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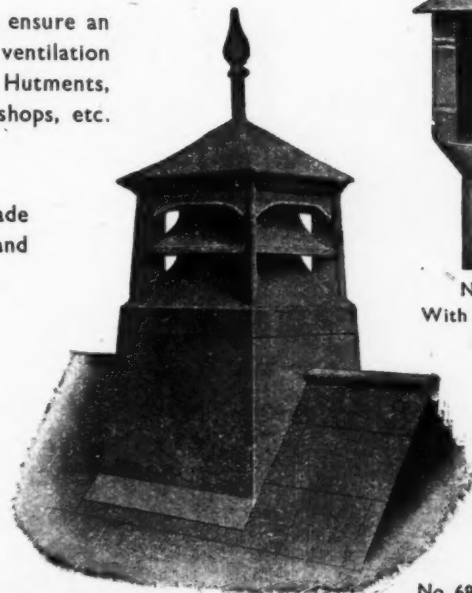
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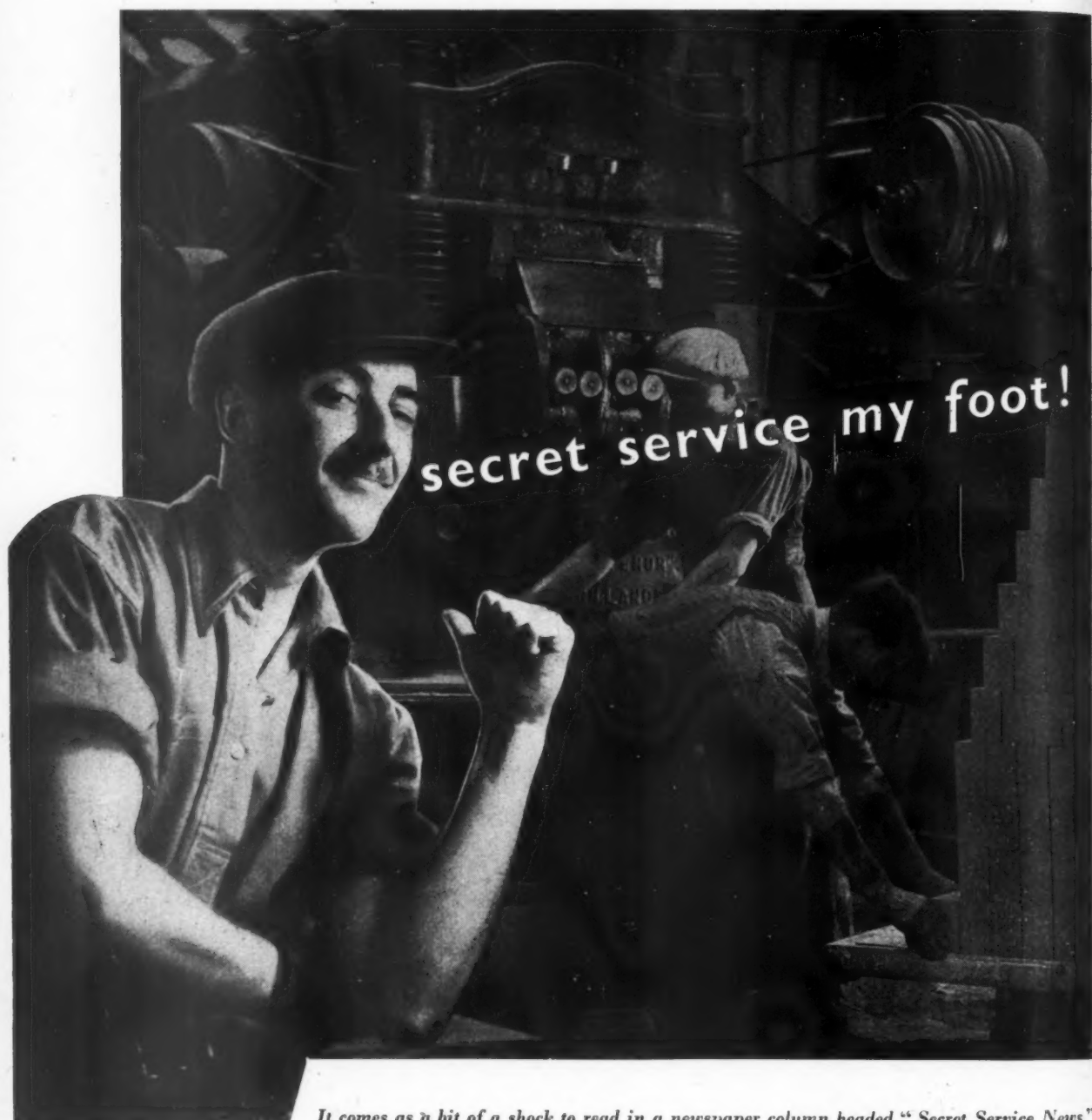


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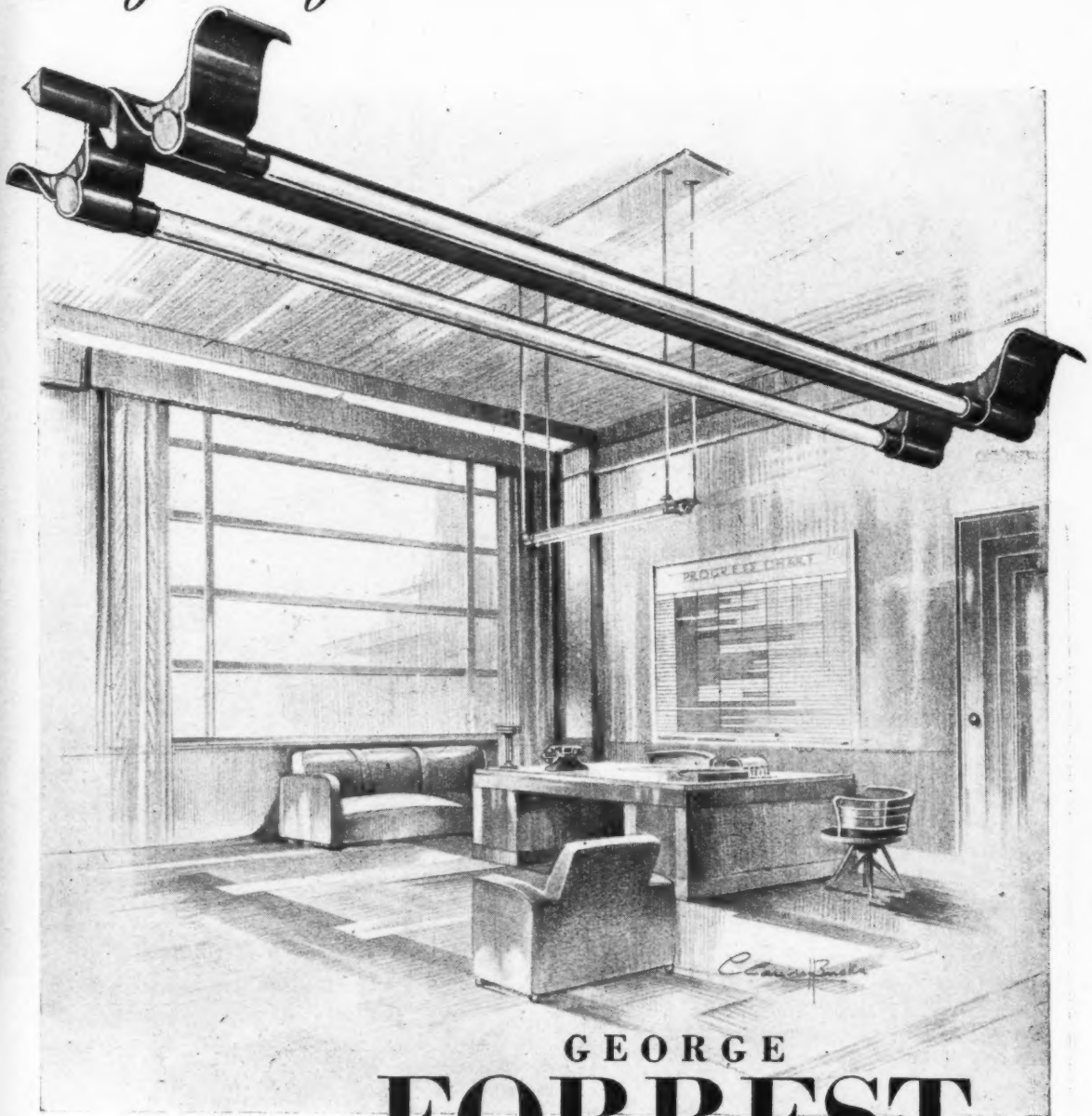
It comes as a bit of a shock to read in a newspaper column headed "Secret Service News" that one of our allies has developed a process for making bricks from clinker and cement and that this idea may assist our own reconstruction programmes. Sutcliffe Speakman make no secret of the fact that their Emperor Presses have been making similar bricks for a long time now. In fact, people who want to know more about making bricks from waste materials should put their secret service agents on our track.

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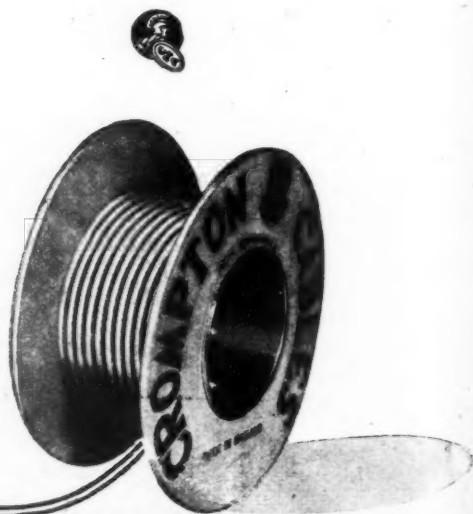
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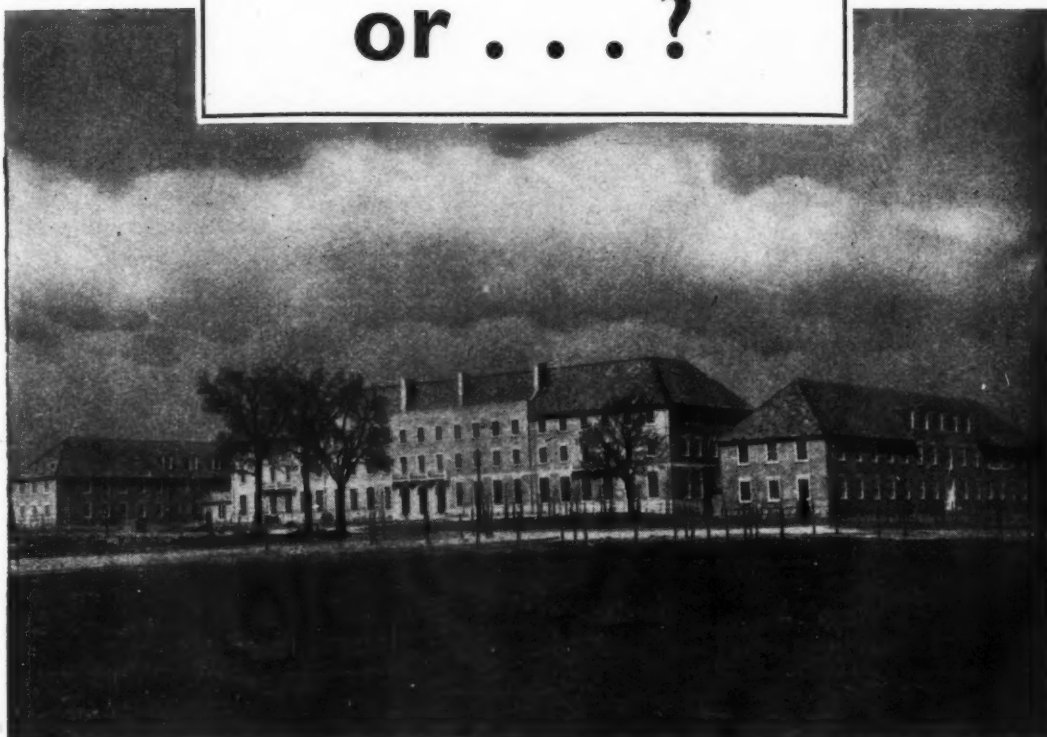
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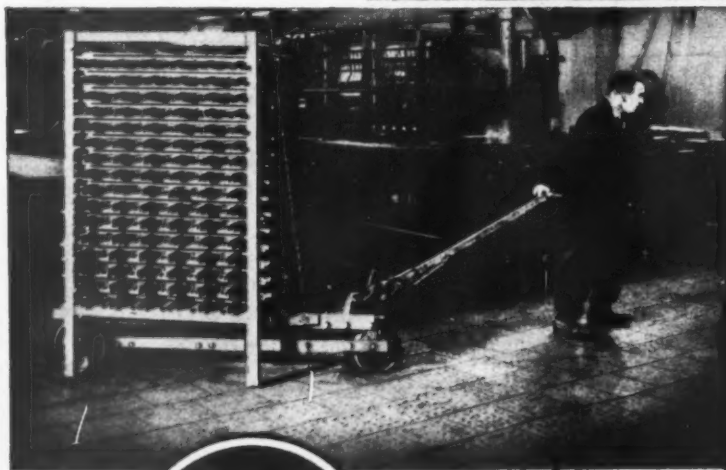
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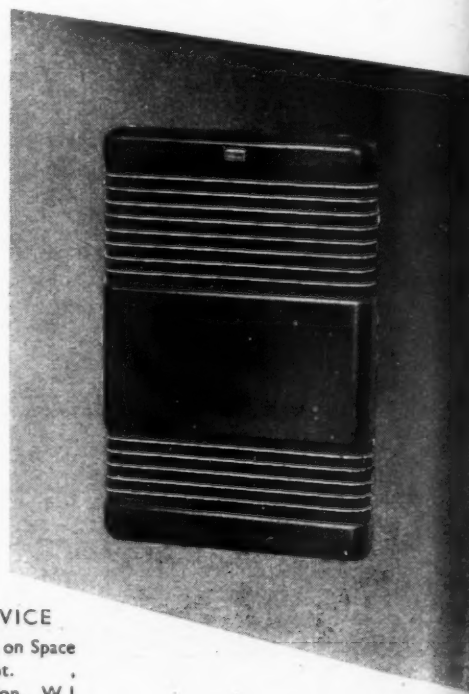
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Painting by Doris Zinkeisen

This Present Age . . . 12

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of our future plans. In every territory, whether swept by the tide of war or not, there is an accumulated potential demand for hundreds of products fabricated from steel, so that directly and indirectly the export markets will receive the fruits of our production. Policies directed towards international economic agreement in the terms and spirit of the Atlantic Charter will receive our complete support. With all this the magnitude of the task remains, but its importance is so great that the utmost efforts, understanding and goodwill of every citizen of the nation are inescapable pre-requisites to achieve success.

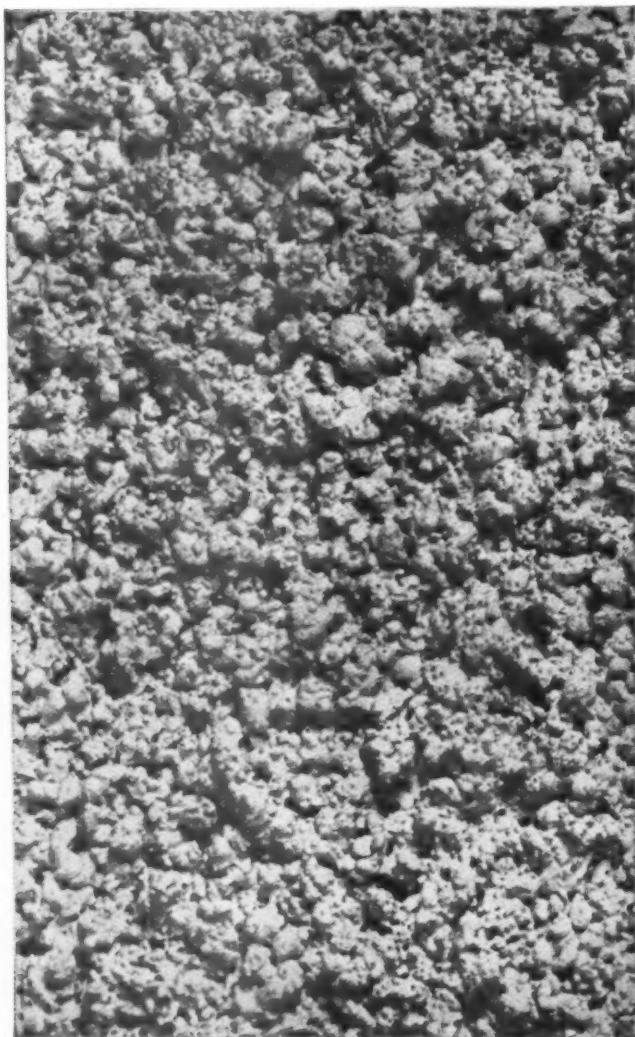


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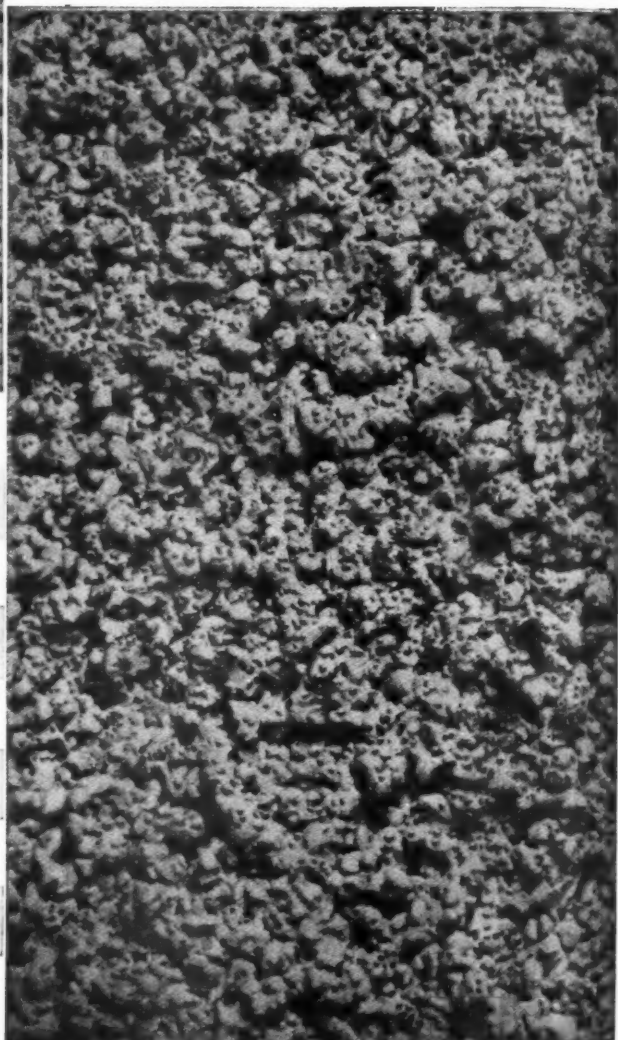


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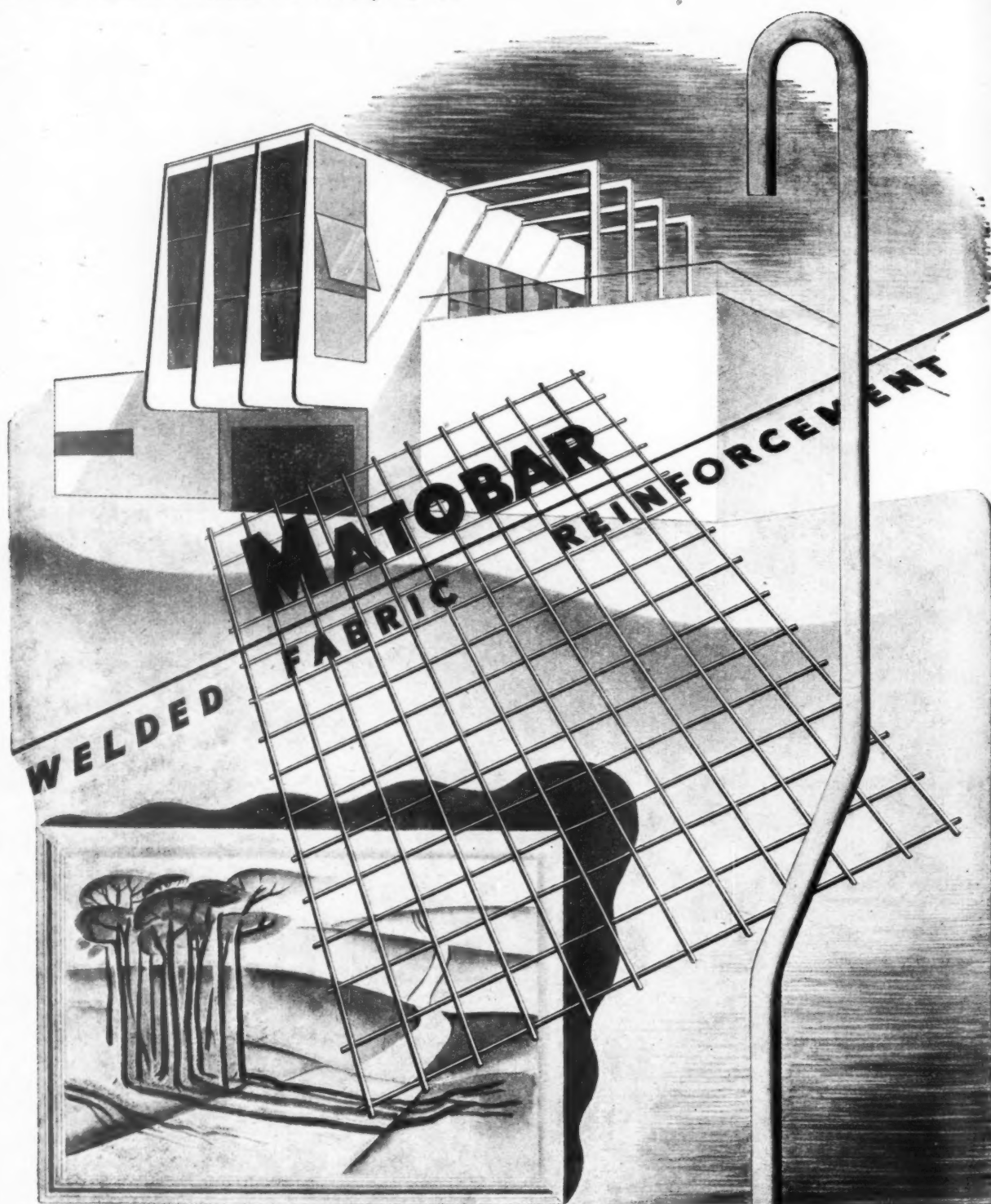
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in Art & Industry

It was with great regret that we had to suspend the publication of this Journal during the war years. Those readers who have written to enquire if we intend to resume publication will be interested to know that the Fourth Edition is now available.

This new issue is devoted mainly to an illustrated review of the part which ceramic products have played in the war effort. It is, however, of more than merely retrospective interest, as almost all the applications shown and described will have a part to play in peacetime industry and reconstruction.

In future issues we shall endeavour to deal with many different aspects of ceramics both from a technical and a more general standpoint, thus catering for the extremely varied interests of our 7,000 or more readers.

Unfortunately, our mailing list was partially destroyed during the war and it has, moreover, been difficult to keep track of changes of addresses of readers. We are now compiling an up-to-date mailing list and if you would like your name included, we shall be glad if you will let us know as soon as possible.



Owing to the reduced quantity of paper at our disposal, we regret that we can only send copies to those applying on business or professional letter headings and it will also, unfortunately, be impossible to send copies to *individual* students. We shall, however, be very pleased to send a copy to the Principal or Librarian of any University, College, Technical School or Public Library, so that the Journal may be available for reference.

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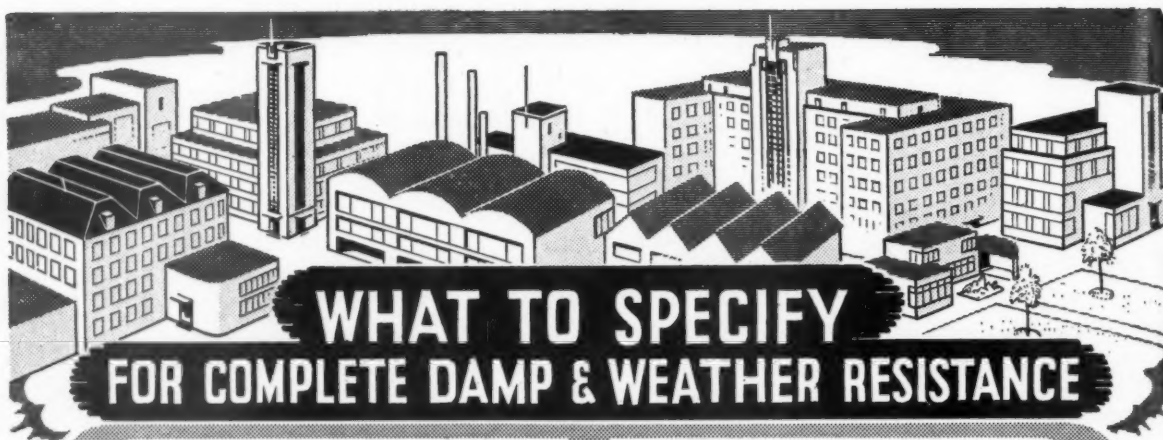
the new roof lighting material

"Perspex", the transparent plastic material used throughout the war in British aircraft, is now supplied in corrugated form for roof and wall lighting. The sheets are made to fit existing standards of corrugated iron and asbestos cement sheets, and they can be fitted in exactly the same way. The lightness in weight, the immunity from splintering and excellent weathering properties make "Perspex", which weighs only 0.9 lb. per sq. foot, a valuable addition to the range of materials available to the building industry. Full information, concerning sizes, weights and prices will be sent on request.

