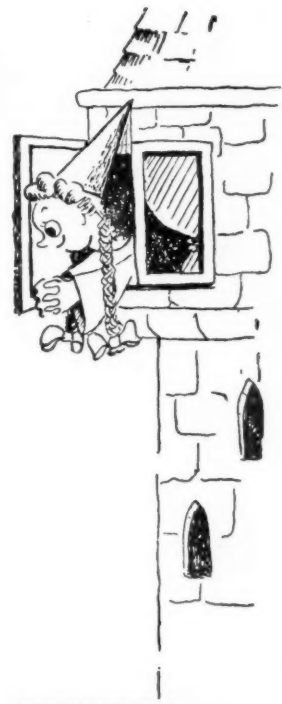
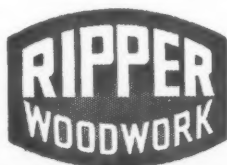
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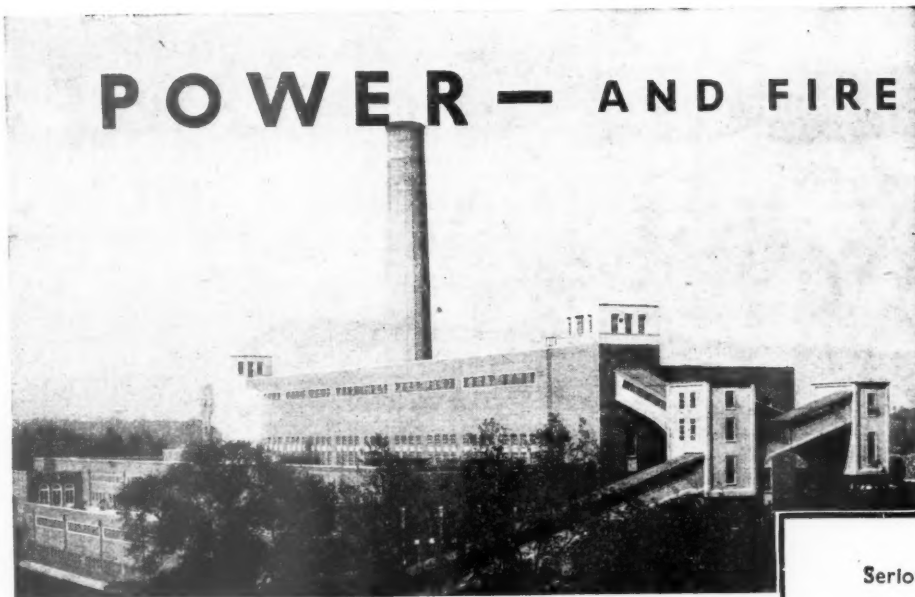
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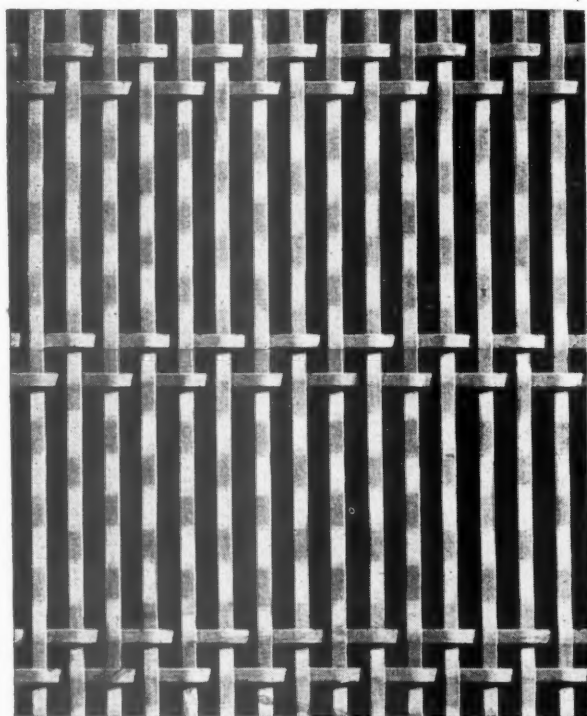
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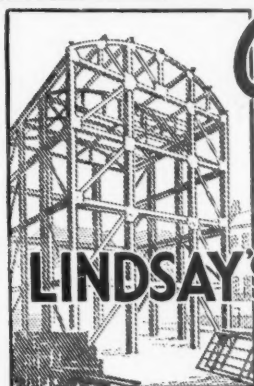


