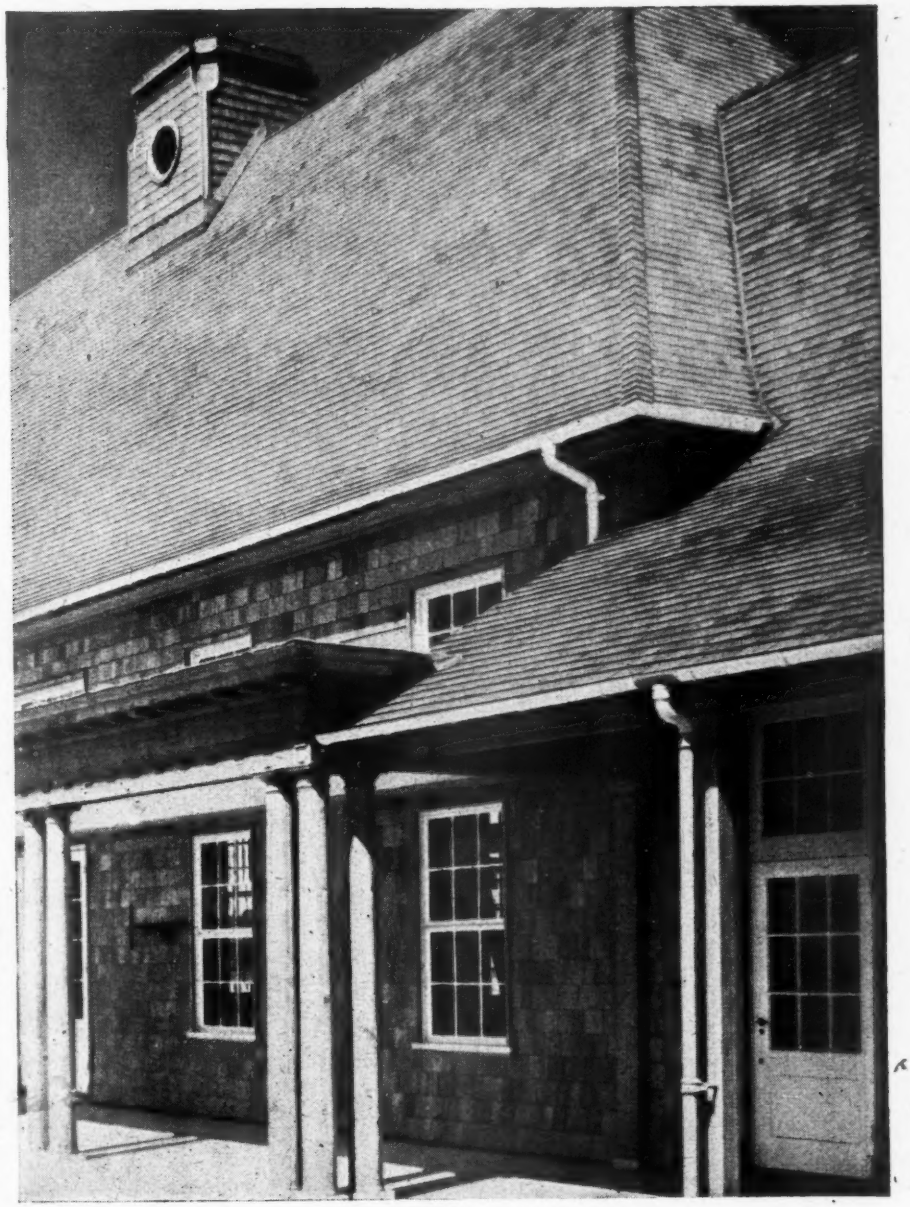


Church of England Senior School, Slough, Bucks. Roofs & Walls of Colt Shingles.

THROUGHOUT THE WAR AND INTO PEACE

THROUGHOUT the War, Colt's have maintained uninterruptedly a continuous supply and fixing service of Colt Shingles on War Department, Air Ministry and other Government and essential buildings. Limited stocks are still available, and our Technical Department is at the service of all Architects.

Colt Shingles have proved themselves superior to every other roofing material in their remarkable resistance to blast, more than justifying our claims for the security of a Colt Shingle roof.

In Peace, Colt Shingles will be specified more widely than ever for their beauty, long life, high insulation value and weather-proof qualities.

Copies of our Shingle Handbook containing 110 photographs, and full technical information, price 6d. on request. Write to W. H. Colt, (London) Ltd., Surbiton, Surrey.

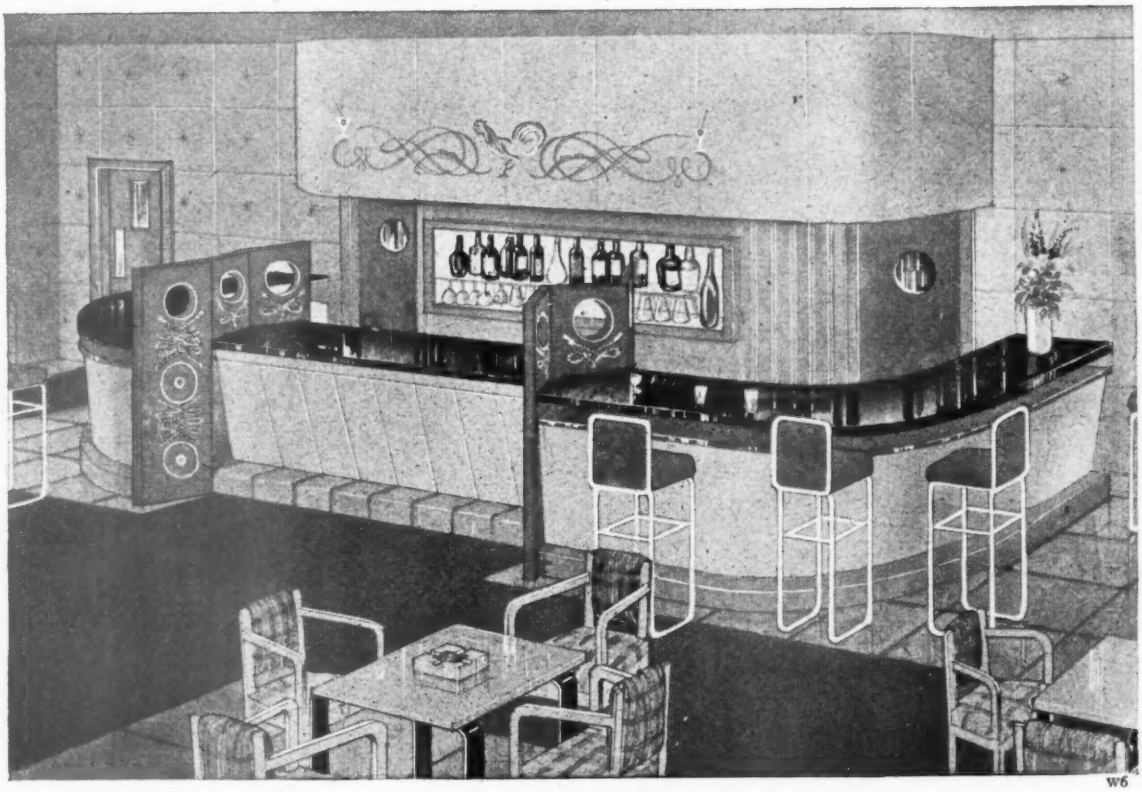
COLT *Canadian Cedar Wood* (CEDAR WOOD TILES) **SHINGLES**

Specially chosen from No. 1 Grade XXXXX Shingles.

A

Design for a Cocktail Bar

BY GREY WORNUM. F.R.I.B.A.



W6

One of the most interesting things about this design is the decoration on the Warerite panels which cover the walls, screens and bar fitments. This decoration is not applied after the panels are made, as would be the case with other surfacing materials, but is done during the fabrication of the panels.

Such decorations can be painted, stencilled, sprayed, printed or even photographed on to special paper impregnated with synthetic resin Heat and pressure are then applied, and by a chemical change known as 'polymerization' the resin and paper with its design intact becomes an integral part of the substance of the panel.

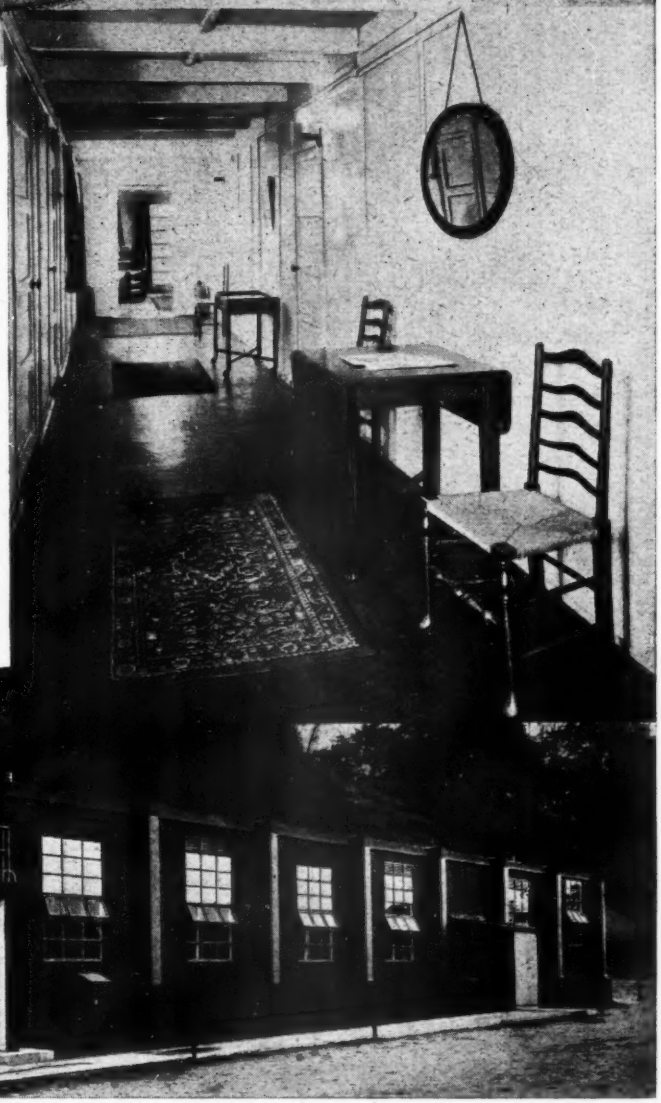
The advantage of this is clear: the design, not being applied to the surface, can never wear off or lose its original brilliance. It is as permanent as the Warerite panel itself.

DETAILS OF THE DESIGN

The Warerite panels lining the walls are cool silver-grey decorated with blue stars. Panels of a warmer grey, decorated with pale green, are used for the concealed lighting hood which surmounts the bar fitment. Below this the rear fitment of the bar is treated in yellows ranging from pale cadmium to deep ochre. Black Warerite panels are used for the counter top with deep cream panels forming the sloping sides. The bar itself is divided into sections for greater intimacy by fixed screens of Indian red carrying line decoration in pale grey.

SECO

is a system of dry Unit Construction for HOUSES, SCHOOLS, HOSPITALS and FACTORIES, which gives utmost speed of erection on the site.



SECO is the system which has been most widely used during the past three years. It is based on a wall unit 7ft. 4½in. by 3ft. 2⅛in., of which 6,469,800 feet super of floor area have been made and erected into 283 different designs of buildings on 698 sites.

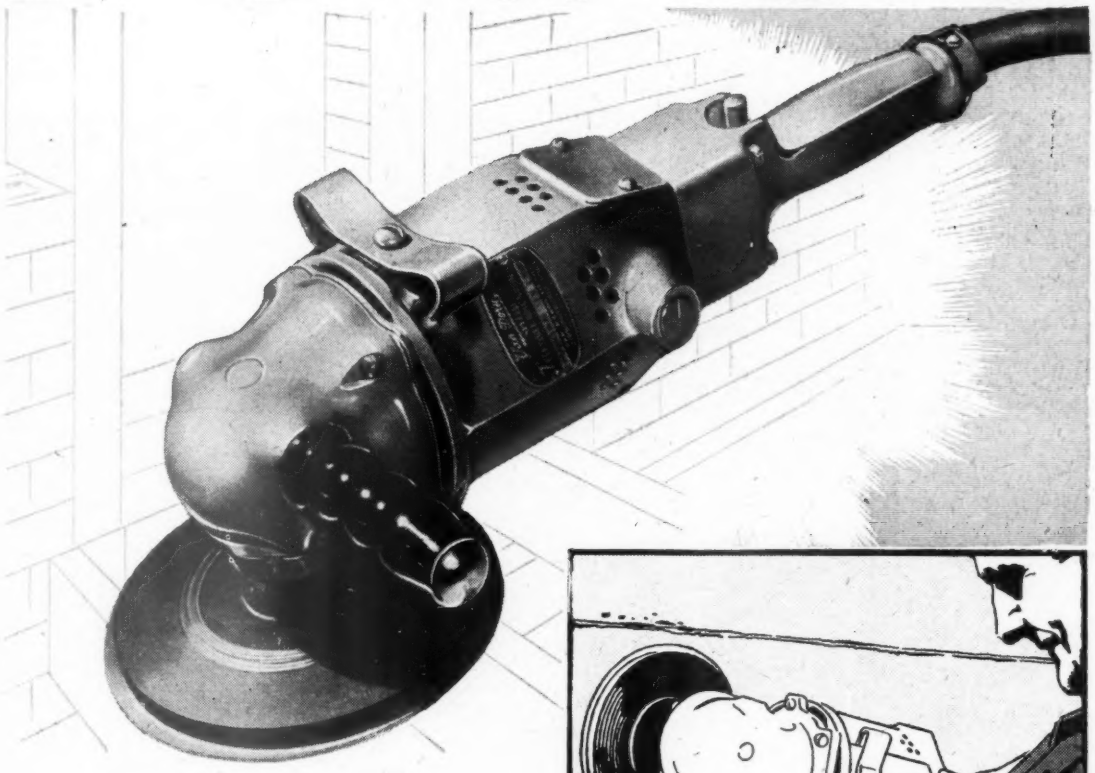
"Seco" and "Uni-Seco" are the Registered Trade Marks

UNI-SECO STRUCTURES LIMITED

25, Upper Brook Street, Park Lane, London, W.1. • Mayfair 9080

Stoneham & Kirk

POWER MORE



Removing the shuttering marks from poured concrete with the Van Dorn Heavy Duty Sander.

TO YOUR ELBOW!

. . . with the Van Dorn 7" Sander — for sanding wood, removing rust and scale, and surfacing concrete and stone. Use this Tool and the others in the wide Van Dorn range for the reconstruction and future maintenance jobs of the Building Industry.

No time now for old-fashioned methods — use modern tools and save hours of time and labour.

"Van Dorn"

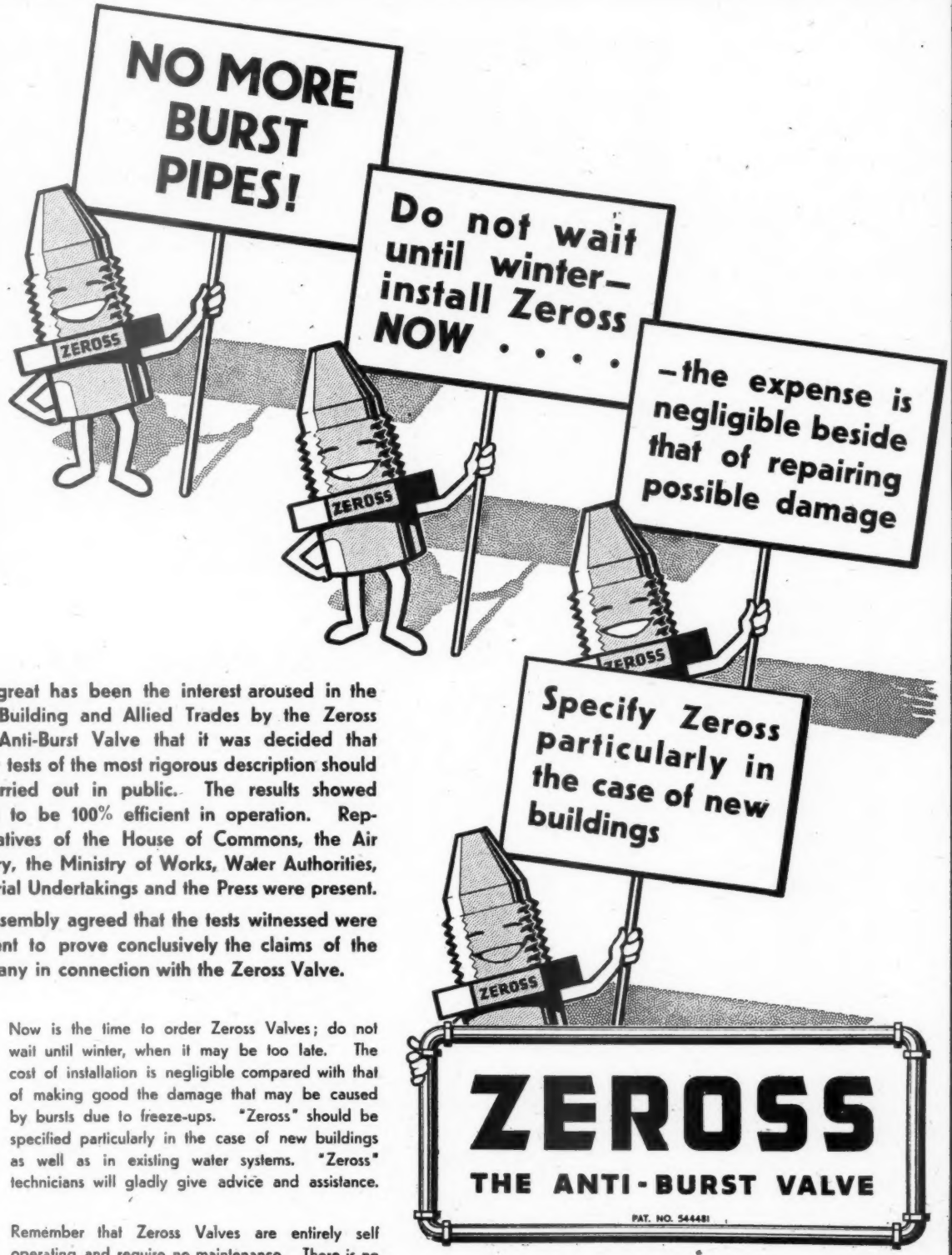
PORTABLE ELECTRIC TOOLS

VAN DORN ELECTRIC TOOLS · HARMONDSWORTH · MIDDLESEX

'PHONE : WEST DRAYTON 2681/6

BRANCH SERVICE STATIONS: LONDON, BIRMINGHAM, BRISTOL, GLASGOW, LEEDS, MANCHESTER, NOTTINGHAM

Smee's



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.

ZEROSS

THE ANTI-BURST VALVE

PAT. NO. 544481

Write for descriptive folder and reports from

S. GRAHAME ROSS LTD. SLOUGH.

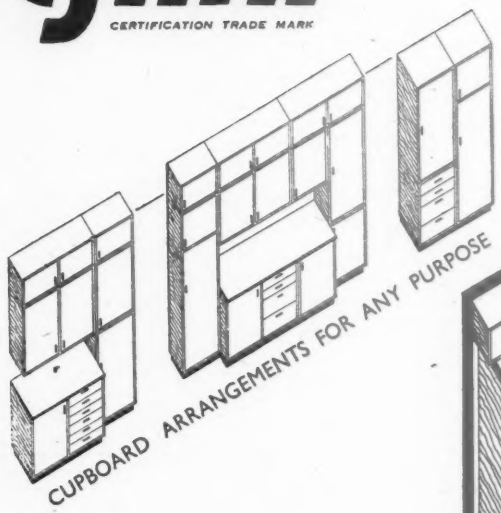
TEL.: BURNHAM (BUCKS) 686.