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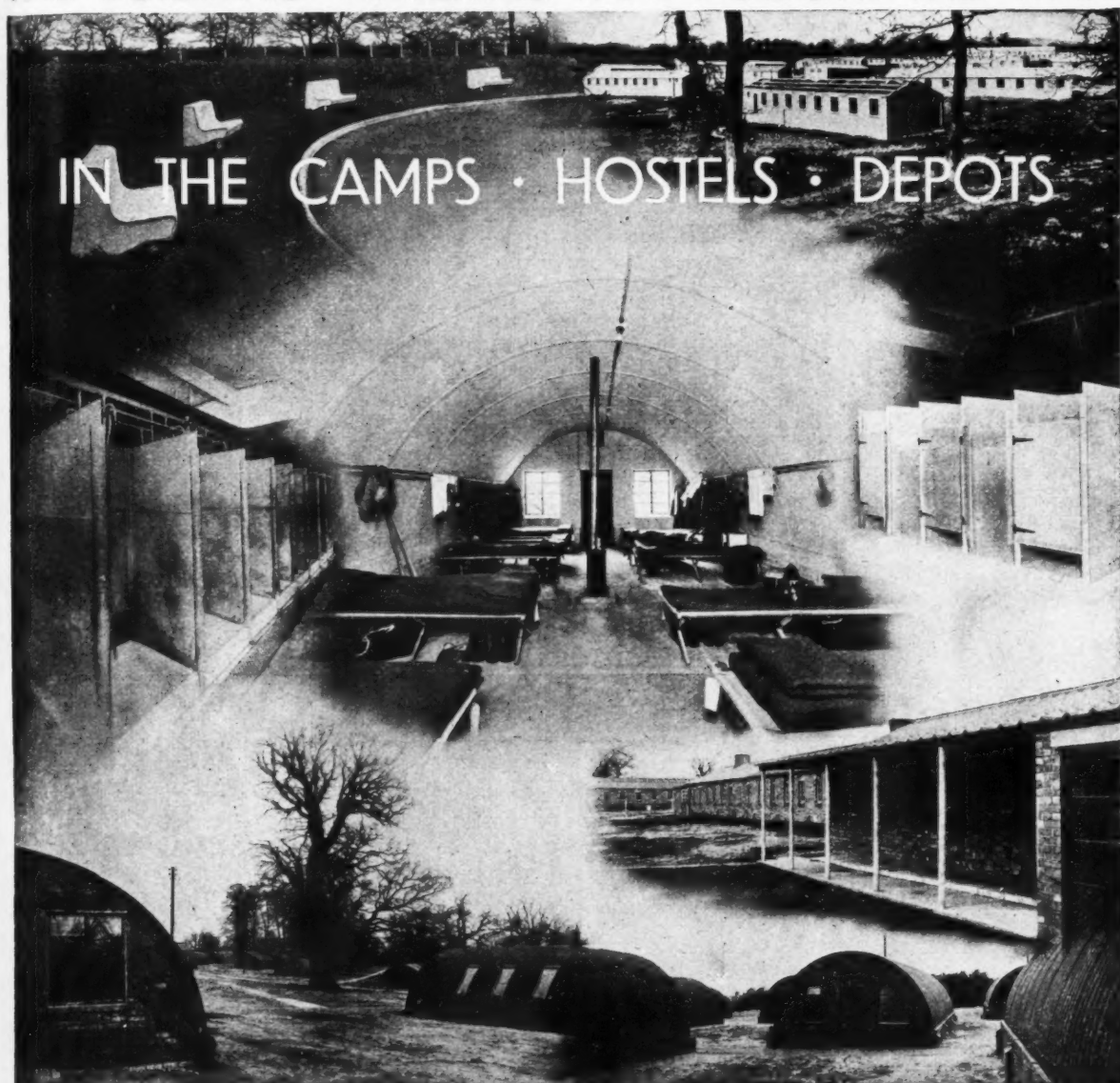
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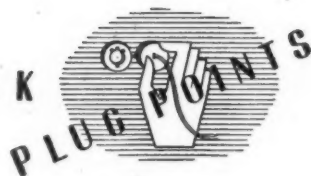
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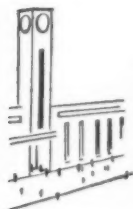
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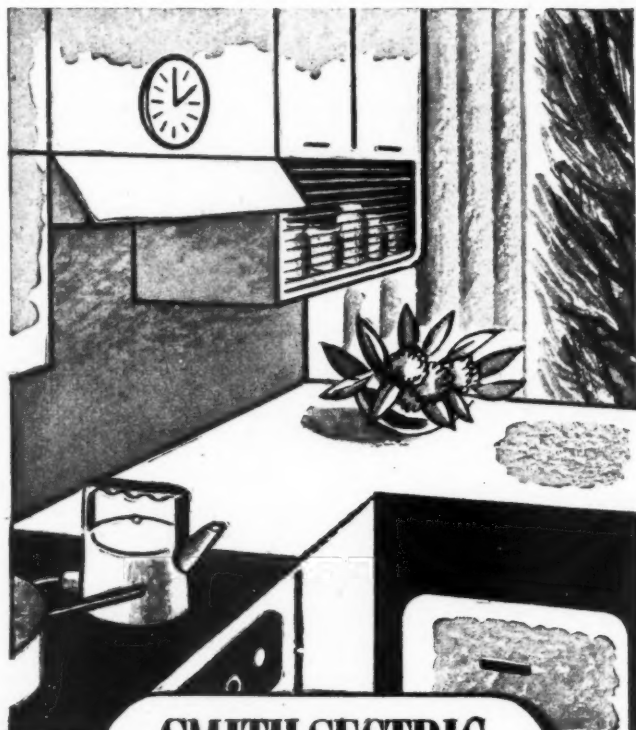


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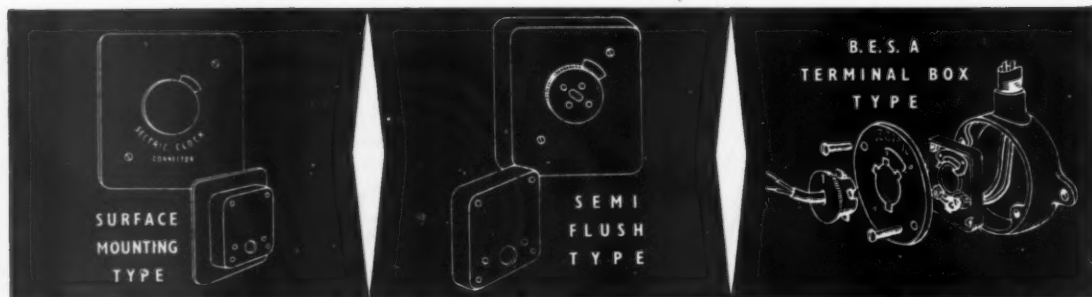


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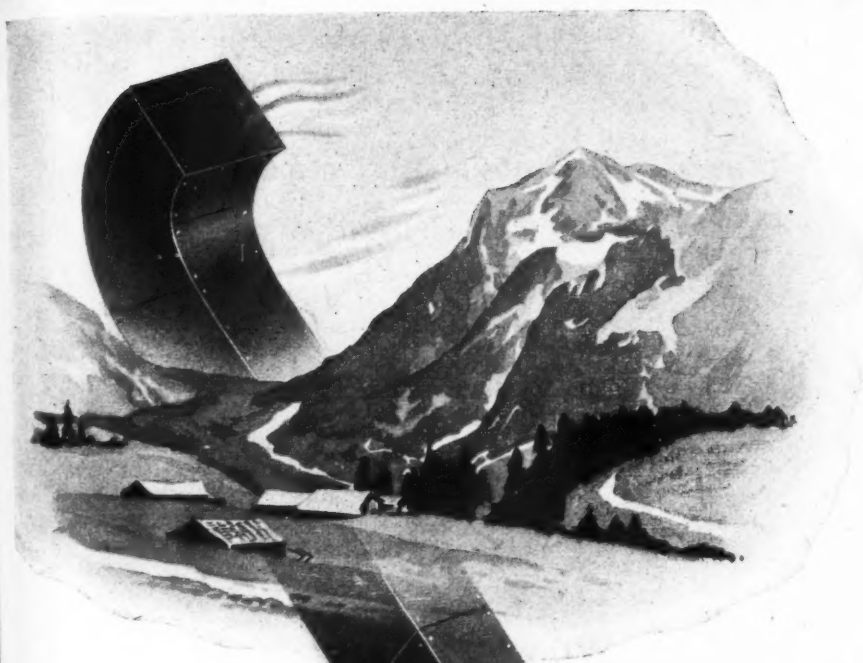
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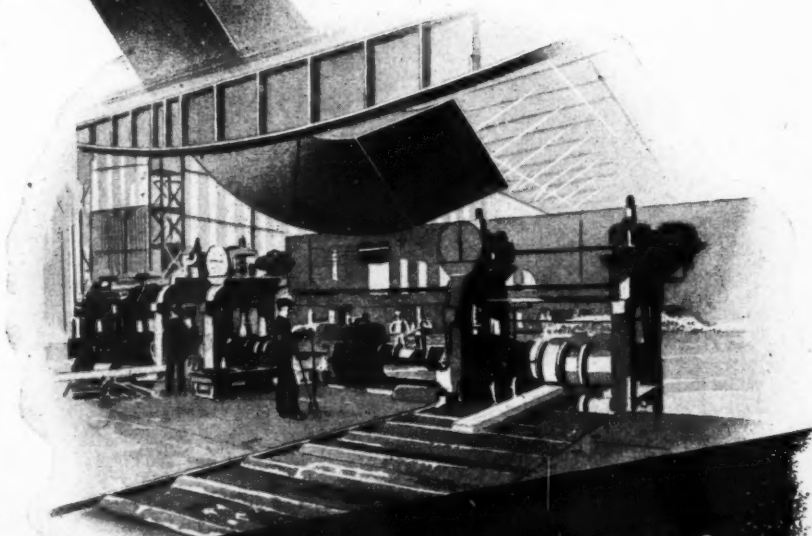
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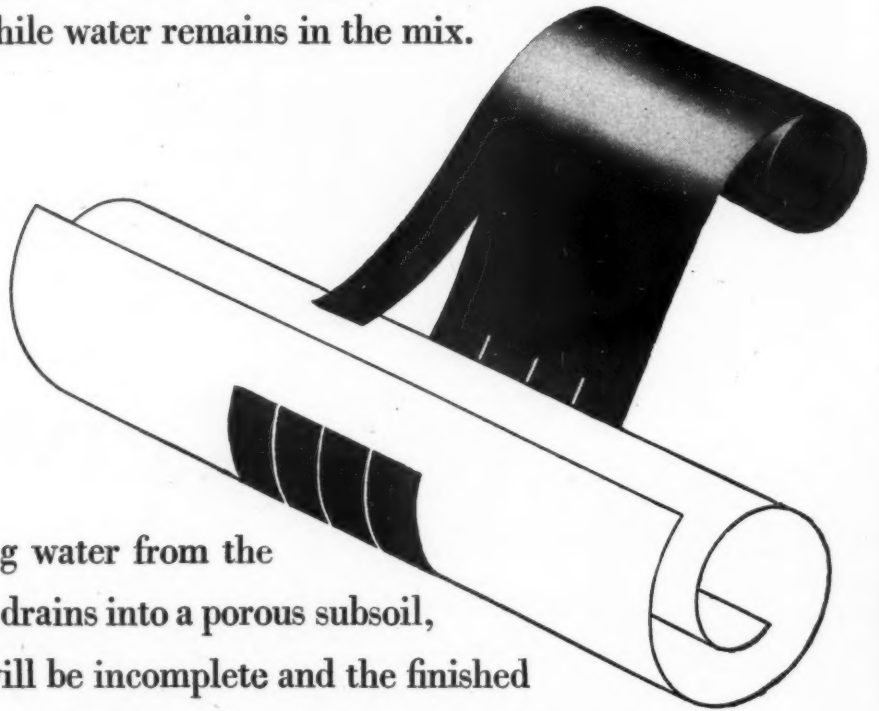


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Plan for better concrete . . . of course choose cement and aggregates carefully; of course mix thoroughly; of course lay, tamp and cure conscientiously. But don't forget the cardinal fact that proper setting and hardening can only take place while water remains in the mix.

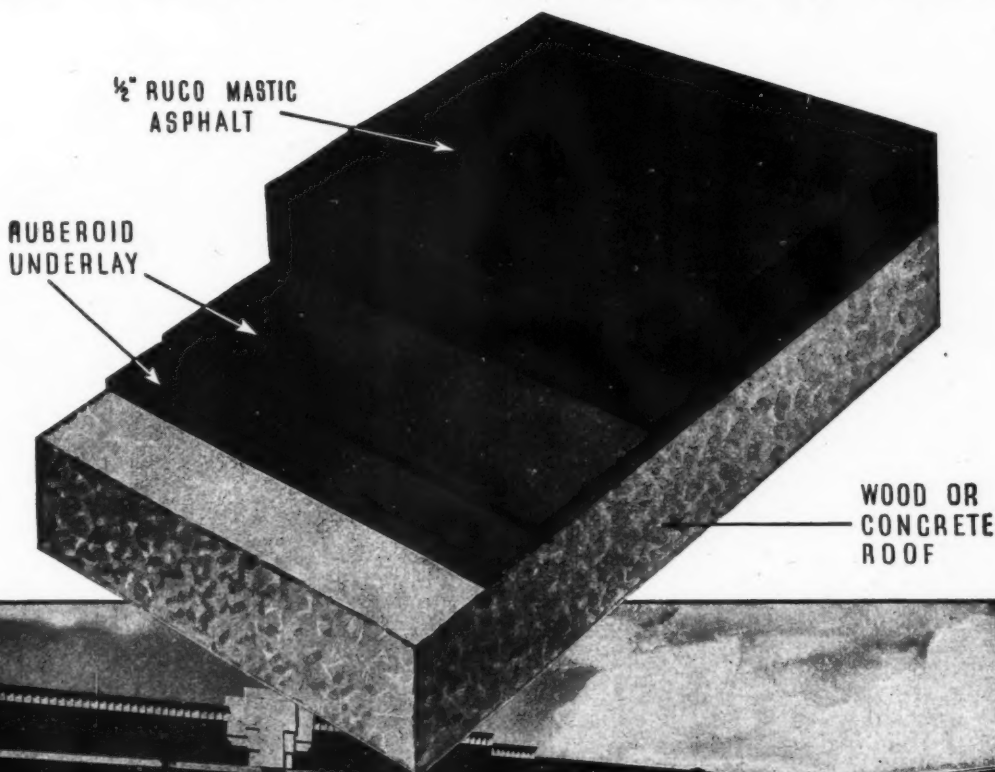


If the mixing water from the bottom inch drains into a porous subsoil, hardening will be incomplete and the finished slab weak. Keep water in the mix by using an underlay of IBECO waterproof concreting paper. IBECO is different from all other concreting papers. It's waterproof throughout. The proofing bitumen is part of the paper itself. Easy to handle, small in bulk for easy transport, low in cost, IBECO is a "must" for modern concrete work. Samples and test data from C. Davidson and sons Ltd (Dept. K.46): Mugie Moss, Aberdeen.



WATERPROOF KRAFT PAPER

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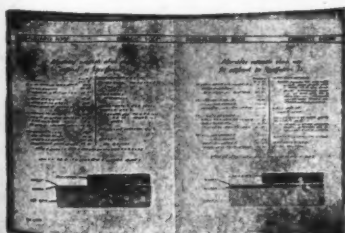


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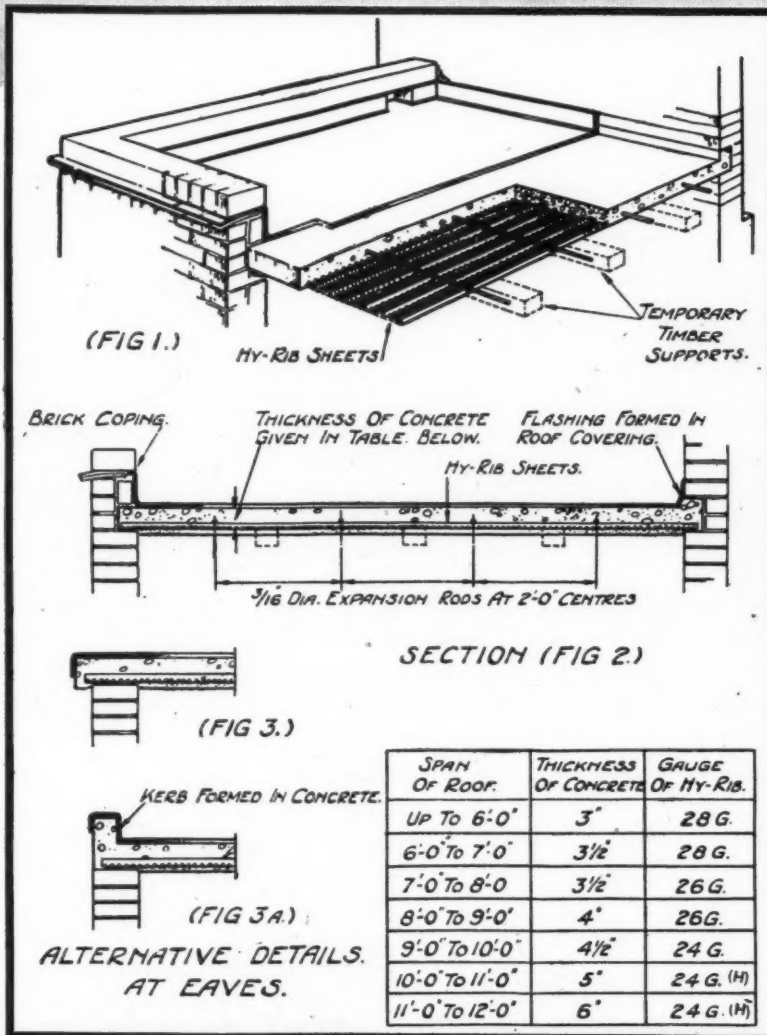
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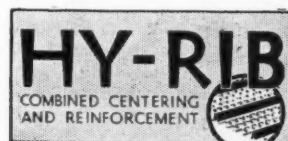
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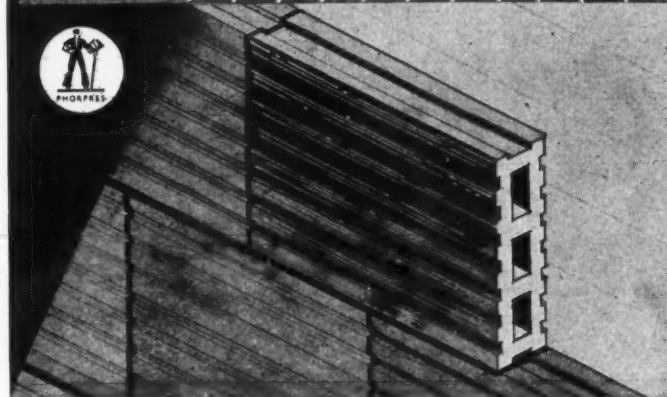
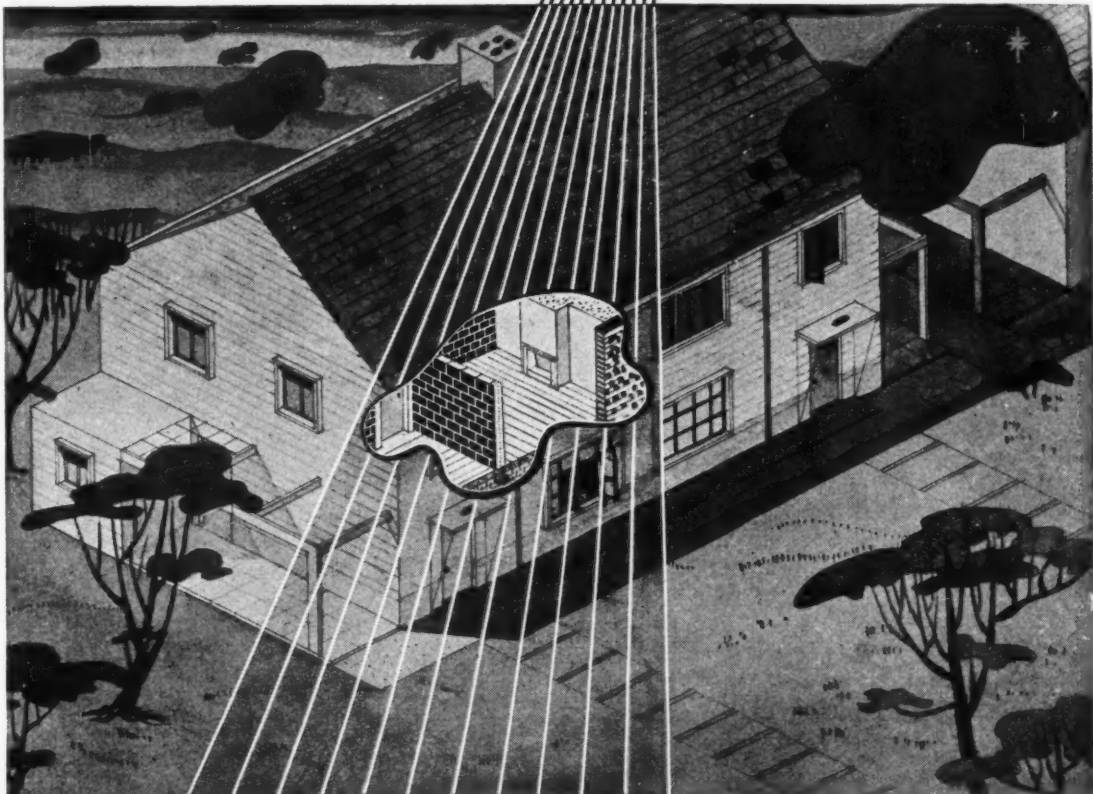
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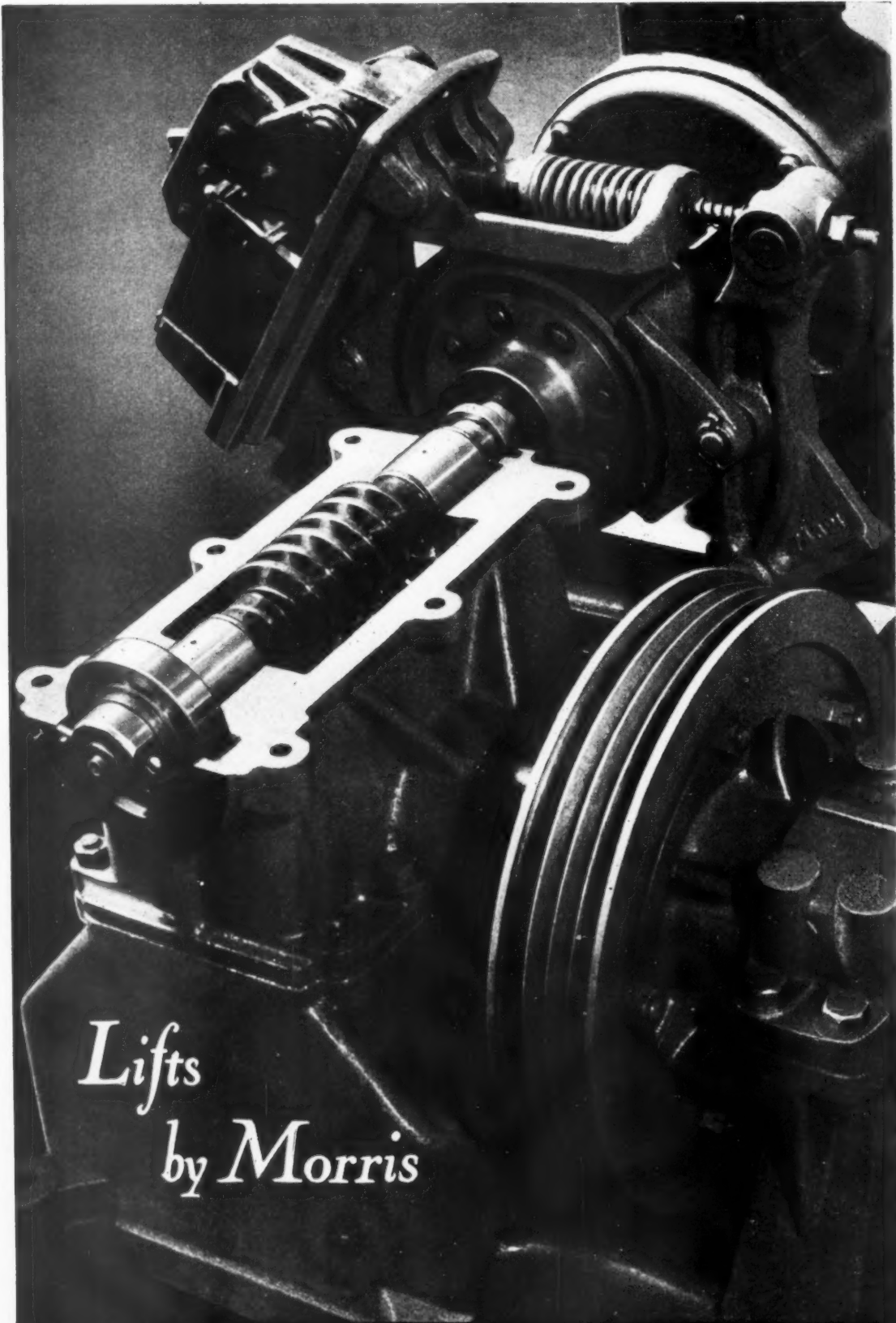
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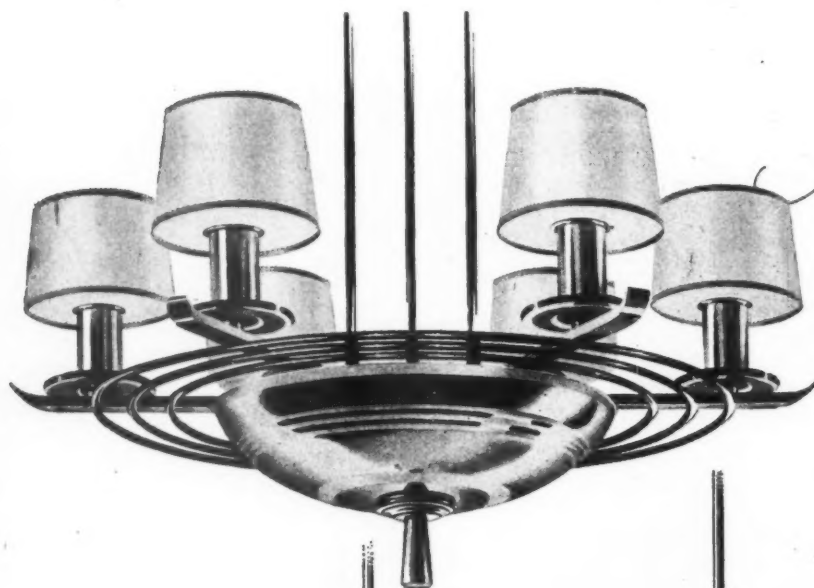
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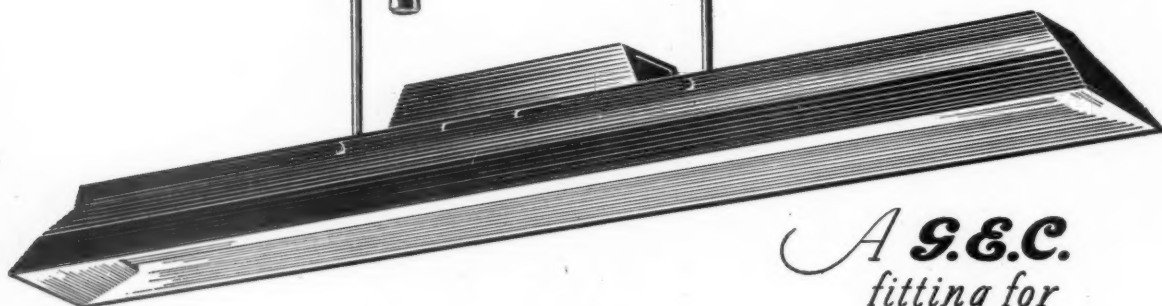
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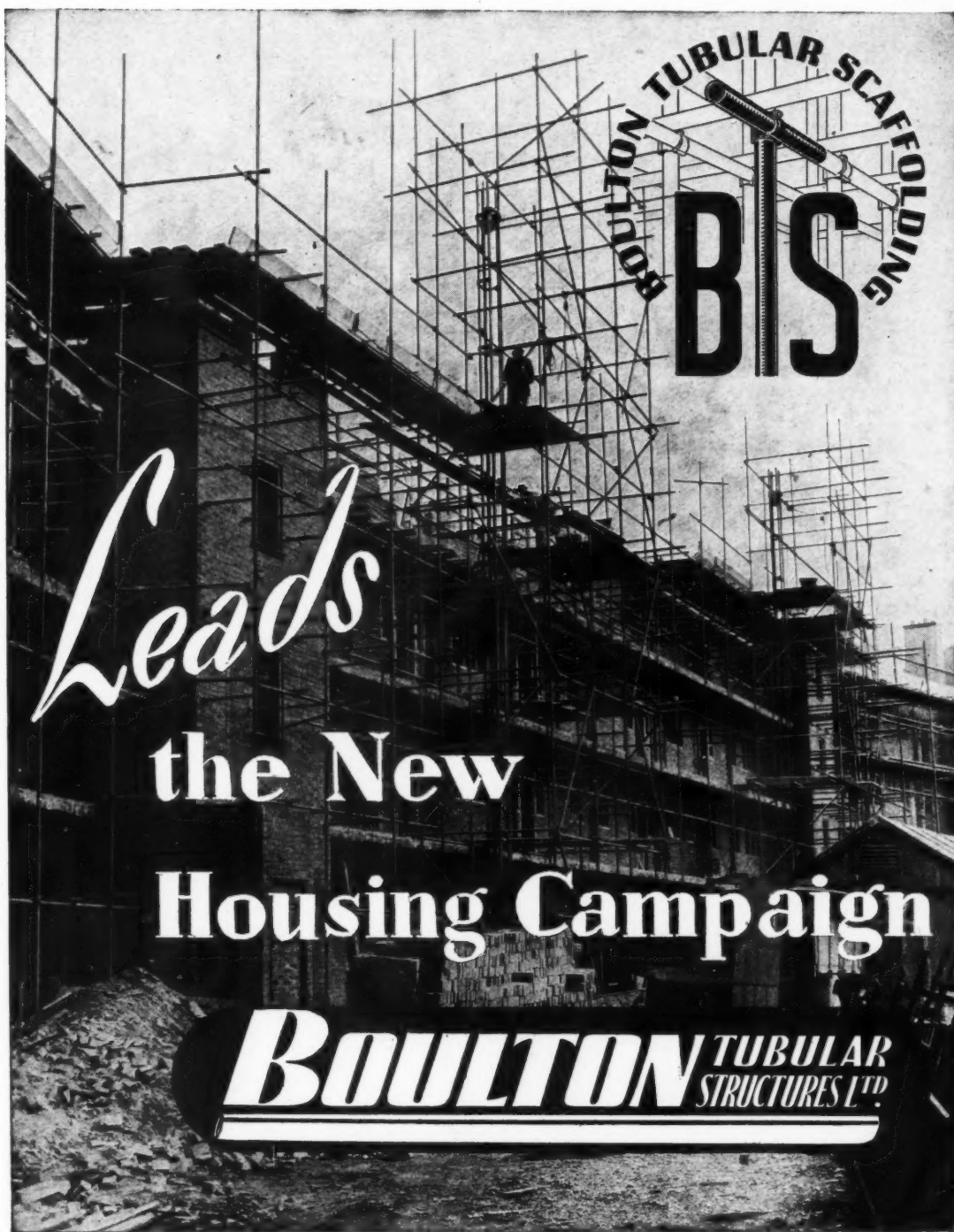


