

THE ARCHITECTS' JOURNAL



standard contents

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

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

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	Sloane 3158/1601
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2450
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	Museum 1783
I of Arb.	Institute of Arbitrators, 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197/5176
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
IWA	Inland Waterways Association. 11, Gower Street, W.C.1.	Museum 9200
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	MARS Group (English Branch of CIAM). Secretary: Gontran Goulden, Building Centre, 9, Conduit Street, W.1.	Mayfair 8641
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers. 10, Princes Street, S.W.1.	Abbey 5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington.	Molesey 1380
NSA	National Sawmilling Association. 14, New Bridge Street, E.C.4.	City 1476
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Whitehall 9936
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSJ	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 14, Moorgate, London, E.C.2.	Central 4444
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Langham 1984
SNHTPC	Scottish National Housing Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 4771
TGC	The Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 69, Cannon Street, E.C.4.	City 4444
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	Mayfair 8866
WEDA	Welfare Equipment Development Association. 74, Victoria Street, S.W.1.	Victoria 5783
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

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S.W.1. Phone: Whitehall 0611

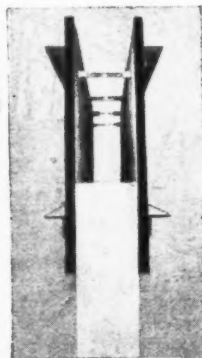
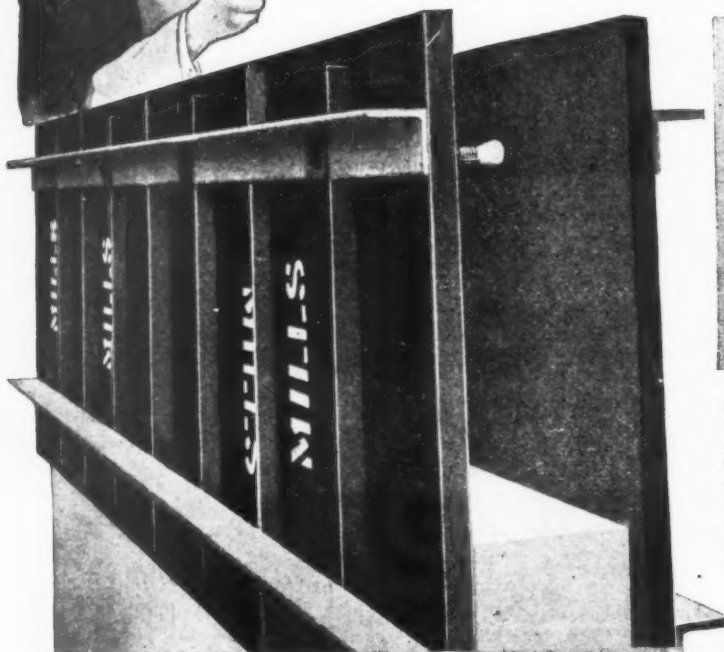
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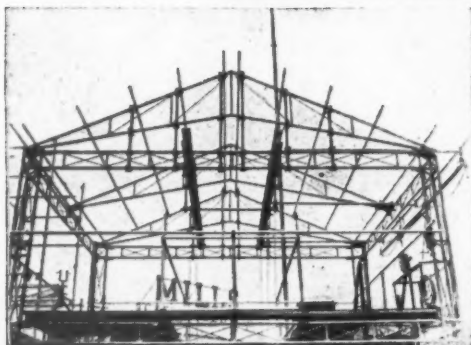
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(Left and above left)
The use of Milforms for wall shuttering with angle-iron wallings and "Rawlties". This shuttering is self-supporting and automatically aligning. A light access-scaffold only would be required in addition to the above items.



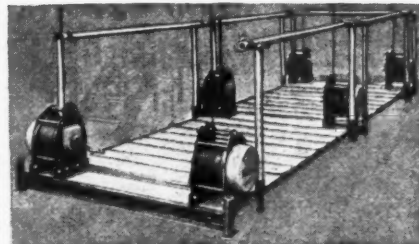
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These two illustrations show the use of angle-iron studs and clamps with Milforms to shutter a 2 ft. x 2 ft. column.



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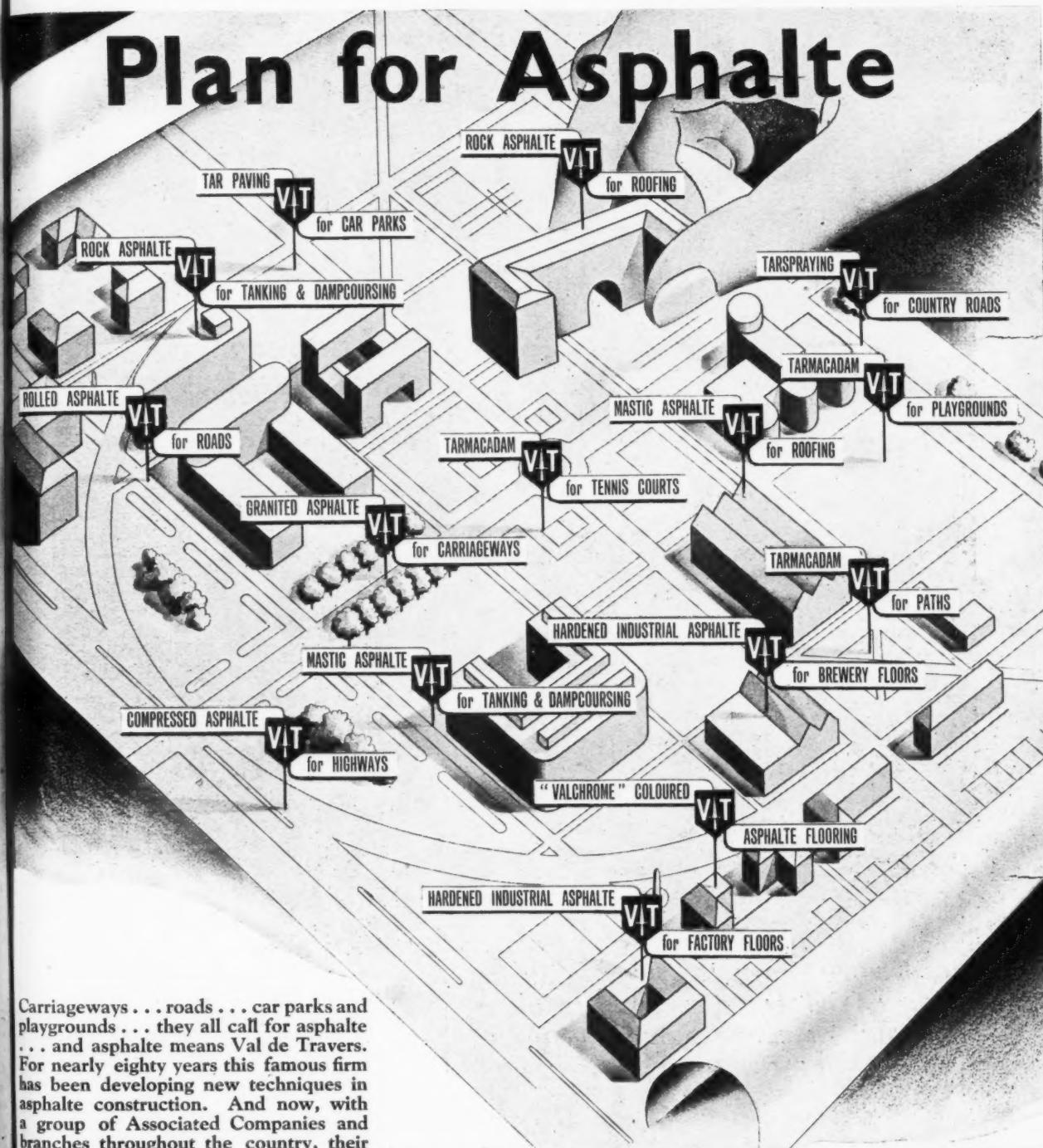


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PETERBOROUGH CORPORATION HOUSING SCHEME, PETERBOROUGH, NORTHANTS.
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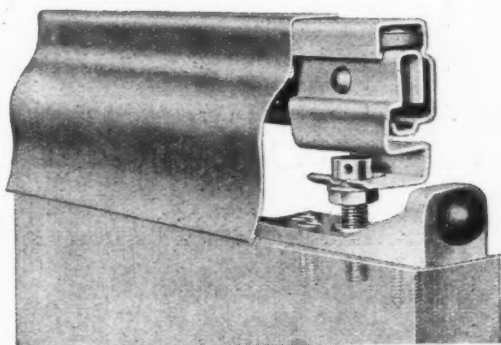
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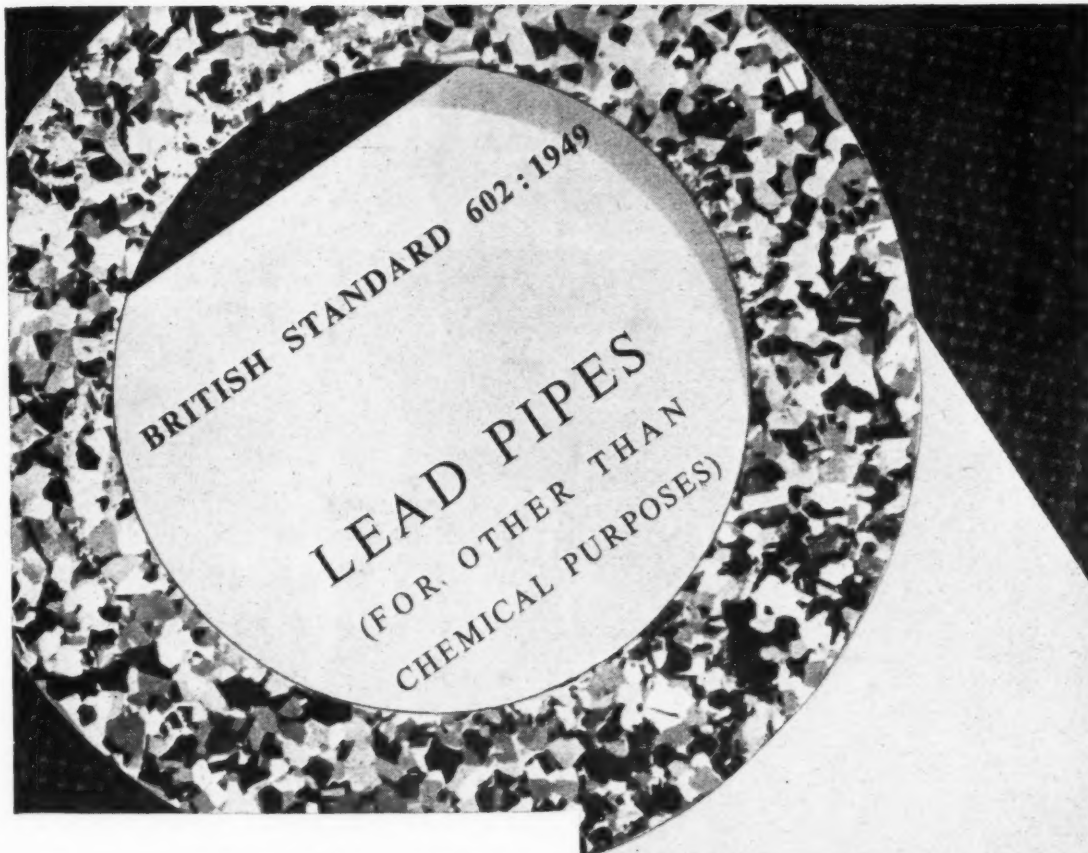
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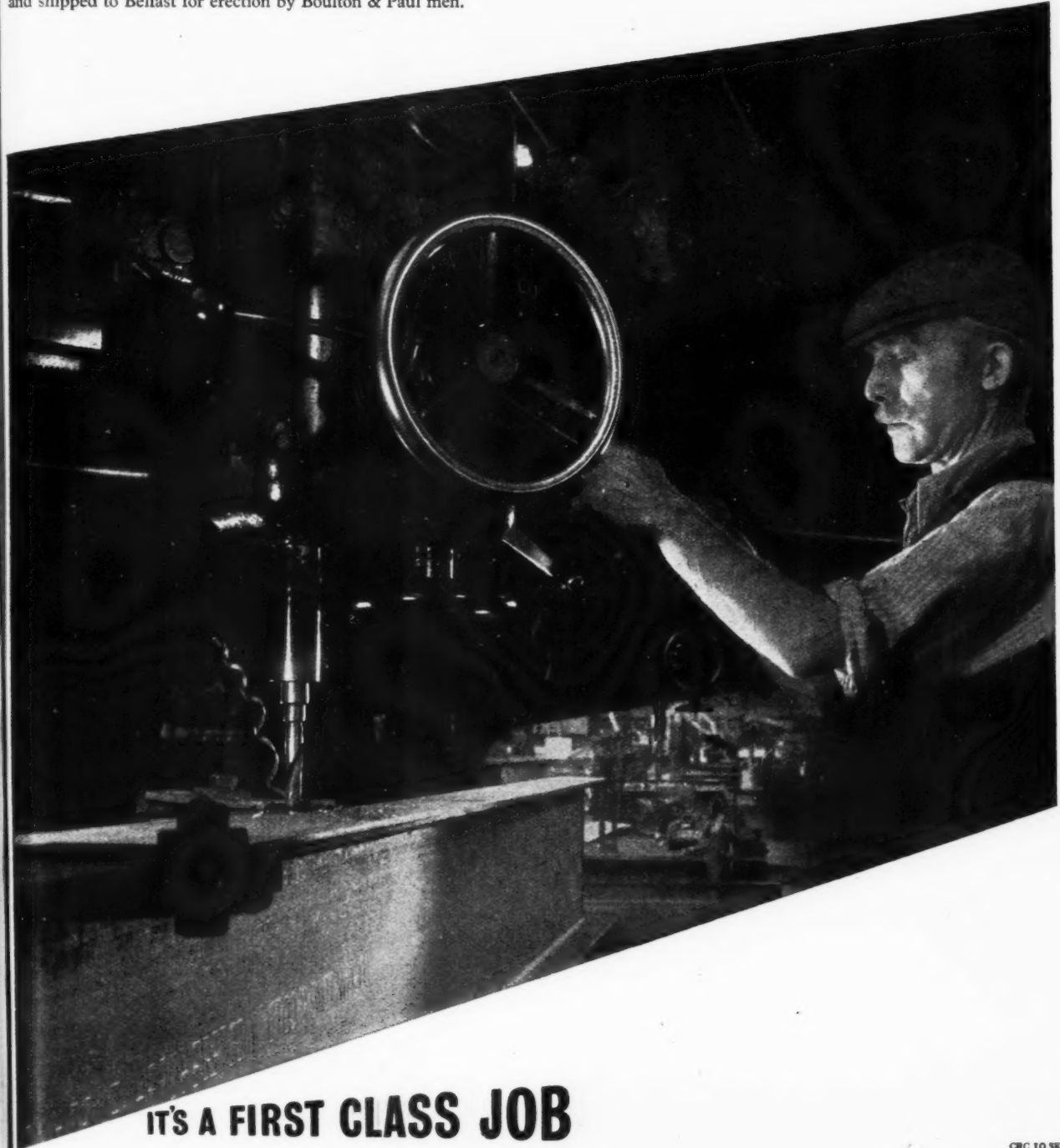
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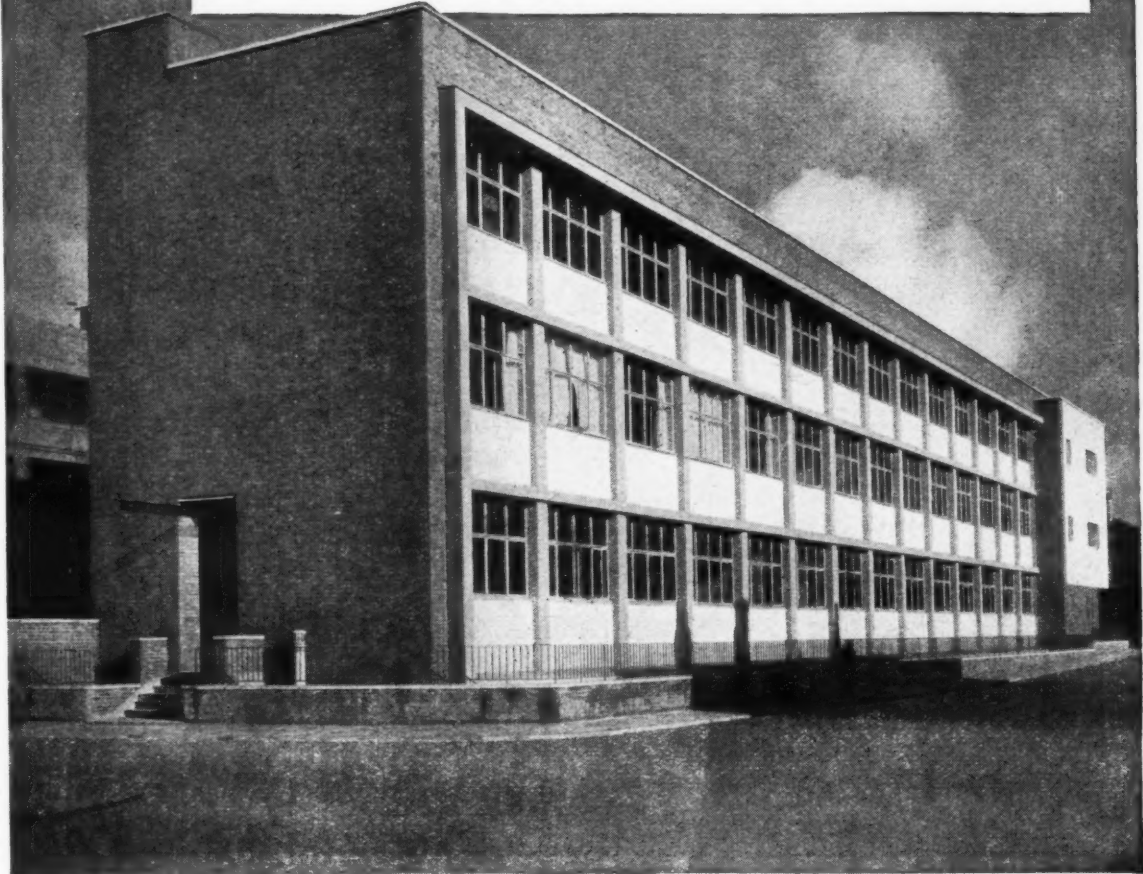


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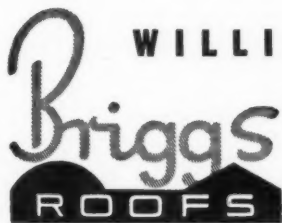


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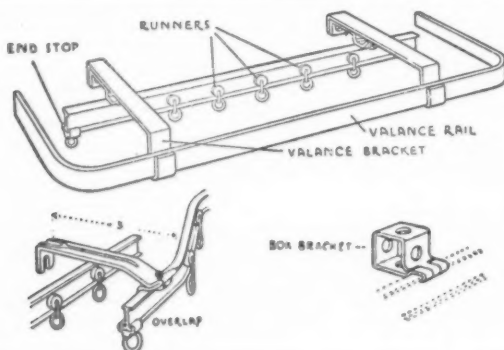
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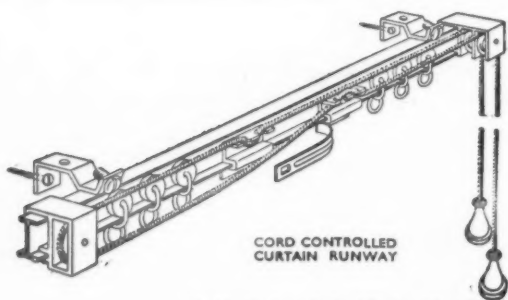
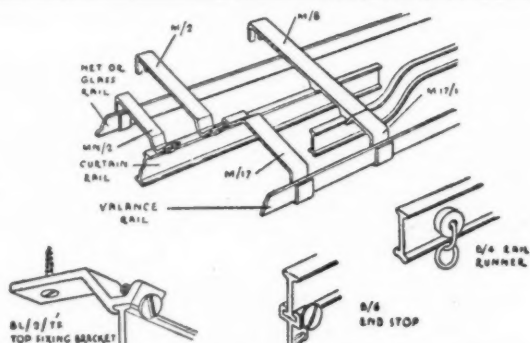
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Architect's Journal: the following Information Sheets are available and will be sent on request to manufacturers.
SHEET 44 D.1. ('RUFFLETTE' RECESSED RUNWAY). SHEET 44 D.2. ('RUFFLETTE' B/L and M Type Runways).

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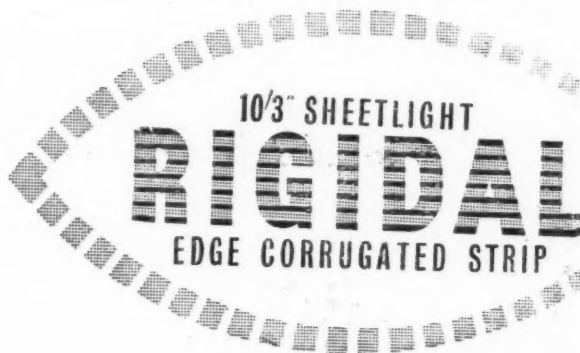
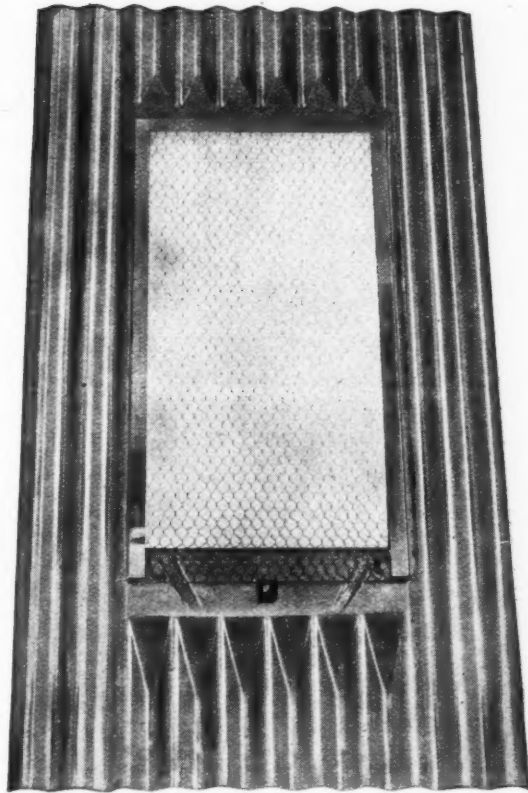
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Full details of the 10/3" RIGIDAL Sheetlight are contained in a leaflet, available from The British Aluminium Company on request.

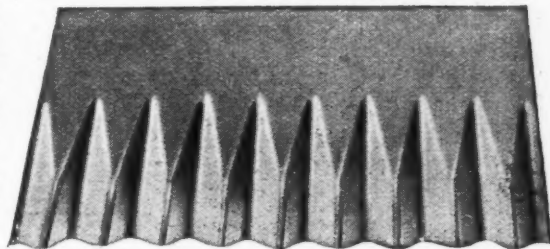


DIMENSIONS AND WEIGHTS

Nominal Width	2ft. 8in.
Nominal Length	5ft. 0in.
Total Weight	22½ lbs.
Weight Unglazed	8 lbs.
Glass Size (approx.)	3ft. 0in. x 1ft. 6in.
Daylight Area	3.66 sq. ft.

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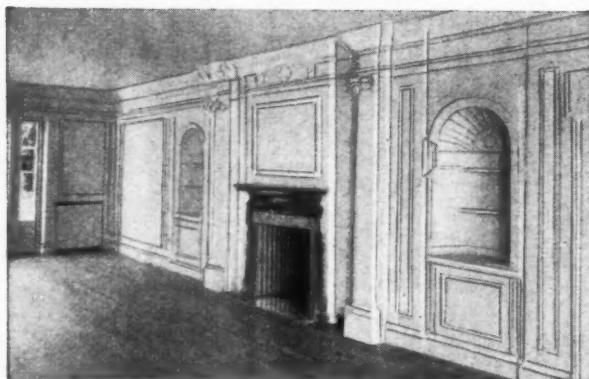
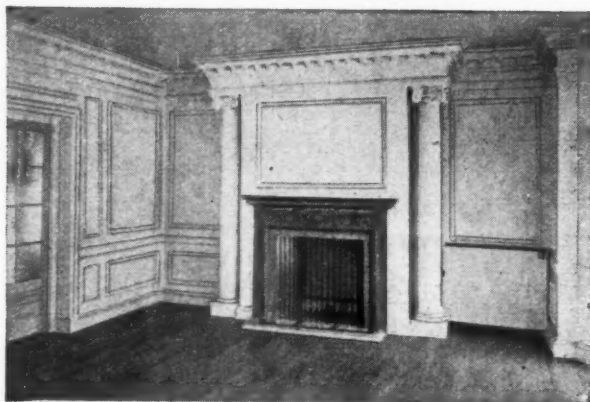
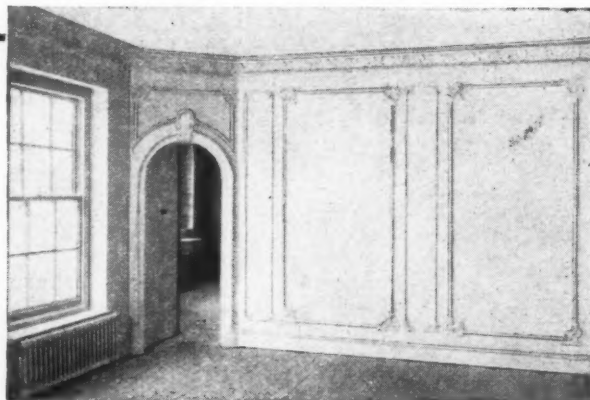


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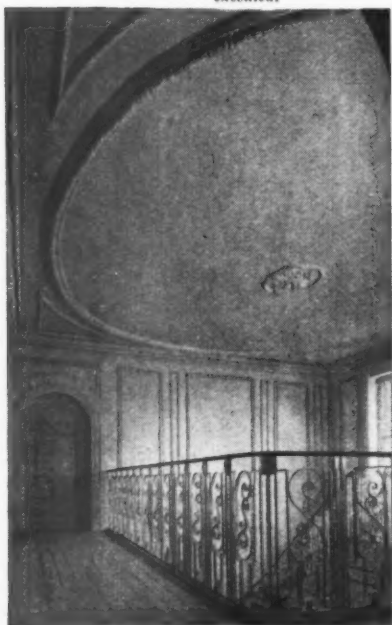


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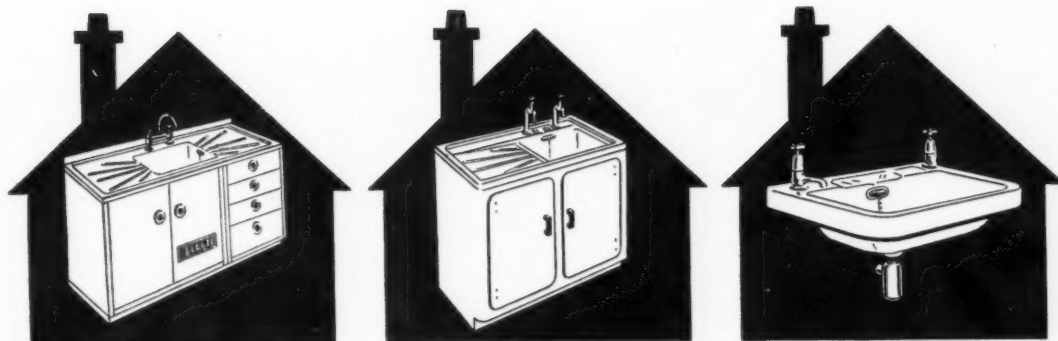


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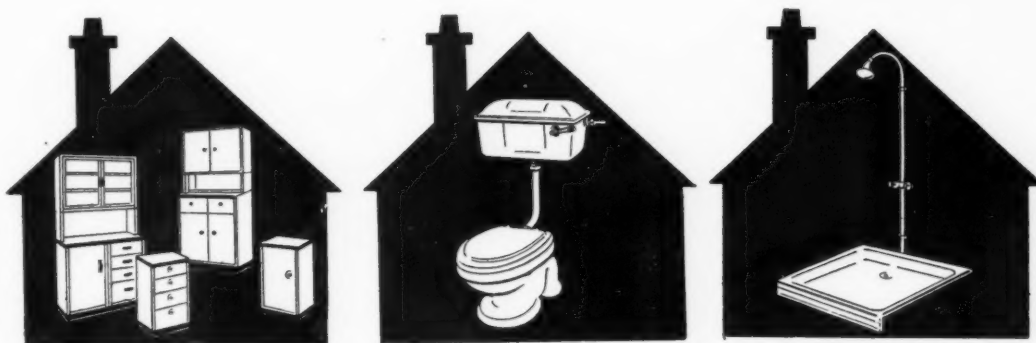
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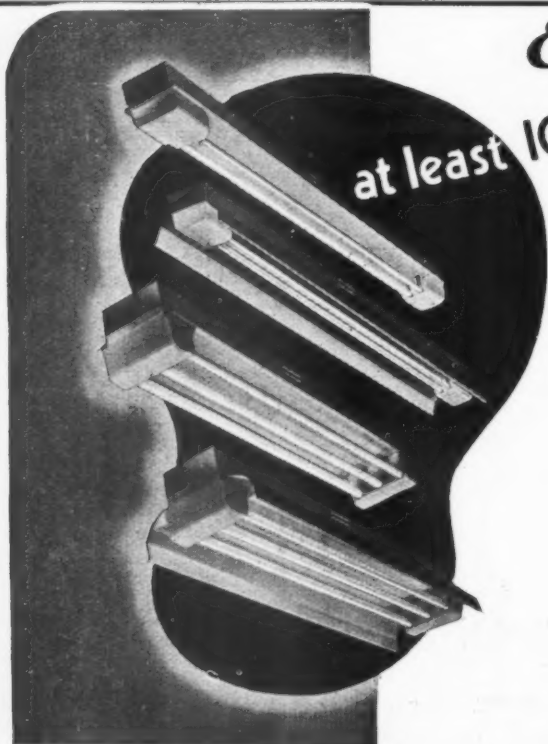
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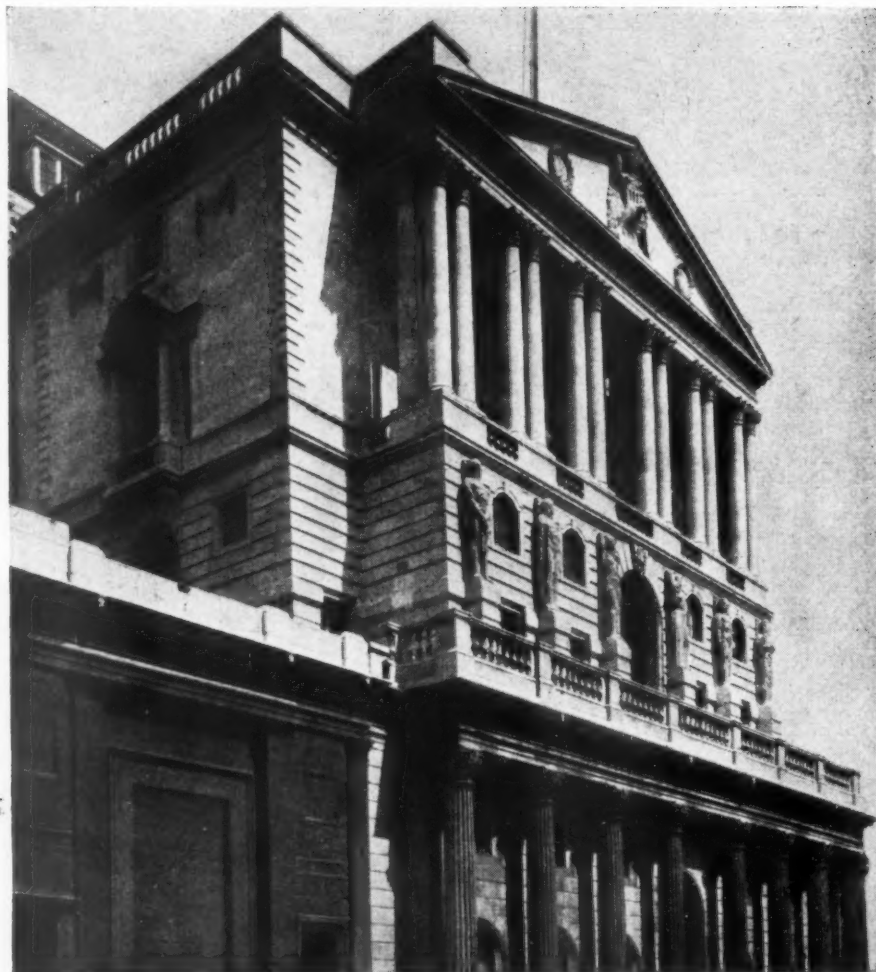
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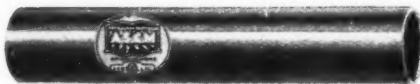
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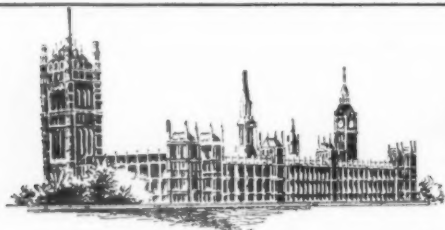
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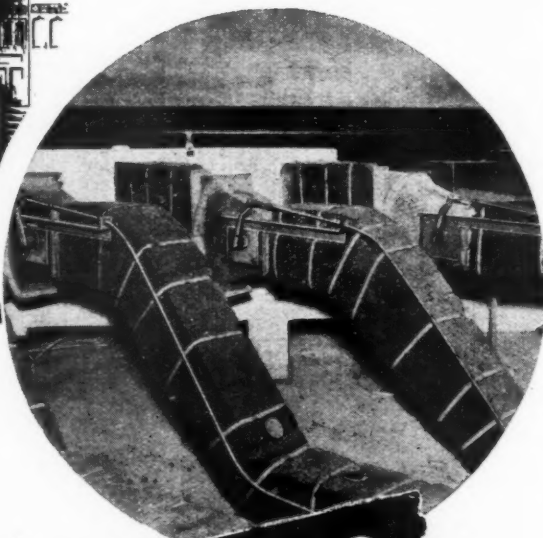
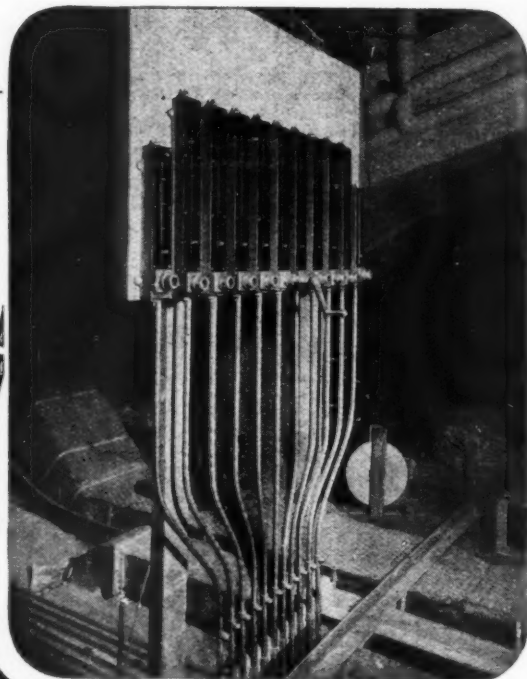
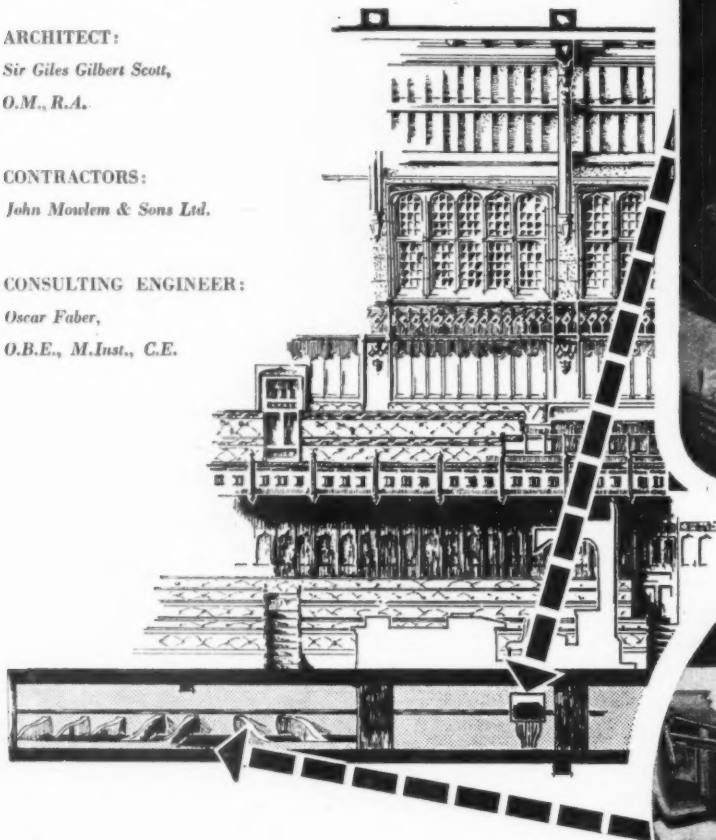
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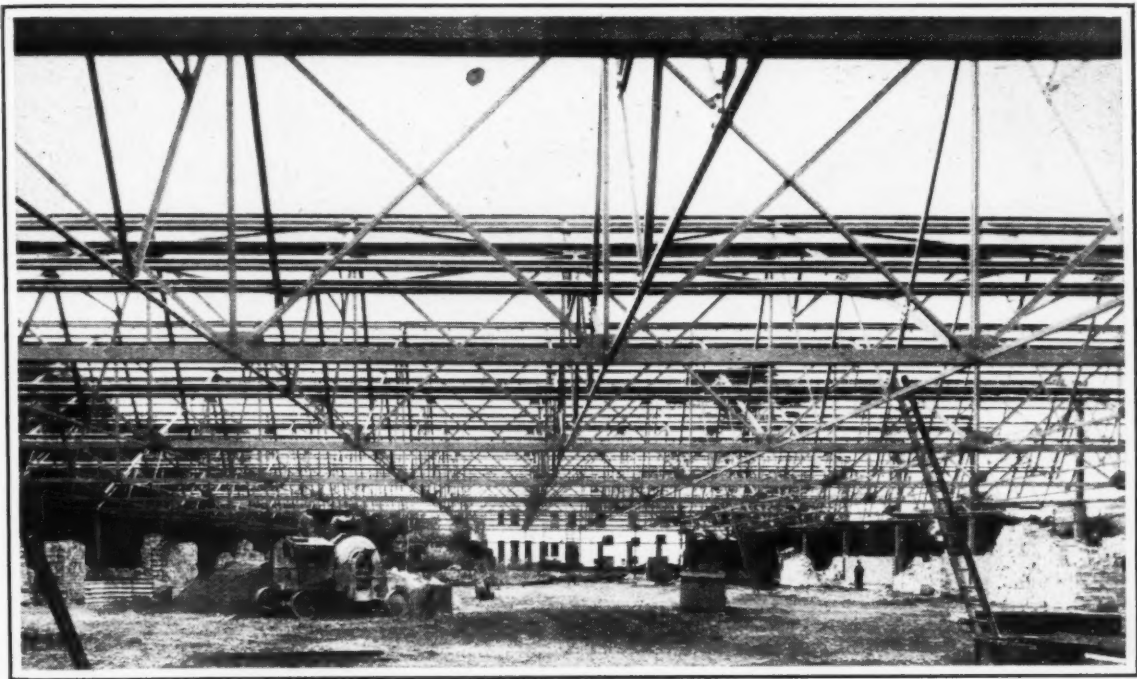
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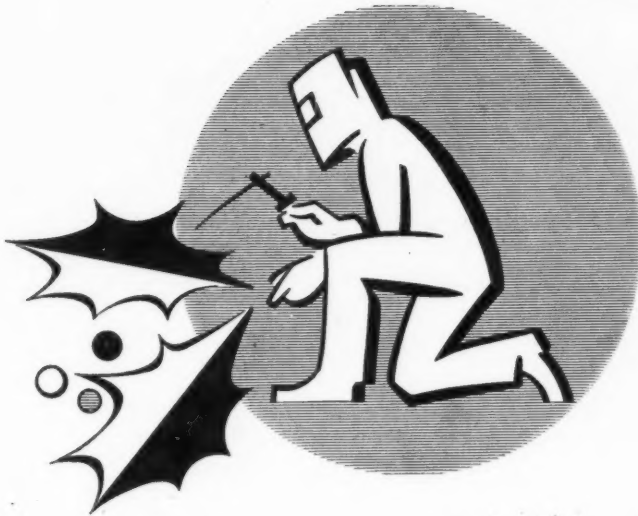
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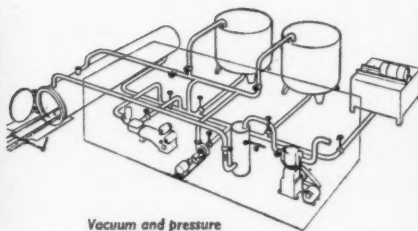
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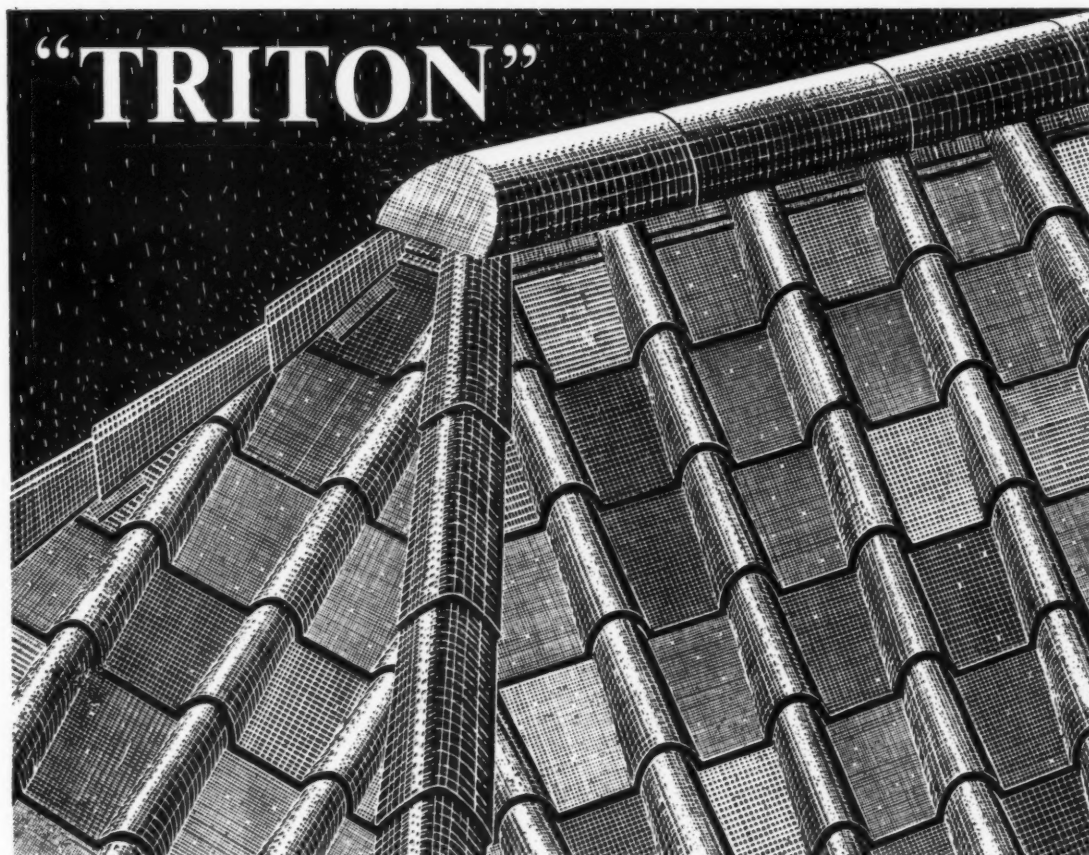
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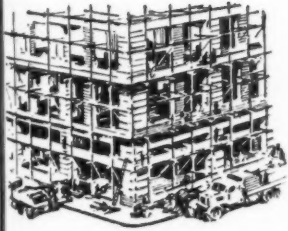


