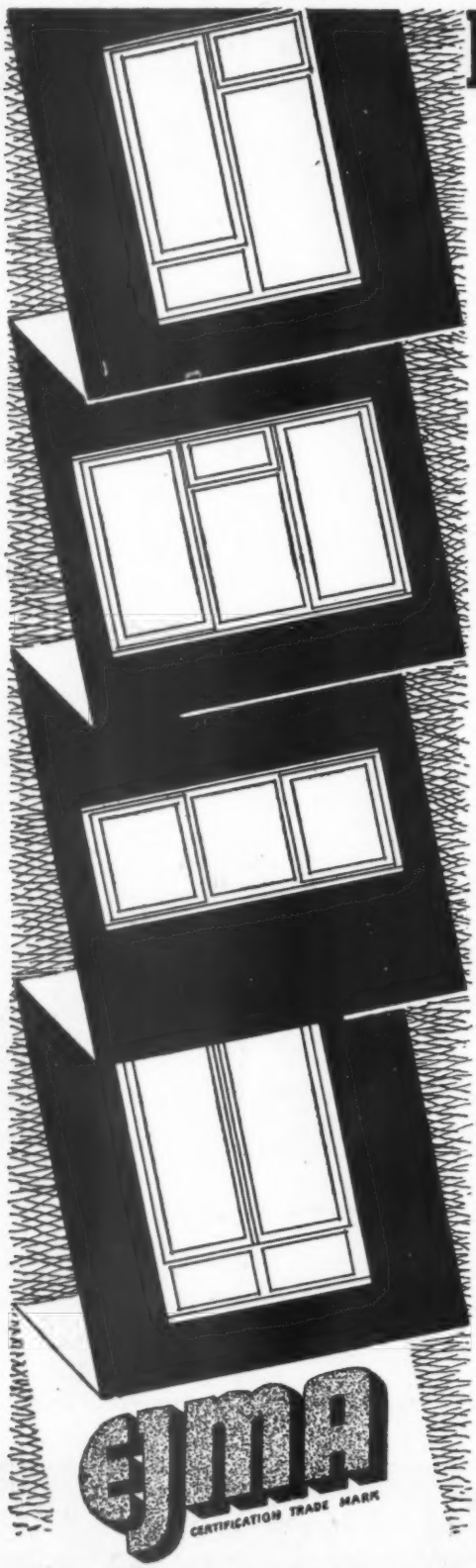
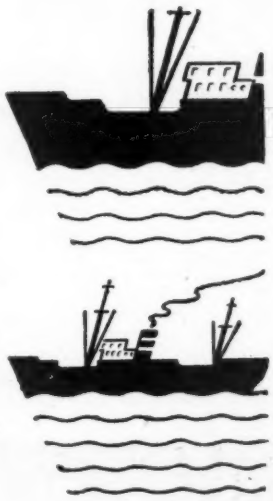


DESIGN FOR STRENGTH *Without Weight*

THE design of EJMA windows is based on engineering facts and figures, and sufficient material is used to give ample strength and a pleasant appearance. As a result — even in these days of timber economy — wood windows are being extensively used. In a 1,000-ft. super house, with timber restricted to two standards, the windows will account for no more than 1/15th of the total allowance.

SAVES 45% SHIPPING SPACE IN TIMBER

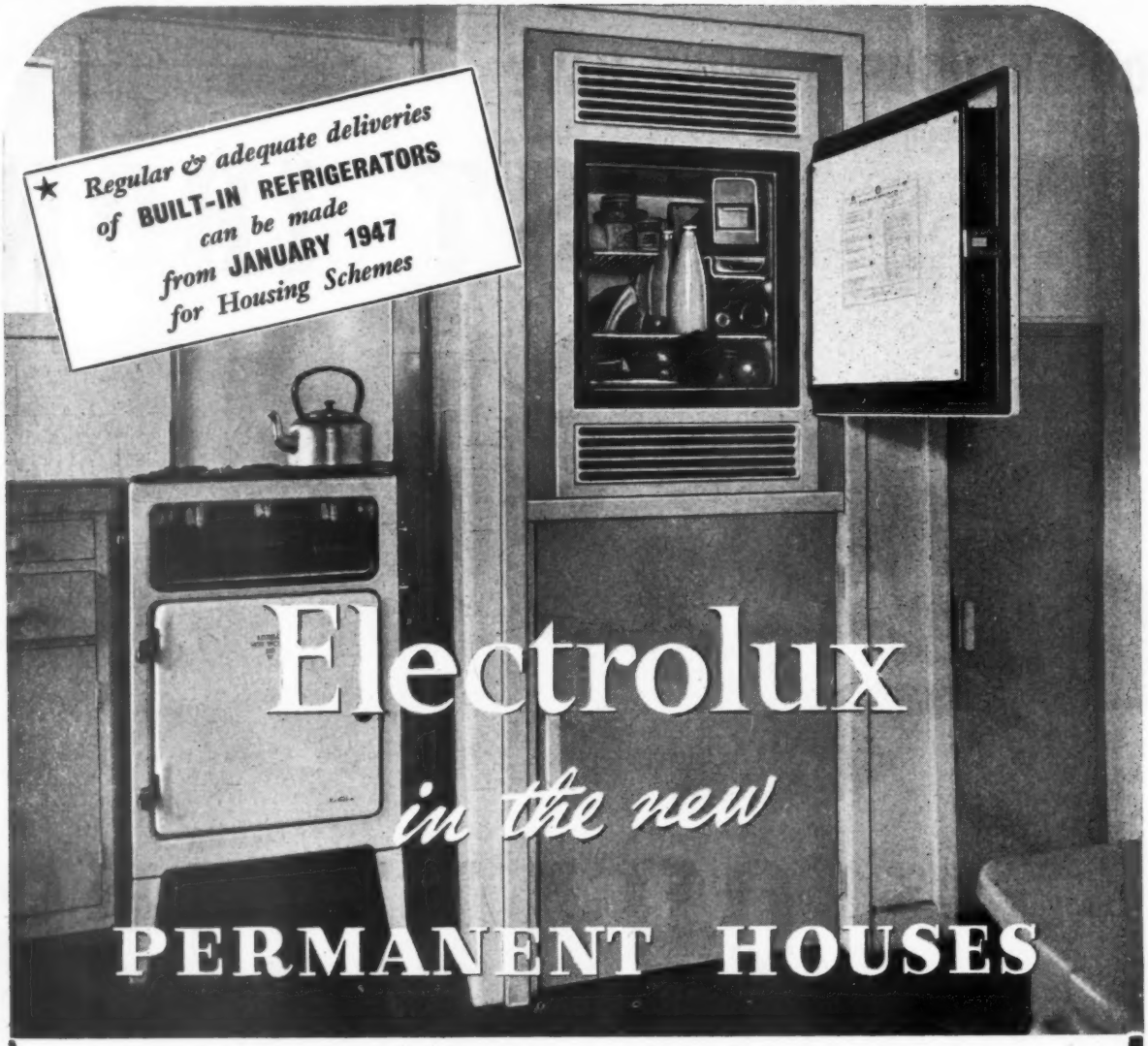
Because of modern design and economies in manufacture, an EJMA window uses little more than half the timber compared with a pre-war standard window of almost the same size, and admits more daylight. All EJMA windows conform to brick dimensions for ease of erection.