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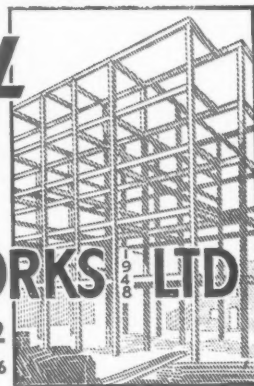
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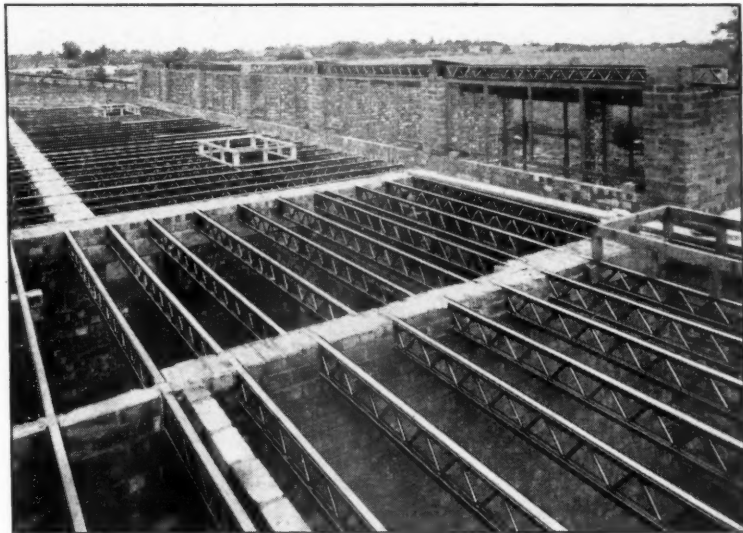
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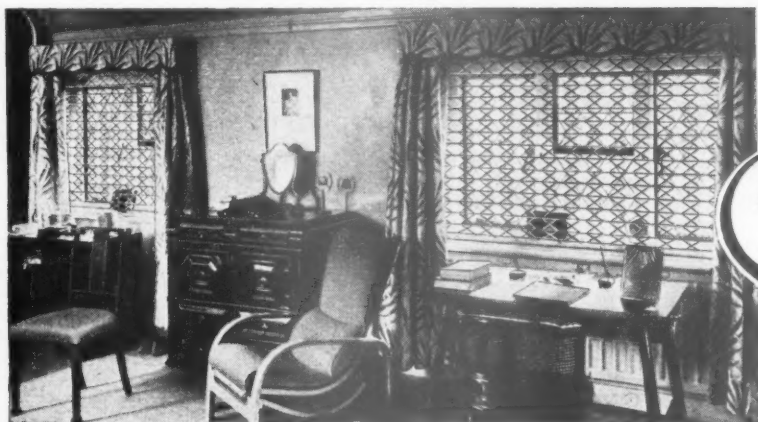
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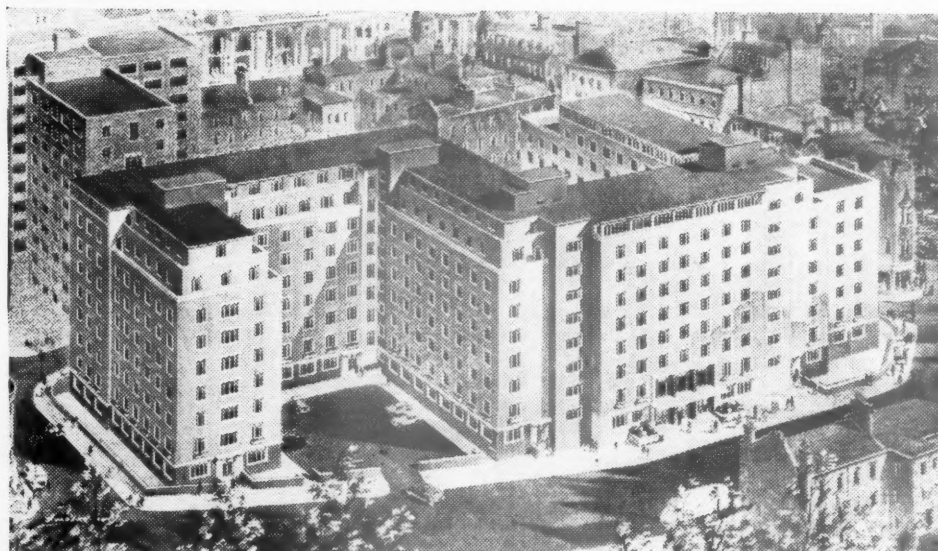