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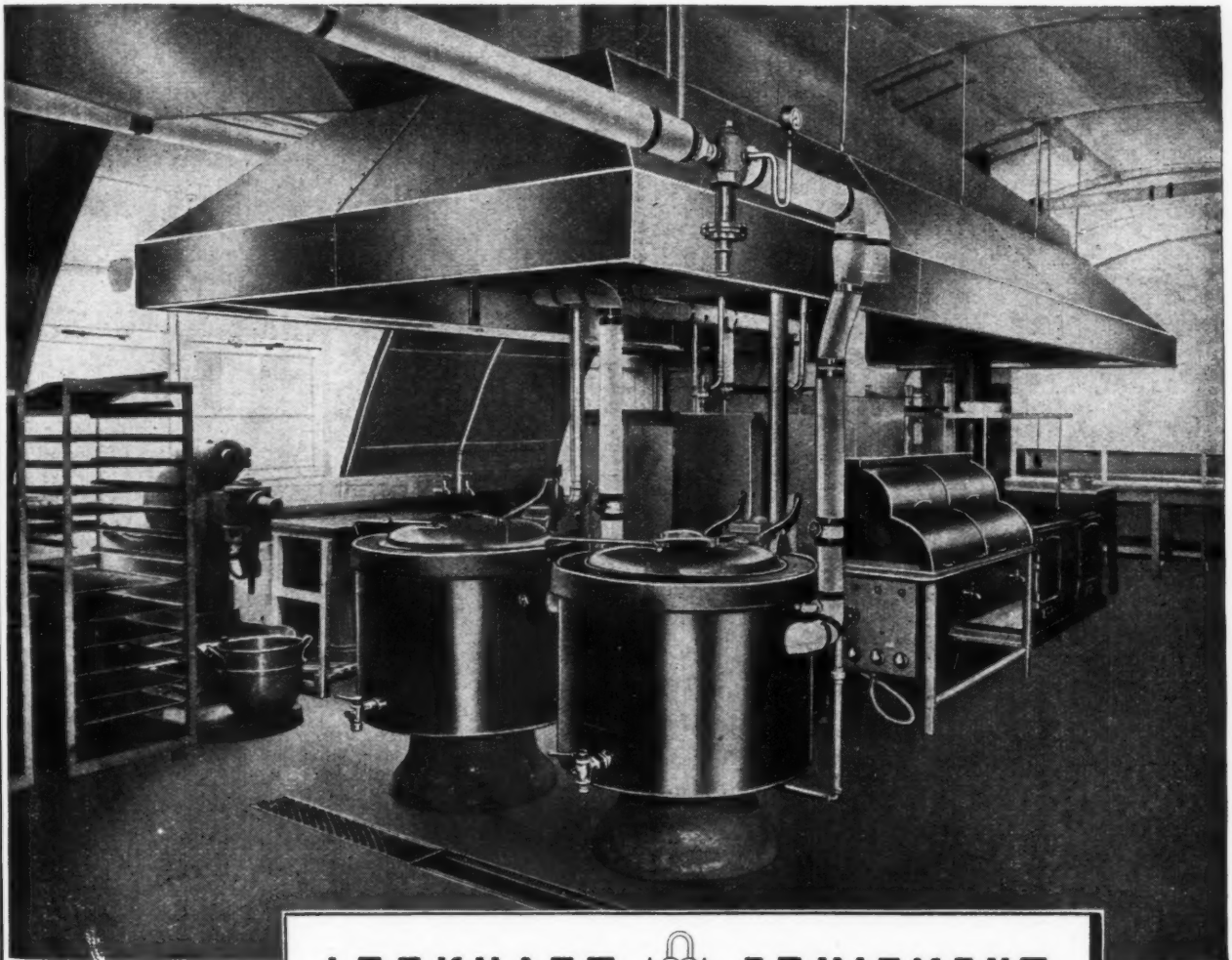
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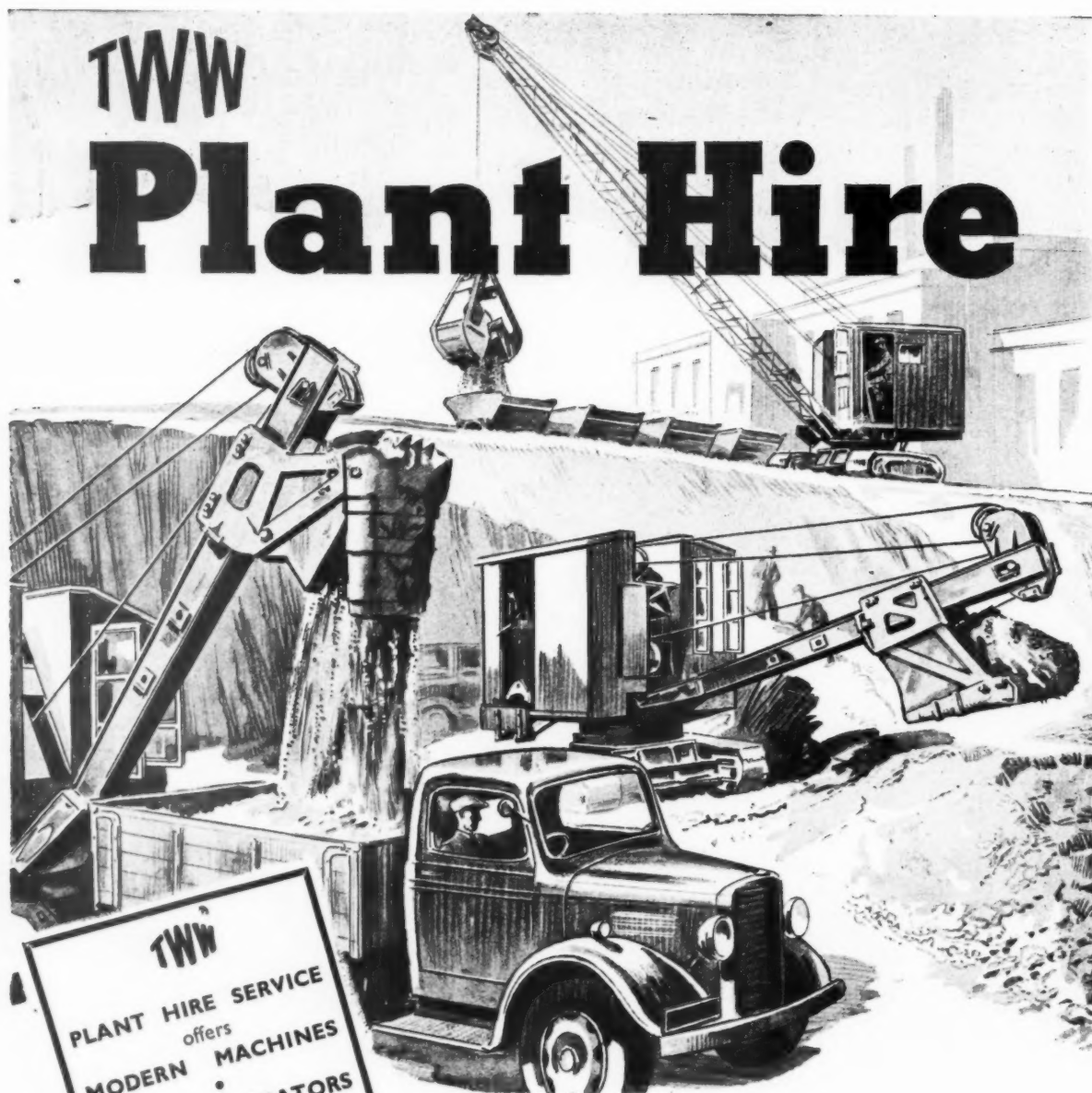
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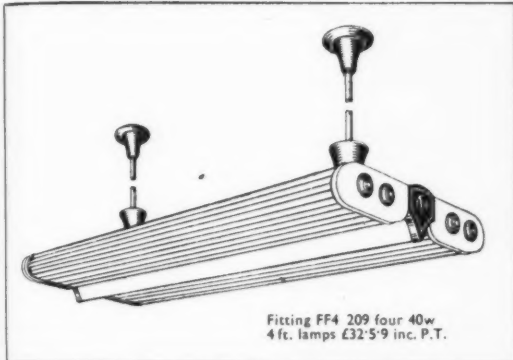
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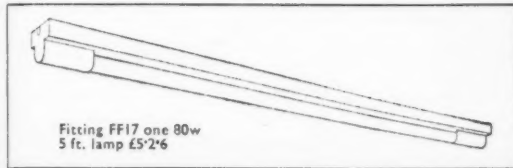
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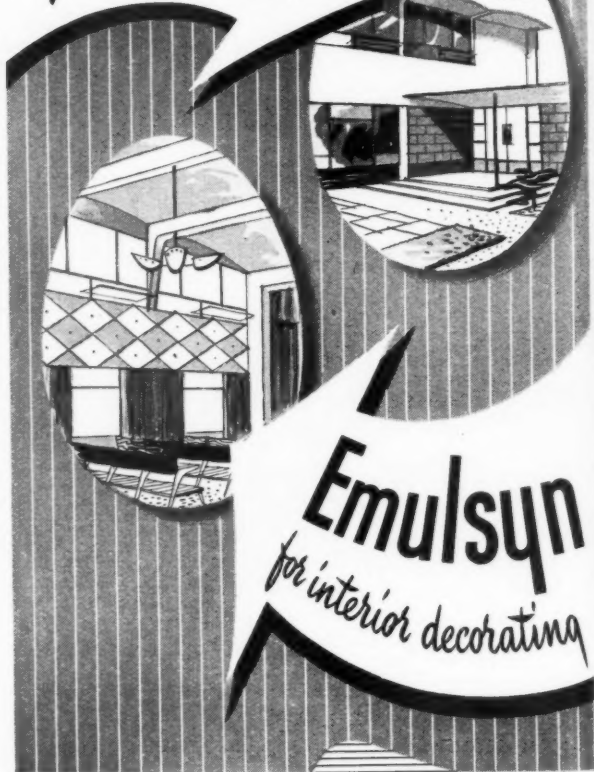
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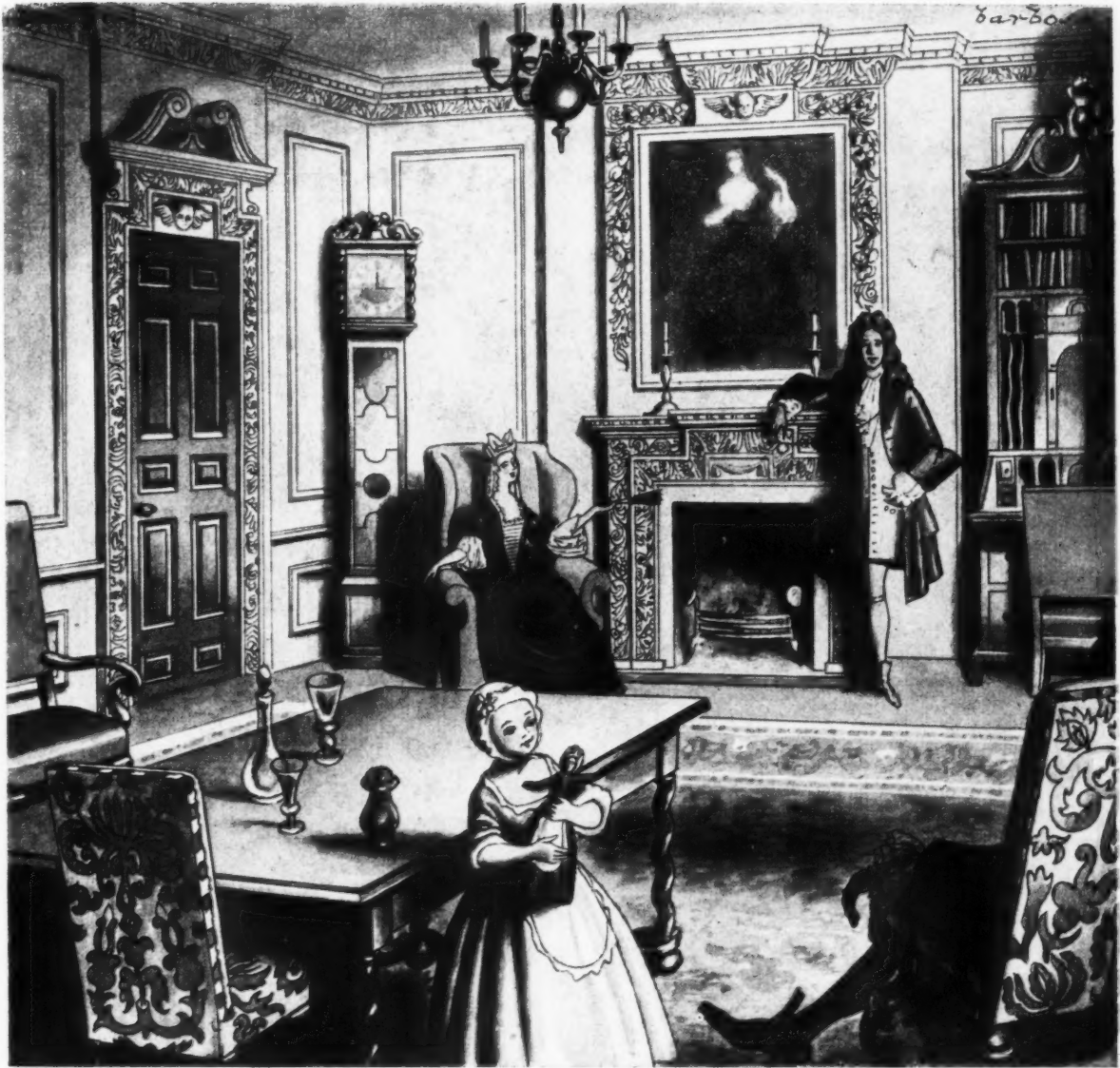


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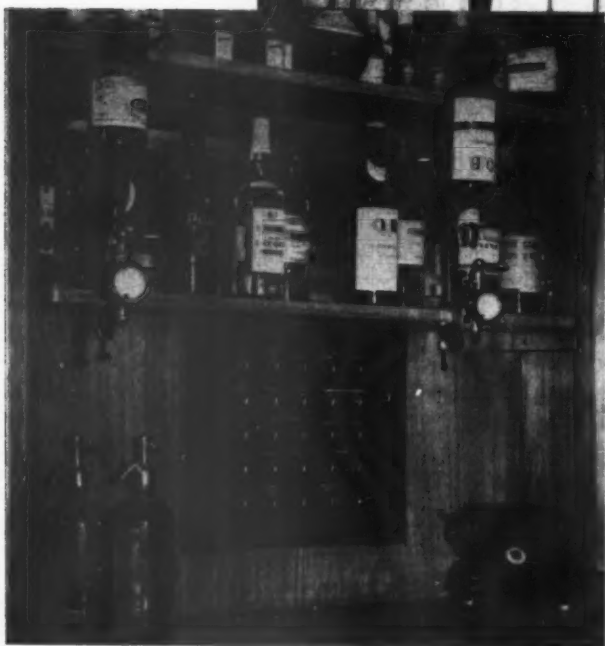
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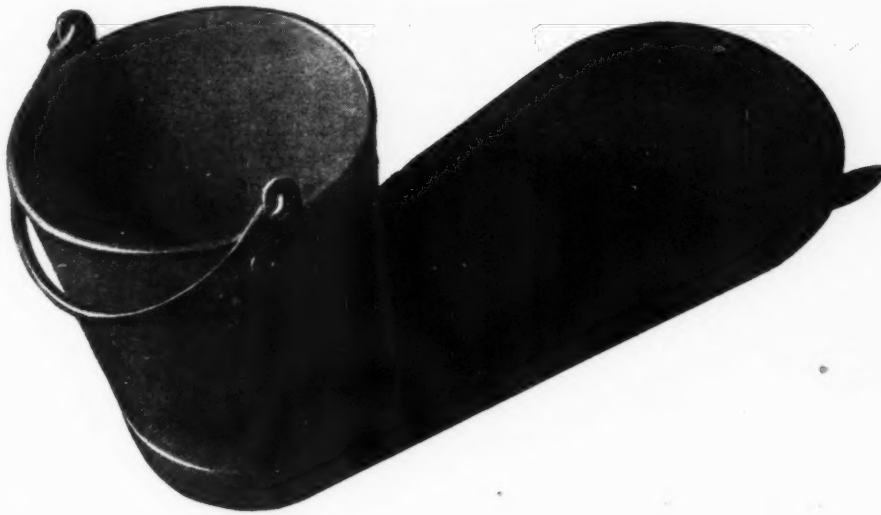
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Why the bucket stuck it!

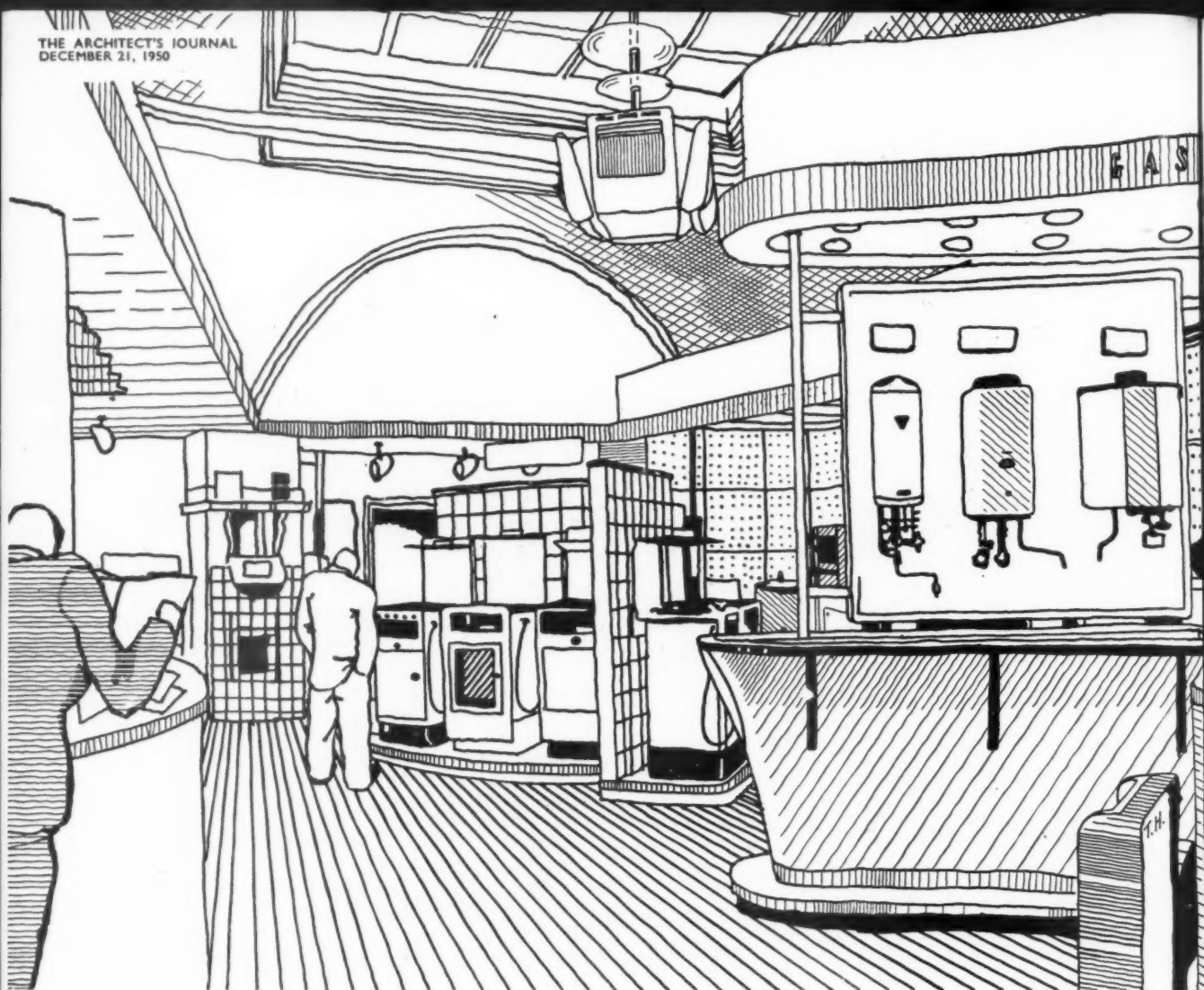
What other article in daily, universal use gets the rough treatment meted out to the humble bucket? Have you ever thought why the bucket which served you so many years, stood up so well to the knocking about it received? The answer is a simple one —

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“GAS in the design for living”

UNDER THIS TITLE The Gas Council maintains, at the London Building Centre, a permanent exhibit the object of which is to provide a convenient centre to which architects, builders and housing authorities may come in order to keep abreast of the latest developments in gas services. The exhibit is largely devoted to the domestic uses of gas and coke, but also deals with large-scale catering equipment and other commercial and industrial appliances. A technical assistant is in attendance to give information and advice, and visits from individuals or organised parties will be welcomed (the latter preferably with prior notice).

This exhibit is one of many activities by which The Gas Council seeks to promote the development of gas services for cooking, hot water, space heating and refrigeration. In all cases where the use of gas is envisaged early consultation with the local Gas Undertaking is advisable.

GAS



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wish for Christmas and 'smooth' going
throughout the New Year.



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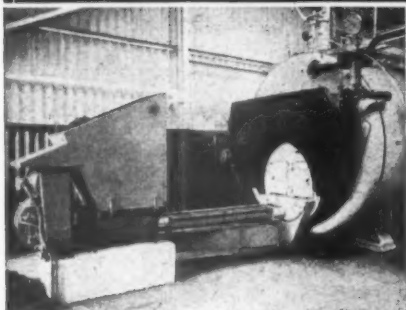
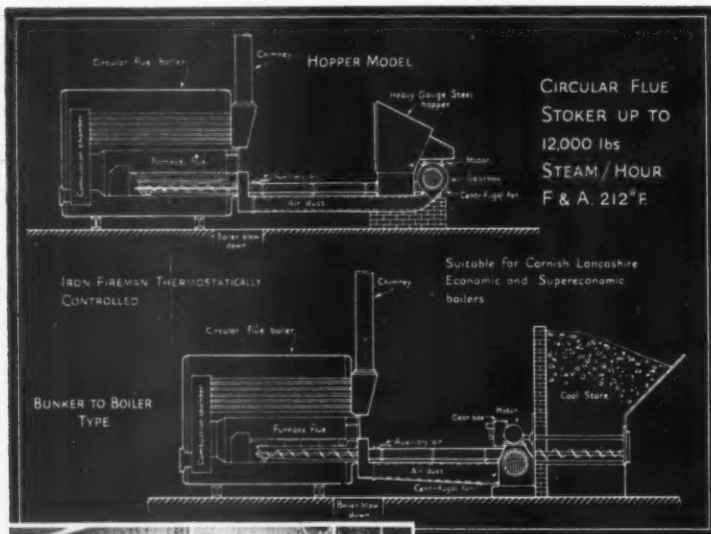
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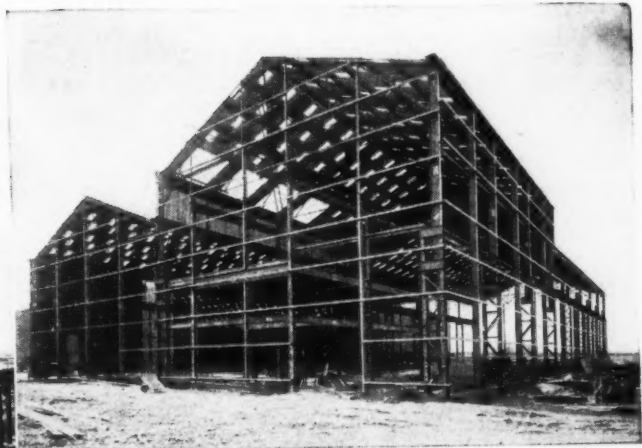
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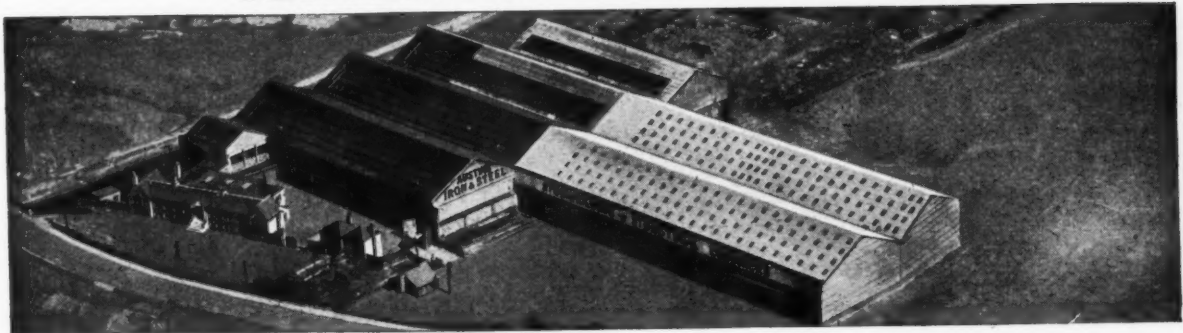
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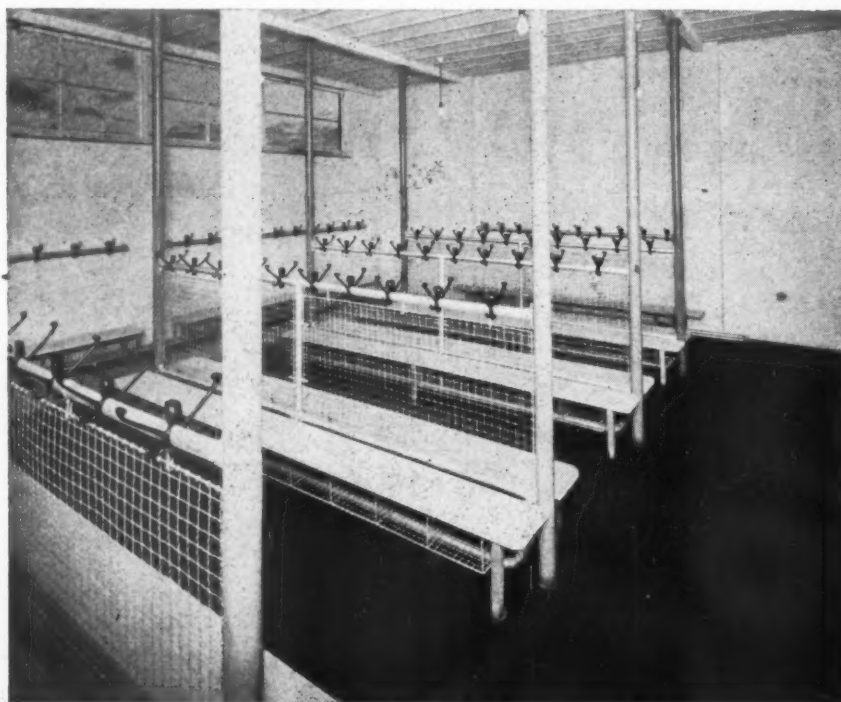


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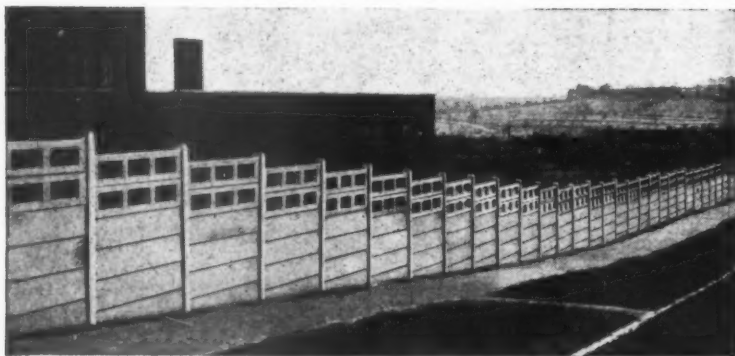


Cloakroom Equipment Ltd. is concerned solely with the manufacture, fabrication and erection of cloakroom and clothing storage facilities and allied equipment for all purposes, offering a specialist service fully qualified for the correct interpretation of architects' needs and specifications.

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**Building Research Station Tests Prove
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The summary quoted below heads the report of a special investigation on the behaviour of $\frac{3}{4}$ " "Plimberite" (standard grade) under static and impact loading.

$\frac{3}{4}$ in. "Plimberite" board, made from wood chips and synthetic resin, has been tested under vertical static and impact loads when nailed over timber joists at 16 in. centres.

In the tests the board sustained no damage when

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Damage under standard impacts used for checking house floors was slight and, provided that the board is supported and nailed at all edges, it can be regarded as satisfactory for houses and probably also for offices."