THE ENGLISH JOINERY MANUFACTURERS ASSOCIATION

SACKVILLE HOUSE, 40 PICCADILLY, W.1 REGENT 4448 (INCORPORATED)

VI/5-46



You've seen a lot in your technical press about Temporary Houses and their Electrolux *Silent* Refrigerators. So here—for a change—is something about Electrolux in two prizewinning Permanent Houses from a National Competition organised by the Housebuilding Industries' Standing Committee.

These model houses were recently shown to the public at Cranford Park Estate, Hayes, Middx. (built by Taylor Woodrow Construction Ltd.; designed by Messrs. T. P. Bennett & Son, F.R.I.B.A.); and also at Eastcote, Middx. (built by George Wimpey & Co., Ltd.; designed by Eric Collins, A.R.I.B.A.).

The illustration shows a corner of the kitchen at Cranford Park with the Regulo Cooker (made by Radiation Ltd.)—and the Electrolux Refrigerator, built into the kitchen furniture at convenient shoulder height. Under the Electrolux Refrigerator is ample storage space for non-perishable food. Like all 'built in' Electrolux Refrigerators (irrespective of whether they are operated by Gas or Electricity) it has no machinery, no moving parts. This means dependability, freedom from vibration, low maintenance cost, and, above all, *Silent Refrigeration at all times.*

NOW IN PRODUCTION...