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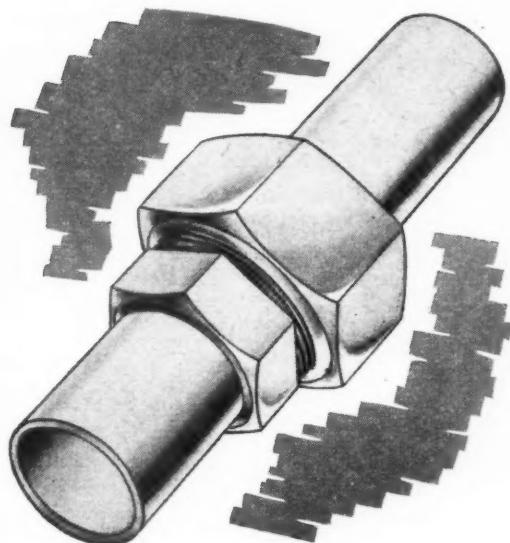
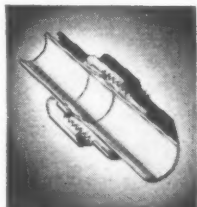
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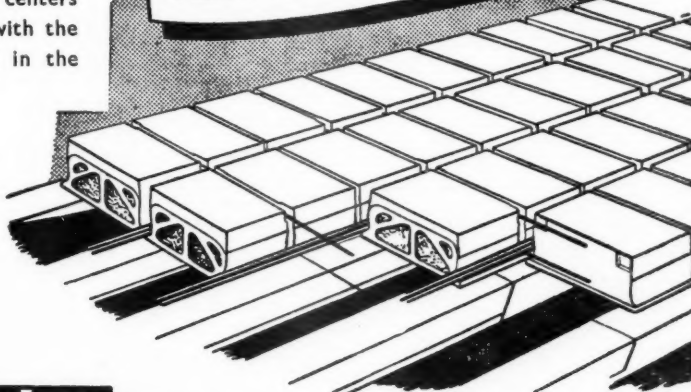
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## CLASSIFIED ADVERTISEMENTS

