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FOR every type of work in which asphalt can be employed the name Val de Travers stands supreme for product and service. As the largest mine owners in the world and as the greatest producers of factory-made asphalt in the country, Val de Travers' unrivalled resources are destined to play a great part in the reconstruction which lies before us.

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of the Company and its Associates.

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# VAL DE TRAVERS

*The Largest Producers of Asphalt in the World*

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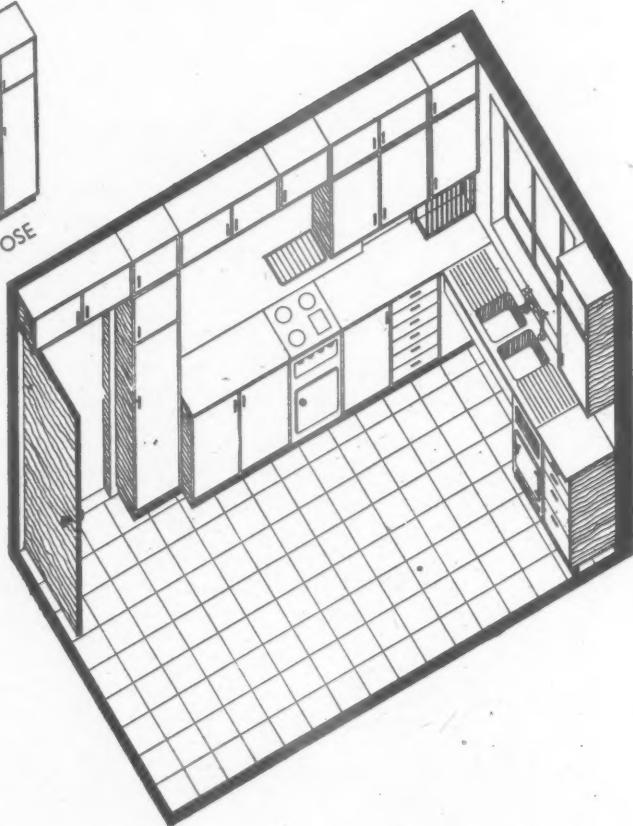
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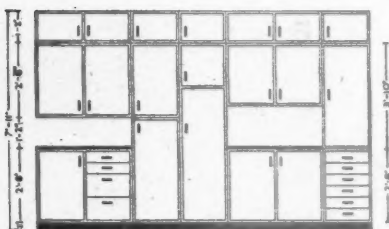
# STANDARD KITCHEN UNITS

# EJMA

CERTIFICATION TRADE MARK



1. Each single unit is 1ft. 9in. wide.  
Each double unit is 3ft. 6in. wide.  
Each wall unit is 1ft. 0in. deep.  
Each floor unit is 1ft. 7in. deep.

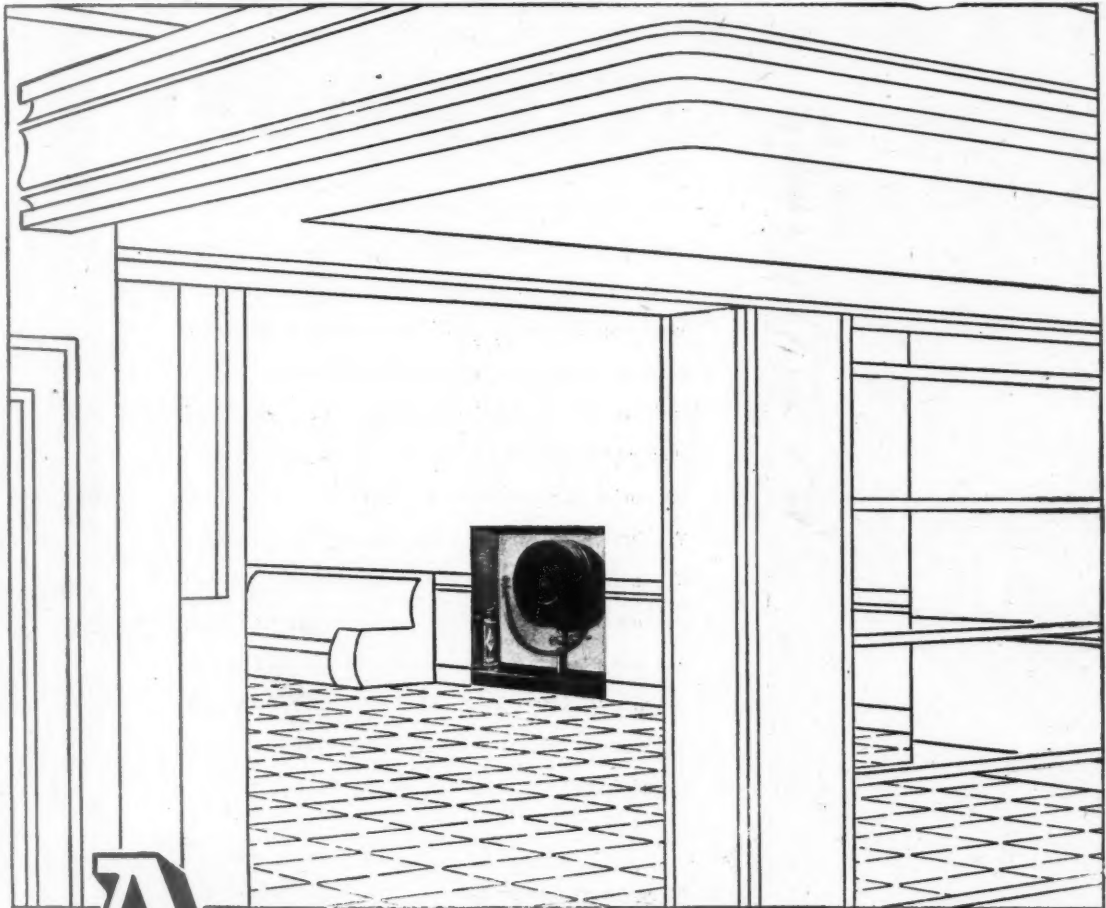


2. This diagram shows how the heights of the various units have been arranged to give the fullest range of possible combinations for units.

3. The EJMA range of kitchen units is designed to give a work top 3 ft. high, wall cupboards 13 or 18 inches above this top, with dead storage space above to make up the remaining ceiling height. Large or small, new or old, any kitchen can be equipped with an efficient and unified arrangement.

THE  
**ENGLISH JOINERY MANUFACTURERS ASSOCIATION**

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**A**rchitects blackprint [*Information Sheet No 951*]  
**on application**

The Pyrene "Everyway" Hose Reel and the Conquest Soda Acid Fire Extinguisher—each is pre-eminent in its class—can be accommodated in a recess 14in. deep. Full dimensional details are given in Information Sheet 951 (105 Revised). New building calls for modern equipment and copies of the revised Information Sheet will therefore gladly be sent on request.

THE PYRENE COMPANY LIMITED  
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# EXTRUSIONS

Aluminium alloy extrusions are a most important addition to the traditional materials of construction. No other process can produce the intricate shapes that eliminate the complication and weight of riveted rolled sections. Extrusions can be made for stressed shapes such as spar booms for aircraft, or for non-stressed shapes like casement sections. They come in long lengths for hand-rails, or can be cut into slices for door furniture. We shouldn't even think it fanciful—or impracticable—if complicated hollow sections were specified. We can produce these, too! The uses for extrusions are legion, and many are as yet unsuspected. If you have a construction problem drop a line to our Development Department. Maybe you will find the answer . . . an extruded section.

*The Shapes  
for Things  
to Come*

**BIRMETALS**

BIRMETALS LIMITED BIRMINGHAM



*big - with big advantages . . .*  
**built in, by PRESTCOLD**

**This built-in Prestcold refrigerator, as shown, installed in the kitchen designed by the Wessex Electricity Co., has the following important advantages:**

*Storage capacity of approximately 4½ cubic feet, which will hold all the perishable foodstuffs for a family of four.*

*Larder space rendered unnecessary. Dry goods and non-perishable foodstuffs would be kept in kitchen cupboards.*

*Waist-high door, allowing access to interior without stooping. Height adaptable by varying position of supporting frames.*

*It can be built into kitchen fittings with cupboard space above and below it.*

*Design provides for adequate ventilation of mechanism without the necessity for special air-bricks or ducting.*

*Ice making and 'cold cooking' facilities.*

Most important too, is the fact that this Prestcold refrigerator provides the food storage temperatures necessary for the proper safeguarding of perishable foods—for instance 35°F for fresh fish and poultry; 40°F for milk—and even the lower temperatures needed to store the frozen foods which will be available later on. In addition, it will be most economical in current consumption, using only one unit a day.

**PRESTCOLD** *Refrigeration*

# Truscon Floors for Housing



## Truscon Floors...

★ Save site labour...

★ Save timber...

★ Save cost...

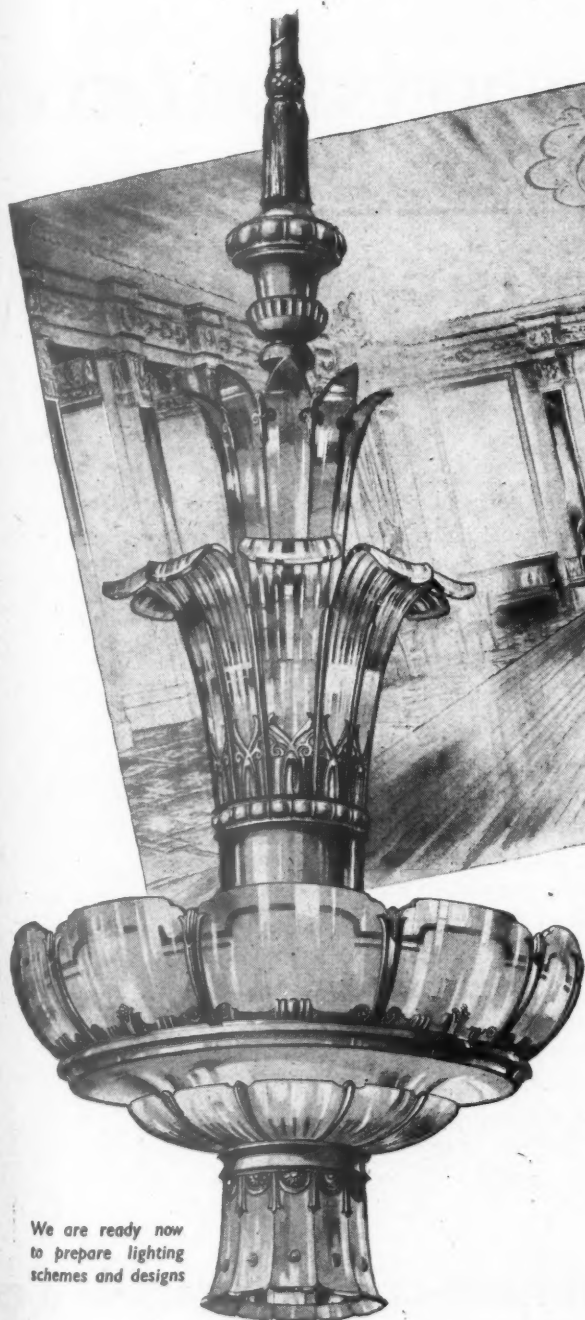
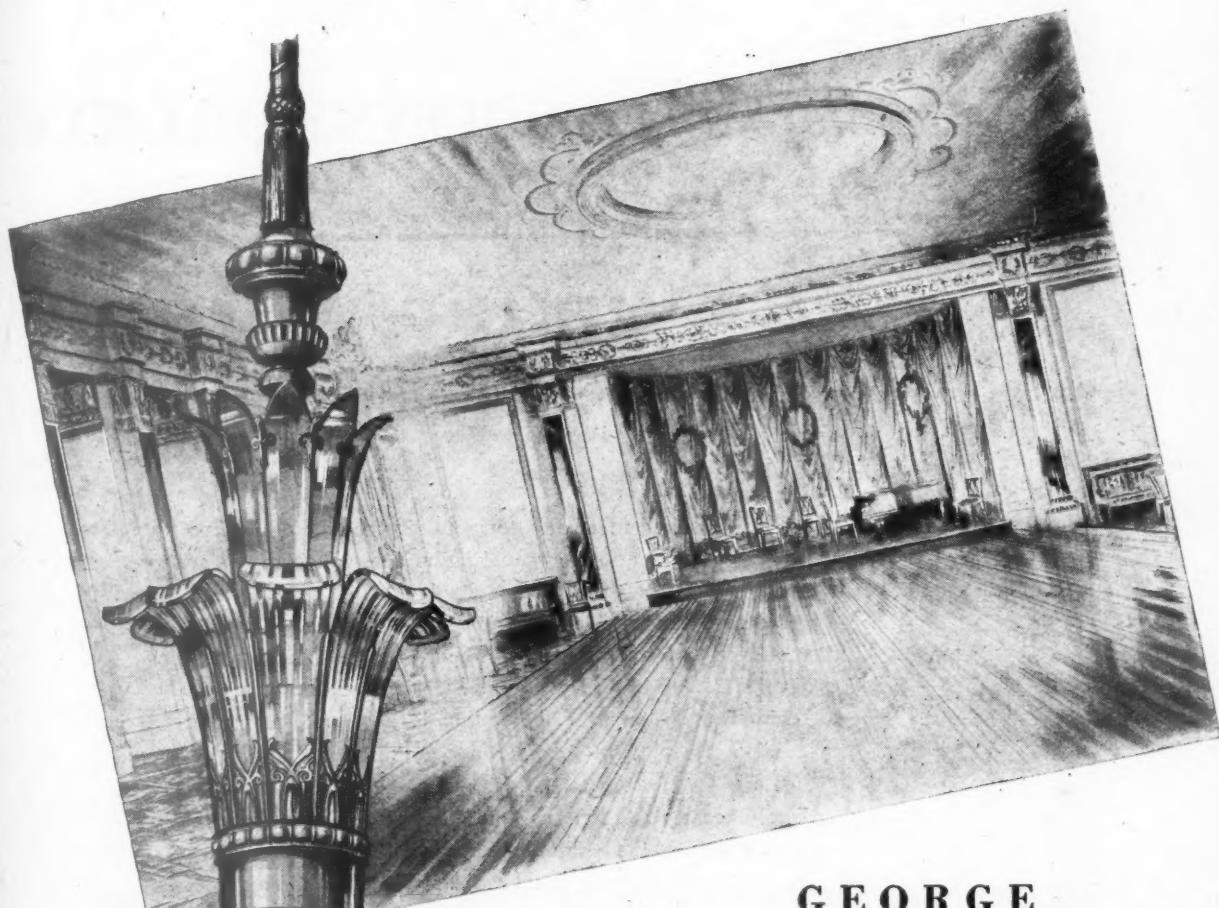
★ Save weight...

Top illustration: Housing for Liverpool Corporation.  
Director of Housing: L. H. Keay, O.B.E., F.R.I.B.A.  
Centre illustration: Housing for Manchester Corporation.  
Director of Housing: John Hughes, B.Arch., F.R.I.B.A.  
Bottom illustration: Flats at Northampton.  
Architects: Sir John Brown and A. E. Henson, FF/R.I.B.A.

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L I G H T I N G S P E C I A L I S T S

## *Information on* REINFORCED CONCRETE

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### **No. 5 MIXING WATER**

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The water used in mixing concrete must be clean and free from chemical and/or organic impurities. Generally water which is fit for drinking is suitable for mixing concrete. Impure water may lead to slow setting and low strength concrete. Sea water should not be used when fresh water is available. The quantity of water required depends on the richness of the mix, the slump required, and is reduced if the sand is damp. As a general guide a 1:2:4 mix using dry materials would require about 6 gallons of water for 1 cwt. bag of cement. It is important that the quantity of water used should be the minimum to produce a thoroughly mixed and workable concrete. Excess water reduces the strength of the concrete. The most convenient practical method of checking the water content is the "slump test".

The mould used for this test is in the form of a frustum of a cone 12 inches high, bottom diameter 8 inches and top diameter 4 inches, fitted with foot plates and handles. The inside of the mould must be smooth and thoroughly clean, dry and free from set cement.

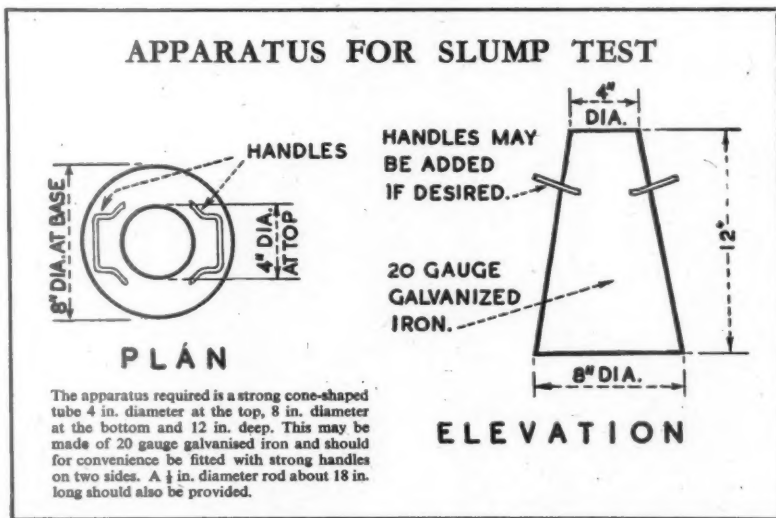
The mould is placed on a board and filled with concrete in four successive layers, each one being rodded 25 times with

*Issued by* **THE BRITISH REINFORCED CONCRETE ENGINEERING CO. LTD.**  
LONDON, BIRMINGHAM, BRISTOL, LEEDS, LEICESTER, MANCHESTER, NEWCASTLE



# CONCRETE CONSTRUCTION

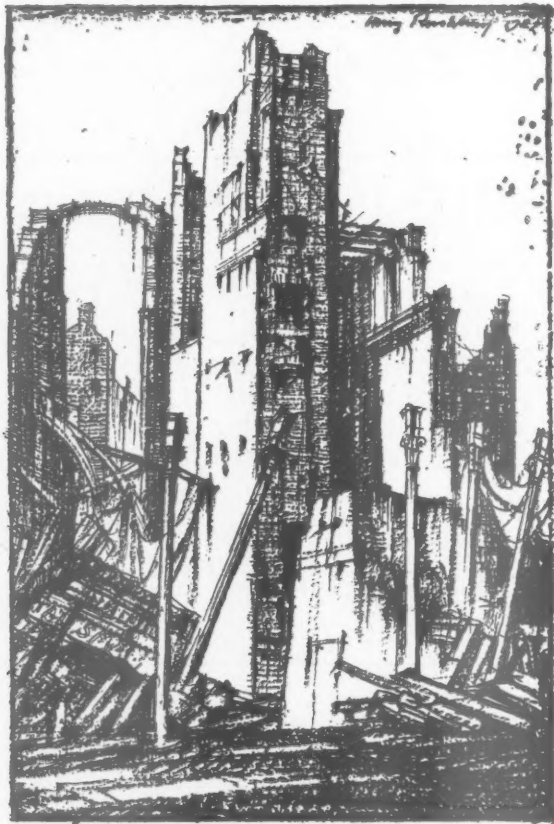
a bullet ended  $\frac{3}{8}$  inch steel rod, 2 feet long. After striking off the top so that the mould is exactly filled, the mould is removed by raising vertically. The moulded concrete is then allowed to subside, the amount of subsidence in inches being known as the "slump".



# BRC

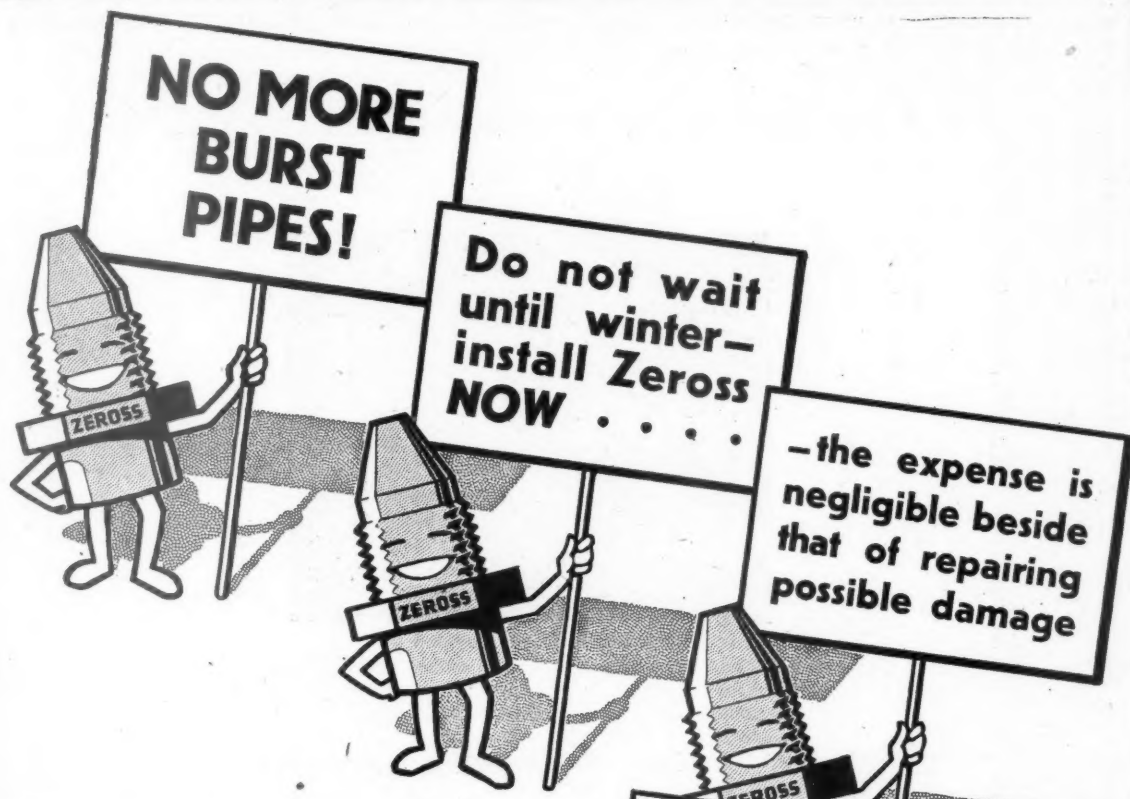
CO. LTD. STAFFORD *Specialists in Reinforced Concrete Design & Suppliers of Reinforcement*  
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# CRITTALL WINDOWS



WHEN YOU  
REBUILD

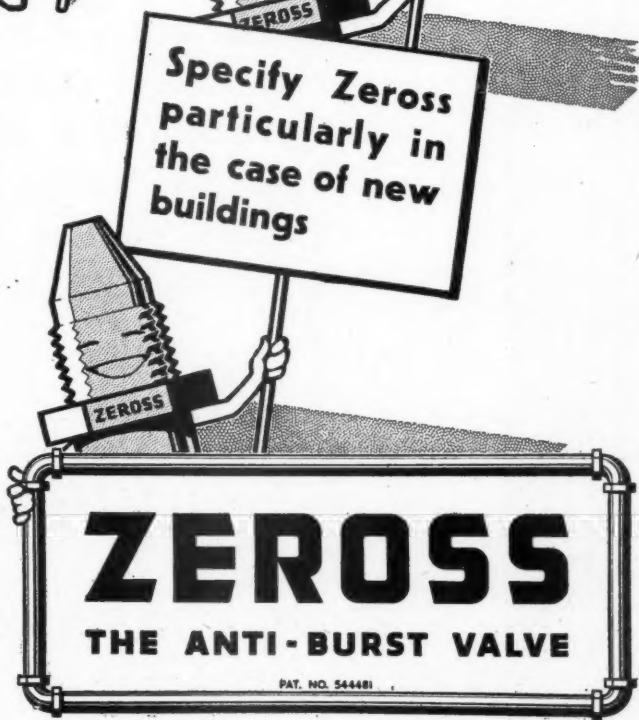
THE CRITTALL MANUFACTURING CO. LTD., 210 HIGH HOLBORN, W.C.1.



So great has been the interest aroused in the Building and Allied Trades by the ZeroSS Anti-Burst Valve that it was decided that further tests of the most rigorous description should be carried out in public. The results showed ZeroSS to be 100% efficient in operation. Representatives of the House of Commons, the Air Ministry, the Ministry of Works, Water Authorities, Industrial Undertakings and the Press were present. The assembly agreed that the tests witnessed were sufficient to prove conclusively the claims of the Company in connection with the ZeroSS Valve.

Now is the time to order ZeroSS Valves; do not wait until winter, when it may be too late. The cost of installation is negligible compared with that of making good the damage that may be caused by bursts due to freeze-ups. "ZeroSS" should be specified particularly in the case of new buildings as well as in existing water systems. "ZeroSS" technicians will gladly give advice and assistance.

Remember that ZeroSS Valves are entirely self operating and require no maintenance. There is no constant wear on any part of the Valves and they cannot be affected by corrosion as the essential parts are not normally in contact with the water.



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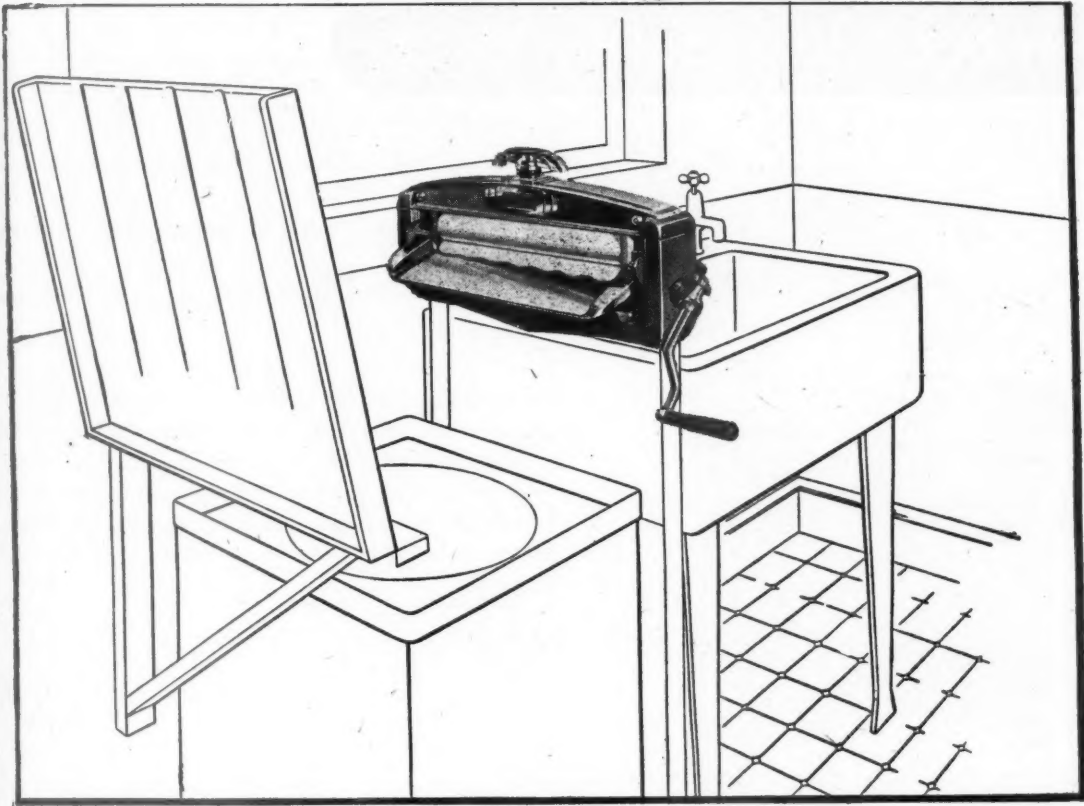
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## *She dreamed . . . . .*

*and in her dream time turned back thirty years. She was a housewife, busy with the weekly wash. With aching back and heated weary face she toiled between a sink she had to bend herself in two to reach, a copper boiling over a roaring roasting fire, and a monstrous mangle she barely had the strength to turn.*

## *She woke . . . . .*

*and there she was — a housewife, but of the pattern of today and tomorrow. With the weekly wash before her, nothing but the normal work of a normal day. With her pleasant kitchen, her just-right sink, her easy to use wash-boiler and her rubber roller wringer. What need had she to fear a back that ached, or a skin shrivelled by heat and exhaustion?*

Modern woman demands a civilised standard for the kitchen where the biggest part of her work is performed. A survey undertaken to ensure that her standards are met has laid down what are the minimum requirements—the size and

height of sink, the type of draining-board, the presence of wash-boiler. And always—room for a rubber roller wringer. The housewife herself will tell you *which* wringer—the Acme 55—the BEST.