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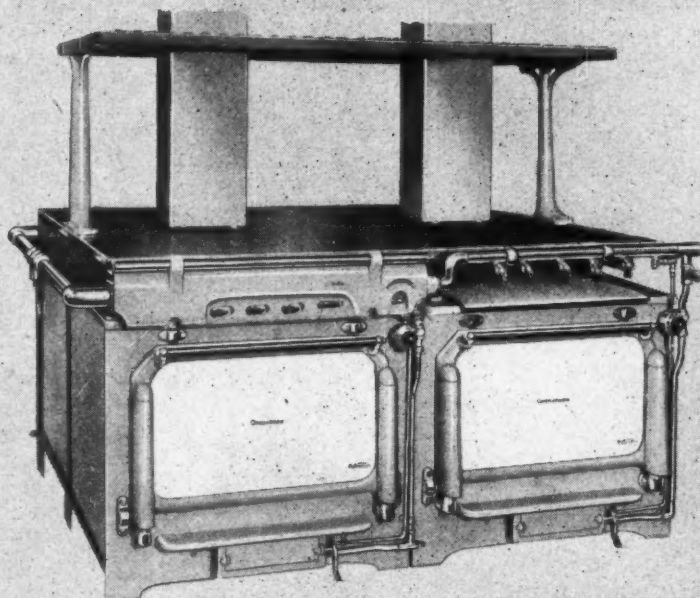
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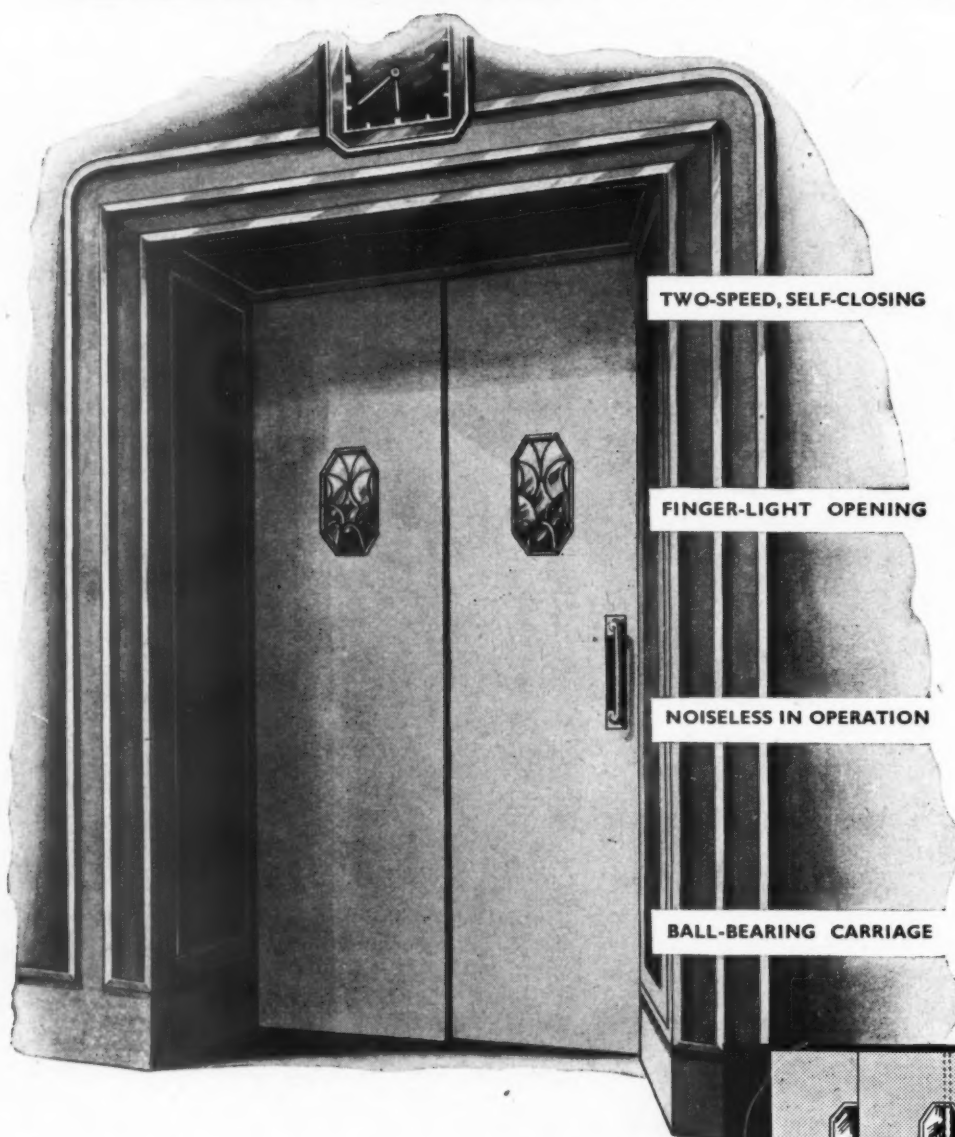
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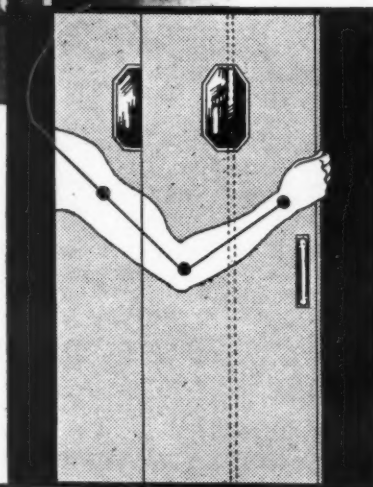
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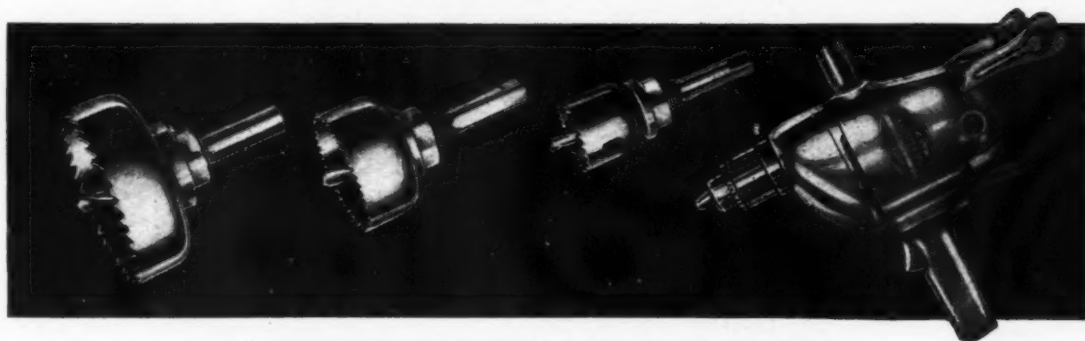


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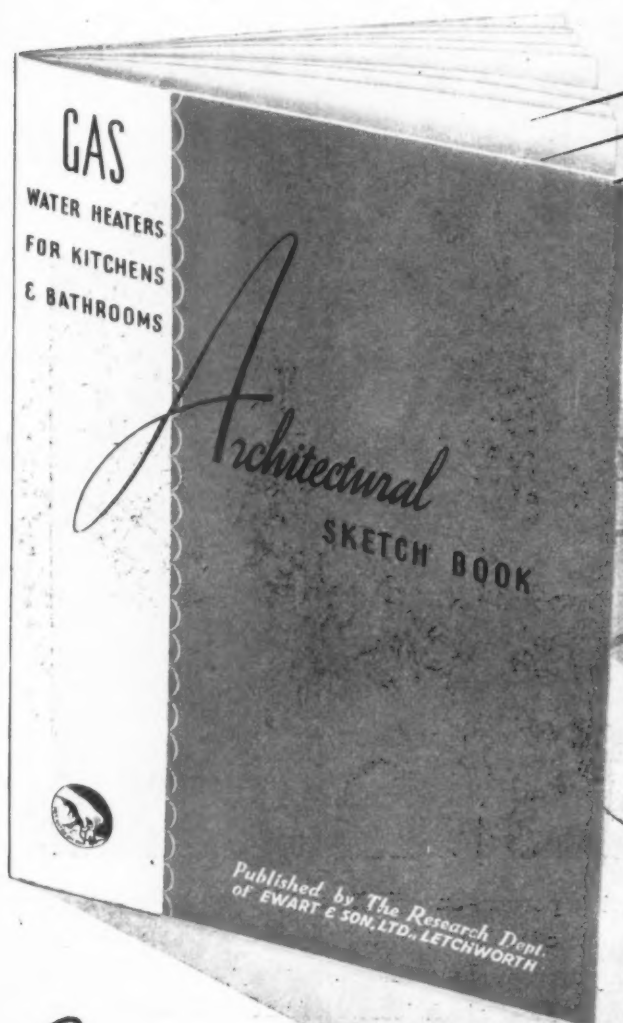


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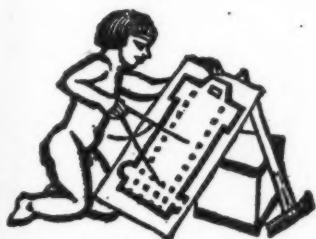
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In common with every other periodical this JOURNAL is rationed to a small part of its pre-war needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the JOURNAL. Newsagents now cannot supply the JOURNAL except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. od. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the JOURNAL and made of raw materials now in short supply, are not necessarily available for export.



DIARY FOR FEBRUARY MARCH AND APRIL

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 the initials as given in the glossary of abbreviations on the front cover.

BLACKPOOL. *Annual General Meeting of the Federation of Master Builders.* FEB. 25-27

LONDON. *Annual Luncheon of British Refrigeration Association.* At Connaught Rooms, Great Queen Street, W.C.2. Principal Guest, Rt. Hon. John Wilmot, M.P., Minister of Supply. 12.45 p.m. for 1.15 p.m. FEB. 14

Lord Forrester. *Advances in Swiss Architectural and Planning Technique Since 1939.* At the Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1. (Sponsor, APRR.) 5.30 p.m. FEB. 14

A. G. G. Thompson, Medical Officer of Health for Lambeth. *Land Utilization in Relation to the Public Health.* Chadwick Public Lecture. At the Royal Society of Tropical Medicine and Hygiene, 26, Portland Place, W.1. 2.30 p.m. FEB. 19

Senor Don Carlos Contreras. *Mexican Planning and Architecture.* at the RIBA, 66, Portland Place, London, W.1. The lecture has been arranged jointly by the RIBA and the British Council. Senor Contreras was born in Mexico in 1892 and has studied in the United States, has been Professor of City Planning in the National University of Mexico; he is an Honorary Member of the Town Planning Institute of Great Britain and the American Institute of Architects. He represented the Mexican Government at the International Housing Conference held in London in 1935, and was President of the International Housing and Town Planning Conference held in Mexico in 1938. Senor Contreras has brought many slides illustrating modern architecture and planning in Mexico. The lecture is free and all members of the profession and their friends are welcome. 6 p.m. FEB. 19

Max Lock. *Surveys and Their Practical Application to Planning.* At the Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPI.) 6 p.m. FEB. 21

Miss Jacqueline Tyrwhitt. *Planning in Canada.* At the Town and Country Planning Association, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) 1-15 p.m. FEB. 21

J. F. Bickerton and Petros Protopapadakis. *Layout of Passenger Stations.* At the Institution of Civil Engineers, Great George Street, S.W.1. (Sponsor, ICE.) 5.30 p.m. FEB. 26

AA Debate. *That Architecture in England is Dead.* At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA Students' Committee.) 6.30 p.m. FEB. 26

Solid Smokeless Fuel Appliances for Domestic Heating Services Exhibition. At the Horticultural Hall, Vincent Square,

S.W.1. The exhibition is being designed by Ian Jeffcott. (Sponsor, Solid Smokeless Fuels Federation.) MARCH

Stormont Murray. *Eric Gill: His Life and Work.* At the International Arts Centre, 3, Orme Square, Bayswater Road, W.2. (Sponsor, IAC.) 8 p.m. MAR. 1

G. L. E. Metz and R. L. Davies. *The Electrical Engineering Industry in The Post-War Economy.* At the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE.) 5.30 p.m. MAR. 7

Ashley Havinden, Designer and Art Director, Sir William Crawford and Partners. *Design and Publicity.* At the London School of Hygiene, Gower Street, W.C.1. Chairman, Sir William Crawford. (Sponsor, DIA.) 7 p.m. MAR. 13

Percy Delf Smith. *Signs and Amenities.* At the Town and Country Planning Association, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) 1.15 p.m. MAR. 21

H. Berry, M.P. *Town Planning and Water Supply.* At the Town and Country Planning Association, 28, King Street, Covent Garden, W.C.2. (Sponsor, TCPA.) 1-15 p.m. APRIL 4

Mrs. Lovat Fraser. *The Future Use of Plastics.* At the International Arts Centre, 3, Orme Square, Bayswater Road, W.2. (Sponsor, IAC.) 8 p.m. APRIL 9

D. Winston Aldred, Head of the Department of Architecture and Building, South West Essex Technical College and School of Art. *The New Building Science.* Bossom Gift Lecture. At the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1. 2.30 p.m. APRIL 9

L. H. Keay. *Post-War Housing.* At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA.) 6 p.m. APRIL 9

SOUTHEATH-ON-SEA. Miss Elizabeth Denby. *Houses and Homes.* Fifth of six lectures on Town Planning and Housing. At the School of Art, Dowsett Avenue. (Sponsor, Southend-on-Sea Municipal College.) 7.15 p.m. FEB. 18

W. R. Arnold Whittick. *How Can All This be Managed?* Last of six lectures on Town Planning and Housing. At the School of Art, Dowsett Avenue. (Sponsor, Southend-on-Sea Municipal College.) 7.15 p.m. FEB. 25

STAVELEY. *Rebuilding Britain Exhibition.* At the Branch Library. (Sponsor, BIAE.) FEB. 14-25

YORK. *NALGO Exhibition.* At Holgate Hill Settlement. (Sponsor, BIAE.) FEB. 14-23

NEWS

THURSDAY, FEBRUARY 14, 1946
No. 2664. VOL. 103

News	135
Chief Architect, NI Housing Trust	136
This Week's Leading Article	137
Astragal's Notes and Topics	138
Letters from Readers	139
Architect Designed	140
Housing in Northern Ireland described by J. Roy McKee	141
Architect-designed Trailer Caravan designed by R. Jelinek-Karl	146
Information Centre	148
Societies and Institutions	152

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.

★★

On February 4 the death was announced of SIR HERBERT BAKER, at Owletts, Cobham, Kent.

Born at Cobham, in 1862, he received his earliest professional training at the AA and in the office of Mr. Arthur Baker, to whom he was articled. For some time he acted as assistant to Sir Ernest George and Mr. Peto, among his colleagues being Guy Dawber, Edwin Lutyens, and Herbert Wigglesworth, studying meanwhile at the evening architectural school of the RA, where he won in 1889 the Ashpitel Prize of the RIBA. In 1892 Baker went to South Africa, where he met Cecil Rhodes, and began a friendship that resulted in a whole series of important buildings in South Africa. Working in association with Lutyens at Delhi, India, Baker was responsible for the Secretariats and Legislative Buildings, including the great circular Council Chamber. After the 1914-18 war Baker was for a time absorbed in the work of the War Graves Commission, planning, laying-out, and advising about the work in connection with the war cemeteries. He designed the memorials at Neuve Chapelle and Delville Wood, and many memorials at home. Baker's most important works in London were the reconstruction of the Bank of England, India House, Aldwych, and Africa House, Trafalgar Square. Other notable buildings include Martins Bank and Glyn, Mills and Company in Lombard Street, the Royal Empire Society's building in Northumberland Avenue, and Church House, Westminster. Baker was elected A.R.A. in 1922 and R.A. in 1932. In July, 1926, he received the honour of knighthood "in recognition of his services to art," and the next year was awarded the Royal Gold Medal for Architecture. He was created a K.C.I.E. in 1930, and in 1937 Oxford University conferred upon him the honorary degree of D.C.I.

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From AN ARCHITECT'S Commonplace Book

ON CONTINUITY IN ARCHITECTURE. [From An Autobiography by Frank Lloyd Wright (Faber and Faber).] I found that in the effort actually to eliminate the post and beam in favour of structural continuity, that is to say, making the two things one thing instead of two separate things, I could get no help at all from regular engineers. By habit, the engineer reduced everything in the field of calculation to the post and the beam resting upon it before he could calculate and tell you where and just how much for either. He had no other data. Walls made one with floors and ceilings, merging together yet reacting upon each other, the engineer had never met. And the engineer has not yet enough scientific formulae to enable him to calculate for continuity. Floor slabs stiffened and extended as cantilevers over centred supports, as a waiter's tray rests upon his upturned fingers, such as I now began to use in order to get planes parallel to the earth to emphasize the third dimension, were new, as I used them, especially in the Imperial Hotel. But the engineer soon mastered the element of continuity in floor slabs, with such formulae as he had. The cantilever thus became a new feature of design in architecture. As used in the Imperial Hotel at Tokio it was the most important of the features of construction that insured the life of that building in the terrific temblor of 1922. So, not only a new æsthetic but proving the æsthetic as scientifically sound, a great new economic 'stability' derived from steel in tension was able now to enter into building construction.

A Study of North Lambeth and Southwark Redevelopment Area, a report prepared for His Majesty's Council of the Duchy of Cornwall includes the provision of what is described as A SOCIAL HEART TO THE RESIDENTIAL SITE.

This has a shopping centre to replace the present Lambeth Walk, and on its traditional position a covered-in market adequate for the needs of what would be a reduced population. Nearby are planned those buildings which, grouped together, would form a social centre. These include a community centre—restaurant, dance hall, gymnasium, swimming pool, etc. Such a building might be under the administration of a local community association to which present active individual organizations would be affiliated. The pool would take the place of the Lambeth Baths, which were seriously damaged during the war. The present site also comes within the plan of future cross-roads improvement. There would also be included a hall for letting, a new Lady Margaret Hall Settlement, a building for the District Nursing Association, the new public library, a new North Lambeth and Kennington Art School, a public house with restaurant, bowling green, etc., and an office building for the administrative organizations. The lay-out would therefore be a centre park with housing accommodation adjoining it north and south, and on the west the social centre described. The report has been prepared by Mr. Holroyd F. Chambers, Land Steward to the Manor of Kennington, and his architect collaborator, Mr. Louis de Soissons.

★

Miss Jacqueline Cromie, a lieutenant in the Women's Section of the French Army has been DECORATED AS A CHEVALIER OF THE LEGION OF HONOUR and with the Croix de Guerre.

On August 6, 1944, Miss Cromie, the twenty-five years old daughter of Lieut-Colonel Robert Cromie, F.R.I.B.A., was driving a car containing Colonel Claude Chan-

don, formerly military governor of the Camerouns, when they came upon two columns of Germans. One of them threw a grenade which exploded on the roof of the car, wounding her in the head so that she had to stop. The Germans then opened fire, shooting Colonel Chandon through the eye and killing him instantly, and wounding their two companions. After being questioned by German officers they were taken to a hospital run by French nuns, and the Germans evacuated the village that night. Next day Miss Cromie recovered Colonel Chandon's body, and arranged for its burial. Then she drove her wounded companions to an American hospital.

★

Preliminary work on the foundations of the new CHAMBER OF THE HOUSE OF COMMONS by Messrs. Trollope



Miss Jacqueline Cromie, a lieutenant in the Women's Section of the French Army, decorated as a Chevalier of the Legion of Honour and with the Croix de Guerre with Star. See News Item.

and Colls, the contractors, which will cost about £20,000, is expected to take six months to complete and will employ a peak labour force of sixty-six men.

The original raft, lying on the Thames-side gravel about ten feet below the Courtyard level, which was constructed by Sir Charles Barry in 1840, will again serve as the basis for the foundations of the House. The work will consist principally of constructing new concrete retaining walls, underpinning those portions of the Cloisters adjoining the House, and constructing pipe subways to carry the heating and general services. Although so close to the Thames, the site is not a wet one, but some asphalt tanking will be done as a precautionary measure. All the debris which resulted from the bomb damage to the Chamber of the old House was cleared some time ago, and the site is now virtually ready for operations to commence.



Mr. E. W. Garrett the newly elected President of the London Master Builders' Association is managing director of J. Garrett and Sons Ltd. founded by his grandfather in 1880.



Chief Architect, NI Housing Trust

Forty-two year old Mr. E. A. Ferriby, A.R.I.B.A., A.M.T.P.I., Chief Architect to the Northern Ireland Housing Trust (salary £1,725 per annum) was educated at Hull Grammar School, and was a student, and later, for five and a half years a studio instructor and lecturer, at the Liverpool School of Architecture. For six and a half years he worked with Mr. L. H. Keay, F.R.I.B.A., City Architect and Director of Housing at Liverpool, where he received a special appointment to design the satellite town of Speke, a scheme of between 6,000 and 7,000 ancillary buildings which was

interrupted by the war. For eighteen months, until his present appointment, Mr. Ferriby was principal architect to Mr. Hubert Bennett, F.R.I.B.A., Borough Architect of Southampton (now County Architect, West Riding of Yorkshire) and in association with the late Wesley Dougill won the following competition awards: first premium, layout of Lump's Fort Site, Southsea; second, Bilston Health Centre; third, Kidworth Housing Layout, Aberdeen. The work of the Northern Ireland Housing Trust is described in our leading article, and on pages 141 to 145.

***The Minister of Agriculture: I propose that my department shall explore to the full the use of substitute materials and SIMPLIFIED METHODS OF CONSTRUCTION FOR FARM BUILDINGS.**

This comment was made by Mr. Tom Williams, the Minister of Agriculture, on the report on the layout, design, and construction of farm buildings (Post-War Building Studies No. 17: Farm Buildings) published by H.M. Stationery Office, 3s. It is the work of a committee appointed in November, 1942, by Mr. R. S. Hudson, M.P., then Minister of Agriculture. Mr. Tom Williams, in a statement circulated to the House of Commons, said: An extensive programme of new construction on farms cannot be contemplated for the next two or three years. New buildings there will have to be if full production is to be secured, and there are substantial arrears of repairs and maintenance to be overtaken; but for some little time the quantity of building labour and materials that can be spared from the housing programme will be small in relation to needs. I propose therefore that my Department shall, on the lines indicated in the report, explore to the full the use of substitute materials and simplified methods of construction. They will be assisted in this by the findings of a mission on farm buildings, appointed by my predecessor and his colleague the Secretary of State for Scotland, which has recently returned from America. Professor Sir Frank Engledow, of Cambridge University, chairman of the Farm Buildings Committee, explained at a Press conference in London that a great many of the buildings on the 300,000 farms in England and Wales dated from our last long period of agricultural prosperity. After nearly 70 years of depression in farming they were badly dilapidated; they were also for the most part out of date and unsuited to modern farming practice.

Messrs. Johnson and Crabtree, F.F.R.I.B.A., 32, Cavendish Square, London, W.1, have been appointed ARCHITECTURAL CONSULTANTS TO SOUTHAMPTON CORPORATION, in connection with the proposed re-building of the central area of the town.

London Master Builders' Association: Questions have recently been raised in one or two quarters as to whether the extra payment for DIRTY WORK under Working Rules is assessable for Income Tax, because contrary rulings were being given by local Income Tax Inspectors.

The point was raised at a meeting of the Central Progress Committee, who requested the Inland Revenue for a ruling. The ruling has now been given by the Inland Revenue confirming that this payment is assessable for income tax purposes.

IN NORTHERN IRELAND

IN our issue for May 3 last year we described how Northern Ireland was solving its planning problems. Unhampered by any academic tradition or planning background, its approach was unbiased, realistic and to the point. The result was a planning set-up with two new units of machinery—the Planning Advisory Board and the Planning Commission. One of the first actions of PAB was to conduct a survey of housing conditions in the Province. Two teams of trained operatives surveyed the six counties and produced a report that showed the condition of every house, the number of married couples without homes, and the degree of overcrowding in the urban and rural areas. The cost? Approximately 5d. per house for urban areas, and 3s. per house for rural. Its worth? A factual statement which throws into sharp relief the housing needs of the entire Province—100,000 houses required immediately. Resources? A building industry that in its best years before the war never exceeded 7,000 houses per annum.