Electrolux
Silent
REFRIGERATION

By Appointment Refrigerator Makers

By Appointment Suction Cleaner and Refrigerator Manufacturers

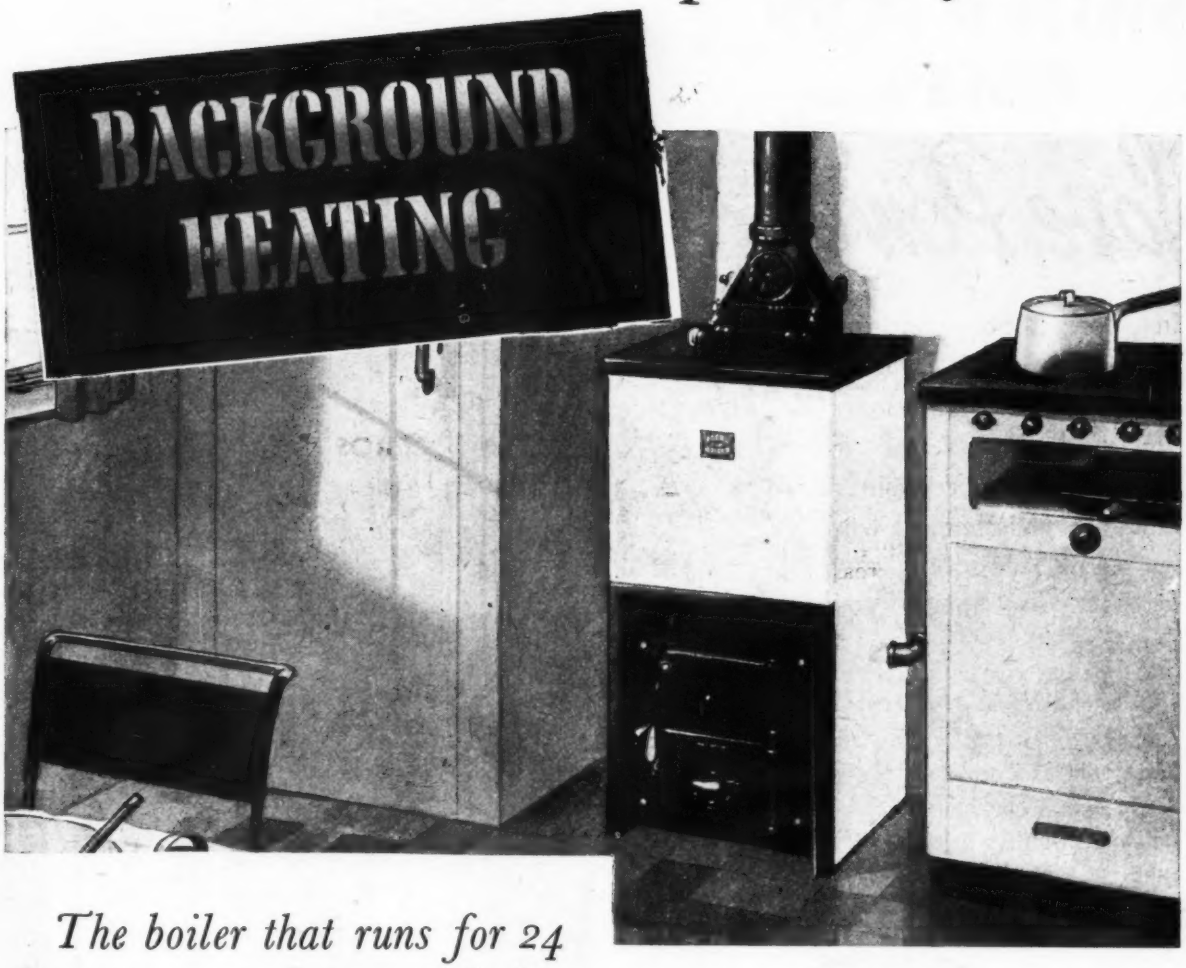
ELECTROLUX LTD. LUTON, BEDS. HEAD OFFICE: 153/5 REGENT STREET, LONDON, W.1.

Also Manufacturers of the famous Electrolux Suction Cleaner

royds

The **O-M Magazine Boiler**

an "IDEAL" product for . . .

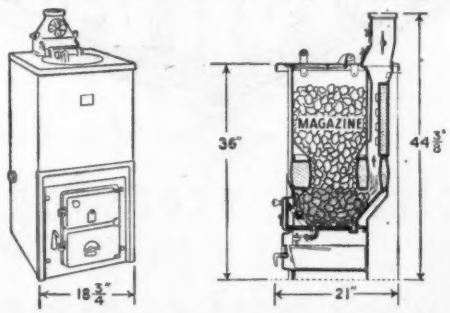


The boiler that runs for 24 hours on one charge of fuel

The Ideal O-M Boiler, which brings the labour-saving advantages of automatic stoking to the small house, will provide " background " warmth by means of Radiators or Firerads in the principal rooms.

This continuous " background " warmth throughout the house is recommended by prominent authorities for the homes of Britain. Every new housing scheme offers you opportunities to help in ensuring that the homes of the future enjoy this greater comfort and convenience.

Under normal conditions, the Ideal O-M Boiler requires only one charge every 24 hours of small coke or anthracite up to 1¼ in. size. It is designed to heat approximately 60 square feet of radiation, with an average amount of piping, and to provide hot water by the indirect method for domestic purposes with a No. 00C Ideal Indirect Cylinder (capacity 20 gallons). This easy-to-keep-clean Boiler has an attractive cream stove enamelled jacket with black vitreous enamelled doors and top plate.



IRONCLAD *INDICATING* SWITCH PLUG UNITS

Save Power

In spite of continued restrictions all available supplies of "Britmac" Electrical Accessories are reaching the recognised Electrical Wholesalers who, we know, are doing their utmost to meet your demands.

The "BRITMAC" Ironclad Indicating Switch Plug Unit illustrated is Catalogue No. P. 4207, and is one of a complete range available.