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

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

## Public and Official Announcements

25s. per inch; each additional line. 2s.

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

### CITY OF BIRMINGHAM EDUCATION COMMITTEE.

#### QUANTITY SURVEYOR.

Applications are invited for the appointment of Quantity Surveyor in the Architect's Branch of the Education Department. Salary: A.P.T., VII (£685 × £25—£760).

The successful applicant will be in charge of the quantities section and must have a good general experience in the preparation of Bills of Materials and settlement of final accounts. The appointment will afford opportunity to cover the whole field of Quantity Surveying.

Forms of application may be obtained from the undersigned, to whom they should be returned not later than Monday, 26th May.

E. L. RUSSELL,

Chief Education Officer.

Education Office, General Purposes Branch, Council House, Margaret Street, Birmingham, 1. 6740

### CITY OF COVENTRY.

#### ARCHITECTURAL AND PLANNING DEPARTMENT.

Applications are invited for the following appointment:—

**SENIOR QUANTITY SURVEYOR**, within Grade A.P.T. VIII (£735 × £25—£810 per annum) according to experience.

The person appointed, who must be a Corporate Member of the R.I.C.S. (Quantities Sub-Division), will be required to control a Section dealing solely with the preparation of Bills of Materials for major new works including large buildings of all types in connection with the redevelopment of the City, schools and educational buildings and the like. The Section is at present being formed, and the person appointed may be required temporarily to undertake interim valuation measurement and account settlement on certain major City redevelopment and special housing projects in progress. A sound knowledge of all aspects of Quantity Surveying, and experience in the preparation of Bills of Materials for large and varied projects is essential.

Housing accommodation will be made available in approved circumstances.

All employees are expected to belong to an appropriate organisation as referred to in paragraph 44 of the N.J.O. Conditions of Service.

Applications, on forms available from the undersigned, by Wednesday, 28th May, 1952.

E. B. GIBSON,

City Architect and Planning Officer.

Bull Yard, Off Warwick Row, Coventry. 22nd April, 1952. 6747

### CORPORATION OF GLASGOW.

#### ASSISTANT ARCHITECTS.

#### ASSISTANT CIVIL ENGINEERS.

#### ASSISTANT QUANTITY SURVEYORS.

Vacancies for the above technical personnel exist on the Housing Department permanent staff at salaries in accordance with National Scales, A.P.T. II—A.P.T. VIII (£460—£810). Applications are invited from suitably qualified persons who have had experience in any of the following branches:—

Design and construction of housing developments;

Surveying and contouring of land;

Design and construction of roads and sewers; and

Preparation of schedules and final measurements.

The commencing salary will be at a point within the above scales, adjusted in accordance with the age, experience and qualifications of selected candidates. Notwithstanding the point of entry, it will be possible at certain stages to qualify for an acceleration of increment.

Appointments will be subject to the provisions of the Corporation Superannuation Scheme and to the passing of a medical examination, and will be terminable by one month's notice on either side.

Applications, stating age, full particulars of experience and qualifications, accompanied by not more than three testimonials, together with the names and addresses of two referees, should be addressed to the undersigned within 14 days of the publication of this advertisement.

A. G. JURY,

City Architect and Planning Officer,

Director of Housing. 20, Trongate, Glasgow, C.1. 6767

### BOROUGH OF MAIDENHEAD. BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT.

#### CHIEF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Chief Architectural Assistant on Grade A.P.T. of the National Scales (£465—£760).

Candidates must be Associates of the Royal Institute of British Architects.

Housing accommodation may be available.

The appointment will be subject to:—

(a) the National Scheme of Conditions of Service;

(b) the Local Government Superannuation Act, 1937;

(c) the satisfactory passing of a medical examination;

(d) termination by one month's notice on either side.

Applications, stating age, qualifications and experience accompanied by copies of two recent testimonials must be sent in envelopes endorsed "Chief Architectural Assistant" to the Borough Engineer and Surveyor, 14, Cranford Rise, Maidenhead, not later than Thursday, 22nd May, 1952.

Canvassing will be a disqualification and candidates must disclose whether to their knowledge they are related to any member or senior officer of the Council.

STANLEY PLATT,

Town Clerk.

Guildhall, Maidenhead. 6762

### LANCASHIRE COUNTY COUNCIL—

#### PLANNING DEPARTMENT.

**PLANNING ASSISTANT, A.P.T. Grades I-V (£440—£620)** required at Liverpool. Salary according to qualifications and experience. Candidates for Grade V should be qualified by professional examination as Architects, Surveyors, Engineers or Town Planners, and for Grades I-IV possess a University Degree or the Intermediate Certificate of an appropriate professional body.

Applications, giving present salary and two referees (preferably one should be present employer), to County Planning Officer, East Cliff County Offices, Preston, by 21st May, 1952. 6770

### HUNTINGDON COUNTY COUNCIL.

#### ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) **QUANTITY SURVEYING ASSISTANT, Grade II-III, A.P.T. Salary £470 × £15—£545** per annum.