Ju
in
ec
M
o

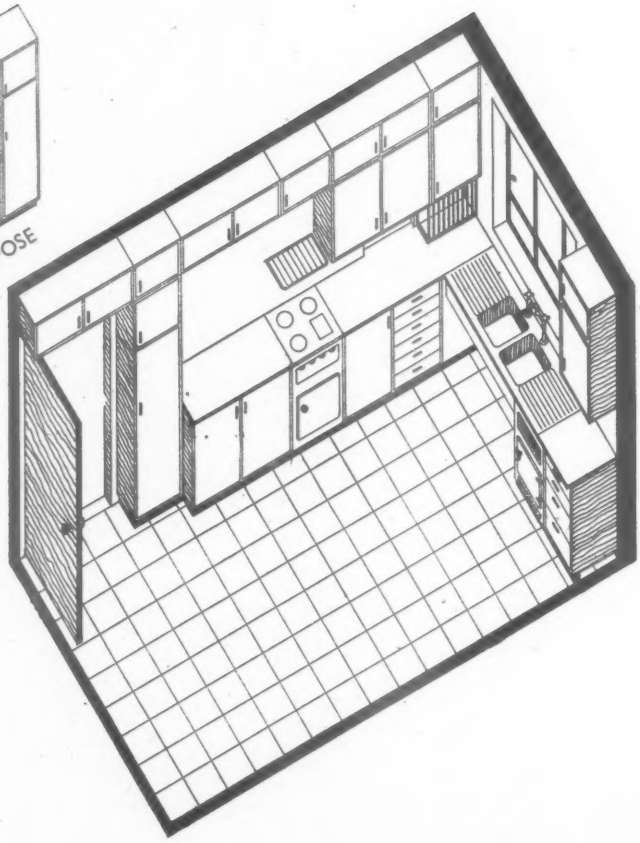
STANDARD KITCHEN UNITS

EJMA

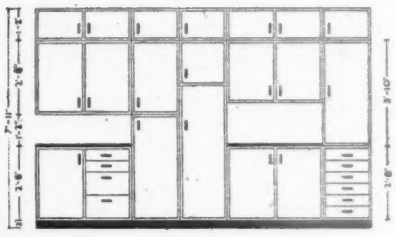
CERTIFICATION TRADE MARK



CUPBOARD ARRANGEMENTS FOR ANY PURPOSE



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

SACKVILLE HOUSE, 40 PICCADILLY, W.1 REGENT 4448 [INCORPORATED]

Stoneham & Kirk

POST WAR

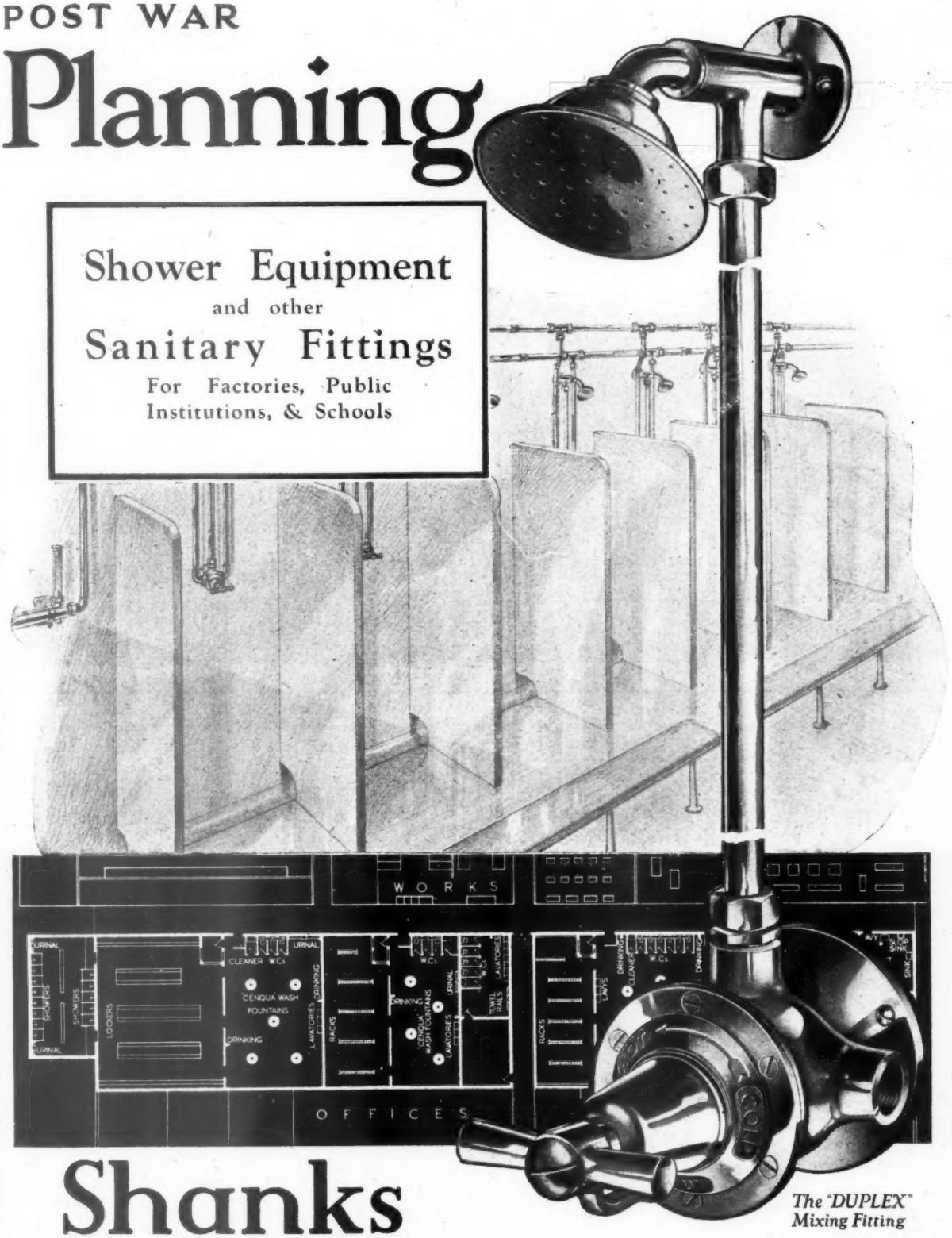
Planning

Shower Equipment

and other

Sanitary Fittings

For Factories, Public Institutions, & Schools



Shanks

The "DUPLEX" Mixing Fitting

HEAD OFFICE: SHANKS & CO., LTD., TUBAL WORKS, BARRHEAD, SCOTLAND
Also at London, Manchester, Newcastle-on-Tyne, Glasgow, Bristol, Dublin, Belfast

Advertiser's Announcement.

COMPANY MEETING.

LONDON BRICK

DIFFICULT CONDITIONS

The annual general meeting of the London Brick Company, Limited, was held on the 17th inst., in London.

Sir P. Malcolm Stewart, Bt., O.B.E., LI.D., J.P. (the chairman), said that the profit on trading and income from various sources was down by £98,703 at £136,702. To that had been added the sum of £100,000 transferred from general reserve, to provide for the cash bonus of 5 per cent. on the Ordinary Stock. Last year he had stated that conditions influencing 1944 were deteriorating and would adversely affect the trading results. The considerable reduction of profits afforded ample evidence of the accuracy of that forecast.

With regard to the causes which had brought about the state of affairs, three dominating factors had prevailed—the declining and ultimately abnormally low demand, the extreme severity and exceptional application of the transport restrictions on bricks, and the operation of departmental controls which had worked to their disadvantage through the lack of equity in their application, in particular that exercised through the Ministry of Works.

He had never regarded it as practical to attempt to organise more closely or to regulate the brickmakers of this country as a whole. They worked a vast variety of raw materials differing widely in character, and employing different types of plant and machinery, producing a great number of products selling at different prices.

THE QUOTA PLAN

The committee on the Brick Industry was fortunate in having a prominent industrialist as its chairman, Sir Oliver Simmons, M.P. Needless to say, he appreciated the value of efficiency and did his best. He inspected their Stewarthy works to acquaint himself with the facts at first hand. He further produced a helpful report which *inter alia* recommended a quota plan for all brick manufacturers. Under that plan there was allocated to the Fletton section 33·18 per cent. of the total. To that their competitors on the committee objected, and it was voluntarily reduced to 31·21 per cent. to secure harmony. Let them examine the figures and see how the plan which the Minister of Works approved should have worked out as far as their company was concerned. For the year 1944 the London Brick Company alone was entitled under the quota scheme to some 21·18 per cent. of the national brick deliveries, but they only delivered 59 per cent. of the company's share of the demand. The position to the end of March of this year was even worse. In the three months they delivered only 52 per cent. of the company's quota, about 24 millions. Pre-war, in such a comparative period, they would have delivered some 350 millions. It was not only in respect of quantity that they were hit, but by virtual prohibition of deliveries south of the Thames they were arbitrarily limited to deliveries only north of the Thames and in many cases from rail depots adjacent to the river.

The first intimation they had obtained of the restriction of rail transport on bricks was from the newspapers to the effect that from 1st December, 1941, no bricks would be accepted for transport by rail to a destination over 75 miles. The effect on their business was to cut off overnight 50 per cent. of their current deliveries and to disrupt completely their organisation. They had lodged a protest with no effect. They had protested against the raising of selling prices, but the most objectionable feature of the price control had been the fixing of a minimum price as well as a maximum. Their freedom to operate was thus rigidly restricted by minimum selling prices and severe limitation of transport. Road transport restrictions were equally severe.

NEED FOR FREEDOM

The post-war policy for brick-makers should be restoration of freedom for competitive prices, but with the retention of maximum prices so as to protect the consumer against exploitation. It was absolutely essential that minimum prices now operating should be abolished. The demand in their home area, which included London, should eventually be so great that it was doubtful whether the company would have large supplies available for distant markets unless their urgency called for special consideration. If the building programme goes smoothly, the day would come when all the bricks that could be made would be required. Thus both large and small brickmakers should be fully employed. He could not hold out any hope of improvement in results for the current year but then should follow two years of building up to a position which should once more absorb their colossal productive capacity provided that freedom to expand was not cramped. The year 1945 should, in fact, represent the lowest ebb of the business if restrictions were not lifted, and thereafter they would have the help of the steadily rising tide of better demand. It must be clearly understood, however, that their progress depended upon the removal of the hampering controls now crippling the business.

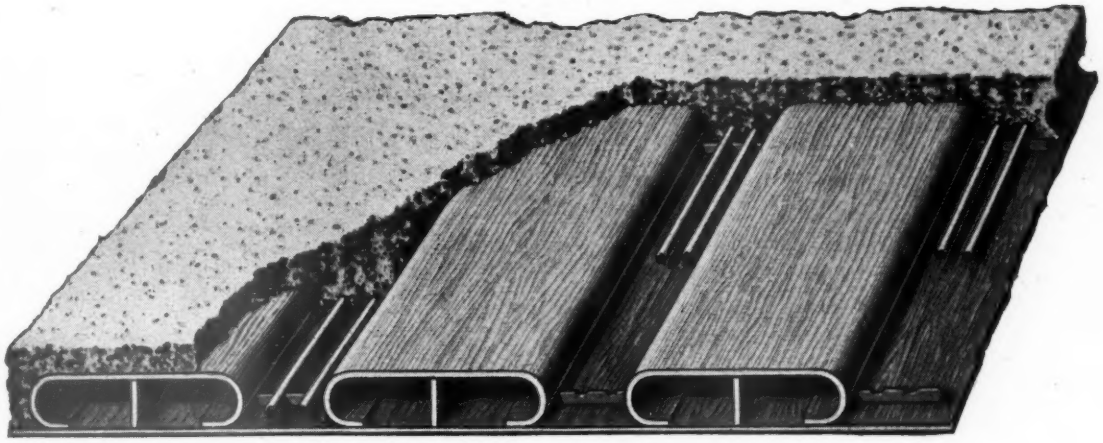
THE NEGLECTED CINDERELLA

It was interesting to note that Lord Portal, when Minister of Works, had negotiated with marked success measures to secure such reasonable stability as could be expected in wartime to assist certain sections of industries producing building materials. The Fletton brick industry had throughout been condemned to be the neglected Cinderella, banned by political considerations. He could but hope that the present Minister would fit on her foot the slipper of efficiency and that, comfortably cloaked, she would be gallantly escorted to the party enjoying freedom and progress.

They were conscious that a far worse fate would have befallen them but for the indomitable fighting spirit of the Forces. They must remember how Providence had protected them through the steadfast bravery of the airmen in the Battle of Britain, through the watch kept by the Royal Navy, and by the Armies overseas, and all those efforts had been guided by the fortitude and inspiring leadership of the Prime Minister.

The report and accounts were unanimously adopted.

2 men can place 100 sq. yds. per hour ready for concrete



"PLYSYL"

REGISTERED TRADE MARK PATENT APPLICATION No. 19770/43

FORMWORK

- A permanent formwork for floors, walls and roofs.
- Standard sizes up to 4ft. x 18ft., or to specification.
- Provides resin bonded plywood soffit ready for decoration.
- Plywood soffit dispenses with all rendering and plastering.
- Speeds up building. Reduces man hours and housing costs.
- No centering required, props and spreaders at 6ft. centres only.
- Fitted with service conduits and steel reinforcement ready for concrete.

PLYSYL FORMWORK LTD.

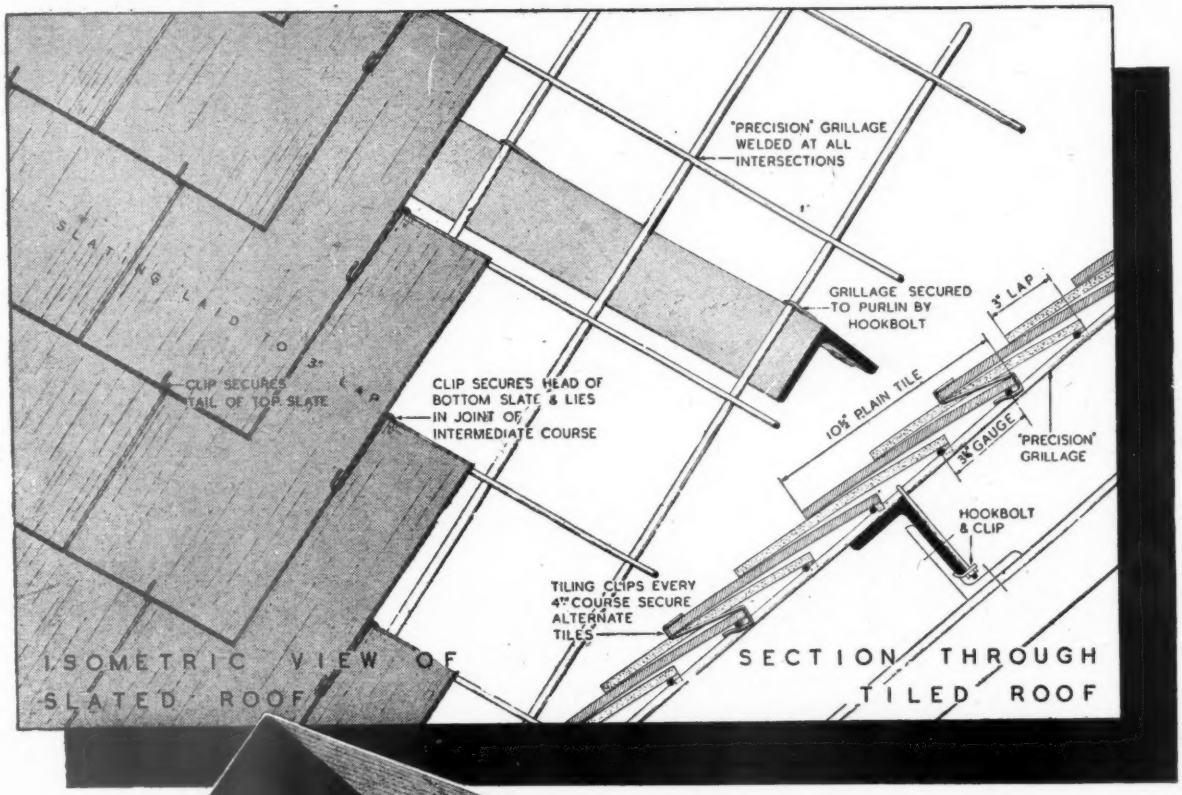
CONCRETE FORMWORK SPECIALISTS

VICTORIA HOUSE, SOUTHAMPTON ROW, LONDON, W.C.1 ▲ HOLBORN 2061

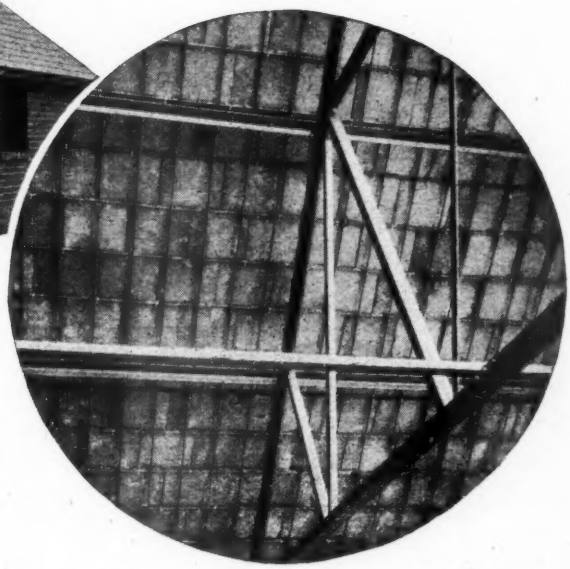
19, WATERLOO STREET, GLASGOW, C.2 ▲ CENTRAL 4962 ▲ And BRISTOL

FP 452

PRECISION ROOFING



Slated Roof.



Underside of Slating

WORKS-PRODUCED SYSTEM of ROOF CONSTRUCTION

A new and simple system of roofing which is works-produced and can be speedily erected with a minimum of skilled labour.

The system consists of a standardised steel grillage, electrically welded at all intersection points and gauged to suit the type of covering material employed. Slates or roof tiles are secured to the horizontal bars of the grillage by specially designed rustless steel clips.

Full details of Precision Roofing are contained in a booklet which will be sent on request.

PRECISION ROOFING

PRECISION ROOFS LIMITED • TEMPLEBOROUGH SHEFFIELD

'Phone: Rotherham 1517

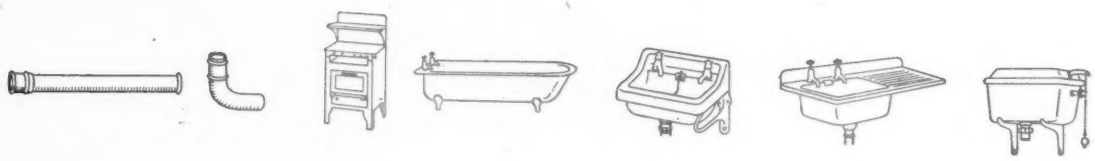
London Office: 10 Grosvenor Gardens, S.W.1

In association with . . . McCALL & CO. (SHEFFIELD) LTD. TEMPLEBOROUGH, SHEFFIELD

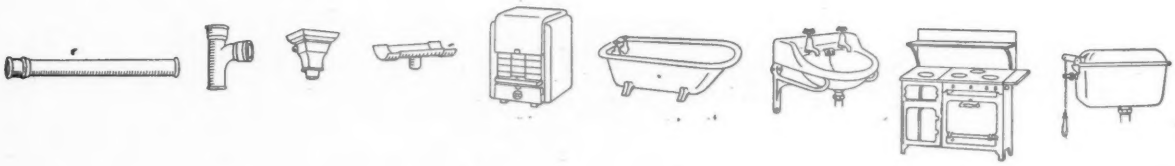
PR.1

Cast Iron is a Building Proposition

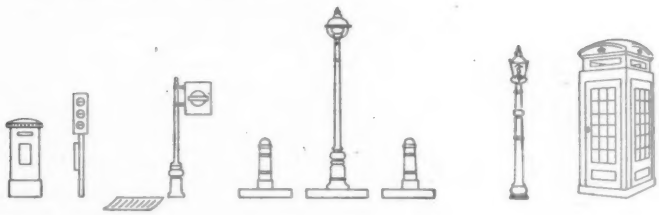
In the millions of new houses that are needed, cast iron can obviously be used for



In the hundreds of new schools that will be needed, and the old schools that will be enlarged, cast iron will obviously be used for



In the miles of new streets that will be needed for the new towns and extensions to towns, cast iron will obviously be used for



But there are hundreds of other uses in modern building and equipment for this old, tried, but very up-to-date material. They are worth looking into.

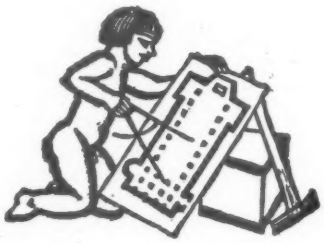
Issued by the British Ironfounders Association *145 St. Vincent Street, Glasgow, C.2*

FACTS ABOUT THE BUILDING USES OF CAST IRON

The British Cast Iron Research Association has a Building Uses Department which is available for dealing with enquiries from architects and builders about cast iron. Mr. Derek L. Bridgwater, F.R.I.B.A., is Consultant to the department.

Enquiries should be addressed to THE BUILDING USES DEPARTMENT, BRITISH CAST IRON RESEARCH ASSOCIATION
Alvechurch, Birmingham

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. 0d. 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 MAY JUNE AND JULY

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.