REG'D. BRITMAC

ELECTRICAL ACCESSORIES FOR ALL INSTALLATIONS

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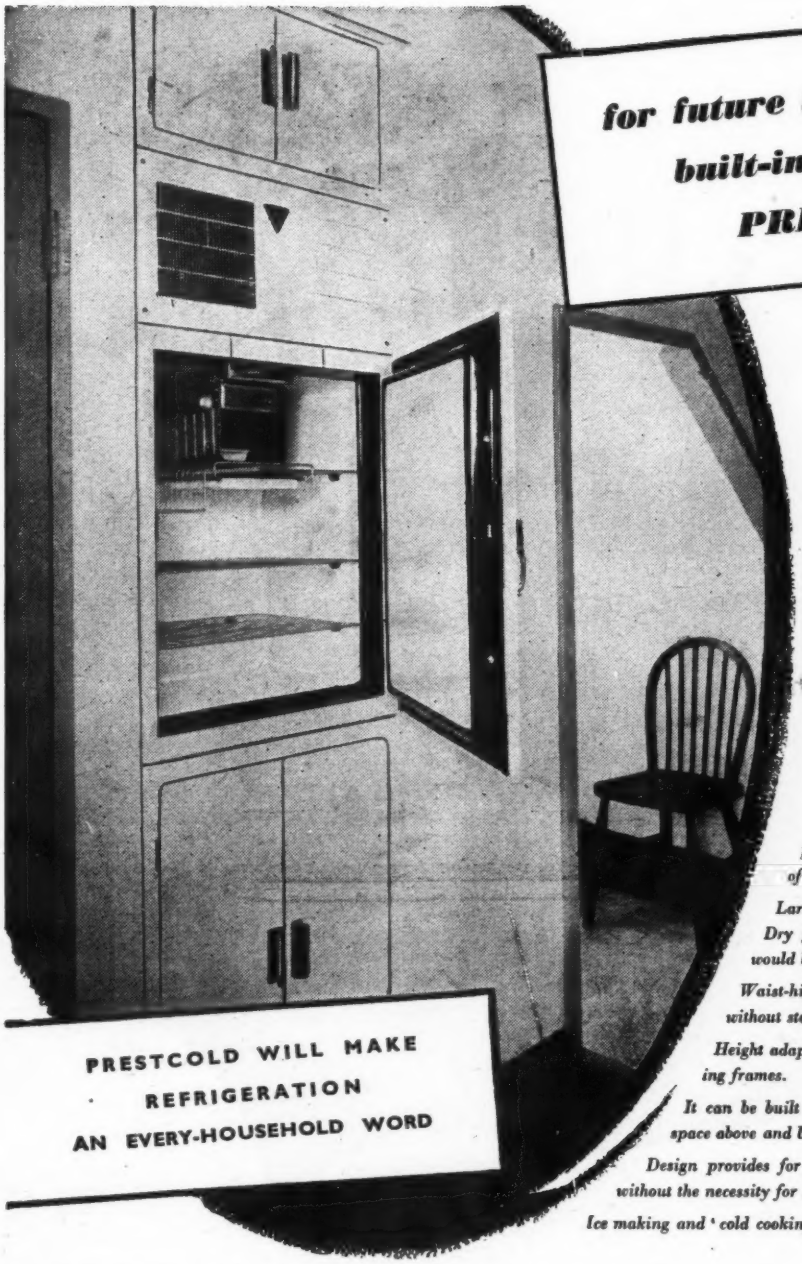


for future use . . . built-in, by PRESTCOLD

This built-in Prestcold refrigerator, as shown, installed in the kitchen of the "Bryant" house in Birmingham, has the following important advantages:

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

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

Waist-high door, allowing access to interior without stooping.

Height adaptable by varying position of supporting frames.

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

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

Ice making and 'cold cooking' facilities.

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

PRESTCOLD *Refrigeration*

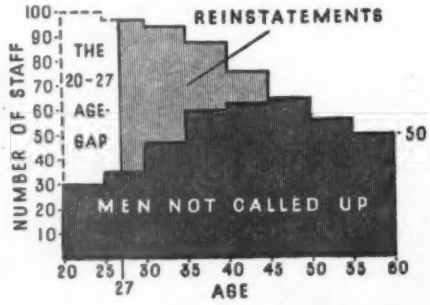
A PRODUCT OF THE PRESSED STEEL COMPANY LIMITED · COWLEY · OXFORD

THE SEVEN-YEAR GAP

Shortage of promising young men

FOR seven years, business and industry have been unable to recruit young men to train for responsible positions. Nearly all have been going into the Services.

This absence of "new blood" may not yet be keenly felt. Many firms find their immediate needs met by reinstated staff. When they say, "No Vacancies," they believe what they say.



In this chart, the whole area represents the male administrative, executive and managerial staff of a typical engineering firm before the war, analysed by age-groups. The white portion is the present 20-27 gap that must be filled to restore the balance.

Yet, as the diagram shows, a gap remains in the 20-27 age-group—a gap that older men cannot fill. This hiatus in the ranks of salaried staff will prove dangerous to the future management of any business.

In ten years, it will mean a shortage of responsible men between 30 and 37; in twenty years, between 40 and 47. The time to fill this gap is now, before the young men of ability and promise drift into blind-alley jobs.

The 20-27's are beginning to come out of the Forces in rapidly increasing numbers. They are more fortunate than their fathers were after World War I. This time, the Government has set up a nation-wide appointments service to prevent the waste of talents and capabilities needed by business and industry.

A ROSTER OF ABLE MEN

Thirteen Regional Appointments Offices are building up, for employers to call upon, a great national roster of men (and, of course, women) of promise in different fields. As the 20-27's come out of the Services, all of the requisite standard who apply are interviewed, classified and registered. Those who are undecided about their careers are "screened" to discover special aptitudes, by a method successfully tested on a large group of B.A.O.R. "volunteers."

Thus, men are matched to jobs. Employers can draw upon the whole country, if need be, for the right men to fill the 20-27 age-gap. And they are saved endless fruitless interviews, since *only* likely candidates are put forward.

LETTERS OF APPRECIATION

Since VE-day, more than 30,000 responsible posts have been successfully filled; and hundreds of appreciative letters have been received from employers and applicants alike. A typical example, from an engineering firm in the Midlands:

"May I take this opportunity of thanking you and your staff for the help you have so generously given to me in my rather difficult task. The high standard of all the applicants showed how careful had been their selection, thus saving considerable time over useless interviews."