To plan a modern house without a modern kitchen would be like building a ship without an engine room. To fix the kitchen without equipment for the home laundry would be leaving the engine room bare of engines.

Ministries and local authorities have accepted and approved surveys which regard conditions for the home laundry as vital. Which emphasises that room should always be made in the sink-unit for a rubber roller wringer, which halves a woman's work and takes the nightmare quality out of wash-day.

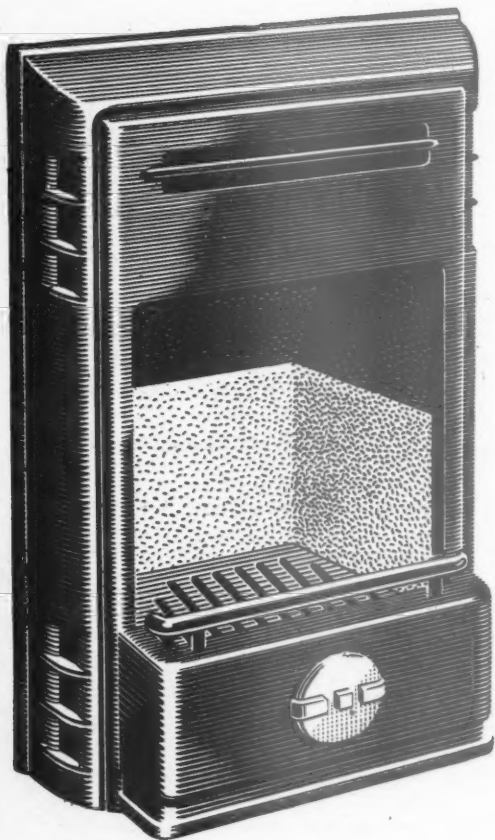
If your work brings you any problem in connection with the fixing of wringers, please get in touch with us for advice or assistance. We will have much pleasure in helping you.

# ACME

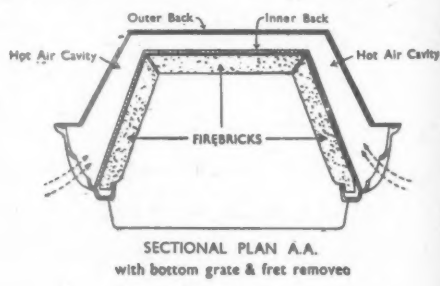
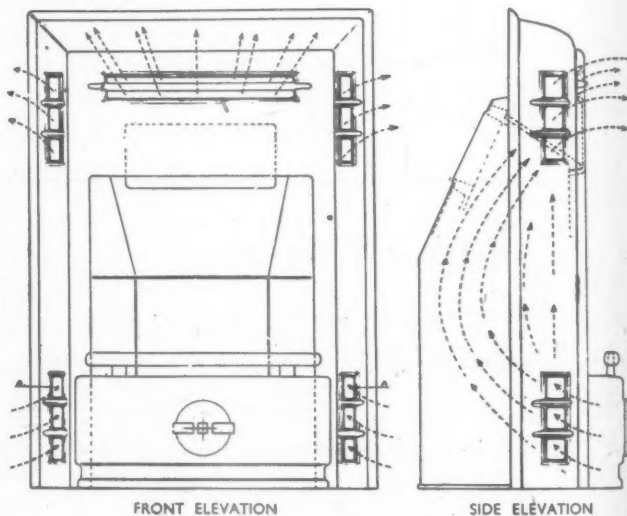
# NEW-FASHIONED VISIBLE HEAT

EXAMPLE

## A.I "PROJECTOR" HEATING UNIT



**SPECIFICATION:** This is a self-contained interior grate, with double casing, which gives warmth on the convection principle. By carefully arranged air inlets in the sides and top of the unit, the heat from the fire is projected over the whole area of the room. The path of this heated air is indicated by dotted lines in the accompanying diagrams.



**SIZES:** Overall sizes : 25½" high x 18½" wide x 12" fire.  
 Minimum size of existing fire opening required : 22" high x 16" wide.  
 Clearance from underside of projecting lintel (if any) over fire opening to level of hearth must be at least 28".

**FINISHES:** Ebony black or coloured vitreous enamel, or "Allisheen" de Luxe enamel.

**ADVANTAGES:** The unit can be fitted to most existing fireplaces. It gives more heat per unit of fuel, and cuts down fuel consumption by approximately 40% over the ordinary coal fire.

ONE OF THE MANY CONTRIBUTIONS TO THE POST-WAR HOME THAT WILL BE MADE BY

## ALLIED IRONFOUNDERS LIMITED



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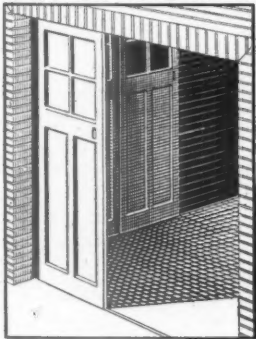
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# TO SWING OR NOT TO SWING



**THAT IS THE QUESTION** and when it comes to planning doors it needs extra careful thought—because there are few things more precious than space when you are working in confined quarters. A door that's hinged is a door that needs a lot of room; but with a sliding door it's different. If it's fitted with King Door Gear a touch of the hand takes it out of the way, gliding easily and quickly to nestle snugly against the wall, completely and unobtrusively out of the way.

OUT OF THE WAY



It is true to say that in post-war building every inch of space will be of the utmost value; take advantage of every scrap of it—when you can, and how you can. This is where King Door Gear comes in—or to be more precise slides along. Doors that slide mean doorways that allow free passage all around them.

For ante rooms, cloak rooms, garages, lifts, etc., and places where space is limited or traffic congestion is likely to occur, sliding doors are the perfect application.

As specialists for over a quarter of a century we claim to satisfy the most exacting requirements for any type of sliding door gear. Write for fully illustrated booklet.

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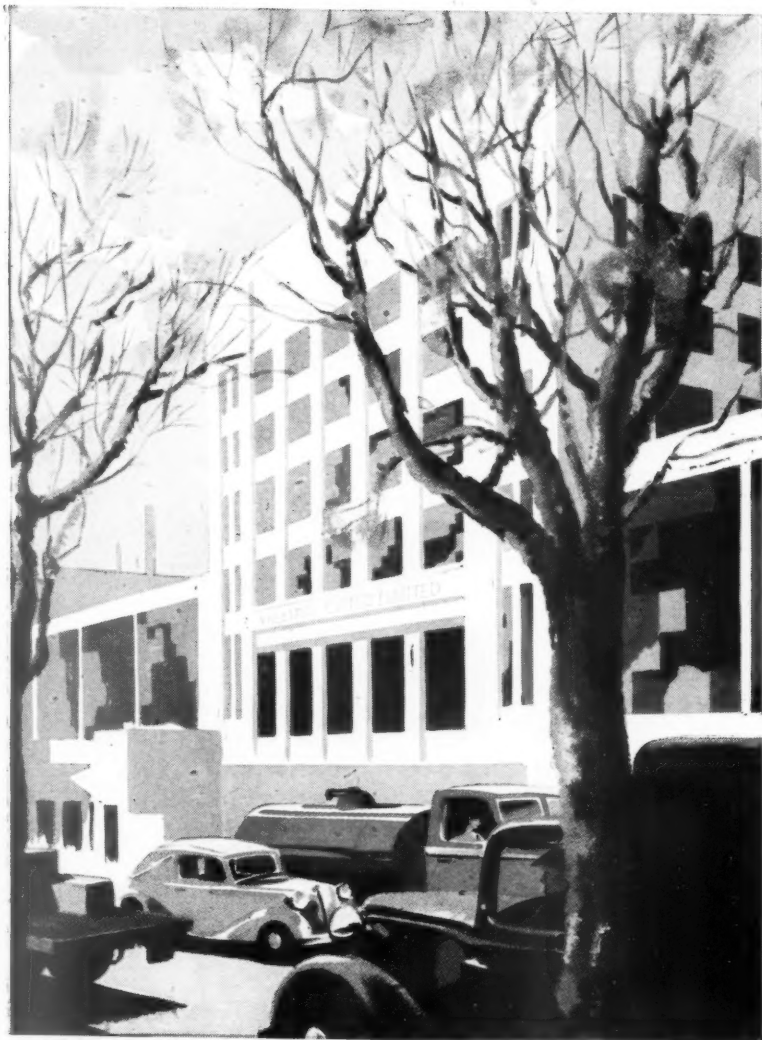
Telegrams:  
Windows, Wolverhampton

London Office: Imperial House, Kingsway, London, W.C.2      Telephones: Temple Bar 3216 (3 lines)









BUILD WITH A  
STEEL  
FRAME





Painting by Doris Zinkeisen

## This Present Age . . . 7

It is no new thought that security and freedom from want in old age should be the concern of established industry. As long ago as 1882 the Samuel Fox Stocksbridge Benefit Fund was founded to provide for retired employees. This fund continues to-day as do provisions at other branches. With time it became desirable to adopt more liberal policies. In 1935 and 1936 four voluntary contributory pension schemes were launched to cover the administrative and office staffs, establishment personnel, foremen and all other workers. They formed the largest comprehensive project of its kind ever established, and, so far, the only one within the industry incorporating all the workpeople. The schemes are

generous in their scope and impose a heavy annual liability on the company, to which is now added the responsibility for the contributions of its 5,072 employees serving in H.M. Forces. These insurances are an instance of the initiative of enlightened management in social reform, and are tangible proof that this organisation has a sincere and profound appreciation of human needs and aspirations. The community depends on steel to satisfy its necessities and provide its amenities. Thus it is of national interest that the development and economic stability of the industry should provide steady employment and social security for the company's employees.



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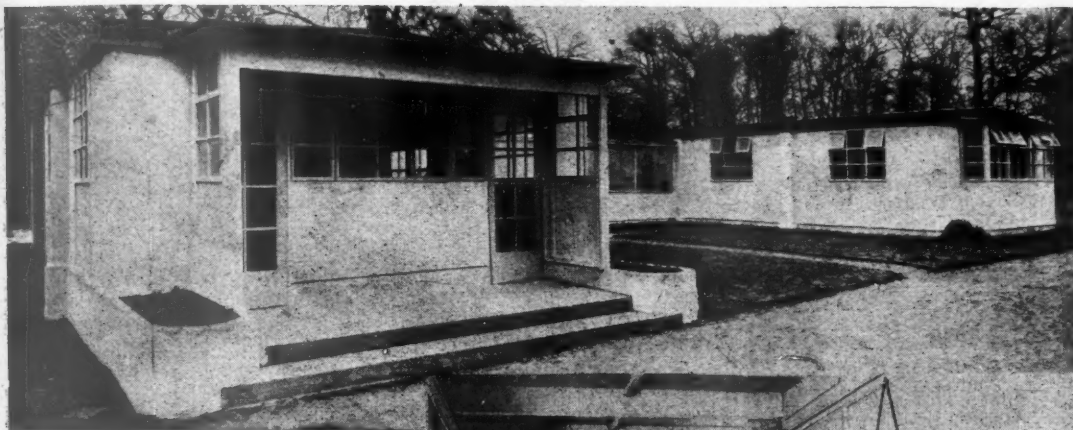
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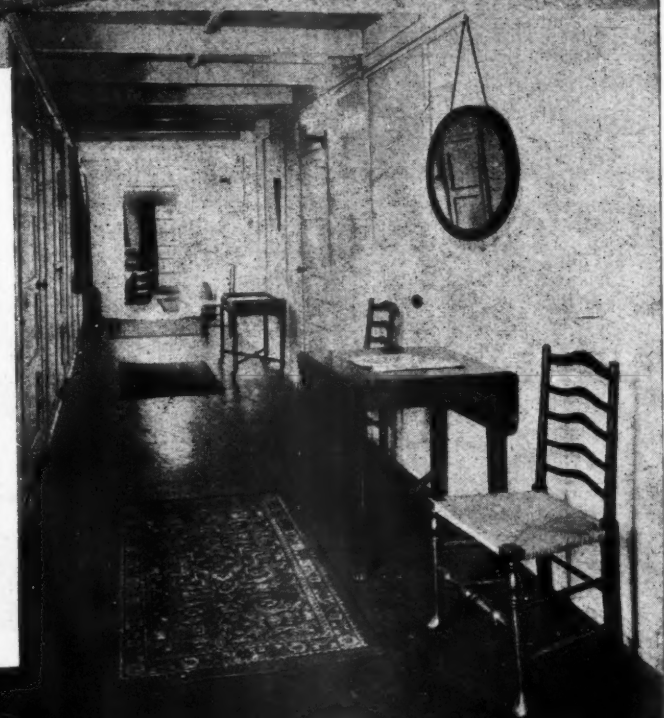


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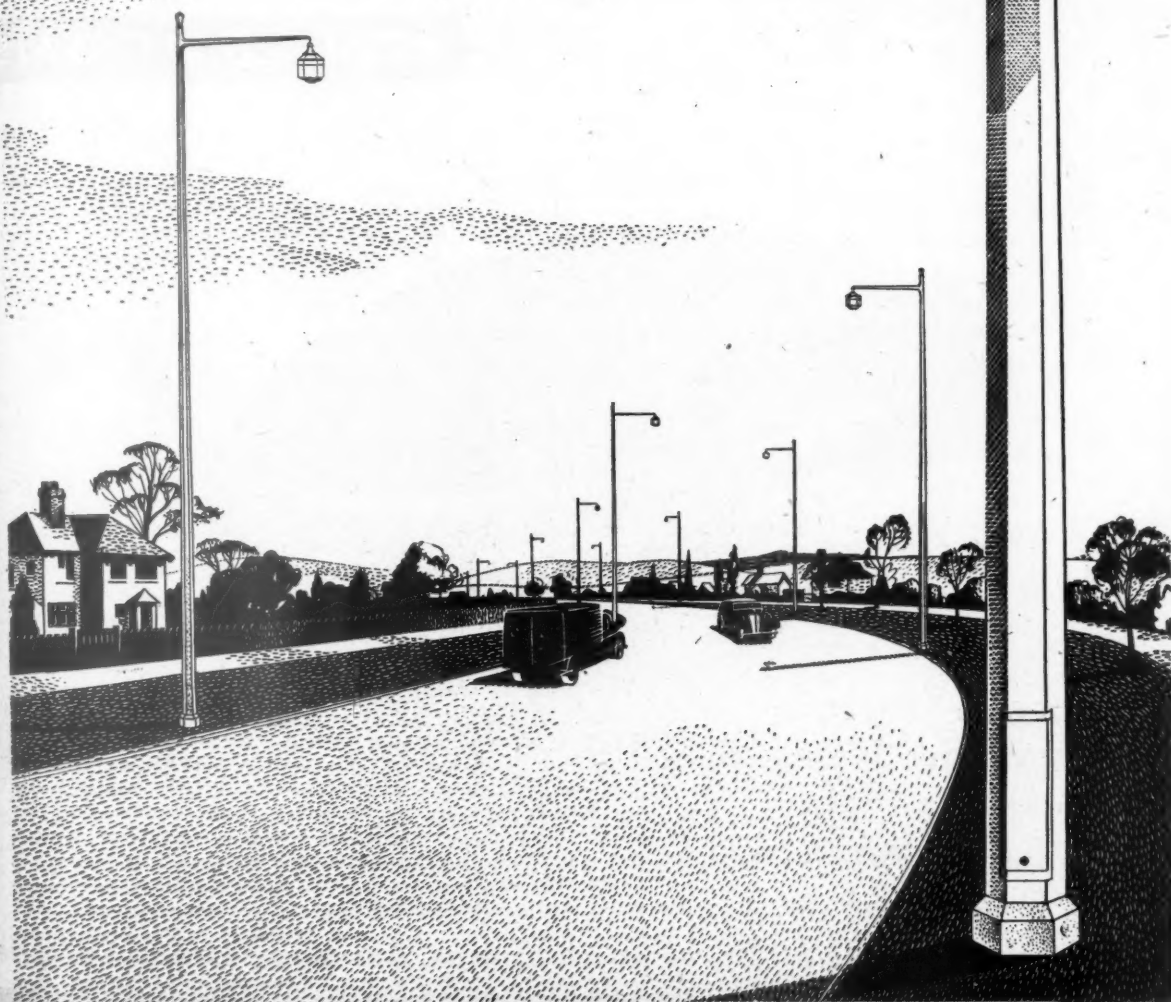
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*emphatic...*

... about post-war deliveries”

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when the time comes  
to convert plans on paper  
into actual structures  
and equipment, now is  
the time to approach us.



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Even if a scheme is in such an early stage of planning that the preparation of a fully detailed specification and an accurate estimate of cost must be deferred, that is of no consequence. Allow us to assist you in preparing an outline of the best installation at the lowest cost consistent with fulfilment of essential requirements and the highest standards of material and workmanship. By accepting this offer you will not incur any obligation but you will secure three important advantages. *First, of having your name entered high up on our list for priority in the carrying out of our post-war contracts.* Second, you will have at your service in

planning, knowledge of the design, construction and installation of lifts and escalators which can only be acquired by long experience in that particular branch of engineering. Third, if you eventually place your order with us, you will have available for the carrying out of your scheme the resources of a large organisation provided with ample skilled labour and up-to-date equipment which, during the war, has produced for the Army, Navy and Air Force, for the Merchant Navy, for Government Departments and for many other important Clients, numerous engineering products of the highest quality requiring the utmost precision in manufacture.

# J. & E. HALL

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# CARTER & COMPANY LTD

## “ CONDITIONS FULL OF PROMISE ”

*Mr. B. E. Elford, the Chairman, made the following statement at the Thirty-seventh Ordinary General Meeting of the Company held in London :*

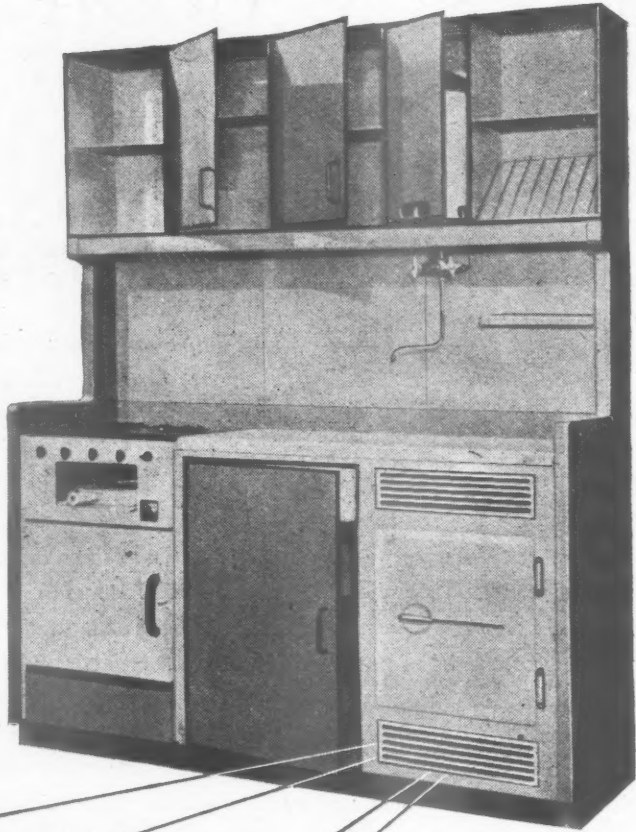
“ Since my published statement was written much has happened. The second world war is at an end. But after the chaos of the last six years no one expects the mere ending of war to bring conditions of peace. We must fight for that as hard as we fought to win the war itself. In this country conditions are full of promise: accelerated demobilization from the Services plus the immediate release of people from munitions should, and we hope will, enable us to recruit the labour we need so urgently. The demand for the things we make is very great, both for this country and abroad. For the moment it is an embarrassing demand. Our three main products, white glazed tiles, coloured glazed tiles (for the present in a restricted range of colours) and floor tiles, which we are peculiarly fitted to make on account of our geographical position, will all be in intensive demand for the vast housing programme, and for the new schools, factories and public buildings, which must be built along with the houses. All through the war our remaining staff has concentrated on the production and distribution of these products, and I would like to emphasize again the tribute we all must pay to the loyal and conscientious service of our employees, particularly our colleagues in our twice blitzed London Office, who carried on so efficiently throughout. To them as to our many colleagues in the Services our heartfelt thanks are due and rendered.

Our concentration on the more prosaic and utilitarian side of our craft in no degree implies departure from the high standards of quality which Carters have and always will maintain. Naturally, we look forward to the time when our more decorative work, of which there is so much to our credit in pre-war architecture, will again be in evidence, but until then the quality of our production in the three utilitarian products I have mentioned will adequately maintain our reputation as amongst the leading glazed and floor tile manufacturers in the country. We can claim with confidence that we have already adapted ourselves to the new conditions and altered types of demand, enabling us to look forward to a future which we like to think will bring prosperity and happiness to those concerned—whether as workers or shareholders—in this fascinating business in which we play our several parts

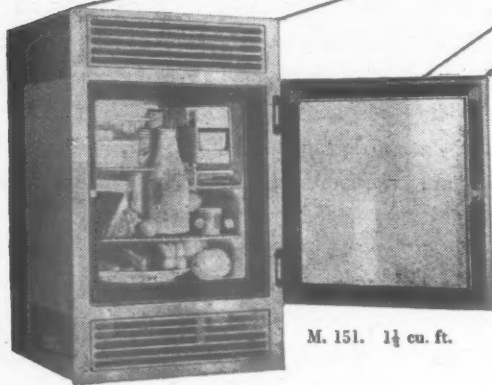
Two important subsidiaries, Art Pavements and Decorations Ltd.—in the front rank of Marble and terrazzo workers—and Carter Stabler & Adams Ltd.—making Poole pottery, which has won such a deservedly high reputation—have been working through the war under very similar handicaps to our other businesses but are ready, with the return of labour, to take their old place and improve upon it.”

The Report and accounts for the year ended 31st March 1945 were unanimously adopted.

Kitchen equipment must satisfy the housewife's needs and, by its adaptability, meet the requirements of the kitchen planners. That is why Electrolux 'built-in' refrigerators are so popular. The M.151 shown, fulfils the needs of the average small family, and like all Electrolux 'built-in' cabinets, fits in to any kitchen design. Moreover, it is noiseless, has no moving parts, and does not interfere with wireless reception.



Package Kitchen by courtesy of  
MESSRS. ALUPLEX LTD.



M. 151. 1½ cu. ft.

Electrolux 'Built-in' Refrigerators operate equally well by Gas or Electricity. Free Standing Models operate by Gas, Electricity or Paraffin.

# ELECTROLUX LIMITED



TO H.M. THE KING

Works: LUTON, BEDFORDSHIRE

'Phone: LUTON 4020



TO H.M. QUEEN MARY



**I**f building is to go forward at the speed which the nation demands, new ways of planning and of construction will be needed. Whatever may be the scope and shape of the building programme, structural steel will have an important contribution to make.

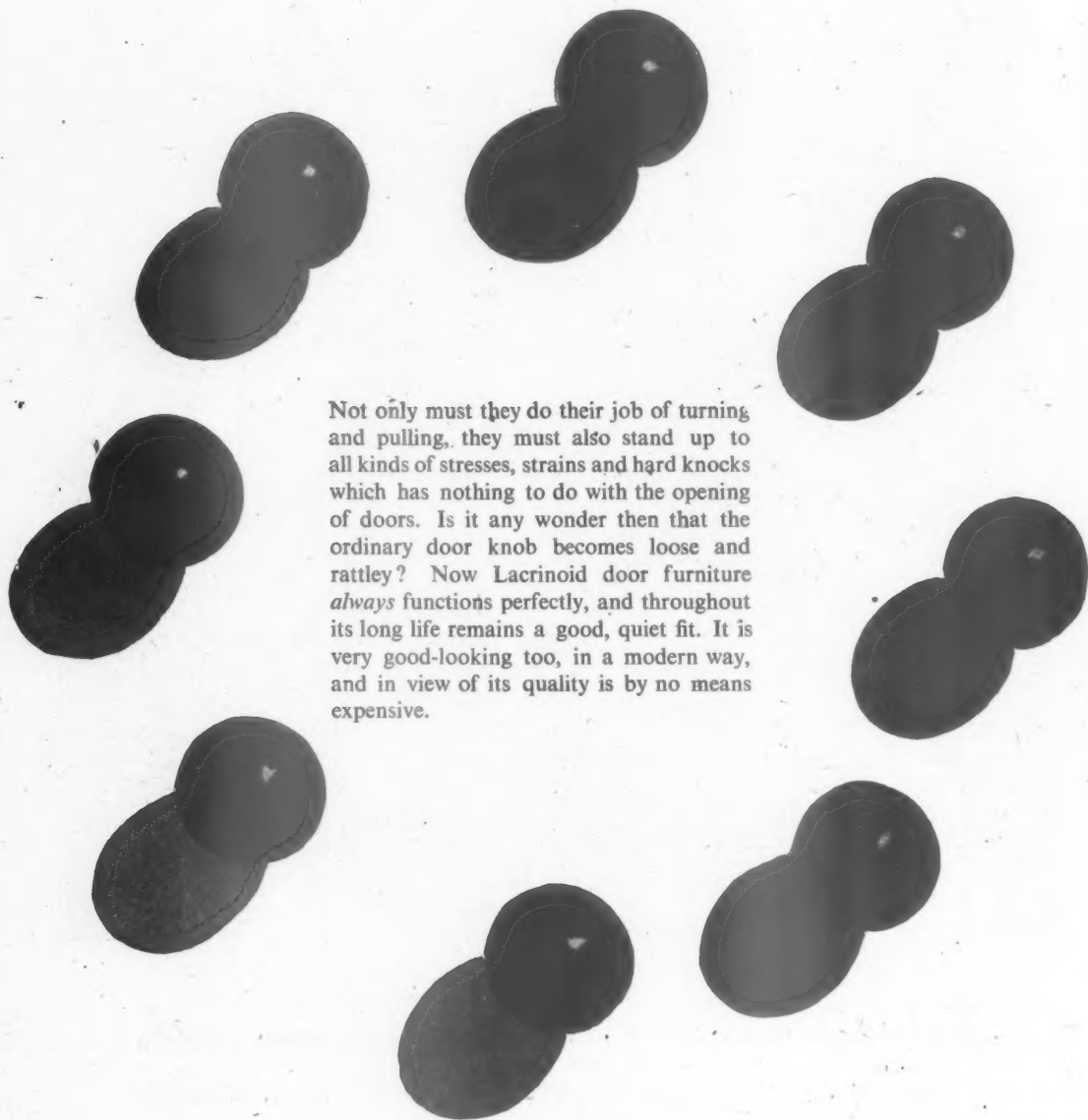
## **BANISTER, WALTON & CO. LTD**

**STRUCTURAL STEELWORK**

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# Take door knobs for example



Not only must they do their job of turning and pulling, they must also stand up to all kinds of stresses, strains and hard knocks which has nothing to do with the opening of doors. Is it any wonder then that the ordinary door knob becomes loose and rattley? Now Lacrinoid door furniture *always* functions perfectly, and throughout its long life remains a good, quiet fit. It is very good-looking too, in a modern way, and in view of its quality is by no means expensive.