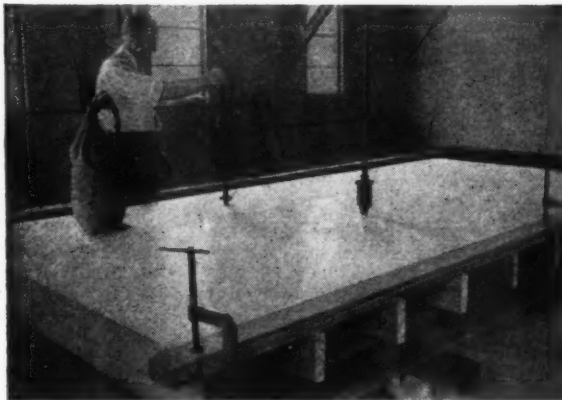


Fig. 1. - Rig and Gear for applying impact tests.

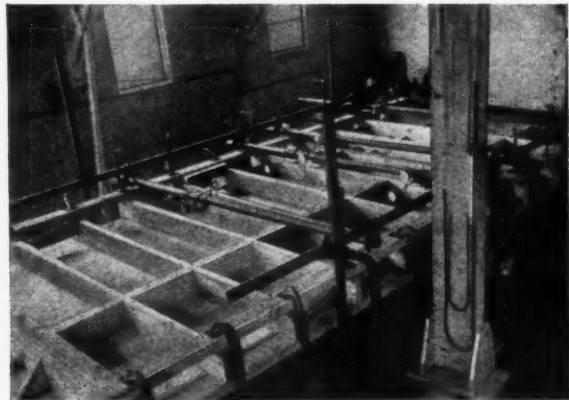


Fig. 2. - Rig for static loading tests. (Floor section is inverted, with captive airbag beneath for loading.)

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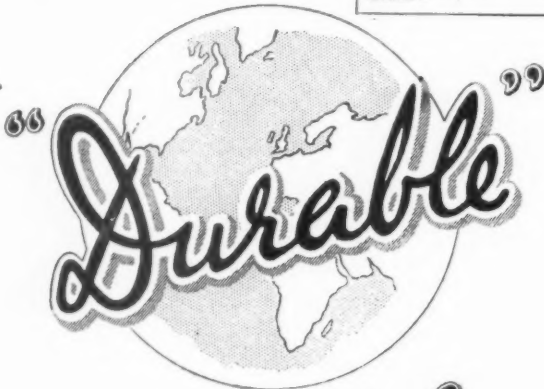
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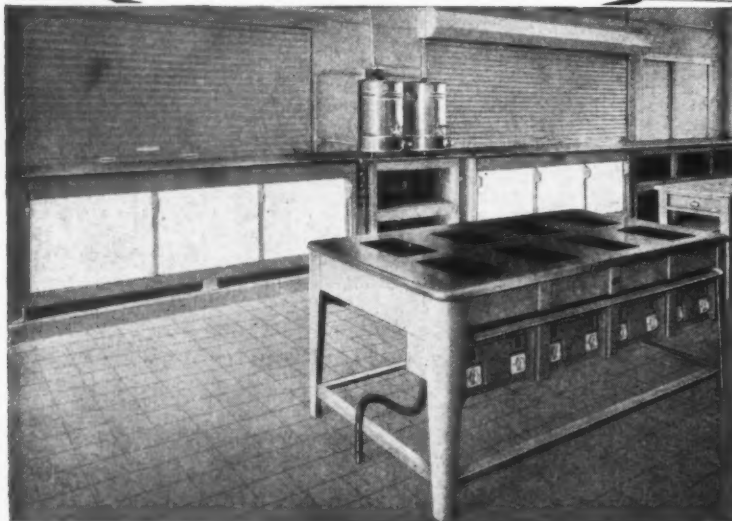
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Typical Heavy Duty Installations by

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(No. 3)



**A section of the Kitchen at
British Timken, Ltd.**

The illustration shows Jackson Hot Cupboards incorporated in the spacious Serving Counter, also 2 Chromium Water Urns and an 8-Plate Boiling Table in the foreground. The equipment at Duston, Northampton, caters for 400 persons, and has a total loading of 160 kW. It is another excellent example of Jackson all-electric kitchen equipment. Jackson's design complete installations for kitchens of any size.

Jackson

**BOILING PANS • BAINS MARIE • CHEFS'
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STEAMING OVENS • FISH FRYERS • URNS
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Houses at Merton Village,
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Architect :
Felix Holt, A.R.I.B.A.

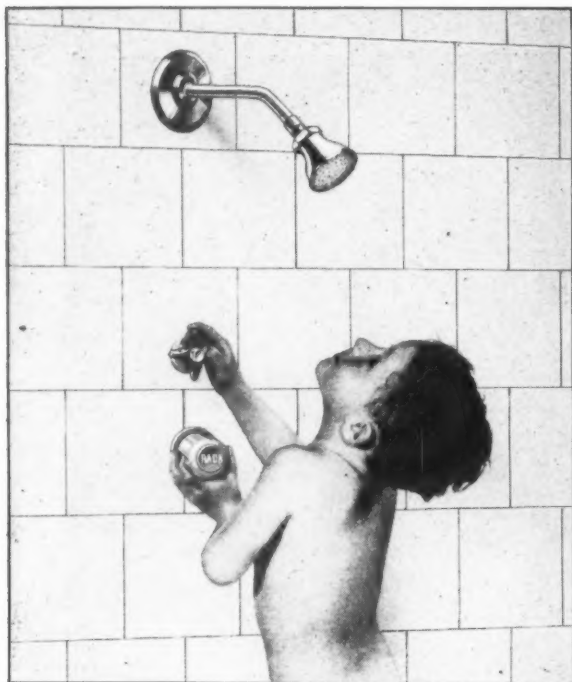
*'The light construction of
the present day . . . cannot
be expected to look as
substantial as traditional
building in brick or stone...'*

— THE HOUSING MANUAL, 1949



FOR HOUSES
THAT ARE HOMES

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Shower Baths should be fitted with the new

RADA THERMOSTATIC SHOWER VALVE

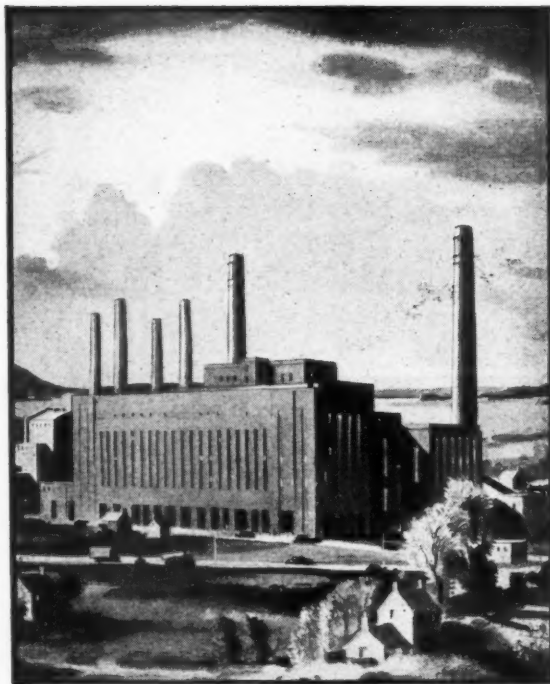
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The RADA Shower Valve keeps the temperature of the shower steady, preventing those sudden changes from hot to cold and back again which are so often uncomfortable, and even dangerous. The user chooses the temperature simply by moving the control knob, and cold, warm or hot water can be instantly obtained. A hidden "stop" prevents too high a temperature being used, making it safe for children and old people.

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Stourport—an impression of the completed station by Charles Cunliffe, R.A., R.W.S.

Another New Power Station

AT STOURPORT-ON-SEVERN, Worcestershire, stands the fifth of British Electricity's great post-war power plants. Stourport, when completed, will contribute 120,000 kilowatts of much-needed electricity—equal to over 160,000 horsepower—to the national Grid.

Steam at Red Heat

Most of the turbo-alternators being installed in British Electricity's new power stations are of two standard sizes—30,000 and 60,000 kilowatts. The Stourport sets are designed for 60,000 kilowatts. Stourport is using steam at the exceptional pressure of 1,500 lb—two-thirds of a ton—per sq. in., and at a temperature of 1,050° F—a visible red heat.

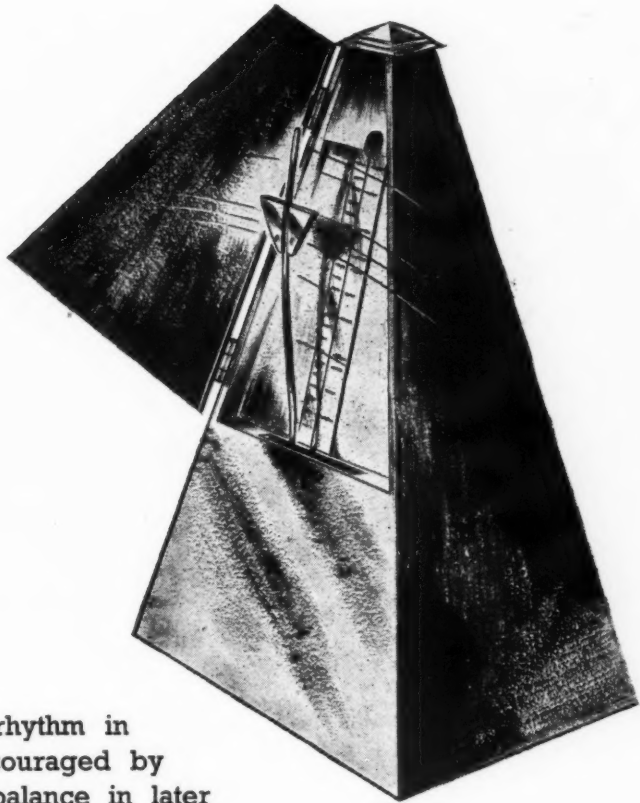
Stourport is only one of 38 new power stations being built by British Electricity, while 43 existing stations are being extended to give increased output. This is part of British Electricity's plans to overtake the power shortage and supply abundant electricity to those who will live and work in the homes and factories now being planned and yet to be built.

more power FROM STOURPORT

means more power to the nation

BRITISH ELECTRICITY

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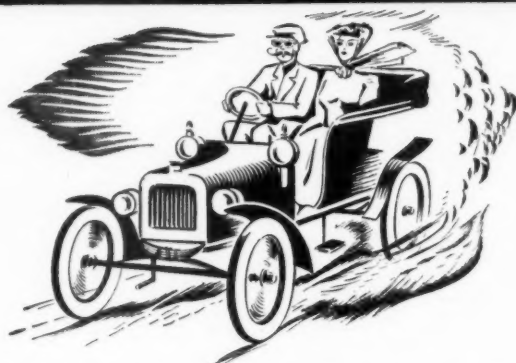
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C.1A

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The "Fortic" Indirect Type illustrated is specially suited to difficult waters, and provides clean uncontaminated consumable hot water and complete freedom from scaling troubles.



The illustration shows "Fortic" Patent Tank Unit with coil heat exchange unit.

● This one unit takes the place of conventional indirect cylinder and its two cold feed cisterns.

● Saves heavily on installation labour and materials, cutting out ugly and thermally inefficient piping.

● No galvanised components; hard-rolled copper throughout; with all-brazed seams and brass bosses—no electrolytic corrosion or pitting—no maintenance.

● Heat-exchange efficiency of "Fortic" Indirect type is high and equal to the Direct type.

"Fortic" (REGD)

PATENT TANK UNIT

COMBINING COLD FEED CISTERN & HOT STORAGE CYLINDER

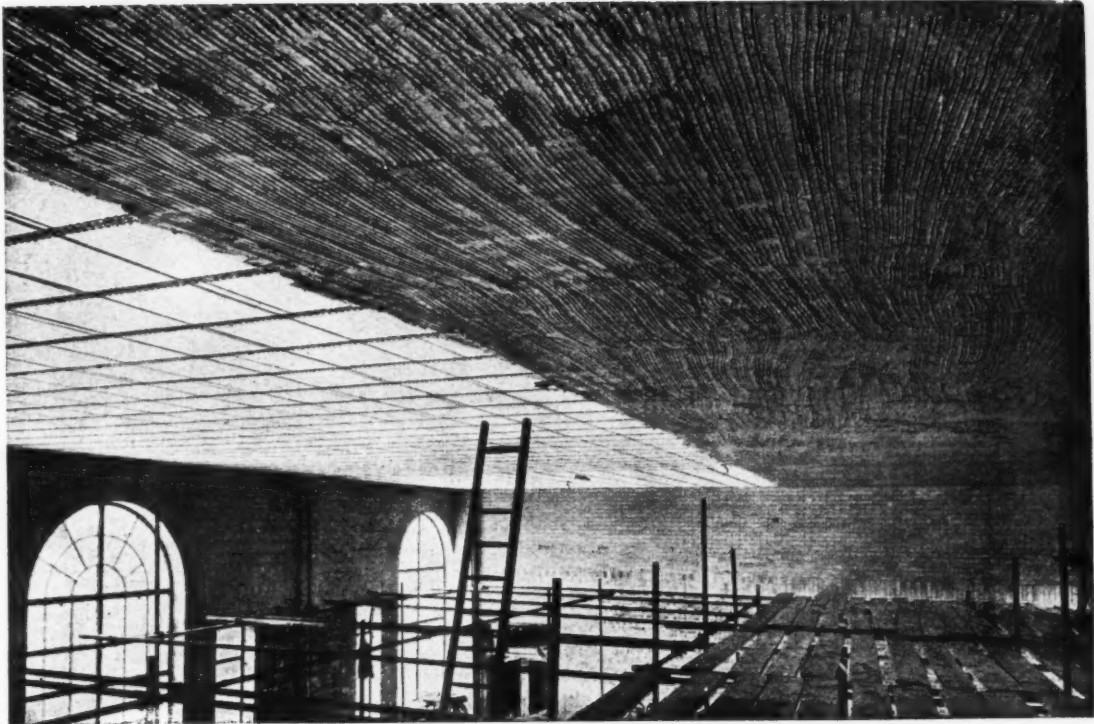
PATENT NO. 412384

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Part of a large area of **PLAXSTELE** ceiling

Registered Trade Mark

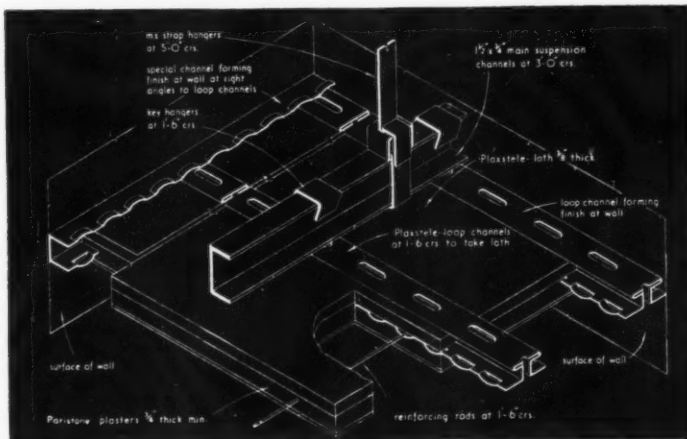
The PLAXSTELE system combines the use of PLAXSTELE lath, specially designed for plastering with PARISTONE plaster, with metal patented suspension and jointing members which hold the lath rigid and at the same time anchor metal reinforcing rods in the plaster finish.

It provides a suspended ceiling with a substantial plaster finish having high fire-resisting properties. It is adaptable to any type of building construction and can be suspended horizontally at any level below the main roof structure.

Advantages of this system include simplification of plastering work, saving of time, superior strength, high fire resistance, elimination of timber framing, improved thermal insulation.

The photograph above shows part of a large area of PLAXSTELE ceiling to which the first undercoat of PARISTONE plaster is being applied. The isometric sketch on left shows the general assembly of the component parts.

Further information about this and other GYPROC products or systems will gladly be supplied.



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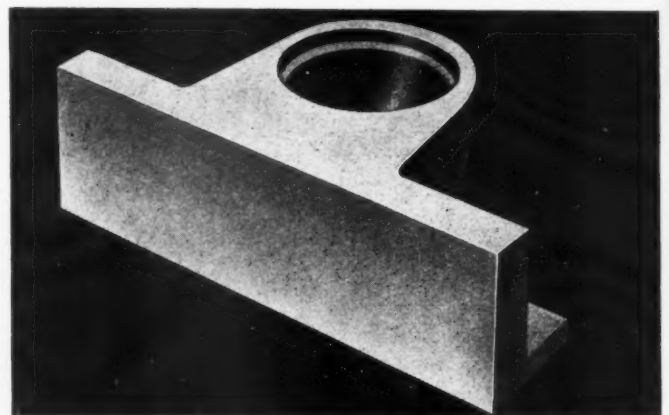
Inset shows enlarged view of operative gear on inside of openings.



241-242 Great Lister Street, Birmingham 7, England. Telephone: Aston Cross 2028

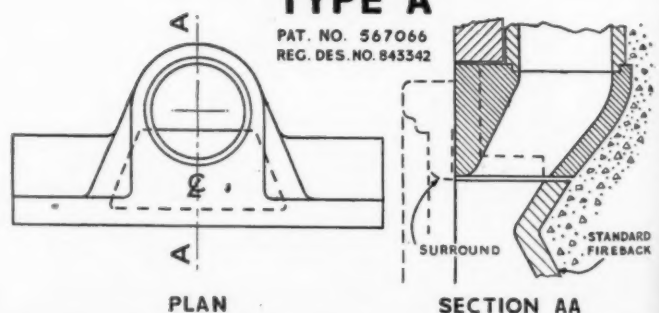
For every type of fire there is a TRUE FLUE (PATENTED) LINTOL BLOCK

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



TYPE 'A'

PAT. NO. 567066
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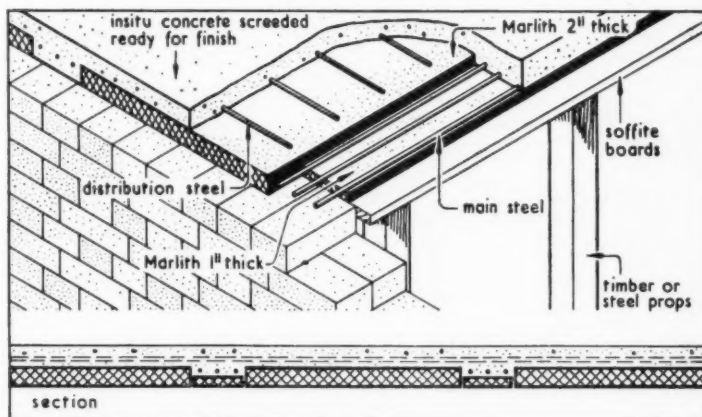
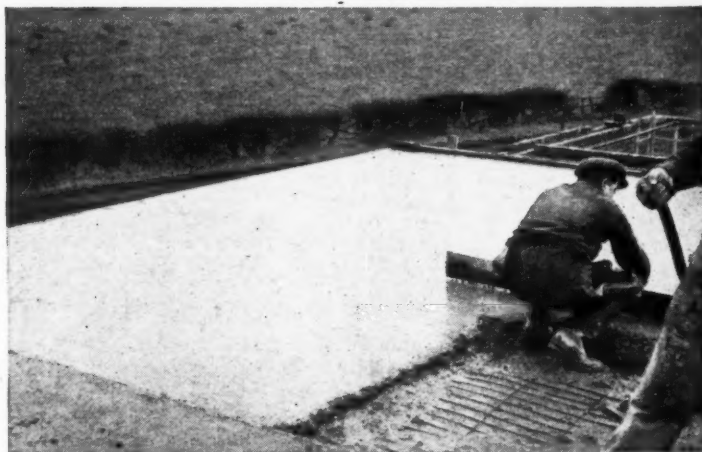
MARLITH

used as permanent shuttering speeds up construction, reduces costs, and provides excellent thermal insulation

THE SHUTTERING for this flat in-situ reinforced concrete roof consisted of 2-inch MARLITH laid in temporary 2" x 2" x 3/16" steel tees supported by tubular steel scaffolding. The concrete was poured and the reinforcement applied in the normal way. When the concrete was set, the temporary steel tees and scaffolding were removed, leaving the underside of the MARLITH ready for plastering.

The drawing on right shows a similar construction in which timber props were used in place of tubular scaffolding, in conjunction with soffit boards and 1" thick MARLITH filling pieces.

The use of MARLITH in this way speeds up construction and reduces costs by eliminating the need for erecting and dismantling steel or timber shuttering and the application of insulation as a separate operation. It reduces the thermal transmittance "U" value of a 4½" flat concrete roof from 0.61 to 0.20, and the increased thermal insulation will maintain the temperature of the interior surface of the roof, thus minimising or preventing the formation of condensation.



MARLITH

Wood Wool Building Slabs

The Marley Tile Company Limited · Sevenoaks · Kent

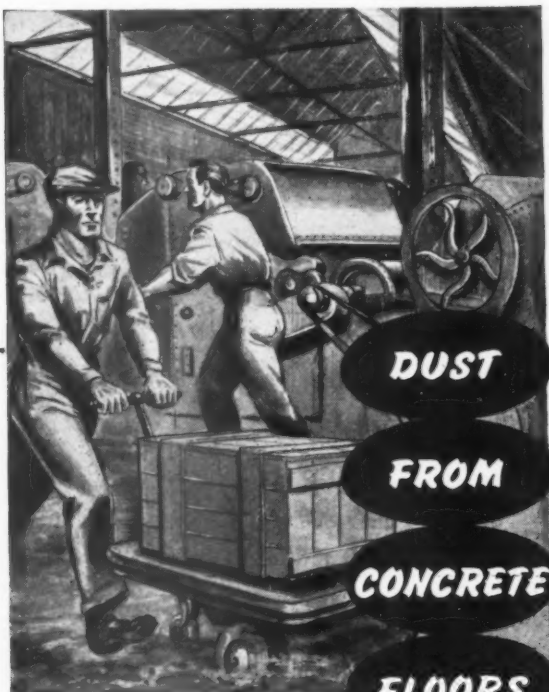
THE PHOTOGRAPHS were taken at Whitby Junior and Infants School, and show: below, MARLITH slabs being placed in position; the temporary steel tees; above, concrete being levelled.

ARCHITECTS: John Keppie & Henderson & J. L. Gleave, Chartered Architects, 196 West Regent Street, Glasgow C2

CONTRACTORS: Messrs. Jaram & Son, 20A Gladstone Street, Scarborough.

AUTHORITY: North Riding Education Committee, Northallerton





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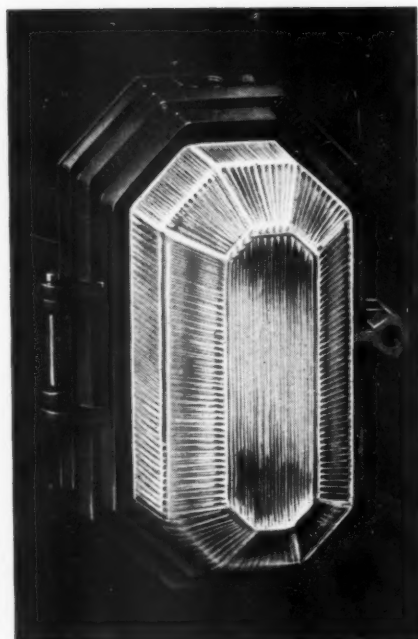
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A CHRISTMAS MESSAGE

FROM THE PRESIDENT OF THE NATIONAL FEDERATION

THROUGH this page I send my best wishes for a happy Christmas and a peaceful New Year to all in the building industry.

It is unfortunate that at this season of peace and goodwill we should be anxious lest our efforts to rebuild Britain and improve the housing conditions of our people may be further diverted to works required to prevent a third world war. Whatever the future, however, our great industry will, I know, respond wholeheartedly to the calls made upon it. And the response will be all the more effective if we profit by the advice given in the early part of the year in the reports of the Working Party and of the Team which visited the United States under the aegis of the Anglo-American Council on Productivity which I had the honour to lead and to which the Secretary of the National Federation acted as Secretary.

No amount of misrepresentation by ill-informed or ill-disposed politicians can alter the fact that the Working Party, on which the National Federation was ably represented by Mr. H. B. Kerr, refuted all the major accusations levelled at the industry by such critics during recent years, and made it clear that the industry, in the face of immense difficulties, had done a great job since the war and that the present layout of firms of all sizes and types was the best fitted to carry out the variety of jobs which go to make up our daily work. The report recognised that the scarcity of materials and frequent changes of Government Policy had been responsible for most of the

difficulties, and made recommendations regarding the education and training of all ranks in the industry, the carrying out of, and the dissemination of the results of, research, the institution of costings systems, planning in advance, site organisation, and above all the wider adoption of bonus schemes. On these and other matters the National Federation had already been active and I am glad to report that we and our friends the National Federation of Building Trades Operatives have recently agreed to carry on with the experimental bonusing scheme started in 1947 with modifications which will give the operatives a greater interest in the working of this scheme and which will, we hope, lead to a greater increase in the number of bonus schemes.

One of the lessons learned by the Team which went to America was that if we in this country under a policy of full employment are to increase our earnings without putting up the cost, bonusing is the key to the problem.

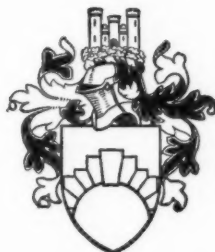
The threat of war has heightened the need for increased output, and I suggest that our slogan for 1951 should be "Greater Productivity with the same head of labour and reduced costs." If we are, for once, given a plentiful supply of materials, and if each and every one of us plays his full part, we cannot fail.

We of the National Federation will do all we can to help and I ask those builders who are not yet members to join us and so give us the benefit of their assistance.

Robert. A. Lloyd

PRESIDENT

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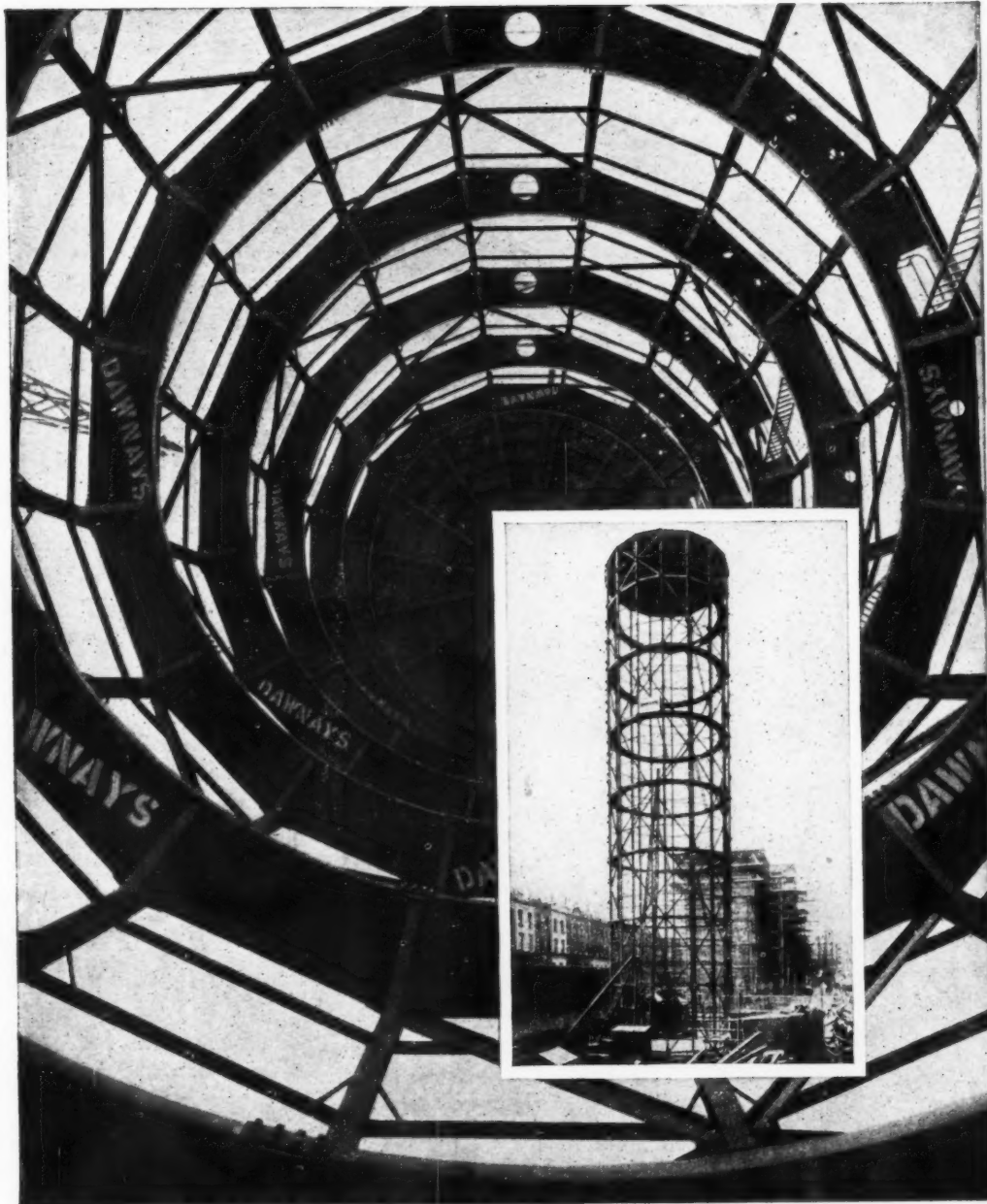


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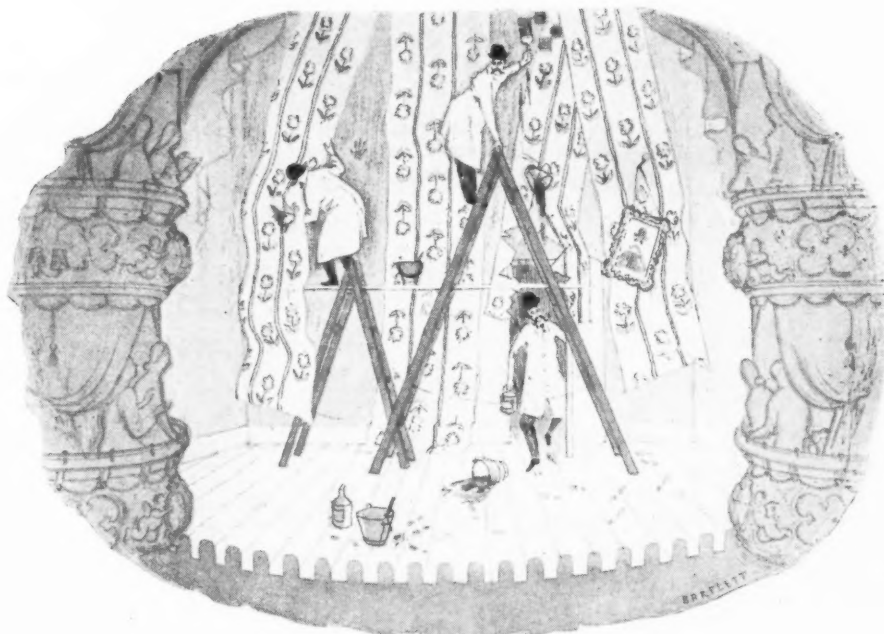
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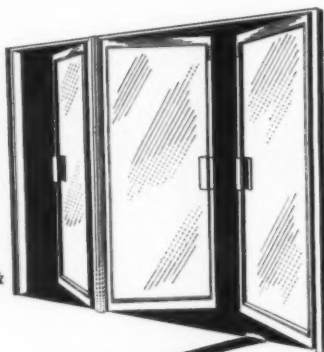


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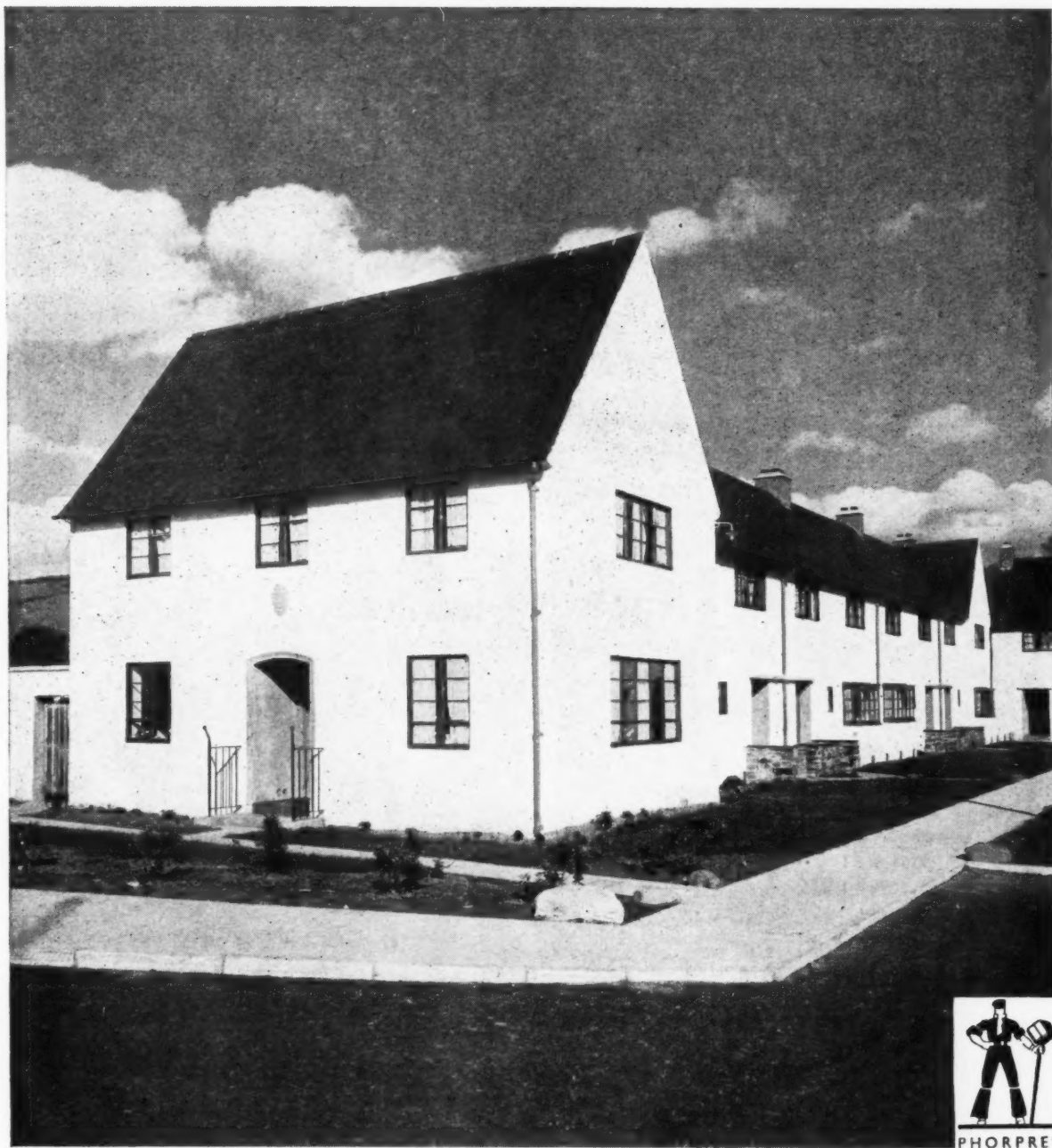


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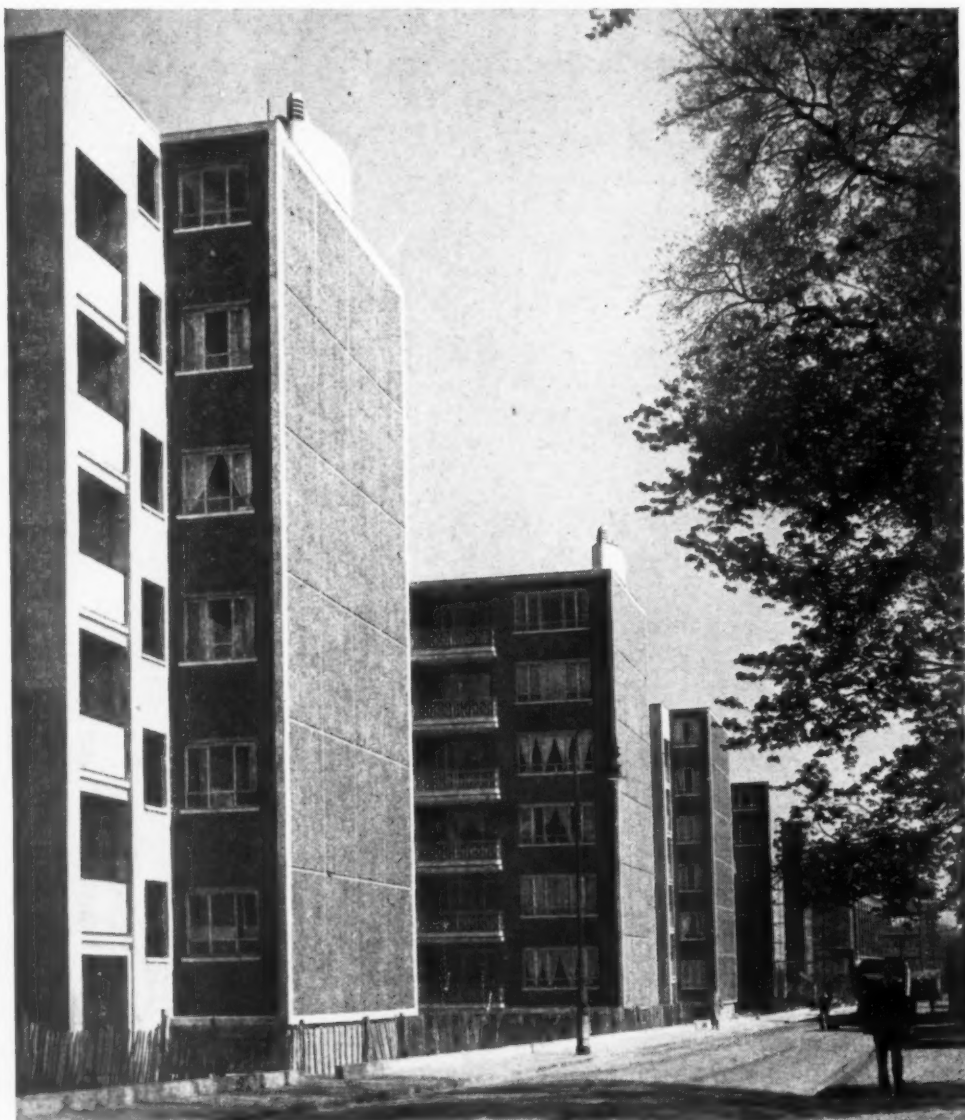
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THE ARCHITECTS' JOURNAL

No 2912 21 DECEMBER 1950 VOL 112

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THE LATEST LANCASTER

What is Christmas without a new Lancaster to give and be given? The question, thanks to the considerateness of Osbert Lancaster and his publishers, is rhetorical; this year you may hope for a copy of what the latter describe as the first Lancaster Album, *Façades and Faces*,* to help you digest your festive bird.