To make sure of securing the most promising men, and to learn about the Government Training Schemes which increase their value, employers are invited to get in touch with their nearest Appointments Office. Offices are established in the following towns:—

LONDON: 1-6 Tavistock Square, W.C.1

CAMBRIDGE: 5 Salisbury Villas, Station Road

READING: 23 Valpy Street

BRISTOL: Lyndale Hotel, Berkeley Square

BIRMINGHAM: 239 Broad Street

NOTTINGHAM: Commerce Chambers, Upper Parliament Street

LEEDS: Greek Street Chambers, Greek Street

MANCHESTER: Commercial Chambers, 47 Corporation Street

LIVERPOOL: Cotton Exchange, Bixteth Street

NEWCASTLE-ON-TYNE: 153 Barras Bridge

EDINBURGH: 5 Rothesay Terrace

GLASGOW: 450 Sauchiehall Street

CARDIFF: 8 Cathedral Road

TWO TRAINING SCHEMES

To help selected men and women from the Forces or other war service to make up for lost time in acquiring professional or business skills, two training schemes of direct interest to employers are in operation:

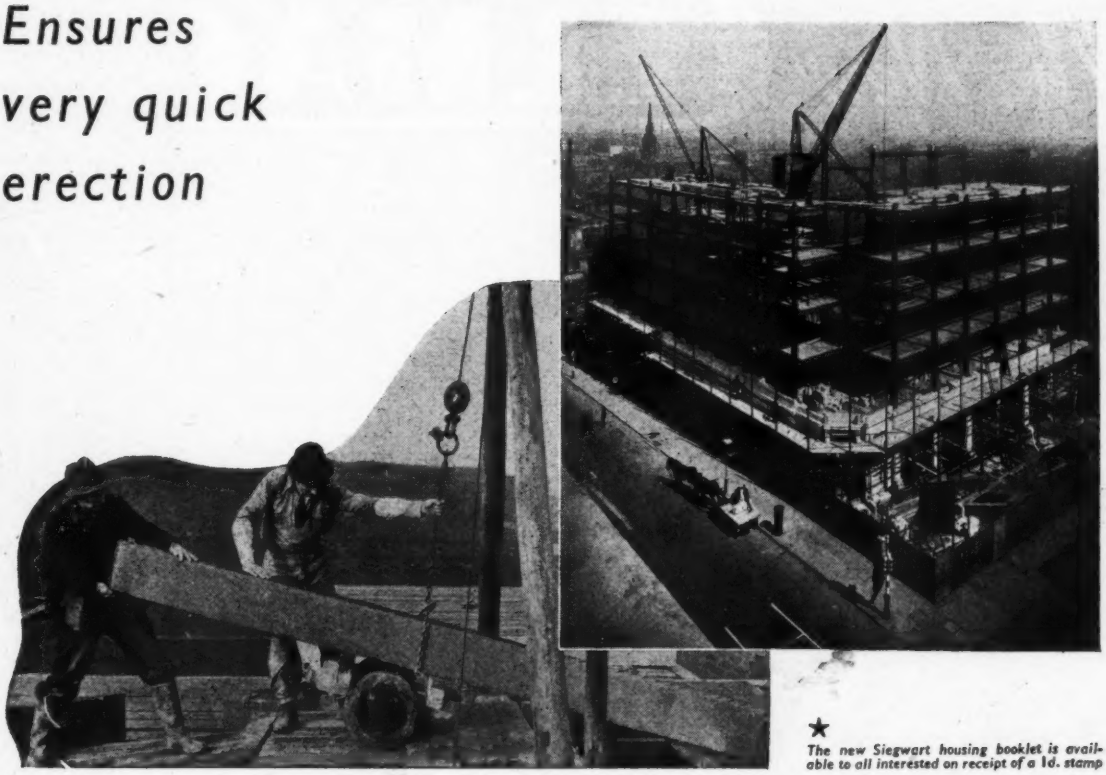
Business Training Scheme: A 3-months' course in the general structure, practice and administration of business, followed by practical training in a particular firm. Financial assistance where necessary.

Further Education and Training Scheme: Financial assistance in completing higher professional or technical studies interrupted by war service.

Issued by the Appointments Department, Ministry of Labour and National Service, St. James's Square, London, S.W.1.

Siegwart System

Ensures very quick erection



★ *The new Siegwart housing booklet is available to all interested on receipt of a 1d. stamp*

The simplicity of the Siegwart precast System is one of the factors which enables the floors to be so quickly fixed.
Other factors are the use of specially trained Siegwart men for the erection work and special Siegwart plant for handling the precast units into position; after which the grouting of the joints completes the fixing.
Siegwart bogeys, handchains and lifting tackle are seen in use in these photographs of jobs under construction. From factory to finished floor all handling of the precast units is done by our own trained men.

SIEGWART
PRECAST FLOORS

SIEGWART FIREPROOF FLOOR CO. LTD.
CROXLEY GREEN · RICKMANSWORTH · HERTS.
Tel.: Rickmansworth 2268.
Branch Offices at Birmingham · Manchester and Glasgow

Rep. 1/46

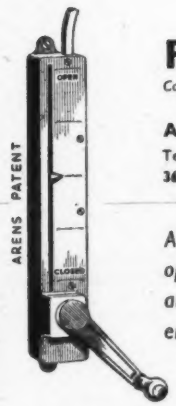
Quite a lot of surprising things can be done by remote control if the subject is willing, but it is no easy matter to get co-operation from a stubborn, out-of-the-way window or the awkward ventilator that may occur in even the best planned building. We speak from long experience of such matters, experience which enables us to 'put the fluence' on the most unruly subject and hypnotise it into smooth, silent action—and that, without any sort of fuss or waving of the arms.