## LACRINOID *for plastics*

DOOR FURNITURE - CABINET HANDLES - KNOBS FOR ALL PURPOSES

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for the Cooking and  
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**PLAN COPYING**

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Made in England by

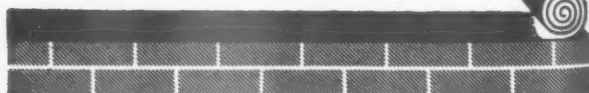
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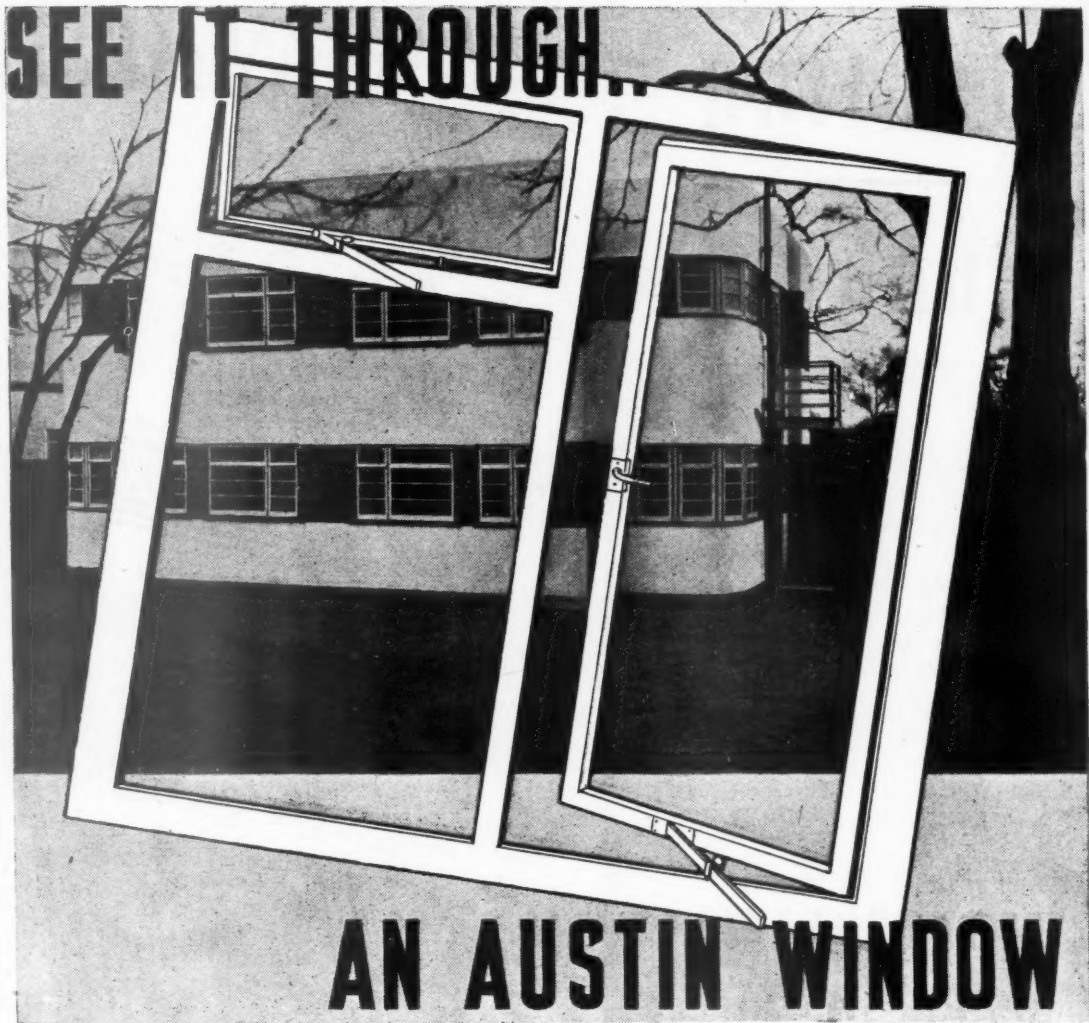
Another wall that didn't have

**BRIGGS** *AQUALITE damp course*

It always pays to specify "Damp-course by Briggs." For the pure bitumen of an Aqualite dampcourse, moulded around a bitumen-saturated, sealed-in core of untearable canvas, presents a permanent barrier against damp and dry rot. A barrier which, though yielding to natural displacement, does not squeeze out under the weight of the superstructure.



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Good design and skilful seasoning make it possible to use window sections which are slighter than they used to be whilst still retaining the sturdiness for which Austins Windows have always been famous.

Our post war windows will be to the **EJMA** design which is simple to produce, good looking and uses a minimum of timber.

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OF EAST HAM

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# Heating

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# Cooking

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WE can offer to architects, builders and all those interested in planning post-war homes the accumulated experience of 35 years. We invite enquiries and will gladly co-operate in designing and making electric heating and cooking equipment to meet specified conditions. Hundreds of thousands of Belling Built-in Fires are installed in houses all over the country. New Built-in Fires for Housing Schemes and new Cookers—both vertical and horizontal—are being developed.

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C.R.C. 518

# Metal Windows?

# Yes!



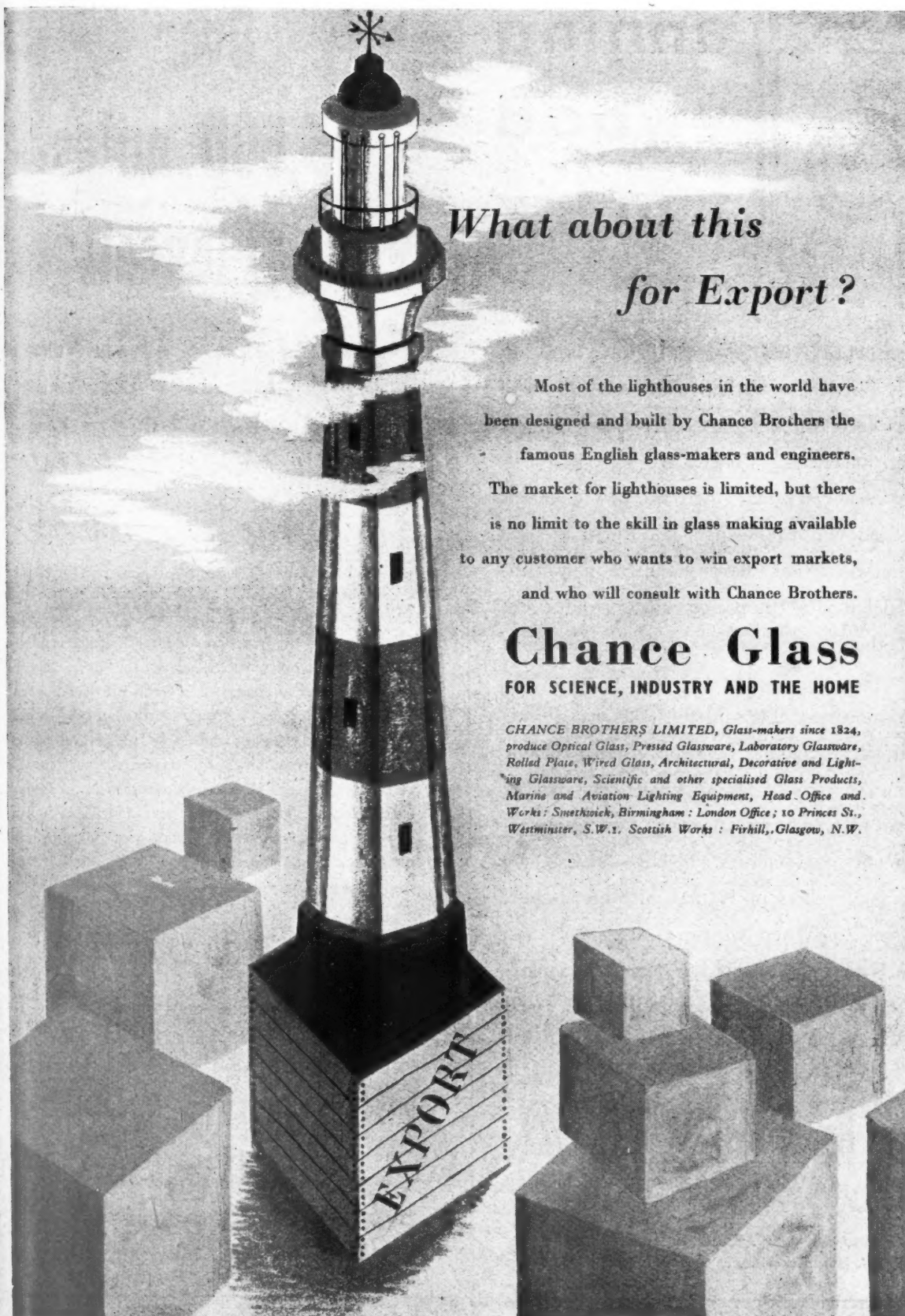
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for Export?*

Most of the lighthouses in the world have been designed and built by Chance Brothers the famous English glass-makers and engineers. The market for lighthouses is limited, but there is no limit to the skill in glass making available to any customer who wants to win export markets, and who will consult with Chance Brothers.

**Chance Glass**  
FOR SCIENCE, INDUSTRY AND THE HOME

*CHANCE BROTHERS LIMITED, Glass-makers since 1824, produce Optical Glass, Pressed Glassware, Laboratory Glassware, Rolled Plate, Wired Glass, Architectural, Decorative and Lighting Glassware, Scientific and other specialised Glass Products, Marine and Aviation Lighting Equipment, Head Office and Works: Smethwick, Birmingham: London Office: 10 Princes St., Westminster, S.W.1. Scottish Works: Firhill, Glasgow, N.W.*

# P l a n n i n g P l y w o o d P y m a x

Plans are in the air — some of them will stay in the air or dissolve into thin air; but whatever shape the post-war world may take, the shaping will be done largely with materials. There are old materials, known and trusted; there are new materials untried and promising; and there are old materials which have acquired new properties during the period of war production. Of these, plywood is perhaps the most remarkable. During the war it made the Mosquito possible. Before the war it was making all manner of strong, light, reliable and decorative things. We have been making good plywood for 50 years; we know all about its old qualities and new virtues. We are also makers of Plymax, the metal-faced plywood. When all these new ideas and materials are available our technical department will be at the service of all users.

# V E N E S T A

Venesta Limited, Vintry House, Queen Street Place, E.C.4  
Telephone enquiries: Pinner 6781

## Over 15,500 miles of 'Flexcell' Expansion jointing *have been laid during the War*

Interpreted in terms of use for 25 ft. width concrete carriageways with expansion joints at 30 ft. intervals, this represents the expansion jointing material required for over 17,800 miles of road—almost four times the total mileage of concrete roads laid in Great Britain before the war. But 'Flexcell's' war-time job has not been merely to stand up to ordinary traffic. It has been employed for roads carrying an endless stream of tanks and for concrete runways on aerodromes to withstand the impact of the heaviest bombers. Evidence is available in abundance to show that 'Flexcell' sealed with 'Elastite' will fulfil the jointing requirements of all peacetime concrete road construction.

*'Flexcell' is composed of long springy cane fibres. Every fibre is impregnated rendering it rot-proof and durable. It is easily compressed, and has a high resiliency factor. Will not extrude and forms a cushion between adjoining slabs. 'Elastite' seals the top 1" or so of 'Flexcell', preventing excess water seeping in the subsoil. It matches the colour of the concrete and does not become brittle in low temperature or run under hot sun.*

**'FLEXCELL' sealed with 'ELASTITE'**  
(A Celotex Product)  
**EXPANDITE PRODUCTS**  
REGISTERED TRADE MARK

A copy of the booklet 'Expansion and Contraction Joints in Concrete Construction' will be sent to any who are interested on receipt of 1d. stamp to comply with Paper Regulations.

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TRINIDAD LAKE ASPHALT  
IS USUALLY REGARDED AS THE  
STANDARD ASPHALTIC CEMENT  
FOR ALL FORMS OF ASPHALT  
IN ROAD AND BUILDING CON-  
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Many customers ask us to help them with their post-war requirements in Plastics. We are anxious to serve them and the time to start planning is now • To wait until war contracts are cancelled will mean delay. There are designs and specifications to settle, tools to be made and sampled before peace-time production can start • If you are ready to discuss your post-war ideas, our service\* can help you. It includes designing, advice on materials and the manufacture of tools—in fact everything short of immediate production • Your ideas, plans and designs will be treated confidentially.

★ *Manufacture of Products in Plastics, Rubber and Synthetic Rubbers.*

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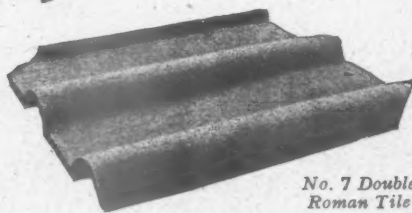


# Tiles for the New Houses



Having good stocks we are able to despatch orders reasonably promptly. This applies especially to our handmade No. 7 Double Roman Tiles, Bambino and Reynardo patterns. For repairing damaged roofs, as well as for new buildings, these three shapes are excellent. They can be laid quickly, are not affected adversely by the weather, give lasting protection and are supplied at a price which renders them applicable to buildings where cost is of major consideration.

Ask for illustrated catalogue and estimate.



No. 7 Double Roman Tile

Tiles available: Pantiles, Double Roman, Bambino, Reynardo, Spanish, Italian, Lido, Replaco, in plain or coloured glazed finishes.

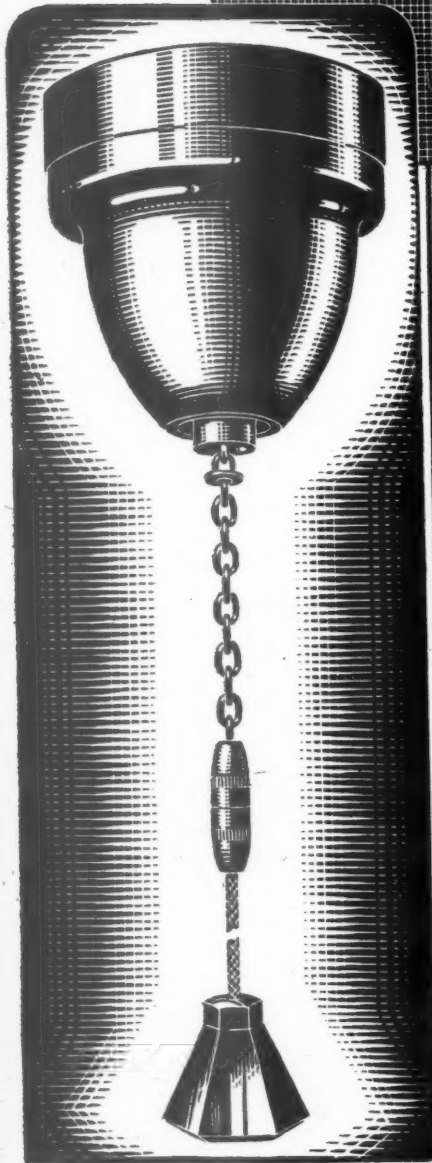
# COLTHURST · SYMONS & Co. LTD.

Patent Tile Works · Bridgwater · Somerset





# Economical Installations



The "BRITMAC" Range of Single Cord Ceiling Switches and Switchplugs is well known. The demand for these Accessories has been very heavy during the War, their use shows a considerable saving in installation costs, due to the elimination of the drop-down of conduit and cable. Ceiling Switches and Switchplugs are also the safest form of control, as they are operated by a shock-proof cord. The type illustrated, List No. P. 2736, is the Surface type, "Universal" pattern with 2in. fixing centres, for mounting direct to B.S. Conduit Boxes.

The "BRITMAC" Range includes the following:—

"Standard" pattern 5-amp Single Pole one and two-way, also Double Pole, Surface and Semi-Recessed.

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May we send you full details of this range of "BRITMAC" Electrical Accessories?

ELECTRICAL  
ACCESSORIES  
FOR ALL WAR-TIME  
INSTALLATIONS

BRITMAC

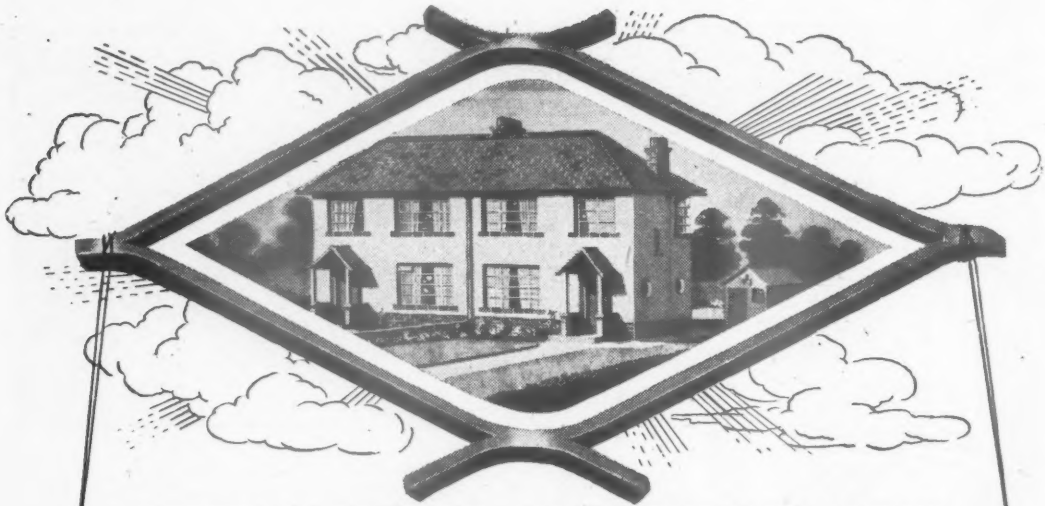
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In fact, it's high time to order your reinforcement for concrete rafts and roads. We can supply to your specification either "EXPAMET" EXPANDED METAL—the core of good concrete for over 50 years—or "XPM" HIGH TENSILE WELDED FABRIC, made on the most modern machines.

Later you will require "B.B." EXPANDED METAL LATHING, the ideal "key" for plaster work; "SUPER RIBMET," the combined reinforcement and permanent centering for concrete floors and roofs; "EXMET" BRICKWORK REINFORCEMENT.



#### THE EXPANDED METAL COMPANY LIMITED

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and at Birmingham, Glasgow, Manchester, West Hartlepool, Aberdeen, Belfast, Cambridge, Swansea, Exeter & Leeds.

# HERMATOR HARD GLOSS PAINT



Hermator is Britain's standard for hard gloss paint. You may still specify "HERMATOR" with every confidence for the protection of wood and metal in all climates. It successfully resists rust, rot, decay, storm, rain, sleet, salt water and extremes of heat and cold. Not quite up to pre-war quality due to restrictions on imports of certain raw materials, but the best that can be produced under present conditions and can still be termed—

*"The Knight Protector of Wood & Metal"*



## DOCKER BROTHERS LADYWOOD BIRMINGHAM 16









**VENT-AXIA**  
**FOR BETTER AIR CONDITIONS**

VENT-AXIA LTD. 9 VICTORIA STREET, LONDON, S.W.1 AND AT GLASGOW & MANCHESTER

# "FERROGRAN" STEEL FACED FLOOR FLAGS

(FOR MEDIUM HEAVY DUTY)  
ARE HYDRAULICALLY  
PRESSED PORTLAND CEMENT  
CONCRETE FLOOR FLAGS  
WITH SURFACE HEAVILY  
IMPREGNATED WITH METAL

SIZES:—  
12" × 12" × 2"  
AND  
12" × 12" × 1½"

## TWO HEAVY DUTY FLOORS

# "CONSOL" STEEL ANCHOR FLOOR PLATES

(FOR EXTRA HEAVY DUTY)  
ARE MADE OF 10 GAUGE  
STEEL DESIGNED TO RESIST  
CONCENTRATED WEAR.  
WELL LUGGED ON THE EDGES  
AND UNDERSIDE TO GIVE  
PERMANENT ANCHORAGE TO  
THE BASE CONCRETE

SIZES:—  
Full Plates: 12" × 12"  
Half Plates: 12" × 6"

SUBMITTED BY



EAGLE WORKS,  
WEDNESBURY, STAFFS.  
Telephone: 0284

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## THE APPROVED METHOD OF ROOF WATERPROOFING

### Waterproofing Paste

For sealing cracks, holes and joints in leaking or damaged roofs, gutters, etc.

### Fibrous Compound

A waterproof insulating coating for all types of roofs.

# TRETOL

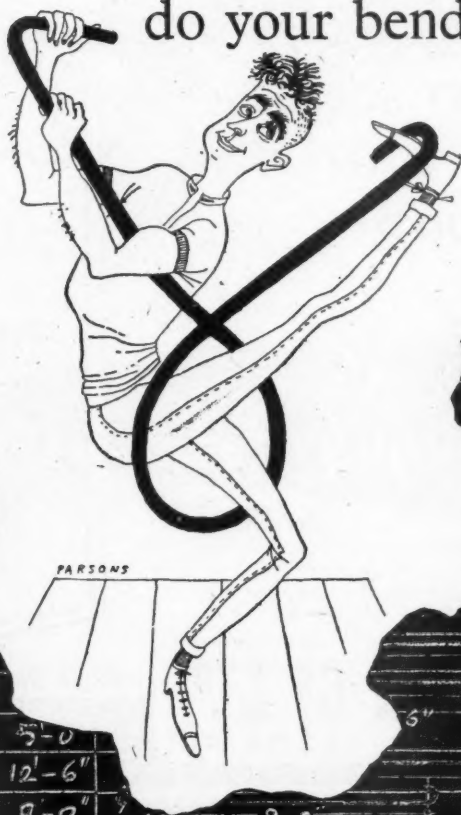
Completely waterproof and acid resistant. Supplied ready for use and applied cold by brush.

Consult our Technical Department for further details

**TRETOL LTD.**

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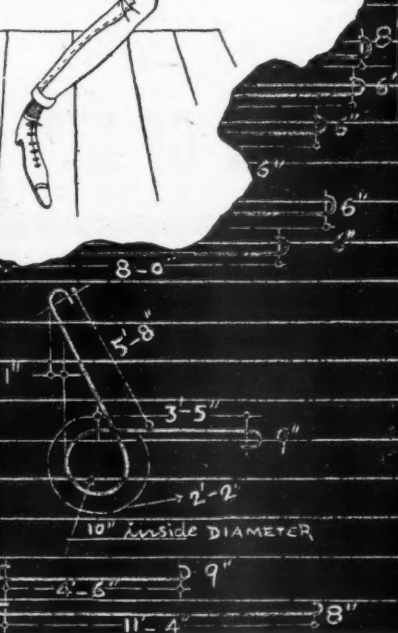
May we do your bending?



**BENDING LIST**

Contract

Location	No of Bars	Size	Bar Mark
Floor Slab		Reinforcement	
Top	38	5/8"	462
Reinforcement	5	1/2"	463
	1	1/2"	464
	1	1/2" 5'-0"	465
	5	1/2" 12'-6"	466
	1	1/2" 9'-0"	467
	178	3/4" 12'-9"	468
	5	3/4" 6'-0" 9"	486
Walls	108	5/8" 12'-8" 8"	469



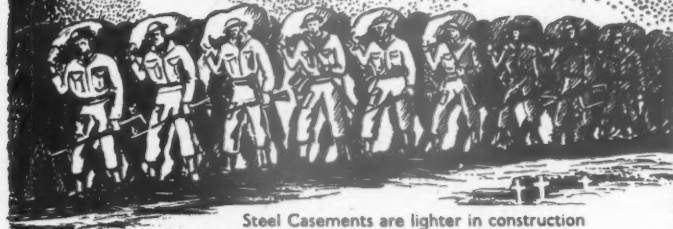
Bending, of course, is only part of the service\* you'll want from your supplier of reinforcing material, but when we get a specification you can leave it to us to do all that's necessary and to see that you get deliveries on time, in the right order, and bundled and labelled for easy handling on the site.

**GUEST, KEEN & NETTLEFOLDS LTD.**

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CARDIFF**

CASTLE WORKS AND ROLLING MILLS, CARDIFF. 66, CANNON STREET, LONDON, E.C.4. 111, NEW STREET, BIRMINGHAM.