ALBERFIELD, near Reading. *Traffic; Town House; New Homes for Old; Housing in Great Britain; Your Inheritance; County of London Plan.* Exhibitions. (Sponsor, HC.) MAY 31-JUNE 8

LINCOLN. R. L. Stirling, Planning Officer, Lincoln and District Joint Planning Committee. *The Influence of Housing Needs on the Planning Scheme.* D. Whiteley, Water Engineer, Lincoln. *The Water Undertaking and its Contribution to the Nation's Health.* At the Usher Art Gallery, Lindum Road, Lincoln. Chairman: J. E. Swindlehurst. In the afternoon a visit will be paid to temporary bungalows, Outer Circular Drive, and the Lincoln Gas Works. (Sponsor, Royal Sanitary Institute.) 10.15 a.m. JUNE 9

LIVERPOOL. C. O. Stallybrass, Deputy Medical Officer of Health, Liverpool. *Public Health and the Social Services.* L. H. Keay, City Architect and Director of Housing, Liverpool. *Post-War Housing.* At the Royal Institution, Colquitt Street, Liverpool. Chairman: Lt.-Col. W. Butler. (Sponsor, Royal Sanitary Institute.) 10.45 a.m. JUNE 22

LONDON. *Royal Academy of Arts.* One Hundred and Seventy-Seventh Summer Exhibition. MAY 31 to AUG. 15

Aluminium from War to Peace. Exhibition at Selfridge's. All sections of the aluminium industry have combined to stage an exhibition to tell, for the first time, the story of aluminium and its varied applications in the nation's post-war reconstruction plan. Aluminium in housing is featured in the exhibition. There are planned kitchens and other rooms and a bathroom in all of which aluminium is used to the best advantage. The public also has a pre-view of furniture, domestic appliances and utensils of all kinds. Examples of anodised aluminium ranging from electric fittings to complete kitchens in anodised aluminium are shown. (Sponsor, Aluminium Development Association.) MAY 31-JUNE 30

Donald Barber. *Shopping Centres and Town Planning.* At the Planning Centre, 28, King Street, Covent Garden, W.C.2. F. C. Hooper will preside. Buffet lunch 2s. 6d. 12.45 p.m. Talk and discussion, 1.15 p.m. (Sponsor, Town and Country Planning Association.) MAY 31

Industrial Insulation. Institute of Fuel Conference. At the Institution of Mechanical Engineers, Storey's Gate, Westminster, S.W.1. Opening item, presentation of a paper by the President, Dr. E. W. Smith, which will summarize the eight papers on *Thermal Insulation* already presented to various Sections of the Institute during the present session. The opening paper will be followed by a discussion, the early part of which will consist of specially invited contributions. The remainder of the morning session and the early part of the afternoon session will be devoted to an open discussion, and the reply, which will be given in the later part of the afternoon, will be made by the various authors of the series of the insulation papers. The list of papers in the insulation series is as follows:—1. *Thermal Insulation,* by Dr. H. R. Fehling. 2. *The Economics of Saving Fuel, with Particular Reference to the Insulation of Steam Ranges,* by G. N. Critchley. 3. *The Practical Aspects of Reheating and Heat Treatment Furnace Insulation,* by A. Stirling. 4. *The Thermal Insulation of Buildings,* by N. S. Billington. 5. *The Insulation of Open-Hearth Furnaces and Blast Furnaces,* by Dr. J. M. Ferguson. 6. *The Insulation of Furnaces,* by Dr. R. J. Sarjant. 7. *The Insulation of Pottery Furnaces, Kilns, and Carbonising Plant,* by J. S. F. Gard. 8. *The Insulation of Boilers.* The conference will open at 10.30 a.m. There will be an adjournment for lunch at, or shortly after, 12.30 p.m., and the conference will be resumed at 2.30 p.m. MAY 31

Christian Barman. *Design in Modern Transport.* At the Royal Society of Arts, John Adam Street, Adelphi, W.C.2. The lecture will be illustrated by lantern slides. Chairman, T. E. Thomas, General Manager, London Passenger Transport Board. (Sponsor, RSA.) 1.45 p.m. JUNE 6

R. M. Wynne-Edwards, Director of Labour Requirements and Plant, Ministry of Works. *Plant in the Building Industry.* Second of five lectures on *Post-War Problems for the Building Industry.* At the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1. Admission 2s. (Sponsor, University of London.) 5.30 p.m. JUNE 7

MANCHESTER. *Worthwhile British Products.* An exhibition of furnishing fabrics, glass, pottery and printing showing our pre-war attainment and chosen from the Manchester City Art Gallery Collection. At the Municipal School of Art, All Saints, Manchester, 15. Open during school hours. Closing 8 p.m. on Monday, Tuesday and Thursday and 12 noon on Wednesday and Saturday. MAY 31-JUNE 23

NEWS

THURSDAY, MAY 31, 1945
No. 2627. VOL. 101

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.*

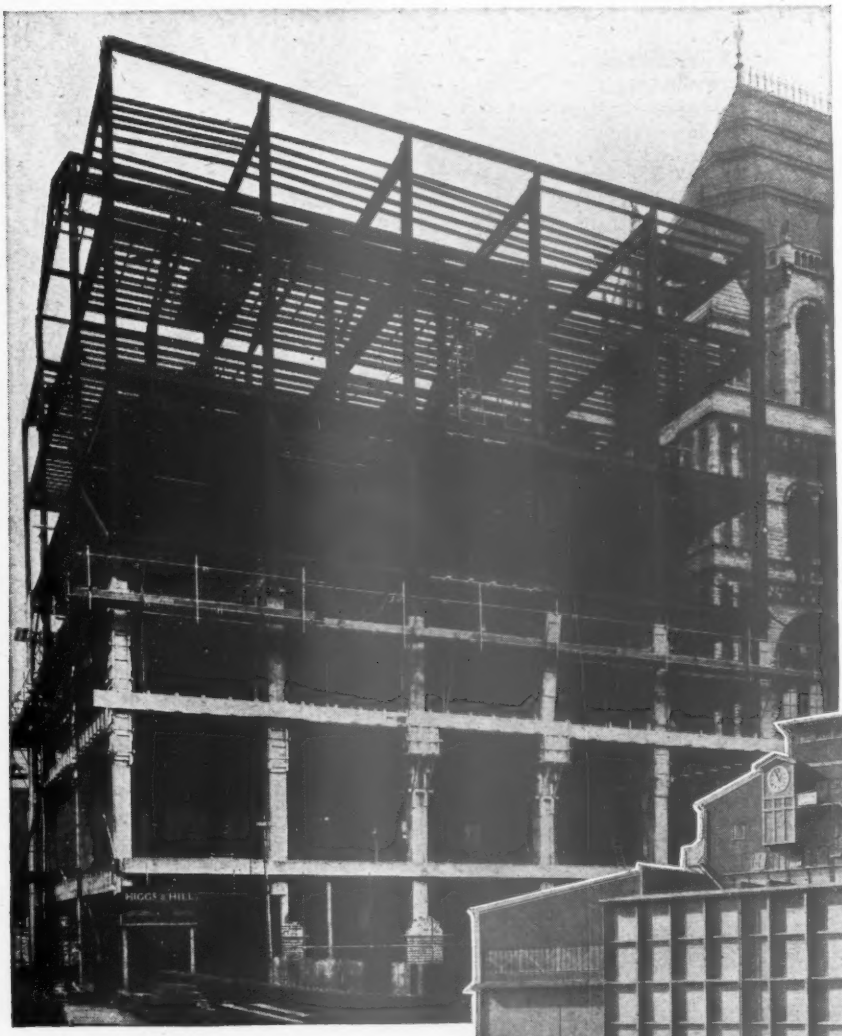
Any feature marked with more than two stars is very big building news indeed.

The Council of the Royal Society of Arts has decided to AWARD THE ALBERT GOLD MEDAL TO MR. CHURCHILL.

The Albert Gold Medal, the highest award of the Royal Society of Arts, was struck in 1864 to commemorate Prince Albert's presidency of the society from 1843-61. It is awarded for distinguished merit in promoting arts, manufactures, and commerce. It was conferred on Queen Victoria, King Edward VII, and King George V, Thomas Edison, Louis Pasteur, and Madame Curie. President Roosevelt received the award in 1941, and Field-Marshal Smuts in 1942.

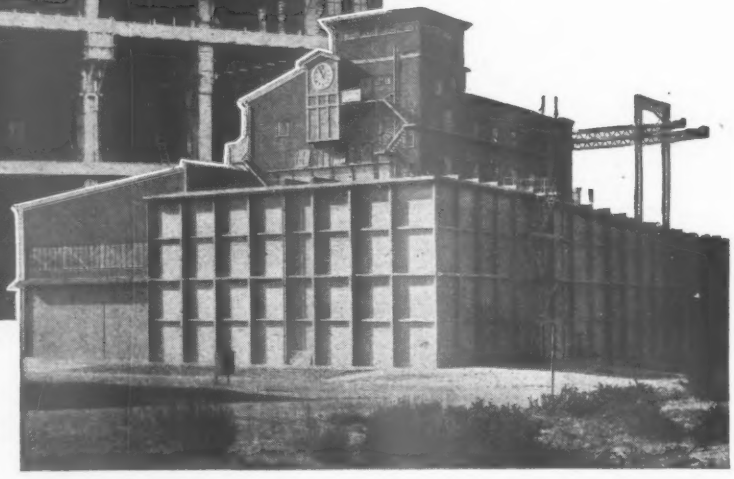
In the House of Commons, Lord Willoughby de Eresby asked the Minister of Health whether he will include the provision of HOUSES FOR DISABLED EX-SERVICEMEN and women within the terms of the grant at present given to rural authorities for the provision of houses for the agricultural population under the Housing (Financial Provisions) Act, 1938.

Mr. Willink: I have no power to extend the subsidy provided under the Act of 1938 for houses built for members of the agricultural population to houses built for other classes of the community. The whole question of the amount of subsidy for houses is, however, under review.



ENTOMOLOGICAL SECTION, NATURAL HISTORY MUSEUM, London

Craftsmen in Steelwork



THE WIND TUNNEL, Farnborough

Royal Air Force Official Photograph. Crown Copyright Reserved.

Boulton & Paul Limited

Founded 1797

LONDON · NORWICH · BIRMINGHAM

From AN ARCHITECT'S *Commonplace Book*

OBSERVATIONS ON LONDON'S ARCHITECTURE BY A RUSSIAN VISITOR. [*From* A translation from the original manuscripts of Oloff Napea, *circa* 1826, *published in* The London Miscellany, *compiled by Robert Harling* (*Heinemann*).] A well-constructed column, which commemorates the destruction of the city a hundred and fifty years ago, is placed in the lowest situation, only visible from the water-side among the spires of surrounding churches, and is nearly lost in the distant view. The reason for placing the column here is that only which ought not to be adduced, namely, that here began the fire ; whereas sound reason would have pointed out the spot where the destructive element was conquered, where its ravages ceased, and where the affrighted people were suffered to repose. Their most splendid edifices are radically defective. St. Paul's Church cannot be seen ; Somerset House is unfinished ; St. Stephen's, Walbrook, is only perfect inside ; the beautiful porch of St. Martin's Church is unsupported by other parts of the edifice ; Carlton House is disgraced by its curtain. No ; England is not the country for fine architecture ; at least if we are to judge from its capital. Nothing there is grand in the design, or striking in the effect : the approach at St. Paul's is spoiled or does not exist ; at Westminster Hall it is ample, only you have nothing to approach . . . However, if England be not the country of stupendous buildings, it is indisputably that in which comfort is studied with complete effect. You cannot well imagine a ground plan better adapted to the purposes of domestic ease than that of Mr. B's house ; situated in the vicinity of a number of other squares, it commands a distant view of the country, besides having a fine piece of ground laid out in the centre of the square in which it forms a part. With stabling behind, a court-yard in front, and a superb railing, many of these houses might vie with palaces, were the *material* of that only which a correct taste tells us ought to be used.

★

Lord Addison : The construction of a new reservoir near Datchet WILL DESTROY SOME OF THE MOST VALUABLE MARKET GARDENING LAND for supplying the London market.

Lord Addison made this statement in the House of Lords while criticizing the siting of a new reservoir for London's water supply. He persuaded the House to agree to his motion that the Select Committee which will consider the Metropolitan Water Bill shall, before authorising the construction of the reservoir and works near Datchet, satisfy itself that the loss of valuable farming land has been considered. He said this proposal will mean the destruction of 800 acres at least of some of the most valuable market gardening land, which is used for supplying the London market. Lord Stanmore, chairman of Committees, explained that all the departments concerned think the plan justified on the ground of the need for more water for London. Viscount Falmouth, a member of the Board, said there is no alternative area. The Duke of Norfolk, Parliamentary Secretary to the Ministry of Agriculture, said the land at Datchet is of higher quality than the other site for a reservoir at Wraysbury, and it will be a great advantage to the Ministry if the Wraysbury site can be developed first.

Newmarket Urban District Council has REJECTED THE MINISTRY OF HEALTH'S REPAIRS RULING on the Hon. P. Beatty's home.

The Ministry of Health's refusal to approve the recommendation of the Newmarket Urban District Council that the Hon. Peter Beatty should be allowed to spend £1,250 on repairs to his residence in Bury Road has been rejected by the Council. The Ministry stated that work on smaller properties would provide much more accommodation. The council has referred the matter back to its housing committee. The chairman of the council, Mr. O. Spooner, said the house has been occupied by the military for four years, the electricity system is ruined, and all the repairs specified in the estimate are essential if the house is to be inhabited. The housing committee had recommended that the certificate of essentiality be refused in view of the acute shortage of labour and the need for the repairs to small dwellings. Giving his casting vote that the certificate be granted, Mr. Spooner said that they cannot afford to offend people who want to take up residence in the town.

Mr. George Hicks : This is where the building industry goes over the top. THE RACE WITH TIME IS ON.

For the building industry VE-Day is something else as well: for us it is D-Day, said Mr. George Hicks, Parliamentary Secretary, Ministry of Works, speaking at Willesden. Proceeding, he said: This is where the building industry goes over the top. The race with time is on. The building industry in this country is now facing the biggest task in its history. In the next 10 years it must build at least 4,000,000 houses, and we need something like 1,000,000 of these straightaway. Now and for some time past, the labour force has been down to a third of its pre-war level, and the building industry has had to tackle a host of war-time jobs. The most urgent need is men. From now on the Government will be using German prisoners of war to help with the preparation of sites, and similar jobs for the housing programme. The Government is giving a measure of priority to building operatives when the time comes for partial demobilization of the armed forces and the munitions industry to begin.

One of the models at the exhibition, Your House, *now open at Messrs. Heal & Son, Tottenham Court Road. The exhibition has been arranged by Felix Goldsmith and demonstrates the application of modern building methods to the construction of well-designed and well-built houses to suit individual needs. The model is of a house for a family of 5-6 people with two cars. Total floor area is 2,000 sq. ft., and estimated present day cost £3,500. It has been designed for the Braithwaite system by F. R. S. Yorke.*

The New Secretary of the RIBA

Took an active part in the operations which resulted in the passing of the Architects' Registration Acts of 1931 and 1938; responsible under direction of Premises Committee, under the chairmanship of the late Maurice Webb, for organizing the competition for the RIBA new building and acted as Secretary of the Premises Committee during building operations; largely responsible for organizing the move from Conduit Street to Portland Place, the opening of the new building there by King George V and Queen Mary in 1934 and for the RIBA Centenary Conference which followed. These are a few of the things done by Mr. Cyril Douglas Spragg while closely associated with Sir Ian MacAlister in all the outstanding events and developments of the RIBA in the last twenty years—the growth of membership, the growth of allied societies, and the development of the Institute from being virtually a select London Club to becoming the central organization of architects in the whole of the British Commonwealth of Nations, including in its membership and that of its forty-eight allied societies in Great Britain and the Dominions and Colonies almost all qualified architects of standing. Born at Newbury, Berkshire, in 1894, and educated at Christ's Hospital, Mr. Spragg entered the service of the RIBA in 1913. The following year he enlisted in the Queen's Westminster Rifles, and served in France, Salonica and Palestine. Demobilized in 1919, he returned to the RIBA, and in 1926 was appointed Assistant Secretary in succession to Mr. H. Godfrey Evans, who became Assistant Secretary of the Chartered Surveyors' Institution. From September, 1939 to 1943, Mr. Spragg acted as Secretary of the Board of Architectural Education in the absence of Mr. Everard Haynes on military service, was appointed Acting Secretary of the RIBA on the retirement of Sir Ian MacAlister at the end of 1943, and Secretary on March 13 of this year. His work as joint secretary or RIBA representative on tribunals and committees has given him close contact with Government Departments, and other sections of the building industry. A bachelor, an original member of LDV and Platoon Commander in the Home Guard, he lives at Ashford, Middlesex.

Cardiff British Legion and Cardiff Council have completed plans TO PROVIDE DISABLED EX-SERVICEMEN WITH SPECIAL HOUSES built to their particular needs.

Cardiff British Legion and Cardiff Council are starting with one hundred houses. They will be built with wide doors to allow wheel-chairs to pass through; there will be no stairs to climb, and all conveniences, including hot and cold water, will be laid on. As a result of negotiations with the Legion, Cardiff Council has co-operated to the extent of granting free roads and drainage. We hope to house at least 100 families whose bread-winner is a disabled man, said Secretary Mr. T. Prince, of the Cardiff Branch, and look on our venture as an experiment that Legions and municipalities elsewhere in the country will follow.

★

Sir Stafford Cripps: Before the Government's order for 50,000 *aluminium houses is completed I hope it will be possible to turn the end of it into an order for PERMANENT, NOT TEMPORARY, ALUMINIUM HOUSES.*

The Minister of Aircraft Production, Sir Stafford Cripps, and the President of the Board of Trade, Mr. Hugh Dalton, were the guests of the Aluminium Development Association at a luncheon held in London. Sir Stafford Cripps spoke of the progress achieved by the industry during the war. He hoped that much of the scrap and secondary metal that will become available will be absorbed in making houses fit for even heroes to live in. The Government agreed with these views, and also welcomed the fact that here is an admirable use for large quantities of secondary metal, and so an order had been placed by Mr. Duncan Sandys for 50,000 houses. He hoped that before the order is completed it will be possible to turn the end of it into an order for permanent, and not temporary, aluminium houses, and so create a market for the industry.

Mr. Bevin: In the middle of 1940 *about NINETY THOUSAND BUILDING CRAFTSMEN had been taken from the industry.*

Mr. Bevin, Minister of Labour, replying to Mr. Butcher, said it is estimated that approximately 90,000 of the craftsmen in the building industry in mid-1940 were in mid-1944 employed in other industries, excluding civil engineering. Present arrangements provided for the return to the building industry as they become available of men with previous experience in skilled building occupations born before 1910. An extension of these arrangements is under consideration. Mr. Bevin told Mr. Molson that during 1944, 14,000 men were recruited to the Forces from the building industry, including 8,000 from craftsmen occupations. Mr. Bevin told Mr. Bossom that between 7,000 and 8,000 Italian prisoners of war in this country have given their previous occupation as that of the building industry. Approximately 2,000 are engaged on building work for the Service departments, and a further 1,500 have been allocated for building work in London in connection with war damage repairs.

PEACE AND THE TECHNICAL PRESS

THE military war in Europe is over. But another great struggle lies ahead—the struggle of reconstruction. In this the stupendous effort of rehousing and rebuilding will form the major campaign, involving the co-operation of many great industries, professions and organizations, and a thousand and one ancillary trades. A significant part in the campaign will be played by the trade and technical press, especially of the building and architectural sections.

The technical press is too often taken for granted and yet as a means of disseminating information it is indirectly of very great value to the whole community. For that reason, rather than for any parochial self-interest or lack of modesty, we bring to our readers' notice a special memorandum recently issued by the Council of the Trade and Technical Press. This memorandum, called *The Technical and Trade Press of Great Britain: A Vital Service to Industry*, is important, for it is the first time a joint case has been presented.

The memorandum sets out the function of the technical and trade journals, the difficulties with which publishers are contending, the urgent need for the immediate removal of such difficulties, and the way in which this can be done. "Such publications collectively represent a great force, actual and potential, in the industrial life of the community. If their function be not properly evaluated and if immediate steps be not taken to remove existing handicaps, then the restoration of peace-time production and distribution, both at home and abroad, must suffer. . . . Technical journals deal with scientific progress and improvements in design, materials, equipment and production methods the world over. They cover the whole field of information required by manufacturers, by their suppliers and by those whom they supply. The leading technical journals have grown in stature, step by step with the progress of industries from their earliest days, not merely recording progress but pointing the way ahead. . . . Because of the limited number of people interested in its subject-matter, the circulation of a highly technical journal may appear *quantitatively* small. . . . It is at the same time *qualitatively* vital because not a single one of its readers can afford to be without the information which it contains, or to obtain such information from any but the most reliable source. It represents the best, quickest, most regular and most economical medium for conveying this information to them."

During the war the technical press in this country has been severely hampered. Its basic ration of paper has been cut to about one-fifth of pre-war consumption, and that is now of poor quality. "The calls of man-power have been gladly and willingly met. In spite of all difficulties, a generally high editorial standard has been maintained." Now, in the national interest, the technical press asks for an early release from some of its war-time handicaps.

The memorandum concludes with clear demands from the Government, which include the following : (1) The release of additional paper of a quality that will stand comparison with that used by competitive journals abroad. The actual quantity is not great. It is needed so that copies of the journals may be available for all who require the information contained. At present, publishers are unable to meet the demands of any new readers. (2) The early release of skilled operatives for the manufacture of high-grade paper, for printing and in particular for block-making which constitutes a serious bottleneck. The numbers of men involved are relatively small. (3) The early release of experienced technical and trade key men to supplement editorial staffs which have been working under conditions of great stringency. (4) The release of full information on the many new discoveries and inventions that British scientific research and skill have evolved during the war. The natural and most rapid means of disseminating is the technical press.

The Architects' Journal
War Address: 45, The Avenue, Cheam, Surrey
Telephone: Vigilant 0087-9

NOTES & TOPICS

SECOND TRAINING REPORT

At last the Second Report of the Building Apprenticeship and Training Council has come out. It has taken five months to print it. I have been waiting for it rather impatiently, having heard rumours of astonishing facts about the apprenticeship position. The rumours were well founded.

*

Comprehensive tables show—among other facts—that 81 per cent. of the boys termed apprentices have no written agreement. The Council is in full cry after them and their Masters, has made out a scheme for a register, and says the recording has started.

Out of the money paid over by the apprentices for their certificates of completion, and any legacies that may come to hand, a Trustee Welfare Fund is to be started. Something on a bigger scale altogether is surely wanted—like the Miners' Welfare Fund—with scholarships and post-graduate studentships as a minimum aim.

*

The Report says that the annual wastage of craftsmen is 25,000, and that therefore recruitment at that rate has got to start *now*. An ingenious method has been worked out to help in this—the employment on useful jobs, of apprentices under a craftsman instructor. The proportion is to be at least 6 to 1, sometimes as high as 12 to 1.

*

Out of the vagueness of earlier reports this one has at last produced some fairly definite ideas about training for managerial posts. The Council is busy encouraging Education Authorities to set up a network of senior building courses, some full-time, mostly part-time, but all day-time. "Encouraging,"—note that word—for the Council is advisory and not executive. The Ministry of Education and the Building Industry have to do the execution, so some architects at least ought to read the report and poke their noses into the activities of the local Joint Apprenticeship Committees.

WORKING PARTIES

While representation of the small builders engaged on war damage repairs remains incomplete, it is good news that the Builders' Working Parties' Association is now accorded a hearing at the Ministry of Works. Events are in fact moving swiftly for the Association, which was formed in January to speak for the small contractors engaged on bomb repair work in the London Region, and which now numbers 540 member contractors out of approximately 1,200 in all, while further applications for membership are coming in daily. The working parties range from groups of half-a-dozen to a dozen contractors and from 60 to 120 workmen.