ARENS

(Regd. Trade Mark)

REMOTE CONTROLS

Covered by Patent



ARENS CONTROLS LTD., TUNSTALL RD., EAST CROYDON, SURREY

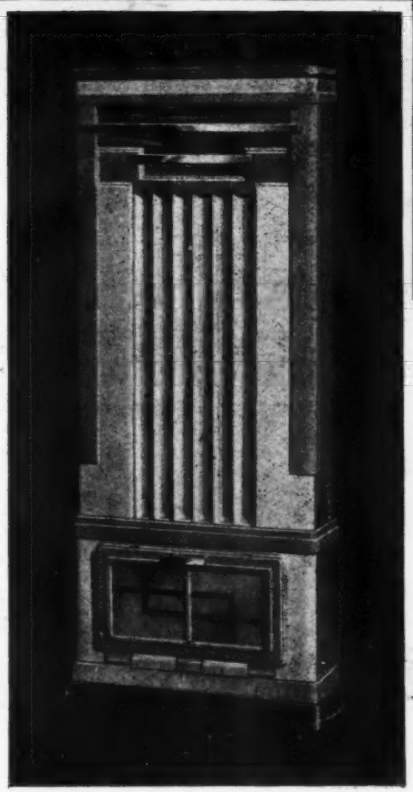
Telephone : ADDISCOMBE 3051/4
Telegrams : UNICONTROL, PHONE, LONDON
360A STRATFORD ROAD, SPARKSHILL, BIRMINGHAM, 11.
BIRMINGHAM TELEPHONE: VICTORIA 2621

ARENS COMPACT GEAR BOX requires only one third of the space of a standard Worm Gear operator. Worm and sliding members are totally enclosed. Has a pleasant streamlined appearance. Four turns provide one inch of movement on the control. An indicator which can be engraved to suit customer is incorporated.

FOR ENTRANCE HALLS • LOUNGES • LIVING ROOMS • DINING ROOMS
OFFICES • SCHOOLS • THEATRES • CINEMAS • HOSPITAL WARDS
FLATS • CORRIDORS • WORKSHOPS • PUBLIC BUILDINGS • ETC • ETC

The VELOMAIN

quickly warms the apartment, and at the same time keeps the air circulating. IT REQUIRES NO FLUE, and as the heat issues from the front, discoloration of the walls or ceiling is virtually eliminated . . . The design is simple, and all parts are accessible for any little cleaning required. The body is made from sheet steel for long service, with cast-iron parts where additional rigidity and strength are necessary.

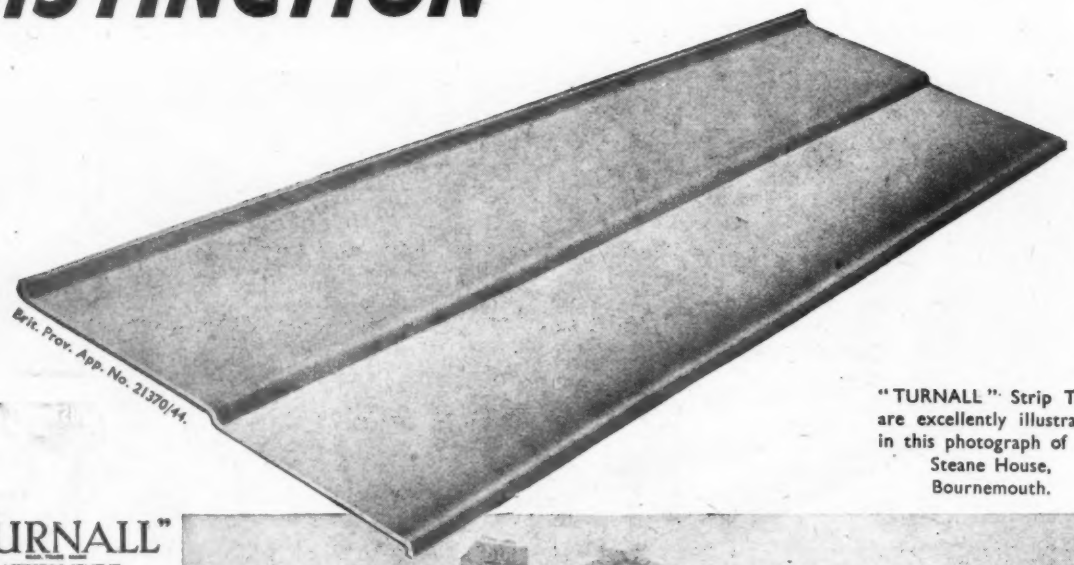


MAIN

VELOMAIN
SPACE HEATER

R. & A. MAIN LIMITED, LONDON AND FALKIRK
Head Office and Showrooms : 48 Grosvenor Gardens, London, S.W.1

ECONOMY WITH DISTINCTION



"TURNALL" Strip Tiles are excellently illustrated in this photograph of the Steane House, Bournemouth.

"TURNALL"
ASBESTOS-CEMENT
STRIP TILES

CONSIDER THESE FACTS:—

Overall Length 6 ft. 0 in.
Overall Width 2 ft. 0 in.
Weight per square 552 lbs.

FIXED DIRECT TO WIDELY SPACED RAFTERS

NO BATTENS OR BOARDING REQUIRED

HERE AT LAST IS THE ROOFING TILE WHICH EMBODIES SPEED AND ECONOMY IN APPLICATION WITH DISTINCTION IN DESIGN.