With such evidence the Board decided that some immediate measures should be taken to meet the situation and accordingly included in its report to the Cabinet a suggestion that a Housing Association be set up to help solve the problem.

The Government, advised by its Ministry of Health after the report by PAB, decided to set up a Housing Trust with wide powers to acquire land and build houses anywhere in the Province. The Ministry of Health advised the Government in regard to the selection of personnel both for the members of the Board as well as the Administrative and technical staff of the Trust. One of the first and greatest difficulties was the lack of the necessary technical staff. This, however, did not hold up the Trust. Fully aware of the magnitude of the problem, it realized the job was not only to build houses but to build them quickly and it looked around for an immediate solution. The Trust noted that private architects in the Province were brushing the dust off their drawing boards after six years of war and did not miss its opportunity. Before the dust had time to settle each architect found himself with an Ordnance Map decorated with a spot of red, and a list of instructions, not the least of which was to get his layout completed as soon as possible in order that the roads could be built while he was preparing his working drawings.

The problem now is to get the houses built. This means the co-operation of the various sections of the building industry and the uninterrupted flow of building materials. Admittedly the supply of materials is difficult but it is the former that gives real cause for anxiety. A local architect in a report to his council on the cause of delay on one of the local authority schemes stated that of the last fourteen bricklayers engaged three did not report, two reported but did not start work, one had gone to London, three returned to the country, two had left the job for a long weekend, Friday to Tuesday.

and only three had proved reasonably reliable. Out of the present total of 22 bricklayers ten had taken Saturday morning off. Intermittent stoppages by other men had also slowed up progress.

These houses are being built for the bricklayers, the joiners, the plasterers, and others of similar income group. The Government officials, the architects, the quantity surveyors, who are all doing their share of the work, are in many cases without houses themselves, and they cannot see any hope of obtaining one until a considerable amount of the smaller type of houses has been erected. The Trust is therefore giving consideration to forms of building other than traditional ones.

The progress of the Northern Ireland Housing Trust should be carefully watched by the authorities in London, with a view to its principles being applied with necessary adaptations to the rest of the British Isles. It may be found that such an organization, with its emergency powers that enable it to cut much time wasting red tape, may help considerably to speed up housing.



The Architects' Journal

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N O T E S & T O P I C S

CONVERSION AND LEGAL DIFFICULTIES

The long delayed official report on conversion* has at last appeared. The finding is that "it is essential to make use of every means of increasing the number of dwellings, not only by new building, but also by converting suitable properties as a long-term policy, and by adapting others for a limited period."

The sub-committee which produced the report was appointed in January, 1945, under the Chairmanship of Mr. Lewis Silkin "to advise on the possible scope for, and difficulties in the way of, the conversion and adaptation of existing houses on the assumption

that requisitioning powers will shortly come to an end." Requisitioning powers have not in fact come to an end, and this will make local authority conversion easier, because the whole problem of conversion seems to be a legislative one.

Economically conversion is well worth while, as the Report shows, for though the amount of skilled labour required in a conversion scheme costing £500 per dwelling would approximate to the amount of skilled labour required in the construction of a new house costing £850, £200 per dwelling would be the minimum cost for full conversion and £300 the average.

The principal practical difficulties in the way of any considerable plan for conversion are administrative or legal. The vast majority of houses suitable for conversion are either subject to a long lease or freehold subject to restrictive covenants. It is true that there are provisions in the Housing Act, 1936, and in the Law of Property Act, 1925, which enable restrictions to be modified, but under neither Act is the procedure really satisfactory. The Committee realises this and recommends that additional powers for local authorities will be necessary and that building by-laws, which sometimes put difficulties in the way of multiple occupation, will need review.

They conclude that: (1) Local authorities should have power to re-

quire owners of unoccupied premises to provide all relevant information, (2) they should have power to gain access to unoccupied premises in order to determine their suitability for conversion or adaptation, (3) they should have powers of rapid acquisition of properties suitable for conversion where the owner is not prepared to carry out the work on his own initiative, (4) they should have powers to obtain vacant possession of premises which, if not included in a scheme of conversion being carried out, would seriously prejudice the execution of the scheme.

The Committee even goes so far as to suggest that not only should local authorities be subsidized by the Exchequer for conversions, but that private owners should be helped to convert their property by means of loans at low rates of interest and that a percentage of the approved costs of actual conversion should be payable to owners up to a limiting amount per dwelling provided. Here is another legislative problem and a tricky one.

Altogether a very sensible report which should be acted upon immediately. There is no valid cause for delay in setting in motion a nationwide programme of conversion, in spite of the legal obstacles to be overcome.

WITH LE CORBUSIER IN CHELSEA

The Great Shamah has been here though few knew it. Le Corbusier had just come back from America, where he had joined a French Government Commission to study TVA. Now he is back in Paris after two days of leisure in London where I met him looking out of a very Corbush young architect's living room over the neglected grandeur of a Chelsea avenue.

Corb is much more of a painter than people seem to think, taken in by his appearance and his love of gadgets on the smallest and the largest scale. He does look the Franco-Swiss precisian and disciplinarian all right, the product of Calvin's country and the country of the world's best watch makers—very alert and very intelligent, with his fine long head, white hair and black-rimmed spectacles, $\frac{5}{8}$ -inch gauge. But

* *Conversion of Existing Houses.* Published for the Ministry of Health by H.M. Stationery Office. 1s. 0d.

he is an enthusiast all the same and a poet.

There he was with plans scattered over the floor of the towns he is working on, explaining technique and basic social stuff, and addressing much of his conversation to the kitten which sat in the middle of La Rochelle. Talking to us, too, talking clearly and enthralingly for two hours and more. Yes, of course, house-wives' drudgery must be removed. Yes, of course, district heating is the answer to lots of troubles. But let that go. "*Je m'enfiche des water-closets.*" And then he started on *la sanctité des arts majeurs*, the necessity of free art as the crowning glory of architecture.

He loves painting walls—he has done a whole villa on the Riviera never yet published—and painting for walls. Don't give your best walls to the painter, such as the space over the mantelpiece, he says. They can stand on their own. They are valid and help to make the room. Take any *sale trou*. You can make it live and glow by painting on it—such as the poky little three foot left-over bit by a staircase in his own house. You should see how it expands miraculously when you place the right painting on it. It was a mistake of the Ruskinites to say that good wall paintings must keep the integrity of the wall. Just the contrary—a good painting "dynamites the wall."

And so Le Corbusier talked on, as vital and stimulating as ever, rekindling our fighting enthusiasm for a living architecture in a world in which the myopic money-makers and the bloodless bureaucrats fill one too often with a negative despair.

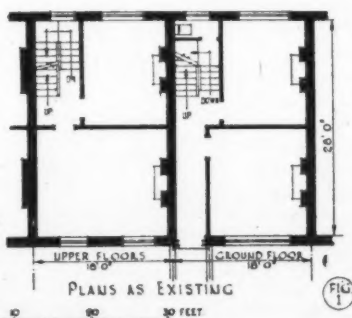
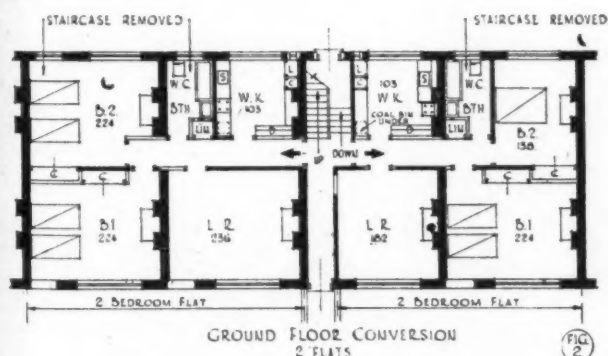
PUSH INSTEAD OF TURN

Admiration for the Merlin engine stimulated me to visit Conduit Street recently to see the new Rolls-Royce Derwent jet propulsion unit. After the highly finished tenth of a thousandth workmanship of the normal aero engine, this unit is, in a visual sense, disappointing, in that it looks, at first glance, like a rather complicated type of oil burner for a heating system.

Thinking about it further, one realizes that there is no reason why it should not convey this impression, because, when all is said and done, an aero engine is essentially a device for burning a maximum of fuel in a minimum of time, and if you can dispose of the energy simply by squirting it through a hole instead of making it turn an elaborate variable-pitch propeller, the result is likely to be very much more efficient.

Anyway, this, or something very like it, is the high speed engine of the future, and as such, it is very well worth going to see.

ASTRAGAL



From the Government report, Conversion of Existing Houses, on which Astragal comments this week. The plans illustrate an example of how to carry out a horizontal conversion of terrace houses.



LETTERS

J. E. Rhind, A.R.I.B.A.

Nathan Fielker

(Technical Adviser, Building Component Producers' Association.)

Sir Percy Thomas, P.R.I.B.A.

(President, Architects' Benevolent Society.)

Sir Parker Morris, LL.B.

(Town Clerk of Westminster.)

World Peace City

SIR.—The United Nations Organization now meeting in London should decide to hold an international architectural competition to build the proposed World Peace City as a lasting memorial to the Glory of God, and in memory of all those of every nation, race and creed who gave their lives in the defence of freedom everywhere.

The competition should be open to all architects of the United Nations, and it is even suggested that architects belonging to the countries which were our former enemies should also be invited to compete. Art knows no frontiers and there is great hope in the universal appeal of architecture and building for permanent world peace.

It was recently reported in the Press that the total expenditure of six years' war to the world reached the astronomical sum of £178,000,000,000. It is true that in defence of all that we hold dear, liberty, and even life itself, no cost could be too high to gain such a prize, but now that peace has returned to a war-weary world, the cost of rebuilding our shattered civilization seems comparatively slight.

To build the World Peace City should be the joint responsibility of UNO. A scale model of the winning design could be exhibited in every capital in the world, so that

ARCHITECT DESIGNED



The first two pairs of demonstration houses built from plans selected in a national competition for builders and architects organized by the House-Building Industries' Standing Committee were opened on January 31. These houses are two of the twenty-seven pairs now being built in various parts of the country to demonstrate what the building and its allied industries have to offer in the new smaller type of house. Top, the pair built by Messrs. Taylor Woodrow and designed by Messrs. T. P. Bennett and Son, at Cranford Park Estate, Hayes, Middx. Below, the pair built by Messrs. George Wimpey and designed by Eric Collins, A.R.I.B.A., at Field End Road, Eastcote. One of each pair has been furnished in co-operation with the Council of Industrial Design for a sum not exceeding £300, using furniture and furnishing shortly to be made available for the public. The houses will be open for exhibition and public criticism for three months for the benefit of the report which is to be made and which will have a great bearing on the building industry's future housing. The Bennett house is of 11 in. brickwork, the Collins house of 12 in. no fines concrete poured into special formwork which is handled by cranes. The superficial area of each is 900 feet.

all may be able to visualize the importance of this project, and thus gain their enthusiastic support.

The planning of the World Peace City should include:—

1. *The Temple of Peace.*
2. *World Parliament Buildings.*
3. *Government Centre*, to house secretariats of all departments, including accommodation for the new Security Council.
4. *Scientific Centre:* (a) Radio and television station to link up all nations in one great social community. (b) Astronomical Centre, to include observatory, planetarium, etc.
5. *Educational:* (a) University; (b) Technical Colleges; (c) Libraries; (d) Museums.
6. *Presidential Area.*
7. *Shopping Area.*
8. *Works Area.*
9. *Aerodrome* and terminal buildings connected to existing railways and other communications.

The peoples of the world must have a permanent symbol of world peace. Let UNO Site Committee draft the detailed conditions of the proposed competition.

Weybourne

J. E. RHIND

Open Fires

SIR.—Astragal's comments on open fires are very much to the point, and since he is looking forward to the realizations of the "Dream grates of the Coal Utilisation Council," I would like to inform him that his dream has come true and that an All-Purpose Service Unit is developed and ready to go into production.

Building Component
Producers' Association,
London

NATHAN FIELKER,
Technical Adviser

Half-Crown Christmas Appeal

SIR.—My Christmas Appeal on behalf of the Architects' Benevolent Society, to which you so kindly gave publicity, has produced a most encouraging result up to date. The total has passed £1,000 for the first time since the Half-Crown Fund was originated. I would like to thank all who have so generously contributed towards the relief of those in distress, and particularly the anonymous donors, whom we are unable to thank otherwise. Among these, we send special thanks to an ex-prisoner of war, whose losses and privations at the hands of the Japanese have but broadened his sympathy for those who have suffered hardship.

We are still receiving contributions, and the Fund remains open for donations from those who were too busy to reply before the end of the year.

PERCY THOMAS
President,
London Architects' Benevolent Society

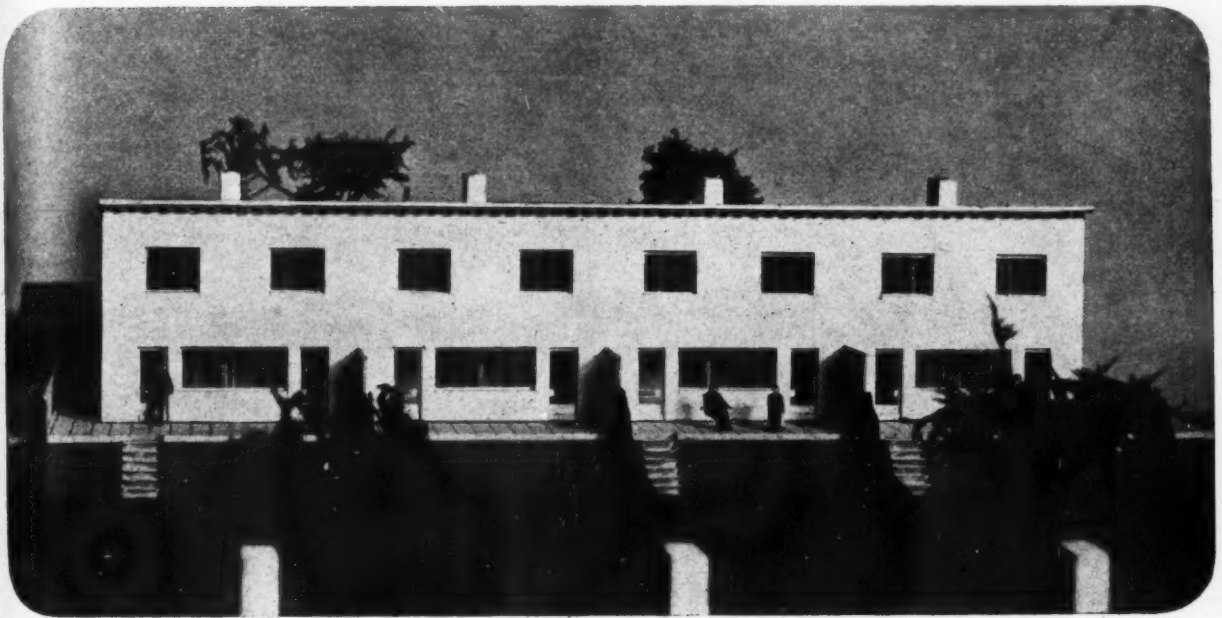
Pimlico Housing Scheme—Architectural Competition

SIR.—Under Clause 8 of the Conditions of Competition, the last date for the submission of designs was March 31, 1946, or such later date as the Promoters may determine and notify to Competitors.

On the advice of the Assessor, the Promoters have altered the date for the submission of designs to April 30, 1946, and I am directed to notify you accordingly.

Westminster

PARKER MORRIS
Town Clerk



HOUSING

IN NORTHERN IRELAND
DESCRIBED BY J. ROY MCKEE

Northern Ireland entered the housing race with a handicap of 37,000 totally unfit houses by reason of the negligible amount of slum clearance that has been carried out during the inter-war period. Overcrowding figures in the Province are startling by comparison with those for England; during the war new marriages have added a further 50,000 families to be provided for; Belfast has suffered

extensive blitz damage; the total result is an urgent and immediate need for more than 100,000 new houses.

This may seem an insignificant figure compared with 4,000,000 for England and Wales but it must be borne in mind that the figure for England and Wales covers the estimated housing needs for the next ten years whereas the Northern Ireland figures indicate only the number of houses immediately necessary, and take no account of further requirements which will arise over the ten years due to increase of population and further obsolescence of existing property while these houses are being built. More serious still the average number of houses Northern Ireland built per year before the war was only 5,000. At that rate it is going to take 20 years to satisfy the immediate needs of the Province.

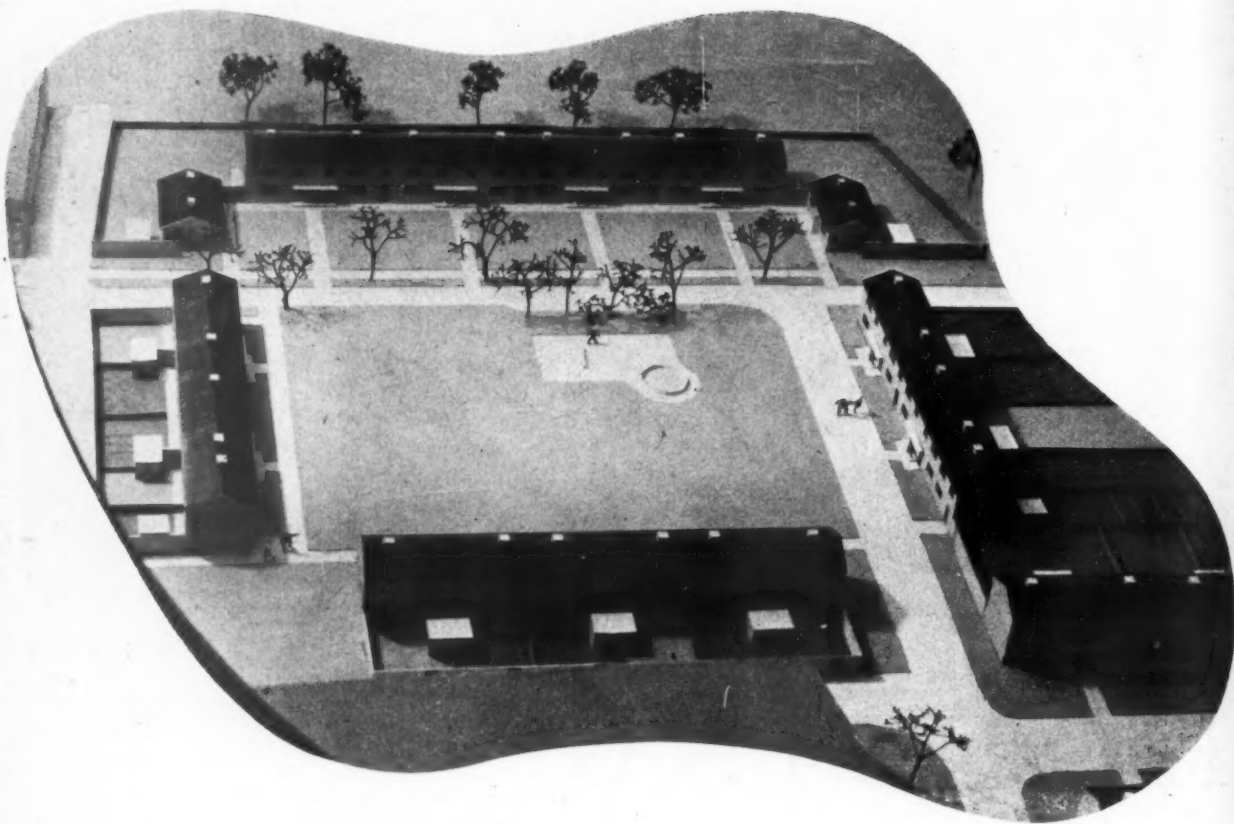
These figures were presented to the Government of Northern Ireland in a report on Housing issued by the Planning Advisory Board, based on actual field surveys conducted throughout the Province. Faced with these facts which emphasized the seriousness of the position, the Government advised

by its Ministry of Health decided to offer a subsidy of £390 per house to local authorities.

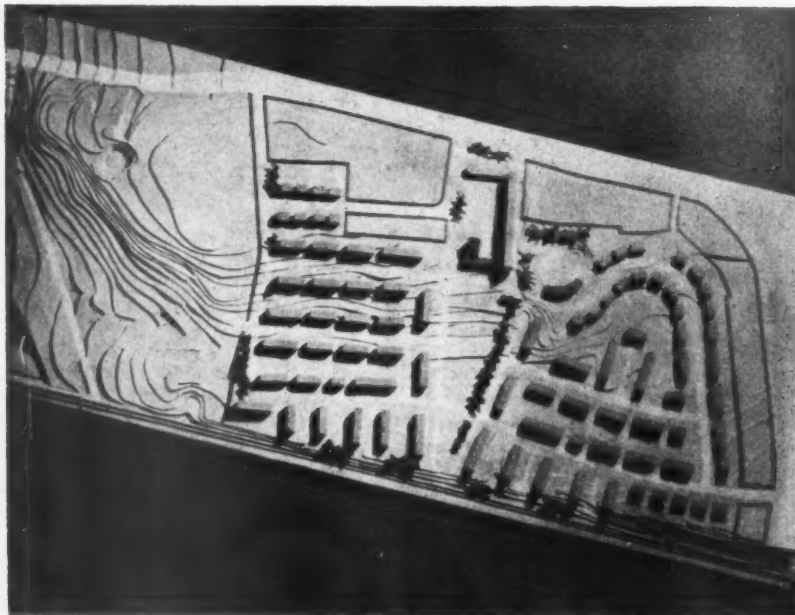
This figure of £390 was greater than any previous subsidy and many local authorities decided to take advantage of it although its value in terms of present costs was less than at first appeared and still left a heavy burden on rates if rents were to be adjusted according to the means of the people. The greatest difficulties the local authorities had to face were shortage of architects, quantity surveyors, skilled craftsmen and building materials. But certain of them had been wise enough a year or so previously to appoint properly qualified architects as planning officers, and were now in the fortunate position of not only having the nucleus of the necessary technical staff at their disposal but actually had sites zoned for housing which were waiting and ready and at the same time conformed with their planning schemes. Here housing was not taking the place of planning, but became one of the main instruments for implementing the plan. There was complete liaison in that the planning officer was also the housing architect. Many interesting schemes have



Top, a local authority scheme at Newtownards by R. F. Malcolmson, A.R.I.B.A. This is one of the most progressive schemes submitted, and work should begin on the houses in the very near future. Above, model of a pair of experimental houses at Larne by J. Scott, Jr., A.R.I.B.A. These houses are now partially completed. They are of traditional brick construction with prefabricated concrete floors and roofs.



Above, a local authority scheme at Ballymena, by L. McCormick, B.Arch., A.R.I.B.A. The trees shown are existing trees and the architect has planned his roads to preserve as many of them as possible. Below, a Trust scheme at Lisburn by R. H. Bell, B.Arch., A.R.I.B.A., A.M.T.P.I. Work on this is about to start.



been prepared in different parts of the Province, and several of them are illustrated here. Our housing standards are in some ways lower than those adopted for England and Wales, but in one respect they are superior. Great emphasis is laid on the provision of adequate storage space and the N.I. Housing Act 1945 lays down that, in addition to clear space for a pram and cycle, an inside or outside store of permanent construction of 32 sq. ft. floor area must be provided. Adding in the area of the store an average five-apartment house has a floor area of approximately 900 sq. ft.