*

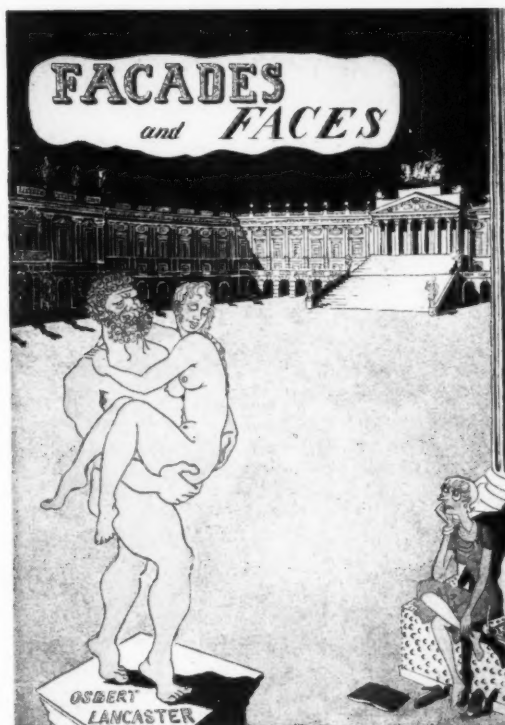
Of its exterior, which is illustrated here, I will tell you a tale, a moral tale. The dust-cover—though that seems a dingy term for anything so ornamental—shows Aunt Drusilla (or can it be Maudie?), piazza-sited, contemplating a sculptural group whose subject I leave to better classical scholars than myself.

* John Murray. 8s. 6d.

Now this group, you will notice, is green. Bronze, you say? Well, yes, if you like. But the fact is that it was to have been a marble group—until someone remembered that this sort of thing just isn't done. For if you thought that white denoted purity, you were very much mistaken. Those guardians of the public's morals, the booksellers, believe that for the human form to appear on a dust-cover unclothed is one thing, but that for it to appear there unclothed and uncoloured is quite another.

SOANE SEEN BY SUMMERSON

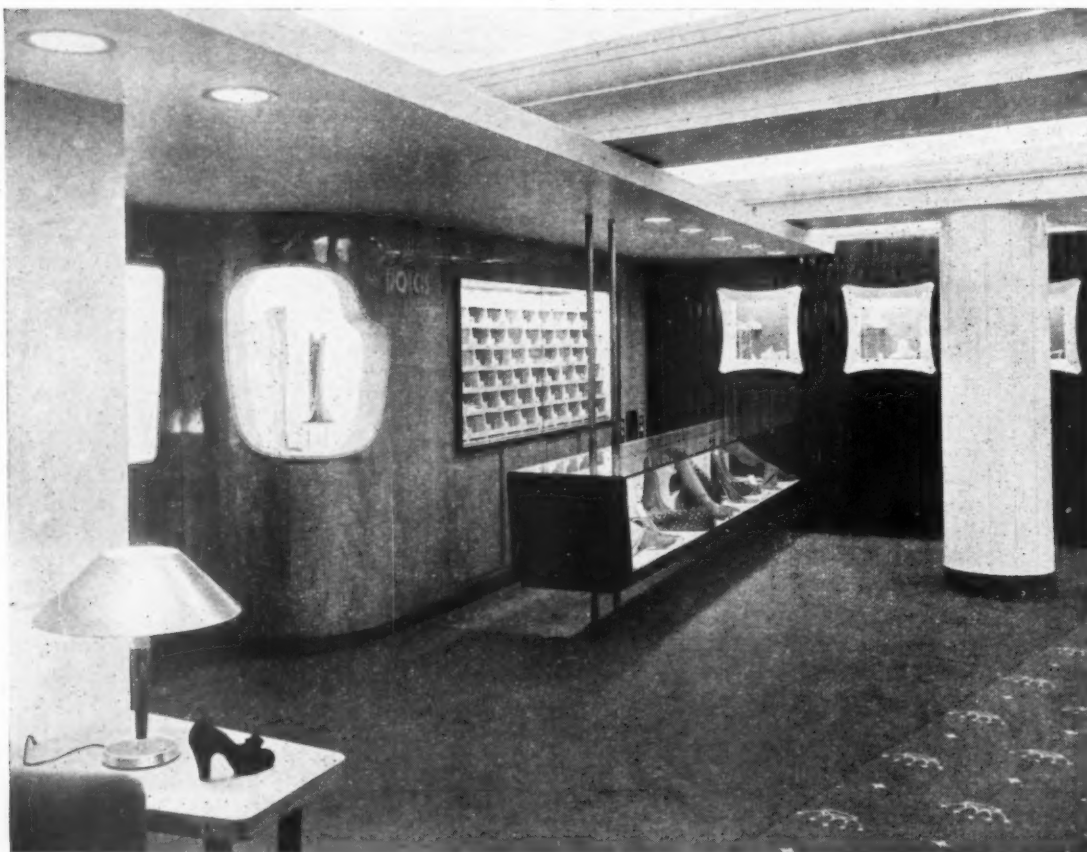
There are not many people who can lecture to an RIBA audience without script or notes for an hour and leave it feeling that it could take another. But John Summerson is one of them. After his lecture on Soane last week I had the impression that I had been mixed up in some experiment with time, for while my watch said that I had been listening for an hour or thereabouts, it was quite clear to me that I hadn't been sitting there more than twenty minutes and equally



See note: "The Latest Lancaster."

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clear that no one could have opened my eyes to so many things in less than two hours. If you were there, you will know what I mean; if you weren't, you should have been.

*

I shall not try to condense Summer-son's arguments; indeed, he presented them with such economy—and yet clarity—that I doubt whether it would be possible to do so. For me personally, one of the most exciting things about the lecture was its incidental revelation of the great originality of Soane's master, George Dance the younger, whose little church of All Hallows, London Wall, I have always admired. But all of us who were present will from now on be as much on the look-out for inside-out domes as we have been, for some time past, for *ædicules*.

*

The discussion which followed the lecture was ornamented by two Professors and a Principal. One of the Professors, Pevsner, gave one of the best displays of thinking aloud I remember having heard; the other, Wittkower, bore us away on the vast but graceful wings of his erudition and landed us, safe if breathless, in Piedmont. The Principal, Furneaux Jordan, outlined for us his vision of a twentieth-century Soane in constant touch with BRS—in a tribute whose feeling and eloquence must surely have moved the master's ghost.

LICENSING AGAIN

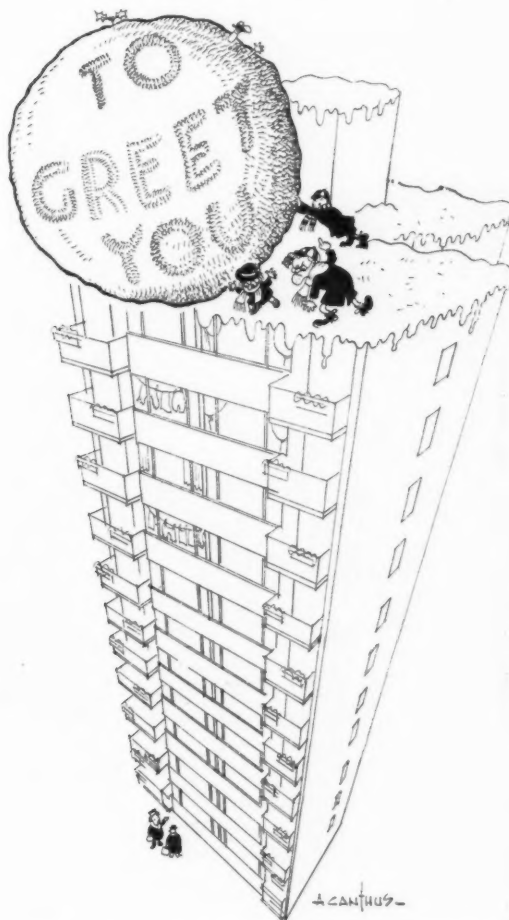
To harp on building licensing once more—and legally what could be more important?—I have uncovered two more nebulous facts. The first is that even while building works of sufficient size to require a licence are being carried out, the licence-free amount can be used to offset further items of expenditure under certain conditions. For work which "is severable, ordered separately and paid for separately," it has already been ruled in the Court. What does this mean? "Severable" seems the key word, but farther than that I dare not go. Can any architect tell me more? Or—as I feel—should the RIBA be able to tell me? And if they cannot, shouldn't they brief a KC to tell them? I add only that the MOW will treat each case on its merits when deciding their view. Not that they are unsympathetic, which brings me to the second point.

Like us they have to try to interpret Defence Regulation 56A. As a result, Lambeth Bridge House receives a steady trickle of "border-line" inquiries from the Regions. The case and their opinion are circularized throughout the Ministry. Although—as the MOW point out—it is only an opinion, which may be ruled right or wrong in a Court, it is a very important one, and if these "opinions" were better known to architects, the need for Court rulings would be few indeed. At present there is no machinery for making these public, but if the MOW was approached by the RIBA, it might be possible; or if architects' border-line queries were sent to the RIBA, the Ministry would answer them and the RIBA could publish the answers.

BUILDING MATERIALS

The sub-title of Cecil Handisyde's new book* is *Science and Practice*, and

* *Building Materials: Science and Practice.* By C. C. Handisyde. Architectural Press 25/-.



"It's on your own head, Mr. Architect—making the roofs into playgrounds!"

this really sums up what any text-book on materials should contain. It is easy to assume that if the principles are explained, the practice will follow, but nine times out of ten it is by no means as simple as that. And who should know better than the author, who has had experience on the scientific side at BRS as a practising architect and as a teacher? The book is intended mainly for students, but I cannot think that any practising architect will be able to read it without finding a lot of interesting data, or at least the proper explanation for the many failures he will have observed here and there.

*

Throughout the book Mr. Handisyde provides copious references to the appropriate BSS and other sources which ought to be in most offices, but he points out, quite rightly, that it is a long time before the results of research are available in book form, and that it



British Art in New Art Centre

On Tuesday of last week the Institute of Contemporary Arts opened an exhibition of work by British painters and sculptors; the first exhibition to be held in the Institute's new headquarters on the first floor of 17, Dover Street, London. The work of conversion was carried out by Jane

Drew and Maxwell Fry, who have designed a flexible suite of rooms. These architects also designed the furniture, which was made by Neil Morris and Ernest Race. The exhibition will be open from 10 a.m. to 6 p.m. daily (except Sundays) until Friday, January 12.

Specialist Editor: No. 7.

is therefore well worth while to collect articles, trade and industrial notes, and even catalogues. Hence, incidentally, the JOURNAL'S Information Centre, which has for years been providing this sort of service.

*

A very good book and particularly good for getting your student nephew back to first principles, presented in a way which, unlike the older text-books, is based on current teaching methods.

THE LAST POST

The following story was sent to me by an industrialist who recently moved into a New Town. Owing to the Development Corporation having failed to write the correct, or any, official letter to the Post Office, the factory found itself on opening in what was postally an agricultural district, with a single delivery at 10.30 a.m. and a last collection at 4.30 p.m. The industrialist, a man heavily engaged in the export trade and therefore well versed in the ways of government departments, sent two telegrams of protest to the regional offices of the departments with which he was most involved—Trade and Supply. Two days later he received a card from each Ministry. The one from the BOT informed him that his communication had been passed to the MOS for attention. And the other, from the MOS, informed him that his communication had been passed to the BOT for attention.

*

But this is a success story. Faced with this spiking of their opening gambit (if I may mix my metaphors), the two Departments combined to fall on the Post Office in strength, and to some effect. Now the morning mail is delivered at 8.30 a.m. and each evening a gloomy postman on a bicycle attends the establishment at 6 p.m. to collect the outgoing post.

GREETINGS FROM ASTRAGAL

I am more conscious than ever, at the moment, of the Freedom of the Press. I have just heard that members of the BBC staff have been told that they must not convey Christmas greetings to their listeners. So far that kind of control has not reached the journalistic world, and I therefore take great pleasure in wishing my readers a very happy Christmas.

ASTRAGAL

NEW TOWNS: THE IMPORTANCE OF PUBLIC SUPPORT

THE annual reports of the new towns considerably reinforce the criticisms of Ministerial policy which have already been made in the JOURNAL. There are also other points arising from the reports to which we shall return in future issues. There is one subject, however, which receives little attention in these reports and that is the steps which the Development Corporations, and the MOTCP are taking to ensure public support for the new towns. It is of vital importance that the enthusiasm and imagination of the general public is kindled and held by enlightened propaganda. Only a small number of people will find a home in the new towns this year, but as more building takes place it will become practicable to develop a more general popular support for the new towns. The importance of this was stressed in the pamphlet "Town Planning and the Public," recently published by Political and Economic Planning, which in summing up its description of contemporary town planning observed that "if it fails to hold popular support, then town planning loses the only driving force capable of making it an effective social weapon."

The new town Corporations will have to hold the support of two distinct groups of people: the people who are already living within their area, and those people who will be coming to live in the new town. Of these tasks, to attract and to hold the support of the incoming population is likely to prove the more difficult. The Corporations have not yet made any great progress in this direction, as a general answer has not yet been found to the questions about who are eligible and *willing* to move to the new towns, and from which particular parts of the existing communities the new inhabitants shall come. In the case of the towns where decentralization of population is not entailed, for instance, Cwmbran or Peterlee, many local people can be expected to be willing to move to the new town. They will have become used to its existence as they will have watched the progress of its building. And the inhabitants of the new town, as they develop their own social life, will still be in close touch with city dwellers who will have to leave London or Glasgow to move to new homes in, for instance, Stevenage, Harlow or East Kilbride. A small number may be willing to seize any opportunity of finding a new home in new surroundings, but others may be willing to face the move only after a good deal of reflection, and of discussion with their families and neighbours. It is chiefly to such people that the Development Corporations of these towns may have to look for support. In practice, the population for the new towns is likely to be drawn from many different areas, and publicity, which is put out to attract new population, will have to be spread over a wide social field. From publicity of this kind, the

best results are likely to follow if the work is done normally on a local scale by the development corporations, local authorities and voluntary agencies.

An example of how a voluntary society can assist a local authority has been shown at West Ham, the badly blitzed area in East London, where the borough council was one of the first councils to start rebuilding. There, to stimulate public interest, the local film society, with the help of the borough architect, Thomas North, made a film, at quite a small cost, on reconstruction in West Ham. The film has been shown all over the borough and has been given quite a good reception. No better way of telling the new town story can be imagined than for architects and film societies in the exporting areas to get together and produce a film on the new town in their region for showing at club meetings, or even in cinemas. It would be wrong to raise in people false hopes about the immediate prospect of finding a home in the new towns, but it is not too early to start people thinking about these exciting ventures.

The Editors

BUILDING MATERIALS—A NEW SERIES OF TEXT BOOKS

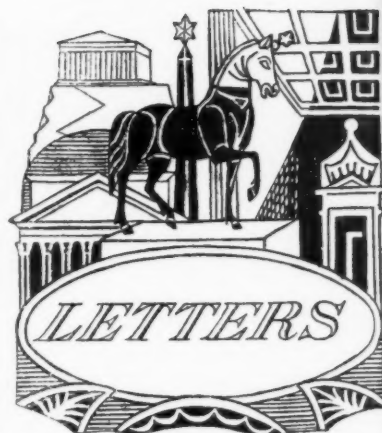
It is important that the architectural student should acquire an understanding of principles relating to the choice and use of materials as soon as possible during his training. But to date there has been a lack of text-books giving comprehensive information about these fundamental principles and the main characteristics of the types of material in most general use. Fortunately the need for a book of this kind was realized by the Text and Reference Books Committee of the RIBA and Cecil C. Handisyde was asked to undertake the writing of such a work. This has now been published by the Architectural Press.*

As the author believes that "a knowledge of principles must precede any detailed assimilation of facts," the first part of the book deals with some of the broader issues which apply to the use of materials generally. The second part gives limited particulars about specific materials and includes references to more detailed sources of information.

It is obviously not practicable to cover the whole subject of construction and materials in one book, and the present work will be followed by two others† (by different authors), which will deal with the theory of structures and with functional requirements and structural elements of buildings. The three books will therefore provide the architect (as well as the student) with a convenient source of reference on the subject of building materials—a valuable thing in these days when no one has time to embark on a long search for information.

* *Building Materials*. Architectural Press. 25s.

† *Structural Concepts in Building*, Fisher, Cassie and Napper, and *Building Elements*, Llewellyn Davies (Both in preparation.)



{ J. E. Jackson, A.R.I.B.A.

{ Howard N. Michell, A.R.I.B.A.

"Leave the Living Room Alone"

SIR,—G. Grenfell Baines' article squeezes my normally placid breast to such an extent that something must be produced, even if only this letter.

The living room is the centre and hub of family life and it only needs father or mother to have a touch of 'flu to put this room out of action for the family. The living room contains the wireless set and with the living room out of use the family gets no wireless. Such irritations as these will tend to drive the young family out of the house, which is a step in the wrong direction.

The psychological effect of father or mother deciding to have an "early night", thus driving the family to bed or for a nice walk in the rain is too terrific for my feeble pen to describe.

To be constructive; of all items to be cut down we must leave the living room (centre of family life) alone, elaborate it, plan it, give every member his allotted space if you wish, but we must not put it out of action or the family will spend their time in clubs, pubs, and cinemas, far more than is the case at present.

Make your bedrooms into ships cabins planned to the last half inch by all means, and make your staircase a glorified ship's ladder, but leave your living room alone and if possible keep meals out of it and put them in the kitchen where carrying to and fro is reduced to a minimum. The ideal from the housewife's point of view must be to pop the food into her family's mouths straight out of the tradesman's basket and our job must be to reduce the number of operations from tradesmen's basket to hungry mouths to a minimum.

In conclusion, I would remark that during a particularly dull war period, just before invasion day, I wrote the RIBA and suggested that every housing plot should be allocated to a family, (the garden could be prepared by the family immediately) the roads and services installed, the foundations of the permanent houses marked out, and on a convenient spot well clear of the foundations, should be a common or garden Nissen hut, suitably lined, divided up and containing fittings as movable as possible so that in due course they could be used in the permanent house.

I still think that this was at least a constructive way of getting the bulk of our population away from their in-laws, and to give them an interest in life. With intelli-



I.B.A.

Room

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gent supervision they could assist in the more unskilled part of building their own permanent houses.

One last word; may I say how much I admire G. Grenfell Baines for his inspiration and for writing this provocative article which has galvanized even a frustrated architect into instant action. He has started something which I hope will produce a solution, even if it is only strings of caravans driven over my dead body.

Kent.

J. E. JACKSON.

"Intellectual Slumming"

SIR.—No one, I imagine, will quarrel with Grenfell Baines's desire to consider the freer use of space and to eliminate, as far as possible, the luxury of such a considerable amount of circulation space as exists in our conventional standards of planning and for which we pay so dearly.

As so very much depends upon the efficiency of the fire appliance, the value of Mr. Baines's hypothesis would have been considerably strengthened had he given us more details of this appliance and his assurance, based on experience, that it really will perform the function required of it. My own experience with a, perhaps, more limited appliance which provided full living room heating, water heating, one small kitchen radiator and convected heat to two bedrooms, has been such that I should not feel justified in replanning the living habits of my fellow men on the strength of it. Mr. Baines's appliance will have to be very good indeed to persuade one fire to disperse its heat in so many different ways so efficiently, especially in the face of seven air changes while clearing the supper! It does seem that the whole idea rests on whole house heating in its full sense and not just background heating.

Mr. Baines has clearly had his "second thoughts" to good effect and he has planned out the worst features of his first design with a further considerable saving in area but I am far from convinced that all this furniture juggling is a practical proposition.

It is only too simple to turn aside the potential criticisms of the "practical theorist" as Mr. Baines has done—that does not, in itself, strengthen his case. The "emergencies" of illness, visitors etc. are not imaginary. They are very real and occur in every family home at not infrequent intervals and at all social levels.

I suspect that Mr. Baines has, in fact, enjoyed, with the best intentions in the world, a neat little bit of intellectual slumming. He has depended upon a standard of intelligence in house usage and furnishing which he had no right to assume exists in sufficient degree in the income groups for which he is planning. With the naiveté of a politician he has played on our heartstrings with the thought of the homeless millions, eager for their 664 sq. ft.—of course they would be thrilled, until they found out the catch! With standards such as these the distinction between a home and a hovel is dangerously slight—can we afford to risk it? Mr. Baines has fallen into his own trap by applying his own living standards to these people.

Is this excessive reduction of area not too easy a way out of our emergency? Should we plan down to a standard, thus accepting our present faults rather than organize ourselves up to one—what really can be done, for instance, about increased productivity, the exploitation of structural economy, the reduction of excessive land charges, profit etc.—old tags now, but none the less real. The politicians are very ready to blame the industry—if they really mean business there is still much they can do on their side.

Finally, ASTRAGAL, you really are right about the cupboard space this time!

Stanmore.

HOWARD N. MICHELL.



FOB

Designers of Pleasure Gardens Announced

Now that the plans for all the main features in the Festival Pleasure Gardens have been approved, and work on the site is well under way, Festival Gardens Ltd. have announced details of the designers and architects responsible for the work.

The chief designer is James Gardner, who is also on the Presentation Panel of the Festival of Britain and is one of the co-ordinating designers for the South Bank Exhibition. In conjunction with the Presentation Committee of Festival Gardens Ltd. he has control over the design of all the buildings and other features, and has been responsible for the general lay-out of the Gardens. In addition, his own designs are being used for a number of the features. These include: the "West End" restaurant, which has a terrace overlooking the river and facing Cheyne Walk, and a wine garden, surrounded by miniature pavilions where people may sit in small groups; the pavilion, which will be used as an alternative to the amphitheatre; a stage facing in two directions, so that it can be used either for open-air performances or for shows in the wet weather pavilion (whichever way it is used, the front curtains of one form the back-cloth for the other); the dance pavilion, which is a circular building with tented roof; the music pavilion in the form of a crusader's tent; the 90-ft. fountain tower dominating the entrance to the amusement area; and the tree walk—a slung walk through the trees, leading up to a high platform, from which there will be an excellent view of the Gardens.

The other designers are as follows: Bruce Angrave, who is to design a number of features for the tree walk. These include an enormous Chinese dragon illuminated from inside, and "fairy houses" in the trees. Ferdinand Bellan, who has been designing film sets and is also working for the South Bank Exhibition. In the Festival Gardens he is painting the murals for the main stage and wet weather pavilions, and decorative panels at the entrances to the Gardens. Rowland Emmett, best known for his contributions to *Punch* during the past eleven years. He has drawn all the designs for a miniature railway (in his well-known style) which will run for nearly 500 yds. along the south side of the Gardens. In addition to the train itself, he has designed the station near the south-east entrance and a snack bar by the station at the western end of the railway. He also has plans for a number of typical Emmett features along the route. Lewitt-Him, the book illustrators,

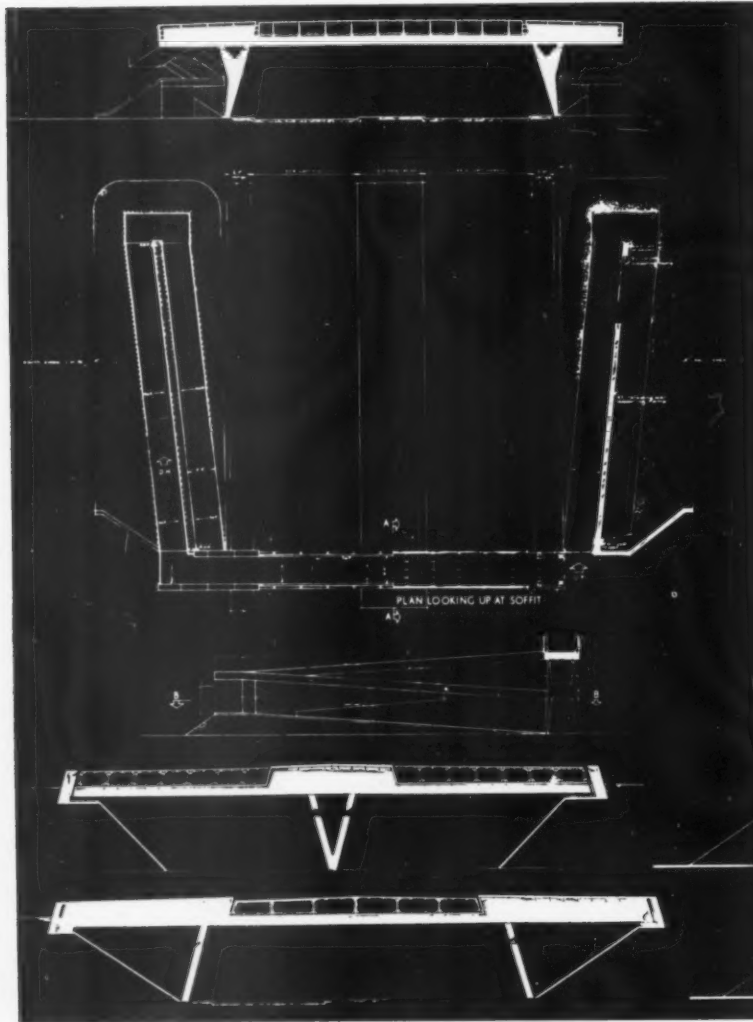
mural painters, stage designers, publicity and industrial designers, have designed a Crazy Clock. Fred Millett, mural painter and illustrator, is designing the cages, aquaria, stables and some other features for the children's zoo in the Gardens. He is also painting the fishing village scene which has been designed for the 130-ft. screen behind the boating pool. John Piper and Osbert Lancaster have designed the main vista. This feature, taking full advantage of the natural contours of the Park, consists of a succession of pavilions and arcades, towers and pagodas, terraces and gardens, lakes and fountains, and stretches for about 250 yd. across the gardens from the main carriageway. John Piper is responsible for most of the buildings in the main vista. The pavilions are an echo of eighteenth century follies and of Regency Brighton; other parts are reminiscent of Gothic and Chinese styles. Osbert Lancaster has designed the entrance to the main vista from the main carriageway and is responsible for all the ornamental lakes and fountain displays. Guy Sheppard, the stage designer, has designed the riverside theatre. This is a prefabricated structure of tubular steel scaffolding and fibrous plaster panels which can be easily dismantled and re-erected. The design is a pastiche of Regency, Victorian and contemporary styles. The auditorium, seating 450 people in stalls, promenade circle and small gallery, is painted in the Victorian style. The stage can have either a proscenium apron or an orchestra pit. Mr. Sheppard has also designed a grotto representing the four elements of wind, fire, earth and water in the form of four caves with ultra-violet lighting. Hans Tisdall, the still-life and landscape painter, has designed the entrance to the amusement park and the three buildings round the entrance courtyard.

The co-ordinating architects are Harrison and Seel, who are responsible for working out all the practice details of the designs, and supervise all stages of the work from the designers' sketches to the actual buildings. They are also responsible for planning the water, electricity and other services for the site. They have designed the administration buildings, and have three features in the Gardens: the boating pool, beer garden, the garden tea pavilion and garden long bar, which face the central flower garden.

The landscape architect is Russell Page. The architectural consultant to the chief designer is Roger K. Pullen, of Dalgleish & Pullen. He is responsible for a number of buildings in the Gardens, especially the dance pavilion and the pierhead cafeteria. In addition, Dalgleish & Pullen are the architects of the two permanent features—the amphitheatre and the riverside tea pavilion—which will be continued by the LCC after the Festival has ended.

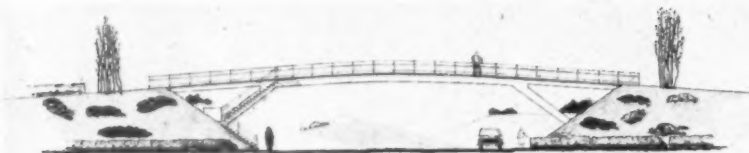
The other architects are: Arthur Braven (who is responsible, with James Gardner, for the amusement area snack bar). Hugh Casson, Director of Architecture for the Festival of Britain Office, has designed the English tea garden, which is being built round the largest tree in the Pleasure Gardens. It is in the form of a paved terrace, on the crest of a small hill, and the central feature is an octagonal shelter and aviary for budgerigars built round the trunk of the tree. Basil Duckett has prepared the drawings of the restaurant from James Gardner's sketches. Bernard Engle has been appointed by the Worshipful Company of Brewers to design for the Festival Gardens the bandstand beer garden—which is entirely in glass—and the main vista beer garden. Patrick Gwynne has designed the main restaurant. This is a semi-circular structure with tented roof, with seating for about 650 people inside and 150 in "theatre box" alcoves on a terrace round the inner curve of the semi-circle. The most striking feature is the absence of masts inside. The

WINNING DESIGNS IN MOTOR BRIDGE COMPETITION

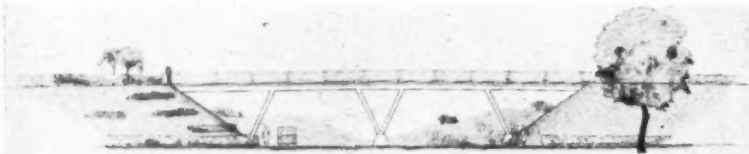


The first and second prizes of £500 and £300 in the competition for prestressed and reinforced concrete road bridges, sponsored by the Cement and Concrete Association, have been shared by Lindsey Drake, A.R.I.B.A., Denys Lasdun, F.R.I.B.A., A. J. Harris, B.Sc., A.M.I.C.E., and W. M. Johns, B.Sc., A.M.I.C.E. (whose work is shown here against the dark background), and Atkins and Partners and Clive Pascall, A.R.I.B.A. (whose work is illustrated at the bottom of this page). Third prizewinner (£200): Louis Erdi, L.R.I.B.A., and A. J. B. Birkmyer, A.M.I.Struct.E. Left: top to bottom; elevation, plan and section of footbridge—a slab of 4 box beams, side by side, tied transversely at cantilever extremities, at support and at mid-span. Slabs sit on 2 “Y”-shaped supports. Below: left and right; elevation and section of 2-span road bridge—2 simply supported spans

Designers of the bridges above and of those below tied for first prize



Elevation of footbridge



Elevation of 2-span motor bridge



Elevation of 3-span motor bridge

resting on soil cement abutments at outer extremities with precast “V”-shaped central support. Bottom (on black background): left and right; 3-span continuous prestressed slab bridge—same form of precast concrete unit as for other bridges. Left: top; footbridge—equal span precast beams and slab units, simply supported on precast posts. Left: centre; 2-span road bridge—main girders designed as continuous portal; monolithic with central support. Left: bottom; 3-span road bridge—main girders designed as portal frames made of number of precast members with projecting reinforcement connected by concrete cast in situ. Prestressed concrete slabs, ribbed on top to provide key, are seated on rebates at top of girders and act as shuttering for the cast in situ decking.

tented roof, 400 ft. long and 30 ft. wide, is supported by overhead cables. The "theatre boxes" each have a different coloured canopy, forming two-thirds of the spectrum. Laurence Kenchington is the structural engineer for the tree walk and the 80-ft. fountain tower, both designed by James Gardner. His main concern in the tree walk was to sling it in such a way that it does not cause any damage to the trees and to allow for the movement of the trees in the wind. He has had to keep the structure of the fountain tower as slender as possible while still giving room for the complicated mechanism which provides a continual cascade of golden balls.

All the features have been referred to by their working titles. The correct names for the features have not yet been agreed.



On December 7 the Architects Co-operative contributed an article on group practice. Below is a second article on this subject by G. Grenfell Baines, who describes the workings of his Group at the invitation of Raglan Squire, the JOURNAL's guest editor in association with Arcon.

ARCON

Group Practice

As our Group has been in existence nearly ten years it has been suggested that a second interim report might be of interest. We hope it will, and, further, that it may inspire ideas which will help to improve architectural design and service, for whatever changes there may have been in some of our views this original objective still remains.

Some account of origins and underlying motives was given three years ago at the RIBA. Since then we have carried on, and are still carrying on the practice of the Grenfell Baines Group, but, alongside the old and gradually expiring practice, five new practices are developing as founder firms of the new Group we hope to evolve. Whereas the old Group was one firm of individual members, the new Group will be a working association of independent firms—the evolutionary process is still at work.

This change took place officially on April 5 this year, but the factors which led to the change and the discussions on how best to effect it had been going on for some time; indeed, some factors were already at work in 1947, as readers of our first paper may remember. The record of these conditions and their effects continues the history of the Group and will, we trust, provide cautionary but encouraging guidance to other architects who share our feelings (possibly we are immodest to think there are any!).

FOUNDED ON GENTLEMEN'S AGREEMENTS

Our firm was founded on feelings, and looking back there seems to be nothing fundamentally wrong in this, provided the feelings go deep enough to stand the shocks of developing experience and ambitions. Until last April we never had a legal agreement. Full legal and financial responsibility rested on one member and, as there was never any doubt about loyalty to the firm, it rested comfortably. On the whole this was the right situation for an experiment, and although accountants and lawyers thought otherwise, it is doubtful had we been legally

tied up whether we could have evolved our present scheme for developing the Group to meet changing circumstances. We began on gentlemen's agreements and, as far as the new Group is concerned, will continue to do so. The individual firms will have legal partnership agreements on the traditional pattern, except for those clauses relating to membership of the newly-constituted association.

Before we go into the latest details it may help, particularly for those who, like us, can never find a particular back number of the JOURNAL to recapitulate the original circumstances of the emergence of the Group, giving at the same time brief details of personalities and backgrounds.

The first association was between a practising architect who, for a number of years, had followed his father in continuance of an established practice, and a graduate from the Manchester School, who had spent eleven years as assistant in various offices before going to the school. It began in 1937. Though small, both practices were vigorous, and while at first the association had no more than office-sharing basis—with co-operation between principals on *quid pro quo*—strong friendship and mutual respect developed. Life was hard but interesting; one architect had already been through the mill in the process of keeping an old practice alive through difficult times, the other learned the hard way (and had to do it quickly) of establishing a practice on a very small amount of capital, hardly any connections, but a large amount of faith. In retrospect it is clear the clients must have had even more faith. The association was enlarged later when an office-trained associate who had established his own practice moved over to share our offices. Both of the established practices were typical. A large number of clients with small, often recurring, commissions—an occasional client with a medium-sized job. Staff was small; one architect had an unqualified assistant and a pupil, the other a pupil; both principals could type fairly well. The newcomer had no staff and also learned to type; his practice developed in the same way, although he entered competitions hopefully and generally unsuccessfully.