*

A feature of wartime labour has been the drain of employees from the small contractor to the large firm. The Association was formed largely to put a brake on this trend by voicing the small men's case in official quarters, and to bring back employees into the smaller firms, which, as Mr. Sandys declares, are so well fitted to deal with the jobbing side of reinstatement characteristic of the vast mass of doodle and rocket damage.

*

The Association, formed to cope with the repair crisis by the protection and development of the small builder, is showing on a national task qualities of energy and responsibility which should be of use both now and in the decade of emergencies into which we are moving.

TODD ORGANIZATION

Three years ago illustrations were published on this page describing the architectural achievements of the local postman, M. Cheval, at Hauterives, France. These constructions were of a highly rococo character, and were composed largely of Moore-ish-shaped stones picked up by Monsieur Cheval on his daily round, and cemented into place in his leisure hours.

*

The results, as you may remember, were most remarkable, though their fantasy was to be equalled in the villas (built apparently of broken china and old tennis balls) which had before the war begun to spring up on the outskirts of French seaside resorts.

Below are photographs of another amateur essay in architecture by a minor Government official—this time a house by a police-constable from Alton, Hants. P.C. Todd drew up the plans for this house 7 years ago. The rural council refused him permission to build, but MOH over-ruled the council, and the house was successfully built, entirely in the owner's spare time.

*

The police force is not celebrated for fantasy or wit, and this house, apart from its ambitious fireplace, is no constable's folly. Its plan, materials and form are traditional—(the text "God Bless our Plexiglass Dwelling Unit" will find no place in P.C. Todd's home)—but what it lacks in whimsy it makes up for in sophistication. The contrast of rough stonework with precisely detailed wood trellises is still a popular gambit of even the most advanced designers.

*

Policemen, again, while widely publicized as being Wonderful and recently officially designated Well Nourished, are not normally noted for versatility. Here again P.C. Todd is an exception. His caricatures hang in the hall, his oil paintings in the lounge. He has designed a labour-saving grate, a trailer caravan, and a mechanism for dispersing manure.

*

"I have no ambitions," he says. "All I believe in is work—and then more work." A stern philosophy, constable, but it certainly produces results. This policeman's cot, at any rate, is a very happy one.

ASTRAGAL

A house at Alton, Hants, built by Police Constable Todd in his spare time. Top, Mr. Todd at his door and Mrs. Todd at her fireside. Below, view from the road. See Astragal's note.

LETTERS

E. V. Penn (*General Secretary, ABT*)

G. B. J. Athoe
(*General Secretary, IAAS*)

Andrew Carden,
Major, R.E., A.R.I.B.A.

RIBA Council Election

SIR,—Now that victory in Europe has been won and the period of reconstruction is beginning, the work of the RIBA Council is of greater importance than ever. In response to many requests my Executive Committee issues as usual its recommendations to those who will be casting their votes when the voting papers are issued at the beginning of June.

My Executive Committee believes that the election of those listed below would increase the strength of the Council and make it more representative of the interests of salaried members. The list includes both members and non-members of the ABT.

Fellows: Prof. Sir Patrick Abercrombie (private practice); J. W. M. Dudding (Miners Welfare Commission, Nottingham); J. H. Forshaw (LCC); F. Gibberd (private practice); V. L. Nash (Ministry of Works, Cardiff); Howard Robertson (private practice).

Associates: A. G. Ling (LCC); Dr. J. L. Martin (LMS, Watford); R. L. Townsend (Ministry of Works, London).

Licentiate: F. C. Wakeford (Ministry of Works, London).

E. V. PENN,
General Secretary,
London. Association of Building Technicians

[*Mrs. Penn's letter again raises the point made in the A.J. letters page on June 1 last year, when we suggested in an editorial footnote that candidates should openly declare their platform. We reiterate this suggestion, and welcome such declarations for publication in these columns.*—ED., A.J.]

War Damage Repairs

SIR,—An item of news in *The Ilford Recorder* impels one to inquire what does Mr. L. E. J. Reynolds, the Borough Surveyor of Ilford, really mean by qualified men? I

SWEDES BUILD THEIR OWN

On April 5, Astragal referred to the scheme which has been in operation in Stockholm since 1926, whereby the City Council supplies citizens with all the materials for building their own factory-made timber houses. Top, a photograph of a typical Swedish family building the foundations of its own home. The work, which takes only a few days in good weather, is accepted as the first instalment on the house and covers 10 per cent. of the total cost. The balance is payable over a period of thirty years. In the case of heavy or highly-skilled work, extra labour is provided free of charge by the City Council. Centre, from left to right, pushing a wall section into position ; electricians at work ; the son of the house paints on the finishing coat. Below, a typical completed street of build-it-yourself houses in a Stockholm suburb.

ask because I see that Ilford's 40,000 houses are to be " surveyed " with the purpose of finding out exactly what war damage remains to be repaired. And surveyed by whom? Architects? Surveyors? Oh dear no. Master-builders, foremen and charge-hands. The master-builders will receive no payment for this overtime job, but foremen and charge-hands will.

Thus a second question is prompted: Has the local authority any right to expend public funds on any such survey? Whether the answer to that be Yes or No, a third question inevitably arises: Are master-builders, foremen and charge-hands as well qualified in all the intricacies of the War Damage Act and proper cost of claims as architects and surveyors in contact with the War Damage Commissioners? Ilford's Borough Surveyor, who called a meeting of master-builders where the egregious decision was made, describes the appointees as qualified men, but I venture the view that few people except possibly the appointees themselves will agree with him.

The arrangement stares one in the face as being dead against public interest.

G. B. J. ATHOE,
General Secretary, The Incorporated Association of Architect and Surveyors

London

Defined Objectives Needed

SIR,—The absence of defined objectives is reducing all discussion of Britain's future, including her rebuilding, to a confused babble.

Encouraged by this confusion all the old interests and sectional differences will soon be flourishing again, and it will be possible, by clever manipulation, to indefinitely postpone anything as socially desirable and " financially " impossible as the birth of a beautiful and healthy England by simply asking: " Where is the money to come from? "

An illustration of this confusion occurred in your issue of April 5. Astragal rightly and logically advocated the erection of " prefab " houses by the householders and their families. While in an article on Distribution of Industry, Lord Burleigh endorses the Government's emphasis on the importance of preventing unemployment.

Now let's be clear on this. If it is work that's wanted then " prefab " is a disaster, and should be banned now.

If it is more houses and buildings that we require, and require urgently, then it is a blessing.

If it is ease of construction and reduction in unskilled toil, so that men can turn to more skilled and satisfying activities and trades, then it will form part of the blessing we shall receive when we at last relate our credit system to our physical capacities.

I suggest our objective is to increase the vitality, freedom, and intelligence of the individual.

To produce the buildings necessary to assist in this, we must:

(*a*) Measure our physical capacity as an industry and ensure that debt-free credit is available to utilize that capacity to the maximum.

(*b*) Relate capacity to planned requirements, alloting priorities. Not ignoring our most vital industry, agriculture.

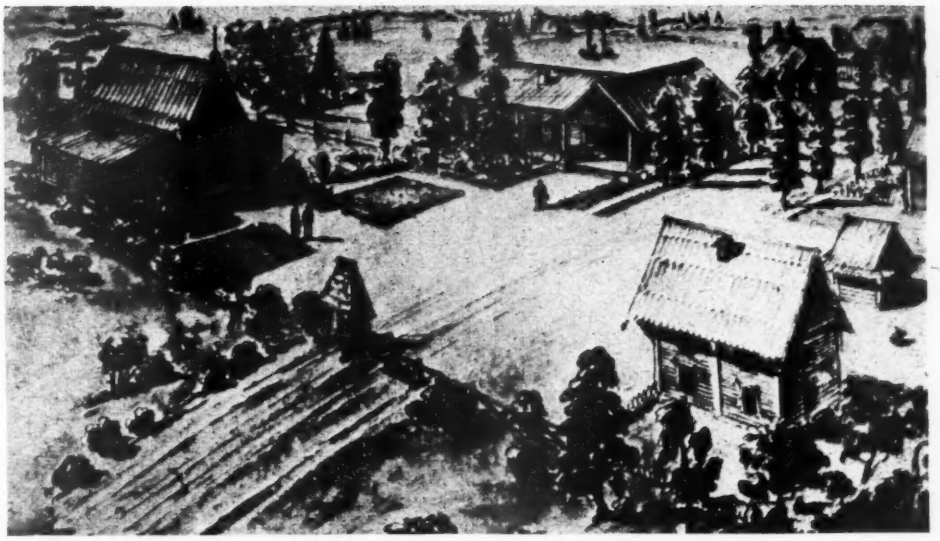
(*c*) Decentralize the execution and detail planning to local bodies and individuals.

The sooner the first limited objectives are achieved the sooner can our energies be released for more permanent and more elaborate building that will be needed in the next stage.

ANDREW CARDEN,
MAJOR R.E.

India

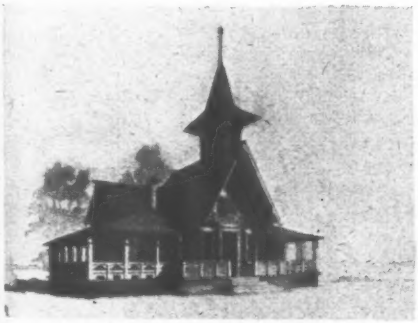
PHYSICAL PLANNING SUPPLEMENT

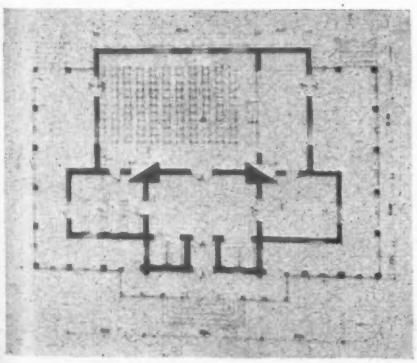


Right is the village of Kristompolye, which is made up of seventy small-holdings. The village square is situated at the entrance to the village from the main road; to the left of it is the village reading room, to the right the offices of the collective farm, and in the background, the village school. Below is a perspective and plan of a village reading room with a lecture hall for an audience of 110. The architect is Alexander Krylov.

RUSSIAN VILLAGES

In the following article Nikolai Shestopal describes the procedure which is being followed in the reconstruction of villages in the USSR. The district from which these examples are taken, the Rudno district of the Minsk region, suffered particularly from enemy action.





by Nikolai Shestopal, architect

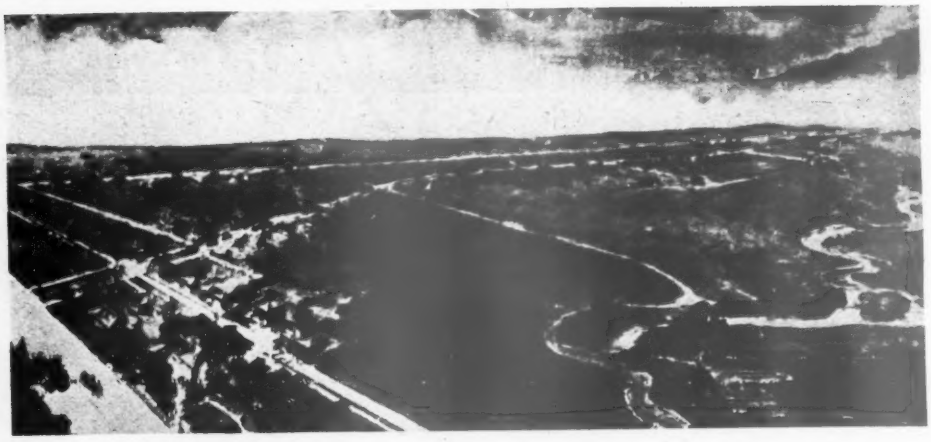
Rudno district of the Minsk region lies some 30 miles from the capital city of the Byelorussian Soviet Republic on the main road between Minsk and Bobruisk. It is a typical rural district with a quiet and restful landscape that has earned great fame during the present war. Here Byelorussian partisans, whose fame became known abroad, were particularly active.

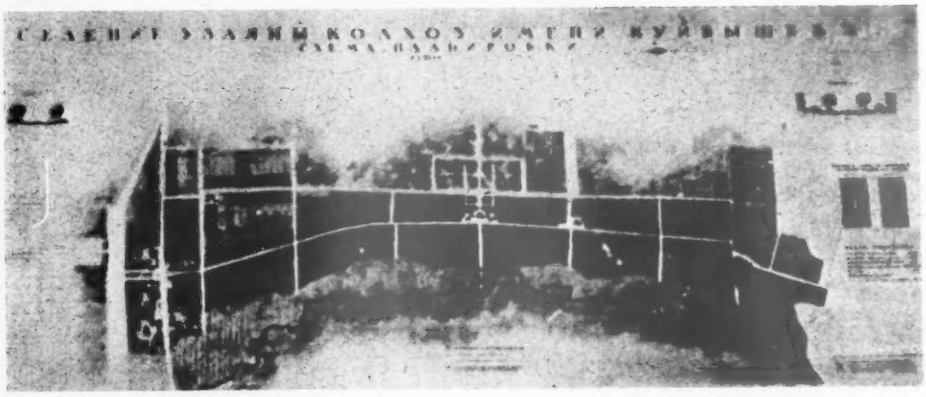
The district suffered a great deal from enemy action. All the villages were destroyed, and when the Red Army liberated the region they found nothing but ruin everywhere.

In order to build the whole district anew the Government has increased the amount of help given to farmers of all occupied regions, *e.g.*, they have been given long term interest free loans sufficient to build houses, the surveying and marking of building sites are carried out free of charge, timber is provided free, and special brigades of building workers are allotted to build the houses. In addition to this, highly skilled architects are designing and planning farmers' houses.

The rebuilding of the whole district is being undertaken as one single economic problem. It does not take the form of simply replacing that which was there before the war; the whole scheme is based on constantly improving the living standard of the farmers and the growing wealth of Soviet rural districts.

Planning of the Rudno district is in the hands of a number of Moscow specialists in village planning, architects Mikhail Osmolovsky, Boris Kazimirov, Ivan Sobolev, Corresponding Member of the Academy of Architecture; and engineers Leonid Bolkhovitinov and Alexander Danilin.





Top is a bird's-eye view of the general plan for the village of Vzlyany. At the centre is the village square with its administrative, business and public buildings. The village, the plan for which is shown below the bird's-eye view, contains 250 small-holdings belonging to the members of the Kuibyshev Collective Farm ; it is situated on the Minsk-Bobruisk motor road, and the main street is planned at right angles to this road. Below is a village reading room with a lecture hall to accommodate an audience of 85 designed by Alexander Krylov; the plan is similar to that shown on page 403.

The planning of villages of the Rudno district is a fine example of how Soviet rural districts are to be restored. It is aimed to provide comfortable living conditions for farmers. The villages are small in size, but sufficient to accommodate members of one collective farm; the farm itself is situated around the village, so that all parts are easily accessible to the villagers. The farmers' personal smallholdings, of from 1 to 1¼ acres, are situated along wide, tree-lined streets. Every village has its public gardens and central square, which is surrounded by the essential public buildings, such as schools, reading rooms and clubs. The village administration of the collective farm board management and village Soviet offices are also built on the central square. The following figures show the number of public buildings and municipal amenities planned for villages containing 3,500 smallholdings in the Rudno region of the Byelorussian Soviet Republic:

Schools	35
Bath-houses	43
Kindergartens and nurseries	51
Clubs and reading rooms	27
Hospitals, outpatients' departments and pharmacies	15
Veterinary hospitals	2
Village shops	27
Post offices	5
Village Soviet offices...	6
Collective farm boards of management ...	32

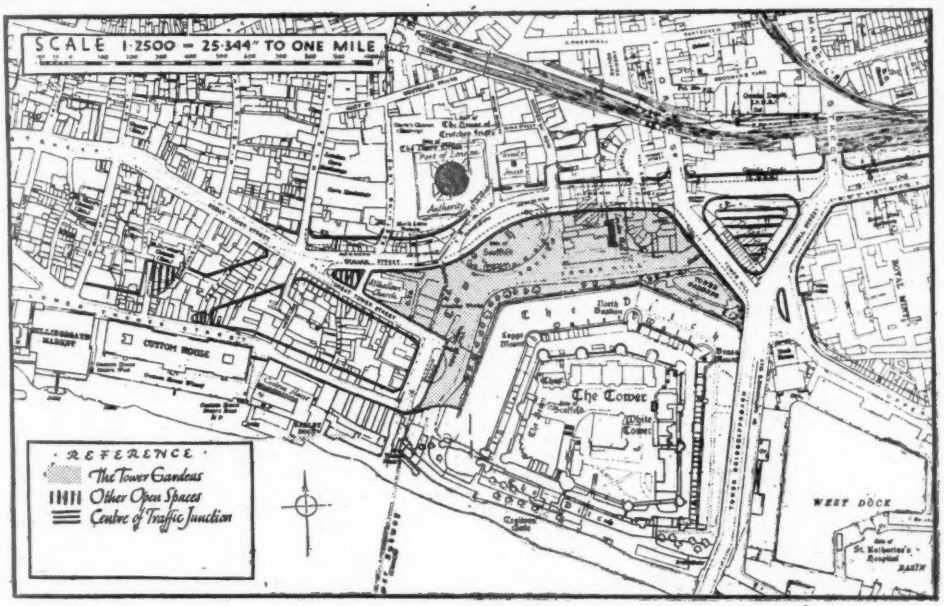
PLANNER'S SCRAPBOOK

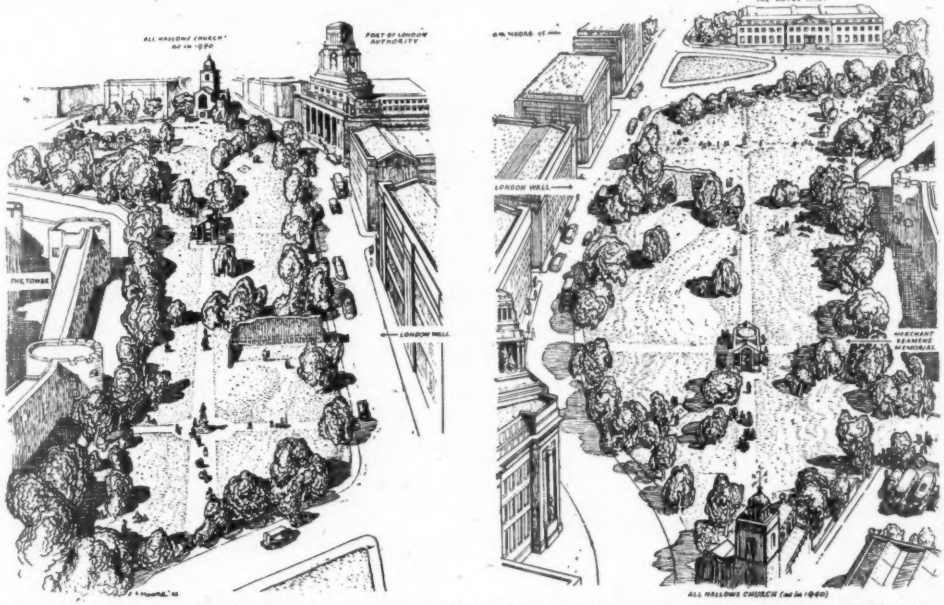
TOWER HILL

A handsomely-produced volume, the Report of the Improvements and Town Planning Committee of the City of London, was published for very limited circulation in the summer of last year. It described the proposals for post-war reconstruction in the City. There was a promise that an edition for sale to the public would be available last January. It has not yet appeared. If it does, it is sure to raise a storm of criticism. It has already drawn considerable fire from some of the few who have been favoured with a view of its contents. The limited edition contained a series of five maps which illustrated little that one could reasonably call planning except a clumsily detailed series of road improvements. It is to be hoped that the City Fathers are thinking again and thinking hard. Their thoughts can be stimulated in many ways, and not least by such bodies as the Tower Hill Improvement Trust. Since 1933 the Tower Hill Improvement Trustees and Council, including many leading figures in the City, have worked for better conditions in and around the Tower. A Report by a Technical Sub-Committee has recently been presented to the Executive Committee of the Trust.* It was prepared by four members: J. H. Markham, F.R.I.B.A., B. W. Stuttle, F.R.I.B.A., M.Inst.M. & C.E., Borough Engineer of Stepney, W. P. Shepherd-Barron, M.Inst. C.E., Chief Engineer, PLA, and BH Harbour, Commercial Manager of the LPTB. The fifth member of the Sub-Committee was prevented by illness from attending meetings, but endorsed the main conclusions of the Report.

These conclusions, concerning the relatively small area to the North of the Tower, are far more sensible—and practical—than those of the City Engineer and his committee. Without taking any more land for improvement than that suggested in the official plan, a spacious setting for the Tower has been achieved. The East-West road is placed hard against the Port of London Authority Building from where it has a straight course to Royal Mint Street. All the land between this road and the Tower is incorporated into one public garden of about seven acres. The site of the scaffold and the segment of Old London Wall would be contained in the garden. A simple traffic roundabout is suggested at the approach to Tower Bridge. The East-West road, in each of the alternative schemes proposed by the City Engineer, performs an amazing series of convolutions between the Tower and Trinity House. It would successfully destroy the several acres of open space proposed to be taken by placing most of it, and All Hallows Church, in oddly-shaped roundabouts.

* Tower Hill Improvement Trust, 18, Byward Street, E.C.3. April, 1945.





The plan at top proposes to increase the open space adjoining the Tower of London. It will extend from the Moat to the southern boundary of the proposed East and West road. At present the Tower outside the Moat has gardens of 1.5 acres. The extended open space will amount to 7.0 acres. Lower left is a perspective looking from West to East and showing the new 100 ft. road, and the garden enclosing the remains of London Wall, Site of Scaffold and Merchant Marine Memorial. Lower right is a perspective of the same site looking from East to West.