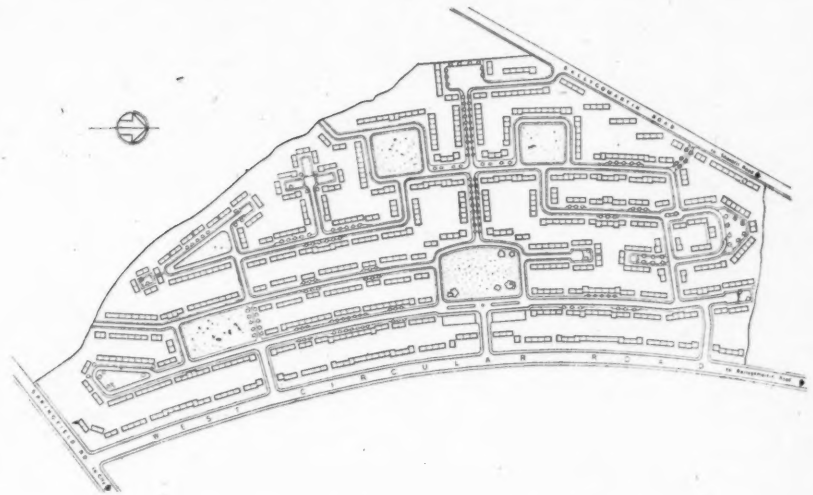
There were other local authorities, however, especially the smaller ones who were not so fortunately placed as those mentioned above, who even if they had been able to afford it, had left it too late to obtain properly qualified technical staff; their housing problem was just as urgent as that of the larger urban areas but they were in the unhappy position of being able to do very little about it. The Government realized that something further would be necessary, and

the proposal for a Northern Ireland Housing Trust was placed before Parliament. After considerable debate this was approved, and the Trust was set up eight months ago. The Trust consists of a board of four men and one woman, all unpaid. They are financed directly by the Government and act in co-ordination with local authorities all over the Province. If a local authority is working hard and producing a good scheme for, say, 100 houses, the Trust comes along and provides a further 50 without charge to the rates. The Trust has great freedom of action, including the authority to spend money on experiments with new building materials and techniques. As well as this, it has the authority, subject to the approval of the Ministry of Health, to disregard local bye-laws in connection with house construction or layouts—an important point. Perhaps the most important point, however, is that it is empowered to build not only houses but ancillary buildings such as shops, grouped garages, etc., to provide and maintain the necessary buildings of a community centre, together with adequate open space and playing field accommodation. This, together with the fact that the Ministry of Education gives grants of from 50 per cent. to 75 per cent. of the cost of providing community buildings and recreational areas,

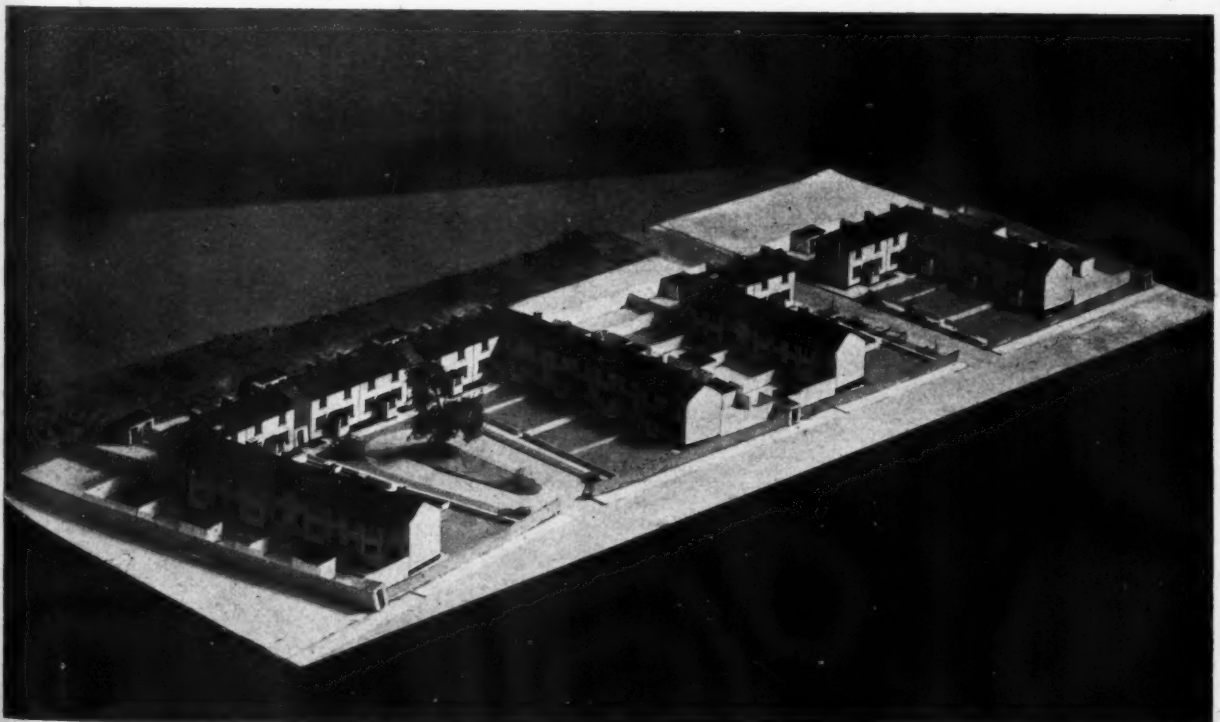
means that real self-contained communities are being established, and not merely suburban additions. The administrative staff of the Trust includes a general manager with deputy, an accountant, and the necessary clerical staff. The technical side is in the process of being built up, but already a chief technical officer, Mr. A. E. Ferriby, has been appointed at a salary of £1,750. There is also

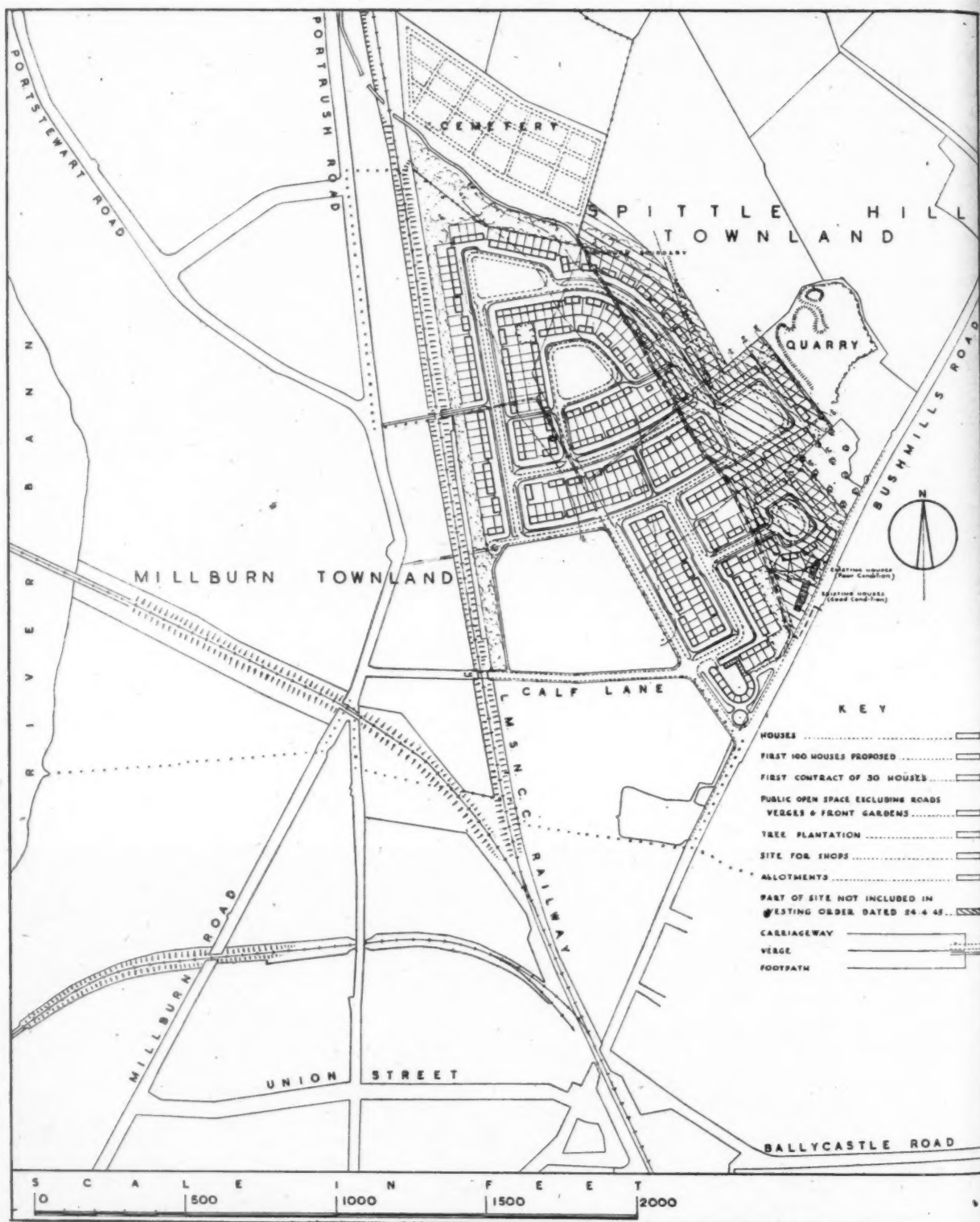
an assistant architect, an assistant engineer, and certain technical staff. Lack of the necessary technical staff, however, has not prevented the Trust from getting on with the job; it has employed progressive firms of private architects while it builds up its own staff.

Among the many advantages of the Trust the following are the most important:—

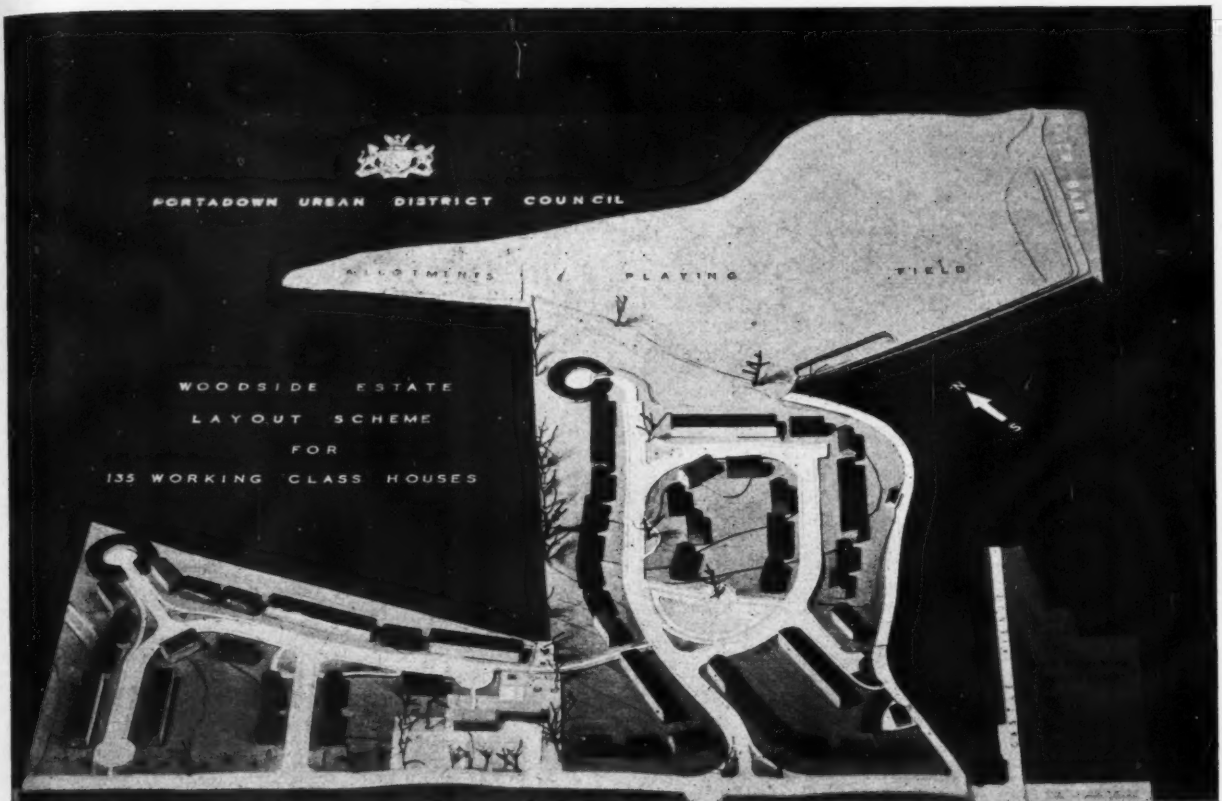


Above, housing scheme on the Ballygomartin site, Belfast by R. S. Wilshere, F.R.I.B.A., F.S.I. Bottom, a local authority scheme at Newry, by R. J. Coles, B.Arch., A.R.I.B.A., A.M.T.P.I. Houses are at present in course of construction.





A local authority scheme at Coleraine, by J. V. T. Scott, A.R.I.B.A., A.M.T.P.I. Working drawings are in course of preparation.



A local authority scheme at Portadown, by J. Johnston, A.R.I.B.A. Working drawings are being prepared. The grey house just off the front road is an old manor house which the Council has bought and intends to use as the nucleus of the Community Centre.

(1) *Freedom of action.* They can build anywhere in the Province without restriction. For instance, Belfast has no suitable building sites within the City boundary; the Trust can build houses for them immediately outside the City boundary whereas the City could not do so without undue legal delay.

(2) *Immediate action.* The Trust being a complete organization in itself can make immediate decisions and act on them whereas local authorities are in the position of having to refer everything to the local monthly Council meetings. Having decided that a site is suitable, the Trust, if it meets with any difficulties from the Owners, can obtain possession of the site by Vesting Order procedure; the advantage being that entry upon the site and the commencement of work may precede the ultimate financial agreement which is settled later by arbitration.

(3) The Trust acts as a guide to local authorities in that the schemes it builds are model schemes, and its house stan-

dards are model standards, and its speed of action is something to be aimed at by even the most progressive of our local authorities.

(4) The houses provided by the Trust are an additional aid from the Government to the local authorities, who will draw rates from them without contributing towards their cost. They are, in fact, an acknowledgment of the leeway that has to be made up from the inter-war period. A difficulty arises in the case of those authorities who tend to rely on the Trust to solve all their housing problems; but a firm policy has been adopted of most help to those who help themselves.

Since its appointment a year ago the Trust has obtained possession of sites for over 1,800 houses. In the near future, final acquisition of land for a further 2,500 is expected. Road and site works have started on three estates capable of accommodating 1,100 houses and contracts have been placed for 390 houses. Details of progress are as follows:—

Belfast Area: Sites have been surveyed and layouts prepared

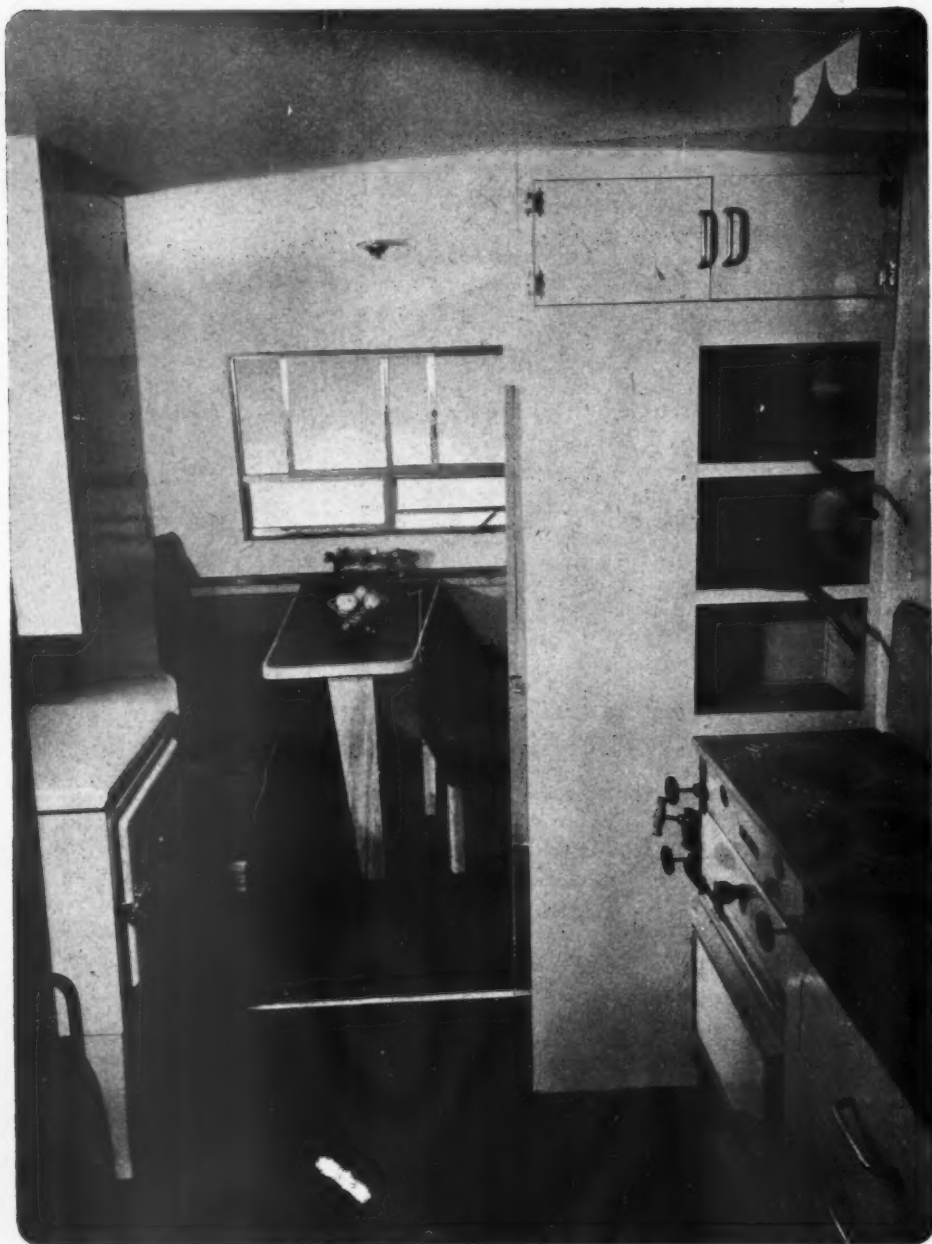
for over 2,000 houses and architects are at work on constructional drawings. On one site which will accommodate 950 houses the construction of the roads is nearing completion.

Londonderry Area: By invitation of the Londonderry Corporation the Trust is to erect 500 houses in the City. The Corporation will pay the Trust for 250 of them and receive the other 250 free of charge.

The Rest of the Province: Sites have been surveyed and layouts prepared for a further 1,200 houses in various towns throughout the Province. A further 9 sites are under investigation.

The Trust has made plans under which orders could be placed before next Summer for upwards of 4,000 houses. Whether these houses can be completed within a reasonable time depends entirely on three factors—the capacity of the building industry, the availability of labour, and the supply of materials. The Trust believes that the housing crisis, like so many that our country has faced, has its only solution in the willing co-operation and effort of all the parties concerned.

Left, view from the kitchen into the living-room.



ARCHITECT - DESIGNED TRAILER CARAVAN DESIGNED BY R. JELINEK-KARL

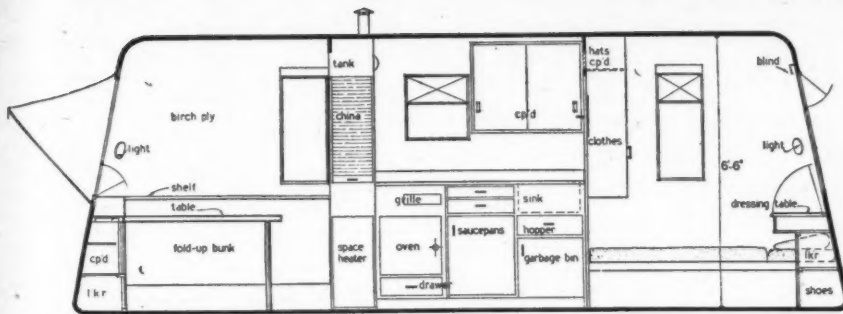
This caravan has been designed by a Registered Architect for Messrs. Kinnimont Karavans, and is of more than purely academic design interest in that trailers of this kind may to some extent help to solve the emergency housing problem.

The construction is of timber

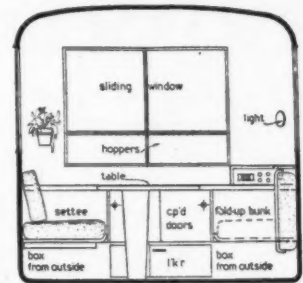
framing covered with plywood both sides, with corrugated paper insulation between. The window frames are of aluminium. The floor is covered with lino.

The kitchen is equipped with a Calor gas cooker and refrigerator, the gas cylinder being in a cupboard accessible from outside.

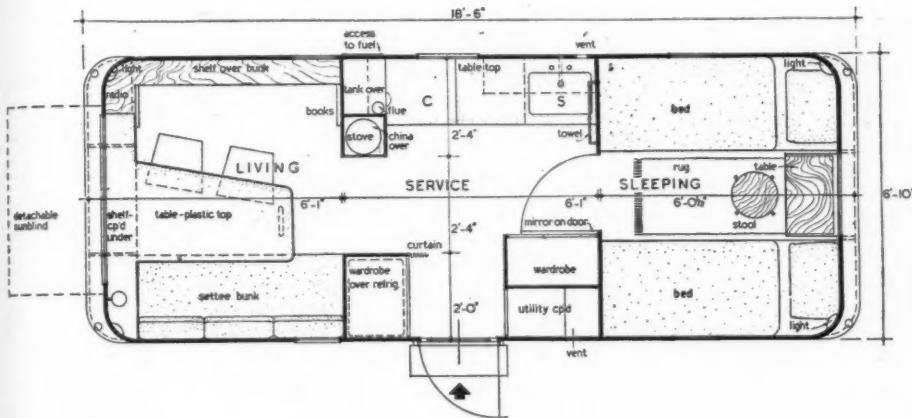
It is fitted with a built-in utensil cupboard and a china cupboard with roller front for easy reach from either kitchen or living-room. The cold water tank is built in behind the china cupboard. The sink is fitted with a cover flush with the work table. At the right of the entrance is a wardrobe and



LONGITUDINAL SECTION



CROSS SECTION



PLAN



Top, exterior view. Below, left, the kitchen; right, the bedroom.

Utility cupboard with an Elsan closet.

The living-room has built-in cupboards and shelves under the windows with a recess for wireless. It also has a hinge-off table, a built-in settee, a fold-up bunk and two chairs. The living-room can be used as a sleeping compartment for two people.

The bedroom is fitted with two fixed bunks with Parker-Knoll patented springs. There are wardrobe lockers over the foot-ends of the bunks with storage cupboards above. The door is fitted with a long mirror. Under the window is a built-in dressing table with show cupboard below.

Outside there are lockers for tools, tent, etc. Electric light is provided from a battery which can be recharged by a car engine.

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

2376 Poland

NATIONAL PLANNING: A POLISH APPROACH. S. Malessa. (*Architects' Journal*, August 30, 1945, pp. 151-154.) Poland's national and regional planning organisation and policy since 1924 resulting in demand for national plan in 1938. Importance of national master plan stressed without which successful regional planning impossible. Illustrations showing various stages of findings of national survey.

2377 France

QUALIFIED PLANNERS: FRANCE POINTS THE WAY. B. S. Townroe. (*Architects' Journal*, October 4, 1945, pp. 241-243.) Digest of current events and trends in French reconstruction. Formation of general delegation of National planning in 1921. Protection of historical monuments and improvement of their setting. Residential and industrial zoning. Comprehensive town planning legislation administered by grand council of town planning set up in 1943. Qualified planners to advise each town with more than 10,000 inhabitants. Planning of new housing estates and safeguarding of open spaces against speculative building. Hundreds of excellent plans available for reconstruction of France.

2378 USA Small Houses

AMERICAN SMALL HOUSE EXHIBITION AT THE MUSEUM OF MODERN ART. (*Architects' Journal*, August 30, 1945, pp. 155-159.) Illustrations from Tomorrow's Small House Exhibition showing plans and models of houses designed by well-known American architects for average American family at prices ranging from 4,000 to 6,000 dollars. Aim to demonstrate advantages of modern planning, building, and mass production methods. Houses based on dimensional module. Exhibition includes scheme of model community incorporating exhibited house designs.

2379 Leningrad

A PLAN FOR LENINGRAD. Chief Architect: N. B. Baranov. (*Architects' Journal*, April 5, 1945, pp. 259-260.) Plan for reconstruction drawn up by

Leningrad architects. City to be nearly doubled in size, limiting density to 200 persons per acre. Creation of several large parks in both old and new parts of town. Destroyed large apartments to be replaced by three and four-room flats. Vast construction programme for small homes as part of rehousing scheme.

2380 Russian Villages

RUSSIAN VILLAGES. N. Shestopal. (*Architects' Journal*, May 31, 1945, pp. 403-404.) Description of procedure adopted for reconstruction of villages in USSR. Long-term interest free loans to farmers. Surveying and marking of building sites as well as supply of timber free of charge. Farmers' houses designed by State architects and built by special brigades of building workers. Rural districts planned as single economic units. Small size villages accommodate members of one collective farm. Communal farmland situated around village for easy access. Farmers' personal small-holdings of from 1 to 1½ acres along wide, tree-lined streets. Communal facilities include schools, reading rooms and clubs. (See also A.J. 10:5:45, p. 348 for drawings of Russian village buildings.)

2381 Greater London Plan

THE GREATER LONDON PLAN, 1944. Sir Patrick Abercrombie. (*H.M.S.O.*, 1945, 25s. 0d.) Synopsis of proposals in *Architects' Journal*, March 13, 1945, pp. 205-212. Analysis by E. C. Kent and F. J. Samuely in *Architects' Journal*, November 1, 1945, pp. 313-327.

Synopsis: Summary of the introduction and fourteen chapters of the planning proposals dealing with: Growth of outer London; population distribution; decentralization; industry; communications; land classification and agriculture; outdoor recreation; community planning, public services; analysis of population and industry on existing and new sites; studies for Ongar and Hatfield; provision of dwellings; design and amenities; administration.

Analysis: A scrutiny of the regional plan based on the following six questions:

- (1) Does the plan fit into a national and regional pattern of reconstruction?
- (2) Does the plan preserve and develop the individual character of the region's various parts?
- (3) Does the plan establish an organic pattern of development?

(4) Does the plan provide for the private life of the citizen?

(5) Does the plan cater for the collective needs of the community?

(6) Does the plan stand up to the test of practicability?

The analysis is illustrated by diagrams showing the region before and after the integration of the new planning proposals. Each question is dealt with in detail and the conclusions drawn are stated.

2382 Three Estate Layouts

THREE ESTATE LAYOUTS. (*Architects' Journal*, July 12, 1945, pp. 25-28.) Description and illustrations of three estate layouts showing interesting solutions to three entirely different problems.

(1) Grange Road, Letchworth, by G. A. Jellicoe. Layout of 219 acre estate showing semi-detached houses, with community centre, school, playing fields, and distributive roads. Careful scheme of tree planting. Architects to design different sections of estate of which only road system is laid down.

(2) Dual Access Estate Layout, by G. K. Cooper. Estate layout illustrating dual access principle to houses to achieve maximum degree of separation of different kinds of traffic, and to promote flexibility in layout of plots and types of houses.

(3) Moelfre Village, East Anglesey, by Clough Williams Ellis. Seaside village development scheme to avoid destruction of coastline by haphazard development. Crescent terrace housing along seaford with limited number of individual leasehold sites in open order beyond.

STRUCTURE

2383 Welded Steel

DEVELOPMENTS IN WELDED STEEL CONSTRUCTION. La Motte Grover. (*Engineering News-Record*, October 18, 1945, pp. 536-538.) Greater use of structural welding inevitable.

Prior to the war the main factor that discouraged a more rapid adoption of welding in structural steel fabrication was the rather extensive change of equipment, organisation and training of personnel required for a full realisation of the economic advantages of welding. During the war many structural steel shops in USA devoted their entire capacity to welding in connection with the fabrication of 12,000,000 tons of steel for some 4,000 large welded merchant ships, more than 60,000 Navy ships and many other marine structures. Since ship welding experience can be applied to structural work there are now many more steel workers trained and experienced in welded construction than in riveted work. Other war-time development of interest occurred in welding equipment. Continual improvements have been made in electrodes, welding transformers, generators and accessories.

A great deal has also been learned as a result of laboratory tests. Experience as well as research has demonstrated that the unit working stresses, as established by the American Welding Society in its Code, are very conservative. Fatigue tests have resulted in values for both butt welded and fillet welded joints well above the yield point. Reports on extensive investigations of full-size welded connections at Lehigh University under the auspices of the Structural Steel Research Committee of the Welding Research Council provide a comprehensive appraisal of the comparative merits and the behaviour of various types of beam end connections. Through this

research a more efficient and more rational method of design has been developed for welded connections than has been used heretofore. Standard details and design diagrams have been provided.

The article also deals with causes of ship fractures which occurred during the earlier part of the programme before extensive improvements had been made in details and design. With the new data available increased confidence in the utility, safety and economy of welded steel structures together with the experience of manufacturers and availability of trained personnel, should lead to extensive use in peacetime building of this type of construction.

2384

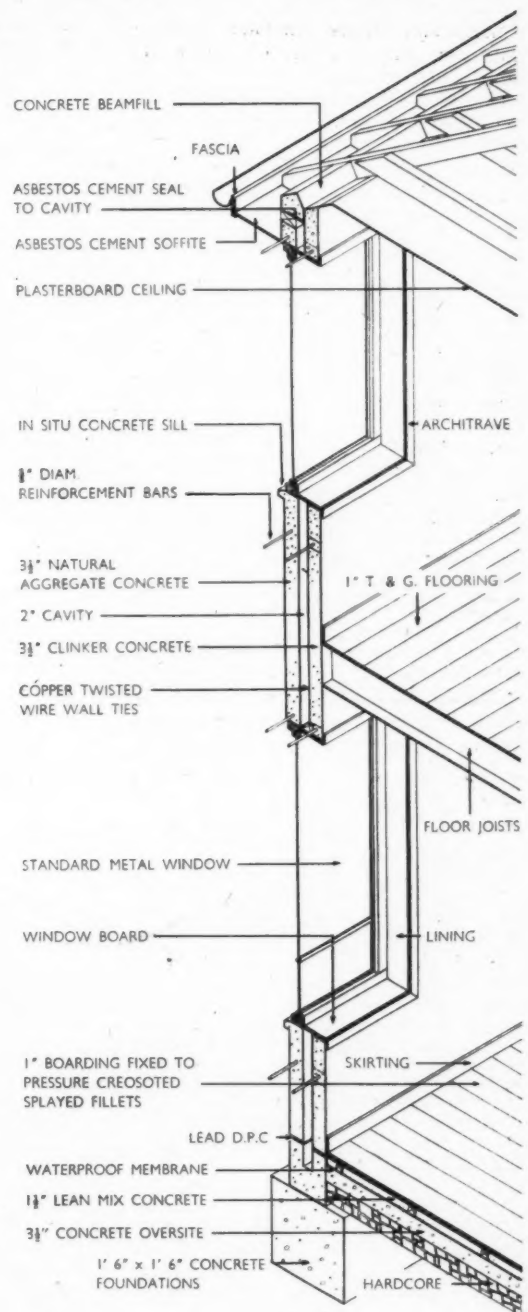
Laing's Easiform House**LAING'S EASIFORM PERMANENT HOUSE.**

D. A. Adam & F. Stobart, Architects. (*The Builder*, November 16, 1945, pp. 393-394.) Cavity concrete walls cast *in situ* with special shuttering.