PARTNERS WITHOUT LEGAL TIES

For two years our individual practices and collective office usage developed steadily along orthodox lines, and but for some such extraordinary event as a national emergency or a big competition win, we could have gone on, perhaps later crystallizing the association into orthodox legal partnership. Bearing in mind our relative merits and the international situation at the time, it was not surprising that war came first. The immediate effect was virtually to close down two practices, while, by good fortune, one practice was faced with a tremendous expansion. Our increased dependance was mutual; it was focussed on one large job which became a common interest. Thus the conditions for a much closer relationship were thrust upon us; the friendships which had been slowly growing over the years were fused together almost overnight by a single incident. There wasn't time to sit down and draw up legal agreements, nor was it the occasion, the future was too uncertain; nevertheless, for all practical purposes we became partners.

Events rapidly extended our responsibilities. We had to engage staff on a scale none of us had ever contemplated. It was not easy, and such staff as we were able to obtain had, along with us, a tremendous amount of work to do. The heat of the situation welded all together. While we could not be enthusiastic about architecture we derived inspiration and some satisfaction from achievement in terms of building as sound in arrangement and construction as we could make it. Aesthetics never went under entirely, but became incidental, and thus our field of co-operation was more

OXHEY SCHOOL

The manufacturers of the laminated plastic material used for the wall panels in the school at Oxhey illustrated in the issue of November 23 have expressed concern lest our comments on the experimental technique employed might be regarded as suggesting that the experiment ought not to be repeated with the same materials because of their inherently high cost. The JOURNAL would like to make it clear that no such suggestion was, of course, intended, and in fact the experiment is at present being continued in other schools with exactly the same materials.

It was made quite clear in the discussion that followed the illustrations of the building that the architects do not regard the over-all cost of the school as unduly high. As they pointed out, the basic cost of the materials is not necessarily the governing factor in cost, and the use of laminated plastics in this building made possible "a system of building requiring the very minimum amount of labour." They further pointed out that by the use of a thicker wall panel a very substantial saving in the amount of aluminium used could be made.

The important point to be watched in all experimental building is, of course, the keeping of a proper balance between expenditure on materials and the amount of labour cost that can be saved by using one material rather than another.

DIARY

Regency Brighton. Exhibition. At The Building Centre, 9, Conduit Street, W.1 (Sponsor, the Regency Society of Brighton and Hove.) Weekdays: 10 a.m. to 5 p.m. Saturdays: 10 a.m. to 1 p.m.

UNTIL DEC. 23

Housing Association's Post-War Housing Schemes. At 13, Suffolk Street, S.W.1 (HC). Housing schemes and reconditioning carried out by housing associations since 1945. Daily: 9.30 a.m. to 5.30 p.m. Saturdays: 9.30 a.m. to 12.30 p.m. UNTIL JAN. 13

The Structural and Decorative Use of Timber. J. R. M. Poole. At 13, Suffolk Street, S.W.1. (Sponsor HC.) 6.30 p.m. JAN. 5

Draughtsmanship of the Past. H. S. Goodhart-Rendel. At RIBA, 66, Portland Place, W.1, on the occasion of the announcement of awards of prizes and studentships. 6 p.m. JAN. 9

The Early Years of Illuminating Engineering in Great Britain. Dr. J. W. T. Walsh. At the Royal Institution, Albemarle Street, W.1. (Sponsor, IES.) 6 p.m. JAN. 17

or less arguable and definable. Our excursions into the tricky territory of aesthetics were quite academic and limited to odd thumbings of books and old journals while waiting for the prints to come up.

The seven remaining Group members graduated from the staff after serving for two years or more. Only one had previously established a practice, which was temporarily stopped by the war. Three were school-trained, with a little office experience. The remainder had a considerable amount of office experience. Ages varied from the late twenties to the fifties. A few were married and had families. During the course of the Group existence all the single members have become married men and have families. Though this cannot be said to be peculiar to Group working, it ultimately has a bearing on the working of a Group. Apart from the capital equipment and goodwill built up by the original three, no one put any capital down on entering the Group. It was not necessary at the time; tremendous effort had built up a surplus over adequate "salary" allowances which, for a number of years, was sufficient to finance extensions and acquisitions; debts were few, as Government Departments paid promptly.

CAPACITY TO FACE PROBLEMS

When, after the war, business slackened off considerably and the rate of building fell, it became necessary to stand further capital expenditure and running costs over much longer periods. Members had then to forgo some of their drawings. It was a sort of deferred capital contribution, but was never considered as anything but a temporary loan. The "capital" element of ability and service in the cause of the Group enjoyed a high rating. This was not surprising; the climate of the Group was intended to encourage self-respect. Under more difficult circumstances the same attitude might have been embarrassing; fortunately, as yet, circumstances have not grown worse, and it would be unjust to pre-judge. One of the reasons for the strength of the Group has been the capacity of the members to face problems; whatever future circumstances arise they will be met by joint and frank discussion.

That is a broad outline of circumstances and personalities. It is a picture of events in harmony with dispositions; of a diverse collection of individuals with diverse ages and backgrounds, differing family responsibilities, differing rates of development, differing capacities and interests, yet imbued by a more or less common desire to improve design and service, believing that the best way to realize this was by joining individual effort in collective action, but with only a hazy conception of the best ways and means of working amidst all the speculation, enthusiasm and doubts of a state of experiment.

How has it worked out? Briefly, and possibly unfairly, it worked best when we were most dependent; when those without the experience had the connections or the enthusiasms or the energy, and those with experience and energy were without the connections. In other words, the more we developed the more family responsibilities we incurred; the nearer connections, experience, energy and ability reached the optimum, the less in harmony with our old method of working we became. We have previously called attention to the three R's of co-operation—Relations, Recognition and Reward. We have always tried to keep happy relations at all levels—this inevitably leads to rapid development in personalities. Although it was generally agreed to call the firm after one member, as a result of which he has enjoyed undeserved recognition (and, may it be added, recrimination), other Group members' names have received all available publicity, and they have always had free and direct access to clients—this has also developed personality.

Our methods of dividing rewards have already been fully described. They have resulted in an improved material standard for all; we have been able to establish reasonable homes and live in a little more than ordinary comfort, to acquire cars and other possessions, again with developing effects. Development of personality is necessary for an improved architectural service; however, the more individuals develop the greater becomes the strain of living comfortably within a collective framework. To give some examples. The growing pains of personality may show in differences of opinion on design and policy, particularly the kind of practice to develop. Design gave little trouble. Some of the members were sensitive and skilful designers, and the rest respected their opinions; they in turn were tolerant and open minded—if their advice was only partially accepted or rejected they philosophically accepted the situation. On the other hand, differences in office policy caused the greatest difficulty.

In Group practice where a comparatively large number of members can and do obtain jobs, it is easy to grow too big. We allowed complete freedom to members earning their living within the existing Group practice to make their own contacts for enlarging the practice, though we never put great store on getting jobs, believing that doing them well meant much more. We had various schemes for awarding commissions to members bringing in new work, but they have all been dropped, and very little commission has ever been claimed. The pleasure of capturing a new client was unaffected by this, and so, as they made more and more contact with "Group" clients, officials, contractors and other potential sources, members began to introduce clients, and in some cases there was a strong and not unnatural inclination to regard them as "personal" clients.

Our system of discussing whether or not we could or should take on new work was weak, while our desire to give the best possible chances for individual development was so strong it would have undermined almost any system—it isn't easy to tell a colleague bursting with enthusiasm over a newly acquired small job which may lead to "big things" that he'd better stick to his responsibilities on the existing big jobs in the office.

Two of the original members left soon after the war, as their old clientele wakened up. They both knew they were going back to smaller jobs and a less exciting existence, possibly even less remuneration, and I think they left with a certain amount of regret, but they felt they had to. They could not reconcile their old practices with the sort of practice they had helped to build up as members of the Group; their old roots pulled, and both of them felt happier immediately they went back.

WEAKNESSES OF THE GROUP

If a co-respondent for the disruption of our earlier union were to be cited it would be the "personal" clients. Perhaps "personal" will be frowned on by the purists, but architecture does become a very personal matter as between designer and client; thus it is not strange that one of the principal partners in a conception should wish the other to share in the rearing of the child in preference to a foster architect. Probably we were weak in allowing the situation to arise. Endeavouring to lead without ever seeming to result in failure on many occasions to take action which might have retained control over developing personalities. Diffidence to direct created difficulties—it seems to be an inherent weakness of democratic societies.

Then, as is being found in a wider field today, sharing brings only slow and small increases for the many, with quick and spectacular falls for the few. Thus, after the relatively great initial improvement of Group member status, further advancement

seemed slow. As Group members developed in later years they became convinced they could earn at least as much, with less trouble and worry, as public officials, and much more with no more than their present troubles if they "went on their own."

From personal experience these views undoubtedly strengthened as they married and undertook home and family responsibilities. Thus, a Group cannot be considered without the various members' family commitments; one nearing middle age with a son to keep at a University will have a different outlook from a single person living in the parental home.

Possibly we had the wrong commissions; we took on a lot of local authority housing and planning work, which, as is well known, is not the most remunerative, although it offers considerable opportunities for design. Whatever the type of work, the same fees divided among more people expecting higher proportions will inevitably mean moderate standard for most as against high for the few and low for the many.

This introduces the questions of the "Group" employing assistants and the size of the firm. We have employed a large number of assistants, but, on the whole, we were never sure enough about taking on staff. Our custom of allowing each member full control of "his" jobs, freedom to raid the drawing and general offices, poach the services of the surveyors and supervisors of work, was flexible enough and worked well while jobs were large and few; it broke down frequently in the post-war pattern of practice. We hesitated to take on new staff for "our" jobs in case we weren't working as hard as our colleagues, who seemed to be getting on with theirs without needing more staff—possibly because they were more successful in persuading the staff to work for them!

There was a weakness here which might have been resolved by allowing one member to control the intake of jobs and staff to do them, but we were reluctant to face this implication of collectivising. No one should despair at this—it is democracy's problem as well as that of Group Practice, and we believe that one way of overcoming it is local autonomy.

DIVISIONS OF RESPONSIBILITY

As we grew, divisions of responsibility tended to become confused. We had two offices in Preston, as well as offices in Rochdale, Stafford, Rugby and Aycliffe. One knew a little of all our jobs and was very familiar with some of the work, but while one felt it impossible to take enough responsibility for all, the others suffered to some extent from feeling they were perhaps taking too much and making decisions without reference. The answer has already been given by Frederick Gibberd—to control the size of the firm so that you can be personally responsible for designing all the work in the office.

These circumstances of an expanding practice in offices situated far apart did much to alter the old Group feeling. While we were all together under one roof, seeing each other almost daily, enjoying frequent informal and regular formal contact, it was easier to cohere. When outlying offices were established and Group members departed to run them, there was a strong tendency of local preoccupation and pride to compete with Group loyalty. Up to a point competition is good, but when comparisons creep in, mutual respect is endangered. Nevertheless, the branch offices have proved to be good foundations for the new firms forming the new associations.

To return to this new association; we are still working out the details, but the principle of the re-organization is the establishment of five new and complete independent offices, as follows: Preston, Grenfell Baines and Hargreaves; Rochdale, Ashworth and Fletcher; Bolton, Worrall & Kelly, quantity surveyors; Rugby, Douglas J. Oliver (D. J.

Oliver & G. G. Baines); Morecambe, Richard Dobson (R. Dobson and G. G. Baines).

Each new architectural firm records on letter head and drawings its membership of the Group. The new firms are each contributing an agreed part of their profits to a Group central fund, to be used for research and relief of firms whose member principals have not been able to make profits equal to their present basic Group salary; the fund will exist for any other agreed use which experience may show to be desirable. Membership of the association is open to other firms with like aims; they must be proposed by a member firm and unanimously elected by secret ballot.

REORGANISATION FOR GREATER INDEPENDENCE

All existing jobs held by the old Group will be completed, fees being paid through a clearing account to the new firm undertaking the work, collective responsibility being maintained under the protection of an indemnity policy. Agreed sections of the existing Group clientele are being taken over by each of the new offices. An auditor was appointed to go into the cash value of the assets and goodwill—on evidence submitted by each member office he was enabled to assess the potential net fee value of current jobs—the resulting global sum was divided by the personal assessment method described in the earlier paper, and the work in hand allocated to the new firms on this basis. The auditor will control all receipts and payments until all existing Group commitments are completed and fees are drawn; each firm will keep its own accounts and have its own accountant.

As a Group we have been able to enter into an agreement with an insurance company for the establishment of a staff pension scheme; though this scheme cannot be as favourable as the large local government schemes, it is better than we might have been able to achieve as individual small firms. The scheme is administered by a trust of three elected from the original Group members.

So our collective experiment has led back to individual independence, but, we think, independence with a difference. We believe small architectural organizations will produce the best design and best service, but the obvious weaknesses of small practices should be countered by membership of an association. Not as big as or in any way supplementary to the local chapter of the RIBA—it would be another mistake for the associations themselves to grow too big. The intimacy, personal knowledge and contacts of the small Group must be preserved.

We are not standing still; we are accepting the things we have not been able to change and have tried to make something of them. It will take some time and much goodwill to prove whether what we are trying to make is more amenable to the human material with which we have to build.

Since the Group began, our experience, not fully related here by any means, is bound to lead to certain conclusions; this account will probably suggest many of them, but some are worth repetition. Group practice develops individuality and personality; it will always tend to produce architects rather than assistants. This is not to undervalue the assistant or to say that they are not a necessary element, but suggests that as a young architect develops, if there is any tendency to start on his own, Group practice will be more likely to bring it out.

The pleasures and responsibilities of individual practice must be earned by hard work and experience. Apart from safeguarding the client and the status of the profession, it is necessary for the peace of mind of any conscientious individual. Many students and young assistants tend to hold the idea that they can practise almost as soon as they leave a school or pass the final examination; they could hardly do less justice to themselves.

Any Group should contain a balance of talents as between those with more imagination than perspicacity and those who can turn ideas into practical and usable as well as beautiful buildings. It is difficult to reconcile differing ages with the need for experience. Generally it would seem desirable for Group members to be of an age and from a similar background, e.g., school trained. On the other hand there must be a blend of experience and enthusiasm. One solution might be for older, near retiring members of the profession to create the conditions for an Indian summer in their practices by turning them into Groups manned by younger men with the requisite school training and office experience. Great disparities in age do not seem to create the same difficulties as, say, five or ten years.

CONSISTENT CONTROL NEEDED

It is desirable for all new members to put down some capital when entering a Group; either immediately or by an agreement to accept reduced salary until a definite sum is reached; such capital as goes towards equipment to be subject to depreciation or appreciation. Some method of controlling amount of work and size of office must be evolved and, once agreed, adhered to.

Finally, it is doubtful whether we could have formed our present association without first passing through our experience as members of the original Group. And certainly we could not have passed through this preliminary stage if we had not had some years of experience as assistants.

The problems of allowing individuality free play, while getting the best out of collective effort; of sustaining a climate of fair shares, at the same time as personalities and responsibilities are developing, are great but not insuperable. What we have done has been done to some extent by others and will be emulated by many. We have not lost faith in the principle of providing the best possible conditions for the development of architectural personalities as one way towards providing better architectural design and service.

This feature covers aspects of legislation, parliamentary news or statutory rules and regulations which are of special significance to the architectural profession.

ERNEST WATKINS

The Architect and Current Affairs

A few weeks ago a Departmental Committee was appointed to review the income tax laws relating to both contractual and voluntary schemes for providing pensions on retirement. The need for such a committee is evident. Income tax in its various forms is the principal barrier in the way of any individual attempt to provide for a pension on retirement out of current savings. But departmental committees take time to complete their reports, and legislation based on their recommendations seems to take even longer. What can the individual do now to improve his position?

One obvious asset is his professional goodwill. The majority of architects in private practice are in partnership; even if they are not, the professional goodwill they build up is an expression of the capitalized value of their training and experience. Can that be used to provide a pension on retirement and, if so, what can be done, within the existing

income tax laws, to diminish the hole that taxation makes in the final available cash sum?

When a man comes to dispose of his interest in his practice, the payment he receives can take one of three forms. He can bargain to receive a lump sum in cash. He can agree to accept a sum of capital payable by instalments over a fixed period of years. He can dispose of his interest in exchange for an annuity payable over the remainder of his life. The High Court has held that if he adopts either of the first two methods, the sum he receives is capital, not liable to income tax. If he adopts the third method, the sum he receives is income, and liable to tax.

But the method adopted must also pay some regard to the interests of the purchaser. For one thing, many purchasers will pay a larger sum by instalments than they can raise for one capital payment. However the payment is arranged, the purchaser cannot charge any annual payments he is due to make as a working expense or business outgoing when he comes to estimate his own liability for income tax on the earnings of the practice. But the way in which the sum is to be paid does affect his surtax position. If the purchaser is liable to pay a sum which is taxable income in the hands of the recipient, then he can deduct that amount from his income for surtax purposes. That circumstance must play some part in the fixing of the actual purchase price.

If neither the seller nor the purchaser will be liable for surtax, then the seller will gain if the price to be paid is made in the form of a capital payment, and the purchaser will suffer no loss. But if the purchaser will be liable to surtax on his resulting income, he will get some advantage from a payment made in the form of income. What that advantage will be will depend on how much of his resulting income is liable to surtax. If both seller and purchaser will be liable to surtax, then the balance of advantage will lie with the man who pays at the lower rate (who will, most likely, be the seller).

Many arrangements for the sale of an interest in a practice, particularly those where the sale is to the continuing partners, provide that the sum to be paid shall be linked with the profits to be earned. This may still result in a payment to the seller of a sum which is capital in his hands and not liable to income tax, but the dividing line between what arrangements produce one result and what the other is extremely narrow and it would be misleading to attempt to define them here. Roughly the test is whether the arrangement results in the payment to the seller of one sum or whether it results in the payment to him of a series of sums each separately calculated. In the latter case, he receives income; in the former, capital. What is essential is that the final document should be prepared with the aid of the best professional advice.

Normally it is. There must be few architects in private practice who cope with their tax concerns without the aid of accountants and their partnership deeds without the aid of lawyers, but there is one important point to bear in mind—and this is really the main purpose of this note. What is agreed in a partnership deed long before the question of retirement is actually in mind may have a considerable influence on the position that does arise on retirement—and, after all, retirement is not always a matter of choice. It may arise from accident or illness. It is always desirable that a man who is within, say, ten years of a likely retiring age should begin to think of the tax position that will arise when he does retire and should plan his arrangements accordingly. If he does so at a time when he is, so to speak, master of the ship, it can be done so much more easily than at a time when he is on the point of departure. He cannot get advice from the income tax specialists too early for security and ease of mind in the years of his retirement.

In view of the drastic effect the rehousing programme is having on the visual scene we record, on the following pages, the 35 schemes which have been officially recognized, by the award of the MOH housing medal, as representative of the highest standard which can be produced today. We have asked Professor Gordon Stephenson to comment on them. On each plan north is at the top.

MOH HOUSING MEDAL AWARDS

A critical study by Professor Gordon Stephenson

Last September, the Minister of Health awarded Housing Medals to the designers of 35 housing schemes in England and Wales. There were 20 winning schemes in urban areas and 15 in rural areas. The awards were the first of their kind made in this country and were for work completed in the five years since the war. Henceforth, the awards will be made each year.

POSSIBLE DANGER OF COMPETITION

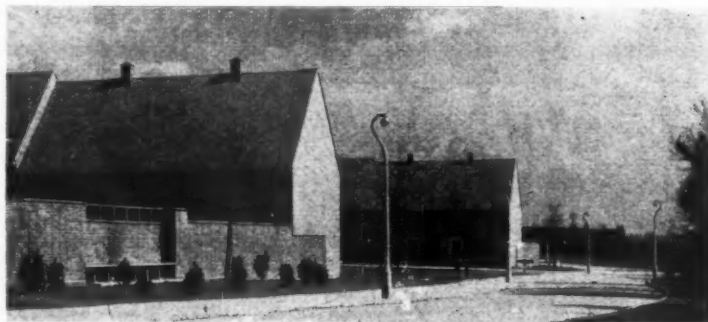
There is a lot to be said for the official recognition of well designed housing schemes. At the very least, it brings them to the notice of all local authorities, and they may serve as an example to those in doubt. As judgment was made in each region, the schemes are to be found throughout the country and they should illustrate what is considered appropriate regional architecture. Another strong point in favour of the whole idea is that it should encourage competition between architects, though it remains to be seen whether this will be healthy or not. Such competition could end in playing to juries, particularly if there is no ceiling to costs.

It is, of course, significant that nearly all the really large authorities failed to score in the first round. Yet they have made the running in the past 30 years, and they have architects of high repute as officers. It may be that they will be tempted to select small and choice sites from the many they have available and set to work on them with all the skill at their disposal and "regardless of cost." We must come back to this question of cost later on, and also that concerning systems of layout. On the evidence, only Donald Gibson of Coventry has developed an underlying theme for a layout. The other relatively large schemes are on conventional lines, and one of them is real "drawing-board geometry" which I would not expect from a third year architectural student. Nearly all the winning schemes are interesting fragments on odd and sometimes beautiful sites.

The winners were selected by committees in each of the 11 MOH regions. The committees consisted of nine members of whom five were architects and four lay members. They were appointed by the MOH, the Councils of the RIBA and its allied societies, and the Association of Local Authorities. The appropriate Regional Architect of the Ministry sat on each committee. Without him the judging would have been a long and exceedingly difficult task.

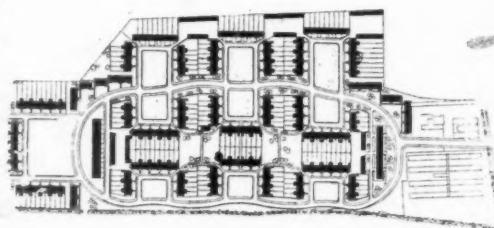
AWARDS FOR APPEARANCE AND GROUPING

Looking at the photographs and block plans one gets only a limited impression of the various schemes. The view is limited yet comprehensive; but peculiar virtues may be overlooked. One must also assume that all the plans of the individual



COVENTRY C3C

housing at MONK PARK
designed by D. E. GIBSON



MELTON MOWBRAY UDC

housing at ASHFORDBY ROAD and
NOTTINGHAM ROAD
designed by CLIFFORD E. CULPIN





IPSWICH CBC

housing at RUSHMERE HALL FARM
designed by J. B. STOREY



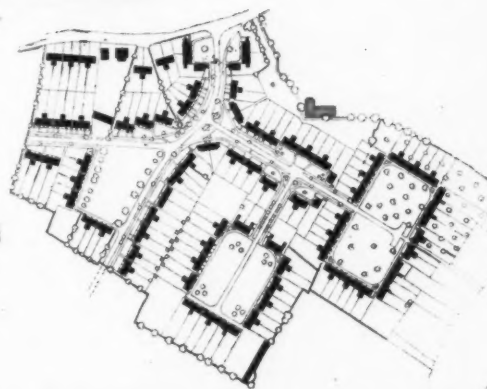
LEEDS CBC

housing at IRELAND WOOD ESTATE,
COOKRIDGE
designed by R. A. H. LIVETT



WESTBURY UDC

housing at OLDFIELD
designed by G. BLAIR IMRIE



BIRKENHEAD CBC

housing at WOODCHURCH ESTATE
designed by HERBERT J. ROWSE

dwellings conform to the suggestions made in the Housing Manual. With these qualifications in mind, it would seem that the choice of winners was based simply on appearance and details of grouping. There are no signs that the economics of housing have had much influence on the thoughts of the juries. Yet it is in the turbulent economic sea that the architects' ship may be in danger. For the first time, they have manned the bridge. It is something new and full of promise that they should be entrusted with the design of nearly all the houses.

In many of the schemes extravaganzas in road layout are purely decorative, and otherwise useless; open spaces are apparent, and in some there is unnecessarily fussy building detail. All this despite the fact that capital and maintenance costs must be brought down if the immense housing problem is ever to be solved. For some reason we are not making the most of our past experience. For example, the works of Unwin and the Tudor Walters Report of 1919 should be required reading. Not that architects should copy what is, after all, pioneer work: they should do better. It is of some significance that Arthur Kenyon's layout at Banstead is both as neat and as economical as any. He has been working on housing for 30 years, and the affinity of his layout to the ideas that he and de Soissons and, before them, Unwin and Barry Parker, had developed, before and after the first world war, is striking. Henry Wright and Clarence Stein studied those ideas and carried them farther in America. In turn, they have influenced architects in other countries, particularly in Scandinavia. Those who recall the housing schemes in Frankfurt, prepared by Ernst May and his associates in the late 'twenties, will know what could be done by architects who had carefully studied the work of Unwin and the pioneers.

MORE RATIONAL LAYOUTS NEEDED

The schemes as a whole are disappointing. Perhaps, from the glimpse of a few which were presented in the Housing Manual, one had come to expect more than was possible—or, maybe, one was looking for a more definite sense of direction. It is true that nearly all pass the conventional tests. But how many pass the really hard ones which must be established before long? The time has come when rent should be the dominant thought in the mind of every designer. If this was so, strenuous efforts would be made to reduce capital and maintenance costs, and this should be possible without a reduction in dwelling space standards. To achieve it, layouts will have to be more rational and economical, and building design and construction simplified. Sentimental whimsy should be thrown through the door, and hard thinking brought in. There should be immense possibilities for designers who are both sensible and sensitive. What an asset they would be if, without adding to capital expenditure on housing, they were able to increase the building programme by 50,000 a year, with a consequent reduction in rents.

The new tools coming into the building industry will be wasted on cottages that are designed to create an air of nostalgia. In Frankfurt, and in recent years in Baldwin Hills and Fresh Meadows in the USA, there have been stimulating examples of schemes which came from hard thinking and, in the case of the first, from hard circumstances. They are



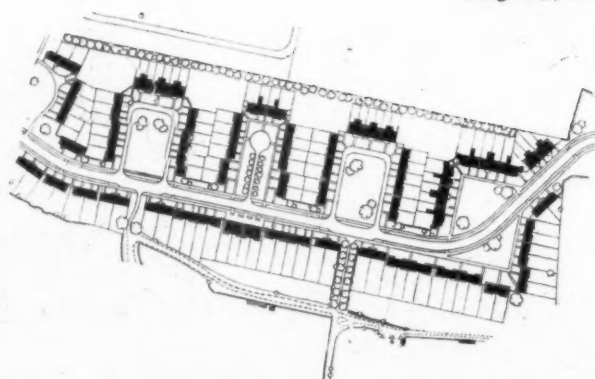
BLACKBURN RDC

housing at BILLINGTON GARDENS
designed by THE GRENELL BAINES GROUP



NORTHAMPTON CBC

housing at DALLINGTON FIELDS
designed by J. L. WOMERSLEY





BOLLINGTON UDC

housing at BOLLINGTON CROSS
designed by W. DOBSON
CHAPMAN and BERNARD TAYLOR



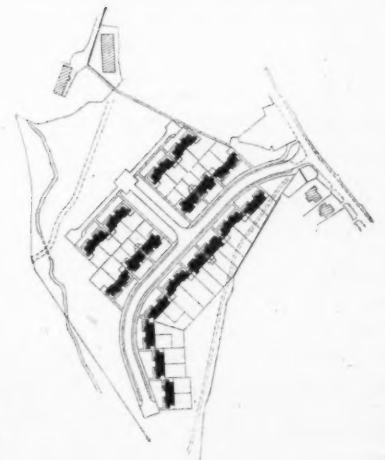
BRANDON AND BYSHOTTLES UDC

housing at ESH WINNING
designed by FRED HEDLEY



BANSTEAD UDC

housing at HORSECROFT MEADOW
designed by A. W. KENYON



DISLEY RDC

housing at BENTSIDE
designed by WILLIAM C. YOUNG

ON CBC
TON FIELDS
MERSLEY

exciting and yet urbane ; spacious and yet compact ; functional and yet civilised. The architects had to keep in mind the rents people could afford to pay. If we ignore the question of rents, the housing priority lists will become more and more meaningless and we shall find the poorest paid unable to afford a house which, in their small way, they are helping to pay for in rates and taxes.

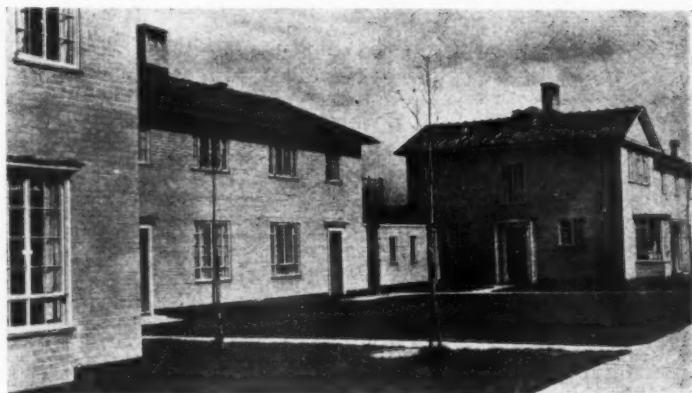
A review of the prize-winning schemes should be an invigorating experience, but it is not. Perhaps if one were a pure aesthete and liked things which ploughed a safe furrow, one would be pleased. But looking at housing one should not divorce form and function from social and economic matters, and, with this broader view, the best that can be said is that some schemes are most competent, the majority fairly good, and one, at least, downright bad. The only scheme designed in a contemporary idiom is that for the flat group in St. Pancras by Norman and Dawbarn (p. 550). It is a high density scheme, but the layout is economical and gives the appearance of spaciousness. It is as graceful and pleasant as the skilfully designed neo-Georgian group in Hampstead by C. H. James (p. 550). Both schemes take good advantage of pleasant sites, and both should be well lit and give the maximum possible privacy and quiet to those living in the flats. It would be interesting to know the relative costs ; to discover if a modern design using traditional materials is more economical.

SLAVES TO NEW ORTHODOXY

The majority of the schemes pay a fairly slavish regard to the new orthodoxy. The designs, though sometimes sweet in a sentimental way, are limited in conception and generally middling-fair. Yet the new orthodoxy promised much. There is nothing in it that really restricts the sincere, adventurous and sensitive architect. Though there may have been many councils and councillors who would insist on the conventional, there must be many by now who would welcome schemes which were more economical—and they would swallow aesthetic predilections in accepting them.

The Housing Manual, apart from its lack of economic guidance and its consequent tendency to put together all the ideas collected by the Dudley Committee, is a model of its kind. There are few countries with Housing Ministries which have done so much to encourage good architectural design. This, in part, comes from our leadership in the housing field which we took over from the Germans in the early part of the century ; on the architectural side largely through the inspiring leadership of that most modest of men, the late Sir Raymond Unwin.

It is when one looks back at the work of Unwin, Lutyens and Parker, carried out 40 years ago at Hampstead Garden Suburb, Letchworth and other places, one realises that in many ways we have advanced but little and, in others, gone back to a purely aesthetic groping after objectives. This leads into a dead-end street, and not one of the kind envisaged by Unwin. He had to work when nearly all new houses were in the by-law streets of the speculating builder, while we are cheered on by the crowds on the side-lines. He had to prove that his new ideas were both more civilised and at the same time economical. There were few local authorities



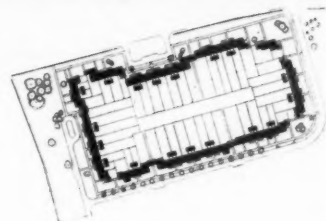
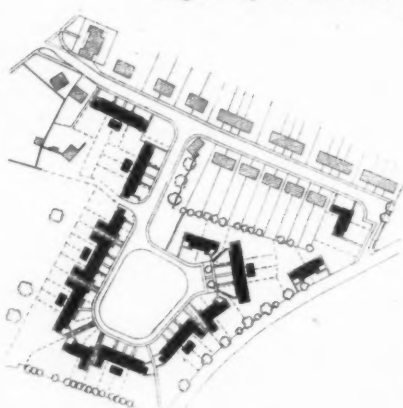
WORTHING BC

housing at BARRINGTON ROAD
designed by C. COWLES VOYSEY



ABINGDON BC

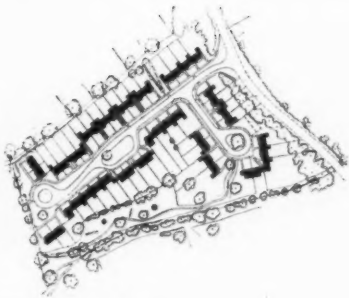
housing at FITZHARRIS FARM
designed by F. R. COX



DOWNHAM MARKET UDC

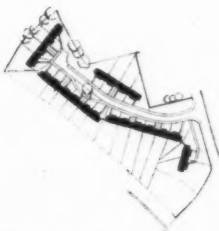
housing at RETREAT
designed by PETER BICKNELL





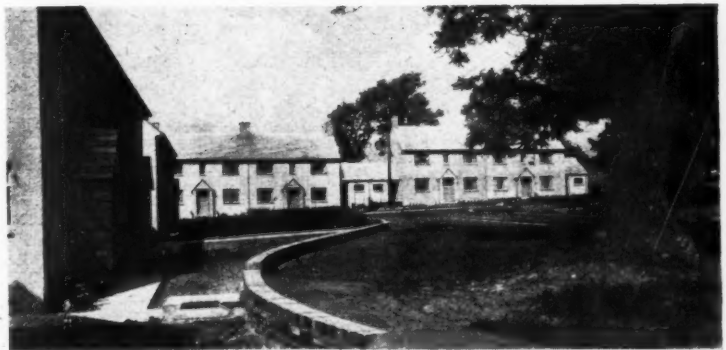
LUTON RDC

housing at HOUGHTON REGIS
designed by P. B. DUNHAM



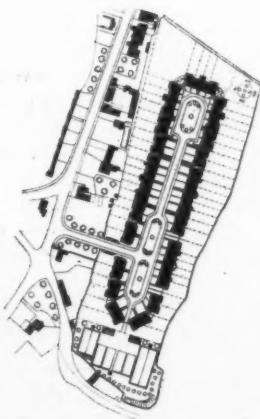
BELLINGHAM RDC

housing at BELLINGHAM
designed by W. DIXON & SON



MINEHEAD UDC

housing at QUARRY CLOSE
designed by EDWIN GUNN



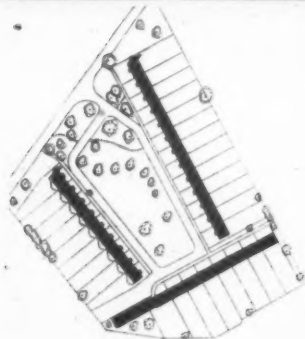
WREXHAM RDC

housing at DEE PARK, HOLT
designed by DAVID E. EDWARDS

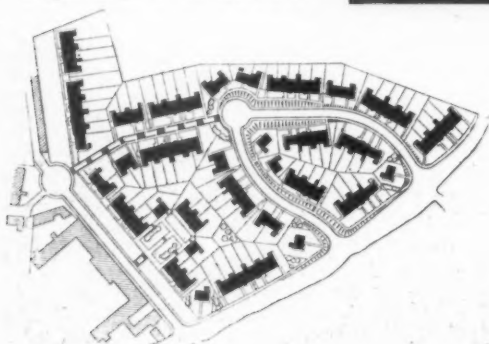


**LODDON RDC**

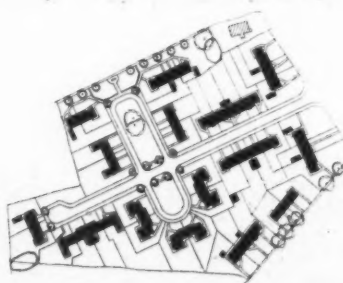
housing at WINDMILL GREEN,
DITCHINGHAM
designed by TAYLER & GREEN

**WHITBY UDC**

housing at ROPERY and GREEN
LANE
designed by E. B. NORRIS

**HOLLINGBOURN RDC**

housing at FORGE MEADOW,
HEADCORN
designed by A. L. FARMAN



interested in building houses and the competition of the speculating builder was fierce. But he and the other architect-reformers, with the backing of some enlightened housing associations, won a splendid victory, and his was the guiding hand when the Tudor Walters Report was drafted. This remarkable and practical document set basic standards and established the fundamental ideas which went into the million local authority houses built between the wars. Yet neither Unwin nor the Tudor Walters Committee could see the changes in the way of life which have taken place in the last decade; nor did they recognise that the motor car might one day be in universal use. We can see this day coming, and we should also make greater efforts to design houses and layouts which will fit the family life of this generation and the next. What is more the present situation calls for more houses at lower cost, so that more families may be housed for the same total capital expenditure. These are the thoughts which keep recurring when one examines the schemes.