The one weakness in the Trust Sub-Committee's proposal is the so-called roundabout. In the Report it is said that they do not suggest this is the best or final arrangement. As shown, it would work as a roundabout only if the Minories and Mansell Street contained one-way traffic. Southbound traffic would have to turn left from the Minories and North-bound traffic would have to turn left from the roundabout into Mansell Street. The "roundabout" problem would, no doubt, have been solved if Sir Charles Bressey had been able to attend the Sub-Committee Meetings. It can be put right without changing the fundamentals of the scheme, and it is to be hoped that these will be incorporated in an imaginative and sensible City plan.

NATIONAL PARKS

A report on National Parks in England and Wales,* which is the work of Mr. John Dower, A.R.I.B.A., M.T.P.I., has been published for information and as a basis for discussion. As the report indicates, further preliminary work on this subject is necessary. This is being undertaken. In the meantime, the Government is not committed to acceptance of the recommendations and conclusions of the Report.

* Published for MOTCP by HMSO, CMD 6628, 1s. 0d.

Mr. Dower points out that no specific financial proposals are made. Although, he thinks, it can safely be said that the cost, expressed as an averaged annual charge on the Exchequer, would be measured in hundreds of thousands of pounds rather than in millions. He defines national parks as extensive areas of beautiful and wild country in which (*a*) the landscape beauty is preserved, (*b*) access and facilities for open-air enjoyment are amply provided, (*c*) wild life and buildings and places of interest are protected, while (*d*) established farming use is effectively maintained. The potential areas fall into three main divisions: (*a*) the areas which he con-

siders most suitable and desirable for establishment as national parks during the first period of operations (say, five years); (*b*) reserves for future national parks; and (*c*) other amenity areas not suggested as national parks, although otherwise deserving and requiring the special concern of local and central planning authorities, supported as may be by the National Trust and other voluntary agencies, in order to safeguard their landscape beauty, farming use, and wild life, and to increase appropriately their facilities for open-air recreation.

The Lake District, Snowdonia, Dartmoor, the Peak District and Dovedale, Pembroke Coast. and Cornish Coast (selected parts) are suggested as a first instalment for National Parks. The Craven Pennines, Black Mountains and Brecon Beacons, Exmoor and North Devon Coast and the Roman Wall are suggested for a second instalment. These ten areas contain about 3,600 square miles. Twelve further areas comprising about 4,400 square miles, are suggested as "reserves" from which further national parks could be selected.

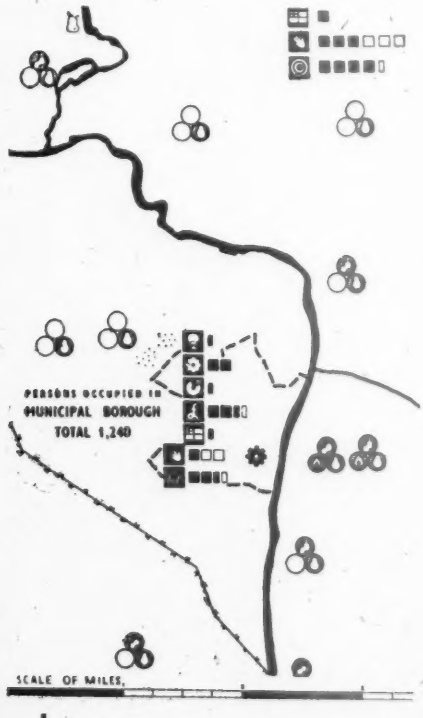
The form of national parks authority is, in the view of Mr. Dower, limited to two alternatives—either a National Parks Commission, under the general responsibility of the Minister of Town and Country Planning, or a National Parks Service or subdepartment of the Ministry, under the direct charge of the Minister. He believes the Commission to be preferable because it will be better fitted; (*a*) to collaborate in local planning without involving the Minister who, as central and higher Planning Authority, should not normally engage directly in local planning; (*b*) to build up a stable administration undisturbed by political fluctuations; (*c*) to act as statutory guardian of landscape, recreational and agricultural values whose dominance is the prime purpose of National Parks.

SMALL-HOLDINGS

Reference to the need for caution on the part of prospective purchasers of small lots of land, particularly in remote country districts, was made by Mr. W. S. Morrison, the Minister of Town and Country Planning, in a speech at a planning conference arranged by the CornwallCounty Council at Truro, on Thursday, 10th May. Mr. Morrison said:—"We are about to witness a great resurgence of interest in the land. As our men and women return in their millions to a renewal of peaceful existence, there is bound to be a movement towards small-holding and the pursuit of country life. Vast numbers of our people have been brought into contact with the land for the first time during the war years, and many of them will not lightly sever the links which have thus been formed. There is ground for hope and rejoicing in this. It is a healthy tendency. We should, therefore, be all the more concerned to ensure that people proposing to settle in the country are not subjected to avoidable risks or losses. It is unfortunately true that prospective purchasers of small lots of land do in some cases take up offers without sufficient forethought or competent advice, often in areas remote from their own locality. The idea in the mind of the purchaser may be to establish himself in a small agricultural holding, or simply to build for himself a cottage. He may act on a personal recommendation or in response to an advertisement. Legitimate transactions of this kind go on, and the law is that the buyer has himself to thank if he lets himself in for it.

Nevertheless it is common knowledge to all of us that in such cases the buyer does run the risk of acquiring a plot of land for building purposes, only to find that unless very bad planning is to be allowed he can never be permitted to build upon it. It is quite obvious that buyers do not always realize this. There are cases on record where buyers have gone into the market and taken up plots in this way without regard to the planning position, and have later found that they have paid a 'building price' for land which cannot be built upon. I hope that Local Authorities in Cornwall will show themselves keenly alive to this position, and that they will do what they can to assist prospective purchasers of land with advice and information as to its probable future under planning control. I say this with a full knowledge that it may not be possible in every case to tell a would-be buyer definitely whether he would or would not be allowed to build where he proposes, but we really must do what we can, as responsible public Authorities, to see to it that members of the public get all the help that can reasonably be given to them in this way.

The final responsibility must, of course, rest with the purchasers themselves. They must be the judges of their own best interests. I should, however, like to take this opportunity of uttering a cautionary word to all those who are thinking of buying plots of land for cottages or small holdings. To such people, I would say, get competent legal advice, get what information you can on the spot from local people, and, at any rate, approach the Local Authority in the area where the land is situated with a view to finding out what they can tell you as to its probable future under planning. It may not always be possible for the Authority to give you a definite 'yes' or 'no,' but they can tell you if you would be taking a risk. Several Planning Authorities in various parts of the country have already uttered public warnings to this effect, and the moment is opportune to reinforce their utterances."



PLANNER'S QUIZ

8. On the left is part of a map from a guide to a rapid method of District Survey. All the information shown can be deduced from published sources, but these sources will not be given until the next Quiz, when the key to the symbols used on the map will also be given.

There are, therefore, two questions; what do the symbols denote in the map on the left? and from what published sources was the information taken?

Answer in the next Planner's Scrapbook.

THE ANSWER TO THE LAST PROBLEM

7. The symbols in this map of ADMINISTRATIVE BOUNDARIES AND POPULATION CHANGES are shown below. The information for Parish Boundaries was taken from Ordnance Survey County Diagrams of Administrative Areas (Half Inch to One Mile) and for Population Figures from Census Reports, County Volumes, Parish Tables. Statistical Summaries for individual Parishes for period 1801 to 1901 are available in tabulated form in second volumes of Victoria County Histories.

STOCKTON-ON-TEES MODEL KITCHEN

DESIGNED BY P. F. BURRIDGE

Above, kitchen showing the horizontal cooker, stainless steel sink and ventilation hood on left, and work table, refrigerator, larder and dry goods cupboards on right. Below, utility room with gas boiler and washing machine, sink, work table, and cupboards.

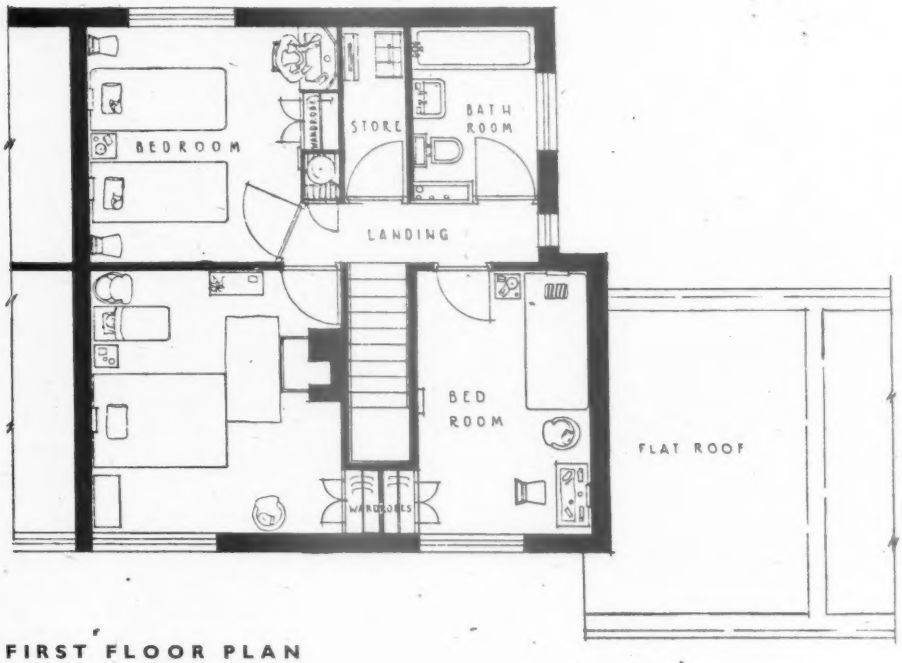
This kitchen, designed by Mr. P. F. Burridge, A.R.I.B.A., the Borough Architect, in consultation with Mr. F. S. Scaife, M.Inst.GasE., was recently exhibited at the Corporation Gas Showrooms of Stockton-on-Tees. The plan of the type of house for which the kitchen has been designed is shown on the following page.

A utility room is attached to the kitchen, both being heated by a gas radiator fixed below the window at skirting level and lit by fluorescent tubes. A vertical pipe duct divides the kitchen and utility room, housing all hot and cold water pipes, waste pipes, soil pipes and vent ducts, which extract steam and cooking vapours from the hood over the fittings.

The kitchen contains a built-in cupboard unit incorporating a refrigerator, dry goods cupboards with sliding doors, a ventilated larder with wire shelves, and other cupboards and drawers. The sink is of stainless steel and has cupboards below. Adjacent to this is a horizontal type gas cooker.

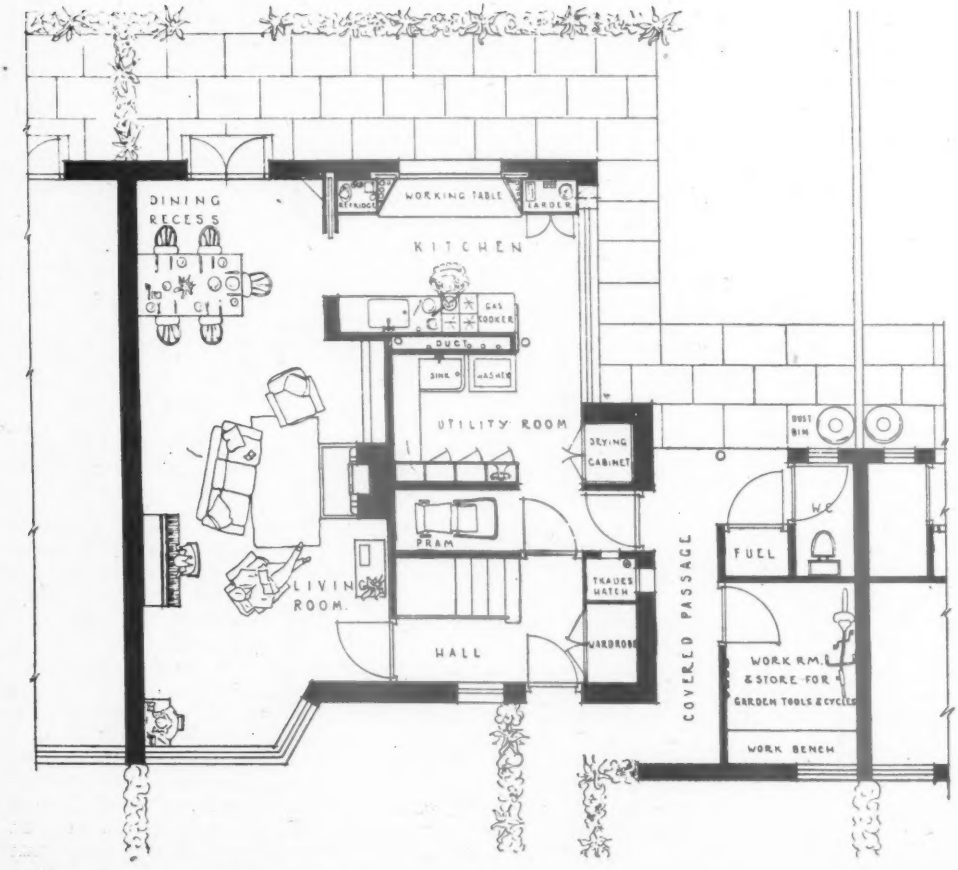
The utility room is fitted with a combination gas boiler and washing machine with a power-driven wringer and agitator. A sink, work table, clothes-drying cabinet and cupboard space for brooms, ironing board, cleaning and laundering materials etc. are included.

A gas circulator for heating the hot-water cylinder is fitted as an alternative or supplement to a solid fuel boiler.



FIRST FLOOR PLAN

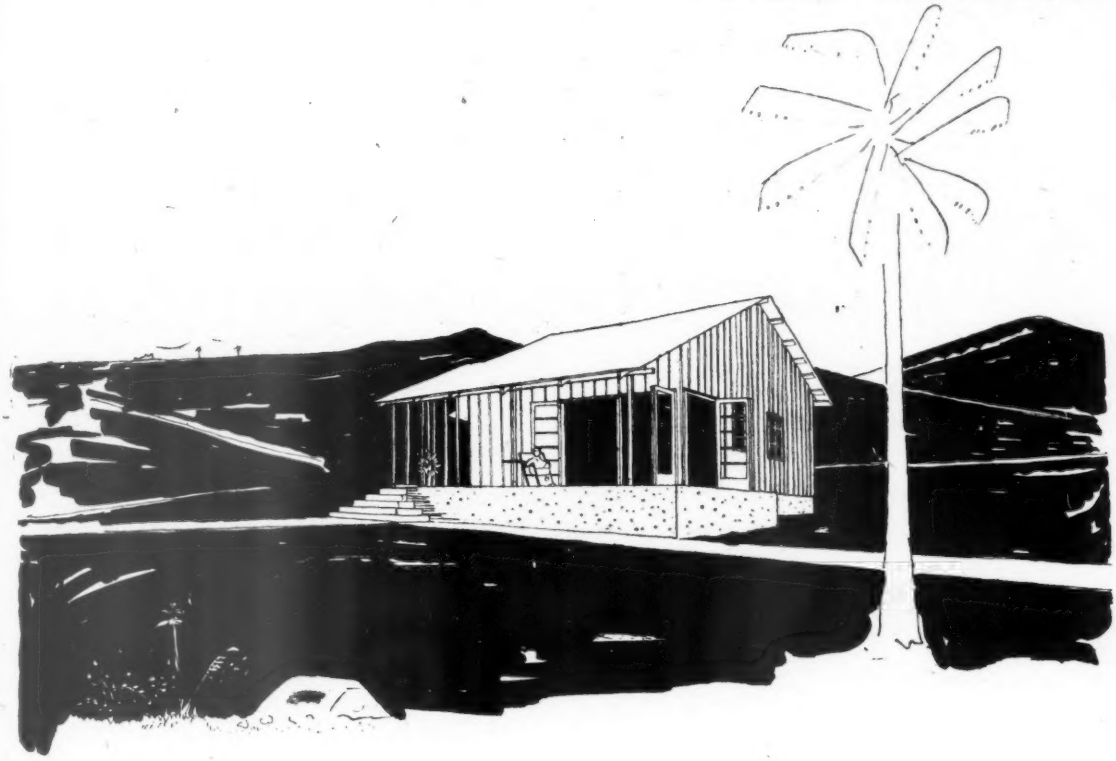
Plans of the house incorporating the model kitchen shown on the previous page. The plan incorporates the principle of the central pipe duct system as evolved by Mr. D. E. E. Gibson, the City Architect of Coventry, and his associates.



GROUND FLOOR PLAN

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

HOUSE FOR STOCKTON-ON-TEES KITCHEN



TEMPORARY JUNIOR BACHELOR'S QUARTERS AT FREETOWN, SIERRA LEONE

DESIGNED BY GORDON MARRIOTT, AND A. R. SMEE, DIRECTOR OF PUBLIC WORKS

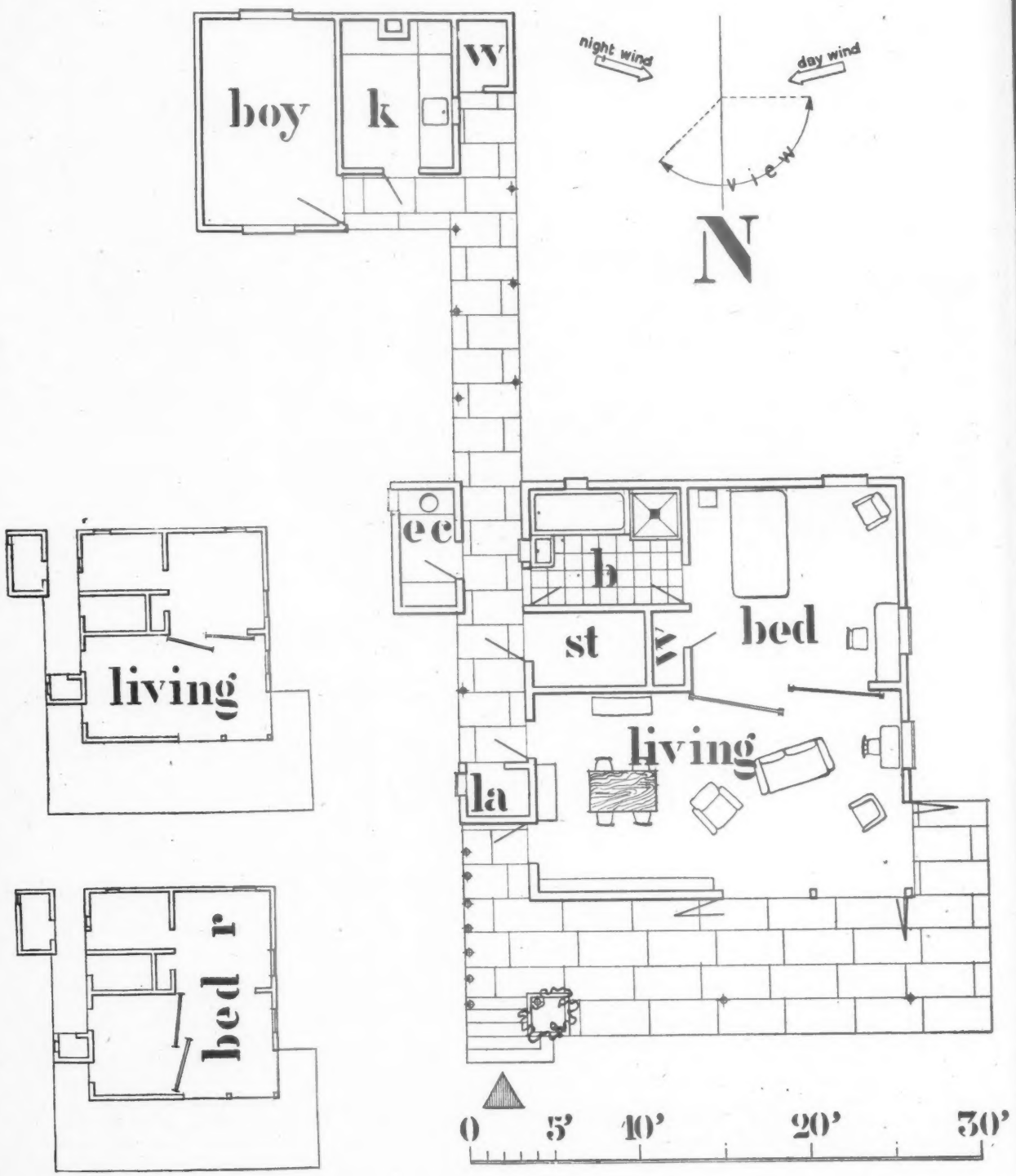
GENERAL—The housing of European officials in Freetown is characteristic of present housing problems the world over—urgent need, and shortage of money, materials and labour. Normally, a house for such officials would be fairly large and spacious, and to-day would cost about £3,000. Present conditions dictated the design shown here, the tropical counterpart of the Portal, the accommodation being the very minimum required in order to live a reasonably happy and healthy life in a tropical climate like West Africa's. The houses are sited on a slope and overlook Freetown. Erection has already commenced.

PLANNING—Living conditions in Freetown naturally differ considerably from those in the United Kingdom; for example, the kitchen is not an integral part of the main house. It becomes an out-building, with a covered service way to the house proper. The absence of drain sewage disposal necessitates a saw-dust bucket system, and consequently it is essential to detach the closet from the house. High temperatures require large areas with a ceiling height of at least 10 ft. 6in. A covered sitting-out verandah is essential. The main idea behind the plan is to make use of certain floor area twice—once during the day and again at night. The separation of both spaces is by moveable screens which give airiness and spaciousness.