(b) **ARCHITECTURAL ASSISTANT, Grade II, A.P.T. Salary £470 × £15—£515** per annum.

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

Applications, stating age, qualifications, experience, present position and salary, together with copies of two recent testimonials or the names of two persons to whom reference could be made, should be delivered to S. J. Hands, A.R.I.B.A., County Architect, County Buildings, Huntingdon, by Friday, 16th May, 1952.

JOHN KELLY,

Clerk of the County Council.

County Buildings, Huntingdon. 6771

### SURREY COUNTY COUNCIL.

#### EDUCATION COMMITTEE.

#### KINGSTON SCHOOL OF ART.

Applications are invited for the following appointments in the Department of Architecture, commencing 1st September, 1952, or as near that date as possible:—

(1) **SENIOR LECTURER**. Salary: Men £1,000 × £25—£1,150 per annum.

(2) **LECTURER**. Salary: Men £900 × £25—£1,000 per annum.

Candidates for these posts should be well qualified professionally, have had varied practical experience and some previous architectural school teaching experience. Ability to lecture in any of the subjects taken in the Examinations of the Royal Institute of British Architects will be an additional qualification. In addition to instruction in the day school the applicants appointed will be required to undertake additional duties as follows:—

(i) Senior Lecturer to assist the Head of Department in the organisation and administration of the department.

(ii) Lecturer to be responsible, under the Head of Department, for the organisation and administration of the Evening School of Architecture.

(3) **PART-TIME STUDIO INSTRUCTORS** on a basis of three seven-hour days weekly. Applicants should be well qualified professionally, have had varied practical experience and be capable of instructing in any subject taken in the Examinations of the Royal Institute of British Architects. Previous teaching experience will be an additional qualification.

(4) **PART-TIME INSTRUCTOR** in Sound Control and Acoustic Design for one seven-hour day weekly.

Salary for part-time appointments in accordance with the rates approved by the Education Committee.

Application forms and further particulars, including details of part-time rates of salary, may be obtained upon receipt of a stamped addressed envelope, from the Registrar, Kingston School of Art, Knight's Park, Kingston-upon-Thames, Surrey, to whom the completed form should be returned within 21 days of the appearance of this notice. 6773

### BOROUGH OF DAGENHAM.

#### ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointment of Architectural Assistant, Grade A.P.T. IV. Salary: £530—£575 per annum, plus London Weighting (i.e., £30 per annum at age 26 and over). Preference will be given to applicants holding the R.I.B.A. Intermediate Examination or similar qualification. Form of application, together with further details of the post, from the Borough Engineer and Surveyor. Closing date 17th May, 1952. Canvassing disqualifies. Housing accommodation may be made available.

KEITH LAUDER,

Town Clerk.

Civic Centre, Dagenham. 6780

### ROYAL BOROUGH OF KINGSTON-UPON-THAMES.

#### BOROUGH SURVEYOR'S DEPARTMENT.

#### ARCHITECTURAL ASSISTANT.

Applications are invited for the above-mentioned appointment on the permanent staff of the Borough Surveyor's Department.

The salary for the post will be in accordance with A.P.T. Division, Grade Va (£600 × £20—£660 per annum) plus London Weighting.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, terminable by one month's notice on either side and the successful applicant will be required to pass a medical examination.

Candidates for the post must have passed the Final Examination of the Royal Institute of British Architects and must be Registered Architects. Municipal experience will be an advantage.

Applications, endorsed "Architectural Assistant," stating age, qualifications, present and previous appointments and experience, together with the names of three referees, must reach the undersigned not later than 16th May, 1952.

Consideration will be given to the provision of housing accommodation for the successful applicant if required.

A. W. FORSDIKE,

Town Clerk.

Guildhall, Kingston-upon-Thames.

25th April, 1952. 6772

### CITY OF BIRMINGHAM.

#### EDUCATION COMMITTEE.

#### APPOINTMENT OF ARCHITECT.

Applications are invited for the post of Architect to the Birmingham Education Committee. Salary: £1,750 × £100—£2,150. Further particulars of the post, together with forms of application which should be returned not later than 26th May, 1952, may be obtained (s.a.e.) from the undersigned.