This system is among those approved by the Ministry of Health in Circular 182/45 (see No. 2360:7.2.46). It is based on a system developed by John Laing & Son shortly after 1918. This was used in large numbers between the two wars. In its present form it incorporates improvements made in the past 20 years, e.g., a cavity party wall. The shuttering is in 2 ft. lifts, it can be fixed by unskilled labour and transported without mobile cranes. The external cavity wall consists of 3½ in. gravel concrete outer leaf, 2 in. cavity and 3½ in. clinker concrete inner leaf. Clinker concrete is used also in the partitions and the party wall. Expansion joints are left in the outer leaf of the external walls opposite the party wall. The party wall and the partitions are formed at the same time as the external walls so that the whole construction is monolithic. The thermal insulation is better than that of 11 in. cavity brick walls. First floor and roof are of usual construction.

The system lends itself to organised mass production. It makes less demand on site labour than traditional methods, but it does not belong under the heading of Prefabrication, since it is entirely cast *in situ*.

Right, diagram showing wall construction of Laing's Easiform House. See No. 2384.



HEATING and Ventilation

2385

Radiant Heating

RADIANT HEATING LAY-OUT SIMPLIFIED. R. G. Vanderweil. (*Pencil Points*, October, 1945.) Discussion of heat flow in panel heated rooms. Various charts to simplify engineering design. Example of panel heating installation in house.

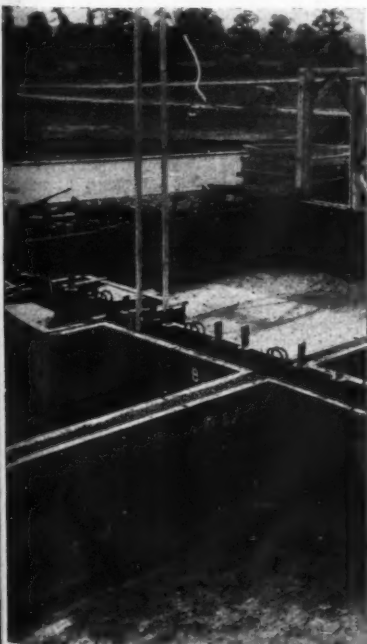
This article although mainly of interest to heating engineers has a number of points which should be noted by architects. In view of the increasing use of panel heating for medium priced housing in USA, the author's views on positioning of panels

and more particularly on permissible temperatures of floors and ceilings should be noted. He accepts 150° F. surface temperature for ceilings in low rooms and 85° F. for floor surface temperature. The latter is considerably higher than is normally approved of in England. Another interesting point is that ¾ in. pipes are used with a circulating pump. American practice makes considerable use of small electric fans and pumps in air and water heating systems. In this case the author claims the ¾ in. pipes are desirable because they can be buried in plaster.

2386

Floor Heating

SOLAR HOUSE. WARM AIR PANEL HEATING. George F. Keck. (*Architects' Journal*, December 6th, 1945.) Article describing USA flexible unit



Photograph showing the start of the wall construction with special shuttering in Laing's Easiform House. See No. 2384.

construction house includes description and photographs of warm air floor panel heating.

Apart from general construction this descriptive article is interesting for its exposition of a system of heating which is gaining popularity in USA. Radiant heat from the sun supplemented by low temperature floor panel heating is used. The windows are of double glass with a half-inch sealed air space. Ventilation can be obtained through louvred panels above and below the glass area. Floor heating is provided by warm air through hollow tile ducts. Illustrations show the floor construction.

2387

Services

BRITISH STANDARD CODE OF PRACTICE. CHAPTER VII. SERVICES. DRAFT CODE FOR COMMENT. (*British Standards Institution, 2s. 0d.*) In nine parts covering the various aspects of the functional requirements of services in buildings.

This follows the lines of other codes of the functional series, dealing with the requirements of each service in turn. Some sections give tables of requirements, e.g., amount of hot or cold water, number of sanitary fittings, etc. There is little that seems to call for comment although there are a few rather obvious errors which no doubt will be rectified in the final code.

2388

Solar Heating

WHY ZONE HEATING SYSTEMS? *W. J. Warren. (Pencil Points, July, 1945.)* Effect of solar radiation causing fluctuating heat requirements resulting in need for zoning.

In a short article the author explains, with typical calculations, how sun heating affects the heat requirements of a building and illustrates the effects of window and wall area. Double glazing accentuates the problem although it reduces the total heat demand. The article goes on to discuss the "inside skin" temperature of outer walls and the effect of this on down draughts at windows and how to deal with this aspect of heating. While the whole article is based upon very cold weather conditions (down to outside temperatures of -10°) there is a good deal of interest to architects in this country who have to plan for similar, if less intense, effects.

2389

Courtrooms

ADVANTAGES OF WINDOWLESS AIR-CONDITIONED COURT ROOMS. *A. J. Daidone. (Lighting and Lamps, July, 1944, p. 13.)* Value of controlled lighting and air-conditioning.

The essence of the argument here is that windowless, air-conditioned rooms are better and more easily maintained than those with windows, and can be better lighted artificially than naturally. The first claim rests on avoiding window fittings, blinds, curtains, and the exclusion of dirt. It is also pointed out that traffic noise can be excluded better when windows are not used (which presumably anticipates that planning will not be able to remove the court-rooms very far from traffic). A third claim is that internal planning is simplified.

In respect of lighting the author's opinion is that natural light can never be controlled well enough to be free from trouble, but that artificial light—fluorescent—can give known conditions from day to day.

The author is the supervising architect of the Department of Public Works in the City of New York, and his opinion is important. But two queries may nevertheless be put on record; first, is it entirely desirable to have exactly the same conditions all the

time?; and second, is it really impossible to design a decent daylighting arrangement?

LIGHTING

2390

Window Performance

THE TABULAR METHOD OF DAYLIGHT MEASUREMENT. *John Swarbrick.*

(*Specially written for The Architects' Journal and printed here in full with diagram [see following page].*) Method of using standard tables on window performance where daylight obstructions are not complicated as in rural and suburban areas, without recourse to geometrical projections.

In consequence of the requirements of the Ministries of Works, Health, Town and Country Planning and Education, it has become one of the duties of Architects and Town Planners to determine the extent of the penetration of adequate daylight into the interiors of proposed new buildings. In the case of structures in developed urban areas, complicated external obstructions of considerable height often render the determination of the position of the contours of natural illumination an operation that involves a certain amount of careful investigation, by either instrumental or geometrical methods. In rural and suburban districts, on the other hand, the problem is much simpler, the external obstructions being often so uniform that the necessary data can be obtained expeditiously, with approximate accuracy, by means of tables, based on normal conditions of frequent occurrence.

Such tables have been compiled at the National Physical Laboratory and are so simple to use that any architectural draughtsman should be able to learn quickly how to determine the extent of the daylight area in rooms, provided that the conditions are approximately as assumed in the tables, e.g., that the external obstructions given have a more or less constant angle of elevation. These tables have been added as Appendix C to the chapter on Daylight, recently drafted for the British Standard Codes of Practice and now ready for publication. They were first published separately in a pamphlet, entitled *The Natural Lighting of Houses and Flats with Graded Daylight Factor Tables*.

The *Standard Tables of Window Performance* relate to daylight, received on the horizontal plane of a table, through glazed windows, without sash bars, and it has been assumed that 20 per cent. of the light has been absorbed in transmission through the glass. If there are sash bars a *pro rata* increase in the width and area of the window should be made. Generally the width should be increased so that the total area of glass is that given by the calculation.

In order to use the tables, it is necessary to determine the minimum intensity of natural illumination required in the daylight area and the angle subtended at the window sill by the average external obstruction to light.

The tables then give at once the dimensions that enable the daylight contours, which are approximately elliptical in shape, to be plotted and also give the total areas of these ellipses.

The figure over page illustrates the correct method of using the tables. It will be seen that it illustrates in plan and section the houses on both sides of a typical road on a Housing Estate, in which the dwellings are 70 ft. apart. The problem is to determine whether the Living Room on the right-hand side of the drawing is adequately lighted by the window at A. According to the requirements of the Ministry of Health and the relevant chapters of the Codes of Prac-

tice, a living room should have a daylight factor of 1 per cent. at table height or 2 ft. 9 in. above the floor over 50 per cent. of the area. In this case, the angle at the window sill, subtended by the external obstructions is 15° . The window head is 4 ft. 9 in. above the working plane and the clear daylight width of the window 4 ft. 6 in. From the table, it will be seen that the depth of penetration or minor axis of the ellipse is 8.8 ft. The half-breadth of the daylight area or half the major axis is 6.9 ft. and the total hypothetical daylight area is 91 square feet. From this area a deduction of about 5 sq. ft. should be made on account of area occupied by the window wall and in the triangular areas (shown shaded) which receive no direct light. This leaves a net daylight area of, say, 90 sq. ft. As the dimensions of the room are 14 ft. by 12 ft., the total area, ignoring the fireplace, is 168 sq. ft. The net daylight area of 90 sq. ft. is about 53 per cent. of the area of the room, and this may be regarded as the measure of natural lighting efficiency. The daylighting of this room is consequently slightly better than that required by the Ministry of Health and the British Standard Code of Practice. From the illustration, it will be seen that the daylight area instead of resembling a complete ellipse, as in the case of an aperture in a wall of negligible thickness, is in fact rather like an ellipse that has been flattened on one side. It will also be observed that, owing to the plane of reference being below the level of the bottom glass-line, the daylight contours do not commence at the jambs, as in the case of windows extending to table level, and that the daylight area, does not quite touch the inner side of the external wall of the room. The loss of area on account of these considerations is, however, usually quite small.

A point to be remembered is that, when a room is lighted by two or more windows, the total daylight area cannot be represented by plotting the ellipse of daylight for each window and by combining the areas, where they overlap. Light from distant windows, penetrating the daylight area for any particular aperture, produces an expansion of that area.

In the Daylight chapter, it is stated that, if obstructions are isolated, or vary considerably in height, their effect can be calculated by computing the "weighted average"; but it must not be forgotten that, in such cases, the contour of the daylight area could not be elliptical. In fact, without recourse to the usual methods of geometrical projection or the use of an instrument, it would be a mere matter of conjecture where the daylight contour would, in fact, be.

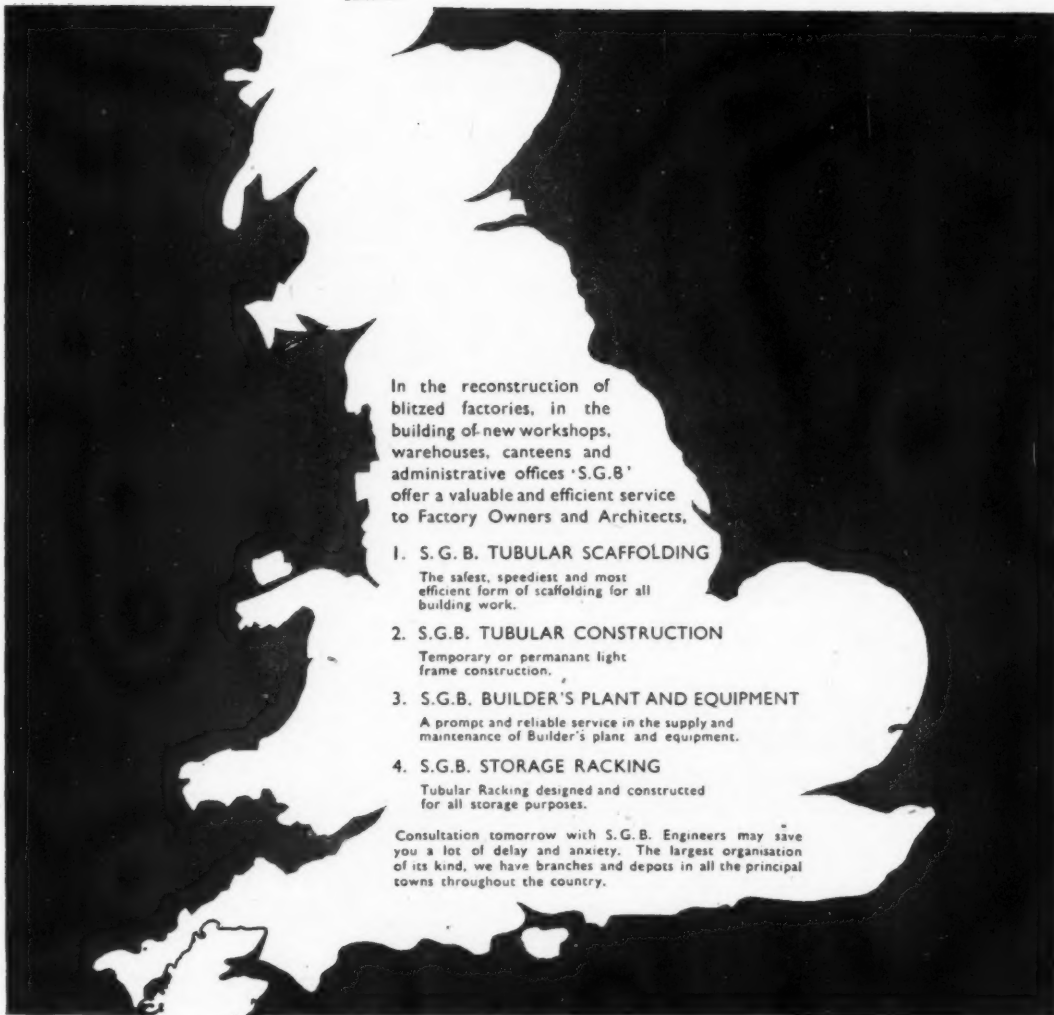
Nevertheless, provided that these considerations are fully understood, there is no reason why the tabular method of measurement should not be used as a means of approximation to the actual conditions, in simple cases of obstruction. In the case of domestic buildings in rural and suburban areas, where the obstructions are of the most uniform type, it is often possible to determine the approximate extent of the daylight areas much more rapidly than when geometrical projections have to be made.

2391

Daylighting in Schools

ADVANCES IN THE ART OF SCHOOL-ROOM DAYLIGHTING. *F. Wynkoop. Architectural Record, July, 1945, p. 91.* Classroom plans related to daylighting, California development.

The author states certain of the principles of vision which control lighting design, and obviously has them firmly in mind. Except for the somewhat halting steps taken in the Post-War Study Report on Lighting, there is not much evidence that architects in this country—or lighting engineers for that matter—give similar attention to the real requirements of vision apart from sheer quantity of light. The Americans are getting



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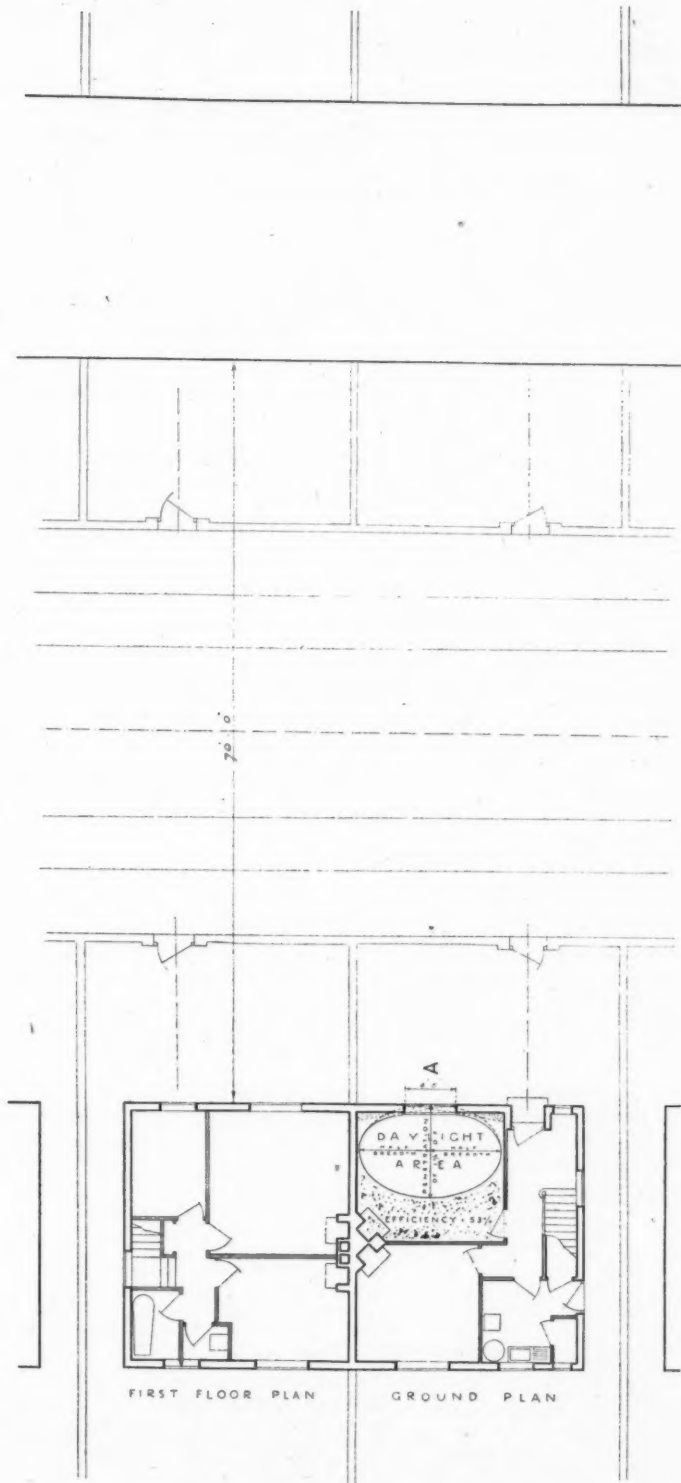
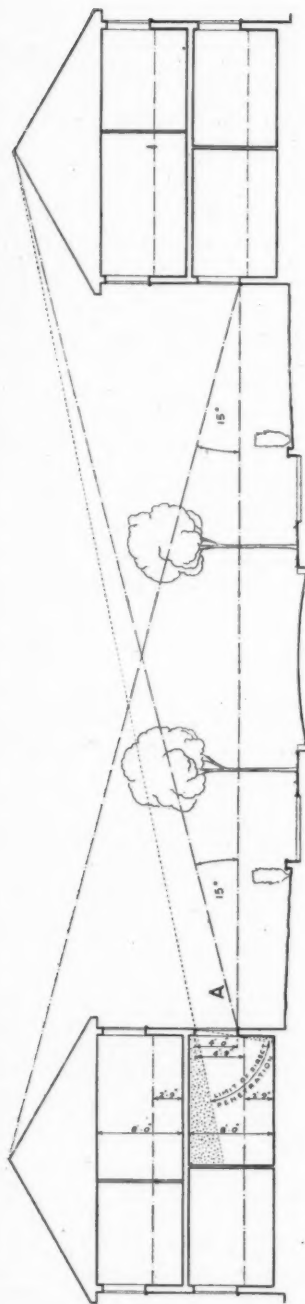
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FIRST FLOOR PLAN

GROUND PLAN

ahead of us here. For instance, this designer knows that glare does not result from too much light, but only from contrast.

But his main point is to arrange daylighting so that classroom planning can be made more flexible. Apparently in California—the note is mainly on practice in that district—the side-lighted classroom was being made longer than previously to incorporate “activity” areas. They could not afford

more width because of limits of daylighting from one side, but they found the increasing length an embarrassment because some of the children were too far from the teacher. Also side-lighting restricts seating arrangement. Apparently several architects other than this author have found their way towards a distinctive form of roof lighting as a solution, and this article therefore illustrates a typical trend—not a unique approach. The main characteristic is the

use of off-set clerestories to distribute the daylight better, but much use is also made of reflected sunlight to illuminate ceiling and upper walls where the danger of glare-contrast with views of the bright sky is greatest. One cannot help remarking on the similarity between these solutions and some of those shown in the Study Report on Lighting, and it clearly emphasises the attention we should now be giving to new daylighting findings in this country.

Section and plan to illustrate the correct method of using the standard tables to calculate window performance where daylight obstructions are not complicated. See John Swarbrick's article on previous page, No. 2390.

2392

Shop Lighting

LIGHTING TO DRAMATIZE MERCHANDISING. *W. P. Margulies.* (Illuminating Engineering, March, 1945, p. 172.) Stimulation of "impulse" buying. Value of contrast and change.

This note is more a discussion of sales-psychology than lighting, and is most interesting.

It is claimed that shopping habits become well established; customers use the same routes through shops and become so accustomed to the goods shown that they are not aware of them. From this it is argued that changes in lay-out break buying habits and stimulate sales through encouragement of what is called "impulse" buying. Evidence is quoted that in some studies by the DuPont Co. over half of every dollar spent in department stores was spent from impulse, and 90 per cent. was bought because of display. Thus, contrast and change become important, and the point is made that since light plays the major part in display, flexible systems must be installed rather than the fixed lighting which is usual. Attention is drawn also to the importance of being able to conceal the lights so that people are not diverted from the display by the higher brightnesses and contrasts at the sources. It is pointed out that the wiring must also allow flexible lay-out of counters and aisles. Finally it is claimed that any unusual expense involved in such arrangements is more than compensated by the fact that the shop does not become "obsolete" in the public eye and does not lose capital value.

QUESTIONS

and Answers

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2393

Crematorium

Q I wish to obtain information for the proposed erection of a Crematorium. Can you indicate any sources of information on this subject? While I particularly require information on the building and site requirements, details of administration generally would also be helpful.

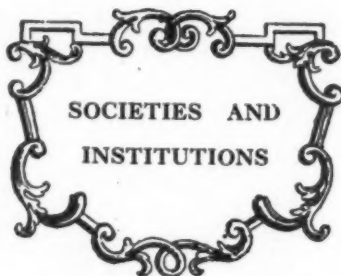
A We suggest that you should write to the Cremation Society, 23, Nottingham Place, London, W.1, who would answer any specific enquiries you may care to make. They could probably supply you also with *Cremation in Great Britain* by P. H. Jones (Pharos Press, 12s. 6d.) For the technical details of crematorium furnaces, we suggest that you should write to the Electrical Development Association, 2, Savoy Hill, London, W.C.2, and the British Gas Council, 1, Grosvenor Place, London, S.W.1.

2394

Men of the Trees

Q Could you tell me the address of an Association whose object is that of arranging the planting of trees as memorials, and whose title is, I believe, Men of the Trees?

A The address of the society known as Men of the Trees is Manor Farm, Puncknoll, Dorset.



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.

HC

R. R. Houston

At the Housing Centre, 13, Suffolk Street, S.W.1. Lecture by R. R. Houston, B.Sc., on FIBREGLASS FOR HEAT AND SOUND INSULATION. Chairman: G. Hamilton Gould, A.R.I.B.A.

R. R. Houston: Fibreglass is used for heat and sound insulation. Fibreglass wool, impregnated with a bitumen emulsion is produced generally at a weight of about three pounds per cubic foot, although densities can be varied if required. At the density given the material is about two per cent. glass, the remainder being air. Its thermal conductivity on NPL test was found to be 23 B.T.U. per square foot per hour per °F per 1 inch thickness, and a prefabricated wall incorporating one inch of fibre glass would have a heat loss approximating that of an eleven inch brick cavity wall.

A standard method of application is to cut rolls of fibreglass into the sizes required for insertion into the various panels. These are generally formed by plaster board or the like, surrounded by wood fillets, the mats being placed against the plaster board and nailed to the wood fillets by means of very light battens. Fibreglass can be used in wall panels, ceiling panels, prefabricated doors and other components. White wool without any impregnation other than a minute percentage of lubricant to prevent inter-fibre friction, is used in every form of cavity packing for both heat and sound insulation in house construction where a mat or blanket is not suitable.

For attic insulation and roof spaces it is cut into strips from sixteen to eighteen inches wide, and these are laid in a thickness of four inches between the ceiling joists. Fibreglass insulating quilt can be used in all forms of floor insulation where

impact noises have to be overcome. The method of laying is to place it immediately over the top of the floor joists and hold it in position by means of light battens to which the floor is afterwards nailed.

When the House of Commons was damaged by air raids, and meetings were held in the King's Robing Chamber, there was trouble from reverberation. Fibreglass quilt faced with scrim instead of paper was dropped behind various tapestries, and without any structural alterations to the room the reverberation was reduced to the limits required for clear and audible speech.

Discussion: Among other points raised was the irritation of the skin when the material was handled. The lecturer replied that as the fibre diameter was reduced the tendency to produce this irritation was removed. The factory had from six hundred to a thousand girls handling the material every day. The slight irritation caused by handling it came off with soap and water.

In reply to another questioner the Lecturer said the material should not be laid on an ordinary floor under lino. Continual tramelling would grind it into powder. It should be laid in the manner he had mentioned. At present it was mainly used for walls and ceilings.

Publications
Received

Practical Plumber & Sanitary Engineer Illustrated. W. J. Woolgar. (Odham Press, 8s. 6d.)

Practical Notes, Second Series, War Damage Act, 1943. (HM Stationery Office, 2d.)

English City. (J. S. Fry & Sons, 10s. 0d.)

Artists of the Winchester Bible. W. Oakshott. (Faber & Faber, 10s. 6d.)

Entertain Yourself. (National Council of Social Service, 2s. 6d.)

Housing in Rural Areas. (The Housing Centre, 1s. 0d.)

Elements of Technical Science. A. Spencer White. (J. M. Dent & Sons, 4s. 3d.)

School Buildings for Scotland. MOW. (HMSO, 1s. 0d.)

Architecture in the Netherlands. Paul Bromberg. (The Netherlands Information Bureau, USA.)

Housing Management. MOH. (HMSO, 6d.)

Contemporary Shops in the United States. M. Nicholson and G. Nelson. (Architectural Book Publishing Co., New York, \$10.00.)

The Future Coventry. (The Corporation of Coventry, 2s. 6d.)

Planning Prospect. Professor E. G. R. Taylor. (Lund Humphries, 6s. 0d.)

City of Manchester Plan. R. Nicholas. (Jarrold & Sons, 12s. 6d.)

The Reilly Plan. Lawrence Wolfe. (Nicholson & Watson, 6s. 0d.)

Protection by Law of National Monuments and National Buildings. (The Georgian Group, 2s. 0d.)

Limestone Concrete. J. Singleton-Green. (Chapman & Hall, 8s. 6d.)

Pimlico Housing Scheme. (Westminster City Council.)

Music in Our Town (Wolverhampton). L. B. Duckworth. (Cornish Bros., 5s. 0d.)