CONSTRUCTION — The construction is of timber framing on concrete foundations, covered with 12 in. by 1 in. boards, laid vertically with 2 in. by ½ in. cover strips. An internal lining of fibreboard is provided with cover strips, the whole colour washed, cream walls and light green ceiling. The floor is of 1½ in. cement screed on top of consolidated hardcore and fine laterite blinding, and finished with a rust coloured anti-fouling paint, subsequently wax polished. The roof is of galvanized corrugated iron. The external boards and strips are creosoted and the joinery work painted a grass green, with architraves and verandah posts in pink.

EQUIPMENT — Furniture has been designed to suit the available space and includes charter-house chairs, sideboard, dining table and chairs, fixed bookcases and shelves, fixed dressing table, built-in wardrobe (provided with a 25W. lighting point at floor level, this to overcome or reduce to a minimum the humidity in the wardrobe during the wet season, when the dampness promotes the growth of fungi in clothing) bed, etc.

COST — The approximate cost without furniture is £600.



Left, plans to $\frac{1}{16}$" scale showing alternative allocations of space in the daytime, top, and night-time, below, by means of moveable screens. Above, plan to $\frac{1}{8}$" scale.

TEMPORARY QUARTERS IN SIERRA LEONE

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.

PHYSICAL PLANNING

1964 — **New York Zoning Law**

NEW YORK CITY AMENDS ZONING LAW. (*Engineering News Record, December* 28, 1944, *pp.* 65-67.) Major changes in zoning regulations of New York City. Additional restrictions on height, bulk and area of new buildings. Initial admittedly imperfect step to raise zoning standards before post-war building starts.

The old zoning regulations of New York City were adopted in 1916. Since then the population of New York has increased from 5,300,000 to almost 8,000,000, and the problems of congestion and overbuilding have become greatly aggravated. The Planning Commission of New York City, taking advantage of the present lull in building, made recommendations for the amendment of the zoning regulations with the purpose of improving realty values and preventing blighted areas by increasing the amount of open space, light and air about future construction.

The old zoning regulations divided the city into eight classed height districts, in each of which the height of a structure is related to the width of the street. In effect the new law shifts existing height districts into the next more restrictive ones. For the purpose of regulating and determining the area of a plot that may be occupied by a building, the city is divided into ten area districts. Only four of these areas—A, B, C and D, which include main business sections, are affected by the new law. The illustration reproduced here shows the effect of the amendments on coverage as compared to the former zoning regulation and to the multiple dwelling law. The law does not specify the position of the occupied area on the plot. Except for rear yard requirements the occupied area may be located as desired.

The objectors to the amendment thought the recommendations not drastic enough, and wanted a complete revision of the old zoning resolution. The Planning Commission overruled the objections on the ground that there was not time to make radical changes which would require highly technical formulae. Further bulk zoning studies are in prospect, but the commission did not want to interfere with immediate improvements in standards to prevent further overbuilding, such as would otherwise inevitably accompany post-war boom construction.

STRUCTURE

1965 — **Clay Building Blocks**

HOLLOW CLAY BUILDING BLOCKS. *B.S.* 1190: 1944. (*British Standards Institution.* 2*s.*) Types, trueness of shape. Blocks for internal walls and partitions. Blocks for structural floors and roofs. Dimensions and tolerances. Tests for water absorption and crushing strength.

The specification covers hollow clay blocks for load bearing internal walls, partitions, and also for structural floors and roofs. The term Clay is deemed to include all types, for example, surface clay, shale, marl, etc. The requirements for crushing strength are subject to review in the light of further research and experience.

1966 — **Concrete Roofing Tiles**

CONCRETE PLAIN ROOFING TILES AND FITTINGS. *B.S.* 473—1944. (*British Standards Institution,* 2*s.*) Materials, colour, dimensions of tiles, tests. Eaves, tops, tile-and-a-half tiles, hips, valleys and angles.

The Specification has been devised to bring it up-to-date for post-war building, and to provide standards for the necessary fittings. The position of the nail holes was determined by the size of battens in general use, and ensures that the fixing nails shall enter at or near the centre of the width of the batten.

1967 — **Wood Windows and Doors**

WOOD WINDOWS AND CASEMENT DOORS. *B.S.* 644, *Part I,* 1945. (*British Standards Institution,* 2*s.*) Casement windows and casement frames. Types. Construction. Hinges and fittings.

This Specification has been based on the designs prepared by the English Joinery Manufacturers' Association (see Information Centre No. 1844 in A.J., March 22, 1945, p. 233) in conjunction with the Standards Committee of MOW. These windows will supersede the designs for casement windows given in B.S. 644: 1935. The window and door units have been designed to fit the dimensions of brick openings determined by the sizes of bricks laid down in B.S. 657: 1941.

1968 — **Glazing**

BRITISH STANDARD CODE OF PRACTICE FOR THE GLAZING AND FIXING OF GLASS FOR BUILDINGS. *No.* 973: 1945. (*British Standards Institution.* 2*s.*) Methods of glazing and fixing in wood and metal windows.

Satisfactory glazing depends so much on the manner in which it is carried out that certain fundamental rules had to be laid down at the request of the manufacturers. The Specification describes the methods of glazing both in wooden and metal casements or sashes, in stonework, concrete or brickwork and in framed shop fronts. The usual methods of fixing are (*a*) Mastic, (*b*) Screws, (*c*) Clips, (*d*) Cover Strips. Instructions for each of these methods are included. The responsibilities of the glazing contractor are defined in an appendix.

1969 — **Glass Sills**

GLASS INTERNAL SILLS TO WOOD AND METAL WINDOWS. *B.S.* 1209: 1945. (*British Standards Institution.* 2*s.*) Materials, shape, finish, dimensions.

The length and width of all internal sills vary with the type of window and of external sill and with the type of wall construction. The dimensions given as standard are for both solid and cavity wall construction, and are listed separately for metal and wood window frames. Attention is drawn to B.S. 973: 1944, in which the recommended methods of fixing are stated.

1970 — **Steel and Brass Screws**

DIMENSIONS OF MILD STEEL AND BRASS WOOD SCREWS. *B.S.* 1210: 1945. (*British Standards Institution.* 2*s.*) Standard dimensions. Three types of screws specified: countersunk head, round head and raised head.

PLUMBING and Sanitation

1971 — **Plumbing Report**

REPORT ON PLUMBING FOR LOW COST HOUSING. (*Booklet from Technical Information Bureau of Lead Industries Development Council, London.*) Accepts MOW Plumbing Committee Report as to factors affecting design. Detailed methods of plumbing for two typical plans from housing manual. Suggestions for minor modification of

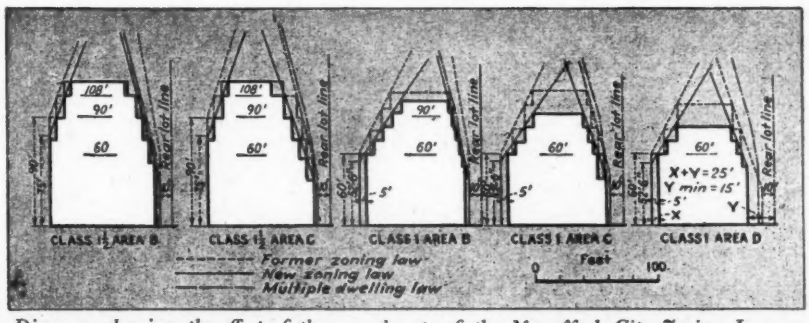
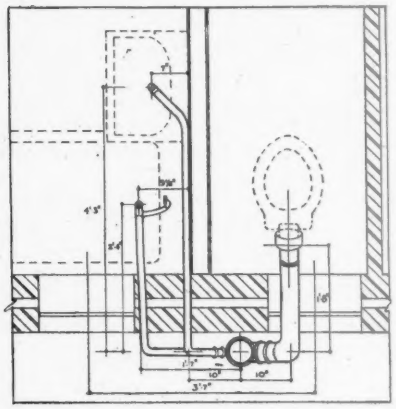
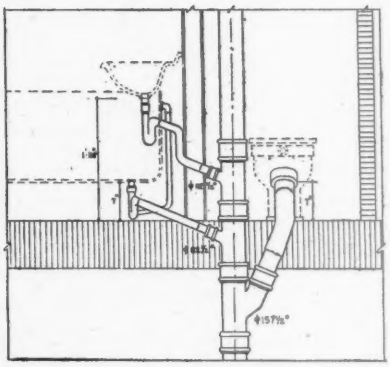


Diagram showing the effect of the amendments of the New York City Zoning Law on maximum envelopes compared for multiple dwellings on a 60 ft. street in a residential district. Note the effect of setting the structure back from the building line. See No. 1964.





Details in plan and elevation of a typical domestic disposal system in Report on Plumbing for Low Cost Housing. *See No.* 1971.

plans which assist plumbing. Notes and diagrams of technique of applying off-site preparation methods to plumbing of this kind where lead or lead alloy pipe is used.

This is a useful booklet which by means of clear diagrams takes two of the house plans from the *Housing Manual* and examines them critically from the point of view of plumbing. Suggested lay-out of the systems of water supply and drainage are given in clear diagrams, and detailed figures illustrate the use of plumbing elements, which, while prepared off the site, allow ample flexibility to accommodate dimensional variations occurring in traditional methods of building the main structure. The figure illustrated above is typical of many in the booklet.

1972 *New Insecticidal Material*

THE NEW INSECTICIDAL MATERIAL DDT. *Professor I. M. Heilbron.* (*Journal of the Royal Society of Arts, January* 5, 1945.) History, properties, and uses of new insecticide.

This paper is of considerable general interest for its description of an insecticide which has been developed and put to valuable use during the war. To architects it is of interest for the possible applications of the material in buildings. In particular, its value against bed-bugs is most important, for up till now there has been no satisfactory treatment for this pest short of cyanide gas, and this is most inconvenient owing to the necessity for clearing all occupants away from the area to be treated.

1973 *Anti-Burst Valves*

ZEROSS ANTI-BURST VALVES. (*Information from manufacturers, S. Grahame Ross, Ltd.*) Relief valve designed to obviate bursting of pipes due to build up of pressure during freezing. Tests have been carried out by makers in presence of independent authorities.

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.*

1974 *War Damage*

Q *Will you answer the following queries regarding war damage?*

(1) *Am I right in stating that a Value Payment for total loss is the value of the property in March,* 1939, *less the value of the land in* 1939, *and the salvage value of the materials left; after allowing for the cost of any necessary demolition?*

(2) *If a property has been classed as a Cost of Works and temporary roof placed by the Local Authority, can a claim be made to reconsider the decision? The property was seriously damaged in* 1940-41 *and the Council made some very sketchy first-aid repairs, since when the property has deteriorated.*

(3) *The property is in the Provinces and is the last one in the terrace to be classed as repairable. The adjoining house is to be demolished. What is the position regarding the party wall? If the existing wall is left, buttresses may be necessary and it will certainly not be watertight.*

A (1) The Value Payment of a property which, as a result of war damage, becomes a total loss, is calculated on the value of the property in March, 1939 (excluding the land), less its value immediately after the damage, also valued at March, 1939, prices. The cost of pulling down any remains must be borne by the owners, and he has the benefit of any credits for salvage.

(2) If a Cost of Works payment has been formally agreed upon at the time the property sustained damage, then the decision cannot be altered, unless the property sustains further damage as a result of enemy action at a later date, or the owner is prevented by reasons beyond his control from taking the necessary steps to prevent further damage by first aid or permanent repairs. It is the owner's responsibility to see that the property does not deteriorate through lack of repairs.

(3) Any trouble resulting from the lack of support and protection of the adjoining property can be considered as War Damage. Therefore, it would be in the interests of the War Damage Commission to provide proper support or protection. The methods to be adopted should be the matter of negotiation.

SOCIETIES AND INSTITUTIONS

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.

ASB

Wynne-Edwards

April 18, at 66, Portland Place, W.1. Lecture at a meeting of the Architectural Science Board of the RIBA on BUILDING PLANT, by R. M. Wynne-Edwards, O.B.E., D.S.O., M.C., M.INST.C.E., Director of Plant at the Ministry of Works. Chairman: Percy V. Burnett, F.R.I.B.A. (This lecture was referred to in the A.J. leading article for May 10.)

R. M. Wynne-Edwards:

To avoid confusion I want to define building plant as tools and mechanical devices of every kind connected with building, whether they are inseparable from a process like welding plant or many-purpose tools like a hammer. That may seem a wide definition, but I hope to show you why it is impossible when considering the relationship between building and plant to accept any narrower definition nor make any hard and fast division between plant and tools used off the building site and those used on.

THE INTERDEPENDENCE OF BUILDING AND PLANT IN THE PAST

Ever since man started to build he has been controlled by two important factors; materials with which he could build and ways of shaping and putting these materials together to form a structure. In order to see to what extent these two factors and, consequently, the resulting structure depend on plant, we must put the subject into its proper perspective and begin by looking at building a long way back in time, more than six thousand years ago when neolithic man was living in the country round the Tigris and Euphrates. Ancient neolithic man had beautifully made tools of flint and bone, but tools of flint and bone are inadequate for extensive building, not so much because they will not cut—when new they cut

ered
as
are
itle,
ions,
rlia-
ties.
odies
their
evia-
front
erted
are

ds

W.1.
hitec-
A on
ynne-
T.C.E.,
ry of
rnett,
red to
y 10.)

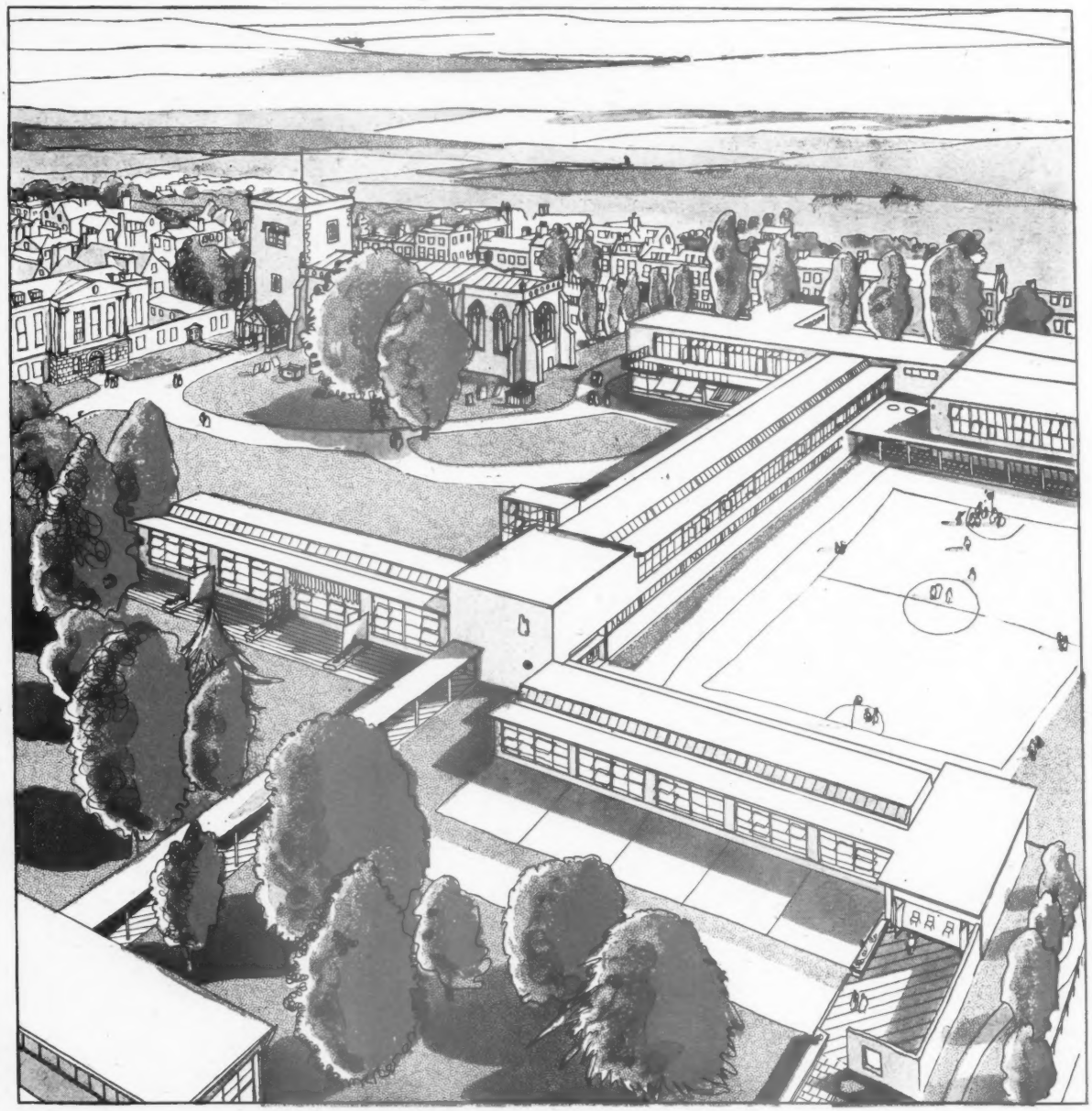
rds:
uilding
ces of
whether
process
tools
wide
ny it is
onship
pt any
rd and
s used
n.

UILD-

he has
factors;
ld and
aterials
rder to
rs and,
depend
nto its
king at
re than
ic man
Tigris
an had
l bone,
dequate
because
ey cut

BUILDING FOR DAYLIGHT

No. 8 FACTS FOR ARCHITECTURAL STUDENTS



This senior school and community centre is planned to provide the accommodation specified in the latest Ministry of Education publications. Open planning ensures cross ventilation and reduces sound interference, while giving adequate daylight to all rooms. The orientation of the classrooms is S.E. and that of the practical rooms is S.W. The dining-room and the community centre rooms get the afternoon and evening sunlight.

This school and community centre is related to the buildings of an existing town, the open courtyard linking up church, mansion and school.

reasonably well—but because they soon blunt and break and therefore the building operation is slow. A neolithic community's economy was such that it could not afford to use too many man-hours in building; they were required for other forms of production; so they lived in as simple structures as possible made of reeds and branches daubed with mud and dug holes in the ground in which to store their meagre harvest.

Between five and six thousand years ago man made several important discoveries. He discovered wheeled transport and how to harness motive power greater than his own strength, the ox for land, the wind for river and sea. He learned how to irrigate, drain and plough the land, and, most important, he discovered copper which later he improved by adding tin to make bronze. Now a copper or bronze tool is neither sharper nor harder than a tool of stone or flint, but it does not break nearly so easily and unlike stone or flint not only can it be readily re-sharpened, but if it does break it can be easily recast with far fewer man-hours of work than it takes to make a new stone tool. Lastly, man discovered a most important and entirely new type of building plant, he discovered the use of moulds in which clay could be dried or baked into bricks with flat sides which could be piled one on top of the other. As a result of these discoveries urbanization and civilization began, and armed with these new and cheaper tools a tremendous advance occurred in building. Walls could be built of bricks jointed with bitumen strong enough to carry timbers to span the roof; new bronze tools were invented for working wood. Man no longer had to live in hovels or holes in the ground; he could build brick houses, granaries and work shops. The possibilities of brick seemed endless, and priestly architects planned and successfully built artificial mountains in the middle of the cities for the gods to live in. Some of this learning spread to other communities and a thousand miles away, in another valley man, besides building in brick, learned to quarry rock and invented new bronze tools to shape it. So he made larger bricks and beams out of stone, the only limit to size being what he could transport and put in place with inclined planes and levers and the motive power he was able to muster. The possibilities of stone seemed endless, and he, too, successfully built, in his flat valley, mountains for his dead king-gods to live in.

We do not know how many man-hours were spent building a ziggurat in Mesopotamia, but Herodotus says it took 100,000 men 20 years to build the great pyramid. Now that works out to about 4 or 5 cu. ft. of finished structure per man-month, so it is not surprising that bronze-age man soon stopped building pyramids just as in Mesopotamia he had stopped building ziggurats; his economy could not stand it. Building labour had to be fed by the rest of the community or the men could not work, and besides they were needed for other, more urgent forms of production, if the community was to live and grow. In other words, the Bronze Age plant which was adequate for the building processes required for making pyramids was inadequate in labour saving to bring the labour costs down to an economic level.

Bronze age tools, though cheaper than stone, were still comparatively expensive, and far from common. Odysseus, referring to the construction of his bed, describes how, with his own hands, he cunningly cut and shaped the bedpost and drilled it with an auger, so that in the late bronze and very early iron age the chieftain of a clan was not beyond boasting of his skill as a craftsman and how he himself built his house. However, the next great discovery from our point of view was the smelting of iron and the beginning of the iron age. In 2,000 B.C. a shekel of silver would buy 130 shekels of copper, a thousand years later it brought in 225 shekels of iron, nearly twice as much; so the discovery of iron gave man two important things, tools which were not only much better, but also much cheaper.

The discovery of iron had a very great effect on the history of mankind; among other things it helped to destroy the eastern civilization and started a new civilization in the west. But we cannot digress on to this interesting subject, the important thing to note is that during the last millenium B.C. iron tools, owing to their cheapness, became common, and with the advent of common and much more efficient tools man's real wealth, *i.e.*, his productivity per man-hour of work increased. In building not only did the art of working and carving stone rapidly become common so that men could afford to build and ornament their buildings with elaborately wrought stone, but building became still cheaper, and although the farm labourers still lived in hovels, the artisan and city dweller, as well as the rich, could now afford to live in brick or stone houses (often built in rows back to back) and wealthy seventh century B.C. Babylonian merchants could afford a two-storeyed house which covered a hundred feet by eighty, and included a bathroom.