E. L. RUSSELL,

Chief Education Officer.

Education Office, General Purposes Branch, Council House, Margaret Street, Birmingham, 3. 6775

### ROYAL TECHNICAL COLLEGE, SALFORD.

#### Principal: P. F. R. Venables, Ph.D., B.Sc., F.R.I.C.

Applications are invited for the following full-time appointments in the Building & Civil Engineering Department:—

**LECTURER IN BUILDING.** Applicants should possess a good professional qualification, such as L.I.O.B., together with considerable industrial experience. Teaching experience, full-time or part-time, is desirable, and candidates will be expected to offer the subjects of Building Construction to the level of the Higher National Diploma in Building, together with Builders' Quantities, Builders' Book-keeping, and Costing and Estimating to the same level.

**ASSISTANT LECTURER, GRADE B, IN BUILDING.** Applicants should possess a recognised professional qualification together with industrial experience. Teaching experience, full-time or part-time is desirable. The duties will include classes up to Ordinary and Higher National Certificate standard in Building Construction, and preference will be given to a candidate able to offer Building Science up to the level of Ordinary National Certificate.

Salaries will be in accordance with the Burnham Technical Scale, 1951, i.e., Lecturer, £900 × £25—£1,000; Assistant Lecturer (Grade B), £450 × £25—£725, plus graduate and training allowances.

Application forms and further particulars from the Principal, Royal Technical College, Peel Park, Salford, 5. Completed forms should be returned within 14 days of the publication of this advertisement.

H. H. TOMSON,

Clerk to the Governors. 6785

### MIDLANDS ELECTRICITY BOARD.

**ARCHITECTURAL ASSISTANT** required in the Birmingham and District Sub-Area Headquarters. The work is varied and interesting, and includes the design of new buildings and alterations to existing buildings to form Sub-stations, Service Centres and Depots. Applicants should have a sound knowledge of industrial and commercial building construction, and appropriate qualifications will be considered an advantage.

Salary £651/£755 per annum, according to qualifications and experience. Position superannuable and conditions of service in accordance with N.J.B. Agreement. Apply within 14 days, stating experience, present salary and position, to: Emil Braathen, Manager, Midlands Electricity Board, 14, Dale End, Birmingham, 4.

A. STEPHENS,

Secretary. 6774



**LONDON ELECTRICITY BOARD.**  
**SUB-AREA BUILDING SUPERINTENDENT.**  
 Applications are invited from persons suitably qualified for the above position in the North Eastern Sub-Area Construction Branch at Stratford, E.15.

Applicants must have had an approved training in the building industry, and by subsequent experience be capable of preparing estimates and specifications, planning building construction work and supervising building work carried out by direct labour or under contract. The successful candidate will be responsible to the Sub-Area Construction Engineer for the supervision of general building work in connection with substations in particular; also for general maintenance works in connection with all classes of building within the Sub-Area.

The post is graded under Schedule "A" of the National Joint Board agreement as Class K, Grade VII (£2886 4s. per annum) rising to £2925 ls. per annum, inclusive of London Allowance.

Application forms from Establishments Officer, 46, New Broad Street, E.C.2, to be returned completed by 17th May, 1952. Please enclose addressed foolscap envelope and quote reference V/1453/A on all correspondence. 6790

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

Applications are invited from suitably qualified persons for the following permanent positions at salaries in accordance with the National Scheme of Service Conditions:—

(a) **SENIOR ASSISTANT QUANTITY SURVEYOR.** Salary A.P.T., Grade VIII (£735-£810 per annum); and

(b) **TWO ASSISTANT ESTIMATING AND MEASURING SURVEYORS.** Salary A.P.T., Grade VII (£685-£760 per annum); also **ONE TEMPORARY ASSISTANT ARCHITECT** for Civil Defence work. Salary A.P.T., Grade V (£570-£620 per annum).