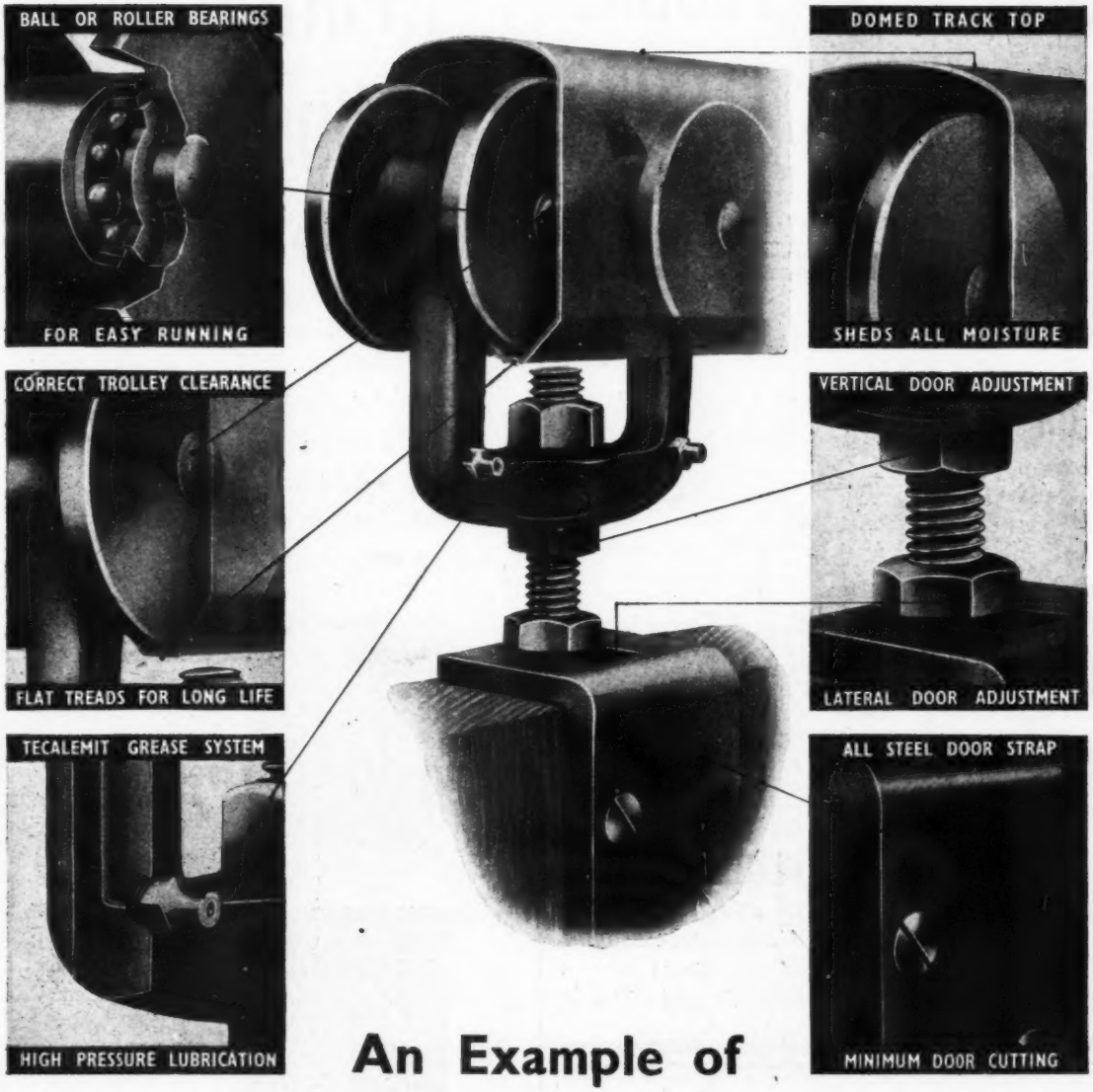
WRITE. FOR DESCRIPTIVE LEAFLET SECTION 4/C.

TAC

TURNERS ASBESTOS CEMENT CO. LTD.
TURNER & NEWALL LTD.
TRAFFORD PARK MANCHESTER 17

S.T.1

KING SLIDING DOOR GEAR



An Example of ENGINEERING PERFECTION

King Door Gear stands foremost amongst all makes in possessing the above features incorporated in the one product. For many years King's have specialised in conveying; moving things smoothly and efficiently; moving huge loads of 25 tons by overhead crane to a few pounds by door gear. The highly specialised knowledge gained from this experience enables King's to produce sliding door gear as near perfection as it is possible to make it. Within King's large organisation a special department is constantly working to secure even the smallest improvement in King's products. This research results in up-to-the-minute efficiency and reliability, in short—perfect design. This fact, combined with its keen competitive price, merits King Door Gear as a first consideration. The name King creates confidence. Stockists throughout the country have standard lines ready for immediate delivery. Write for illustrated booklet and price list.