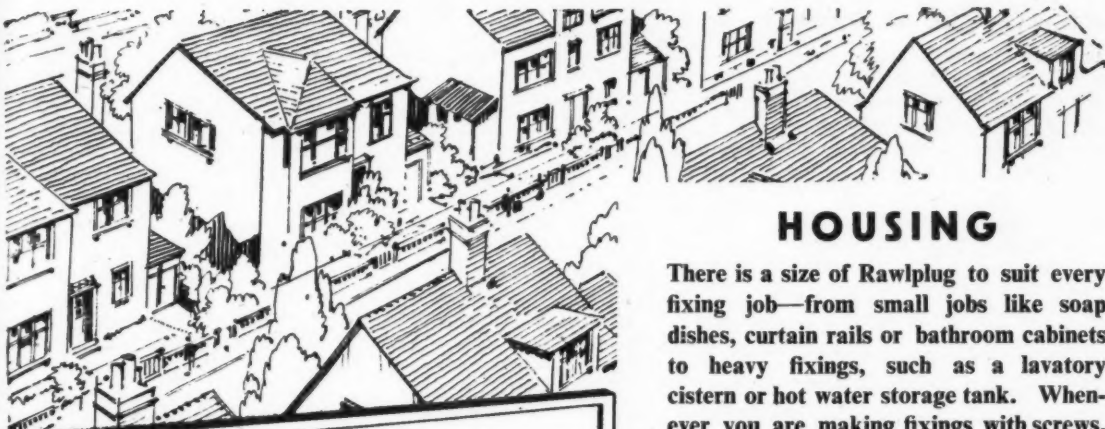
Report on the Market for Household Appliances. (Political and Economic Planning, 18s. 0d.)

The Practical Painter and Decorator Illustrated. (Odham Press, 9s. 6d.)

Specification for Houses. Price Davies. (Western Mail & Echo, 15s. 0d.)

Tomorrow's House. George Nelson and Henry Wright. (Simon & Ulster, \$3.)

When Democracy Builds. Frank Lloyd Wright. (University of Chicago Press, \$4.)



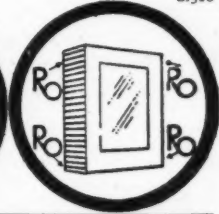
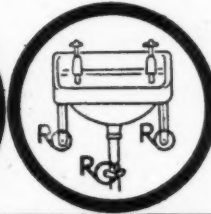
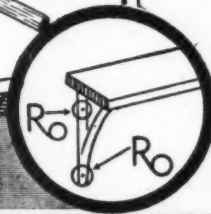
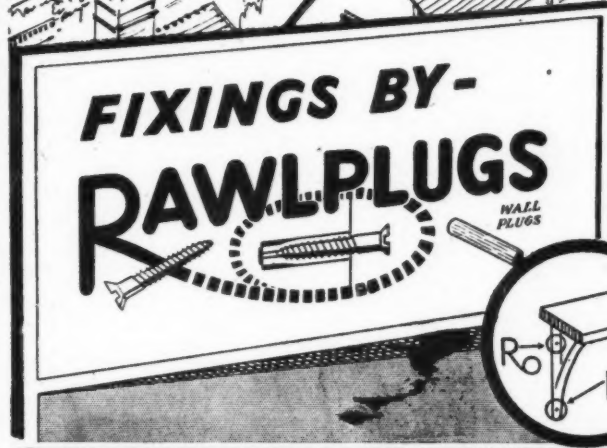
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Outline of English Architecture. A. H. Gardner. (B. T. Batsford, 12s. 6d.)
Ideas Have Legs. Peter Howard. (Frederick Muller, 7s. 6d.)
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The New Planning. Barbara Bliss. (Faber & Faber, 8s. 6d.)
Armenia and the Byzantine Empire. Sirarpie der Nersessian. (Harvard University Press, 16s. 6d.)
Plan for Film Studios. Helmut Jungle. (Focal Press, 7s. 6d.)
Architecture. Edward D. Mills. (Robert Ross, 2s. 6d.)
Salving the Art Treasures of the Church. (Society for the Promotion of Christian Knowledge, 2s. 6d.)
Ulster Today. (HMSO.)
Some Hints on the Maintenance and Repair of 17th and 18th Century Premises. (York Georgian Society, 2s. 0d.)
Farm Buildings. (HMSO, 3s. 0d.)
Can I Help You? Building Society at Your Service. Douglas Houghton. (Fracney & Co., 6d.)
Roads and Road Transport. (The British Road Federation, 1s. 0d.)
Burford Past and Present. Mary Sturge Gretton. (Faber & Faber, 10s. 6d.)
City of Manchester Plan, 1945. R. Nicholas. (Jarrold & Sons, 3s. 3d.)
New Bats in Old Belfries. J. Betjeman. (John Murray, 6s. 0d.)
The Leaves of Southwell. Nikolaus Pevsner. (Penguin Books.)
Ruskin. R. W. Livingstone. (Oxford University Press, 2s. 0d.)
An Outline of Planning Law. Desmond

Heap. (Sweet & Maxwell, 5s. 0d.)
The British Gas Industry, Present and Future. Joan Mitchell. (Fabian Publications, 1s. 0d.)
Colour Schemes and Modern Furnishing. Derek Patmore. (Studio, £1 5s. 0d.)
Cremation in Great Britain. P. Herbert Jones. (Pharos Press, 12s. 6d.)
Homes, Towns, and Countryside. Gilbert and Elizabeth McAllister. (B. T. Batsford, 18s. 0d.)
The Enemies of Timber. (Jenson & Nicholson, 1s. 0d.)

Announcements

The Val de Travers Asphalte Paving Company, Limited, has returned to its pre-war offices at 21/22, Old Bailey, London, E.C.4. Telephone: City 7001.

Mr. C. F. Batstone has been appointed Midland Branch Manager of the British Aluminium Company, Limited, and has taken up his duties at the Company's Branch Office at Lansdowne House, 41, Water Street, Birmingham, 3 (Telephone No: Birmingham Central 3053; Telegrams: Britalumin, Birmingham). Mr. E. V. Pannell is retiring after 34 years' service with the company.

Mr. P. H. Braddock, A.R.I.B.A., A.A.D.I.P. (HONS), is now in practice at Orchard House, 14, Great Smith Street, Westminster, S.W.1, and will be glad to receive trade inquiries and circulars. Hours 10-12.30 a.m. only.

Mr. Frederick Hill, A.R.I.B.A., A.M.T.P.L., has been appointed architect to the Redditch Urban District Council. He would be glad to receive trade catalogues either at the Council House, Redditch, or at his private office "Cedarvue," Bromsgrove Road, Redditch, Worcs. Phone 181.

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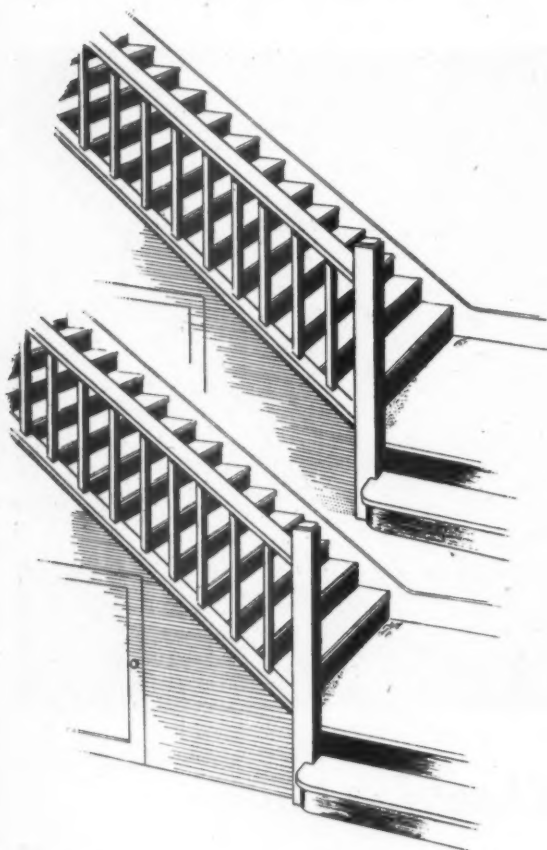
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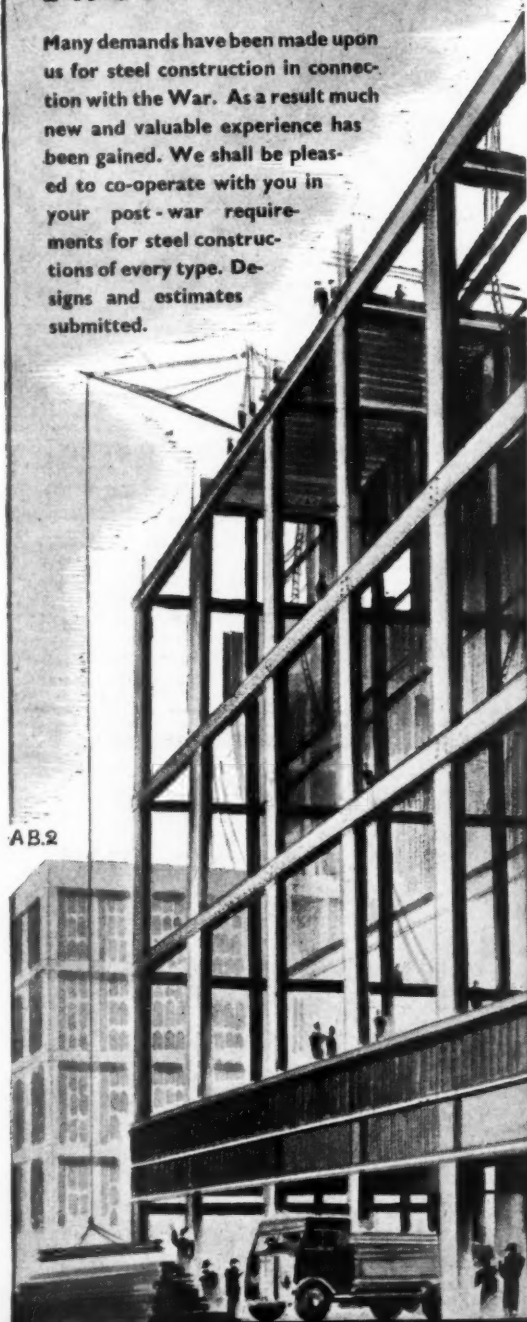
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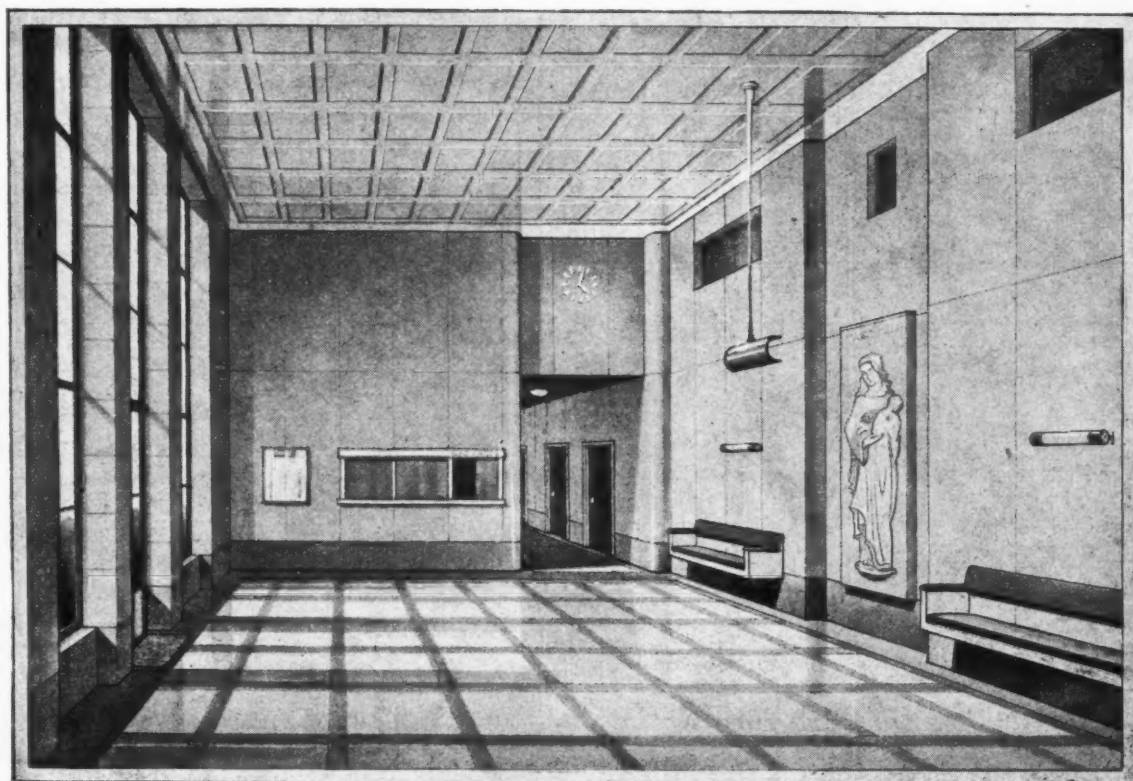


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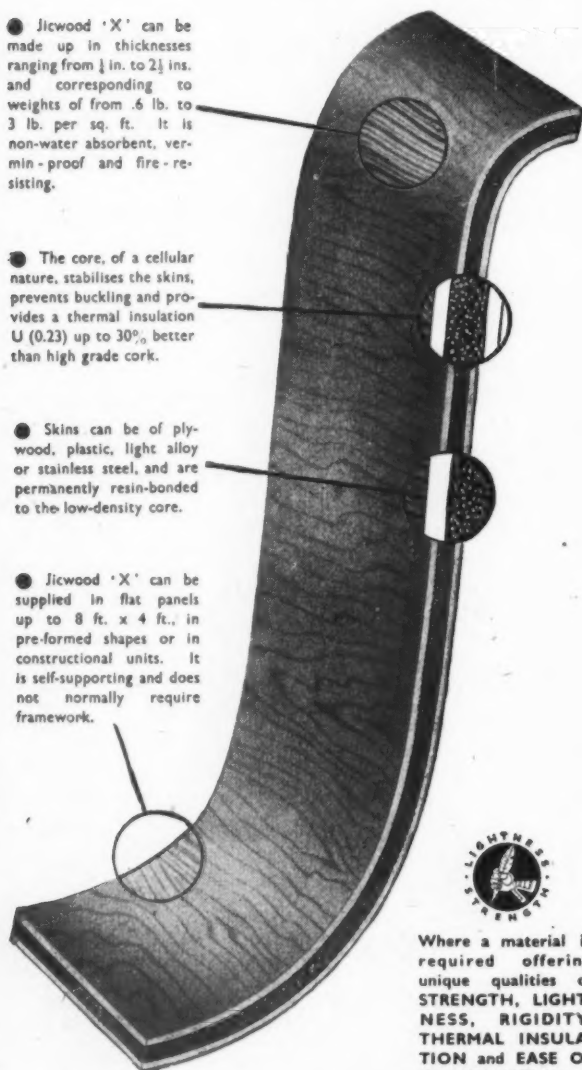
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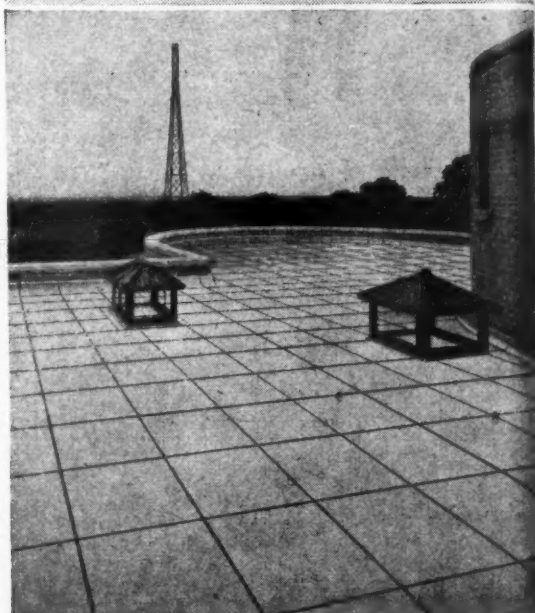
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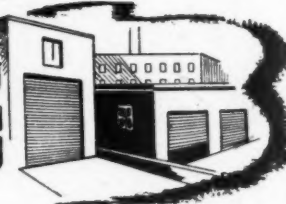
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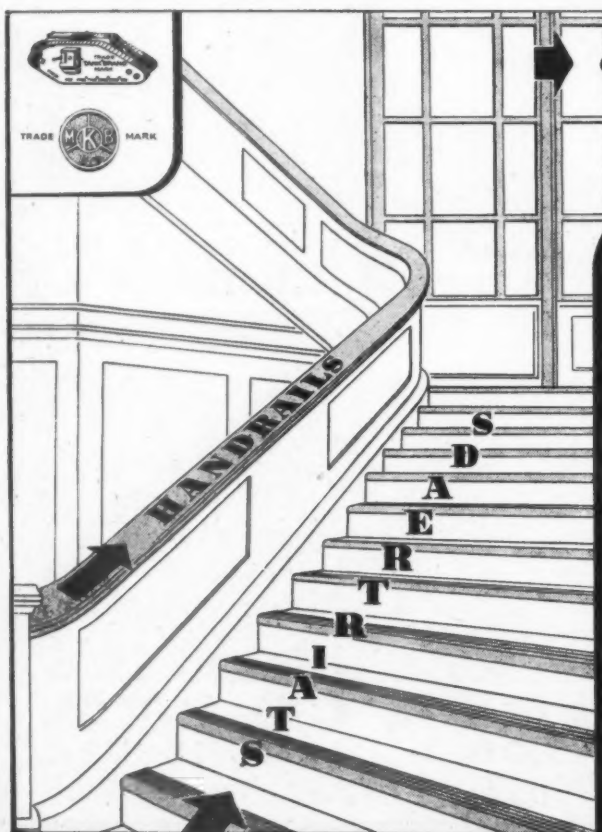
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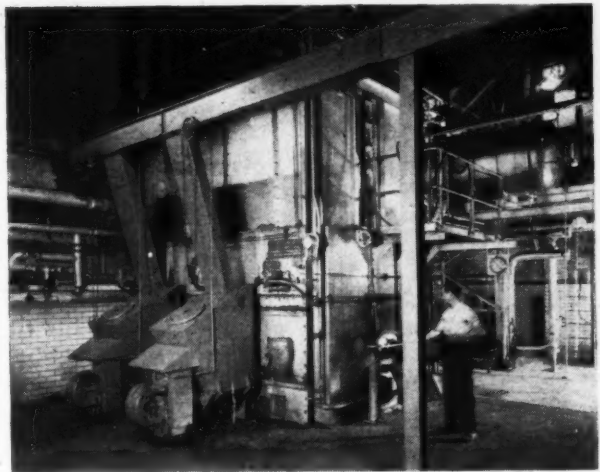
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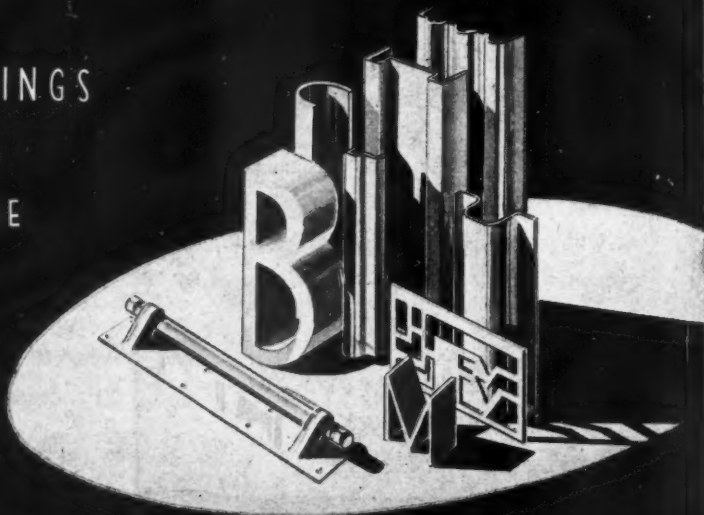
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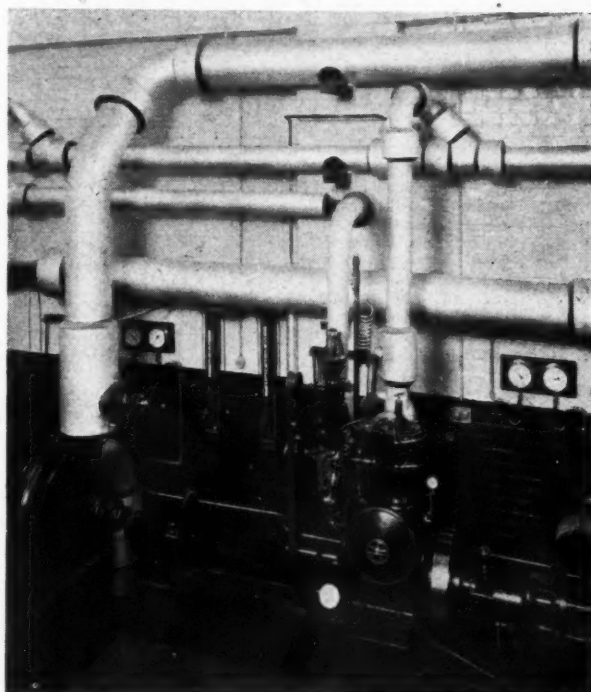
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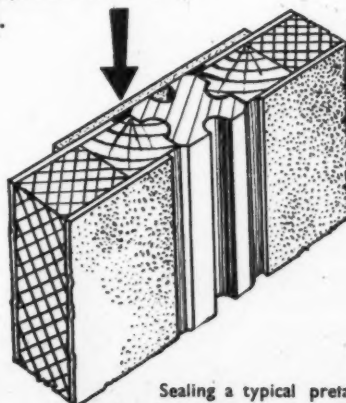


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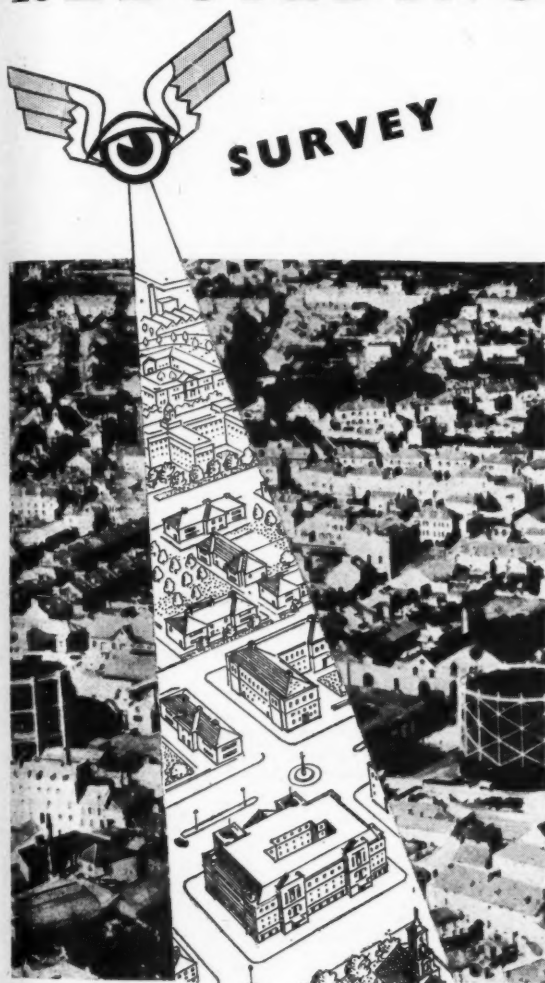
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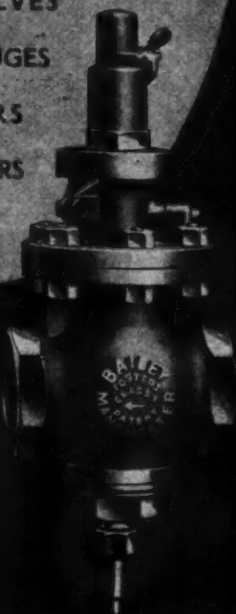
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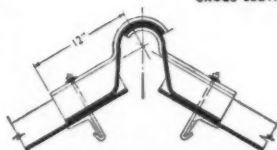
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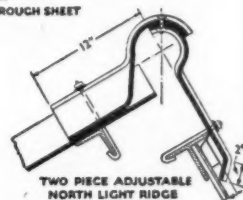
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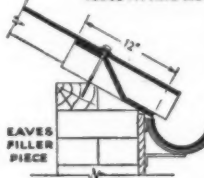
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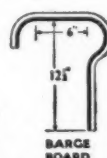
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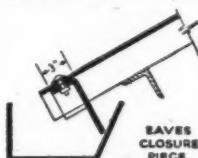
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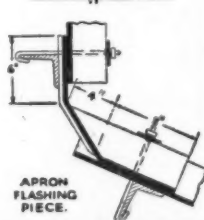
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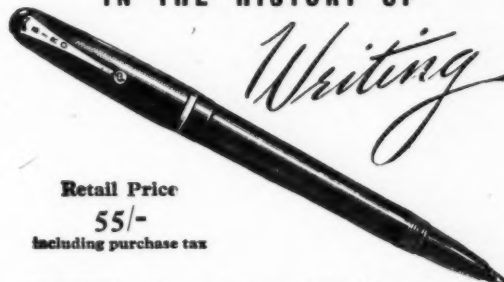
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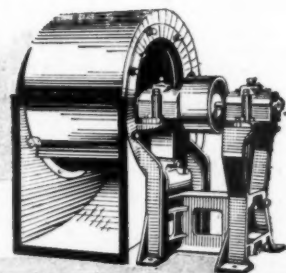
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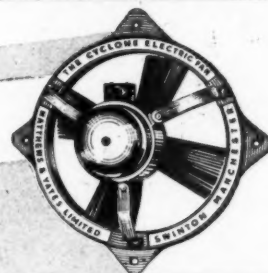
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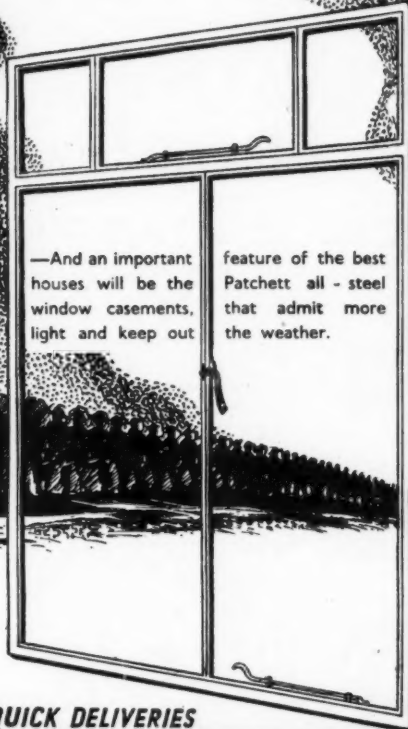
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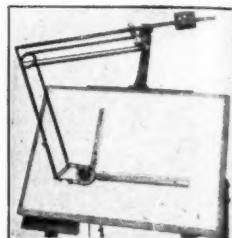
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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 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, 2s.; 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

BOROUGH OF SOUTHGATE.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS (TEMPORARY).

Applications are invited for the following temporary appointments in the Architectural Section of the Borough Engineer and Surveyor.

(a) Architectural Assistant, at a salary of £375 per annum, plus bonus, at present £59 16s.