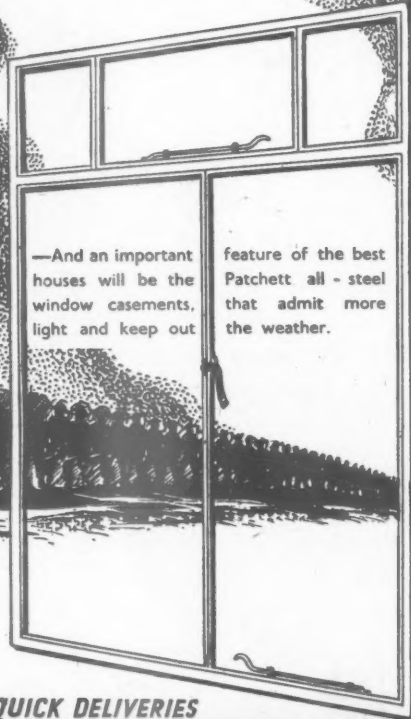
**THEY DESERVE  
THE BEST HOUSES  
WE CAN  
BUILD**



Steel Casements are lighter in construction  
RESULT - more light is admitted  
Steel offers greater resistance to weather  
RESULT - lower maintenance costs

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LEEDS

**PATCHETT & CO LTD**  
WESTLAND ROAD LEEDS 11.

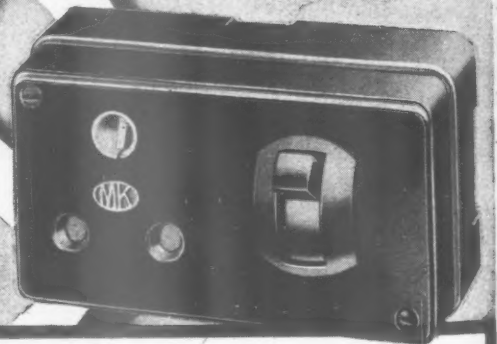


—And an important feature of the best houses will be the window casements, light and keep out

feature of the best Patchett all-steel that admit more the weather.

**QUICK DELIVERIES**

HEATING & VENTILATING CONSTRUCTIONAL STEEL WORK  
CYLINDER WORK BUNKERS MACHINING & GENERAL ENG  
GAS CUTTING & WELDING ELECTRIC ARC WELDING  
ORNAMENTAL IRON WORK STEEL CASEMENTS



“Anti-Flash” is an M.K. invention and gives maximum safety for small extra cost. Sockets are to B.S.S. 546. No overhang of live or neutral pin. 2, 5, 15 amps. Single or Double Pole. Page 48 of 1939/40 catalogue.

**M. K. ELECTRIC LTD.**  
EDMONTON N.18

## 1d. Plain, 2d. Coloured

*The tuppenny coloured one will follow later—meantime OUR FIRST 1945 FOLDER IS READY, it is very plain and it costs a penny. It illustrates our post-war range of patterns and sizes. It covers doors to the current British Standard Specification (B.S.S. 459) and also several designs of our own, which, using no more materials and costing no more, will be preferred by those seeking a little individuality.*

*In addition there are photographic illustrations of the "REZO" Flush Door (the door with the unobtrusively efficient core—Patent No. 314356).*

We plan to provide a first class service in the supply of doors, a service that will make a definite contribution towards the speedy erection of the millions of houses which are so badly needed.

Unfortunately the speedy and efficient execution of orders is extremely difficult at present, essential materials being in short supply. You can be assured, however, that every effort is made to reduce the delays. So please give us as much time as possible, and if there is some delay do not imagine that your order has been filed away and forgotten, somebody at Glikstens is doing some worrying about it, and the greater the delay—the more he will worry.

You see we have not had a recess from the supplying of doors during the war for one thing or another the job has gone on—militia camps, hospitals, A.R.P. shelters, ordnance factories, bomb damage repairs—so we know the difficulties and the way to minimise them.

## GLIKSTEN DOORS LTD.

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LIVERPOOL 2.  
Tel.: CENTRAL 3441

CARPENTERS RD.,  
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An Empty Frame needs a

**GLIKSTEN DOOR**

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THE GLIKSTEN BUILDING  
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ARE SPECIALISTS IN  
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# We need NEW SCHOOLS



Schools, schools and more schools will soon be going up — or coming down for rebuilding. The new schools will not, we hope, look like castles or town halls or places of detention or fantastic accidents. They will be designed for light and air and space and cheerfulness.

And their architects and builders will discover—if they don't already know—the innumerable uses of zinc, from roofing downwards. Its lightness, long life and low cost. Its suitability for buildings traditional or revolutionary, site-built or pre-fabricated. Its almost infinite versatility.

## ... new schools need ZINC

ZINC has already entered into the construction of hundreds of schools ancient and modern. Ample supplies of Zinc will be available for post-war building. New techniques are being discovered and our publications describe them. If you would like to have our publication list or to know more about Zinc and the Zinc Development Association, write to the Z.D.A., Lincoln House, Turl Street, Oxford.



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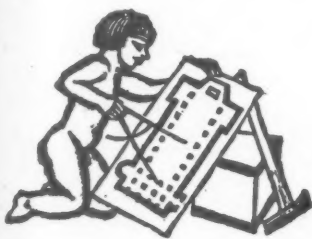


# NEWS

THURSDAY, SEPTEMBER 6, 1945  
No. 2641. VOL. 102

In common with every other periodical this JOURNAL is rationed to a small part of its peacetime needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the JOURNAL. Newsagents now cannot supply the JOURNAL except to a "firm order."

Subscription rates: by post in the U.K. or abroad, £1 15s. od. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the JOURNAL and made of raw materials now in short supply, are not necessarily available for export.



## DIARY FOR SEPTEMBER OCTOBER AND NOVEMBER

Titles of exhibitions, lectures and papers are printed in italics. In the case of papers and lectures the authors' names come first. Sponsors are represented by their initials as given in the glossary of abbreviations on the front cover.

**BIRMINGHAM.** *Modern Building Tools Exhibition.* At Big Top Site, New Street, (Sponsor, MOW.) OCT. 9-13

**GLASGOW.** *Association of Public Lighting Engineers Exhibition.* (See page lii.) SEPT. 11-14

**HOMERTON.** *NALGO Exhibition.* At Homerton College. (Sponsor, BIAE.) SEPT. 24-OCT. 8

**LILKLEY.** *NALGO Exhibition.* At the Grammar School. (Sponsor, BIAE.) OCT. 1-8

**LIVERPOOL.** *Modern Building Tools Exhibition.* (Sponsor, MOW.) SEPT. 11-15

**LONDON.** *NALGO Exhibition.* At the YWCA. (Sponsor, BIAE.) OCT. 6-13

*NALGO Exhibition.* At the Geffrye Museum, Kingsland Road, E. (Sponsor, BIAE.) DEC. 3-15

**John Summerson.** *Russian Architecture: The Historical Background.* First of a series of introductory lectures to the study of Soviet architecture. At the RIBA, 66, Portland Place, W.1. Chairman, Percy Thomas, P.R.I.B.A. Tickets from SCR Architecture Group, 98, Gower Street, W.C.1. Admission free to members of the group, non-members 1s. 6d. 6.30 p.m. SEPT. 25

**Dr. F. Klingender.** *Socialist Realism: The Aesthetics of Soviet Architecture.* Second of a series of introductory lectures to the study of Soviet architecture. At the RIBA, 66, Portland Place, W.1. Chairman, E. J. Carter. Tickets from SCR Architecture Group, 98, Gower Street, W.C.1. Admission free to members of the Group, non-members 1s. 6d. 6.30 p.m. OCT. 22

**MANCHESTER.** *Manchester and District Planning Exhibition.* At the City Art Gallery, Mosley Street. The exhibition is the result of research by engineers, architects, surveyors and other experts, working together under the direction of R. Nicholas, the City Surveyor and Engineer of Manchester, and Honorary Surveyor to the Manchester and District Regional Committee. Over two years ago a start was made with a very small planning staff, and although the City Council approved of a large extension of this staff, great difficulty was encountered in obtaining the services of efficient and capable assistants. The partial completion of the air raid shelters programme released a number of technical assistants for planning, but the majority of the large amount of work has been carried out during the past 18 months. At the peak of the output the staff consisted of 29 technicians and 20 draughtsmen working at high pressure on the City Plan, whilst 10 technicians and 8 draughtsmen were similarly engaged on the Regional Plan. Information has readily been given by

other Departments of the Corporation and by the Surveyors to the other 13 constituent authorities of the Regional Committee. The City Surveyor was authorized to prepare and publish these tentative plans, but the constructive criticism of individuals and all sections of the community is sought, in order that the respective authorities may be in a better position to gauge the requirements and wishes of the public when official schemes are adopted. (Sponsor, Manchester City Council.) SEPT. 6-8

**Architects' Planning Conference.** At Manchester Art Gallery, Morley Street, in connection with the Manchester Plan. Principal speakers: W. H. Ansell on *The Architect's Part in Town and Country Planning*, R. Nicholas, the City Engineer of Manchester, on *The City of Manchester Plan*, and L. H. Keay, the City Architect and Housing Director of Liverpool, on *The Amenities of Living—The House and Neighbourhood*. The Conference is being organised by the Manchester Society of Architects on behalf of the RIBA. It will be opened by the Lord Mayor of Manchester and under the Chairmanship of J. S. Beaumont, President of the Manchester Society of Architects. SEPT. 6-7

**Modern Building Tools Exhibition.** (Sponsor, MOW.) SEPT. 25-29

**REYDON.** *Country Life and Country Needs Exhibition.* (Sponsor, BIAE.) SEPT. 19-26

**RUGBY.** *NALGO Exhibition.* (Sponsor, BIAE.) OCT. 20-Nov. 3

**VENTNOR.** *The Future of British Resorts. Planning Our Holiday Areas.* Town and Country Planning Association Conference at The Winter Gardens Pavilion, Ventnor, Isle of Wight. The conference will be opened on October 6 by the Rt. Hon. Ernest Bevin and end on October 9. Among those taking part in the discussions will be Sir Patrick Abercrombie, representatives of all the main resort towns, of the travel and holiday organizations, of the hotel, catering and resort industries, and by interested members of the public. The conference will be preceded by a holiday week, from September 29 to October 6, at the Wellington Hotel, Ventnor. The Holiday Week has been designed primarily as a holiday meeting of town and country planners, members of the Association and their friends. Excursions and a limited number of lectures on subjects related to town and country planning are being arranged. (Sponsor, TCPA.) SEPT. 29-OCT. 9

**YORK.** *NALGO Exhibition.* At Holgate Hi Settlement. (Sponsor, BIAE.) FEB. 10-23

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*Though no feature in the JOURNAL is without value for someone, there are often good reasons why certain news calls for special emphasis. The JOURNAL's starring system is designed to give this emphasis, but without prejudice to the unstarred items which are often no less important.*

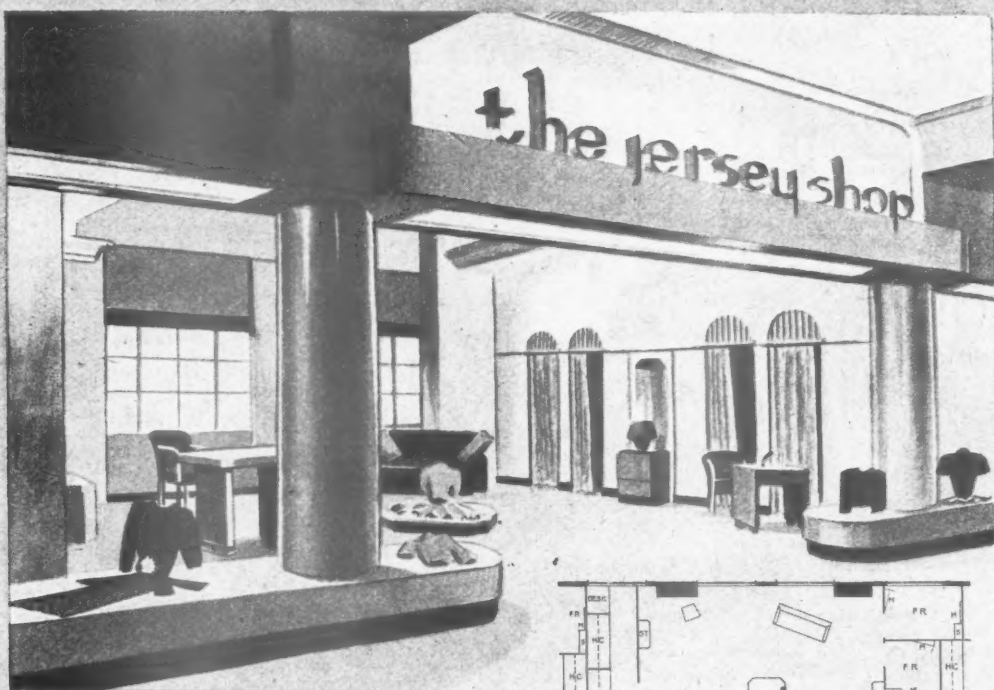
★ means spare a second for this, it will probably be worth it.

★★ means important news, for reasons which may or may not be obvious.

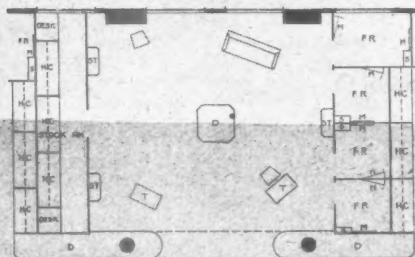
Any feature marked with more than two stars is very big building news indeed.

### Twenty more Government factories, with a total area of about 4½ million square feet have been allocated by the Board of Trade FOR FUTURE CIVILIAN PRODUCTION.

Including those already announced in recent months, 74 Government factories, representing a total area of approximately 20 million square feet, and representing employment for about 200,000 workers, have now been allocated for civilian industry. Negotiations for other factories are in progress. Civilian production could not begin in a number of instances until after the end of the Japanese war. Among the latest 20 are factories at Gateshead (31,000 square feet) allocated to Liner Concrete Machinery Company, Newcastle, for the production of machinery for the building trade. At Swinton, Mexborough, Yorks (556,000 square feet), General Electric Company, Limited, electric cookers and household appliances. At Doncaster (109,485 square feet), Crompton Parkinson, electrical equipment. At Grantham (176,000 square feet), Aveling-Barford, Limited, contractors' plant, large scale cooking apparatus. At Llandudno (112,000 square feet), Ratcliffe Engineering Company, Limited, pre-fabricated house units and household appliances; and at Alloa (40,100 square feet), allocated to Harland Engineering Company, Limited, for the production of fabricated sections for the housing programme, ferrous and non-ferrous sheet metal fittings.



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## From AN ARCHITECT'S *Commonplace Book*

REGENCY VIGNETTE. [From *British Architects and Craftsmen*, by Sacheverell Sitwell (Batsford).] The emphasis is upon the bow window; and one end of the square is left open to the sea. It is this feature that makes a walk through old Brighton, and a reverie upon the inhabitants of its houses during the last hundred years or more, into an experience as full of strange fantasy as reading the *Illuminations* of Rimbaud. "There are Horatian nymphs with their hair dressed in the style of the First Empire, Siberian roundelays, and Chinese ladies painted by Boucher"; such fantasies do not apply to Brighton only, they are those of everyone who has passed his childhood or kept his imagination alive in any seaside town. Take, for instance, the terraces of Hastings, due, in part, to Decimus Burton, the architect of the Ionic screen at Hyde Park Corner. Upon some engraved sheets of Victorian writing paper we find a view of Pelham Place; an immense Crimean gun from Sebastopol, guarded by a railing, points straight out to sea. We are on the promenade. There are ladies in crinolines and small children dressed in the fashions of the 'fifties. A group of persons admiring the Crimean trophy stands immediately above the blue sea and the fishing boats. At the left are the Regency houses, with bow windows, long balconies, and verandahs. . . . Behind the houses, we know from an old guide, there are archery grounds and subscription gardens. Or we choose another sheet of writing paper and have Pelham Place in reverse, with Pelham Crescent at the end of it. A flagpole rises at the edge of the promenade out of the sand. Ladies in white crinolines, for summer wear, are talking over the railings. A britschka or open carriage comes quickly past, and we are to imagine the shining leather of its hood, put back and glistening in the hot sun.

★★  
**THE Ministry of Works demonstration houses at Northolt are TO BE HANDED OVER FOR LETTING in the normal way to the EALING Borough Council.**

Before this can be done, the houses must be put ready for occupation, and for this purpose the site was closed to the public as from August 25. During the eleven months since the opening of the site for exhibition (on September 25, 1944), 35,000 visitors have inspected the houses. Representatives have come from the United States, Reconstruction Committees from Russia, France, Norway and Poland, professional visitors from Australia, New Zealand, Africa (South, East and West), Jamaica and the Argentine, delegations of Arabs and Jews from Palestine, and representatives of the Allied Control Commission in Germany. At home, practically every local authority, from the smallest rural district council to the Corporations of the great cities, has sent representatives who have spent many hours inspecting the site. A considerable number of parties from the Services, both men and women, have also been conducted over the Estate. The Northolt experiments lifted designs and methods, both traditional and pre-fab, out of the realm of conjecture and gave them practical form, in which costs and living qualities could be actually tested out and studied comparatively.

★  
**The National Smoke Abatement Society urges that immediate action should be taken to FIT ALL NEW HOUSES WITH IMPROVED FUEL BURNING APPLIANCES.**

The Society, to which over two hundred local authorities are affiliated, has sent the following note to housing authorities: *Improved Fuel-burning Appliances for New Houses*.—For information and any action that may be considered desirable, we beg to bring to your notice a resolution recently passed by the Executive Committee of the Society, as follows: That the Executive Committee of the National Smoke Abatement Society expresses its grave anxiety at a situation which, judging by replies to

questions in the House of Commons by the Minister of Health (June 7) and the Minister of Fuel and Power (June 14) will, in spite of recent considerable advances in design, result in a great number of new houses being fitted with solid-fuel-burning appliances of obsolete type and inferior efficiency. This must mean: that there will be a further wasteful consumption of solid fuel during a period of continuing scarcity; that the occupiers of new houses will have permanently higher fuel costs; and that the smoke evil will be extended and intensified. The Committee has noted the Parliamentary reply on behalf of the Minister of Fuel and Power (June 13) to the effect that the fuel so wasted will be in the order of one ton per house per annum. This, at present fuel prices, is equivalent to raising the real rent of each house by about 1s. 6d. per week. The Committee fully recognizes the difficulties of the present general situation in respect of production, but it cannot avoid the opinion that this particular problem, which so closely affects not only the national economy, public health and amenity, but the cost of living, the comfort and the amount of domestic work to be done in every house, has been grossly neglected, both in planning and execution. It therefore most strongly urges immediate and determined joint action on the part of the Ministries of Health, Works, and Fuel and Power to make possible the fitting in all new houses, whether permanent or temporary, municipally or privately built, of new appliances of higher efficiency as recommended in the Government's Housing Manual, 1944. Reference may be made to the Society's Memorandum on *Smoke Abatement in New Housing*, dated January, 1945, a copy of which was sent you; to the paragraphs on heating installations in the Housing Manual, 1944; and to the publication, *Solid Fuel Installations* (Post-war Building Studies, No. 10, Ministry of Works). We suggest that it is urgently necessary that housing authorities should support this resolution and do everything possible to secure the improved appliances for their own housing. As a supplement to its previous Memorandum the Society prepared an information sheet giving particulars of the different types of improved appliances, with names and addresses of manufacturers. Copies of this may be obtained on request. On behalf of the Executive Committee, Arnold Marsh, General Secretary. *Note*.—A short emergency conference on Fuel-burning Appliances in New

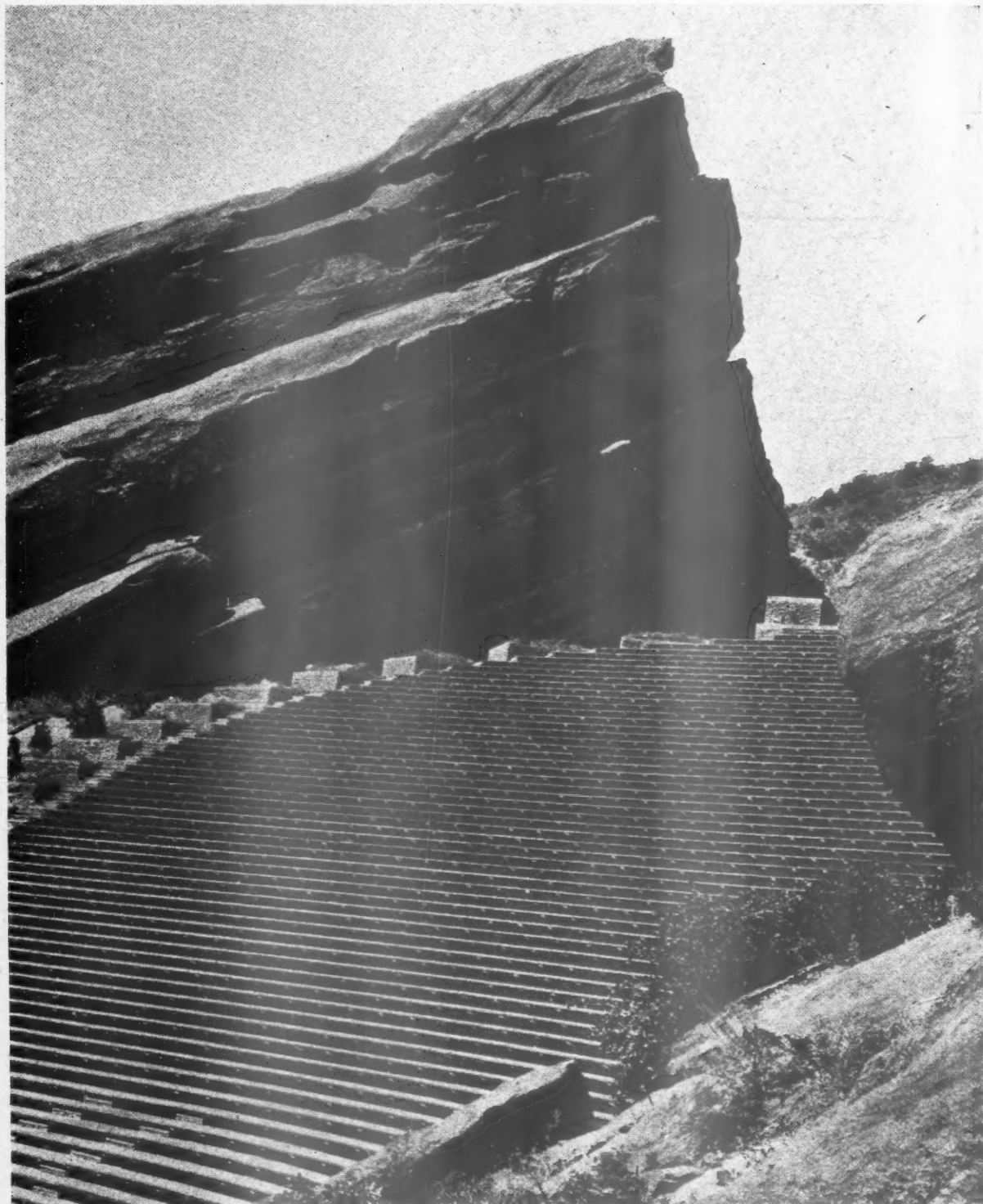
Housing will be held at the Caxton Hall, London, S.W.1, on Friday, October 19, 1945, from 10 a.m. to 12.15 p.m., preceding a general meeting of members of the Society. The conference will be open to all who wish to attend and no fees or tickets will be required. Further information and programme, when issued, will be supplied on request.

★  
**All House Builders' Organizations have UNITED TO IMPROVE HOUSING Standards.**

This announcement was made at Birmingham by Mr. H. E. Coniben, President of the National Federation of Registered House Builders, who said that all members will be pledged to build up to the standards of construction prescribed by a National Registration Council, which will arrange for the independent inspection of houses and the issue of certificates of compliance with an approved specification. Among the bodies represented at the meeting were the National Federation of Registered Housebuilders, the House-Builders' Association of Great Britain, and the Birmingham and District House-Builders' Association.

**The Government is being urged to PROTECT RURAL SCENERY from Unsightly Advertising.**

Anticipating that competition in business freed from war-time conditions may lead to a resumption of unsightly advertising, the Lancashire branch of the Council for the Preservation of Rural England is to urge the Government to prohibit new commercial advertisements in rural areas, other than those essential advertisements permitted under existing by-laws. The branch is anxious not to hinder the provision of electricity supplies to rural communities which, it is expected, will now be expanded on a wide scale, but is concerned that new overhead lines shall be sited with the least possible injury to the scenery.



## *Full Collaboration with Nature*

In the design of this amphitheatre, built in the stupendous setting of the Denver foothills in Colorado, Nature has been taken into full partnership. The architect, Burnham Hoyt, has been admirably restrained in subduing his building and planning to the advantages, restrictions and dramatic features of the natural site. There was no need to worry about sound, for the red sandstone rocks them-

selves provide uncanny acoustic properties. Seating layout was largely dictated by the existing slope. Car parking space is at the upper level out of view of the audience. All mechanical facilities are hidden, and the architecture, in the local red sandstone, has been kept to a minimum. A plan and other views and details are shown on pages 173 and 174 of this issue.

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★ *SCR—the society for cultural relations between the peoples of the British Commonwealth and the U.S.S.R.—announces a series of Introductory Lectures to the Study of SOVIET ARCHITECTURE.*

The lectures to be held at the RIBA, 66, Portland Place, W.1, are as follows:—Sept. 25: *Russian Architecture: The Historical Background.* Mr. John Summerson. Chairman, Mr. Percy Thomas, PRIBA. Oct. 22: *Socialist Realism: The Aesthetics of Soviet Architecture.* Dr. F. Klingender. Chairman, Mr. E. J. Carter. Nov. 19: *The Economic Background to Soviet Architecture and Townplanning.* Dr. E. M. Chossudovsky. Dec. 11: *Townplanning in Action: The Moscow Plan.* Mr. Arthur Ling. Chairman, Sir Ernest Simon. All the lectures begin at 6.30 p.m. Admission free to members of the Group; non-members 1s. 6d. Tickets from SCR Architecture Group, 98, Gower Street, W.C.1.

*By arrangement with the Reinforced Concrete Association the Northern Polytechnic will give a course of instruction in REINFORCED CONCRETE CONSTRUCTION during the next Session, which commences on September 24.*

The curriculum comprises lectures and laboratory instruction in the properties of concrete and of aggregates and cement; the proportioning, mixing, placing and consolidating of concrete; the preparation and fixing of reinforcement; formwork, and the processes of construction generally. The syllabus has been drawn up primarily to meet the requirements of resident engineers, foremen, clerks of works and others who have had some experience in the industry, and will include visits to works. The lecturer will be Mr. J. M. Murdock, M.Sc., A.M.Inst.C.E. Classes will be held on Friday evenings; the fee for the course will be £1. Further particulars may be obtained from the Head, Department of Architecture, Surveying and Building, Northern Polytechnic, Holloway Road, London, N.7.

*Mr. H. J. Adams: Lack of skilled workers, WHILE SKILLED MEN CLICK THEIR HEELS, is the big bottle neck hampering building.*

Why is so little building being done now, while the best season for it is fast slipping by? Mr. H. J. Adams, in his presidential address to the Amalgamated Union of Building Trade Workers' Conference in Aberdeen, blamed these Four Muddles:—1.—In the industry, with its 80,000 big and little firms "private enterprising" for profits. 2.—Over acquiring land for building sites, with the Barlow, Scott and Uthwatt reports not implemented. 3.—In providing materials, for though there is no insuperable shortage, price rings have thrived on muddle and artificial shortage. 4.—Over labour. There is no earthly reason why hundreds of thousands of skilled buildings operatives should not be freed from the Forces without difficulty, confusion, or disrupting fair and systematic demobilisation. Lack of skilled workers—while skilled men click their heels in barrack squares—is the big bottle-neck hampering building.