URBAN SCHEMES

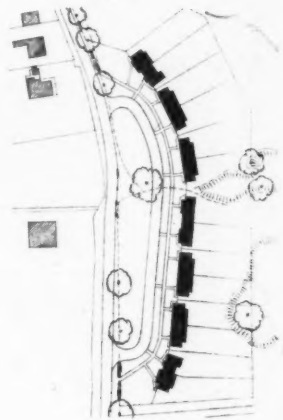
The urban schemes may be divided into three groups: the first containing those which are relatively large in scale; the second, those of more modest dimensions; the third, groups of flats.

The Monks Park estate at Coventry is the most interesting of the larger layouts (p. 540). It is a spacious and symmetrical arrangement of rectangular greens linked together by an oval connecting road. This road bisects the larger greens and, in general, the houses are at right angles to it and the flats and old people's cottages face it. The houses and flats are of a simple and pleasant design and the long terraces are used with telling effect. The layout is full of ideas, one no doubt coming from the sketches the late Sir Charles Reilly made in the battle of Woodchurch, Birkenhead. It is because the layout contains so many ideas that it tends to be extravagant and somewhat confused. There can be no quarrel with the related and various types of dwellings of the same site, nor with their design. But one might ask why it was necessary to have so much paved surface in roads and garage compounds and 12 separate open spaces, of which ten are decorative and surrounded by roads? There are, in addition, several planted areas between the oval road and dwellings which add to the maintenance problem. Coventry, with its high proportion of residents owning cars, is an ideal place in which to test the Radburn super-block idea, which has recently been carried a stage further at Baldwin Hills Village, Los Angeles. Amongst other advantages of the "Radburn" super-block, there are great savings in paved surface, the open space becomes a continuous internal park (which is a safe place) and the cars are garaged in proximity to the houses.

In contrast to Coventry, the Ipswich layout is a collection of long wide streets, which look as if they are destined to produce suburban fatigue (p. 541). Nearly all the houses are semi-detached and quite respectable individually. But the long street and the string of semi-detached houses is a dangerous combination. The wide verges are unnecessary and costly, especially when there are open front gardens, but they do contain trees and,



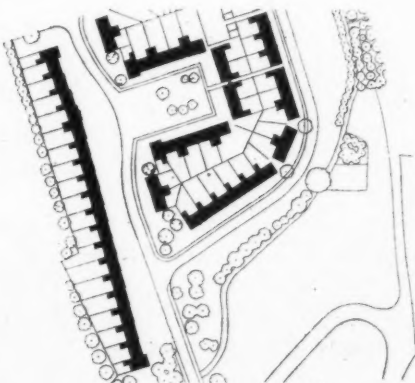
CHICHESTER RDC
housing at
CHIDHAM
designed by
J. K. LAWSON



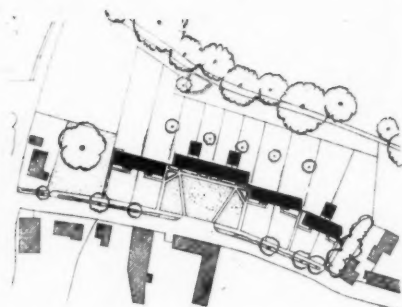
LYDD BC
housing at THE GREEN
designed by CLIFFORD E. CULPIN



PERSHORE RDC
housing at GREAT COMBERTON
designed by THOMAS R. BATEMAN

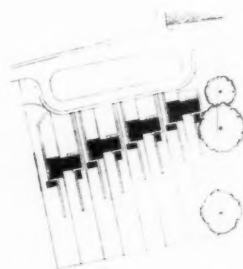


LLANRWST UDC
housing at CAER FELIN
designed by COLWYN FOULKES



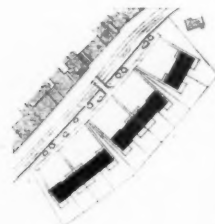
**WARMINSTER AND WESTBURY
RDC**

housing at STOCKTON
designed by G. BLAIR IMRIE



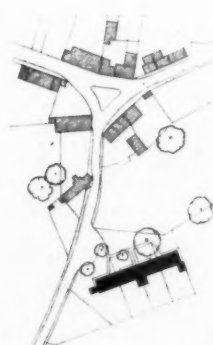
SHARDLOW RDC

housing at HILL TOP, BREADSALL
designed by THORPE and PARTNERS



**RIPON AND PATELEY BRIDGE
RDC**

housing at BISHOP MONKTON
designed by C. W. C. NEEDHAM



WITNEY RDC

housing at ASTHALL
designed by P. B. DUNHAM

with the passing of time, these may humanise the scene.

The Ireland Wood estate at Leeds is on a magnificent site with fine groups of mature trees at various points (p.541). The layout weaves between the woodlands which are left inside some of the larger blocks. The universal semi-detached house may be the economical answer in this type of layout on an undulating site. Both site and layout give more scope for variety than those at Ipswich, and R. A. H. Livett shows he is much more aware of the economics of road design.

Herbert Rowse's scheme at Woodchurch results from the famous Reilly-Borough Engineer fracas (p.541). Though Reilly himself did not design the neighbourhood, he was instrumental in having an architect do the job; and what more natural than that the architect was one of his famous students. The scheme, now only partly completed, is a curious combination of charming traditional cottages (expensive looking) and a layout which is monumental in its main lines of three converging roads with extraordinarily wide verges, but it is varied in detail.

SMALLER URBAN SCHEMES

Of the smaller urban schemes, that by J. L. Womersley, at Northampton, has an underlying theme (p.542). It is a straightforward combination of closes and a linking principal street. It has the merit of bringing all the charming neo-Georgian dwellings into the scene, and yet it offers contrast and variety. It would be interesting to see the author carry his theme a stage farther. In doing so he might, with advantage, look to maintenance costs and tighten the layout. The amount of public open space could be reduced and the odd pockets which occur in the back land when culs-de-sac are used in a single strip need not be there. Of the various closes the central one with the single carriageway is probably the most economical in space and cost. In the best example of this type of cul-de-sac, that designed by Arthur Kenyon at Banstead, there is a more intimate and homely atmosphere gained by a closer spaced and more economical grouping.

In the layout by G. Blair Imrie for Westbury, the village green type of close is used (p.541). The greens are cleverly fitted together on the site and the varied dwellings have a pleasant small town character. The roads are kept to a bare minimum and this may be a little inconvenient as in the two large enclosed greens, people will have to walk considerable distances from vehicles or take short cuts across the lawns. Furthermore, the enclosed greens will be difficult to find. The old village green provided a centre for activity and, if we are to exploit it still further as a planning idea this should not be forgotten.

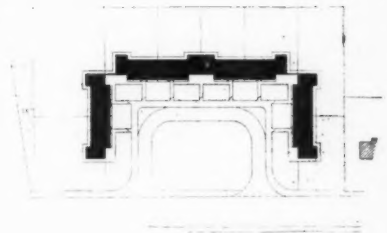
THE CLOSE AND THE CUL-DE-SAC

A majority of the smaller schemes incorporate the cul-de-sac or close in its various forms. A bold note is struck by Taylor and Green in their scheme for the Loddon RDC (p.546). They are not afraid of using terraces in the grand manner of the Regency period. Their scheme approaches the majestic. It is difficult to judge from the illus-



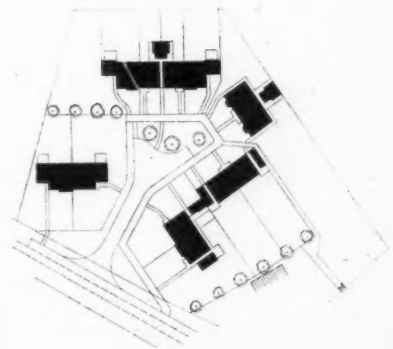
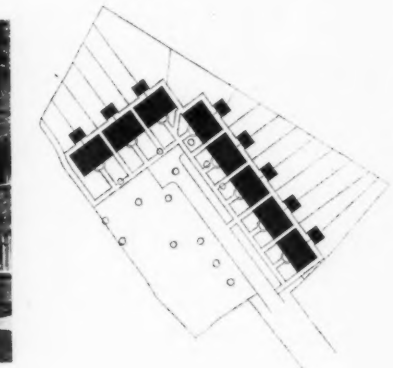
ALNWICK RDC

housing at HIPSBURN, LESBURY
designed by REAVELL and CAHILL



BEACONSFIELD UDC

housing at ORCHARD ROAD
designed by BURGESS, HOLDEN
and WATSON



BILLESDON RDC

housing at HUNGARTON
designed by C. F. M. KEAY



trations whether it is too spacious for the scale of the terraces which look delightful in detail. But it is refreshing to see a scheme which scorns verges and puts its open space in what is virtually one piece. T. R. Bateman does the same in his interesting arrangement of green with cul-de-sac road, and his simple cottages with ample front gardens look truly rural in their setting (p. 547). The scheme at Bollington, designed by Bernard Taylor of Dobson, Chapman & Partners, has fine simple houses, but the layout, which was evidently dictated by existing development, is a little rigid (p. 543). At first glance, the same might be said of the layout for the group designed by Tom Mellor as a member of the Grenfell Baines group (p. 542). But on close examination, it proves to be a practical and robust essay in design on a sloping site. It is compact and straightforward, the interest and variation comes from the nature of the magnificent yet exposed North Lancashire site. The combination of bold terrace and fine close is seen at its best in the group of houses designed by S. Colwyn Foulkes at Llanrwst. This is a really good essay in imaginative site planning and, by some magic, the houses look Welsh.

It has only been possible in the space available to attempt to select some of the points, mostly good, in some of the schemes. The smallest schemes speak for themselves. You either like them or you do not. One could make a long list of small critical points, but to do so is an invidious task.

CAPITAL AND MAINTENANCE NOT CONSIDERED

There are some general questions which must evidently be answered in the years to come. At the top of the list is that concerning costs—both capital and maintenance. There is, on the evidence, real cause for concern here. Then next, perhaps, comes layout (which cannot be divorced from the type of house it contains). One looks in vain for signs of deep thought on this subject. Coventry made the only attempt to think afresh and whether it has found an answer remains to be seen. The smaller schemes have scored with variations on the Unwin cul-de-sac and close. With the orthodox cottage this form of layout for the small group is probably the most economical and the most charming. But are we right in pursuing the orthodox house? Is it the most economical; does it, in fact, provide the right background for modern family life; and is it the most easily run by that most harassed of all today's citizens—the mother? Finally, will charm alone give us the answer to the considerable town extension and reconstruction?

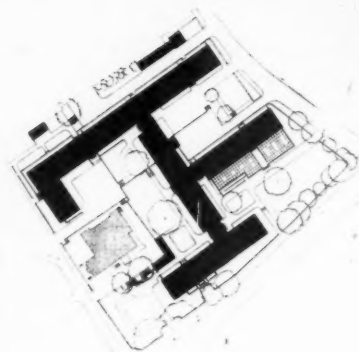
Perhaps, next time, the juries may be persuaded to look for the economical layouts and house designs (why not a ceiling cost of £1,200 per house?). They would do good work if they encouraged some new pioneers and, finally, they should not be misled by newly mown lawns and verges—there are thousands of them up and down the country which have gone to seed and weed.

No mention has been made of lamp posts. The Ministry should give £1,000 to the designer of the first scheme which has simple tubes with lamp fittings at the top.



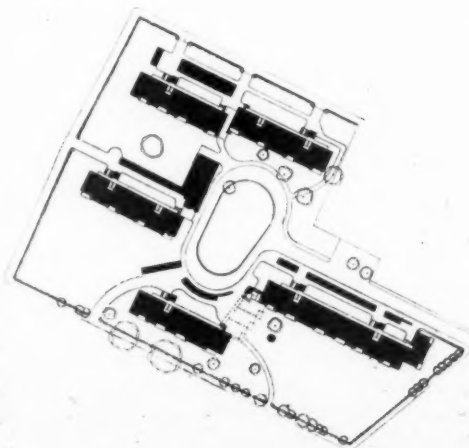
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housing at THE WELLS HOUSE,
WELL WALK
designed by C. H. JAMES



ST. PANCRAS MBC

housing at ST. PANCRAS WAY
designed by GRAHAM R. DAWBARN



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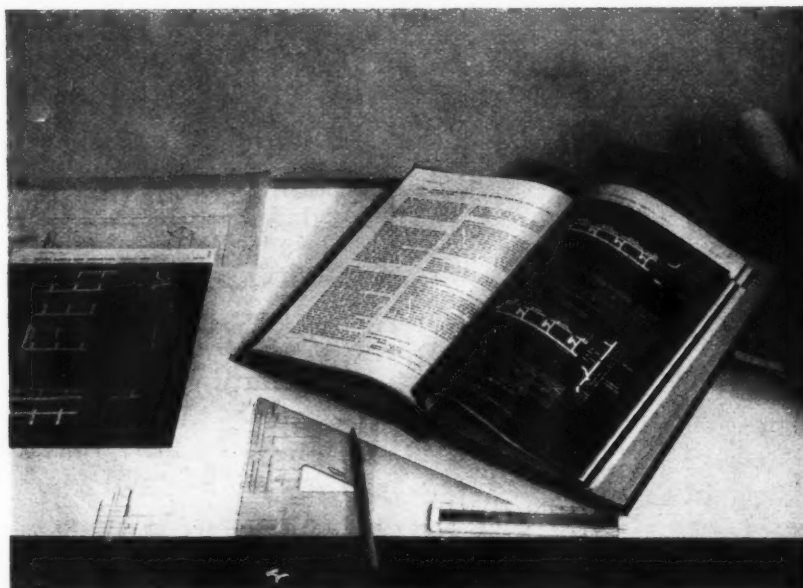
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TECHNICAL SECTION



THE LIBRARY OF INFORMATION SHEETS

This week part of the Technical Section is devoted to the customary annual review of the Library.

From time to time, and regularly each December, all Sheets are examined and checked, and where a manufacturer's products form the subject of a Sheet the manufacturer in question is asked to certify that the data included is still current. Where a Sheet is found to require considerable modification, it is cancelled and readers should remove such Sheets from their collections. Where only small variations are involved, revision notes enable the Sheet to be corrected.

The two Sheets (46.Z) published in this issue are an up-to-date analytical alphabetical index cancelling Sheets 46.Z, 1949, published this time last year.

On subsequent pages will be found a list of the revisions and cancellations which have become necessary during the year, and a statement showing the correct contents and sequence of all Sheets current at this date. For the benefit of new subscribers, we also reprint our Instructions to Secretaries and the Classification of the Library under its subject headings.

REPRINTS

To enable new subscribers to complete their Library all Sheets published since the inception of the new series in October, 1947, have been checked and reprinted. Readers requiring sets or individual Sheets should fill in the form printed in the adjoining column. Sets are available as follows:

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REVISIONS

During the last few weeks all published Sheets have been carefully examined to bring the information up to date, and, with the exceptions noted below, are certified as current and correct. The following list sets out revisions to the Library for the year ending December 28, 1950. A record of the revisions for 1948 and 1949 was published in the JOURNALS for December 23, 1948, and December 29, 1949, respectively and revisions for the three years are indicated on the current index thus: Revised 1948 (R. '48); Revised 1949 (R. '49); Revised 1950 (R. '50).

The suffix (C.R.) after a Sheet indicates that it has been cancelled, revised and republished. Cancelled Sheets are excluded from the index.

2.B4.—B.S. Code of Practice CP 4 : 1944, Chapter V, Loading has been renumbered B.S. Code of Practice CP3 Chapter V : 1944 Loading.

6.A1.—Revise address: "Lynton House," 54, South Side, Clapham Common, London, S.W.4. Telephone—Macaulay 3391/2.

14.L1, 2 and 3.—Reverse of Sheet—Revise address: Stramit Boards Ltd., Sales and Technical Departments, Packet Boat Dock, Cowley Peachey, near Uxbridge, Middlesex. Telephone—West Drayton 3021. Factory: Stowmarket, Suffolk.

15.R1 and 36.D1.—The manufacturer's title is now Durasteel Ltd. and not Durasteel Roofs Ltd.

18.G1.—Reverse of Sheet—Delete "18 in. by 24 in." under main heading "Sizes".
Revise address: Flooring Department, Bush House, Aldwych, London, W.C.2.

19.G3.—Reverse of Sheet—Delete "British Standard Codes of Practice, etc." and substitute Draft British Standard Codes of Practice: CP(B) 530: 1946 Linoleum and cork carpet. CP(B) 773: 1948 Cork tile flooring.

22.D13.—Face of Sheet—Upper drawing. The boards are now positioned to rest on the horizontal flange of the 1-in. by 1-in. wall angle trim section instead of being slotted to receive the flange.

24.E1.—The sub-frame at head, sill and jambs is now supplied in rolled steel and not pressed steel. This does not affect the overall sizes given. Windows to sizes other than standard can now be supplied in extruded aluminium sections.

26.C1.—Face of Sheet—The vertical rods of the mesh work, which are shown at present protruding above the top horizontal of the fence, are now finished off under the top horizontal and do not protrude.

26.E1.—The address of the Scottish Office is now:—103, West Regent Street, Glasgow, C.2. Telephone: Douglas 2546.

26.F1.—Face of Sheet—Delete reference letters S and L and corresponding note at foot of lower drawing. Reverse of Sheet—delete explanatory note, referring to the above, under heading "Operation". The standard width of ladders is now 1 ft. 2 in., all trap covers are in hardboard and the present cost of typical installations is from £19 10s.

26.F2.—Reverse of Sheet—The standard width of model 3S4RS is now 1 ft. 4 in. and model SD4RS 1 ft. 2 in. All trap covers are in hardboard. The present cost of typical installations is from £20 10s.

26.F3.—Reverse of Sheet—The standard width of model UD2S is now 1 ft. 2 in., all trap covers are in hardboard and the present cost of typical installations is from £15 10s.

26.F4.—Reverse of Sheet—The standard width of all models is now 1 ft. 6 in., all trap covers are in hardboard and the present cost of typical installations is from £21 10s.

28.A1.—The surface coefficients given on this Sheet conform to those set out in the publication of the Institute of Heating and Ventilating Engineers—"The Computation of Heat Requirements in Buildings."

28.H1.—Face of Sheet—The position of the gas supply connection has been changed and the lower right hand drawing is no longer correct. Reverse of Sheet—Revise the last two paragraphs under heading "Connections" to read as follows:—

a. through the rear wall, not less than 6 in. from the side of the recess, and not more than 4 in. from the floor of the recess, or *b.* through the floor of the recess, adjacent to termination point given below. The pipe must not enter from the side of the recess, where it would be fouled by the runners supporting the refrigerator. It must terminate in a $\frac{1}{2}$ -in. B.S.P. male taper thread, pointing to the front and located $3\frac{1}{2}$ in. to the left of the front to back centre line of the recess, $1\frac{1}{2}$ in. from the floor of recess and $6\frac{1}{2}$ in. from the front.

Revise first paragraph under "Consumption" to read as follows:—

Electric: Loading 165 watts. Average consumption 1.8 units per day.

29.C1.—Reverse of Sheet—Revise the last four lines in the opening paragraph after "Nautilus flues" to read as follows: is available for the 7505 and 7507 sizes. The two forms are interchangeable and the type required should be specified when ordering. Delete colours gunmetal and pastel green under sub-heading "Finish". In the table headed "Rating" the number of hours use per therm of fire number 7509 is now $4\frac{1}{2}$ and not $4\frac{1}{4}$.

29.C1 and 2.—Face of both Sheets—Delete note in lower right-hand drawing referring to fixing screw and substitute:— $\frac{1}{4}$ -in. grouted-in bolt.

29.C2.—Reverse of Sheet—Delete finished hammered brass and hammered copper under sub-heading "Finishes" and add gold, copper, pewter, gunmetal, green, bronze and parchment (stone).

32.C3.—To conform to the new B.S. 1212 for ball-valves, to which these fittings are made, revise water pressures in last paragraph under heading "Components" as follows:—Low now 40 lb./sq. in.; add medium 40 to 100 lb./sq. in.; high 100 to 200 lb./sq. in.

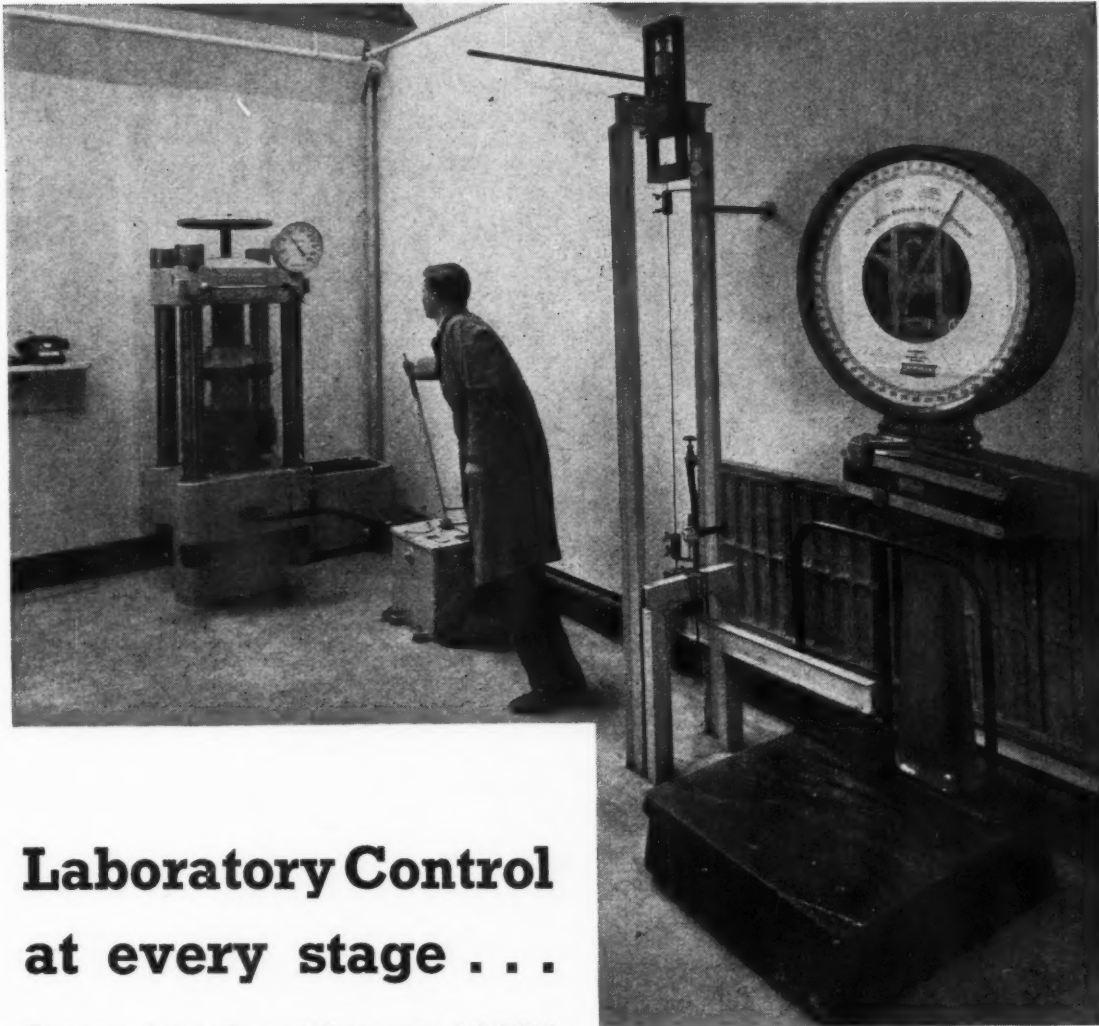
33.P1.—Reverse of Sheet—Weights of single seal covers and frames are approximate only but the following should be revised: 15-in. by 15-in. light covers now 29 lb., heavy 34 lb.—21-in. by 21-in., heavy covers now 59 lb.—30-in. by 18-in. light covers now 73 lb., heavy 83 lb.—30-in. by 24-in. light covers now 90 lb.—36-in. by 24-in. heavy covers now 119 lb., C.I. frames now 52 lb.—36-in. by 36-in. c.i. frames now 77 lb.

33.Q2.—The low level syphonic type cistern is now available fitted with either a front lever (LSF) or a push button (LSPB) as alternatives to the side lever shown in the centre right-hand drawing.

37.C1.—Reverse of Sheet—Add footnote: Other units are now available; details may be obtained on application to the manufacturer.

37.D1 and 2.—The organization referred to as the British Gas Council is now known as The Gas Council. The telegraphic address is now Gascil, Knights, London.

43.E1.—Face of Sheet—The work top nosing, shown in the upper left-hand drawing, is now in hardwood and overhangs approximately 1 in. at the front and approximately $\frac{1}{2}$ in. at the ends. Reverse of Sheet—Under sub-heading "Work



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tops" nosings are now in hardwood and the tops project approximately 1 in. over the cupboard face and approximately $\frac{1}{4}$ in. over each end.

44.D1.—Face of Sheet—Delete lower left-hand and centre details showing application to timber-lined lintels and concrete lintels respectively. Reverse of Sheet—Delete reference to timber and concrete applications.

INSTRUCTIONS TO SECRETARIES

Every Information Sheet, when it reaches you in the ARCHITECTS' JOURNAL, has a classification symbol printed on the top right-hand corner of one side and the top left-hand corner of the other. All Sheets are perforated so that they may be easily torn from the JOURNAL, and all you have to do in order to keep the Library properly organized is to file every Sheet as it comes into the office in accordance with its symbol.

The symbols (e.g., 32.C17) when understood are quite simple, being based on the principle of splitting the Library up into 46 subjects, numbered 1 to 46. The subject number appears first in the classification symbol, e.g., 32 means *subject 32* (water heating). Then each of these subjects is in turn split up into a number of sections indicated by the letter in the middle of the classification symbol, e.g., C. (following subject 32) means *section C* (units gas) in that subject. The last number of the symbol is used to indicate the Sheet number.

THE 46 SUBJECTS

GENERAL:

1. General practice.
2. Building science.
3. Professional procedure.
4. Planning and design.

CONSTRUCTION (BY MATERIALS):

5. Stone (natural and artificial).
6. Concrete.
7. Cements, mortars and plasters.
8. Glass.
9. Iron and steel.
10. Non-ferrous metals and alloys.
11. Timber (natural, laminated and ply).
12. Materials, miscellaneous.

CONSTRUCTION (BY PRODUCTS):

13. Bricks (9 in. by 4½ in. and the like).
14. Building blocks and slabs (thick materials and generally of limited area).
15. Sheet materials (thin materials and generally of large area).

16. Roof sheets, roof sheet materials and special roofings.
17. Roof tiles, slates, shingles, etc.
18. Wall and floor tiles, faience and terra cotta.
19. Floor and wall finishes (excluding tiles, papers, etc.).
20. Floors and roofs, and floor and roof structural elements.
21. Partitions and walls, and partition and wall structural elements.
22. Ceilings.
23. Doors, frames, fanlights, etc.
24. Windows, frames, rooflights, etc.
25. Complete structures.
26. Products, miscellaneous.

SERVICES AND EQUIPMENT:

27. Sound control and acoustics.
28. Thermal insulation and isolation, and refrigeration.
29. Space heating.
30. Ventilation, and combined heating and ventilation.
31. Cooking.

32. Water heating.
33. Water supply and sanitation.
34. Illumination.
35. Lifts, escalators, transport generally.
36. Fire prevention and protection.
37. Services and equipment, miscellaneous.

APPLIED FINISHES AND TREATMENTS:

38. Paints, stains, varnishes and polishes.
39. Fire-resisting treatments.
40. Anti-rot, anti-corrode, anti-water penetration, and anti-dust treatments.
41. Applied finishes and treatments, miscellaneous.

FURNITURE AND FITTINGS:

42. Furniture general (fixed and free-standing).
43. Specialized furniture and fittings.
44. Fittings.
45. Furniture and fittings, miscellaneous.

MISCELLANEOUS:

46.

CANCELLATIONS

Sheet **36.D1** was cancelled and republished on 26.1.50 as **36.D1** revised 26.1.50.

Sheets **8.E1**, **15.Z1**, **19.G1** and **28.E1** have been cancelled for revision; they will be republished. Sheets **43.E10**, **43.E11** and **43.Z1** have been cancelled and should be withdrawn from the Library.

Thus, the 17 means the 17th Sheet within the appropriate section (C) and within subject 32. When filed, the Sheet will, of course, be put in subject 32, section C, and after Sheet No. 16.

From time to time you will receive a check list which will show you the correct order and contents of the Library at any particular date. This list will consist of groups of symbols correctly arranged, and will enable any mistakes to be rectified.

Sometimes Sheets will become out of date, or otherwise inaccurate, and will be cancelled; such cancellations will be notified in the JOURNAL. It is your responsibility to remove such Sheets from the Library and replace them by the revised copies when issued. Cancellation of Sheets will also be clearly noted on all contents lists. If you find any difficulty in keeping your Library in order, the Editor will always be pleased to assist you. These instructions may be removed and kept for reference with the list of 46 subjects below.

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1.B7	1.B8	1.B10	1.B11	1.B12	1.B13	15.C1	15.C2	15.R1*	15.T1	15.T2	15.Z2	29.J3	29.J4	29.J5	29.J6	30.C1*	30.C2
1.B14	1.B15	1.B16	1.B19	1.B20	1.B21	16.J1	17.B1	17.B2	18.F1	18.G1*	19.G2	30.D1	31.B1	31.B2	31.C1	31.C2	32.C1
1.B22	1.B23	1.B25	1.B26	1.B27	1.B28	19.G3*	19.G4	20.C1	20.Z1	20.Z2	20.Z5	32.C2	32.C3*	32.C20	32.C21	32.C22	32.C23
1.B29	1.B30	1.B31	1.B32	1.B33	1.B34	20.Z6	20.Z12	20.Z13	21.G1	22.D1*	22.D2	32.C25	32.C26	32.C27	32.C28	32.C29	32.C30
1.B35	1.B36	1.B37	1.B38	1.B39	1.B40	22.D3	22.D11	22.D12	22.D13*	22.E1	22.E2	32.D8	32.D9*	32.D10*	33.C1*	33.C2*	33.C3*
1.B41	1.B48	1.B49	2.A1*	2.A2	2.A3	22.F1	23.B1*	23.B2	23.C1	23.C2	23.C3	33.C4	33.C5	33.C6	33.C7	33.C8	33.C9
2.A4	2.B1	2.B2	2.B3	2.B4*	2.H1	23.H1	23.H2	23.H3	23.H4	23.H5	24.C1	33.C10	33.C11	33.K1	33.P1*	33.Q1*	33.Q2*
2.H2	4.A1	4.A10	4.A11	4.A12	4.A20	24.C2	24.C3	24.D1	24.D2	24.D3	24.D4	33.Q3	33.U1	35.B1	35.B2	36.B1	36.D1†]
4.E1	4.E2	4.L1	4.L2	4.L10	4.L11	24.D8	24.E1*	24.J1	24.M1	24.M2	24.N1	36.D2	37.C1*	37.D1*	37.D2*	37.D3	37.H1
4.N1	6.A1*	7.C2	8.F1	10.B1	10.B2	24.N2	24.S1	25.A1	25.A2	25.A3	25.A4	S37.H1	37.H2	37.H3	37.H4	38.B1	38.C1
10.B3	10.E1	10.F1	10.G1	10.G2	10.G3	25.A5	25.A6	26.A1	26.C1*	26.D1	26.E1*	38.D1	40.B1*	42.B2	42.C1	42.C2	42.C3
10.G4	10.G5	10.G10	10.G11	10.G12	10.G13	26.E2	26.F1*	26.F2*	26.F3*	26.F4*	26.J3	42.C4	42.C5	43.E1*	43.E2	43.E12	43.Z2]■
10.G20	10.G21	10.G22	10.J1	10.J2]	10.J3	26.J4	26.J5*	26.J6	26.J20	27.B9*	27.C1*	44.D1*	44.D2	44.E1	44.E2	44.J1	46.Z(A-L)
13.C10	13.C11	13.C12*	14.B1	14.L1*	14.L2*	27.F1	28.A1*	28.A2	28.D1	28.E10	28.E20	46.Z(M-Z)					
14.L3*	14.M1*	14.N1*	14.N2*	14.N3*	14.N4												

8.E1, **15.Z1**, **19.G1** and **28.E1** have been cancelled for revision and should be removed from collections. They will be republished. Sheets **43.E10**, **43.E11** and **43.Z1** have been cancelled and should be withdrawn from the Library.

* These Sheets have been revised.

† **36.D1** has been cancelled. It was republished as **36.D1** Revised 26.1.50.



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Ever since metals were first used, the problem of their protection against corrosion has existed. Various methods, including the use of chemicals have been devised, from time to time, to combat this. Of these methods, one of the most recent and, it would appear, one of the most successful, is the use of electrolysis. This is a good example of the way in which the scientist comes to the aid of the architect and Henry Goddard describes both the theory of corrosion itself and this unusual method of combating it.

ELECTROLYTIC PROTECTION

By Henry G. Goddard.

The problem of the protection of metals against corrosion has long exercised the minds of scientists and engineers. Architects too are familiar with the effects of corrosion on installations in their buildings, and with the heavy cost of repairs and replacement which result. The formation of "scale" or "fur" in some types of installation is also a constant source of trouble; so also is the growth of microscopic plants or algæ.

CORROSION

Most metals, including iron, are found in their natural state in combination with other substances—as carbonates, oxides or sulphates. The true metal is extracted by heating to high temperatures, or smelting. But the majority, so extracted, tend to revert to their natural form whenever they are given the chance to do so by contact with the substances with which they readily combine: this is what we call corrosion. Until some thirty years ago, this was accepted as a natural phenomenon about which nothing could be done, other than the separation of the metal from the corroding influences in the air or water, by coating them with substances either inert, or less liable to attack; such as paint, tar, bitumen, or a metallic coating such as zinc. Protection was only complete so long as the coating remained intact: in fact, at the points where defects occurred, corrosion was accentuated.

In searching for a more certain means of protection, scientists found that whilst some corrosion is produced by purely chemical action, that associated with the presence of water, or of an aqueous solution, is always electro-chemical; there are positive or anodic areas, and negative or cathodic ones. The metal at the anode passes into solution, whilst hydrogen and alkali are formed at the cathode. In an acid solution, this hydro-

gen will be freed as a gas: otherwise it will combine with the oxygen which is generally present. In the former case, the alkali will combine with the acid: in the latter, with the metal in solution. Where this is iron, the product is "rust"; for the most part, iron oxide.

Metals differ widely in their readiness or otherwise to enter into chemical reaction: the speed of this reaction also varies with differing metals. Some, such as metallic sodium or potassium, dissolve readily in water, liberating hydrogen in so doing. Others react more slowly, whilst some do not react at all in the presence of water.

Metals are classed according to their electro-chemical properties as "noble" and "less noble." The list below gives some of the more common metals in their correct order in the electro-chemical series. It will be seen that on the dividing line between the two classes is hydrogen, which, although not a metal, frequently has similar properties.

If any two of the metals in the list are placed in an electrolyte, and bonded together, the less noble will act as the anode, and the more noble as the cathode: and as we have seen, the anode—that is, the less noble—will be dissolved. Even where there is no dissimilarity of metals, such factors as impurities, mill scale, and differing stresses or temperatures in the metal, or differences in the surrounding electrolyte, may lead to electro-chemical action, and the formation of anodic and cathodic areas. It will be well to remember, at this point, that electro-

chemical action is speeded up when the electrolyte is heated.

Various steps are possible to prevent this action. One is to prevent the forming of anodic or cathodic areas: another, to prevent the flow of current, should they be formed: whilst a third is to ensure that the whole system is cathodic.