The Romans armed with iron tools turned their minds to the engineering side of building like their copper age forerunners had done 3,000 years before. They built roads and bridges, piped water into their cities and central-heated their houses. They invented two new pieces of plant, pile drivers and cofferdams, which enabled them to make foundations in water and a new material, cement, which would set under water. In the third century B.C. Archimedes set mechanics on a scientific basis, and about the same time the pump was invented; yet, curiously enough, in spite of all these inventions, little scientific progress was made. Roman architects and builders made no startling innovations, they merely amplified what they inherited from Greece; neither did they appreciate the necessity of continuing to increase productive capacity and real wealth by labour saving. Unlike either the Egyptian or the Mesopotamian, their economy was not an expanding one, instead it was based on the greatest immediate good for the governing class; the rich man lived in sumptuous houses and the poor continued in poverty; no new production forces were released. In consequence by 250 A.D. their prosperity was gone, their economy collapsing, and we must skip on another thousand years and more, before we can find the beginning of something new in building.

During this long period the art of building spread, man experimented with new styles and shapes of buildings, existing tools were improved, but that was all. From time to time highly organized communities arose which could afford to support numbers of highly skilled craftsmen and men learned to build exquisitely with what they had; but no new processes, no new kinds of tools were invented, and no new kinds of materials found. At the end of the eighteenth century man knew little more about building than the Romans, and his scope in monumental building was still limited by his ignorance of how the ground behaves and consequently of how to build foundations to carry heavy loads (not for nothing had Vitruvius set stability first among requisites for good building). Housing was improving, but the well-to-do still lived in comfortable houses and the poor in insanitary ones. In fact, so conservative are we in taking advantage of new things in building that Kipling, a hundred years later, could write:

" How very little since things were made
Things have altered in the Building Trade."

and not be thought out of date. But Kipling was wrong, a new revolution in building had begun.

PRESENT

Perhaps the greatest factor in this new revolution was the discovery of new forms of motive power, and moreover power in unlimited quantities. There are others, of course, which are playing an important part, chemistry, for example; but overshadowing them all has been the discovery of great new sources of power, power to haul, power to lift, power to drive machines of all kinds. As a result the entire face of industry has changed, building included, for by applying this power to his various forms of productivity man has found that he can produce more and so increase his real wealth.

In order to get a picture of the new kinds of building plant that have already resulted from the new discoveries, I propose to review our present facilities under four heads, foundations, superstructure, materials, and hand finishing tools.

FOUNDATIONS

The mention of foundation plant usually brings to mind heavy machinery, but perhaps the most important tools are the little scientific machines which enable us to discover what geological formations lie under the surface and how these strata will behave when we impose a load on them. We can make this investigation by various methods, electrically or by sending explosive shocks through the ground and recording with seismographs the behaviour of the waves the ground transmits or, more specifically, by borings from which we can get undisturbed samples of the particular stratum which we want to test, learn its strength, and predict its behaviour under load. These devices and our new understandings of the behaviour of soils—the new science of soil mechanics—are a very great advance in knowledge because it is at last possible to build with reasonable assurance as to how the foundations will behave after the building is finished. Waterloo Bridge is a good example of a structure that was designed with knowledge of how the London clay was going to behave under the foundations and what settlements could be expected.

Next, let us look at the new processes which we can use in making foundations; probably efficient methods of pumping water and the use of compressed air are the most important. Water in the ground has always been a nuisance, and sometimes an insuperable barrier to making proper foundations. The modern pump allows us to deal with this problem adequately; in fact, the latest refinement, which can be used when the ground is porous, permits us, by driving a ring of pipes into the ground all round the site and using them as wells, to pump all the water out of the ground before we start to dig, and so do the excavation in the dry. Clay presents a different problem; here it is not water but the tendency of the clay to flow into the excavation that matters. Steel sheet piles are useful for supporting the sides of an open cut, but if the excavation is deep we can use compressed air to balance the pressure of the surrounding ground; the normal way of constructing such deep foundations through clay or mud or gravel or under water being to sink caissons, large boxes with top and sides but no bottom, keeping the pressure of the air inside them high enough to prevent the surrounding mud or water from coming in. Another interesting process, applicable when excavation must be done through a fairly small area of waterlogged ballast, is the solidification of the ballast by pumping in chemicals which combine into a solid and fill the interstices, making it impermeable.

Excavation in rock has been enormously cheapened by the use of compressed air for driving the drills and the invention of explosives for blasting. For excavations in softer materials much labour-saving machinery has been invented. For surface levelling and large excavations tractor hauled scrapers have been developed, which fill themselves as they travel and then carry the load off to the tip. With the larger kinds one operator can dig and transport several hundred cubic yards of earth a day. Among

other useful tools for levelling is the well-known Bulldozer which consists of a blade mounted across the front of a tractor, with which the operator slices off and levels the surface. From the earlier steam navvy comes the useful many purpose crawler excavator. By fitting different booms on the front it can be used as a face shovel for quarries, a dragline for deep excavations, a skimmer for shallow cuts and a back trencher for trenching; it can also be used as a crane. Another kind of excavator is the continuous bucket type consisting of a series of buckets fastened to an endless chain. Most trenching machines are made on this principle, travelling forwards under their own power as they dig. Both the crawler-excavator (commonly called a dragline) and the trenching machine require transport into which to load the spoil for disposal.

SUPERSTRUCTURE

So much for foundations, but before turning to the superstructure, we must not forget transport which plays so large a part in modern building, quick transport of excavated materials away, cheap transport of goods by road, rail and sea, which gives us so wide a choice in building materials and enables us to carry them easily about on the job.

In considering the superstructure we must also consider the materials with which it is built. As in the case of foundations one of the greatest advances we have made is in our understanding of the nature of our materials. We have invented machines for finding out the strength of any material we wish to use. In consequence we are in a position to design our buildings scientifically and economically with the assurance that when built they will behave as predicted and not collapse unexpectedly.

Two new important building materials have so far been added, steel and concrete, both involving new processes in building. By discovering how to make and grind cement finely and accurately and then how to mix it quickly with sand and gravel and water, we have learned how to produce stone anywhere we like in the building and in any shape we please more cheaply than by using natural stone out of the ground. Furthermore, because steel and concrete happen to have the same co-efficient of expansion, we can reinforce our concrete with steel, not only to make it stronger and also to simplify greatly that difficult problem in building, the making of strong enough joints between the various structural members to carry the load from one into another. Steel, too, has added to our scope in building. Like concrete, it is cheap and strong, we can roll it into any shape we like and it lends itself to making adequate joints, by riveting or welding. So steel and concrete, both the product of the machine, represent a real advance in building technique.

The machine is coming more and more into use for making new building materials. Bricks and various kinds of roofing materials are almost entirely made by machine. Inside the building the new materials are legion, cheap and well made glass, synthetic stone, plywoods, various kinds of wall boarding, glass wool for insulating, plastics of various kinds, mastic flooring, to name a few.

Next, let us look at some of the labour saving devices for handling these materials. Lorries and light easy travelling pneumatic-tyred barrows; fixed hoists for lifting materials up; mobile cranes, derrick-cranes for heavy loads, high lifts or long outreach; derricks which will themselves climb up the steel structure as they erect it. Or we may elect to carry our materials on conveyor belts or pump concrete through a pipe. Building requires scaffolding and steel has given us light strong scaffolding that can be quickly erected or dismantled, though so far as I know no-one has yet produced the ideal scaffold with a platform quickly adjustable to any height.

FINISHERS AND SMALL TOOLS

That brings us to the many powered tools that are now available for use in building, all of them designed to save manual effort. Some are operated by compressed air which can be supplied from a mobile compressor, others by small petrol engines, but the most common source of power is the electric motor, which allows the tools to be run straight off the mains or by current from a small portable generator if the main supply is not yet available. Concrete breakers or clay spades for digging hard ground; rammers for compacting back-filling in trenches; saw benches, powered hand-saws and wood working machines generally; lathes; saws for cutting pipe, caulking tools, powered hammers, drills, screw drivers; polishing machines of various kinds, sanding machines, paint sprayers. The cement gun will cover a surface with a mortar of high strength; vibrators will consolidate concrete better and produce a stronger product than manually-operated tools, just as a concrete mixer will make better concrete than can be made by hand—nearly every tool has its powered equivalent.

The picture I have drawn of our present day equipment is far from comprehensive, but I think it ought to be enough to show what tremendous developments have occurred in the past two hundred years. There is a tendency to be a little bewildered by it all; a steam hammer seems so inhuman compared with the blacksmith's. There is no reason why this should be so, nor is there any reason to think that a man who can use a powered tool expertly should be less skilled than his predecessor with his hand tools. On the contrary, he may be more so. I have seen crane drivers handling their machines over an excavation with just as much skill as any fisherman ever handled his rod. That seems to me to be the right attitude to have about machines, as machines; neither to feel dominated by them nor to treat them cavalierly, but to think of them as a new and important extension of man's own manual effort, to be looked after as carefully as a good joiner does his chisels and equally rewarding in sense of achievement to the really skilled operator.

FUTURE

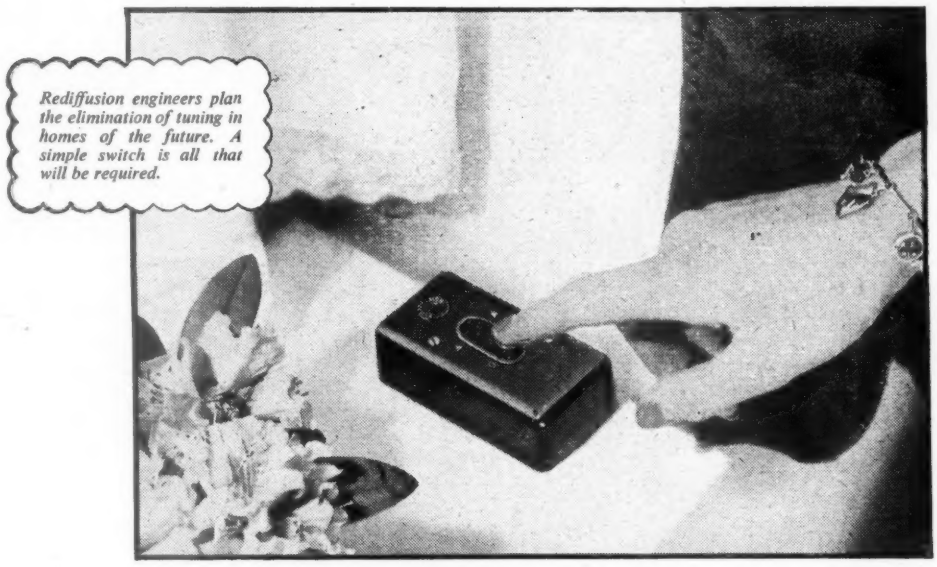
We have looked at the past and the present, now let us try to look a little ahead. We have seen that man's ability to build depends to no small extent on the tools that he has to hand. We have seen, too, that new tools and new materials to make them with do not happen every day; discoveries of that kind seem to have taken in the past a thousand years or so to digest and assimilate before the next one was made. Our age is one of the discovery periods, and the fact that we do not quite know how to harness our discoveries is quite in keeping with human history. We have invented a large number of new tools, and as a result we have developed many new processes, we have harnessed power and made it cheap and easily procurable, and we have not entirely forgotten the essential principle of increased productivity or labour saving; so we seem to be starting on the right lines. But we cannot stand still; where do we go next? I think the answer is clear enough. We must move towards further mechanization.

You have seen the thread of economics running all through the history of building. Each time new tools and processes have been invented, man's standard of living has risen because with them he was able to produce more with a smaller expenditure of man-hours. The result of each development has been not only that houses grew better, but they also grew relatively cheaper and more people could afford to have them. But the poor people's accommodation has always lagged behind (and remember that the relatively poor have always constituted a very large percentage of the whole community), and the reason is that, so far, building has never been sufficiently inexpensive in man-hours for the community to afford to provide the current standards of comfort for everyone. None the less, that must be our aim.

But it can only be done by exploiting the new tools as much as possible. That is the lesson history teaches. Without the machine, unless labour is plentiful and wages low the product is too expensive. Conversely, for labour to be plentiful, unemployment must exist, and when wages are low the labourer cannot afford to purchase comfort anyway. Modern economics show that labour-saving machinery by reducing man-hours and increasing productivity permits relatively higher wages and so a greater purchasing power. In other words, in order to accomplish more in fewer man-hours and so permit the raising of the standard of living for the worker, increased mechanization is essential. The same is true of building and failure to make full use of the machine can only be at the expense of the working man. How do we make full use of the machine? We cannot yet answer that question: we do not know enough about its possibilities. Clearly we must develop the technique of making the most use of machines while the actual building is being erected. But I think we can go further than that. Buildings are erected in the open where men and materials are handicapped by the weather, where conditions at best are not conducive to great accuracy in workmanship, where machines cannot be expected to work to fine limits. In the factory, on the other hand, conditions of work are much more stable, machines can be designed not only to work with much greater accuracy, but also to carry out processes which could not be contemplated in the field. Surely then the move will be towards making more and more of the building in the factory and thus reducing the number of man-hours required on the site, where productivity must be lower. There is a move in this direction already. It is spoken of as something new, and called by the rather silly name of prefabrication. There is nothing new in the principle involved. For many years nothing has arrived on a building site that has not been prefabricated to some extent beforehand, and it is only commonsense that if there is advantage in doing any of the work in a factory, the maximum amount that can be done there should be.

What is the architect's relationship to this development? It is easy to say what it might be, but what it will be must depend on the architects themselves. There is one important word in connection with building that I have not yet used, and that is beauty, the beauty that results from a well conceived and well built building. We want more than stability and utility, we want beauty in our buildings. That we shall go on inventing new methods, processes and materials is certain. It is equally certain that if they prove economical man will want to use them, but unless they are used well the results will be ugly just as the ill-planned towns that grew up in the early nineteenth century were ugly.

Amid all this welter of possibilities in which we find ourselves one thing we earnestly need is someone who will integrate them and guide us to build well. But good building does not come by wishful thinking nor by imitating the past; it comes from living in and understanding the present together with a great deal of application and hard work. So whoever would be our guide must first of all neglect tradition and look forward. Incidentally there is a lot of nonsense being talked at present about traditional methods of building; possibly it is sentimentality. At any rate, tradition does not seem to apply to other of man's activities. Wheeled transport and ships have been known to man for thousands of years, and sailing ships and horse transport are far more traditional than



Radio Listening to be by private wire?

THE simple movement of a switch from one position to another, and there is the radio entertainment you require — the pick of the world's programmes by private wire! Impossible? Not at all. According to the experts it is well within the realm of future possibility.

Try to imagine what it will be like. Just as your bathroom tap is connected through the local waterworks to a central reservoir, so your loud-speaker will be connected by a radio "main" through a control room to a high-powered receiving station. There, specially designed aerials, constructed to cut out fading, distortion, and interference, will be beamed on all the best programme transmitters of the world.

From these aerials, programmes will go by direct line to the control room where they will be amplified and constantly checked by skilled radio engineers, before passing along the radio "main" to your home. Then, in any room in the house, a simple switch and a loud-speaker will give you the radio programmes you want.

In many towns in Britain, as well as in Malta and Trinidad, this radio "main" has already been laid by Rediffusion engineers. In England, B.B.C. programmes are carried by direct line from the studio to the subscriber. Foreign broadcasts are received over the specially designed aerials, and retransmitted by wire to subscribers. There are no maintenance charges and only a small subscription charge is made for the service.

Rediffusion also equips factories for paging and factory music

REDIFFUSION

BROADCAST RELAY SERVICE LTD.

VICTORIA STATION HOUSE, VICTORIA ST., LONDON, S.W.1

operates in the following areas

BANGOR (CO. DOWN), BARGOED, BARROW, BLACKPOOL, BROADSTAIRS, DARLINGTON, EXETER, GATESHEAD, HULL, KENDAL, LANCASTER, MAIDSTONE, MARGATE, MERTHYR, MORECAMBE, NEWCASTLE, NEWPORT (MON.), NORTH AND SOUTH SHIELDS, NOTTINGHAM, PLYMOUTH, PONTYPRIDD, RAMSGATE, RHONDDA VALLEY, ROCHDALE, ROTHERHAM, ST. HELENS, STRETFORD, SUNDERLAND, SWANSEA, WALLASEY. WALLSEND, WHITLEY BAY, WOLVERHAMPTON, and also in MALTA and TRINIDAD.

steel liners and motor cars; yet who would wish to cross the Atlantic in the Golden Hind or travel to York in a stage coach?

To be able to guide necessitates, too, an understanding of these new materials and processes for without that no-one can hope to say how they can best be used; therein lies the hard work. Nor can any single group of men cover it all, like the old Master Builder did; things are developing too fast for that. So the architect, the engineer, the builder and the manufacturer must work together, not in watertight compartments, for unless each has a real understanding of what the other is doing his contribution to the whole will inevitably be extremely limited.

Let me end by offering a few suggestions, some of them apply to the individual, others might well be undertaken by study groups.

Firstly, every opportunity should be taken to study the new techniques, both in the field and in the factory, so that they and their possibilities are sufficiently understood, so that buildings are designed to make full use of them. Throughout industry the machine has necessitated this dual development; it is not sufficient to design a tool to make a product, the product must at the same time be modified so that it can be made by the machine. Steel and reinforced concrete did not suddenly appear complete as building materials; they came into use because having already been invented, men took the trouble to find out how they could best be used and designed accordingly.

Secondly, encourage in every way research and development. Co-operate with the manufacturers and builders, perhaps by joint study groups. Do research yourselves, help to research, do not leave it all to the Government. In regard to new materials, it is difficult to avoid prejudice both on the part of the industry and the public. People are naturally conservative, and there are always vested interests to be overcome—the same applies to most innovations—the counter is to strike out boldly and use the forms of education to back up your efforts.

Thirdly, there is scope for much more joint thought and action between the engineer and the architect. Each needs the other, and both are confronted with the same sort of problem—how best to use this rapid development. I would like to see a joint study group started where we can meet and discuss problems and learn each other's point of view.

Fourthly, the economics of building need careful and continuous study. Nobody can hope to exert much influence on present day building who neglects the economic side. In all forms of production the output of a man per hour of work is a matter of great importance. The same must apply to building; economic pressure will be too strong to allow the productivity of its workers to lag too far behind. Output and methods of improving it must therefore be studied by anyone who wishes to speak.

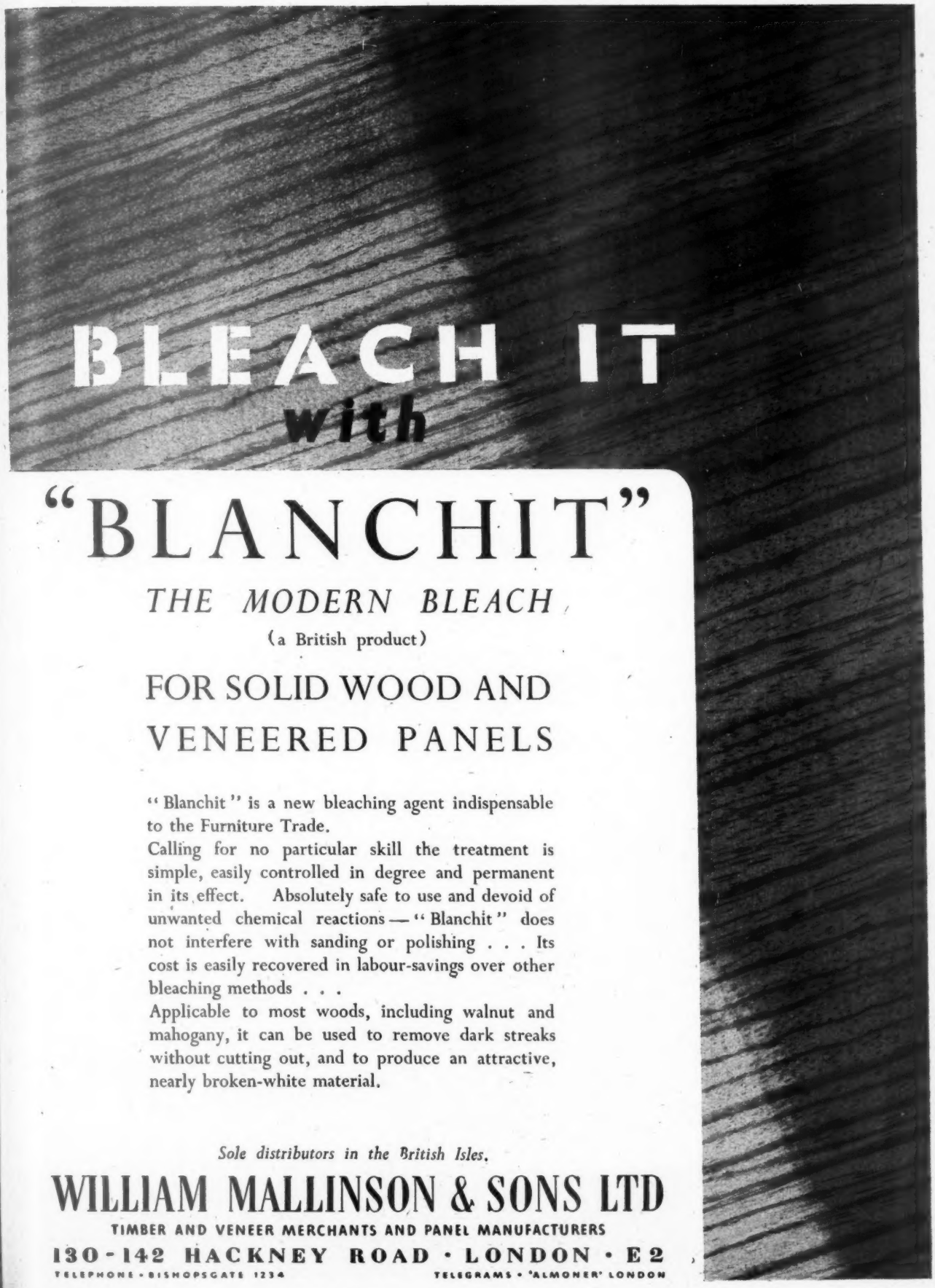
It may well be that our ideas must be radically changed; for example, it may become economical to build not for permanence but with the express intention of tearing down after a comparatively short life and rebuilding to the then current requirements. It may be that some materials will tend to go out of use for the time being, as I am told stone is doing in Canada because there is not enough work for men to afford to be stone masons. It may be that the useful brick will be superseded as the common building material because it may not be possible to afford in ordinary buildings the luxury of depending for our walls on the output of a man laying bricks one by one with a tool invented 5,000 years ago—one cannot say. But once more possibilities seem endless. Like our predecessors man had already built still mightier mountains in some of his cities, but our immediate task is to build well for the common man and perhaps this time we shall catch up the lag completely.