## FUTURE OF COMPETITIONS

HOWEVER sympathetic we may be to the many good works of Mr. Percy Thomas, President of the RIBA, we must express criticism of his unqualified recommendation, in a recent London speech, of that ramshackle Unemployment Agency, the present system of Architectural Competitions.

Three years ago last January there was published in these pages a factual survey, the statistics of which, then described as astounding, have never been questioned or refuted, which showed beyond doubt that the Competition System in its present form was a dangerous waste and diversion of architect man-hours and mental energy. That was at a time when all hands were needed at the urgent task of saving the country from an æsthetic and building emergency, largely produced by the ravages of speculative builders and quack designers. If, with all the opportunities, dangers and emergencies existed before 1939, how much more do they exist today when the nation faces an unprecedented crisis in all departments of building. At this critical time, when the services of architects will be needed in every department, it would be folly if a single hour of an architect's time were again wasted on paper work which went no further than the drawing board, and which could have only a chance of theoretical relation to the needs and realities of the moment. Yet we are asked to return to this rakish gambling for jobs, this architectural roulette, which in the twenty years of the inter-war period annually absorbed the energies of over two thousand five hundred qualified architects, nearly twenty per cent. of the entire profession, and this at the very time when over half the annual national building was not in the hands of architects at all, and which reached the staggering total, for the two decades, of over 37,000 competitors, to a bare 700 winners, each working an average of four and a half months whole or part time. Has the President ever driven down a by-pass lined with ribbon development? Has he ever imagined, to take but one example, how different might have been that appalling spectacle had those 37,000 disappointed gamblers of the inter-war years been properly organised and set to work on housing?

THE ARCHITECTS' JOURNAL does not wish to abolish the Competition System out of hand. What we press for is immediate and long overdue reform. Architectural Competitions, rightly organised, can be a valuable method of bringing to the surface young and unknown talent, but the ironical and unmistakable fact is that, as at present held, Competitions restrict instead of open opportunities to all.

As a basis of discussion we suggest an immediate reform which would benefit winners as much as losers. It may not be desirable to restrict the number of competitions held annually, but a system could be organised by which preliminary sketch competitions, to take a few days or at most a few weeks to complete, could be held. This would provide a weeding-out

method in that a fixed and limited number of finalists would be selected from the entrants to carry out full drawings.

By such a system, not only would much valuable time be saved, but the field would at once be thrown open to a much larger number, for at present barely a fifth of the Profession of some 15,000 registered architects can now afford to spend the long time usually needed on the competition gamble.

So much for revitalising the Competition System. In a future article we shall discuss its essential corollary: development of the system of Distribution of Jobs. In the meantime, and forthwith, let Portland Place sweep away an old-standing abuse which threatens to suck the life-blood from the profession at a time when maximum vigour is needed.



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THE LIGHTS COME ON AGAIN

The lights that are coming on again all over Europe include, in Norway, the first "liberated" number of the architectural journal *Bygge Kunst*, which has been under the yoke of the Germans for the past four years. A well-produced monthly journal, sponsored by the Norwegian equivalent of the RIBA, *Bygge Kunst* flourished for some years before the war, under the editorship of Arkitekt Eivind Alnæs.

When the Germans occupied Norway in 1940, they closed down or took over the direction of many journals. At first, *Bygge Kunst* was luckier than most, as it was allowed to appear under its old editorship for nearly a twelve-month. Then, one day in 1941, the Herrenvolk arrived at the paper's offices and installed a Quisling editor.

The April 1941 issue had already been printed and copies were stacked ready for dispatch. Eventually the Quislings dispatched them, but not before they had made an important alteration; they pasted a newly-printed slip over the imprint, where the editor's name appeared. The slip did not give the name of the new editor but merely referred to him by his official title of Riksleder (which may be roughly or rudely translated as "state stooge").

The Riksleder went on editing *Bygge Kunst* until the Germans surrendered. Soon after the Allied Forces appeared in Norway, Arkitekt Alnæs reappeared in his old office. The new number of the paper which has just appeared is the first visible result of his efforts. Almost inevitably, a large number of its pages are devoted to an article on bomb-damage in Norwegian towns—with photographs of ruins which the Germans had *not* considered it necessary to publish.

POETS' CORNER

THE SPEC BUILDER SPEAKS—I\*

On bargain sites I gazed with prescient view,  
Bought, breathed and wished, and lo! the values grew;  
Thus Enterprise allied to *Laissez-faire*  
Can charm a thousand fortunes out of air.  
Freedom's the word: no tape, of red or pink,  
Shall cramp the psyche of the kitchen sink,  
As H. and C. released from all control  
In individualistic torrents roll;  
In clashing hues the livid walls shall swim,  
Doors shut and open at their own sweet whim.  
While to the attic dizzy stairs invite  
To brave the Alpine hazards of their flight.  
Refained the names my tasteful models show—  
Veeouse and Herozholme and Monshatto,

\* With acknowledgments to *The New Statesman and Nation*.

Blimpcot and Laskiville (with upper story Duly equipped as an observatory).  
Meanwhile the homeless pilgrims vainly queue,

Scan the blank vistas and await the view  
Where Cotes with Havens, Nests with Villas vie,

And roofs and prices both affront the sky.

HORACE B. SAMUEL

JERZY FACZYNSKI

Reproduced on the facing page are drawings by 28-year old Polish architectural student Jerzy Faszynski. They come from his new book, *Studies in Polish Architecture*,† which is described by the publisher as "a pictorial review of imaginative compositions illustrating the history of Polish architecture from earliest times to the present day."

The author-artist, an ex-flight-sergeant in the RAF, has been completing his studies at the Polish school attached to Liverpool School of Architecture—another notch on the Reilly rifle-butt—and he is now returning to Poland and to the tasks of reconstruction. That is if he is not seduced from the way by Hollywood or the Jolly Miller.

For Mr. Faczynski is clearly a born set-designer. Despite their economy of statement nearly every one of his drawings is charged with tension and drama—or what the film-boys used to call Atmos. I can almost visualise the minute—"Hire that guy Jerzy, and put him to work on the new Errol Flynn picture."

In technique he has much in common with his compatriot Topolski—the same glowing wet wash-strokes, the same dancing calligraphic line, the same high-speed and enthusiastic attack. And for those who are not disarmed by such virtuosity and need sterner fare, the drawings are accompanied by captions from Polish scholars and historians, and supplemented by an authoritative historical essay by a professor.

From this we learn, among other weightier facts, that the author is susceptible to advice from pretty girls—something for which he surely found

† *Studies in Polish Architecture* by Jerzy Faczynski. University Press of Liverpool, £1 1s. 0d..



sympathy in Liverpool—and that the peasants of the Western Carpathians have a popular vocabulary of æsthetic appreciation ranging from “Szumny” (pronounced shumny) meaning perfect, through “swietny” meaning well-formed, to “pickny” meaning just fine.

\*

Personally, I think most of Mr. Faczynski's drawings are pickny—some of them swietny and one or two of them practically shumny. And what a shumny way to learn architectural history. Here is a brilliant precedent for our schools to emulate—and, if the results are not always

equally skilful and fascinating, at least the student will have learned more on this sort of step-ladder than by sliding down the banisters.

CEAPE CORNER

Fired by his success with the radiators at Leicester Astragal is now attempting to change the name of the Council for the Education in the Appreciation of Physical Environment to something a little more slippy. The Council is willing to consider suggestions from readers, so let's have a few. How about “Council for the Encouragement of Visual Appreciation” for a start?

ASTRAGAL



Two sketches by Jerzy Faczynski published in his *Studies in Polish Architecture* which Astragal reviews this week. Top, “Market Place.” Below, “Old Street.”

# LETTERS

Roy A. J. Gazzard

(Lieut. 12th Bn. Devon Regt.)

## The Admiralty Extension

SIR,—The letter by the Secretary, IAAS, raises several points, not because of the offhand way in which he condemns a most interesting piece of contemporary architecture, but because it is evident that even now there exists a certain portion of the profession which would—if it could—sabotage any reasoned and enlightened plan for London—evidence that there remains even at this enlightened stage a perpetual menace to progressive architecture.

One hesitates to label any building, designed by a contemporary, as an “eyesore”—more especially when judgment is based upon “hearsay” and “high authority.”

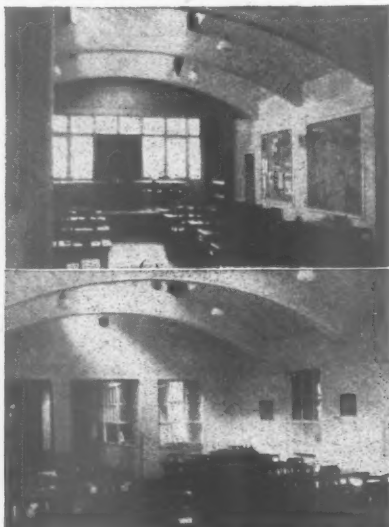
“High authority” it certainly was that caused its inception in 1940. Team-work was then the order of the day as the realization of the magnitude of the impending struggle all too slowly dawned upon us—and team-work in its fullest sense was to be found in the group of Admiralty officials, architects, engineers, surveyors, contractors, and operatives which, bound down by numerous difficulties, embarked on this amazing project.

The original architect tragically became an air-raid casualty, but the designs were adapted and altered sometimes beyond recognition to meet new circumstances. New techniques were developed which meant continual experimenting on the site; but in spite of all the obstacles the scheme was finished to schedule.

I also have heard the building described in similar tones to those used by the Secretary, IAAS, proving conclusively that the building does at least express its function—it pretends to be no more than a bomb-proof, fortified, nerve centre.

As the Secretary very rightly suggests, it is “far from being temporary”—and from a knowledge one has of its construction, it would seem that removal would entail such fabulous expenditure, money, time, and energy, as to render it for all practical reasons as being as permanent as the Pyramids. At all costs the accommodation available in London dictates that we put up buildings—not pull them down. Remembering also that it has taken six years

## COURTYARD INTO DINING HALL



Roffey Park, Horsham, built as a country house for a millionaire, was recently adapted by Mr. John MacGregor, F.R.I.B.A., as a rehabilitation centre for industrial and clerical workers. The most difficult requirement was the addition of a dining hall to seat 150 with adequate adjacent kitchens without building a mere additional hut. The problem was solved by throwing concrete beams across the kitchen yard supporting a Siegwart concrete roof with a continuous clerestory light and re-erecting the stone mullioned wall at the end. The beams were cast in situ in sequence from the same shuttering. Top left, the original courtyard. Top right, two views of the completed interior. Bottom, the concrete beams in position, showing the sunk panels formed by fixing wall board to the shuttering.



No—if it is sculpture the Secretary wants, he has to look no further than the building itself. Clean up the building by removing the line of the parapet and lay out a useful restrained garden in the triangle at the front elevation—let us have our sculpture there—of the type and nature that will amplify the building's expression, and explain its function. Let neat trimmed hedges line up between the machine-gun posts and reconstruct the roof gardens for dinner-hour relaxation. Let us have our Quadriga tumbling down in Berlin, leaving Portland stone for "St. Paul's and St. Martin's"—leave posterity to differentiate between the Elevations of Nash, the Horse Guards, the old and new Admiralty, and not to try to dress a battleship as a yacht.

It would seem that a memorial is what the Secretary wishes—here we have one peculiar to London—as symbolic as the ruin memorials in the City. A memorial in the form of what is perhaps the largest self-contained single air-raid shelter in London. A memorial to an unrecognized, unknown professional team and a few hundred operatives who did a good job for the country in record time. To a building industry that can produce a modern building as technically efficient as a Bren gun or Spitfire—to the brain and brawn of the Royal Navy.

Let it not only be a reminder that "total war" results in construction just as much as destruction, with a corresponding monetary cost, but let it be a reminder of the form which architecture will have to take if "total war" becomes a permanent threat and men prefer to live over rather than under the ground.

ROY A. J. GAZZARD,

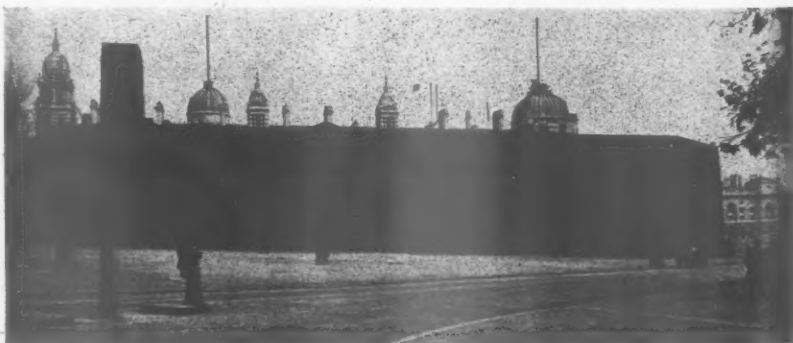
Lieut., 12th Bn. Devon Regt.

and many millions of money to win the first round of this present war, it would seem rather audacious to waste time and money "civilizing" a building when it seems we still have ourselves to which to attend.

A knowledge of the construction employed would prove that the facing is not as unsuitable as the Secretary would have us think. It is composed of pre-cast concrete slabs ingeniously designed to act as permanent shuttering at a time when timber was unobtainable. Resistance to smoke and acids and a rough camouflaged texture which is easily cleaned and which weathers better than fair-faced concrete, are other qualities.

Portland stone might, it is true, be applied to the outer surface and spotted with niches containing sundry statues (doubtless in three-cornered hats), which we are told are in short supply in the vicinity—the senior service apparently not having been inclined to persecute posterity with such atrocities. If the roof can take the heaviest aerial bomb—it could doubtless support a Quadriga on the grass-topped

roof, and what fun we would have surrounding the figures (WRENS with telescopes, perhaps), with a conglomeration of coils, tridents, and dolphins.



The Admiralty Extension. See letter from Lieut. Roy A. J. Gazzard.

**PHYSICAL PLANNING SUPPLEMEN**

**M A N C H E S T E R**

Manchester, though second city of England in actual size, is the centre of an urbanized area larger and probably more populous even than the London Region itself. A textile centre from the Middle Ages, Manchester was well based near the sea for the vast but disorderly expansion of industrial Victorianism. In the city's tortuous agglomerations the housing problem, felt in its most acute forms, has often in the past been countered and ameliorated, but these **TOWN AND REGIONAL PLANNING PROPOSALS** by R. NICHOLAS, B.Sc., M.Inst.C.E., M.T.P.I., are the first all-out effort to deal with Cottonopolis basically, radically, and as a whole. The 1941 population of 705,000 is expected to drop to 659,000 by 1961, with a parallel decrease in the persons per family unit. The first two steps in vast rehousing schemes envisage replacement of 68,000 and subsequently 53,000 unfit dwellings. An unexpected aspect of the Plan, the main zoning of which is shown below, has been the readiness of the Railway Companies to provide survey and technical assistance. It is expected that the City Council will shortly begin to ratify the proposals, which have been visited on Exhibition since July 20 by 125,000 people. Some aspects of this bold plan are discussed on the next page by JUSTIN BLANCO WHITE, A.R.I.B.A., A.A. Honours Diploma, 1933, Henry Jarvis Scholar, and a member of the Group recently engaged on the Middlesbrough Survey and Plan.



# MANCHESTER

reviewed by

JUSTIN BLANCO WHITE

## moderate density

The regional plan for Manchester and District has to deal with a concentration of well over 1½ million people, and this not in isolation, but within a patchwork of other important industrial towns. The density of population in the region as a whole is moderate—just under 18 per acre—but in the central nodule of built-up areas it is much higher, and is nearly 40 per acre throughout the whole city of Salford.

## recreation survey needed

The physical setting provides the moist air and supplies of water which have led to the growth of the cotton industries. The land slopes from 700 ft. in the north-east to below 100 ft. in the south-west, the most open and unspoilt country being to the west and south. One would like to know what use people make of the countryside and which parts are most popular, so as to know the significance of the policy for open spaces.

## air pollution

Pollution of the air reaches nearly 500 tons a sq. mile a year in one industrial area. The worst residential area has over 2½ times as much deposit of pollution as has the suburb of Wythenshawe, with some 100 tons.



Industry as at present has mushroomed along the Canals, clotted at the Canal Docks, interfered with the civic and business centre, and has also vaguely spotted itself over the whole urban area.

## regional centre muddle

The regional centre, 3 to 4 miles across, is a confusion of scattered industry, commerce, administration, dense housing, and congested important traffic routes. The first essential for a Plan is therefore to sort out the basic needs of these conflicting factors.

## manufacturing population exceptional

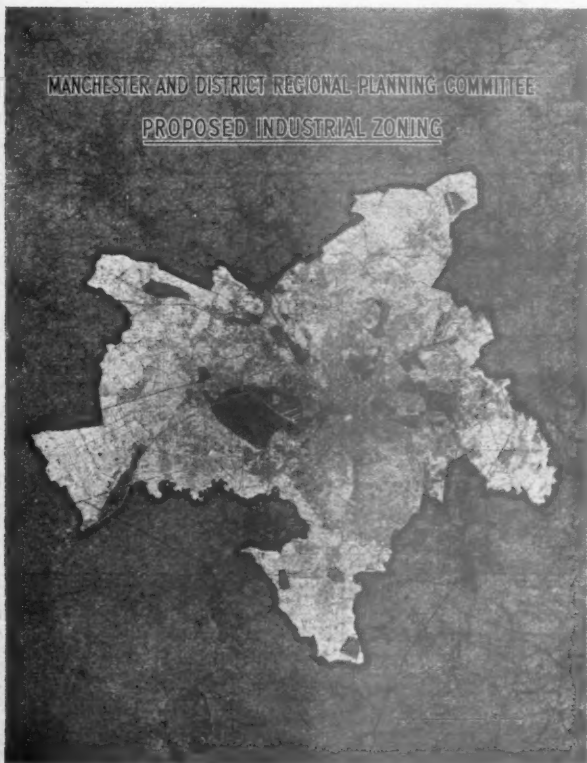
The region has a proportion of people employed in manufacturing industry which is nearly twice the national figure. There is an industrial ill-balance of clothing, cotton, and textile industries, and in 7 out of 14 districts over 20 per cent. of the workers are employed in one industry, which in five cases is cotton. These industries are carried on mainly in small, central factories. 83 per cent. of clothing firms employ less than 100 workers. On the other hand, the growing engineering industry has some very large suburban works, and is a balancing influence.

## smoke nuisance

Heavy industry, tied to the Ship Canal, is largely grouped just west of the Centre, and its smoke blows north-east and east over much of the housing. A map showing the dates of development of the industrial sites, and their industrial type, would help to explain siting tendencies.

## industrial questionnaire

An industrial questionnaire was used to find out the difficulties of resiting old scattered industries; although the results are not published they must be of great interest. It is proposed that Trafford Park, being by the Ship Canal and less mingled with housing than other industrial sites, should be developed for heavy and any noxious industry. One wonders to what extent other industry, for its own efficiency, would like to move during the redevelopment period to suburban sites. Would this cause more decentralization of employment than the 10 per cent. which is planned to deal with the housing overspill?



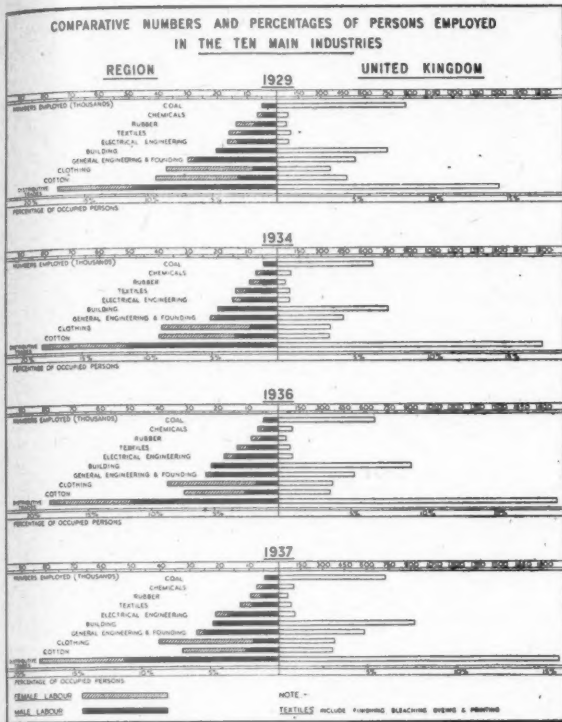
Industry as proposed would group itself much more definitely and compactly along its natural arteries and would include the many smaller individual factories within the new and neater boundaries.

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Cities such as Manchester cannot be replanned without reference to a national framework. Industrial surveys such as this, comparing the numbers of people engaged on the city's main industries with those engaged on the same industries throughout the whole country, will be increasingly significant.

**commerce and administration ignored**

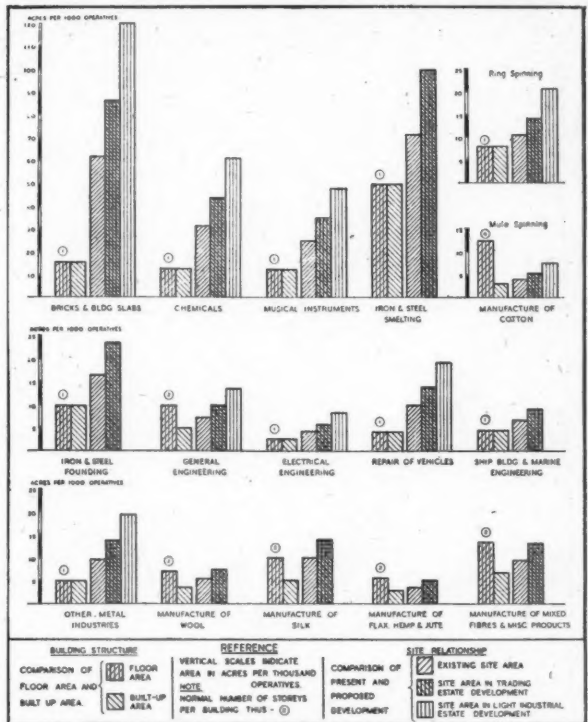
There is no discussion of commerce and administration, the space and types of development needed, and the relation to transport, culture, and entertainment. This is less important than is industry or housing, but surely more important than the particular routes of traffic proposals dealt with later.

**three miles slum without parks**

The housing survey and proposals are the main influence of the plan. The region has 63,000 houses, or 17 per cent. of the total, at over 42 to the acre, and 43 per cent. at over 30 to the acre. Over half the houses are at over 24 to the acre, since this type of building, without baths or gardens, continued into the present century. Besides these high net densities, housing in the central part of the region—some 3 miles across—has no open spaces of any size. Over 1/2 million people live in areas with less than 1 acre per 1,000 people of open space, that is, less than a quarter of the current minimum standard.

**transport and industry**

Transport, like industry, is covered by a very valuable and full survey. This includes a road traffic flow map and estimate of future traffic flow volumes. Ten Class 1 roads converge on the regional centre, without relieving ring roads, and there are 10 railway goods terminals spaced out round the centre and connected only by horse-drawn traffic across it. Road transport from the Canal Docks has been classified by destination, and supports the need for ring roads.



Clear comparisons of present and proposed accommodation in terms of floor space and site area are basic and essential facts without which a Town Plan must remain dangerously unrealistic. Mr. Nicholas has taken special pains with his survey of Manchester's industrial structure, present and future.

**inadequate social survey**

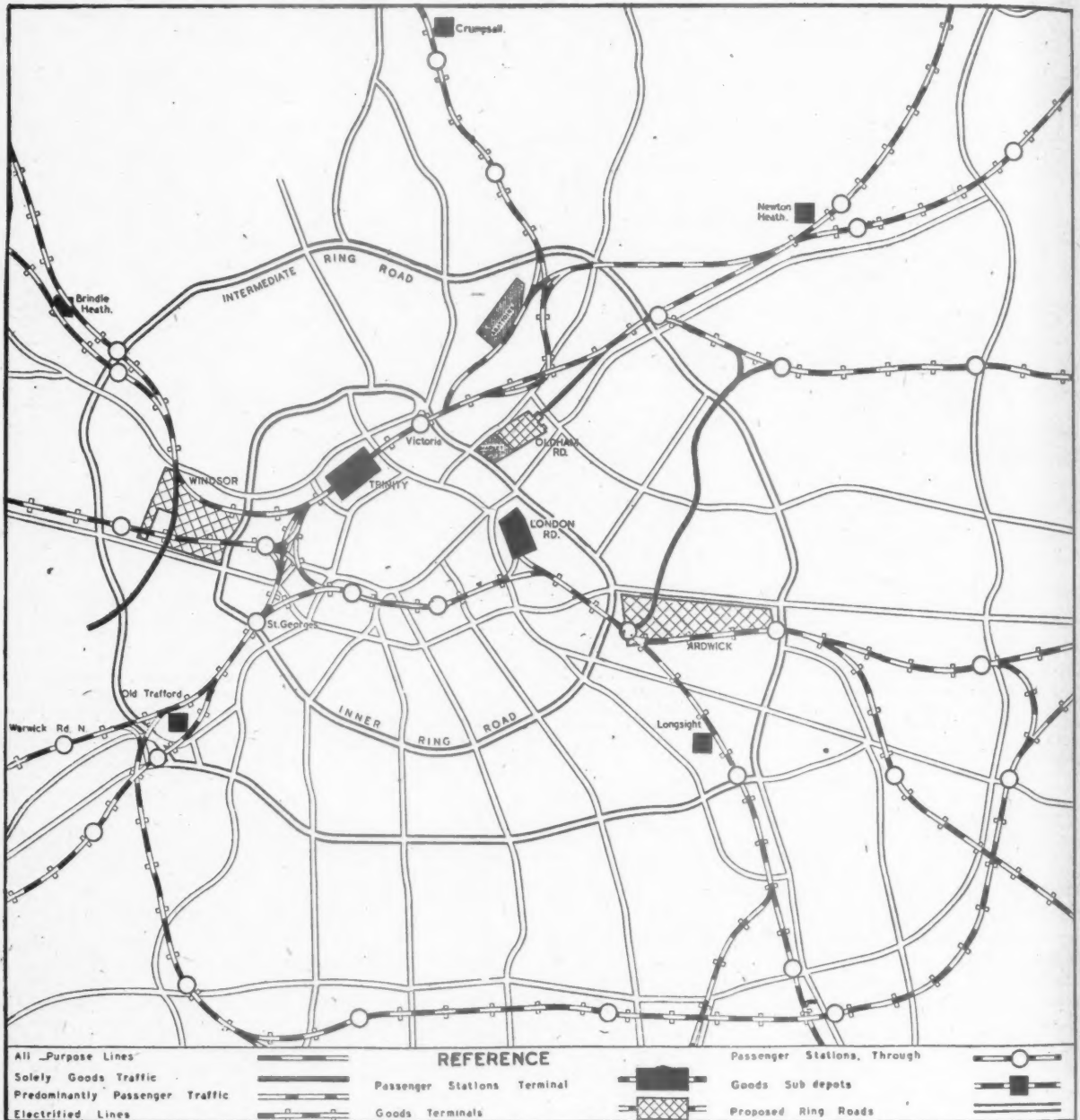
In dealing with traffic, theoretical calculations were checked and superseded when necessary by practical field surveys, for example of the capacity of signal-controlled crossings. Surely this interest in the actual facts would be even more strongly justified in the social section of the plan, where community centres, clubs, adults' sports, schools of a new type, the functions of local district and regional centres, and the mingling of different income groups, are all quickly dealt with without reference to social facts in Manchester.