Further particulars and forms of application may be obtained from the City Architect, Town Hall, Manchester 2, the forms to be returned to the same address by 24th May, 1952. Canvassing is prohibited. 6793

**ROYAL WEST OF ENGLAND ACADEMY**  
**SCHOOL OF ARCHITECTURE, BRISTOL.**

Owing to the retirement of the present Principal, applications are invited for the post of **PRINCIPAL**, who will also be a Year Master, at a salary of £1,200 p.a., rising by annual increments of £50 to £1,400 p.a., the appointment to take effect from 1st September, 1952.

Applications should be made in writing, stating particulars of previous experience and the names of two referees, by 14th June, 1952, to the Honorary Secretary, Eustace H. Button, 23, Berkeley Square, Bristol, 8. 6791

**BOROUGH OF ILFORD.**  
**APPOINTMENT OF ARCHITECTURAL ASSISTANT, GRADE A.P.T. IV.**

Applications are invited for the position of Architectural Assistant on the permanent staff of the Borough Engineer's Department. Candidates should possess approved qualifications and have general architectural experience, particularly with regard to the preparation of contracts and working drawings. Preference will be given to candidates who have passed the Intermediate Examination of the R.I.B.A.

Salary in accordance with Grade A.P.T. IV of the National Scales, viz., £530-£575 per annum, plus the appropriate London Weighting.

The appointment will be superannuable and he subject to one month's notice on either side, to the National Conditions of Service and to the passing of a medical examination. The appointment will be a whole-time one (private practice being prohibited).

Forms of application may be obtained from the Town Clerk, Town Hall, Ilford, and should be returned not later than 19th May, 1952. 6776

**CITY OF BELFAST.**  
**APPOINTMENT OF QUANTITY SURVEYOR.**

Applications are invited for the position of Quantity Surveyor in the Education Architect's Department.

Candidates should have sound experience of preparation of Bills of Quantities, preparation of estimates, valuations for certificates and the measurement and adjustment of final accounts.

Preference will be given to Corporate Members of the Royal Institution of Chartered Surveyors.

The scale of salary for the position is £720 × £25-£795 × £20-£815 per annum.

The commencing figure of remuneration will be determined by the experience and suitability of the successful applicant. Superannuation contributions will be payable at the rate of approximately 6 per cent. of remuneration.

Preference will be given to ex-Service candidates possessing the necessary qualifications, provided the appointing authority is satisfied such candidates can, or within a reasonable time will be able to, fill the post efficiently.

Canvassing in any form, oral or written, direct or indirect, will, if proved to the satisfaction of the appointing authority, disqualify a candidate for appointment.

Forms of application and conditions of appointment may be obtained from the Director of Education, Academy Street, Belfast. Applications, in envelopes, suitably endorsed, should reach the undersigned not later than 4 p.m. on Wednesday, 21st May, 1952.

**JOHN DUNLOP,**  
 Town Clerk.

City Hall, Belfast.  
 30th April, 1952. 6798

**CITY OF PORT ELIZABETH.**

**VACANCY**  
**TEMPORARY SENIOR ARCHITECTURAL ASSISTANT.**

Applications are invited from suitably qualified and experienced persons for the post of Temporary Senior Architectural Assistant, in the Architectural Section of the City and Water Engineer's Department, at a fixed salary at the rate of £800 per annum, such appointments to be for a period of three years. At present the cost-of-living allowance is on the following basis, and payable to married and single persons, respectively, viz.:—Married persons, £190 per annum; single persons, £136 per annum.

Preference will be given to Associates of the Royal Institute of British Architects.

Applicants must have had a thorough training in Architectural design and the construction of major projects.

Applications, containing full details concerning age, qualifications and experience, and enclosing copies of not more than three recent testimonials, will be received by Messrs. Davis & Soper, Ltd., 52 and 54, St. Mary Axe, London, E.C.3, not later than Saturday, the 31st May, 1952.

**G. H. BREWER,**  
 Acting Town Clerk. 6779

28th April, 1952.