TRADE NOTE

On May 18, Mr. Duncan Sandys, General Sir Frederick Pile, and representatives of the Press paid a visit to the Uni-Seco North London Regional Depot, where a staff of 500 (including 300 Italian prisoners of war) are actively engaged in the despatch of Uni-Seco Portal type houses. The houses are being despatched from the depot at the rate of 1 in every 10 minutes. Each lorry travels through a series of loading bays, and at the end of its ten minute journey has been loaded with all the necessary building units, fitments and equipment for one house. Each Uni-Seco house comprises 40 roof units and 49 wall units; the units are of sandwich type, and consist of two sheets of asbestos cement with a 1¼ in. cavity in between which is filled with a mixture of wood wool impregnated with cement and chemicals. It is claimed that the production of these wall and roof units has now reached a total area of approximately half a million square feet per week . . . a rate of production, for the sandwich board type of unit, said to be greatly in excess of any achieved in any other country. For the prefabrication of its various units and building components, the Uni-Seco organization relies on the output of some 80 firms, and at the present time the parts for about 200 houses per week are being supplied to this North London Regional Depot. We understand that Uni-Seco Structures Ltd. have received from the Government a contract for the supply of 20,000 of these Portal type houses.

ANNOUNCEMENT

Mr. Maxwell Fry, F.R.I.B.A., would be glad to receive general trade catalogues at No. 12, Bedford Square, W.C.1, and particularly catalogues relating to hospital equipment. If duplicates of the latter could be sent to him c/o The Resident Governor, Accra, Gold Coast, he would be grateful.



"BLANCHIT"

THE MODERN BLEACH

(a British product)

FOR SOLID WOOD AND VENEERED PANELS

"Blanchit" is a new bleaching agent indispensable to the Furniture Trade.

Calling for no particular skill the treatment is simple, easily controlled in degree and permanent in its effect. Absolutely safe to use and devoid of unwanted chemical reactions — "Blanchit" does not interfere with sanding or polishing . . . Its cost is easily recovered in labour-savings over other bleaching methods . . .

Applicable to most woods, including walnut and mahogany, it can be used to remove dark streaks without cutting out, and to produce an attractive, nearly broken-white material.

Sole distributors in the British Isles.

WILLIAM MALLINSON & SONS LTD

TIMBER AND VENEER MERCHANTS AND PANEL MANUFACTURERS

130-142 HACKNEY ROAD · LONDON · E2

TELEPHONE · BISHOPSGATE 1234 TELEGRAMS · 'ALMONER' LONDON

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, EATON PLACE, LONDON, S.W.1. TEL.: SLOANE 5615. 991

EDINBURGH COLLEGE OF ART.

The Board of Management may award in June this year three Scholarships of £225 for one year for a full-time course in TOWN AND COUNTRY PLANNING at the School of Architecture of the College for the session beginning on 2nd October, 1945. Candidates must be British subjects, under the age of 30 on 1st October, 1945, and should have completed a degree or diploma course in Architecture, Civil Engineering or Surveying. The late date for receipt of applications is 15th June, 1945.

Further particulars may be obtained from the Registrar, College of Art, Edinburgh, 3. 767

NORTHAMPTONSHIRE COUNTY COUNCIL.

PLANNING ASSISTANT.

Applications are invited from members of H.M. Forces and others for the appointment of a Technical Assistant on the permanent staff of the County Planning Department at a salary of £350-£400, according to qualifications and experience, plus war bonus as authorised by the Council from time to time.

Applicants should have had experience in the preparation of Planning Schemes, and preference will be given to those who possess architectural qualifications or who have had architectural training.

The successful candidate will be required to provide and maintain a motor car for use in connection with his duties, for which an allowance will be paid.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, 1937 and 1939, and the candidate selected will be required to pass a medical examination.

Applications, endorsed "Planning Assistant," stating age, qualifications and experience, and past and present appointments, accompanied by a copy of one recent testimonial and the names of two persons to whom reference may be made, must be submitted to the Acting County Planning Officer at the address below, not later than 30th June, 1945.

J. ALAN TURNER,
Clerk of the County Council.

County Hall, Northampton.
14th May, 1945. 751

NORTHERN IRELAND HOUSING TRUST.

APPOINTMENT OF CHIEF TECHNICAL OFFICER.

Applications are invited for the above post from Fellows or Associates of the Royal Institute of British Architects who have good experience of general architectural practice and special knowledge of housing. Applications from qualified persons at present serving in His Majesty's Forces, who are not immediately available to take up duty, will be entertained.

The salary attaching to the post will be at a rate not exceeding £1,750 per annum, and will be fixed according to the experience and qualifications of the successful applicant.

The Northern Ireland Housing Trust is a Statutory Body set up by Parliament, and has an immediate building programme of several thousand houses. Employment will probably continue for a period of years, but the appointment will be subject to termination by three month's notice on either side.

The appointment will be a full-time one, and the successful candidate will be required to carry out such work in connection with the design, construction and supervision of housing schemes from the layout stage to the completion of the houses as may be assigned to him.

Preference will be given, other things being equal, to ex-Servicemen.

Candidates should apply by letter to the address given below, stating the date and place of birth, qualifications and experience, and the date when able to commence duties, together with the names of three referees. The closing date for the receipt of applications is 16th July, 1945.

Northern Ireland Housing Trust.
5, Donegall Square South, Belfast. 752

MONTGOMERY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT (Male or Female) in the County Architect's Department. The appointment is a temporary one for the present. The salary is £350 per annum, plus war bonus.

Applications, stating age, training and experience, together with copies of three recent testimonials, and endorsed "Architectural Assistant," should reach the undersigned not later than 30th June, 1945.

H. CARR, F.R.I.B.A., F.S.I.,
County Architect.

County Offices, Welshpool, Mont. 758

EASINGTON RURAL DISTRICT COUNCIL, CO. DURHAM.

TEMPORARY ASSISTANT ARCHITECT required for appointment on staff of Council's Engineer and Surveyor. Candidates should have experience in housing, taking off quantities, estimating and preparing specifications. Salary £350 x £12 10s. to £400 p.a. (commencing point depending upon age and experience), plus £59 16s. p.a., cost of living bonus. Appointment subject to provision of Local Government Superannuation Act, 1937.

Applications, which must be in writing, stating date of birth, full details of qualifications and experience (including a list in chronological order of posts held), and quoting reference No. 156, should be addressed to the Ministry of Labour and National Service, Appointments Office, 153, Barras Bridge, Newcastle-upon-Tyne, 2. 769

THE BARNSLEY DISTRICT JOINT PLANNING COMMITTEE.

Applications are invited for the appointment of two PLANNING ASSISTANTS, at a salary of £350 per annum, rising by annual increments of £25 to £400, plus war bonus in accordance with the Whitley Council Scale. A car allowance will be paid in addition if either or both of successful applicants provide a car.

Applicants must have had experience in the preparation of Statutory Planning Schemes. Preference will be given to applicants possessing a Town Planning qualification, and who are also members of one of the under-mentioned institutions:

(*a*) The Institution of Civil Engineers.
(*b*) The Institution of Municipal and County Engineers.
(*c*) The Chartered Surveyors' Institution.
(*d*) The Royal Institute of British Architects.

The appointments will be whole-time and subject to one month's notice on either side, and to the Local Government Superannuation Act, 1937.

Applications in writing, stating age, qualifications, experience, present position and salary, position with regard to Military Service, when the applicant could commence duties, if appointed, and accompanied by not more than three recent testimonials, must be sent to the undersigned, endorsed "Planning Assistant," not later than Wednesday, 6th June, 1945.

A. E. GILFILLAN,
Clerk.

Town Hall, Barnsley.
15th May, 1945. 774

AMERSHAM AND CHESHAM JOINT PLANNING COMMITTEE.

APPOINTMENT OF PLANNING OFFICER.

Applications are invited for the appointment of Planning Officer at a commencing salary ranging from £600 to £700 per annum, according to qualifications and experience, rising by annual increments of £50 to £900 per annum, plus bonus.

Applicants should possess the highest qualifications, and have had wide experience in all phases of Town and Country Planning.

The person appointed will be required to devote the whole of his time to his duties, and to carry out such duties for and on behalf of the Joint Planning Committee as they may direct. He will also be required to reside in or near Amersham, and to provide and maintain a motor car for use in connection with his duties, for which an allowance will be paid in accordance with the Bucks County Council's scale.

The appointment will be subject to three months' notice on either side, and to the provisions of the Local Government Superannuation Act, 1937. A medical examination will be necessary.

Application, endorsed "Joint Planning Officer," giving age and full particulars of qualifications and experience, together with copies of three recent testimonials, should be received by the undersigned not later than 1st August, 1945.

The appointment is open to members of H.M. Forces, who possess the necessary qualifications and experience, and applicants serving abroad are requested to cable the date of the despatch of their applications.

A. H. PRINCE,
Acting Clerk of the Committee

County Offices, Aylesbury, Bucks.
19th May, 1945. 776

BRIGHTON TECHNICAL COLLEGE.

Principal: GORDON E. WATTS, M.A., Ph.D., F.R.I.C.

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

(*a*) LECTURER IN BUILDING SUBJECTS. Candidates should have qualifications and practical experience in Building Technology, Structural Engineering or Architecture.

(*b*) TEACHER OF CARPENTRY AND JOINERY.

(*c*) TEACHER OF PLUMBING.

Candidates for the appointments (*b*) and (*c*) should hold the First Class Final City and Guilds Certificate in the appropriate trade subject, and have had suitable practical experience.

Salaries will be according to the Burnham Technical scale, with full allowances for approved teaching and industrial experience.

Forms of application and further particulars may be obtained from the undersigned. The completed forms should be returned, with copies of at least two recent testimonials, to the Principal of the College not later than 23rd June.

F. HERBERT TOYNE,
Education Officer.

54, Old Steine, Brighton, 1.
17th May, 1945. 778

CITY AND COUNTY OF THE CITY OF EXETER.

Applications are invited from Associates of the Royal Institute of British Architects for the appointment of a SENIOR ASSISTANT ARCHITECT in the City Architect's Department. The salary will be £400 per annum, rising by two annual increments of £10 to £420 per annum, plus cost of living bonus, at present £59 19s. 3d., the maximum salary being paid in the first instance to an experienced candidate.

The appointment will be subject to one calendar month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The person appointed will be required to pass a medical examination.

Applications, stating age, qualifications, previous and present appointments, with salaries and exact designations, full details of experience, and date when available, together with copies of three recent testimonials, should be sent to F. R. Steele, F.R.I.B.A., F.S.I., A.M.T.P.I., City Architect, 2, Southernhay West, Exeter, not later than 15th June, 1945.

Applications from Architects serving with H.M. Forces will receive consideration.

C. J. NEWMAN,
Town Clerk.

Town Clerk's Office, Exeter. 782

ASSISTANT SURVEYORS, permanent, required by the Cricklade and Wootton Bassett Rural District Council.

Candidates must have been born before 1923, and should be Registered Architects, with experience of water and sewerage schemes.

Salary scales £315-£360 per annum, or £375-£420 per annum, plus cost of living bonus. Car must be provided. Allowance £75 per annum.

The appointments are subject to the L.G.S. Act, 1937, and the successful candidates will be required to pass a medical examination.

Write, quoting EA.1448XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 12th June, 1945. 784

ARCHITECTURAL ASSISTANTS, temporary, required by the Borough of Southgate.

Candidates should preferably be A.R.I.B.A. or hold an equivalent qualification and have had previous experience of municipal work, particularly in the preparation of sketch plans, marking drawings, specifications, and the supervision of work on housing schemes.

Salary £425 per annum, plus bonus £59 16s. per annum.

Write, quoting EA.1470XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 12th June, 1945. 785

ARCHITECTURAL ASSISTANT, permanent, required by the Shipley Urban District Council. Candidates must have been born before 1923, and should be Associates of the Royal Institute of British Architects or hold equivalent qualifications, with preference to A.M.I.C.E. or A.M.Inst.M. & Cy. E., and should have experience in the supervision and setting out of works, and the preparation of house plans, specifications, and quantities. The work to be performed will be almost entirely in connection with the erection of houses, temporary and permanent.

The appointment is subject to the L.G.S. Act, 1937, and the successful candidate will be required to pass a medical examination.

Salary £425 per annum, rising after one year's service to £450 per annum, plus current war bonus, at present £59 16s. per annum.

Write, quoting EA.1428XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 13th June, 1945. 786

TOWN PLANNING ASSISTANT required to Local Authority (London area). Capable of preparing schemes under supervision; knowledge of the Acts. Salary £300-£350, according to ability. State qualifications and experience. Box 767.

NEWMARKET URBAN DISTRICT COUNCIL.
(Revised Advertisement).
APPOINTMENT OF ARCHITECT.

Applications are invited for the above post.
Salary: £500 per annum, plus war bonus, at present £59 16s. per annum.
Qualifications: Recognised professional bodies.
Experience: With Local Authorities desirable, but not essential.
Testimonials: Three recent.
Forms of Application: From the undersigned.
Last date for receipt of applications: Friday, 15th June, 1945.

JOHN CRABB,
Clerk of the Council.

Stratford House, Newmarket.
25th May, 1945. 779

ARCHITECTURAL ASSISTANT required by the Burgh Surveyor's Department, City of Perth, for preparation of plans, etc., for Housing Schemes and General Buildings.
Candidates must have been born before 1923, and should be registered Architects, with experience in housing preferred. Salary £350 per annum, plus £60 per annum war bonus.
Write, quoting EA.1426XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 11th June, 1945. 781

ARCHITECTURAL ASSISTANT, permanent, required by the Skipton Rural District Council.
Salary £350 per annum, plus cost of living bonus (at present £59 16s. per annum). Candidates must have been born before 1923, and preference will be given to persons who are A.R.I.B.A. or who hold an equivalent qualification.
The duties will be principally in connection with the Council's post-war housing schemes, including preparation of plans and specifications, and the person appointed will be required to provide and maintain a car for the purposes of his duties, for which a travelling allowance will be paid in accordance with the Council's scale.
The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side.
The successful candidate will be required to pass a medical examination.
Write, quoting EA.1419XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 11th June, 1945. 753

TECHNICAL ASSISTANTS, temporary, required by the Rural District Council of Runcorn.
ENGINEERING ASSISTANT, preferably qualified, with previous experience in the preparation and carrying out of sewerage and water schemes.
Salary: £320—£15—£350 p.a.
Reference E. 1603XA.
ARCHITECTURAL ASSISTANT, preferably qualified, with previous experience in municipal housing schemes.
Salary: £320—£15—£350 pa.
Reference EA.1440XA.
Write, quoting the appropriate reference, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, W.C.2, for application form, which must be returned completed by 11th June, 1945. 768

JUNIOR TOWN PLANNING ASSISTANT, temporary, required by the County Borough of Burton-upon-Trent.
Candidates must have been born before 1923, and hold a recognised qualification in Town Planning, and have had a good experience in the preparation and administration of Town Planning Schemes.
Salary: £300 x £10—£350, plus war bonus.
The appointment is subject to the L.G.S. Act, 1937; the successful candidate to pass a medical examination.
Write, quoting EA.1334XA, to Ministry of Labour and National Service, Central (T. and S.) Register, Room 5/17, Sardinia Street, Kingsway, London, W.C.2, for application form, which must be returned completed by 18th June, 1945. 762

Architectural Appointments Vacant

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

ARCHITECTURAL ASSISTANT required; modern outlook, and preferably with experience of or interested in hospital work; Reading and London office; full details, salary, etc., to Box 749.

ARCHITECTURAL and Ornamental Ironwork Draftsman required. Apply in writing, stating age and experience, to Haskins, Blackhorse Lane, Walthamstow, E.17. 766

REQUIRED an efficient Organizer (not a high-pressure salesman), to create and build up a sales organization mainly for post-war purposes, by a London Company supplying approved unit system of building construction and ancillary products; at present engaged on substantial Government contracts; knowledge of building (architectural or engineering) an advantage; immediate appointment. Apply Box 789.

ASSISTANT required, who must have interest in contemporary design and is an experienced draughtsman. Progressive position is offered in recently formed practice in London area. Box 775.

EXPERIENCED Architectural Draftsman required by Head Office of Midland Brewing Company; permanent position; state age, experience, salary required, and qualifications (if any). Box 773.

Architectural Appointments Wanted

CONTINENTAL Student of Architecture, specialized in furniture, keen interest in industrial design, seeks position in progressive Office. Box 11.

DESIGNER (light welded construction); interested in post-war appointment with progressive firm; has practical experience and valuable contracts. Box 8.

ASSISTANT requires spare-time work, including quantities and perspectives. Write BM/DMCW, London, W.C.1. 15

ARCHITECT'S ASSISTANT seeks position in Southern England, preferably London; studying final R.I.B.A.; perspectivist. 14

LONDON A.R.I.B.A. (40) would be glad to hear from Architects requiring occasional assistance; wide experience in all branches of the profession; available evenings and week-ends. Please write Box 16.

REGISTERED ARCHITECT (30) offers services, whole or part-time; fully experienced general architectural practice; car owner; Leeds-Hull area; present salary £9 week. Box 13.

TWO ASSISTANTS, one an A.R.I.B.A., willing to do part-time work; surveys undertaken; in or around London. Please apply to B. Daly, 17, Maidstone Road, Bounds Green, N.17. 17

ARCHITECTURAL ASSISTANT, 24, Inter. R.I.B.A., requires post; London or elsewhere; college and office experience; recent work on bomb damage surveys and specifications. Box 18.

Other Appointments Vacant

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

SIR WILLIAM CRAWFORD & PARTNERS, LTD., have opening for first-class Product Designer and Stylist. Write, giving experience and training, 233, High Holborn, W.C.1. 788

MANAGER required for Building and Maintenance Dept. of large Brewery in North; Architect preferred; applications should state full particulars of education, career, and present salary. Box 780.

JUNIORS, either sex, interested in Architecture and Building, required for office work in Central London; five-day week. Write, stating age and standard of education, to Box N.410, Willings, 362, Grays Inn Road, London, W.C.1. 771

Other Appointments Wanted

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

EXPERIENCED Architects, Surveyors, Engineers, etc., for full or part-time work; register of men available now and after demobilisation. Apply to Association of Building Technicians, 5, Ashley Place, S.W.1. Victoria 0447. 770

Planning

As originators of the Auto-Recorder System of Machine Milking, we have had extensive experience of planning layouts to accommodate the new technique. The Ministry of Agriculture's Clean Milk Bill, when passed, will mean a large increase in the number of new or modified farm buildings required. The position will be affected also by the findings of the English and Scottish Commissions on this important subject. The service of our Technical Department is available to any Architect who may be consulted in these matters. Write in confidence to: Gascoignes (Reading), Ltd., Berkeley Avenue, Reading.

For Sale

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

ASSOCIATE Architect offers for Sale his Practice in a progressive S. Lincs. town; mainly domestic, and has post-war possibilities. For full details apply Box 783.

NEW unused copies of Faber's "Construct. Steelwork Simply Explained," 5s.; "Reinforced Concrete Simply Explained," 4s.; "Examples of R.C. Design," 4s.; "Examples of Steelwork Design," 6s. 6d.; Sheppard's "Building Mechanics," 10s. 6d.; "C.S.I. Standard Method of Measurement," 7s. 6d.; Mitchell's "Building Construction Elementary," 6s., advanced 9s.; Willis's "Elements of Quantity Surveying," 12s. 6d.; Blake's "Drainage and Sanitation," 10s. 6d.; also Walker's "Loose Leaf Notebooks," 75 page foolscap, 6s. 3d., quarto 5s., plus postage. Box 764.

Property for Sale

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

COMMERCIAL GARAGE PROPERTY, Wick Road, Hackney.—Extensive site and W.D. Buildings let till April, 1946, at £200 p.a. inclusive (reduced from £400 p.a. on a/c W.D.); suit Builders, Contractors, Transport, or Storage Depot; freehold, £6,500. Box 772.

Miscellaneous

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

A. J. BINNS, LTD., specialists in the supply and fixing of all types of fencing, tubular guard rail, factory partitions and gates. 53, Gt. Marlborough St., W.1. Gerrard 4223-4224-4225.

F. J. BAYNES, LTD., established over 100 years. Heating, Ventilating and Sanitary Engineers. 99/101, St. Paul's Road, N.1. Cannonbury 2552. 584

FENCING FOR ALL PURPOSES.—Supplied and erected; established 100 years. Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham, 1. 979

WANTED.—One set of "Arts Et Matiers Graphiques. Please reply to Box 5.

FENCING AND GATES of every type, supplied and erected. Specialists in chain link. Boulton & Paul, Limited, Norwich. 562

YOUR HOUSE.

An Exhibition of Modern Building Methods applied to Houses to suit individual needs. HEAL'S, 196, Tottenham Court Road, W.1. 744

Educational Announcements

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

R.I.B.A. QUALIFYING EXAMINATIONS.
Mr. C. W. Box, F.R.I.B.A., M.R.San.I.
Courses by Correspondence and Personal in Studio.
115, Gower St., London, W.C.1.
TELEPHONE: EUSTON 3305 and 3906.

Alphabetical Index to Advertisers

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational, Legal Notices, Miscellaneous Property and Land Sales—*see* pages xlvi and xlviii.