**main proposals**

Following the survey, the Plan's main objectives are: (1) To rebuild in an open way all houses at over 24 to the acre; (2) a green belt defining the region from surrounding towns; (3) grouping of industry in zones, and decentralization of lighter industries with the overspilling of population, and (4) efficient transport.

**floor space investigation**

It is proposed to sort out the jumble of mixed old industries and housing by very precise zoning, based on detailed calculations of the site areas needed for each. The standards of space taken for new and rebuilt housing are a generous interpretation of the Dudley Report—a gross neighbourhood density of 30 and 45 people per acre. Those for industry result from a most interesting survey of the present industrial structure and use of floor space and sites, adjusted to allow for up-to-date layouts; they require 6.1 acres per 1,000 people for industrial sites throughout the region.



**Railway Proposals.** At present Manchester's main line passenger entrances and exits are inconveniently split up amongst four separate stations. The plan proposes centralization of the main line passenger access in the new Trinity Station, alleviating traffic jams on the suburban system.

**decentralization**

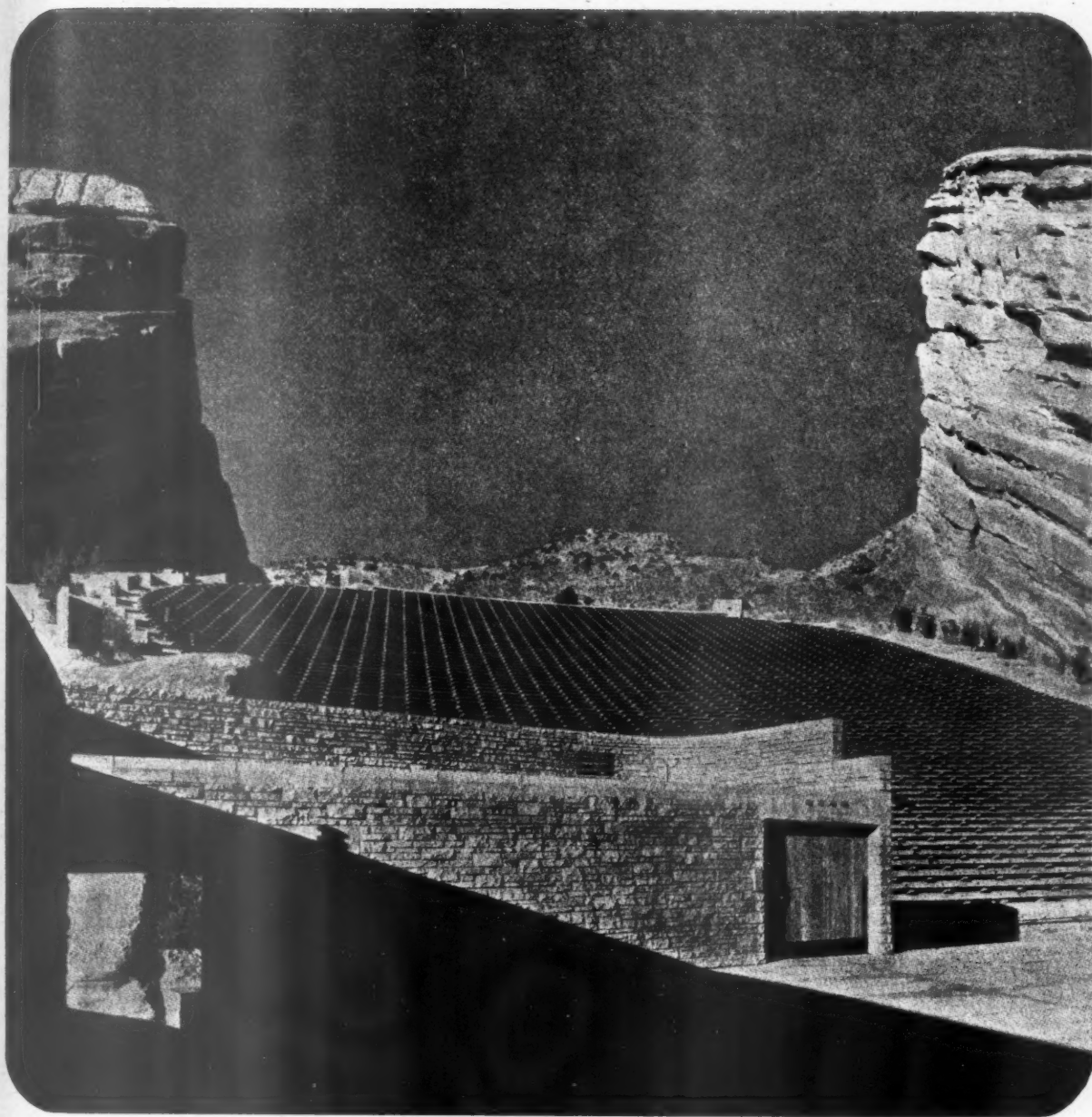
The population movements necessary for redevelopment will merely reinforce an existing decrease in central population, due to a lower birth rate and a spontaneous tendency to move outwards. The result is that the Plan requires just over one-tenth of all the people in the region—or some 138,000 people—to form a planned overspill. The central authorities—Manchester, Salford, and Stretford—are planned to lose about one-third of their people, it being expected that by 1961 they would have spontaneously lost one-tenth in any case. These figures allow 8 acres per 1,000 people for open space in the region, including parks, adults' sports fields, and half the school sites needed under the 1944 Education Act, and 1 acre per 1,000 people for allotments. The green belt, 5-6 miles from the centre, adds farmland and woodland to these spaces, particularly in the west.

**industries grouped**

To make rebuilding of central housing possible, industry is grouped, the groups being extensions of the existing main industrial sites. These sites are linked by the Inner and Intermediate Ring roads, which also free the region's Commercial and Shopping centre from through traffic. Grouping of railway stations, and removal of goods depots to just outside and adjoining the inner ring, will also free the central area and reduce double handling of goods.

**a bold plan**

This is a bold positive plan for housing standards, industrial siting, and transport. It is not at all impracticable with the legislation proposed by the present Government. It should be carried on to the stage of layout and design. A Plan should be positive in aesthetics, and made definite by examples, before its standards are proved.



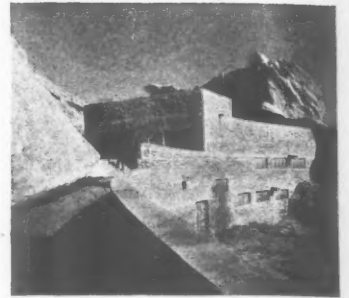
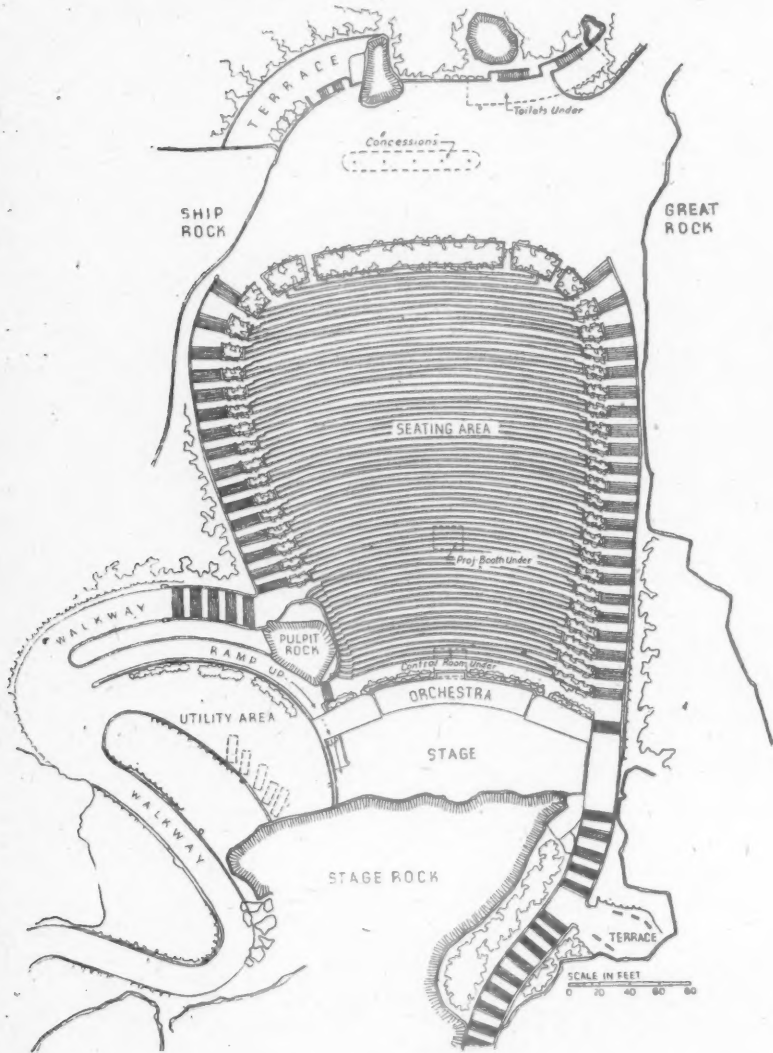
# AMPHITHEATRE AT RED ROCKS, COLORADO

*DESIGNED BY BURNHAM HOYT*

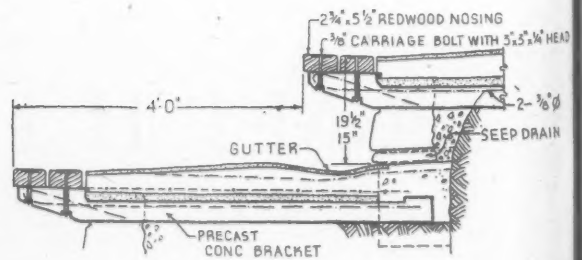
Red Rocks Amphitheatre lies in the magnificent setting of the Denver foothills with a view of the distant mountains in the east. The plan was determined by the natural rock formation. Red sandstone monoliths surround

the huge sloping open area and provide weird acoustic properties so that a whisper carries perfectly to the top of the auditorium.

Local stone, approximating to the red colour and rough texture of the monolithic rocks was used. The seating layout was dictated

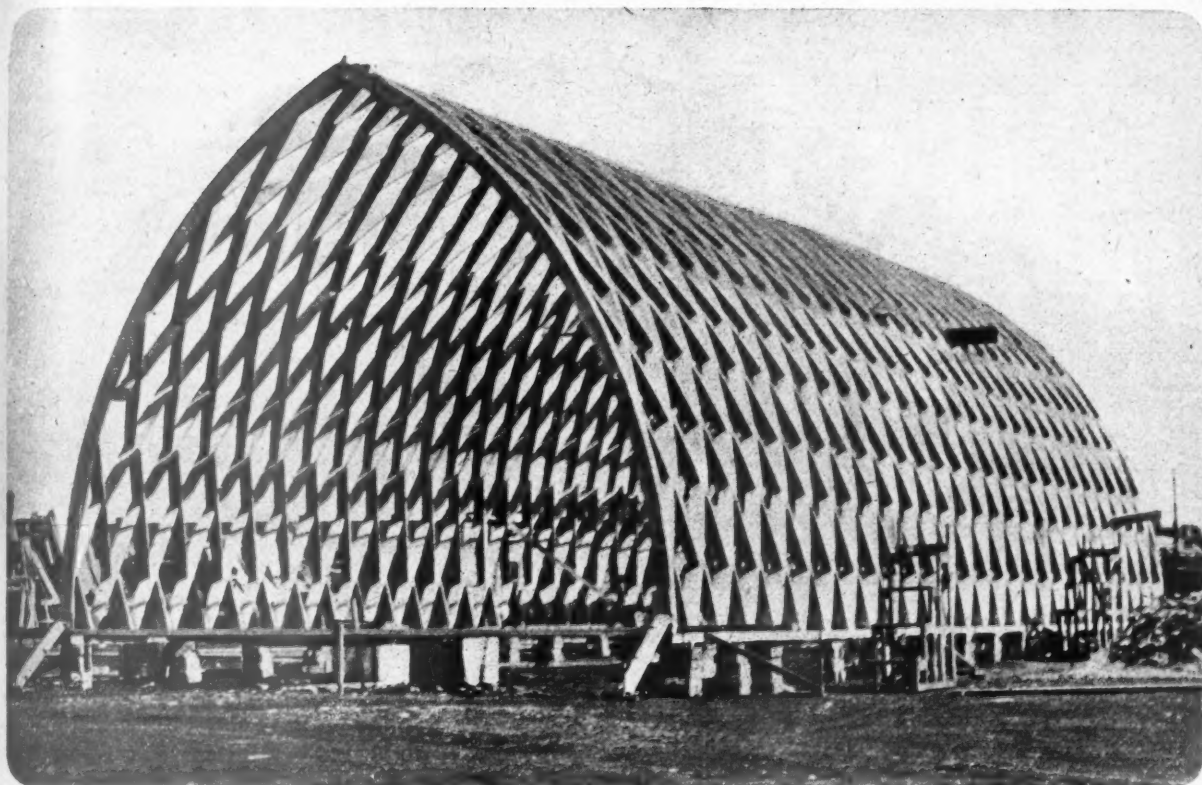


by the existing top level slope but some cutting and filling had to be undertaken at the lower level. The wide seating rows are reached by side stairways, being separated from them by strips of juniper, a native shrub. Excavation has provided two levels of storage space and dressing rooms under the stage. Mechanical facilities are hidden. The switchboard which controls the lighting is placed behind the conductor's stand. A film projector booth is placed under a section of removable seats in the centre area, and the stage has a disappearing cinema screen and four traps. Another view of the amphitheatre is shown on page 164.



Top left, general plan, showing seating accommodation for 9,000. Top right, the ramp house showing, on the right, entrance to dressing rooms and toilets. Left, looking across the auditorium to the stage. Above, detail section of the seats; the 4' 0" width allows late comers to reach their seats without disturbing others. (Illustrations: Architectural Forum).





# LAMELLA HOUSE

## WITH TRUSSLESS WOOD ROOF

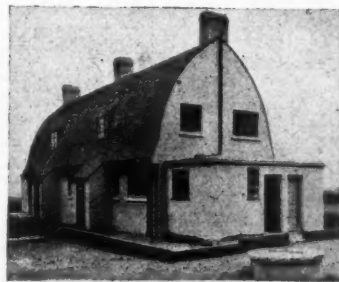
**GENERAL**—The Lamella timber trussless roof developed by F. Hills and Sons, of Manchester, has been known for many years as a system for covering large spans without intermediate support. Now the Company has applied the system to house construction and a prototype pair of agricultural cottages has been built at Barnstaple by the Barnstaple R.D.C., planned according to one of the type designs of the Ministry of Works. The object was to illustrate the application of the Lamella roof to rapid permanent house construction. When they are in full scale production it is claimed that it will be possible to erect the houses in less than ten days. A further pair of experimental houses with further improvements has been built at Stockton-on-Tees.

**CONSTRUCTION**—The whole of the upper storey carcass is formed by the Lamella roof in which no

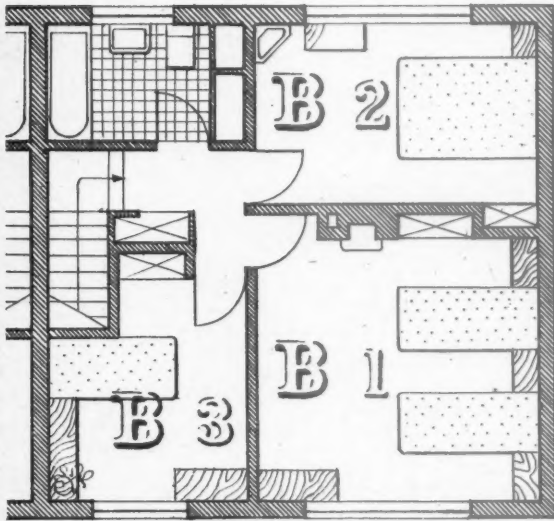
piece of timber longer than 4 ft. is used. Construction starts with the erection of a temporary steel frame which binds the structure and takes the thrust of the roof. After the completion of this unit, the first floor and the Lamella roof, which is prefabricated in large sections in the factory, is erected on the site 2ft. 6 in. above ground level. It is then lifted into position on the steel frame with hydraulic jacks. Building then begins concurrently on both the ground floor and upper storey. As the roof is being covered, the brickwork (if specified) is being run up from the ground to the roof.

When equipment is available the Lamella framing will be pre-assembled into two sections per house including any dormer windows; the erection time would then be reduced to the actions of lifting the sections into position and fixing the holding down bolts and ridge bolts.

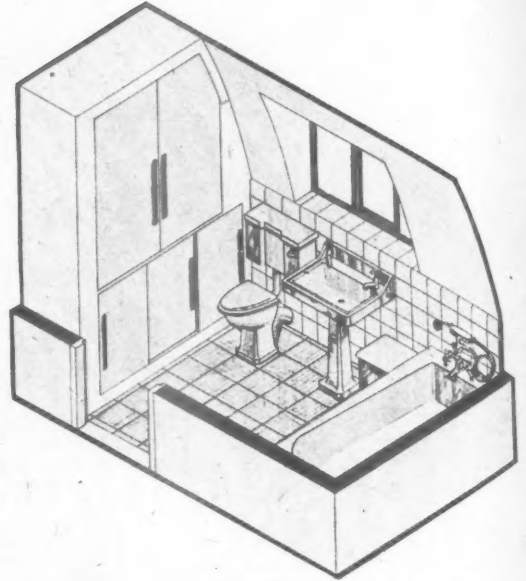
**INSULATION**—Insulation will probably be confined in the future to the provision of diamond-shaped slag wool blankets secured midway between the front and back edges of the Lamella mesh.



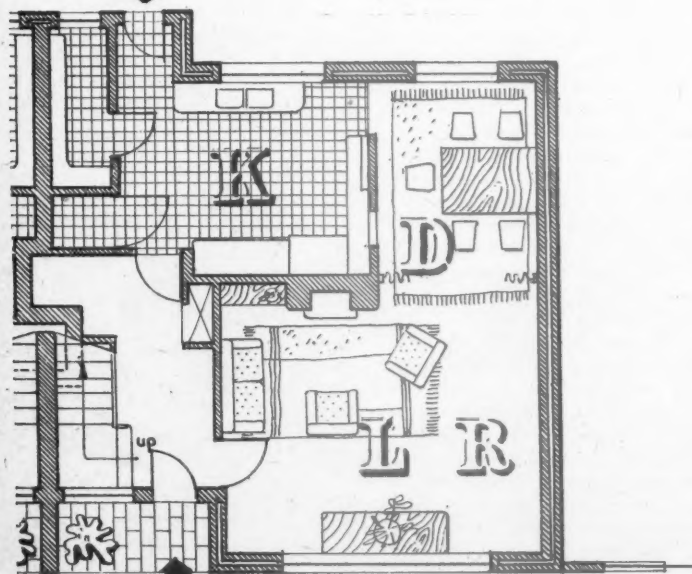
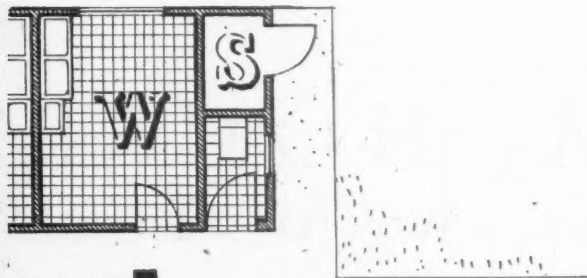
*Top, the Lamella roof forming the upper storey carcass, which is lifted to position with hydraulic jacks. Below, the finished pair of prototype houses.*



HALF FIRST FLOOR PLAN

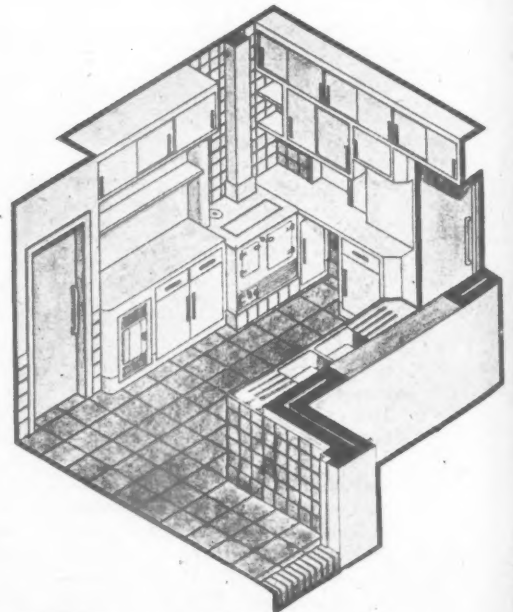


ISOMETRIC OF BATHROOM



HALF GROUND FLOOR PLAN

[Scale 1/4" = 1'0"]



ISOMETRIC OF KITCHEN

LAMELLA HOUSE  
WITH TRUSSLESS ROOF

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# INFORMATION CENTRE

The function of this feature is to supply an index and a digest of all current developments in planning and building technique throughout the world as recorded in technical publications, and statements of every kind whether official, private or commercial. Items are written by specialists of the highest authority who are not on the permanent staff of the Journal and views expressed are disinterested and objective. The Editors welcome information on all developments from any source, including manufacturers and contractors.

## STRUCTURE

2089

Post-War Techniques

**POSSIBILITIES IN POST-WAR TECHNIQUES.** Robert L. Davison. (*Architectural Record*, May, 1945, pp. 85-90.) Recent trends in construction of small houses. Consumer research. Different types of prefabrication. Foundations, floors and basements. Walls, windows and doors. Sunlight and sun heat. Roofs. Interior finishes. Heating, air-conditioning and lighting. Kitchens, bathrooms, utility rooms.

The appearance of Consumer Research in the housing field may profoundly influence the design of the low-cost house. Planning based upon factual data on how people live and what possessions they have, will result in houses that are far better to live in than those prevalent to-day. Prefabrication in some form will be almost universal in this field.

The most advanced technology is foreshadowed by the formation of Dymaxion Dwelling Machines, Inc. This new company brings the entire production facilities—materials, methods, plant, machinery and personnel—of a major aircraft factory into the house manufacturing field along with a new organization of labour. The latter factor is not a technical one, but is of great importance as an indication that organized labour may become a major force in support of technological advances in the construction field, instead of opposing them as many of the building trades unions have done in the past. The adaptation of aircraft materials and light construction techniques to the design and production of dwellings is the most promising thing for post-war houses. The houses thus produced of aluminium, light alloys, moulded plywood and plastics will bear little resemblance to the typical pre-war small house. Not only in materials and construc-

tion will this be true, but also in basic design. The post-war low-cost house will be designed as such from the beginning, and will not be merely a cut-down and cheapened version of a \$10,000 house. Post-war trends and possibilities for various parts of the dwelling are summarized briefly in the article.

In foundations the general trend will be to reduce excavation to the absolute minimum. The author expects that most low-cost houses will rest on piers, since that type of foundation requires the least excavation and site construction. This will make possible the use of steeply sloping, irregular sites that were formerly considered unfit for house construction. Continuous foundations below frost line will continue to be used for the more expensive houses, largely because they are traditional. Tradition will be the only justification for the building of basements, since none of the reasons that originally caused them to be built are any longer valid. All of the functions formerly performed in the basement can be better and more economically done above ground.

In structure, the trend for the low-cost house will be toward a light, highly engineered structure, utilizing modern materials to near their maximum strength. Two types of structural system permit freedom in the disposition of the outside walls, and both will be used. One is the Skyscraper Frame of widely spaced supports; the curtain walls can be placed in line with the supports, or inside or outside of this line, or omitted entirely. This type of construction is ideally suited to pier foundations. The other type is the cantilever system where the roof is cantilevered out on both sides of a central core. If the roof construction is kept very light, so that only a light truss is required, this type of structure is quite feasible even for the lowest-cost house. The trend toward movable partitions and open planning favours a roof construction free from interior supports. Fixed frame bents or three-hinged arches will be considerably

used in spite of their being rather awkward to transport. Laminated wood and light alloy metal will be the two principal types.

The trend toward extensive glass areas and large openings will continue and gain in strength, as designers master the new technique of sun-control. They will bring the sun's full light and heat deeply into the house at times when they are wanted, and will exclude either or both of them when they are not wanted. Sun-control will cut heating and cooling costs and make the house pleasanter at all times. Extensive research is needed in this field to supply the basic data, develop working formulae, and establish standards; all in a form which will be convenient for the use of designers.

Plastics will be extensively used in post-war houses, but, needless to say, will not produce the miracles that have been so glowingly described by the Sunday feature writers. Plastics will, of course, continue to be used for all kinds of small gadgets, and probably for piping. But their most important use, in the author's opinion, will be in wall, floor, and roof materials, where plastics will serve as adhesives, impregnants, binders, aerated insulating cores, and finishes. Easily cleaned, warm to the touch and endlessly varied in colour and texture, plastics are ideally suited as interior finishes. Doors and windows and their frames, if not made of solid plastic, will at least be finished in plastics. Plastics may even furnish the answer to the long-sought low-cost floor that will be resilient but tough.

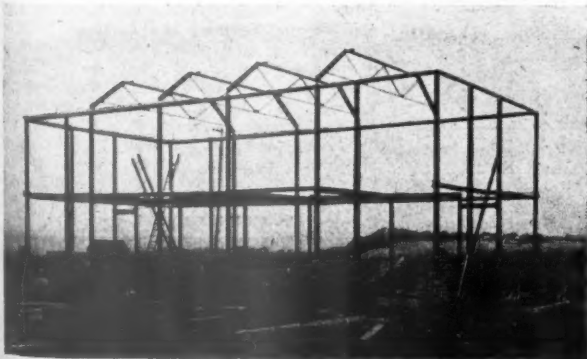
2090

Steel-Framed House

**DENNIS STEEL-FRAMED HOUSES.** Designed by Dennis Steel-Framed Houses Ltd. (*Architectural Design and Construction*, July, 1934, pp. 163-166.) One of few alternative methods originating from last post-war period still being adopted. Outer skin brick, inner skin of foamed slag slabs.