LESS NOBLE

Sodium
Calcium
Magnesium
Aluminium
Zinc
Iron
Tin
Lead

HYDROGEN

NOBLE

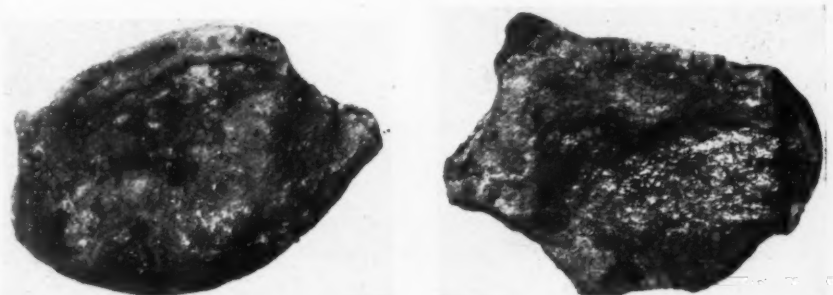
Copper
Mercury
Silver
Carbon
Gold
Platinum

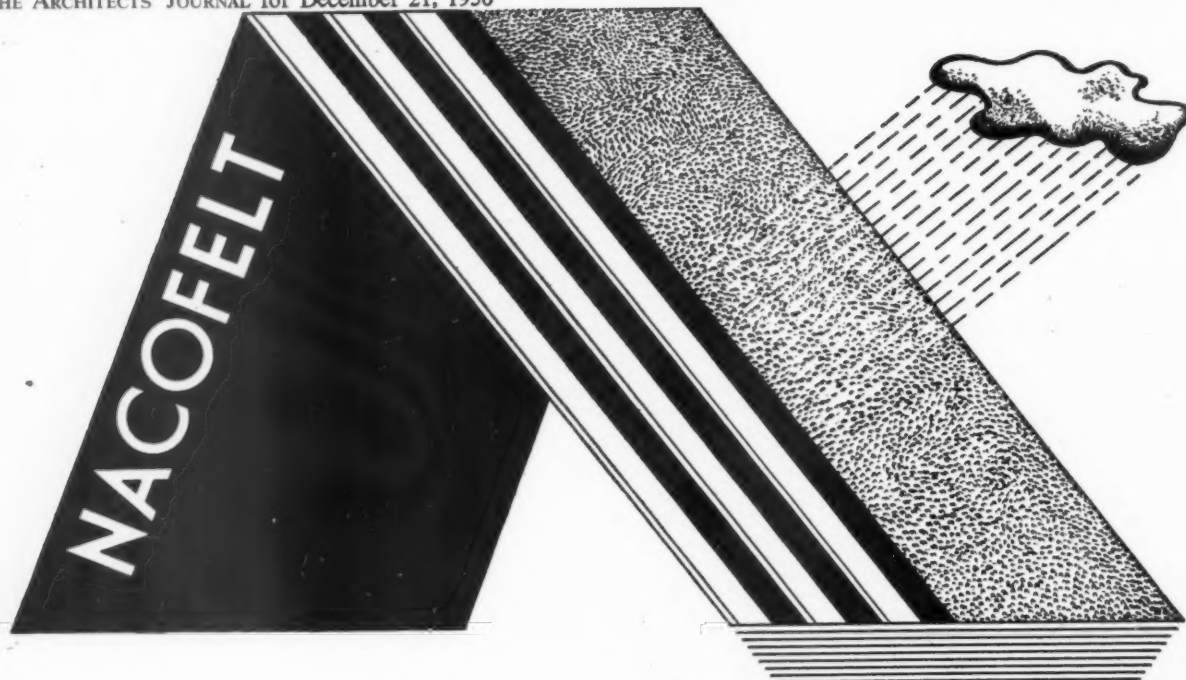
PREVENTION

The prevention of the formation of anodic and cathodic areas can only be achieved by using the identical metal for all parts of the system, and ensuring that it is entirely free of mill scale, impurities, and stress and



Above, section of steel pipe showing early formation of mushroom heads. Below, left, corrosion mushroom head (slightly less than actual size) removed from internal surface of a water discharge pipe at a large power station; right, reverse side of same mushroom head. Photographs by courtesy of the Factory Painters Ltd., Sheffield.





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temperature differences; complete uniformity of concentration of the electrolyte is also necessary. This, though theoretically possible, is in practice impossible to achieve.

Next, the prevention of current flow. This can be achieved by covering the surface of all metal parts with a coating of high electrical resistance: but coatings are seldom, if ever, perfect, and the presence of cracks or flaws will accelerate corrosive action. As an alternative, the liquid may be rendered alkaline, and free from oxygen. If this is done, the corrosion reaction is retarded because the presence of alkali in the water hinders the formation of more alkali by the reaction. If the solution is also freed of oxygen, the reaction will cease altogether, as a thin film of hydrogen will be formed on the cathode, and there is no oxygen present with which it can combine. Such a film is highly resistant electrically, and will therefore prevent further current flow and reaction. This process is called "passivating".

There are, however, difficulties in achieving protection of this sort. It is often found impractical, or too expensive, to apply the necessary chemical treatment: whilst where steps are taken to remove free oxygen by means of a de-aerator—a necessity in high pressure boiler work—the seat of corrosion is merely moved from the boiler itself to the de-aerator, and protection of the latter becomes necessary. In addition, the complete removal of all oxygen from water which may be used for drinking—as in the case of a domestic hot water system—is inadmissible, for there will be a risk of the growth of anaerobic bacteria, who may produce a foul smell and taste.

CATHODIC PROTECTION

The third method of protection is to ensure that the whole system is cathodic. In its simplest form, this is done by placing an anode of less noble metal in the electrolyte, near the surface to be protected: for instance, a magnesium rod may be suspended in a hot water cylinder, and will provide a certain degree of protection. This is frequently done in America. In the same country, protection of steel piling in sea water has been achieved by the provision of magnesium anodes immersed in the water. More certain protection can, however, be achieved by the passing of a small direct current from an outside source through the anode: the amount of current and, therefore, the degree of protection, is thus under control, whereas in the other systems it is largely fortuitous. This principle has been applied in the United States to the external protection of pipelines and the like: it has also an application to the internal protection of boilers, heating systems, and other equipment of this kind.

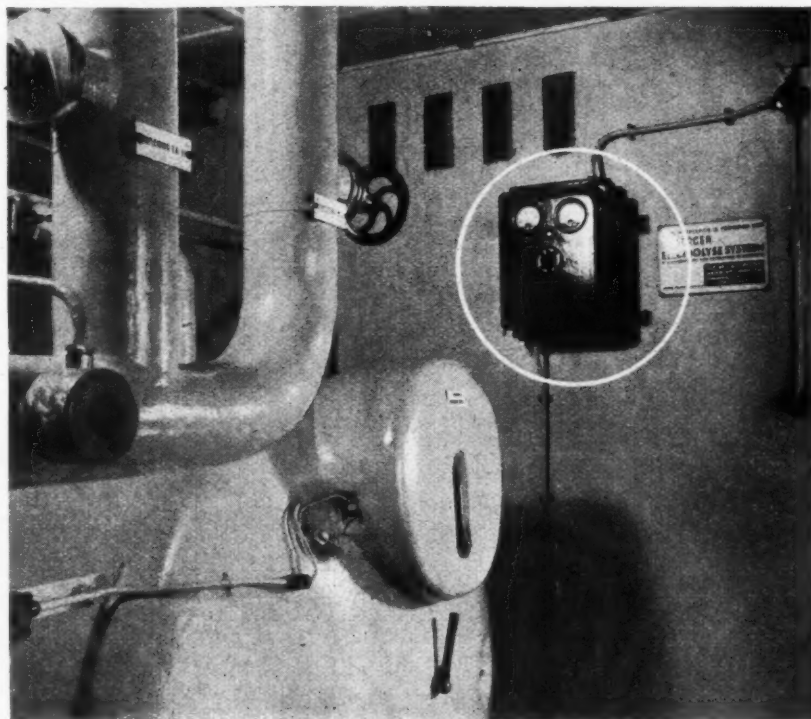
Such a system, of Danish origin, and further developed in Holland, has recently been introduced into this country. In Holland, large numbers of successful installations have been made. An anode of suitable metal is placed in a convenient position in the vessel or system to be protected. In the case, for instance, of a hot water system, the storage vessel provides a satisfactory location: for a boiler, not connected to a storage vessel, it is usual to provide a separate "reaction tank", connected to the water space of the boiler, to house the anode. Direct current is provided by a transformer and rectifier from the main supply: meters are provided to show the voltage and current whereby the performance of the equipment may be checked: also a means of adjusting the current to the appropriate value.

Current from the rectifier is passed through the anode and electrolyte to the metal parts to be protected, which thus become entirely cathodic, and free from corrosion. The anode is gradually dissolved and replaced at intervals. In addition, hydrogen

is formed at the cathode, which is in part released as a gas, but in part combines with any free oxygen present. By using currents of suitable values, the whole of the oxygen can thus be eliminated, as is desirable in steam boiler work. In domestic hot water systems, where, as we have seen, complete removal of the oxygen is undesirable, a reduced current will leave the required amount to combat anaerobic growth. Alkali is also formed at the cathode: a thin coating of calcium hydroxide and carbonate is formed over the whole surface, but this does not increase in thickness, or reduce heat transmission; it does, however, act as an additional barrier to corrosion. The chemical reaction which takes place renders the water softer, and a great advantage of the system, when applied to steam or hot water apparatus, is that scale formation is prevented, or even reduced when it has taken place before the equipment is installed. The hydroxides

be seriously reduced by this cause. Greatly increased quantities of cooling water may be needed, with a consequent increase in pumping costs. It is well known that minute quantities of certain metallic salts are very destructive to algae and similar plants: these salts can be produced in the apparatus needing protection by the provision of an anode of suitable metal—usually copper—in addition to that normally provided for corrosion prevention. The dead algae are picked up along with other matters in suspension, by the aluminium hydroxide formed by the latter anode, and precipitated in the form of a soft sludge which can easily be removed.

The system has the great advantage of simplicity: no expert supervision is required, and replacements are limited to the annual replacement of the anodes, the cost of which is likely to be small by comparison with the cost of repairs saved, of fuel saved by maintaining maximum rates of heat transfer



Cathodic protection equipment as applied to heat exchanger for hot water supply.

of calcium and magnesium are not viscous and do not adhere to the cathodic surfaces, except as the very thin coating already mentioned: they merely form a loose sludge, readily removed by blowing down. Further, the reaction at the anode aids the precipitation of substances in suspension in the water: where the anode is of aluminium, aluminium hydroxide is formed, which is very gelatinous and picks up other matters in suspension, forming a sludge which is readily blown down. At the same time, carbon dioxide is driven off, and the water is thereby rendered less acid and less liable to cause corrosion.

ELECTROLYTIC PROTECTION

A further type of protection can be achieved by electrolysis. Certain types of apparatus are very prone to the breeding of algae and other microscopic slime-producing organisms: condensers are a particular case in point, and their efficiency can

and the like. The equipment necessary is not bulky; the photograph shows how neatly it may be installed.

It may be applied to most apparatus where protection from scale, corrosion or the breeding of algae is required: steam boilers and their attendant de-aerators, hot water boilers, storage vessels, calorifiers, radiators and pipework. (Even when these operate on a closed circuit, corrosion difficulties are not completely absent and, in particular, constant trouble is encountered with valves, infrequently used, and found immovable when required.) Condensers and heat exchangers of various kinds, including the cooling systems of internal combustion engines and refrigeration machinery and various other types of industrial equipment—all offer possibilities for the use of electrolytic protection.

The system does seem to offer, in suitable cases, the means of ending some of the most serious corrosion troubles.



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2.109 planning: general TOWN BUILDING

The Building of Satellite Towns. C. B. Purdom. (J. M. Dent & Sons, Ltd., new edition 1949. 50s.)

A valuable and informative book on the building of the two Garden Cities, Letchworth and Welwyn, and a survey of the practical problems found in building new towns. 532 pp. including a good index; 34 plates of photographs; 75 diagrams and maps.

The first edition of this book appeared in 1925 at the time when Mr. Purdom was acting as finance director of Welwyn Garden City, after having been jointly responsible for the foundation of that city. In preparing the new edition Mr. Purdom has been without official ties, and he has been able to draw freely on his long experience in coping with the problems of how to make a new community a going concern. This is a book to keep, to ponder over, to treasure.

2.110 planning: general LANDSCAPE

Landscape Architecture in the New Towns. A Symposium. Brenda Colvin, Sylvia Crowe and H. F. Clark. (Journal of the Inst. of Landscape Architects, July, 1950.)

The report of this symposium by the landscape architects to East Kilbride, Basildon and Stevenage respectively, provides a good introduction to the subject.

Brenda Colvin, in particular, draws on her experience of working at East Kilbride. One instance she mentions is the way in which her recommendation has been adopted for taking footpaths off the width of the main through road where the levels are broken, and siting them on existing levels above cuttings or below embankments. Apart from gain in the appearance of the road, the advantages are that: the footpaths in this position are safer and quieter for pedestrians; a considerable saving in cost is made through a reduction in the level width of the road. The net saving is 6 feet; although the width of two footpaths is 10 feet, wider verges have to be provided to accommodate the underground services.

2.111 planning: general INDUSTRY

Space Needs of Industry. J. K. Weston. (Town and Country Planning, Aug., 1950, pp. 317-322.)

Discussion about the amount of land required for workpeople, based mainly on experience gained in Manchester.

A good feature is the table of provisions for thirty-one manufacturing industries classified by the Ministry of Labour. The table includes columns showing:—survey information (1) employees per acre of floor area, (2) number of storeys, (3) proportion of site built up, (4) acres of site area per 1,000 employees; and (5) allowances on re-development, (6) allowances for new development.

15.81 materials: applied finishes and treatments DISTEMPERING

Distempers on Walls and Ceilings. (Building Research Station Digest No. 22, Sept., 1950.)

How to avoid or cure defects. Types of distemper, their properties, application and use. Very useful tabulated summary of defects, cause and treatment.

In view of the very large amount of distempering which is done it is not surprising that defects sometimes occur. Often such defects arise more as a result of poor preparation of the surface to be decorated or from a wrong choice of material rather than from any defect in the distemper itself. These notes give a most useful survey of the whole subject.

First the types of distemper are described. These include the old and well known non-washable and washable types. Two newer types based upon Alkyds and upon Polyvinyl compounds are also described. The general properties of these materials are then discussed together with the preparation of old and new surfaces. A common problem is the assessment of the need for partial or complete stripping of old distemper before re-decoration. This is dealt with in some detail including a critical description of the various methods. Finally there is a most useful table of common defects such as peeling, flaking, blistering, bleaching, spottiness, etc., with the causes, remedy and treatment for each trouble. This table should prove a considerable help in diagnosing the cause of those many little troubles which annoy the client and baffle the architect.

24.144 lighting CLASSROOM LIGHTING

Daylight in Classrooms. R. L. Bieseke. (Illum. Engineering [USA], July, 1950, p. 445.)

Study of test room; window treatments, decoration, desk arrangements, and resulting brightness pattern. Moderately useful. Illustrations, 7 photographs.

This is a report from a senior American investigator; some of the information is useful but it is limited by incompleteness and by the lack of architectural and educational balance.

On window design the comment is made that mullions and lintels make for bad contrasts; and there is an argument for cills at 42 in. to avoid disturbing brightnesses on the edge of the visual field. There are more

complete studies of these points by BRS, agreeing about mullions but disagreeing about high cills.

Vertical and horizontal louvring was studied. The former is most useful when sunlight is not a problem. The latter is also useful but would be greatly improved by the use of very translucent louvres.

Decoration recommended is a white ceiling of 85 per cent. reflectance, greyed green walls of 60 per cent. reflectance, and natural finish for floors and desks. Seating in curved lines to turn childrens' views from windows is recommended forcibly, but is at variance with British encouragement for informal grouping.

The inflexibility of recommendations reflects the concentrated attack of the scientist rather than the broad attack of the architect.

24.145 lighting ARTIFICIAL LIGHTING IN SHOPS

Techniques of Lighting Small Stores. Morris Ketchum. (Illum. Engineering [USA], Aug., 1950, p. 479.)

Daylight and artificial; mixing tungsten and fluorescent; general and spot lighting. Good. Illustrated.

The problems are nicely identified. Daylight has to be admitted, because the shop window or a view of the inside of the shop is generally necessary; but the entering daylight has to be stepped down somewhat so that artificial lighting inside has a chance to compete. Then the artificial lighting has to be designed so that the shop can be treated like a lot of stages; good general light is necessary, with plenty of spots and direct lighting of various kinds.

Three shop schemes are described and illustrated. The first is a pioneer louverall ceiling to "unify" interior and exterior, with fluorescent sources giving 75 foot-candles and supplementary spot lights. This was successful, but cannot be used where there are many glass-topped counters or desks, because it gives bad reflections from the lamps which are not otherwise visible.

The next shop required a formal, simple, "rich" treatment. Cove lighting by fluorescent was used, with incandescent ceiling floods, and built-in spots.

The third shop was to have "atmospheric" lighting, with a dark ceiling, well-screened incandescent floods, and a border of hidden fluorescents to light the walls. The result is described as quiet, restful, with arresting displays.

The article is short, but good, because everything done has been done for a reason. The consistent use together of tungsten and fluorescent should be noted.



"Space Needs of Industry" (See 2.111). Aerial view of Preston by Aerofilms Ltd.

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The Central Land Board's contribution towards professional fees incurred in making a claim under the Town and Country Planning Act, 1947, will be sent to the claimant "care of" the agent whose name and address was given in answer to Question 2 of the claim form S.1. As stated in the Board's announcement of October 11, the contribution is payable as soon as possible after the determination has become final, provided the conditions set out in paragraph 16 of the Board's pamphlet S.1.A are satisfied.

The BEA has sold the business of Tricity Cookers Ltd. to Thorn Electrical Industries Ltd., makers of Atlas electric lamps, Ferguson radio and television and Mary Ann household appliances.

Woods of Colchester, Ltd., fan manufacturers (an associate company of The General Electric Co. Ltd.) have moved their London offices to 58-62, High Holborn, London, W.C.1 (tel.: Chancery 5474-8).

The MOW announce that revised price lists have been introduced for certain asbestos cement products manufactured by Turners Asbestos Cement Co. Ltd., and Tunnel Asbestos Cement Co. Ltd. These changes represent an overall increase of about 6 per cent. in the prices of all asbestos cement building materials sold by these companies, but this overall result is being secured by applying varying increases to the different products.

Mr. Bernard F. Whale has been appointed representative of Greenwood's & Airvac Ventilating Co. Ltd. for North-West England and the West Riding of Yorkshire.

Mr. W. A. Ross, F.R.I.B.A., has taken Mr. W. Crossley Roff, M.A., A.R.I.B.A., A.A.D.P., into partnership. In future the practice will be known as Ross & Roff, F./A.R.I.B.A. Chartered Architects, and will continue at Victoria Chambers, 17, Little Horton Lane, Bradford, Yorks.

Mr. G. W. Heslett has been appointed manager of the Pump Department of Sulzer Bros. (London) Ltd.

Messrs. Bunce & Rider, F./A.R.I.B.A., have opened a branch office at 25, Wellington Square, Hastings (tel.: 852) and will be pleased to receive trade catalogues, etc.

Dr. Kurt Billig, DIPL.ING., DR.SC., A.M.I.C.E., M.I.STRUCT.E., M.A.M.SOC.C.E., has been appointed Professor of Civil Engineering at the University of Hong Kong. Previously, Dr. Billig was a partner in the firm of Waller & Billig, Consulting Engineers, Westminster.

The address of Burrough and Hannam, chartered architects, is now 17, Orchard Street, Bristol, 1 (tel.: 23078/9).

Mr. Ervin Katona, A.R.I.B.A., chartered architect, 23, Old Burlington Street, London, W.1, has changed his telephone number: Grosvenor 1907-8.

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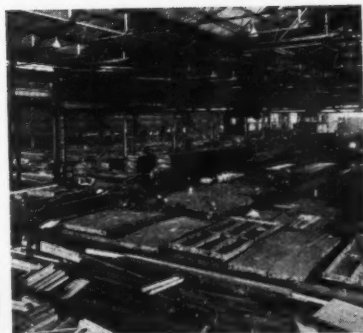
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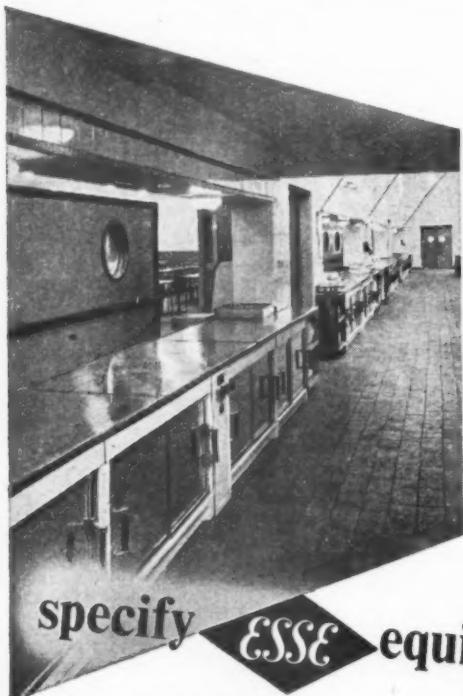
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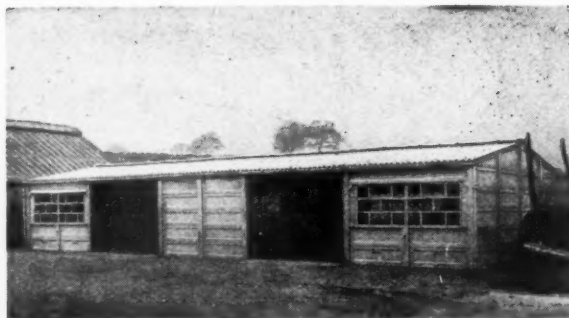


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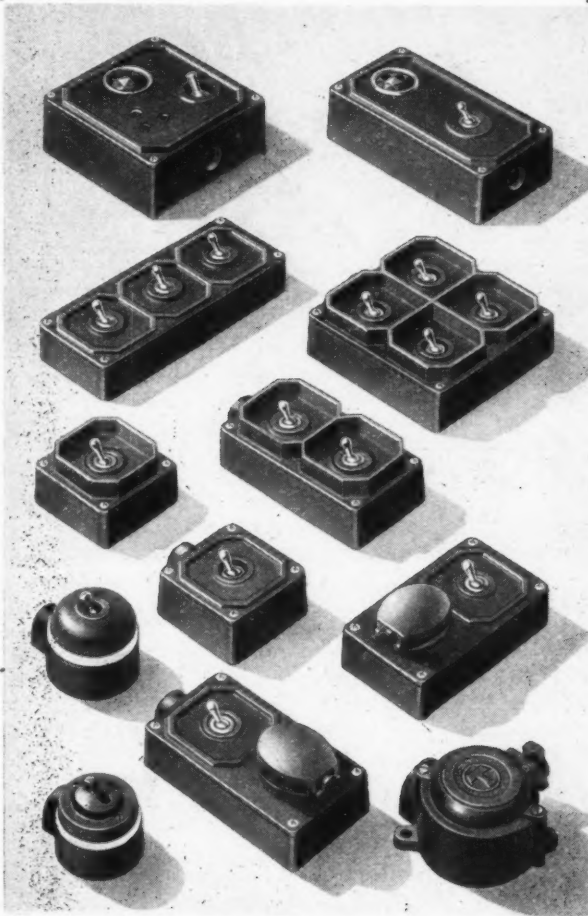
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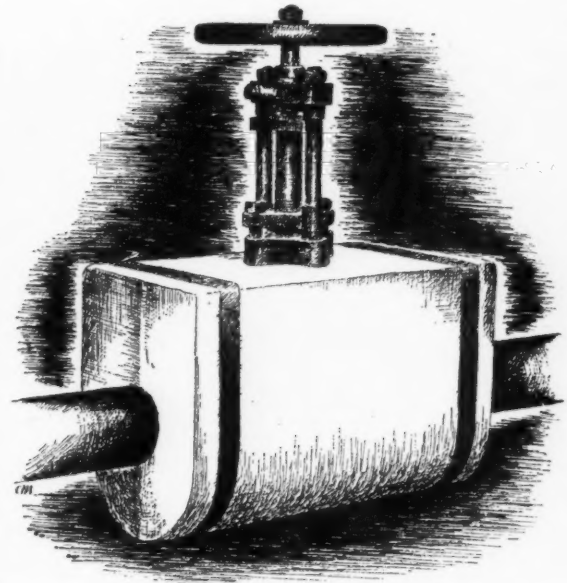
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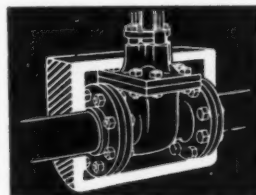
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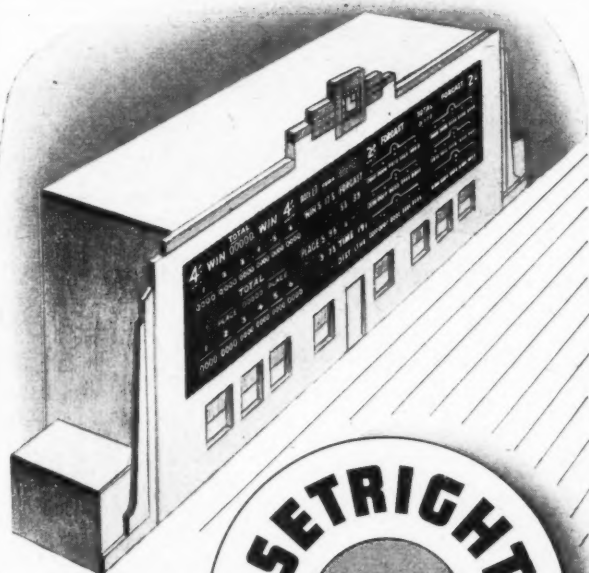
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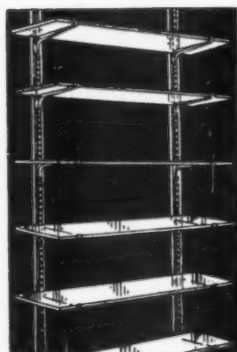
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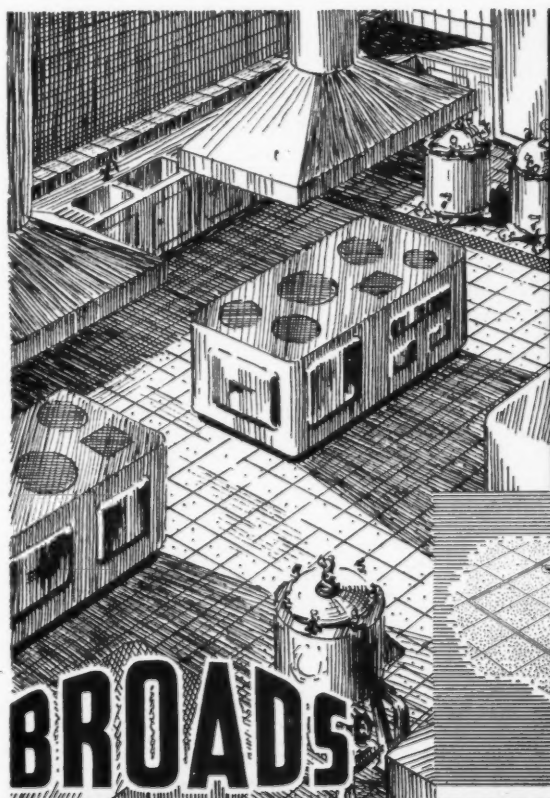
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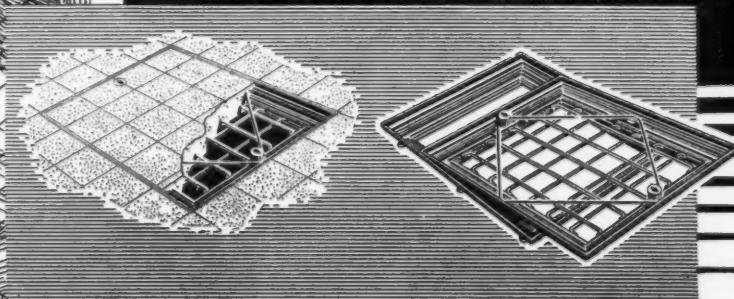
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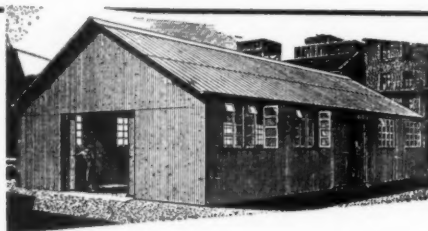
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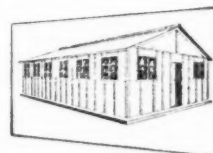
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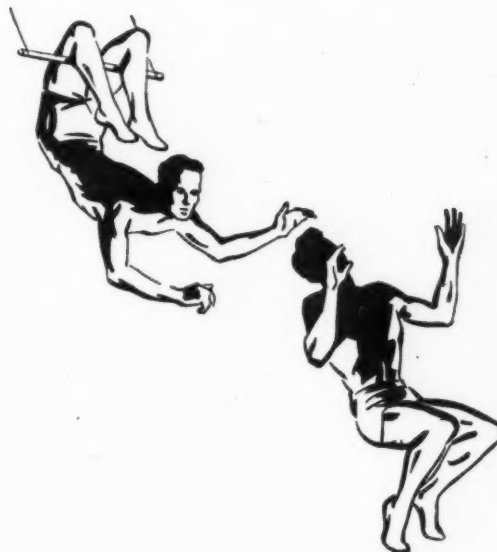
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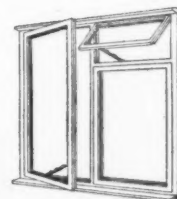
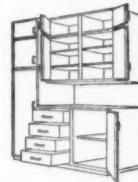
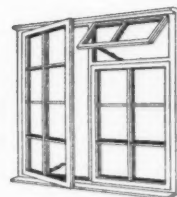
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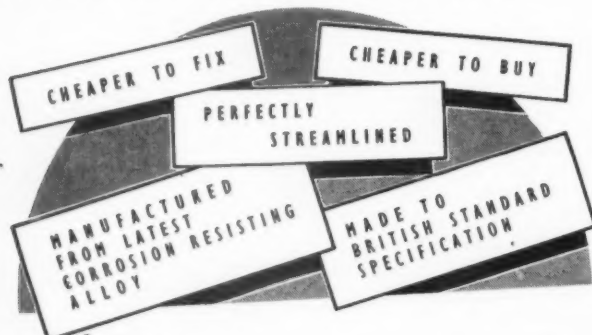
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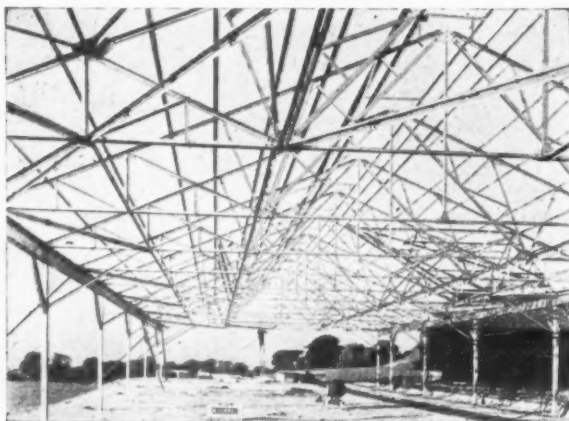


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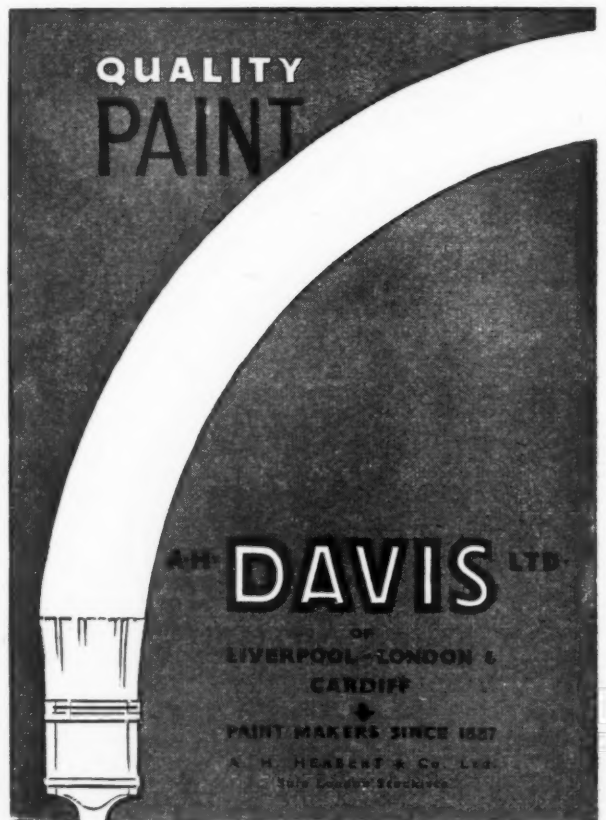
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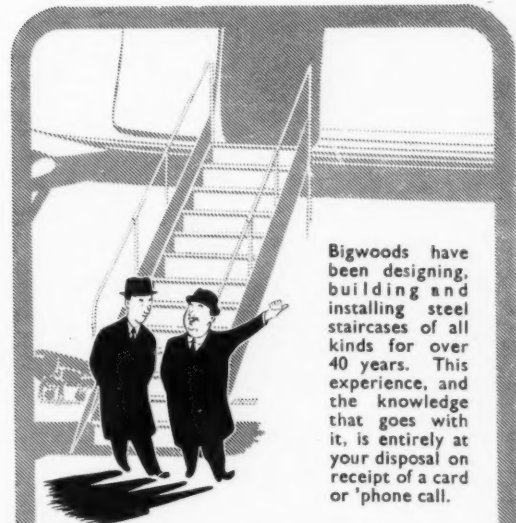
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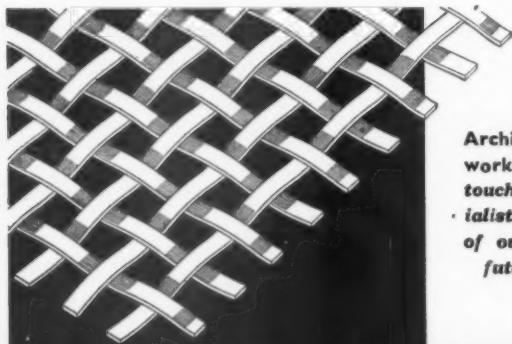


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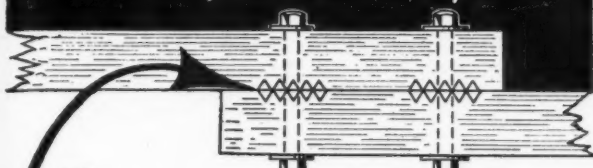
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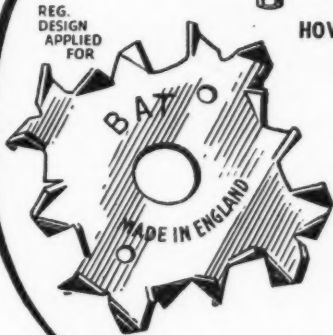
The illustration is a reduced reproduction of the saloon bar counter at the Park Royal Hotel, Middlesex. Welch and Lander and Cachemaille-Day, Architects.

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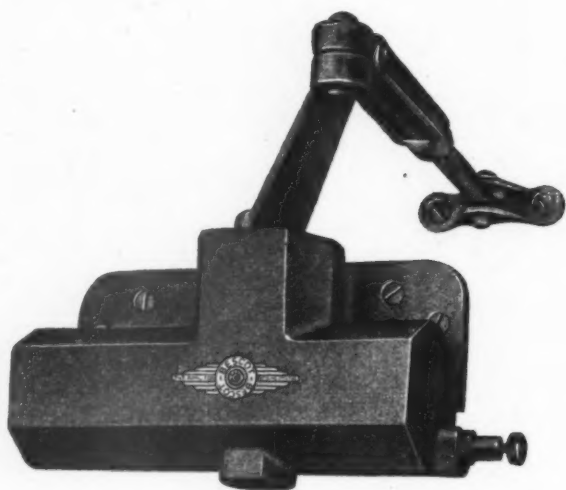
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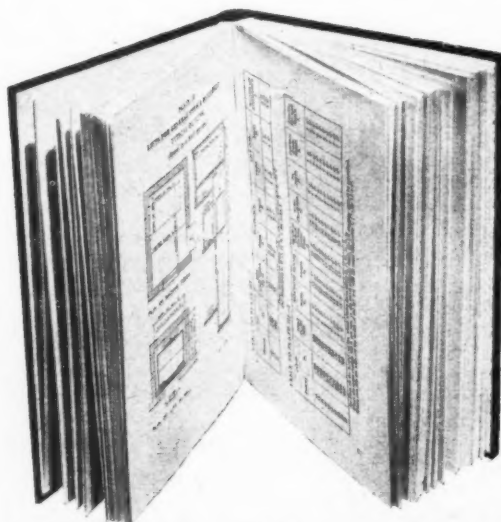
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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 5, 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.

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THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: EMPLOYMENT REGISTER, WARREN PARK, WHITELEAF. Tel.: Uplands 0935. 991

NORTH THAMES GAS BOARD.