**WAR DEPARTMENT.**

There are vacancies in the C.R.E. Office, Catterick Camp, Yorkshire, for **ARCHITECTURAL ASSISTANTS** with recognised training and fair experience. Successful candidates will be employed on a wide variety of work including part Surveying and Levelling.

Starting pay will be assessed according to age, qualifications and experience.

Salary £340 × £20-£575 per annum less provincial differentiation plus a permanent addition of 10 per cent. up to £500 and 5 per cent. above £500.

Apply in writing, stating age, nationality, and full details of experience to: C.R.E. Catterick, Catterick Camp, Yorkshire. 6794

**WIGSTON URBAN DISTRICT COUNCIL.**  
**ENGINEER & SURVEYOR'S DEPARTMENT.**  
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W. H. GUNNING,  
Clerk of the Council.

Council Offices, Wigston.  
1st May, 1952. 6792

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## APPOINTMENT OF CLERK OF WORKS.

Applications are invited for the appointment of a Clerk of Works to supervise the erection of the new Peterhouse Junior School.

The appointment will be temporary, for approximately two years, and subject to one month's notice on either side.

The salary will be £12 per week.

Applicants must have a thorough knowledge of the building trade, including experience in connection with steel-framed buildings. They must be conversant with plans, specifications, bills of quantities and competent to set out work, give levels and keep all necessary records and progress reports.

Applications, stating age, qualifications, present employment and previous experience, accompanied by copies of three testimonials, should be enclosed in an envelope endorsed "Clerk of Works, Schools" and must be received by me not later than 30th May, 1952.

Canvassing directly or indirectly will be deemed a disqualification, and candidates must disclose in writing whether, to their knowledge, they are related to any member, or holder of any senior office under the Council. Candidates who fail to do so will be disqualified and, if appointed, will be liable to dismissal without notice.

D. G. FARROW,  
Chief Education Officer.

22, Euston Road,  
Great Yarmouth.  
18th April, 1952. 6789

## CORPORATION OF DUNDEE.

Applications are invited for the following appointments in the City Architect's Department:—

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(b) TWO ASSISTANT ARCHITECTS. A.P.T.D., Grade II, III or IV. Salary £460 to £565 per annum.

Applicants should be members of the Royal Institute of British Architects and placings in the various grades will be made according to qualifications and experience.

Appointments will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937, and successful applicants will require to pass a medical examination.

Applications, stating the particular appointment for which they are applying, and giving age, qualifications and experience, along with copies of two recent testimonials, to be lodged with the undersigned on or before Tuesday, 27th May, 1952.

ROBERT LYLE,  
Town Clerk.

City Chambers, Dundee.  
2nd May, 1952. 6797

## COUNTY COUNCIL OF RENFREW.

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The appointments are subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937. Applications, stating age, qualifications and experience, together with copies of two recent testimonials, should be lodged within ten days with the County Clerk, County Buildings, Paisley. 6788

## Architectural Appointments Vacant

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

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

ASSISTANT required, aged 20-25. Write giving full particulars, salary required. C. W. Shrimplin, A.R.I.B.A., Prudential Chambers, Upper George Street, Luton, Beds. 6782

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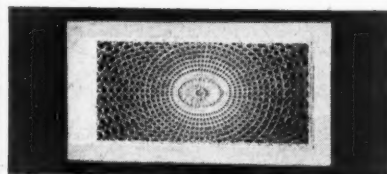
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**ARBOLITE METAL CASEMENT PUTTY** is supplied in a "ready for use" consistency and consequently requires no pre-mixing on the site. It works easily, points neatly and remains exactly as finished without shrinking, cracking or wrinkling. Arbolite has excellent keying properties and ensures a tight, tough waterproof joint, adding considerably to the life of metal windows.

**ARBOMAST B.I BEDDING MASTIC** withstands the most rigorous climatic conditions and eliminates all possibility of running, sagging and staining. Equally suitable for bedding frames into brick or wood surrounds, or for completely filling the interstices when composite units are coupled together with mullion and transom bars.

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