During the inter-war period 9,000 houses of varied design were built in the Dennis-Wild System. It was developed in 1923 at Blackpool. One of the houses in a very exposed situation was recently opened up. The steelwork was in a first-class condition. According to the Blackpool Council's Borough Treasurer, the maintenance of the Dennis-Wild houses erected 20 years ago has cost less than that of all-brick houses upon adjoining sites erected at the same time.

The original company claimed to erect a pair of houses in 8½ days. This was achieved with houses of 753 sq. ft. A pair of demonstration houses has recently been erected at Paddock Drive, Blackpool, in 15 working days of 8 hours. These new houses are larger; they have an area of



Two progress photographs in the erection of the Dennis steel-framed houses. Left, the steel framing, with its twin-trussed beams in the roof, carrying all super-imposed loads. Right, timber or aluminium studs in place with 4½ in. brick infilling up to first floor level. The internal skin is of 2½ in. foamed slag forming a 2½ in. cavity. See No. 2090.

916 sq. ft.; plus an outbuilding of 70 sq. ft. They contain a number of improvements in constructional design, internal fittings and equipment.

Although alternative materials may be used, it would normally be a feature of this system to employ light precast floors, aluminium alloy flange channel first floor wall and roof components, thus reducing timber content. Because of the lack of necessary tools to produce these components, timber has been used in the experimental block.

External walls of ground floor are composed of 4½ in. brick outer skin, 2½ in. foamed slag concrete slabs inner skin with 2½ in. cavity between. The party wall is in two leaves of foamed slag concrete slabs, with a continuous cavity of 4½ in. between. These houses only require approx. 5,000 bricks per house, inclusive of outbuildings, i.e., one quarter of the conventional.

#### 2091 Carpentry and Joinery

**THE NEW BUILDERS' HANDBOOK, NO. 2. CARPENTRY AND JOINERY.** S. H. Glenister. (George Allen & Unwin, 5s. 0d.) Tools. Fundamental joinery processes. Floors. Door frames and casings, doors, windows. Roofs. Stairs.

This second book of the series does not reach the standard of the first on brickwork and drainage. (See No. 1895: 26.4.45.) The illustrations—perhaps the most important part of this kind of a book—are not sufficiently clear, sometimes even confusing, and are not provided with notations necessary for easy understanding by students. Also the text lacks clarity and precision.

#### 2092 Architectural Practice

**ARCHITECTURAL PRACTICE AND PROCEDURE.** Hamilton H. Turner. (B. T. Batsford, 18s.) Third Edition of standard work. Office records, surveying of sites and buildings, drawings and specifications, bills of quantities, schedules of prices, approximate estimates and tenders. Inspection of work, certificates, variations, provisional sums. London Building Acts, Ancient Lights, Dilapidations, etc. Reports and arbitrations.

Mr. Turner's book has, with very good reason, a high reputation, and the new edition will be especially welcomed. The Second Edition was, to some extent, obsolete, more particularly in its dealings with the RIBA Contract and London Building Acts, and a book which is known to be partly out-of-date must be handled by students with some misgivings.

In the Third Edition, the contents are thoroughly revised and improved, and once again we have a wholly reliable work dealing with all the practical considerations surrounding an architect's practice. After the introduction, Mr. Turner deals with the manner in which work is obtained and the working of an architect's office, including the proper keeping and recording of papers and other matters relating to the business side of architecture, which are too infrequently stressed in architectural schools.

Following this are chapters on surveying sites and buildings, on drawings and specifications. There is no doubt that the ability to write an adequate specification is an important part of the architect's job which, again, is not always sufficiently highly stressed, and Mr. Turner has brought a sense of reality into his book by introducing a complete typical specification in the Appendix which should be invaluable both to students and young practitioners.

The next portion of the book brings the reader up to the contract stage, with

chapters on Bills of Quantities, Schedules of Prices, Approximate Estimates and Tenders. The chapter on Contracts deals with the RIBA Form of Contract in great detail, clause by clause, and in the Appendix are to be found a short form of contract for small jobs and also a form of Prime Cost Contract.

Following, naturally, after this are the problems which an architect may be expected to have to deal with during the progress of the contract, including the inspection of the work, certificates, variations, and provisional sums.

Personalities are dealt with next—the Quantity Surveyor, the Client, the Clerk of Works, and so on. This is followed by chapters on fees and the legal side of an architect's practice, and finally by a series of chapters on subjects closely related to architecture, including the London Building Acts, Ancient Lights, Dilapidations, Reports and Arbitrations.

The not inconsiderable Appendix contains many matters in addition to those referred to, including a typical Party Wall Award and Schedule of Dilapidations.

It is impossible to do justice to such a work in the space allotted. Mr. Turner mentioned that "the onlooker sees most of the game," and few will quarrel with this statement as applied to himself. The book is packed with sound advice based on practical experience, and any young architect who is not content with committing designs to paper and who wishes to undertake the responsibilities of his profession, would do well to buy a copy to read it and to keep it in his office for future reference.

## LIGHTING

#### 2093 Colour Harmony

**NOTES ON THE PROBLEM OF COLOR HARMONY AND THE GEOMETRY OF COLOR SPACE.** A. Pope. (Journal of the Optical Society of America, December, 1944, p. 759.) Discussion of articles by Moon and Spencer on geometric formulation of classical colour harmony.

Moon and Spencer's notes on the analysis of colour harmony have been reviewed here previously (No. 1656: 2.11.44). This article is a discussion of some of their theories. Mr. Pope, who lectures on theory of design at Harvard, finds the Moon and Spencer colour-space a valuable contribution, but criticises some of their contributions to aesthetic theory. He claims that colour harmony is a spatial affair, and is therefore based on a different principle from musical harmony. This suggestion undermines, in his opinion, the special virtue of colour-intervals. Area effects are also discussed. The article is of interest and value to those who are concerned with colour theory.

There is a reply from Moon and Spencer clarifying some of the controversy.

#### 2094 Lighting of Production Plant

**LIGHTING FOR WAR PRODUCTION PLANTS—STAGE 3.** J. L. Kamm. (Lighting and Lamps, April, 1945, p. 24.) Reduction of brightness contrasts in war factories.

This is a general note setting out what the author calls the third stage of wartime lighting. The first was apparently the conversion of old plants, the second was the lighting of the new ones, and this third stage is the refinement of the installations, getting high contrasts on the work, and low contrasts between the work and its background,

and elsewhere in the visual field. The article largely advocates this objective. There are several useful illustrations.

#### 2095 Factory Lighting

**MAKING WORK LIGHTER** (published 1945 by the Illuminating Engineering Society and illustrated by Fougasse). Popular pamphlet on factory lighting.

#### 2096 Electric Wiring

**USE OF RING CIRCUITS IN WIRING PRACTICE.** (Journal of the Institution of Electrical Engineers, June, 1945, Part I, p. 215.) IEE wiring regulations being altered to validate ring main wiring.

The conflicting aim of more outlets at less cost is stated to be largely reconciled by the use of ring mains, but the system runs counter to the IEE wiring regulations as they stand. The latter are being reconsidered by the Institution to validate this arrangement of wiring.

## QUESTIONS and Answers

**THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential, and in no case is the identity of an enquirer disclosed to a third party. Questions should be sent to: THE ARCHITECTS' JOURNAL, 45, The Avenue, Cheam, Surrey.**

#### 2097 Electricity Installation

**Q** I have a client who wishes to convert a windmill to a summer cottage and use the motive power of the sails to generate his electricity. Could you refer me to any publication dealing with the technicalities of domestic private electricity installations?

**A** We regret that we have not been able to trace any publications on this subject. The use of wind power for such a purpose is, of course, not altogether unusual, but there may be great practical difficulties which will render the conversion uneconomic.

In theory it should be possible to gear the drive to a dynamo, but it might be an expensive matter, and the windmill would probably be noisy in operation, which might be annoying.

You might care to write to Messrs. Joseph Lucas, of Great King Street, Birmingham, 19, who produce wind-driven lighting equipment, but who (as we have verified) have not had experience of converting existing windmills. Alternatively, we can only suggest that you can get an expert to visit the site and make a report.

#### 2098 Address of APGOSCR

**Q** What is the address of the Architecture and Planning Group of the Society for Cultural Relations with the USSR under the presidency of Sir Charles Reilly?

**A** The address of the Architecture and Planning Group of the Society for Cultural Relations with the USSR is: 90, Gower Street, London, W.C.1.

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# REMOVE RESTRICTIONS

## *on Planning*



"The use of a local Gas Geysers system for a domestic hot water supply means greater freedom in house planning. With a centralized hot water system the draw-off taps must be carefully related to the heating source and from the flexibility of any building plan. Other considerations may, upon occasion, make it undesirable to plan compactly, but it should be remembered that an open plan embodying a central system of supply necessitating long pipe-runs entails high circulation losses. A local gas geysers system, however, imposes no planning restrictions; the geysers itself occupies no floor space and storage space for fuel and water is unnecessary. These advantages suit the present tendency in domestic designing to make use of every square foot of space. Gas geysers also allow considerable economies in flue construction and plumbing."

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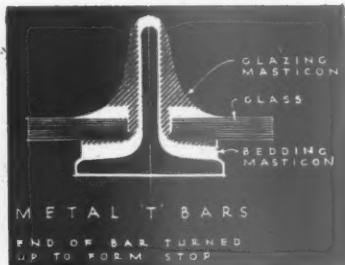
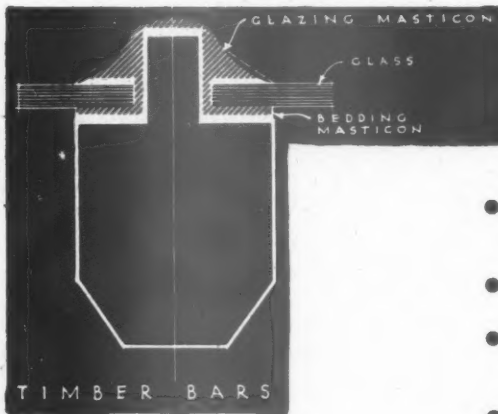
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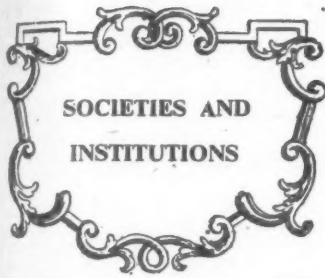
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*Speeches and lectures delivered before societies, as well as reports of their activities, are dealt with under this title, which includes trade associations, Government departments, Parliament and professional societies. To economize space the bodies concerned are represented by their initials, but a glossary of abbreviations will be found on the front cover. Except where inverted commas are used, the reports are summaries, and not verbatim.*

TCPA

## Memorandum

Below is published in full the memorandum issued by the Town and Country Planning Association, which gives the outline of what the Association believes to be a DESIRABLE AND PRACTICAL PLANNING POLICY. The memorandum has been sent to the heads of the Ministries concerned and to Members of Parliament.

"The new Parliament will no doubt treat the Housing emergency as a matter of first priority. The need of this is common ground. The present memorandum raises the closely related issue of the Town and Country Planning policy within which both the emergency and permanent Housing programmes must fit. Town Planning policy cannot wait, because the siting of the first houses built affects permanently the whole future of towns and countryside. A good Planning policy does not mean delay in Housing; it may mean greater speed.

1. *The Accepted Planning Policy:* The late (all-parties) Government accepted a Dispersal Planning policy based on the Barlow Report. It may be briefly summarised thus:
  - (a) Further spread of big cities to be stopped.
  - (b) Congested centres of cities to be "decongested"—that is, reduced in density by locating part of their industry and population elsewhere, with more gardens and open space.
  - (c) Green (country) belts to be reserved around and between cities and towns, thus safeguarding agricultural land adjoining cities.
  - (d) "Overspill" of population and industry from congested areas to be "relocated" in satellite towns and existing country towns, separated from the big cities by the country belts.
  - (e) Future development and redevelopment to be in the form of complete communities, where people can live reason-

ably near work and enjoy a full range of social and cultural amenities.

2. *Steps already taken on the Right Lines:* A Ministry of Town and Country Planning was created in 1943. By the Act of that year all land is now technically under Planning control. The Act of 1944 gave powers for public acquisition of areas of war damage and of bad or obsolete development, and for their redevelopment under a leasehold system; land can also be acquired for relocation of the "overspill" of industry and population.

A number of Regional and City advisory Plans have already been prepared on the basis of the accepted Dispersal policy—notably the Plans for Greater London, Manchester and Plymouth. These have still to be translated into Executive Planning Schemes.

3. *Steps taken on Wrong or Doubtful Lines:* On the other hand, some extensive housing schemes are being prepared, and even started, which ignore the new Planning policy so far. Thus, many cities and towns are preparing Housing Estates in suburbs, distant from workplaces and eating further into what ought to be their country belts. Also, in some cities the absence of any definite plan for dispersal is causing the attempt to start central rehousing at too high a density—which means an excessive proportion of flats as against the more popular (and more human) houses with gardens, and an insufficient provision of public open spaces.

4. *Need of More Decided Action:* A concerted policy, operated by all the Departments concerned, could rapidly correct this situation without delay to Housing. The main measures necessary are briefly summarised.

5. *New Towns and Town Extensions:* In the regions of all congested and overgrown cities, sites should at once be acquired and competent bodies set up, for the building of new satellite towns and planned community extensions to suitable country towns. The situations of possible new towns and country-town extensions have already been chosen in Regional Plans, and the Ministry of Town and Country Planning has the information necessary for siting others. Priority for housing should be given to the sites of these future communities, even if for the time being transport to existing workplaces has to be provided and subsidised.

6. *Location of Industry:* New legislation should be introduced to the effect that the settlement or resettlement of any industrial or head-office business in a congested city needing dispersal, or in a country site not intended to be a town, should not be permitted, except under express licence. Powers should also be taken to promote the establishment of Trading Estates in the intended dispersal centres (satellite towns and country towns), and to give industry and office businesses encouragement and facilities to settle therein. (Many would be glad to do so). In the meantime, the existing system of licensing of building should be operated to prevent resettlement in congested cities and encourage the needed degree of dispersal. Subject to the necessary restrictions, industry should retain free choice of location as between the permitted areas.

7. *Definite Planning Standards:* The Ministry of Town and Country Planning should formulate standards of maximum housing density, and of minimum open space, to be applied in the redevelopment of congested cities. Standards have been worked out for housing density which would enable city-dwellers who wish to do so to have family houses with some garden-space; and these should be stated, and no departure from them allowed without the express consent of the Minister for good reasons. Proper standards of necessary open space have also been worked out; these also should be specified and not allowed to be varied except by express consent. Thus on redevelopment con-

gested cities could gradually be transformed into good places to live in.

8. *Agencies of Promotion and Building:* Some of the new communities could be developed by the larger city authorities (e.g., L.C.C. and Corporations of Manchester and Leeds) or by other authorities or groups of authorities. But there should also be public corporations promoted by the Ministry of Town and Country Planning or by private enterprise, to build communities and trading estates. Sites should be compulsorily acquired for approved schemes, and public loans should be made available. Powers similar to those given to the Board of Trade for the "unemployment" development areas should be given to the Ministry of Town and Country Planning for "dispersal" development areas.

9. *Land: Compensation and Betterment:* This vital problem was not solved by the Coalition Government owing to party differences as to the method. The need, for new compensation provisions arises in two types of case:

- (a) Where part of a congested city is to be redeveloped at lower density, land values will be reduced by insistence on the reduction of the number of dwellings per acre, and by the imposed change of use of business land to housing, or of either to open space.
- (b) The preservation of green (country) belts around cities will remove prospective "building value" from large areas.

In both these cases assistance must be given to the planning authority from a National Compensation Fund. Otherwise the authority cannot restrict development without grave hardship to individuals.

In many cases the values from the restricted land will be transferred elsewhere, e.g., to other towns and new towns where the industry and population are relocated. Alternative proposals are made in the Uthwatt Report and the Government White Paper on Control of Land Use for the collection of a "Periodic Levy" or a "Betterment Charge" on land the value of which is enhanced by the shift of population.

In the long run Compensation may be largely balanced by Betterment. But it is agreed that this would not be so in a short period. An advance to a Planning Compensation Fund by the Exchequer is therefore an urgent necessity if planning is to be made practicable.

10. *Reasons for Urgency:* Dispersal Planning is a long-term policy and the rebuilding involved may take 20 to 30 years. But any building done now, whether permanent or temporary, will affect the location of industry and population for a century. It is vital to start on the right pattern now.

11. *No Delay to Housing:* Diversion of part of the national effort to the new satellite towns and country-towns extensions will not delay housing by a day. In many city centres sites for housing cannot be found, and houses are therefore being built on the city fringes, as between 1919 and 1939. This involves just as much estate development (new roads, services, etc.) as would be necessary for the new communities. With imaginative planning, the same expenditure of money and effort would produce results immediately quite as effective in relief of housing pressure, and far more satisfactory in the long run.

### SUMMARY OF RECOMMENDATIONS

1. Concerted operation of Dispersal Planning Policy by Departments concerned with Planning, Housing, Building and Factory Location.
2. Sites to be publicly acquired for New Towns and Extensions of Country Towns as dispersal centres. Local authorities and public utility corporations to be empowered and financed to undertake development.
3. Ministry of Town and Country Planning to have similar powers for promoting

provision of Trading Estates in Satellite Towns and Country Towns as Board of Trade has for Development Areas under Distribution of Industry Act.

4. Full priority to be given for housing and factory building in the new communities.

5. Redevelopment of "blitzed" and "blighted" areas and cities to proceed with all speed at proper standards of density and open space.

6. Location of industry to be restricted in congested cities and encouraged in dispersal communities.

7. National Compensation Fund to be set up to make grants to local authorities for compensation to land-owners; (a) for reduced values in decongested areas and (b) for reservation of country belts. To the extent that land is not nationally acquired, a Betterment Charge to be made where values are increased by shifts of population."

## TCPA

### R. St. B. Baker

At the Planning Centre, 28, King Street, W.C.2. Lunch-time meeting of the Town and Country Planning Association. Talk on THE PLACE OF TREES IN TOWN AND COUNTRY PLANNING, by Richard St. Barbe Baker. Chairman: Lady Seton.

**R. St. B. Baker:** Trees are the very basis of our life; it is not possible to exist without them, or even breathe without them. Trees create the right atmosphere for human breathing. The larger the area allotted to industry, the greater forest area is needed to purify the air. Trees are filters of bad air and a belt of woodland is a definite necessity near an industrial area.

Although trees are usually ceded a place in the aesthetic life of a town, it is seldom realised how necessary they are from a health point of view. All towns should have a belt of woodland or forestland as part of a surrounding green belt. In America it has been discovered that hospitals for chest complaints are more efficient when surrounded by trees. The patients are able to breathe the purer air and so cures are achieved much more quickly. In France there exists a hospital which is surrounded by trees and which always escapes any prevailing epidemics. Trees do make the air clean and therefore new towns should be planned to include not only a surrounding green belt for recreation and food growing, but a belt of woodland to keep the air in the town as pure as possible. I believe the approach to this subject is biological. There is nothing new I can tell you about town and country planning, but I do urge you to remember, when planning for a green belt, that there should be an acre of woodland to each family. This is a high standard—but one which should be aimed at.

Whilst we have every sympathy with people who hate cutting down trees, it is foolish to plan a district according to its trees, rather than in relationship to its woodland. It may be necessary to fell a certain amount of woodland when a site is found suitable for building a new town, as a vista is needed as well as a system of tree lined roads.

On this question of forest land one must learn to take a really long term view and judge what is best for the country as a whole. One must not become too parochial, but accept the fact that while a local authority understands the needs of the district, there must be direction from a National Planning Body to serve the interests of the whole nation.

Of the wood needed for our war effort in this country, 98 per cent. was produced

by the private land owner and one million acres have been felled to meet war needs. However, as in 1939 we were the worst forested country in Europe, the position now is serious. Before the war England had only 4½ per cent. woodland, whereas France had 25 per cent., Germany had 26 per cent., and even industrial Belgium had 18 per cent. Sweden had as much as 50 per cent. to 75 per cent. forest land. The position in this country therefore is dangerous for the health of the people. England never has and never could be self supporting as regards timber, but it is easy to store trees, so that we could try to replace what we have lost.

As trees are growing they are helping the land. We could plant and replant and have a store of trees which are paying their way. They require no elevators or barns or cold storage. A well managed forest will produce trees that grow high in a small area and all the time that area is building up a new contribution to the health of the nation. Fine forests make fine men, and life on a forest holding is all that the best of us could desire.

I would like to see foresters in every new town, with village college centres in each village, where people could be taught about the forests and could start by learning handcraft and different branches of small wood industries. Local industries could be developed. There are many possibilities in this direction. I know, of course, that timber production is the main industry connected with trees, but there are thousands of subsidiary ones. When I was in Welwyn Garden City I found it utterly impossible to buy toys made of local wood. Here is a craft which could be innovated. In Germany the woods provide small handcraft industries on which families work in the winter and which add considerably to the family funds. Toy making and carving are the most obvious, and Welwyn could easily become a centre for such small industries.

Before 1914 there were 400 known industries connected with trees. After 1918 there were 4,000. I do not know how many there are now, but it is quite certain that the uses for wood discovered during this war have added considerably to this figure. The Mosquito aeroplane is a good instance.

Wood is a reliable commodity. It is more aerodynamic than metal. It gives warning before it gives way. Wood will talk to you, metal will not. An outstanding example of this fact can be found in the coal mines. The miners prefer wooden pit props to metal ones and have even gone on strike to keep them. Wood always tells them in advance when it is going to fall, but metal props give way without warning at all, and the men therefore appreciate that a wooden pit prop gives them a better chance of survival.

Cutting down timber for the money it will fetch is a shortsighted policy. To denude a hillside of its natural growth of timber is to lay the soil open to erosion and swamping and to ruin it for food production. In this country we produce twice as much per acre as is the case in America and this can largely be accounted for by our ancient system of farming in small fields with hedgerows surrounding the tilled land. The Americans cannot understand our "old fashioned" farming methods and apparently fail to see that our success depends upon those very methods they would have us alter. We have no Dust Bowl in England, whereas in America great clouds of dust blow right across the continent, taking with them the farms—or rather the soil which has been worked to provide farms. It is the trees which make the soil. With their wonderful machinery the Americans have proved themselves extremely efficient destroyers. The Sahara must be 20,000 years old, but in 75 years the Americans have created a new Sahara entirely due to selfishness and greed. Australia is next in the list of destructive efficiency farmers.

A lot of planning is being discussed from a wrong angle; for instance, we have heard of a plan to provide water for the whole country, but nothing has been said about first collecting the water. It is the trees which keep water circulating and available, and without trees the ground becomes swampy or porous according to the nature of the soil. Without trees the water will disappear after the ground is drained. Trees would renew it. The south and southwest coasts of England have been steadily draining off their water for years and are doing a great deal of harm to the ground in consequence. When planning a project of this magnitude one must look ahead for 100 years at least. We cannot be without trees. The broadleaf, hardwood tree produces very good soil and civilisation cannot exist without these trees. True planning should aim at true citizenship, so when planning a town try for one acre of woods to each family. Plant trees that can be utilised—but provide for tree planting. Trees are necessary to good health.

## LMBA

### Quantities

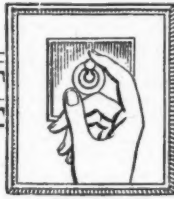
The Administrative Committee of the London Master Builders' Association, at its meeting last week, passed an URGENT RESOLUTION reminding its members that they are under pledge not to tender for work over £1,500 without quantities, and instructing them that this now applies to housing contracts.

The resolution is as follows:—"Members shall not tender in competition for contracts exceeding £1,500 in total value without bills of quantities being supplied. In the case of contracts for the repetitive construction of small dwelling houses the bills of quantities shall be prepared in accordance with the principles of the code for the measurement of building work in small dwelling houses. This undertaking shall not apply to contracts for repairs or contracts for painting or decorating only."

Our reason for issuing this instruction to our members just now, said Mr. G. H. A. Hughes, Director of LMBA, is that we are at the beginning of a new era of building. The Government, through the Ministry of Health, which has long opposed quantities for housing, has at last recognized their importance by urging Local Authorities to "make the fullest trial of the new system," that is, the modified bills of quantities which the National Federation and the Chartered Surveyors' Institution have worked out, in their new housing programmes.

The case for quantities is obvious. The provision of quantities makes clear to builders what they are tendering for, and that everybody is tendering on the same thing. It avoids the need for a large number of builders getting out quantities for themselves before they are in a position to tender, and it forces the client to make up his mind what he really wants before the work begins, thereby allowing the proper organization to be set up for the job. It ends the slipshod methods which have too often been used in the past, by which some builders put in a price which they hoped would work out all right, but which very frequently didn't. This inevitably caused confusion, and many builders found themselves in financial difficulties.

The Ministry of Works Mission to the United States last year reported strongly in favour of simplified quantities for use in connection with small dwelling houses, in the interest alike of efficient building and reduced costs.



*On Active Service*

# *Electricity*

## *is basic in building*

Electricity has become the *mainpower* of production; and new and better homes will be the main necessity of peace production. In building and equipping these homes the cheap flexible power of Electricity will be a requirement as basic as bricks, as sure as steel, as capable as concrete. In each future dwelling the universal versatility of Electricity will cause it to be not an adjunct to, but the presiding genius of the home.

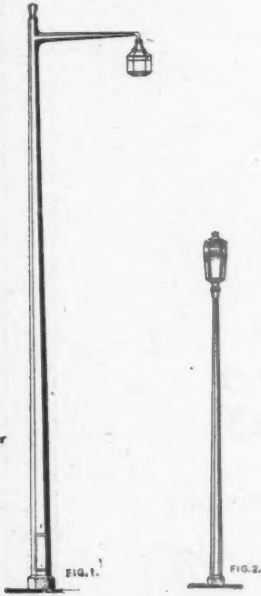
For information and advice about the many new uses and greatly increased adaptability of Electricity consult your Electricity Supply Undertaking or the British Electrical Development Association, 2, Savoy Hill, London, W.C.2.

*The Electrical Section at the Building Centre, Maddox Street, London, W.1, provides interesting illustrations of electrical applications in domestic and industrial premises.*



# Trade Notes

The introduction of the tapering hexagonal section, a new departure in the manufacture of steel street lighting standards, is being shown by Messrs. Poles, Limited, at the Association of Public Lighting Engineers' Exhibition at Glasgow, from September 11



to 14. It is a development of the tapering circular standard which received the highest commendation from the Royal Fine

Art Commission in their adjudication of the designs submitted in 1939.