Applications are invited for the following appointment in the Architects' Section of the Chief Engineer's Department of Westminster: SENIOR ARCHITECTURAL ASSISTANT, minimum starting salary £650 per annum.

Applicants, who must be Registered Architects and should be studying for or have passed the Final Examination of the R.I.B.A., should be capable of preparing working and detailed drawings and specifications, and supervising and controlling the work on contracts. Experience in design and planning of industrial buildings would be an advantage.

The appointment is of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications, stating age, qualifications, and particulars of previous appointments held, must be submitted to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 9787. 4341

LONDON COUNTY COUNCIL.

Applications are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Act, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats), and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1, stamped addressed envelope required and quote reference A.A.1. Canvassing disqualifies. (816) 4558

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

TOWN PLANNING STAFF.

Applications are invited for positions of TECHNICAL ASSISTANT (scales: (a) £440-£580; (b) 55s.-167s. 6d.) in the Planning Division of the Architect's Department. Candidates should be trained draughtsmen experienced in lettering and in the preparation and colouring of plans. Application forms from the Architect (AR/EK/P), The County Hall, Westminster Bridge, S.E.1, enclosing stamped addressed foolscap envelope. Canvassing disqualifies. (1193) 864

CORBY DEVELOPMENT CORPORATION.

Applications are invited from well-qualified persons for the following appointments, at a commencing salary, within the ranges stated, according to experience and qualifications:—

(a) CHIEF ARCHITECT. Salary range, £1,500-£1,700.

(b) ASSISTANT CHIEF ARCHITECT. Salary range, £900-£1,050.

(c) SENIOR ARCHITECTURAL ASSISTANT. Salary range, £750-£850.

And applications are also invited for:—

(d) ARCHITECTURAL ASSISTANTS (TWO). Salary, £550-£650.

Candidates must have had considerable experience in, for appointment (a) the design and execution of large scale housing operations and other buildings for local authorities and the necessary staff organisation and control; town planning experience, though not essential, may be an advantage; (b) and (c) the design and execution of large scale housing and other building works, etc.; (d) drawing, construction, etc., under an Architect.

The appointments, under the direction of the General Manager, are expected to involve large scale construction projects associated with the development of a New Town.

The successful candidates will be required to pass a medical examination to certify either to a Superannuation or an Assurance Scheme, and to carry out such duties as the Corporation may require.

Applications, stating age, education, training, qualifications, experience, past and present appointments and salaries, together with the names of two persons to whom reference may be made, must be received by the undersigned not later than 29th December, 1950. Envelopes and applications must clearly indicate the appointment for which application is made.

R. F. BROOKS GRUNDY,

General Manager.
Corby Development Corporation,
The Stone House, Corby, Northants. 1436

GOWER RURAL DISTRICT COUNCIL.
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, in the Engineer and Surveyor's Department, at a salary in accordance with A.P.T., Grade V (£520-£570 per annum).

Applicants should be Associates of the Royal Institution of British Architects, and have had experience in Municipal Housing Schemes, Shops, Adaptations, Estimating and Supervision of Works.

The appointment is a temporary one for a minimum period of three years, and will be terminable by one month's notice in writing on either side. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937.

Housing accommodation will be provided if necessary.

Applications endorsed "Senior Architectural Assistant," stating age, experience and qualifications, and accompanied by copies of not more than three recent testimonials, should be delivered to the undersigned not later than Friday, the 29th December, 1950.

H. K. NEWCOMBE,

Clerk of the Council.
Council Offices, 8, Uplands Crescent,
Swansea. 1424

COUNTY BOROUGH OF DERBY.

Applications are invited for the following appointments on the temporary staff, in accordance with the National Scale of Salaries:—

TWO JUNIOR ARCHITECTS, Grade I/II. Salary £390-£465.

Applicants should be not less than 21 years of age, and should have passed the Preliminary Examination of the R.I.B.A., and have had experience in general architectural work.

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

Forms of application may be obtained from the Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed, together with a copy of one testimonial and the names of two persons to whom reference may be made, to arrive not later than Monday, 1st January, 1951.

Canvassing, directly or indirectly, will be a disqualification.

E. H. NICHOLS,

Town Clerk.
County Borough of Carlisle.
CITY ENGINEER'S DEPT.

Applications are invited for the appointment of a QUANTITY SURVEYOR, Grade A.P.T., Va (£560-£610).

Applicants for the appointment should preferably be Corporate Members of the Royal Institution of Chartered Surveyors (Quantities Division), and should have experience in the preparation of Bills of Quantities, Estimates, measuring up and settlement of Final Accounts.

Housing accommodation will be provided for the successful applicant if required.

Forms of application and conditions of employment may be obtained from the City Engineer, 18, Fisher Street, Carlisle, to whom all applications should be returned not later than 2nd January, 1951.

H. D. A. ROBERTSON,

Town Clerk's Office, Fisher Street, Carlisle. 1426

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS and LEADING ARCHITECTURAL ASSISTANTS with recognised training and fair experience. Successful candidates will be employed in London and elsewhere on a wide variety of Public Buildings, including Atomic energy and other Research Establishments, Telephone Exchanges, and Housing.

Salary: Architectural Assistants, £300-£525 per annum; Leading Architectural Assistants, £500-£625 per annum. Starting pay will be assessed according to age, qualifications and experience. These rates are for London; a small deduction is made in the Provinces.

Although these are not established posts, some of them have long term possibilities, and competitions are held periodically to fill established vacancies.

Apply in writing, stating age, nationality, full details of experience and locality preferred, to Chief Architect, W.G.10/BC, Ministry of Works, Abell House, London, S.W.1, quoting reference W.G. 10/BC. 4826

FIFE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

CUPAR.

Applications are invited for the post of ARCHITECTURAL DRAUGHTSMAN. Salary £400, rising by annual increments of £20 to a maximum of £520 per annum. Candidates must have had experience in an architectural drawing office and be quick and accurate draughtsmen. Age under 45. Medical test under superannuation scheme. Applications, stating age, experience, and qualifications, to be lodged with the undersigned not later than 26th December, 1950. No canvassing.

J. M. MITCHELL,

County Clerk.
County Buildings, Cupar.
9th December, 1950. 1461

CIVIL SERVICE COMMISSION.
PROFESSIONAL POSTS IN GOVERNMENT DEPARTMENTS.

The Civil Service Commissioners invite applications for permanent appointments to the basic (Assistant) grade of ARCHITECT, MAINTENANCE SURVEYOR, QUANTITY SURVEYOR, ESTATE SURVEYOR, CIVIL ENGINEER, SANITARY ENGINEER, STRUCTURAL ENGINEER, LANDS OFFICER in a number of Departments in England and Scotland. Applications will be accepted at any time up to and including 31st December, 1951. Selected candidates will be interviewed as soon as possible after the receipt of their application forms. Successful candidates may expect early appointments. Candidates are advised to apply as early as possible.

All candidates must be at least 25 and under 35 years of age on 1st January, 1951, with extension for regular service in H.M. Forces, and up to two years for permanent Civil Servants. All candidates must have the appropriate professional qualifications and experience.

The London salary scale for men aged 30 and over is: £600-£255-£750. Lower starting salary for younger entrants (from £475 at age 25).

(The next higher grades are:—Main Grade, £750-£255-£1,000; Senior Grade, £1,050-£235-£1,270.)

Salaries for women and for officers appointed to the provinces will be somewhat lower.

Forms of application and copies of the regulations, with full details of qualifications required, from the Civil Service Commission, Scientific Branch, Trinidad House, Old Burlington Street, London, W.1, quoting No. 3405TA. Completed application forms should be returned as soon as possible. 1451

BOROUGH OF STRATFORD-UPON-AVON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, at a salary in accordance with A.P.T., Grade III (£450-£495).

Applicants should have a good general knowledge of building construction and design, and preferably have passed the Intermediate Examination of the R.I.B.A.

The Council will, if necessary, be prepared to consider the provision of housing accommodation.

Conditions of the appointment and forms of application may be obtained from the undersigned, to whom completed application forms should be returned not later than Monday, 8th January, 1951.

P. C. SMART, A.M.I.C.E.,

Borough Engineer,
Municipal Offices, Stratford-upon-Avon. 1452

SOMERSET COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for the following permanent appointment:—

PLANNING ASSISTANT. A.P.T., IV, £480-£515 to £525.

Applicants must have had good general experience in Town and Country Planning, and should possess a recognised professional qualification. The successful applicant will be required to provide a car for official journeys, for which an appropriate allowance will be made. This appointment is subject to the provisions of the Local Government Superannuation Act, 1937. Forms of application, obtainable from the undersigned, must be completed and returned not later than 3rd January, 1951.

R. W. DALE,

County Planning Officer.
41, Upper High Street, Taunton. 1472

COUNTY COUNCIL OF THE COUNTY OF LANARK.

PROPERTY DEPARTMENT.

ARCHITECTURAL ASSISTANTS.

Vacancies exist within the establishment for Architectural Assistants on the staff of the County Architect's Department (Motherwell). Appointments range from a junior to senior capacity, and salary will be in accordance with the J.I.C. Scheme of Salaries and Conditions of Service ranging from General Division to A.P.T., Grade VII. If preferred, appointment could be a temporary one.

While the work of the Department is mainly of an educational character, consisting largely of the design and development of a large schools building programme, an interesting and varied syllabus embraces every branch of architectural development, including Police Housing, but not general housing.

Although the salary grade and scale will be discussed and adjusted at the interview of selected candidates, written applications should indicate a preference compatible with the qualifications of the applicant.

Applications, stating age, particulars of training, experience and qualifications, together with the names and addresses of three referees, should be addressed to the County Architect, Property Department, 34, Albert Street, Motherwell, not later than 18th January, 1951.

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

Canvassing, directly or indirectly, will be a disqualification.
WM. C. BROWNIE,
County Clerk.
Lanarkshire House, 191, Ingram Street,
Glasgow, C.1. 1447

**COUNTY COUNCIL OF INVERNESS.
COUNTY ARCHITECT'S DEPARTMENT.**
Applications are invited for the following appointments in the County Architect's Department:—

(a) **TWO ARCHITECTURAL ASSISTANTS.** Salary A.P.T. V, £520-£570. Candidates should have had sound general architectural office training and experience, more especially in the preparation of working drawings for schools, housing and other local authority works.

(b) **ONE ARCHITECTURAL ASSISTANT.** Salary A.P.T. III, £450-£495. Candidates should be neat and accurate draughtsmen, and have had experience in the preparation of plans for local authority housing work.

The appointments will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications and present appointment, accompanied by copies of not more than three recent testimonials, should be submitted to the undersigned not later than ten days after the date of publication of this advertisement.

R. WALLACE,
County Clerk.

County Buildings, Inverness.
11th December, 1950. 1467

**CLACTON URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S
DEPARTMENT.**

APPOINTMENT OF ARCHITECTURAL ASSISTANT, A.P.T. GRADE V.

Applications are invited for the above appointment, at a salary in accordance with A.P.T. Division, Grade V, of the National Joint Council Scale (£520-£570 per annum). Preference will be given to Registered Architects.

Forms of Application may be obtained from Mr. W. Aiston, A.M.I.C.E., Reg. Arch., Engineer and Surveyor, Town Hall, Clacton-on-Sea, and must be delivered, duly completed, in plain sealed envelopes endorsed "Architectural Assistant," to the undersigned by not later than first post on Monday, 8th January, 1951.

Canvassing, either directly or indirectly, will disqualify.

CHARLES B. HEARN,
Clerk of the Council.

Town Hall, Clacton-on-Sea. 1462

**BRIGHTON EDUCATION COMMITTEE.
BRIGHTON TECHNICAL COLLEGE.**

Principal: G. E. WARR, M.A., Ph.D., F.R.I.C.

Qualified Architect required as LECTURER IN ARCHITECTURAL SUBJECTS in Civil Engineering and Building Department, Burnham Technical School, Brighton. Salary £330-£385. Allowance made for approved training, professional or teaching experience and war service. Further particulars and forms of application obtainable from the undersigned, to be returned to the Principal, Brighton Technical College, Brighton, 7, within 14 days.

W. G. STONE,
Education Officer.

54, Old Steine, Brighton. 1448

**BURGH OF HAMILTON.
SENIOR ARCHITECTURAL ASSISTANT.**

Applications are invited for the appointment of Senior Architectural Assistant in the Burgh Architect's Department.

Applicants should have a sound knowledge of contemporary design and be experienced in the preparation of layout plans and working drawings.

The salary will be in accordance with A.P.T. Grade V-Va (£530-£610). Placing within the Grade will be in accordance with the experience of the successful applicant.

Applications, stating age, and with full particulars of qualifications and experience, together with copies of recent testimonials, should be lodged with the undersigned not later than 29th curt.

The appointment is subject to the Local Government Superannuation (Scotland) Act, 1937, and canvassing, either directly or indirectly, will be a disqualification.

JOHN R. McLEAN,
Town Clerk.

The Town House, Hamilton.
12th December, 1950. 1469

GLENROTHES DEVELOPMENT CORPORATION.

Applications are invited from suitably qualified persons (under 45 years of age) for appointment as JUNIOR ASSISTANT ARCHITECT. Salary, £400-£250 to £520 per annum, with placing according to experience and qualifications.

Applicants should have passed at least the Intermediate Examination of the R.I.B.A. Experience of Schools and Public Buildings will be advantageous.

The post will be superannuable under the Local Government (Scotland) Act, 1937, and the successful candidate will be required to pass a medical examination.

Particulars of the assistance which the Corporation will give in securing housing accommodation will be given at the time of interview.

Canvassing, directly or indirectly, of members of the Corporation will constitute an absolute disqualification.

Applications, giving full particulars of the candidate's age, qualifications and experience, together with copies of not more than three recent testimonials, must reach the Secretary, Glenrothes Development Corporation, Woodside, Glenrothes, by Markinch, not later than 28th December, 1950.

1468

**HIS MAJESTY'S COLONIAL SERVICE—
SIERRA LEONE.**

A vacancy exists for an ARCHITECT in the Public Works Department, Sierra Leone. The appointment is on contract for one tour of 18-24 months, with a likelihood of renewal, in a salary scale of £750 to £1,300, with a cost-of-living allowance of £75 to £125. The point of entry into the scale will be determined by war service and approved professional experience. A gratuity at the rate of £25 or £37 10s. for each 3 months of service, and an outfit allowance of £60 or £30 are payable according to salary.

Free passages are provided once each way per tour for the officer, his wife and up to 2 children under the age of 10, provided that the latter remain in the Colony for a minimum of 6 months. Quarters, if available, are provided at a rent of £60-£150, according to salary. Leave is granted at the rate of one week for each completed month of service.

Candidates, for whom the maximum age is 45, should be Registered Architects, and should write to the Director of Recruitment (Colonial Service), Colonial Office, 2, Sanctuary Buildings, Great Smith Street, London, S.W.1, for a form of application, giving details of age, qualifications, experience, mentioning this paper and quoting reference No. 27301/43.

1465

**LONDON COUNTY COUNCIL.
QUALIFYING EXAMINATION FOR THE
OFFICE OF DISTRICT SURVEYOR.**

Formal notice is hereby given that the next examination of persons desirous of obtaining a certificate of proficiency to perform the duties of the office of district surveyor will be conducted in London in October, 1951, by the Board established by the London County Council, in accordance with Section 77 of the London Building Acts (Amendment) Act, 1939. The minimum age limit for candidates is 25.

Possession of this certificate carries eligibility to compete for appointment to vacant positions as District Surveyor, at maximum salaries ranging from £1,200 to £1,800 a year (inclusive), or as Assistant District Surveyor (salary scale £840 by £40 to £960 a year).

It is intended to hold subsequent examinations annually.

For regulations governing candidature, the current syllabus and application forms for the examination, or for any further information, apply to the Architect to the Council, County Hall, Westminster Bridge, S.E.1. (1451)

1245

**BOROUGH OF ACTON.
ARCHITECTURAL ASSISTANT.**

Applications are invited for this permanent appointment, at a salary in accordance with Grades A.P.T. V/Va, of the National Scale (£520-£610 p.a.), plus London "weighting." The commencing salary may be fixed within the Grades according to the qualifications and experience of the person appointed.

Applicants must be Registered Architects, experienced in the design, erection and maintenance of houses, flats and public buildings.

If necessary, housing accommodation will be made available to the person appointed.

An application form and a copy of the conditions of appointment may be obtained from the Borough Engineer, Town Hall, Acton, W.3, to whom applications must be delivered by 1st January, 1951.

Canvassing will disqualify.

H. C. LOCKYER,
Town Clerk.

Town Hall, Acton, W.3. 1421

HARLOW DEVELOPMENT CORPORATION.

Applications are invited for the post of ASSISTANT ARCHITECT (Grade IV(a)), in the Department of the Architect/Planner (Frederick Gibberd, F.R.I.B.A., M.T.P.I.). Commencing salary of £580, rising by annual increments of £25 to £650 per annum.

Candidates should be Associate Members of the R.I.B.A.

The appointment will be subject to the Corporation's Staff Rules and Conditions of Service (which are similar to the National Joint Council's Conditions of Service for Local Authorities' Administrative, etc., Staffs), and will in particular involve a contribution to a Superannuation Fund either in accordance with the Local Government Superannuation Act, 1937, or an Assurance Scheme.

The Corporation is prepared to assist the successful candidate in obtaining housing accommodation.

Applications, giving full details and names of two referees, should be addressed to the undersigned, to reach him not later than Monday, 1st January, 1951.

W. ERIC ADAMS,
General Manager.

Terlings, Gilston, Harlow, Essex. 1453

LANCASHIRE COUNTY COUNCIL.

SURVEYOR required in Estate Development Section of County Planning Department. Salary A.P.T. VI, £595-£660. Section carries out (in co-operation with County District Councils) comprehensive schemes for accommodation of over-spill population by development of existing townships.

Duties of Section include survey of sites, landscaping, preparation of contract documents for roads, sewers and landscape treatment, and general co-ordination of development work.

Applications, giving names, addresses and qualifications of two referees (where possible one should be present employer), should reach the County Planning Office, County Offices, Preston, by Saturday, 6th January, 1951.

1446

**HAMPSHIRE COUNTY COUNCIL.
SENIOR ASSISTANT ARCHITECT. Grade VII**
(£635-£725 to £710 per annum).

Candidates must be Registered Architects, preferably A.R.I.B.A., with at least five years' experience and with good general experience in the design and construction of public buildings.

The appointment is pensionable and will be subject to satisfactory medical report. It will be terminable by three months' notice on either side.

Applications should be made on forms to be obtained from the County Architect, The Castle, Winchester, to whom they should be returned not later than the 20th January, 1951.

G. A. WHEATLEY,
Clerk of the County Council.

The Castle, Winchester. 1482

**GOVERNMENT OF NORTHERN IRELAND.
MINISTRY OF FINANCE.**

Applications are invited for the following unestablished appointments in the Ministry of Finance:—

(a) **QUANTITY SURVEYING ASSISTANT.** Grade A, £400-£600 per annum.

(b) **QUANTITY SURVEYING ASSISTANT.** Grade B, £300-£500 per annum.

The commencing salaries of selected candidates will be fixed according to experience within the ranges quoted.

Qualifications:—Candidates must possess either:—

- (i) The National Building Certificate; or
- (ii) The Licentiate Diploma of the Institute of Builders;

or proof of professional study to an equivalent standard. In addition, candidates for Grade A posts must have had a wide experience in quantity surveying in a Quantity Surveyor's or Contractor's office, Government Department, or Local Authority. Candidates for Grade B posts must have had at least 5 years' training and experience on similar work.

Preference will be given to suitably qualified persons who have served with H.M. Forces during the 1914-1918 or 1939-1945 War, provided the Ministry is satisfied that such candidates can or within a reasonable time will be able to discharge the duties efficiently.

Closing date:—Applications, containing full particulars of education, qualifications and experience, and accompanied by copies of two recent testimonials, should be sent to the Director of Establishments, Ministry of Finance, Stormont, so as to reach him not later than 9th January, 1951.

1481

**BOROUGH OF CHATHAM.
APPOINTMENT OF CHIEF ASSISTANT
ARCHITECT.**

Applications are invited for the appointment of Chief Assistant Architect within Grade VI (£595-£660).

Housing accommodation will be made available if required.

Conditions of appointment and form of application may be obtained from Mr. H. D. Peake, M.Sc.(Eng.), Borough Engineer and Surveyor, Town Hall, Chatham, to whom completed application forms should be returned not later than Friday, 12th January, 1951.

1480

**BOROUGH OF EALING.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.**

**APPOINTMENT OF ARCHITECTURAL
ASSISTANT.**

Applications are invited for the permanent appointment of Architectural Assistant, in accordance with Grade VI of the A.P.T. Division of the National Joint Council's Scales, at a salary commencing at £595 per annum, and rising by annual increments to £660 per annum, plus £30 London weighting.

Applicants must either be Associate Members of the Royal Institute of British Architects or possess a recognised equivalent qualification. Preference will be given to candidates with Municipal experience.

The Council are unable to provide housing accommodation for the successful candidate.

Forms of application, together with conditions of appointment, may be obtained from the Borough Engineer and Surveyor, Town Hall, Ealing, W.5, and must be returned to me not later than the 22nd January, 1951.

E. J. COPE-BROWN,
Town Clerk.

Town Hall, Ealing, W.5.
14th December, 1950. 1478

**CITY OF OXFORD EDUCATION COMMITTEE.
SCHOOLS OF TECHNOLOGY, ART AND
COMMERCE.**

**SCHOOL OF ARCHITECTURE AND
BUILDING.**

Applications are invited for the post of:—
**FULL-TIME STUDIO INSTRUCTOR AND
LECTURER IN ARCHITECTURAL DESIGN.**

Applicants should be Associates or Fellows of the R.I.B.A., and preferably hold the Degree or Diploma of a Recognised School. Salary in accordance with the Burnham (Technical) Award.

Forms of application and further particulars may be obtained, on receipt of a stamped and addressed foolscap envelope, from the Chief Education Officer, City Education Office, 71, George Street, Oxford, to whom completed forms should be returned not later than two weeks from the date of appearance of this advertisement.

1477

Architectural Appointments Vacant

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

ARCHITECTURAL DRAUGHTSMAN required for detailing Masonry and Precast Concrete Units. Write, stating full particulars of experience, age, salary required to Girtings Ferro-Concrete Co., Ltd., Rothwell, near Leeds. 1352

EXPERIENCED SENIOR ARCHITECT'S ASSISTANT required by large multiple firm. Very busy office in Birmingham. Good prospects for live and capable man. State age, experience and salary. Box 1407.

OLD-ESTABLISHED Firm of Consulting Civil Engineers have a number of vacancies for **ARCHITECTURAL ASSISTANTS** and **DRAUGHTSMEN** for general building work in connection with Generating Stations and a variety of industrial construction. Positions are of a permanent character, and opportunities for individual ability and initiative will be provided. A full scale Superannuation Scheme is in operation. Salaries will in the first place be in accordance with experience and qualifications, but will be under constant review for adjustment in accordance with proved ability. The majority of applicants will be interviewed, when full details of the character of the work will be explained. Travelling expenses, etc., for interviews will be refunded. Applicants are asked to send full details of experience, etc., and approximate salary required, to C. S. Allott & Son, North Parade, St. Mary's Parsonage, Manchester, 3. 1433

QUALIFIED ASSISTANT ARCHITECT required. Must be good draughtsman and experienced in both working drawings and sketch plans. Apply, stating age, experience, and salary required, to T. P. Bennett & Son, 43, Bloomsbury Square, London, W.C.1. 1438

REQUIRED, at Company's Head Office, Guildford, **ARCHITECTURAL ASSISTANT**, R.I.B.A. Intermediate standard. Varied work, mainly factory. Five-day week. Salary by arrangement. Box 1445.

JUNIOR ASSISTANT required. Intermediate standard. Salary £7. Apply Walters & Kerr Bate, Holborn 9850. 1455

JUNIOR ASSISTANT required for general practice. Housing, shops, factories, etc. Full details of salary to Fredk. E. Wilkins, "Prudhoe House," 808, High Road, Tottenham, N.17. 1474

ARCHITECTURAL ASSISTANT required by Industrial Estate Developers in N.W. London. Experience of factory and office buildings desirable. Send full details of experience and salary required to Box 1464.

STAFFORDSHIRE COUNTY COUNCIL. COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments of **SENIOR ASSISTANTS** on the Headquarters staff of the Department at Stafford:—

(a) Design and Development Section. A.P.T., Grades VII-VIII. Salary £635-£760 per annum.

(b) Estates and Survey Section. A.P.T., Grade VI. Salary £595-£660 per annum.

Applicants for (a) should be Associates of the R.I.B.A., preferably with experience in housing estate layout or landscape architecture.

Applicants for (b) should be Associate Members of the R.I.C.S. and/or T.P.I., preferably with experience in valuation, rating, estate management, and the economic aspect of planning.

Particulars and conditions of the appointments may be obtained from D. W. Riley, County Planning Officer, 41a, Eastgate Street, Stafford, to whom applications should be submitted not later than the 29th December, 1950.

T. H. EVANS,

Clerk of the County Council. 1460

NATIONAL COAL BOARD.

A vacancy exists at Divisional Headquarters in Edinburgh for an **ARCHITECTURAL ASSISTANT**, Grade I. The salary scale is £410-£220 to £550, and applicants should have passed or be working for the Inter. R.I.B.A. Examination, and have some office experience. Applications, giving full details of age, education, qualifications, experience (in chronological order), present post and salary, should be forwarded to the Establishments Officer, 1, Eglinton Crescent, Edinburgh, within 7 days. The point of entry into the salary scale will depend on the qualifications and experience of the successful applicant, who will be required to pass a medical examination. 1470

Partnership

6 lines or under, 12s. 6d.; each additional line, 2s.

EAST AFRICA—JUNIOR PARTNERSHIPS offered to Architects with A.R.I.B.A. or Inter. R.I.B.A. qualifications. Salary £750 p.a., plus 10 per cent. profit, or £600 p.a., plus 5 per cent. profit. Passages of wife and applicant provided to and from East Africa; three months' paid leave after three years and two weeks' local leave per annum; housing available; minimum capital required £200. Write by registered airmail giving full particulars of age, experience, present salary, marital status, date available, and copies of testimonials, to Voucher 2062, Uganda Herald, P.O. Box 84, Kampala, Uganda. 1416

CHARTERED ARCHITECT, over 20 years' experience, seeks Partnership, or post as Chief Assistant with prospects of Partnership. Box 1450.

WEST SUFFOLK COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an **ASSISTANT HEATING ENGINEER**, at a salary in accordance with A.P.T., Grades III-IV (£450-£525) of the National Joint Council Salary Scales, position on scale according to qualifications and experience.

Applicants should preferably be Graduates of the Institution of Heating and Ventilating Engineers, with practical training; must have had a sound technical training, and have a good knowledge of heating, ventilating and hot and cold water services. They must be good draughtsmen and capable of designing installations under supervision, preparing drawings and specifications.

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

Forms of application may be obtained from the undersigned, by whom applications, together with the names of two referees, should be received not later than 14 days after the date of publication of this advertisement.

L. G. H. MUNSEY,

Clerk of the County Council.

Shire Hall, Bury St. Edmund's. 1476

BOROUGH OF LEYTON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the following permanent appointment:—
GENERAL ARCHITECTURAL ASSISTANT, Grade A.P.T., VII (£635-£710 per annum, plus London weighting allowance).

Candidates must be Registered Architects and should be Members of the R.I.B.A. Previous Local Government experience is not necessary, but some knowledge of post-war housing is desirable.

The appointment is subject to the National Scheme of Conditions of Service, the provisions of the Local Government Superannuation Act, 1937, and the passing of a medical examination.

Canvassing, either directly or indirectly, will disqualify, and candidates must disclose in their applications whether to their knowledge they are related to any member or senior officer of the Council.

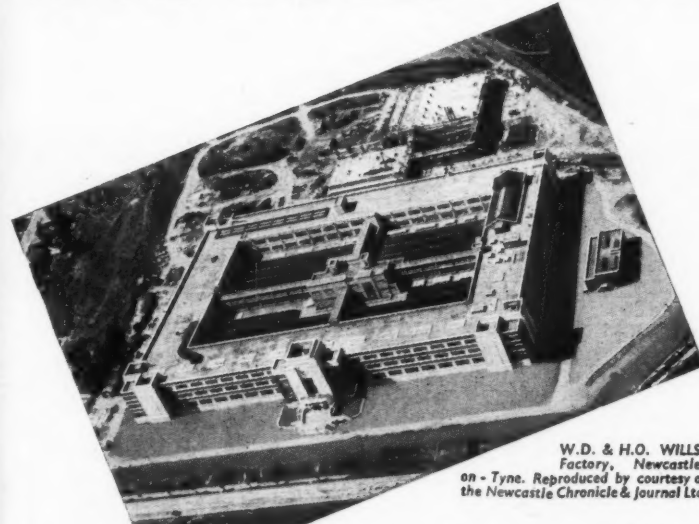
Applications, stating age, details of qualifications and experience, together with copies of three recent testimonials, should be delivered to the Borough Engineer and Surveyor, Town Hall, Leyton, E.10, not later than Saturday, 6th January, 1951.

D. J. OSBORNE,

Town Clerk. 1466

Town Hall, Leyton, E.10.

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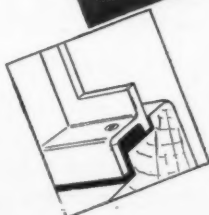
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REQUIRED immediately ARCHITECTURAL ASSISTANTS, not less than Inter. R.I.B.A. standard, on work of general and interesting character. Must have good knowledge of construction. Should be neat Draughtsmen. Salary by arrangement. Ernest Bates & Wm. G. Sinning, 89, Chancery Lane, London, W.C.2. Holborn 5136. 1471

EAST AFRICA and RHODESIA.—A number of vacancies exist for single men. First-class ASSISTANTS only reply, giving age, qualifications, and experience, etc., to Overseas Architects Service, 5, Weldon Crescent, Harrow. 1485

SLOUGH ESTATES, LTD., require an ARCHITECTURAL ASSISTANT, capable of preparing working drawings of factories and estate layouts with the minimum of supervision. The work is interesting and carries the benefits of pension and sickness schemes. Five-day week, except for one Saturday in four. Brief particulars please of age, experience and salary required, to the Architect, Slough Estates, Ltd., Trading Estate, Slough. 1484

ARCHITECTURAL ASSISTANT required for private office in North-West Cumberland. Reply, stating age, training, experience, qualifications, present and required salary to Box 1479.

ASSISTANTS required for Architects' office in Westminster. Salary £450 to £650 per annum. Five-day week. Apply, giving details of qualifications and experience. Box 1463.

Other Appointments Vacant

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

ARCHITECTURAL METALWORK DETAILING DRAUGHTSMAN wanted; good wages and ideal working conditions. Apply: The Morris Singer Co., Ltd., Ferry Lane, Forest Road, Walthamstow, E.17. 3564

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COMPACTOM, LTD., Oxgate Lane, Cricklewood, N.W.2 (near Staples Corner), have vacancy for practical designer for Partitioning and Fitment work; some knowledge of joinery and cabinet construction essential. Write, stating experience and salary required. 1473

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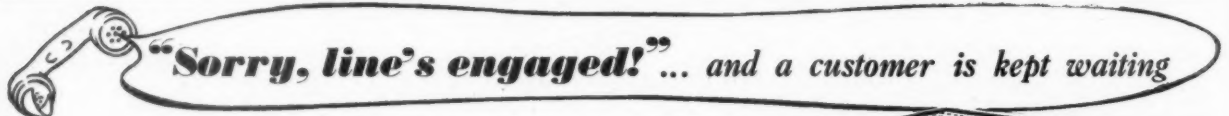
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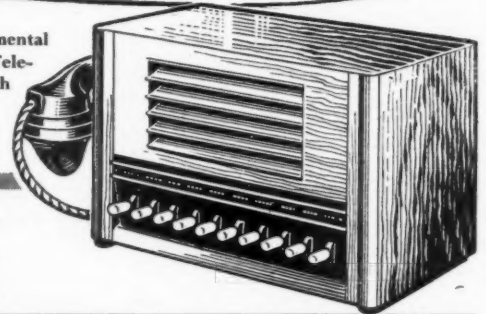
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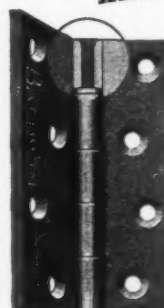
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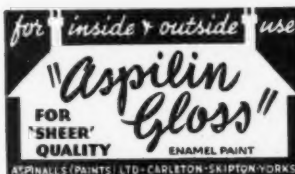
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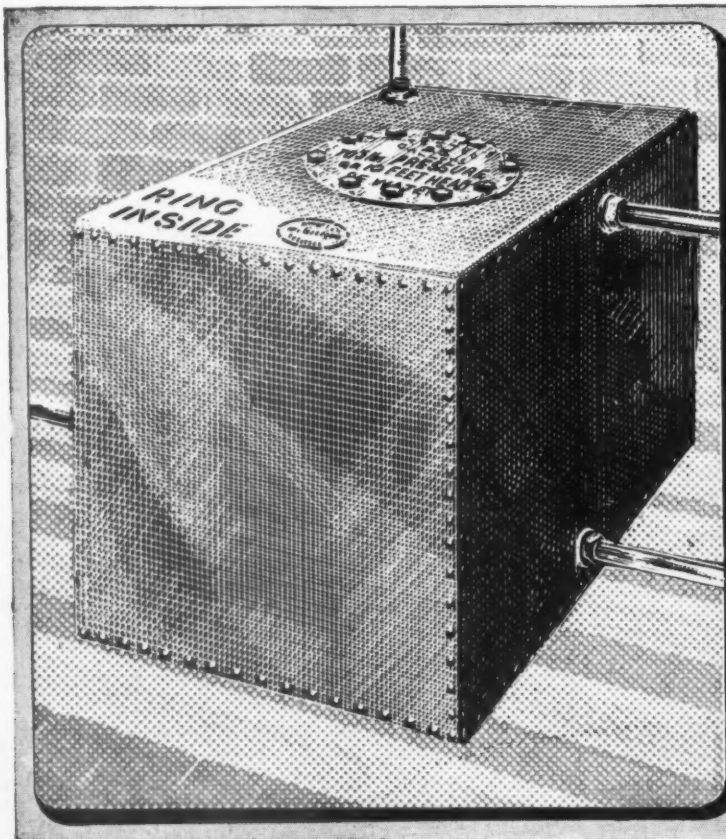
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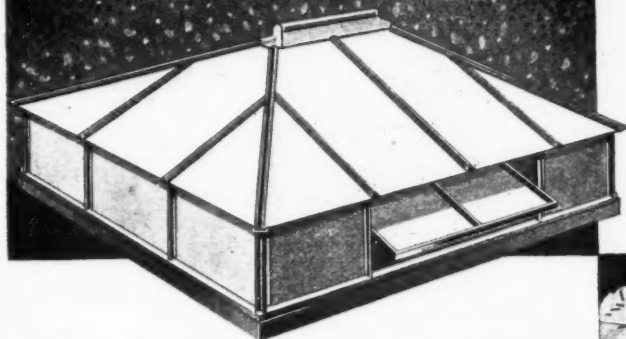
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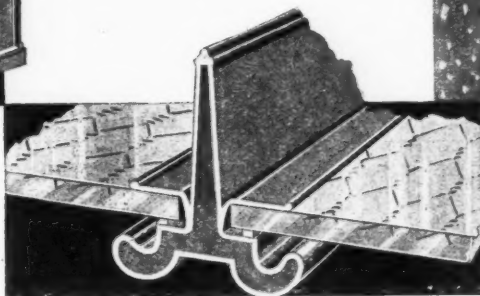
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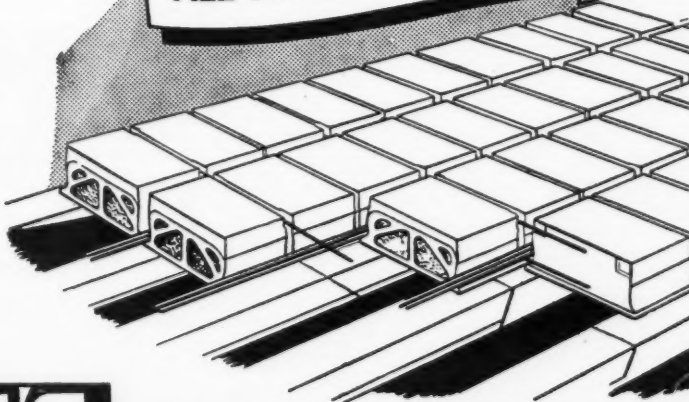
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