(b) Architectural Assistant, at a salary of £300 per annum, plus bonus, at present £59 16s.

The appointments are for a maximum period of two years in the first instance, and are terminable by one month's notice on either side.

Applicants for appointment (a) should have previous municipal experience, and preference will be given to candidates who are members of the Royal Institute of British Architects or hold an equivalent qualification.

Applicants for appointment (b) should have made specific progress in obtaining a recognised professional qualification.

Applications, stating age, education, experience and qualifications, together with copies of not more than three recent testimonials, should be delivered to Mr. J. T. W. Peat, F.R.I.B.A., Borough Engineer and Surveyor, Town Hall, Palmers Green, London, N.13, endorsed "Temporary Architectural Assistant (a)" or "(b)" on or before Wednesday, 20th February, 1946.

GORDON H. TAYLOR.

Town Clerk.

Southgate Town Hall, Palmers Green, N.13. 654
26th January, 1946.

BOROUGH OF BANBURY.

BOROUGH SURVEYOR'S DEPARTMENT.

Applications are invited for the following permanent appointment in the Borough Surveyor's Department—

ARCHITECTURAL DRAUGHTSMAN (Grade A), i.e. salary £255 per annum, rising, subject to satisfactory service, by four annual increments of £15 to a maximum of £315 per annum, plus cost-of-living bonus at the prevailing rate (at present £59 16s. per annum).

Applicants for the appointment should be skilled draughtsmen, and have had a thorough training and practical experience in design and building construction.

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

Applications, stating age, qualifications, and full particulars of experience, and accompanied by copies of three recent testimonials, must be received by me, the undersigned, not later than Saturday, the 23rd February, 1946.

E. OWEN REID,

Town Clerk.

Municipal Buildings, Banbury. 670
29th January, 1946.

COUNTY OF LINCOLN—PARTS OF KESTIVEN.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, in the County Architect's Department.

Salary £400 per annum, rising by annual increments of £15 and £5 to a maximum of £450 per annum, plus cost-of-living bonus of 23s. per week on the Council's scale. Commencing salary will be in accordance with experience.

Experience in Educational and general County work is desirable.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, to a satisfactory medical certificate, and to the termination of the appointment by one month's notice in writing on either side.

Applications, stating age, present appointment, experience, and qualifications, together with copies of two recent testimonials, should be sent to the undersigned not later than the 28th February, 1946.

J. E. BLOW,

Clerk of the County Council.

County Offices, Sleaford, Lincs. 698

COUNTY BOROUGH OF EAST HAM.

APPOINTMENT OF TOWN PLANNING ASSISTANT.

Applications are invited from qualified persons not more than 45 years of age for the permanent appointment of Town Planning Assistant, in the Borough Engineer and Surveyor's Department.

Candidates must be competent to undertake town planning work in all aspects of post-war redevelopment. Preference will be given to Associate Members of the Town Planning Institute or holders of an equivalent qualification.

The salary will be in accordance with Grade C of the Council's grading scheme for official staff, i.e., £420 per annum, rising by annual increments of £15 to a maximum of £465 per annum, plus war bonus, at present £59 16s. per annum, but the commencing salary may be at an incremental stage up to the maximum, according to the qualifications and experience of the person appointed.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to the Council's conditions of service for official staff in force from time to time, and the successful candidate will be required to pass a medical examination.

Application forms are obtainable from the Town Clerk's office, and must be delivered to the undersigned, together with copies of three recent testimonials, not later than Friday, 22nd February, 1946.

Canvassing in any form will be a disqualification.

H. A. EDWARDS,

Town Clerk.

Town Hall, East Ham, E.6. 667
29th January, 1946.

ANGLESEY JOINT PLANNING COMMITTEE.

APPOINTMENT OF COUNTY PLANNING OFFICER.

Applications are invited for the appointment of County Planning Officer, at a salary of £600, rising by two annual increments of £50 to £700 per annum, plus cost-of-living bonus (at present £59 16s. per annum), and travelling expenses on the County Scale.

Candidates should be Corporate Members of the Town Planning Institute or its equivalent, and have had experience in civil engineering, architecture, surveying, and preparation and administration of planning schemes and interim development control.

The person appointed will be required to devote the whole of his time to the services of the Joint Committee, and the appointment may be terminated by two months' notice on either side. The appointment will also be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Candidates should state in their applications whether or not they have a knowledge of the Welsh language.

Applications, endorsed "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 the 30th March, 1946.

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 application.

WILLIAM JONES,

Clerk to the Joint Planning Committee.

Shire Hall, Llanfanel, Anglesey. 649
24th January, 1946.

SPALDING RURAL DISTRICT COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the permanent appointment of a Technical Assistant in the Architect's Department, at a salary of £300 per annum, plus cost-of-living bonus (at present £59 16s. per annum).

Candidates should have a sound and practical knowledge of architectural and quantity surveying work, preparation of specifications, etc., and in addition to the usual office duties will be required to inspect works in progress and to work under the direction of the Council's Architect and Building Surveyor.

The successful applicant will be required to provide and maintain a car, for which an allowance will be paid on the County Council scale (at present £50 per annum, plus 13d. per mile).

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

Applications, stating age, qualifications, and experience, and earliest date on which duties could be commenced if appointed, together with copies of two recent testimonials, must reach the undersigned not later than 20th February, 1946.

Applications from serving members of H.M. Forces will receive every consideration.

L. FENNELL,

Clerk to the Council.

7, The Crescent, Spalding, Lincs. 663

BOROUGH OF SURBITON.

BOROUGH SURVEYOR'S DEPARTMENT.

APPOINTMENT OF TOWN PLANNING ASSISTANT.

Applications are invited for the above appointment to the permanent staff, at a salary of £330 per annum, plus cost-of-living bonus, at present £59 16s. per annum. As from 1st April, 1946, the successful candidate will be placed in Grade PTA/B of the Town Council's grading scheme (£340—£15—£385), plus bonus. Applicants should be Members or Associate Members of the Town Planning Institute, or have similar qualifications, and have had experience in the preparation of Town Planning Schemes. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidate passing a medical examination.

Applications, on forms to be obtained from the undersigned, must be delivered not later than 23rd February, 1946. Canvassing, either directly or indirectly, will disqualify.

R. H. WRIGHT,

Town Clerk.

Council Offices, Surbiton. 671

CITY OF ST. ALBANS.

CITY ENGINEER AND SURVEYOR'S DEPARTMENT.

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment in the above department of an Architectural Assistant. Salary £400 per annum, plus current cost-of-living bonus, £59 16s. per annum. Applicants must possess an architectural qualification, and have had experience in the preparation of plans, working drawings, specifications and layouts of modern municipal housing estates, including surveying and levelling.

The appointment is temporary, and is subject to one month's notice on either side. The position as regards military service must be stated by applicants. Canvassing will disqualify.

Applications in writing, stating age and experience, together with copies of two recent testimonials (non-returnable), must be received by me not later than first post on Saturday, 2nd March, 1946.

S. H. E. CRANE,

Town Clerk.

Town Clerk's Office, 38, St. Peter's Street, St. Albans. 667
January, 1946.

BOROUGH OF SURBITON.

BOROUGH SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment to the permanent staff, at a salary of £330 per annum, plus a cost-of-living bonus, at present £59 16s. per annum. As from 1st April, 1946, the successful candidate will be placed in Grade PTA/B of the Town Council's grading scheme (£340—£15—£385), plus bonus. Applicants should be Registered Architects and/or members of the Royal Institute of British Architects, or hold similar qualifications. Experience in housing work of a local authority would be an advantage. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the successful candidate passing a medical examination.

Applications, on forms to be obtained from the undersigned, must be delivered not later than 23rd February, 1946. Canvassing, either directly or indirectly, will disqualify.

R. H. WRIGHT,

Town Clerk.

Council Offices, Surbiton. 670

COUNTY BOROUGH OF DERBY.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, at a commencing salary of £400 per annum, rising by annual increments of £12 10s. to £450 per annum, exclusive of war bonus.

Applicants must be able to prepare bills of quantities, and have had experience in measuring up and settlement of accounts, especially for large housing schemes.

The appointment will be subject to the Local Government Superannuation Act, 1937, to the successful candidate passing a medical examination, and to one month's notice on either side.

The selected candidate may be required to reside within the Borough.

Applications, stating age, previous experience and qualifications, accompanied by copies of three recent testimonials, must be delivered at the office of the Acting Borough Architect, Council House, Corporation Street, Derby, not later than first post on Tuesday, 19th February, 1946.

endorsed "Assistant Quantity Surveyor."

Canvassing, directly or indirectly, will be a disqualification.

C. ASHTON, M.A.,

Town Clerk.

Market Place, Derby. 690

CITY AND COUNTY OF THE CITY OF
OF EXETER.TEMPORARY ASSISTANT QUANTITY
SURVEYOR.

Applications are invited for the appointment of an Assistant Quantity Surveyor, in the City Architect's Department, at a salary of £450 per annum, plus cost-of-living bonus, at present £59 19s. 3d.

The appointment will be on the temporary staff in the first instance, and will be subject to one calendar month's notice on either side.

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 the City Architect, 2, Southernhay West, Exeter, not later than the 23rd February, 1946.

C. J. NEWMAN,
Town Clerk.

Exeter.
1st February, 1946. 691

LONDON HOSPITAL, E.1.

Applications are invited for the post of MAINTENANCE SURVEYOR (Buildings and Equipment). Salary according to experience, but not less than £650 per annum. Applications, stating age, experience, and qualifications, to arrive not later than 30th March, and addressed to the Surveyor. 687

CITY OF LEICESTER.

HOUSING DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL
ASSISTANT.

Applications are invited for the appointment of an Architectural Assistant, at a salary of £300 to £350 per annum, according to experience (Grade E). In addition, cost-of-living bonus (at present £59 16s.) is payable.

Applications, accompanied by copies of two recent testimonials, endorsed "Architectural Assistant," must be delivered to the undersigned not later than Saturday, the 23rd February, 1946.

Canvassing, either directly or indirectly, will disqualify.

J. S. FYFE, A.R.I.B.A.,
Housing Architect.

Municipal Offices, Charles Street, Leicester.
2nd February, 1946. 694

LONDON COUNTY COUNCIL.

The London County Council invites ARCHITECTS in private practice to apply for inclusion on a Panel with a view to employment to supplement the work of the Council's own staff in the layout, design, and erection of blocks of Flats for the working classes. Applications should be forwarded to the Clerk of the Council, The County Hall, Westminster Bridge, S.E.1, not later than Saturday, 2nd March, 1946, and should be accompanied by brief particulars of qualifications and experience in the erection of blocks of flats. 692

CITY OF COVENTRY.

CITY ARCHITECTURAL DEPARTMENT.

The Corporation of Coventry invite applications from duly qualified persons for the following whole-time permanent appointments in the City Architectural Department.

One ASSISTANT ARCHITECT. Salary commencing at £360, and rising annually by £10 to a maximum of £400.

Two ASSISTANT ARCHITECTS. Salary commencing at £305, and rising annually by £15 to a maximum of £350.
One JUNIOR ARCHITECTURAL ASSISTANT. Salary commencing at £200, and rising annually by £10 to a maximum of £260.

Two QUANTITY SURVEYORS. Salary commencing at £360, and rising annually by £10 to a maximum of £400.

One ASSISTANT QUANTITY SURVEYOR. Salary commencing at £305, and rising annually by £15 to a maximum of £350.

Salary increments are subject to satisfactory service. The above salaries are exclusive of the Council's cost-of-living war bonus, which may vary, but which at present amounts to 23s. per week for men and 18s. 6d. for women.

The posts are subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Acts as amended in regard to annuities to widows by the Coventry Corporation Act, 1936, and a satisfactory certificate will be requisite from the Council's Medical Referee. The persons appointed will be required to contribute to the Coventry Municipal Officers' Widows' and Orphans' Pensions Fund.

Applications, giving particulars as to age, training, qualifications and experience, should reach the undersigned not later than Wednesday, the 21st February, 1946, stating the post for which they wish to apply.

Canvassing, directly or indirectly, will be a disqualification.

D. E. E. GIBSON,
City Architect.

14, Warwick Row, Coventry.
14th February, 1946. 696

COUNTY OF MONMOUTH.

EAST AND WEST MONMOUTHSHIRE JOINT
PLANNING COMMITTEE.

Applications are invited for the following appointments to the above Joint Planning Committees.

(a) Six Grade II PLANNING ASSISTANTS. Salary £320, rising by annual increments of £20 to £400 per annum.

(b) Five Grade IV PLANNING ASSISTANTS. Salary £230, rising by annual increments of £10 to £260 per annum.

(c) Four DRAUGHTSWOMEN/MEN. £75 at 16 years of age to £156 at 23 years per annum (wage for age scale).

In addition to the salaries stated for appointments (a) and (b) above, a cost-of-living bonus (at present £59 16s. per annum) is paid by the Joint Committees. In the case of appointments (c) a sliding scale war bonus (at present from £20 3s. to £48 6s. per annum) is payable, dependent on the age of the appointed persons.

Applicants for appointments (a) should have had a good practical experience in the preparation of planning schemes for Urban and Rural areas, and should be suitably qualified. Preference will be given to applicants who are Associate Members by examination of the Town Planning Institute or are Associate Members of the Royal Institute of British Architects, the Chartered Surveyors' Institution, or the Institution of Municipal and County Engineers.

Applicants for appointments (b) should be neat and efficient draughtsmen, and have a knowledge of ordnance survey revision, and preferably should have experience in a planning department. Any technical qualifications will be an additional recommendation.

Applicants for appointments (c) should be neat and expeditious draughtswomen or draughtsmen, tracers and colourists, with experience of work on 1/2,500th and 6 in. to the mile ordnance maps. The appointments will be subject to the Local Government Superannuation Act, 1937, and to passing a medical examination, and will be terminable by one month's notice on either side.

Applications, stating age, qualifications, training and experience, and giving particulars of past and present appointments, accompanied by copies of two recent testimonials, or in the case of H.M. Forces, the names of two references, and endorsed Planning Assistants (a) or (b) or Draughtswomen/men (c), must be delivered to the County Planning Officer, County Hall, Newport, Mon, not later than 23rd February, 1946.

VERNON LAWRENCE,
Clerk of the Joint Committees.

County Hall, Newport, Mon.
February, 1946. 715

ALDERLEY EDGE URBAN DISTRICT
COUNCIL.

ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment (temporary), at a salary of £300 per annum, plus war bonus (at present £59 16s. per annum).

The person appointed will be required to devote the whole of his time to the duties of the office, and will act generally under the direction of the Council's Surveyor. The appointment will be terminable by one calendar month's notice on either side.

Candidates must be good draughtsmen, quick and accurate surveyors, and possess a sound knowledge of building construction.

Applications, endorsed "Architectural Assistant," stating age, qualifications, experience and present employment, accompanied by copies of two recent testimonials, must reach the undersigned not later than first post on Monday, the 25th day of February, 1946.

Canvassing, directly or indirectly, will be a disqualification.

LESLIE DIXON,
Clerk of the Council.

Council Offices, Alderley Edge, Cheshire.
7th February, 1946. 714

ORPINGTON URBAN DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECTURAL
ASSISTANT.

Applications are invited for the appointment of Architectural Assistant in the Engineer and Surveyor's Department, at a salary of £550 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

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

Candidates should preferably be Members of the Royal Institute of British Architects, and must have had experience in the design of houses, preparation of plans and working drawings, specifications and quantities.

Applications, on forms which will be sent on receipt of a stamped addressed foolscap envelope, accompanied by copies of not more than three recent testimonials, must reach the undersigned, endorsed "Architectural Assistant," by not later than the 4th March.

Canvassing members of the Council will be deemed a disqualification.

LEONARD O. WALL,
Clerk of the Council.

Council Offices, Crofton Pound Hill,
Orpington.
7th February, 1946. 711

NOTTINGHAMSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments, at salaries within the under-mentioned grades, according to age, qualifications, and experience, plus cost-of-living bonus in each case, which at present amounts to £59 16s. per annum, namely:—

(a) ARCHITECTURAL ASSISTANTS. £350 to £450 per annum.

(b) QUANTITY SURVEYORS. £350 to £400 per annum.

The posts will be subject to the Local Government Superannuation Acts, 1937 and 1939, and will be terminable upon one month's notice on either side at any time. The successful candidates will be required to pass a medical examination.

In accordance with the general decision of the County Council, all appointments made under prevailing conditions are of a temporary character in the first instance.

Forms of application may be obtained from the County Architect, Shire Hall, Nottingham.

K. TWEDDALE MEABY,
Clerk of the County Council.

Shire Hall, Nottingham.
4th February, 1946. 697

CITY OF LEICESTER.

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant in the City Surveyor's Office, at a salary of £350 per annum, rising by annual increments of £12 10s. to £400 per annum, plus cost-of-living bonus, £59 16s.

Applicants should be Registered Architects.

The appointment is subject to the provisions of the Local Government Act, 1937, and the successful applicant will be required to pass a medical examination.

Applications, giving age, qualifications, and details of experience, together with copies of three testimonials, should be delivered to the undersigned not later than 25th February, 1946.

JOHN L. BECKETT, M.Inst.C.E.,
City Engineer and Surveyor.

Town Hall, Leicester.
February, 1946. 703

CITY OF LEICESTER.

ARCHITECTURAL AND PLANNING
ASSISTANTS.

Applications are invited for the appointment of a qualified Architectural Assistant, in the Town Planning Department. Preference will be given to candidates who are Registered Architects, and have passed the final examination of the Town Planning Institute and have experience in civic design.

Salary £400 per annum, rising by £450 per annum, plus bonus, at present £59 16s. per annum.

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

Applications, endorsed "Town Planning Assistant," should reach me not later than 25th February, 1946.

JOHN L. BECKETT, M.Inst.C.E., M.T.P.I.,
City Planning Officer.

Town Hall, Leicester. 704

NORTHAMPTON COUNTY BOROUGH
EDUCATION COMMITTEE.

ASSISTANT ARCHITECT.

Applications are invited for the above-mentioned appointment in the Education Architect's Department. Salary will be at the rate of £400 per annum, plus bonus (at present £60 per annum), and the appointment, which is a permanent one, is subject to the provisions of the Local Government Superannuation Acts. Applicants should be Registered Architects, members of the Royal Institute of British Architects, and have had experience in the design of educational buildings.

Forms of application, which may be obtained from the undersigned, should be returned, duly completed, forthwith.

H. C. PERRIN,
Chief Education Officer.

"Springfield," Cliftonville, Northampton. 708

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ASSISTANT ARCHITECT required at once; must be able to prepare working drawings, housing and other priority work; salary, £300 to £400, according to ability. Full particulars to F. J. Lenton, Esq., F.R.I.B.A., 16, Broad Street, Stamford, Lincoln. 665

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ONE SENIOR ARCHITECT'S ASSISTANT required for work in Bristol area; must be fully conversant with war damage and licensing procedure.

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ARCON, Chartered Architects, 81, Piccadilly, have staff vacancies at salaries ranging from £250 to £600 p.a., according to capabilities. Write to the above for appointments, or 'phone Grosvenor 3721. 706

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JUNIOR ARCHITECTURAL ASSISTANT required in Bucks; state experience and salary required. Box 707.

ARCHITECTURAL ASSISTANT required immediately for housing and factory work. Johnson & Crabtree, 20, Priory Place, Doncaster. 712

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ARCHITECTURAL DRAUGHTSMAN, released from Forces, requires situation; London district or West Country preferred. R. A. Crane, 8, St. James's Lodge, Lower Addiscombe Road, Croydon, Surrey. Tel.: Addiscombe 2336. 288

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Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Adams, Robert (Victor), Ltd.	lxv	Harvey, G. A., & Co. (London), Ltd.	lxii	Prodorite, Ltd.	lxviii
Aircrow Co., Ltd.	xxiii	Haskins	lxiii	Pyrene Co., Ltd.	lxviii
Anderson, D., Sons, Ltd.	lxvii	Helliwell & Co., Ltd.	lxiv	Rawplug Co., Ltd.	xxii
Art & Educational Publishers, Ltd.	ii	Holden & Brooke, Ltd.	—	Radiation, Ltd.	xxi, xxxv
Ashwell & Nesbit, Ltd.	—	Horseley Bridge & Thomas Pigott, Ltd.	—	Renfrew Foundries, Ltd.	—
Automatic Telephone & Electric Co., Ltd.	lxv	Hope, Henry, & Sons, Ltd.	xl	Restall, Fredk., Ltd.	lxii
Bailey, Sir W. H., & Co., Ltd.	lxvii	Hotric, Ltd.	—	Ronuk, Ltd.	lxv
Baker, W. A.	lxv	Hunting Aerosurveys, Ltd.	lxvii	Robinson & Kershaw, Ltd.	lxvi
Bath Cabinet Makers & Aircraft, Ltd.	—	Ideal Boilers & Radiators, Ltd.	—	Ruberoid Co., Ltd.	xxv
Belco, London, Ltd.	i	International Correspondence Schools	lxviii	Rustproof Metal Window Co., Ltd.	—
Biro Pen	lix	Imperial Chemical Industries, Ltd.	lxvii	Sadd, John, & Sons, Ltd.	lxiii
Black & Decker, Ltd.	—	Jenkins, Robert & Co., Ltd.	lxix	Sanders, Wm., & Co. (Wednesbury), Ltd.	—
Bolton Gate Co.	iii	Jewwood, Ltd.	lxviii	Sankey-Sheldon, Ltd.	xx
Boulton Tubular Structures, Ltd.	xxxiii	Ketton Portland Cement Works	lxix	Scaffolding (Gt. Britain), Ltd.	lxv
Brent Metal Works	lxvii	Laing, John, & Son, Ltd.	—	Secomastic, Ltd.	—
Briggs, William, & Sons, Ltd.	lxviii	Limmer & Trinidad Lake Asphalt Co.	—	Sharnham & Sons	lxvii
British Electrical Development	—	Lockerbie & Wilkinson (Tipton), Ltd.	—	Smith, Henry (Constructional Engineers), Ltd.	lxvi
British Steelwork Assoc., The	—	Logical Coal Bunkers	—	Smith & Wellstood, Ltd.	—
British Trane Co., Ltd.	lxviii	London Brick Co., Ltd.	xxix	Smith's English Clocks, Ltd.	xxii
Bull Motors	lxiii	Lunn, Sir Henry, Ltd.	—	Smith, Stanley & Co.	lxviii
Carrier Engineering Co., Ltd.	lxv	McArd, Robt., & Co., Ltd.	lxix	Sommerfeld, K. J. & A., Ltd.	xxviii
Caston & Co., Ltd.	xxxvi	McCall & Co. (Sheffield), Ltd.	lxv	Southern Lime Assoc., The	—
Cement Marketing Co., Ltd.	xii	McCarthy, M., & Sons, Ltd.	—	Stelcon (Industrial Floors), Ltd.	—
Central Institute of Art & Design	—	McKechnie Bros., Ltd.	i	Sterling Textile Industries, Ltd.	lxix
Chance Bros., Ltd.	xxxi	McNeill, F., & Co., Ltd.	lxiii	Sundeala Board Co., Ltd.	lxv
Cheecol	lxvi	Magnet Joinery Co., Ltd.	—	Sutcliffe, Speakman & Co., Ltd.	lxv
Clarke & Vigilant Sprinklers, Ltd.	lxvii	Mallinson, William, & Sons, Ltd.	—	Thermovent Heating (E. K. Cole, Ltd.)	—
Colt Ventilation, Ltd.	lxii	Matthews & Yates, Ltd.	lx	Thompson Beacon Windows, Ltd., John	—
Cox & Co.	lix	Mavitta Drafting Machines, Ltd.	lxiii	Thornborough & Son (Manchester), Ltd.	—
Crompton Parkinson, Ltd.	vi	Mellor, Bromley & Co., Ltd.	—	Trussed Concrete Steel Co., Ltd.	xxvii
Cutting, R. C., & Co., Ltd.	lxvi	Metal Finishes, Ltd.	—	Tucker, Duncan (Tottenham), Ltd.	lxvi
Davidson, C., & Son, Ltd.	xxiv	Metal Window Mfrs. Assoc., Ltd.	—	Tudor Accumulator Co., Ltd.	lxv
Doulton & Co., Ltd.	xv	Metropolitan-Vickers Electrical Co., Ltd.	—	Turners Asbestos Cement Co., Ltd.	lxii
Dreadnought Fireproof Doors 1930, Ltd.	—	Midland Woodworking Co., Ltd.	—	Twistell Reinforcement, Ltd.	xxxi
Durafencing, Ltd.	ii	Mills Scaffold Co., Ltd.	ii	Underfeed Stoker Makers' Assoc.	—
Ellis (Kensington), Ltd.	—	Milners Safe Co., Ltd.	—	United Steel Companies, Ltd.	xi
Ellison, George, Ltd.	lxvii	Mint, Birmingham, Ltd., The	—	Universal Asbestos Co., Ltd.	xiv, lxviii
English Joinery Manufacturers' Assoc.	—	M.K. Electric, Ltd.	—	Uni-Secc Structures, Ltd.	lxvii
En-Tout-Cas Co.	lxix	Moler Products, Ltd.	lxvii	Van Dorn Electric Tools	xxvii
Etchells, Congden & Muir, Ltd.	lxv	Morris, Herbert, Ltd.	xxx	Vent-Axia, Ltd.	—
Ewart & Son, Ltd.	xxxviii	Mumford, Bailey & Preston, Ltd.	—	Versil, Ltd.	—
Floor Renovations, Ltd.	lxvi	National Federation of Demolition Contractors	—	Vulcan Products, Ltd.	lxiii
Forrest, George, & Son, Ltd.	v	Newsom, H., Sons & Co., Ltd.	lxvii	Walker, Crosswell & Co., Ltd.	—
Frankl Compressed Pile Co., Ltd.	lxviii	Nobles & Hoare, Ltd.	lxiii	Warerite, Ltd.	lxvii
Frazzi, Ltd.	—	Northern Aluminium Co., Ltd.	—	Warwick Rim & Sectioning Co., Ltd.	—
Freeman, Joseph, Sons & Co., Ltd.	lx	Oliver, Wm., & Sons, Ltd.	lxvi	Wellington Tube Works, Ltd.	xxvi
Fyvie Gate Co.	—	Parnall, George, & Co., Ltd.	—	Wheeler, F. H.	—
Gaze, W. H., & Son, Ltd.	lxiii	Patchett & Co., Ltd.	lxv	Wimpey, George, & Co., Ltd.	lxv
General Electric Co., Ltd.	lxvii	Peglers, Ltd.	—	Windshields of Worcester	—
Gray, J. W., & Son, Ltd.	—	Penfold Fencing, Ltd.	—	Wright, Anderson & Co., Ltd.	—
Greenwood's & Airvac Ventilating Co., Ltd.	—	Positive Flow Ventilators, Ltd.	lxix	Zinc Alloy Rustproofing Co., Ltd.	lxviii
		Powell Duffryn, Ltd.	—	Zinc Development Assoc.	—

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PAGE
viii
xlii
xi. xxxv
lxi
xlv
xli
xxv
xlii
xx
xli
lv
lxvi
lxvi
xxii
lxiii
xxviii
lxix
lvi
lv
x
l
xxvii
xli
liv
lix
xxxiv
xi
xiv. lviii
lxvi
xxxvii
ix
lii
xlvii
xxvi
vii
lxviii