Fig. 1 illustrates a column with a 25 ft. mounting height and an outreach of 5 ft. Detailed improvements include extra heavy gauge metal for the manufacture of the sections themselves and special consideration has been given to the design of a completely detachable slotted steel instrument panel. This is fitted inside the column near the ground level for fixing auxiliary apparatus used in connection with gaseous discharge lighting, remote control equipment, fuses and switches, raising and lowering gear winch, etc. Access to the interior of the pole is obtained through an unobtrusive door which can be supplied with a simple locking device or alternatively a six lever lock. The base plinth can be cast in situ by standard steel shuttering. Alternatively a separate cast iron base can be supplied. As in the circular models the same facilities are available for carrying overhead electric lighting circuits and various types of bracket arms are manufactured, all of which are designed to blend in the general outline.

Fig. 2 shows the Hexagonal Standard specially designed for vertical lanterns at 15 ft. mounting height. It can be supplied with a large base fitted with the standard slotted steel panel and door as previously described. Swan-neck arms and other similar brackets are available to suit special requirements for quantities.

The columns are galvanised by complete immersion in hot spelter after manufacture, to ensure maximum protection. An enamelled finish is available if desired, and where this is applied, the galvanised surface is specially treated to ensure efficient bonding of enamel and spelter. The Standards are Adastra products manufactured by Messrs. Poles, Limited, Nickel Works, Tyburn Road, Birmingham 24. Full details can be obtained from the new catalogue No. 240 just issued by the company.

# Announcements

The following changes in the staff of the Home Timber Production Department of the Ministry of Supply are announced:— Messrs. G. H. A. Golding, Divisional Officer, Headquarters; F. J. Bailey, Divisional Officer, Nottingham; and Messrs. J. W. Telford, C. J. Venables, and E. Taylor, Trade Production Officers in the Newcastle, Shrewsbury and Exeter Divisions respectively, have taken up appointments with the Control Commission for Germany. Mr. H. L. Wright has been appointed Divisional Officer at Exeter in place of Mr. N. J. Davies, who has been released to join the Malayan Planning Unit. Mr. R. J. Waterman has been appointed Divisional Officer at Nottingham. Mr. G. I. Mackenzie has been appointed Divisional Officer at Cambridge in place of Mr. J. Q. Williamson, who has returned to the Forestry Commission at the request of that Department for educational purposes. Mr. G. U. Thomson, a Trade Production Officer in Scotland, has relinquished his appointment.

Mr. R. Stewart, L.R.I.B.A., having been released from Government service, has now resumed active practice at his old address, Brundrit & Stewart, County Square, Ulverston, Lancs, and will be pleased to receive recent trade catalogues, etc. (Tel., Ulverston 43.)

Mr. A. Lawrence Farman, F.R.I.B.A., having relinquished his appointment with the Ministry of Health, has now returned to private practice with temporary offices at 42, Richmond Park Road, London, S.W.14., at which address he will be pleased to receive up-to-date trade catalogues with particular reference to Municipal Housing.

Mr. Julian Leathart, F.R.I.B.A., has opened an office at Mount Lodge, Sunningdale, Berks. Telephone: Ascot 300.

—AND NOW—METROVICK WARM-WHITE



**THE END OF THE BEGINNING!**

(with acknowledgments to Mr. Churchill.)



**The 5ft. FLUORESCENT LAMP**

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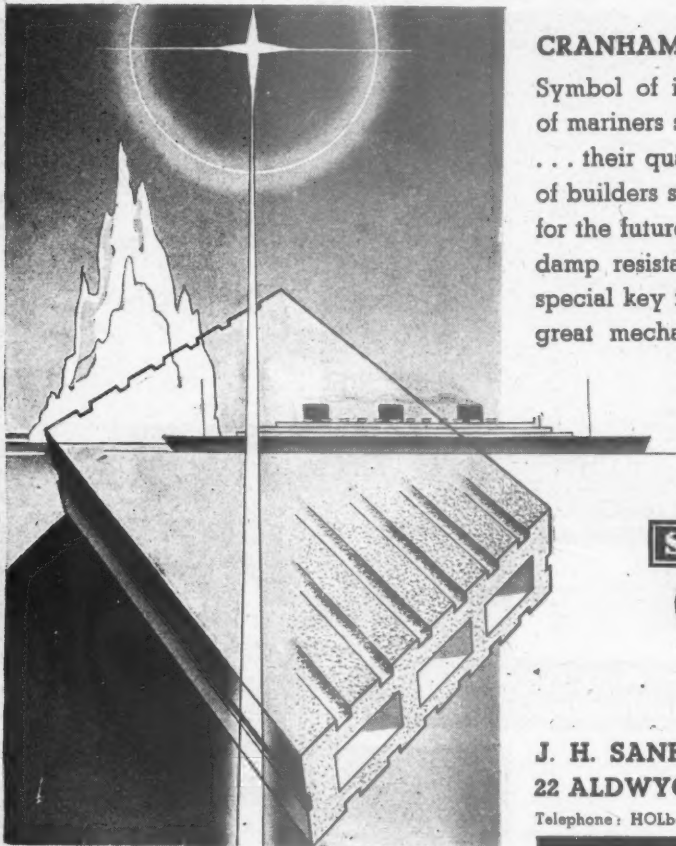
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# LIME

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MINISTRY OF WORKS —  
HOUSING MANUAL 1944  
(*Technical Appendices — Page 9*)

“MORTAR for brickwork should possess the following properties:—

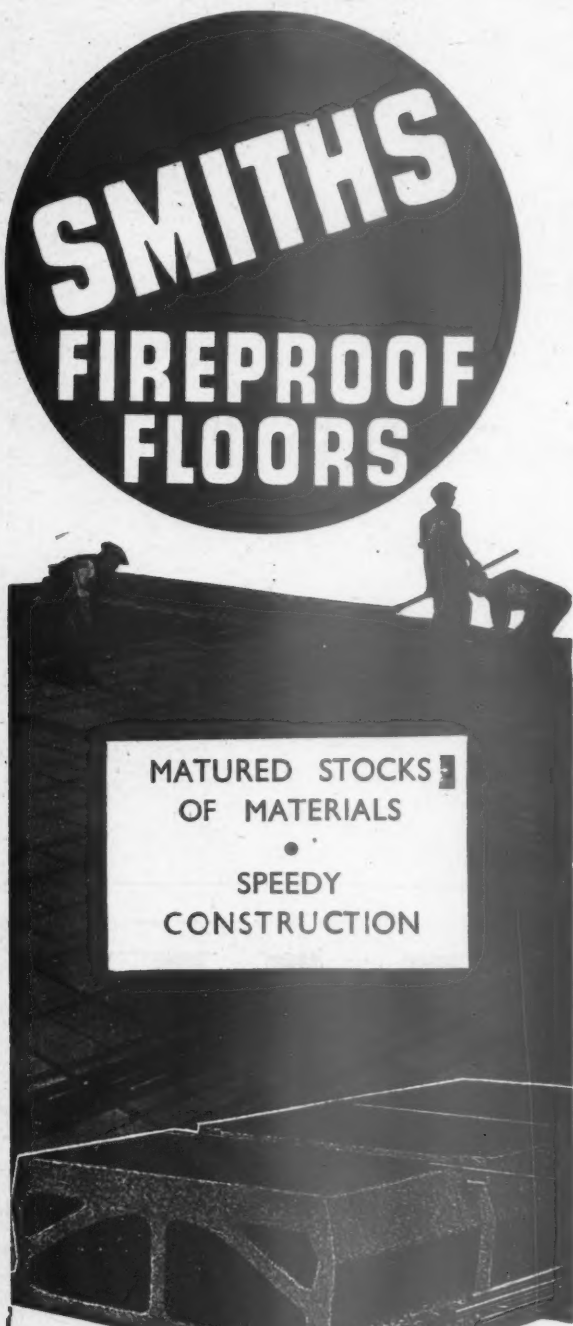
- (a) reasonably quick hardening;
- (b) strength in moderation (preferably rather less than that of the bricks which it binds, and never more);
- (c) good adhesion to bricks which may vary widely in suction;
- (d) retention of plasticity during bricklaying;
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..... By blending cement and lime, a mortar is obtained which shows a good balance of all properties required and such mortars, usually known as lime-cement mortars, are recommended for use generally with all brickwork. ”

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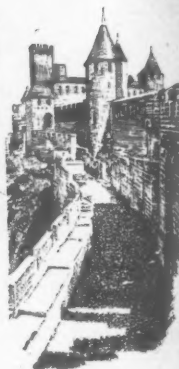


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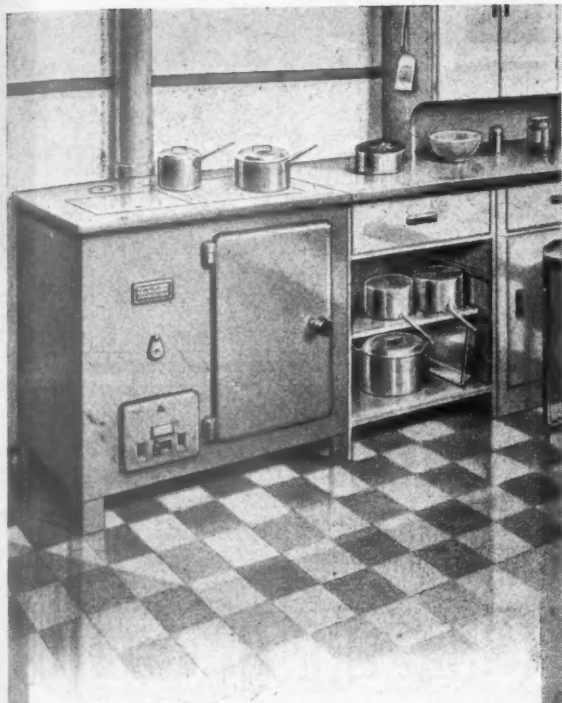
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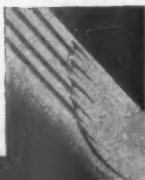
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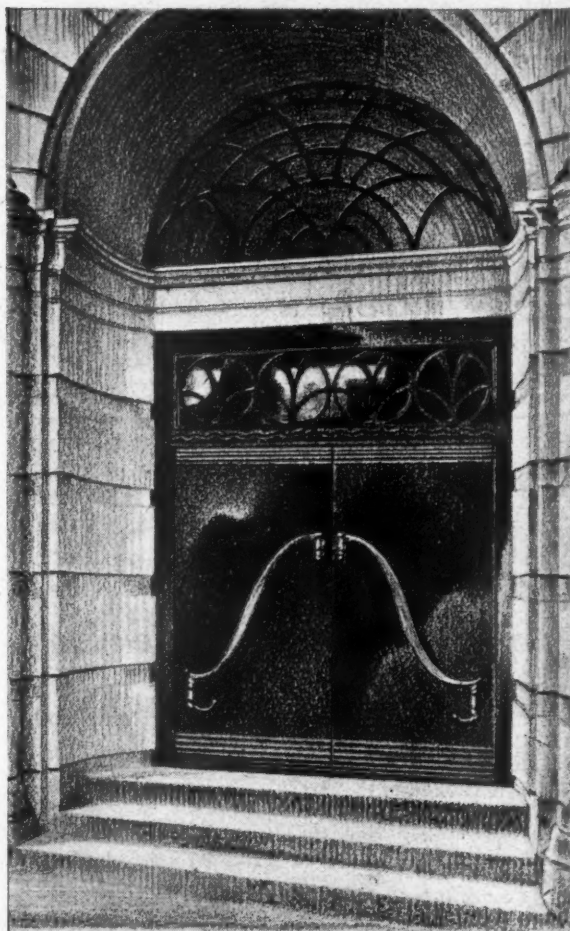
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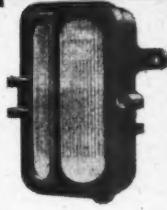
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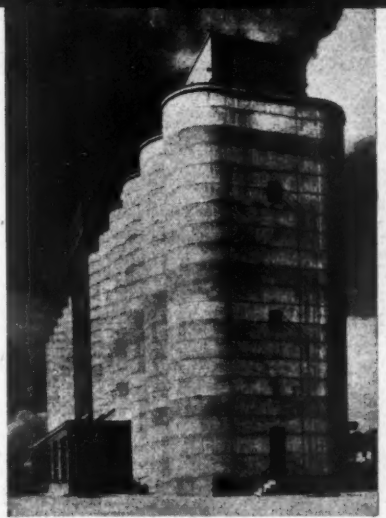
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## CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," War Address: 45 The Avenue, Cheam, Surrey, 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," War Address: 45 The Avenue, Cheam, Surrey.

## Public and Official Announcements

Six lines or under, 8s.; each additional line, 1s.

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: 75, BAYON PLACE, LONDON, S.W.1. TEL.: SLOANE 5515. 991

## WOLVERHAMPTON AND STAFFORDSHIRE TECHNICAL COLLEGE.

Applications invited for appointment as HEAD OF THE BUILDING DEPARTMENT. Full particulars and conditions of appointment will be forwarded as soon as available.

Applications to the undersigned.  
F. LONSDALE MILLS,  
Clerk to the Governors.  
Education Offices, North Street,  
Wolverhampton. 586

## CITY OF LEEDS.

## HOUSING DEPARTMENT.

Applications are invited for the following appointments:

ASSISTANT ARCHITECTS, Class 2. The present salary scale is £450 to £550 per annum.

ASSISTANT ARCHITECTS (Temporary), Class 3. The present salary scale is £360 to £400 per annum.

ASSISTANT ARCHITECTS (Temporary), Class 4. The present salary scale is £250 to £300 per annum.

ASSISTANT ARCHITECTS (Temporary), Class 4a. The present salary scale is £220 to £300 per annum.

Applicants must be Registered Architects, and have had a wide experience in large scale housing.

ASSISTANT SURVEYORS, Class 1. The present salary scale is £400 to £500 per annum.

ASSISTANT SURVEYORS (Temporary), Class 2. The present salary scale is £310 to £350 per annum.

JUNIOR ASSISTANT SURVEYORS (Temporary), Class 4. The salary is according to age, with a maximum of £210 per annum.

JUNIOR ASSISTANT SURVEYORS (Temporary), Class 5. The salary is according to age, with a maximum of £210 per annum.

Applicants, apart from the Junior posts, must be fully qualified, good draughtsmen, fully conversant with estate surveying and development, and be able to undertake the making and plotting of large surveys, setting out, contouring and levelling.

CHIEF ASSISTANT QUANTITY SURVEYOR. The present salary scale is £650 to £750 per annum.

ASSISTANT QUANTITY SURVEYORS (Temporary), Class 1. The present salary scale is £400 to £500 per annum.

ASSISTANT QUANTITY SURVEYORS (Temporary), Class 2. The present salary scale is £310 to £400 per annum.

Applicants must be fully qualified, and conversant with all branches of the building trade, the preparation of specifications, bills of quantities, measuring up and preparation of final accounts.

SENIOR CLERK OF WORKS (ROADS). The present salary scale is £400 to £500 per annum.

CLERKS OF WORKS (ROADS) (Temporary), Class 1. The present salary scale is £310 to £350 per annum.

Applicants must have had a wide experience of roads and sewers construction on large Housing Estate.

The cost-of-living bonus, which is additional to the above basic salaries, is in each case £59 16s. per annum, except the Junior appointments, where the bonus and salary is according to age.

The appointments are subject to the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

The position with regard to National Service must be stated.

Applications, on forms obtainable, from the undersigned, accompanied by copies of not more than three recent testimonials (not returnable), must be received by me in the envelope supplied therefor, not later than 10 a.m. on Tuesday, 11th September, 1945.

Canvassing in any form, either directly or indirectly, will be a disqualification.

R. A. H. LIVETT, O.B.E., A.R.I.B.A.,  
Housing Director,  
Housing Department, Priestley House,  
Quarry Hill, Leeds, 9. 628

## CITY OF CANTERBURY.

## HOUSING ARCHITECTURAL ASSISTANT.

Vacancy in City Architect's Department for permanent Housing Architectural Assistant—£365 by £25 to £410 per annum, plus cost-of-living bonus, at present 23s. per week.

Preference given to candidates trained in a recognised School of Architecture, and who are A.R.I.B.A. Previous experience of municipal housing work desirable, but not essential.

Successful candidate will be required to pass medical examination for Local Government Superannuation Act, 1937.

Applications, endorsed "Housing Architectural Assistant," to be received by Mr. L. H. Wilson, A.R.I.B.A., A.M.T.P.I., City Architect, by not later than 12th September, 1945.

J. BOYLE,  
Town Clerk.  
Municipal Buildings, Canterbury. 588

## BOROUGH OF WREXHAM.

TEMPORARY APPOINTMENT OF:  
(1) ARCHITECTURAL ASSISTANT.  
(2) PLANNING ASSISTANT.

Applications are invited for the following temporary appointments:

(1) Architectural Assistant. Salary £400-£450 per annum, according to qualifications and experience, plus cost-of-living bonus.

(2) Planning Assistant. Salary £250 per annum, plus cost-of-living bonus.

The present cost-of-living bonus is at the rate of £59 19s. 3d. per annum.

For appointment No. 1 preference will be given to candidates who are A.R.I.B.A., and have had experience in housing, layout of housing estates, planning, and general architectural work.

For appointment No. 2 preference will be given to candidates with either parts of Testamur examination and/or Certificate in Town Planning of I.M. and C.Y.E. or A.M.T.P.I., and having experience in layout of housing estates and general knowledge of planning work (required for a Neighbourhood Development Scheme).

The appointments are subject to the successful candidates passing a medical examination; to the Corporation's Sickness Regulations and Conditions of Service, and to determination by one month's written notice on either side.

Forms of application and particulars and conditions of the appointment may be obtained from the Engineer and Surveyor, 1 Grosvenor Road, Wrexham. Completed applications, with three recent testimonials, to be delivered to the undersigned in a sealed envelope, not later than 17th September, 1945.

PHILIP J. WALTERS,  
Town Clerk.  
Guildhall, Wrexham.  
22nd August, 1945. 611

## NANTWICH URBAN DISTRICT COUNCIL.

## ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment in the Engineer and Surveyor's Department, at a salary of £400 per annum, plus bonus, at present £59 16s.

Applicants must be Associates of the Royal Institute of British Architects, or hold equivalent qualifications, and are Registered Architects.

Candidates must have had experience in the design, preparation of working drawings, specifications, etc., for housing and other architectural work normally carried out by a Local Authority, under the direction of the Engineer and Surveyor.

The appointment will be terminable by one month's notice 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.

Applications, on forms obtained from the Engineer and Surveyor, Mr. E. H. Bailey, F.S.I., M.Inst.M. and C.Y.E., Council Offices, Barker Street, Nantwich, stating age, qualifications and experience, accompanied by three recent testimonials, and endorsed "Architectural Assistant," must be received not later than 8th September, 1945.

D. TUDOR EVANS,  
Clerk of the Council.  
21st August, 1945 616

## URBAN DISTRICT OF HECKMONDWIKE.

## ARCHITECTURAL ASSISTANT (TEMPORARY).

Applications are invited for the appointment of a Temporary Architectural Assistant, at a salary of £350, rising (subject to satisfactory service) by annual increments of £10 to £400 per annum, plus war bonus, at present £59 16s.

Applicants must be Registered Architects, and must have had experience in the preparation of plans, working drawings, specifications, and quantities for housing estates, and in general architectural work.

Applications, stating age, qualifications and experience, accompanied by copies of two recent testimonials, must reach the undersigned not later than 17th September, 1945.

GEORGE HOLT,  
Clerk of the Council.  
6, Church Street, Heckmondwike. 627

## LONDON COUNTY COUNCIL.

The following full-time Teachers are required as soon as possible at the Hammermith School of Building and Arts and Crafts, Lime Grove, Shepherds Bush, W.1.

(1) TEACHER OF BUILDING CONSTRUCTION AND GEOMETRY in the Junior and Senior Building Schools. A knowledge of building organisation and experience in brickwork an advantage.

(2) TEACHER OF ARCHITECTURAL DRAWING, DESIGN AND ASSOCIATED SUBJECTS in the Junior and Senior Building Schools. Ability to assist with History of Architecture, etc., a recommendation.

Appointments will be temporary, subject to review at any time and in any event at the end of the war. Salaries in accordance with Burnham Scale, together with London allowance and additions for qualifications and training as applicable. Application forms, T.1/40, obtainable from the Education Officer (T.11), County Hall, S.E.1 (stamped addressed envelope necessary), returnable by 22nd September, 1945. 623

## WELLINGBOROUGH RURAL DISTRICT COUNCIL.

## HOUSING AND SURVEYOR'S DEPARTMENT.

## APPOINTMENT OF TECHNICAL ASSISTANT.

Applications are invited for the above appointment. Candidates must have had experience in an Architect's or Surveyor's office, and be capable of making Housing Surveys.

Applications, stating age, salary required, and full particulars of experience, accompanied by two recent testimonials, should reach the undersigned not later than Tuesday, 11th September, 1945, endorsed Technical Assistant.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. Any further particulars required can be obtained on application.

Canvassing members of the Council, either directly or indirectly, is strictly prohibited, and will disqualify any candidate.

H. C. HORTON,  
Clerk of the Council.  
18, Oxford Street, Wellingborough. 628

## BOROUGH OF SCUNTHORPE.

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:

(a) PERMANENT ARCHITECTURAL ASSISTANT. Salary £400 per annum, plus cost-of-living bonus, at present £59 16s. per annum. Applicants should hold a recognized Architectural qualification and have had experience in housing.

(b) PERMANENT BUILDING INSPECTOR. Salary £350 per annum, plus cost-of-living bonus as above. Applicants should have had experience in the examination of deposited building plans, and supervision of building operations.

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

Applications, stating age, qualifications and experience, endorsed "Architectural Assistant" or "Building Inspector," as the case may be, accompanied by copies of two recent testimonials, must reach the undersigned not later than 12th September, 1945.

W. P. ERRINGTON,  
Town Clerk.  
Municipal Offices, 34, High Street,  
Scunthorpe, Lincs.  
28th August, 1945. 633

## BOROUGH OF LUTON.

## BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT to the Borough Engineer's Department, at a salary of £310 per annum, rising by annual increments of £15 to £355, plus cost-of-living bonus, at present at the rate of £59 16s. per annum. The position will be a temporary one in the first instance, but will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applicants should have had some practical experience after completion of training, and have made specific progress in obtaining a recognized professional qualification.

Applications, giving particulars of age, training, experience and qualifications, and stating position in relation to National Service, should be forwarded to the Borough Engineer, Town Hall, Luton, not later than the 22nd September, 1945.

Canvassing will disqualify.  
W. H. ROBINSON,  
Town Clerk. 634

28th August, 1945.

**BOROUGH OF SOUTHALL.**

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

**APPOINTMENT OF ARCHITECTURAL ASSISTANT.**

Applications are invited for the appointment of an Architectural Assistant on the permanent staff of the Council. Salary, £365 x 12—£425, plus cost-of-living bonus, at present £59 16s. per annum. Commencing salary according to qualifications and experience.

Candidates should be registered architects, and preference will be given to members of the Royal Institute of British Architects. Experience in preparation of working drawings, specifications, surveying and setting-out in connection with housing works, is desirable.

The candidate appointed will be required to pass a medical examination, and the appointment will be subject to the Local Government Superannuation Act, 1937.

Applications must be submitted on the official form, which should be obtained from and returned to the Borough Engineer, Town Hall, Southall, Middlesex, with copies of three recent testimonials, not later than noon on September 18th, 1945.

Canvassing any member of the Council or any Committee thereof, directly or indirectly, will be disqualifying.

M. LINDSAY TAYLOR, Town Clerk.

Town Clerk's Offices, South Road, Southall, Middx. 31st August, 1945. 641

**BOROUGH OF WEDNESBURY.**

**BOROUGH ARCHITECT/ENGINEER'S DEPARTMENT.**

**ARCHITECTURAL ASSISTANT.**

Applications are invited for the above appointment, in the Borough Architect/Engineer's Department, at a salary of £450 per annum, plus war bonus (at present £59 16s. per annum).

Preference will be given to candidates trained in a recognised Architectural School and are A.R.I.B.A.

The successful candidate will be required to pass a medical examination for the purpose of the Local Government Superannuation Act, 1937.

Applications, endorsed "Architectural Assistant," stating age, qualifications, experience, and present position, and accompanied by copies of not more than two recent testimonials to be sent to the undersigned, not later than Saturday, September 22nd, 1945.

ARTHUR BOOTH, F.R.I.B.A., Borough Architect/Engineer. 638  
Town Hall, Wednesbury.

**Architectural Appointments Vacant**

Four lines or under, 4s.; each additional line, 1s.

**MANCHESTER.**—Architectural Assistants required for industrial and housing work; good prospects. Write fully, stating age, experience, qualifications, and salary required. Ernest A. Newton, Leach & Booker, Chartered Architects, 28, Kennedy Street, Manchester, 2. 614

**ARCHITECTURAL DRAUGHTSMAN** required in Drawing Office in Maidstone district; position offers good prospects for suitable applicant. Write, stating age, experience, and salary required, to Box 613.

**PROGRESSIVE Firm of Architects**, with fifty years' standing in the Midlands, have vacancies for one or two experienced Architectural Assistants; good salaries paid to suitable applicants, who must be first-class draughtsmen and well trained for important large scale work; a similar vacancy occurs in our London office. Please state qualifications, age, and experience to Box 600.

**VACANCY** occurs for two Architectural Assistants, with a minimum of at least 5 years' experience of preparing plans, details, specifications, etc., in the Architect's department of London office or multiple company; salary £400-£450 per annum, according to grade. Write, stating age, experience, and when available, to Box AV.8944, 10, Hertford Street, W.I. 608

**ARCHITECT'S SENIOR ASSISTANT** required in N.E. London; experienced in design of industrial and commercial buildings; state age, experience, and salary required. Box 604

**JUNIOR ASSISTANT** required immediately by Chartered Architects, in South-East England; must be a good draughtsman, and capable of preparing working drawings and details from rough sketches; write fully, stating age, experience, and salary required. Box 631.

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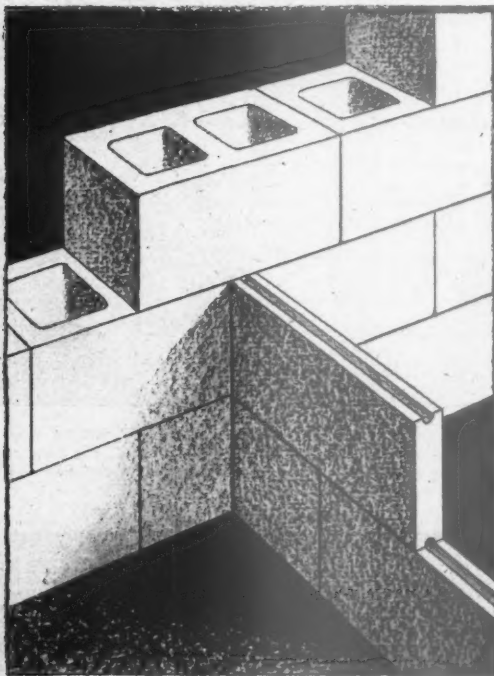
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