GEO. W. KING LTD. HITCHIN HERTS PHONE: HITCHIN 960

BATTERSEA POWER STATION EQUIPPED WITH BOOTH ROLLING SHUTTERS

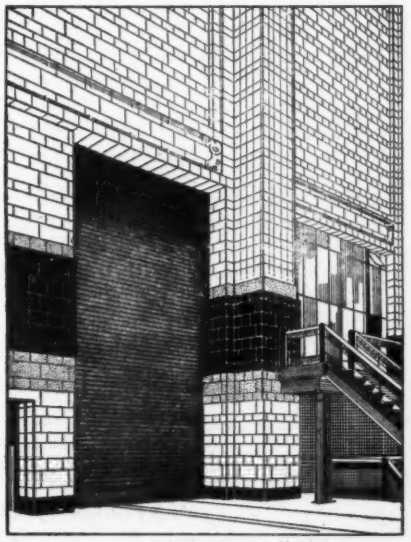
Booth

Fireproof doors & rolling shutters

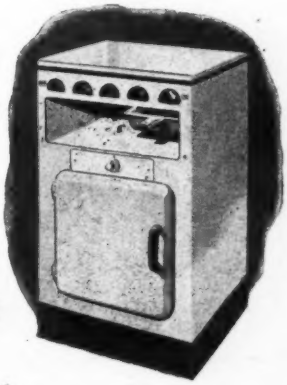
Booth Fireproof Doors and Rolling Shutters are admirably adapted for interior or exterior use of buildings of almost every type.

Full particulars and literature will be sent upon request.

JOHN BOOTH & SONS (BOLTON) LTD., HULTON STEEL WORKS, BOLTON



"It's a lovely house, but what about the kitchen?" If it's a **CORNER** kitchen it's a modern, scientific masterpiece, beautiful to behold, easy to keep clean and trouble-free from the word "go." You see, Corner's are specialists in the design and construction of kitchens and kitchen appliances and when Corner's make a kitchen it's just right—no more, no less. And what can a woman want more than a perfect kitchen? We'll tell you—a **CORNER** kitchen. Try us out.



CORNER *for kitchens*

G. CORNER & CO. LIMITED . ADAIR STREET WORKS . MANCHESTER 1

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. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the* JOURNAL *and made of raw materials now in short supply, are not necessarily available for export.*

DIARY FOR OCTOBER NOVEMBER AND DECEMBER

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.

HASTINGS. *Eighteenth International Congress for Housing and Town Planning.* At White Rock Pavilion, Hastings. Provisional programme: Opening by the Minister of Town and Country Planning; Replanning the Centres of Cities; Housing Technique; Housing Economics. The APRR will be holding an exhibition in the Hastings Museum consisting of plans of the cities of Europe, in conjunction with the Congress. (Sponsor, International Federation for Housing and Town Planning, 13, Suffolk Street, S.W.1.) OCT. 7-12

LEWES. *Royal Sanitary Institute Sessional Meeting.* At the Town Hall, Lewes. Papers on *Rural Housing* by G. Kent, Chief Sanitary Inspector, Chailey RDC, and on *Some Aspects of Army Sanitation Overseas,* by H. K. Appleton, Chief Sanitary Inspector, Lewes. 2.30 p.m. (Sponsor, RSI.) OCT. 4

LONDON. *Fuel and the Future.* Three-day Conference organised by the Ministry of Fuel and Power. At the Central Hall, Westminster, on October 8, at 10.30 a.m.; at the RIBA, 66, Portland Place, W.1, on October 8, at 2 p.m., and October 9 at 9.45 a.m. and 2 p.m.; and at the Central Hall, Westminster, on October 10, at 10 a.m. and 2.15 p.m. Two sections of the conference, *Modern Heating and the Architect,* and *The Home and Its Fuel Services,* will concern housing. Mr. Emanuel Shinwell, M.P., Minister of Fuel and Power, will open the conference, and Mr. Aneurin Bevan, M.P., Minister of Health, will speak on the *Fuel Requirements of the Housing Programme.* OCT. 8, 9 and 10

Professor Sir James Chadwick, F.R.S. *Atomic Energy and Its Applications.* The Melchett Lecture for 1946 at the Central Hall, Westminster. At 6 p.m. (Sponsor, the Institute of Fuel.) OCT. 8

M. Hartland Thomas. *Technical Investigations in Germany.* Architectural Science Board Lecture. At the RIBA, 66, Portland Place, W.1. (1) Autobahn bridges; (2) Autobahn planning; (3) Canals, river improvements, hydraulics; (4) Dimensional standardisation; (5) Lightweight concrete; (6) Payment by results; (7) Prestressed concrete; (8) Shell concrete; (9) Steelwork; (10) Timber; (11) Architecture; (12) Lattice retaining wall; (13) Rubble utilisation; (14) Power tools; (15) Building industry; (16) Research institutions; (17) Miscellaneous notes. (Sponsor, RIBA.) 5.45 p.m. OCT. 9

Village Survey Exhibition. At 13, Suffolk Street, S.W.1. The Survey is the work of Cecil Stewart and a team of specialists, and is the product of a grant awarded by the Leverhulme Fellowship Trust Committee. The subject is Sutton-at-Hone, in Kent, which was illustrated in the JOURNAL for September 19. 9.30 a.m. to 5.30 p.m.; Saturdays, 9.30 a.m. to 12 noon. (Sponsor, HC.) OCT. 3-9

New Homes for Old. Exhibition of House Conversion at the Tea Centre, 22, Lower Regent Street, S.W.1. 10.30 a.m.-5.30 p.m. Saturdays, 10.30 a.m.-4.30 p.m. Admission 1s. (Sponsor, H.C.) OCT. 3-NOV. 28

Britain Can Make It Exhibition. The DIA is arranging a series of short talks on some of the main sections of the Exhibition which will be delivered by authoritative speakers every day (except Sunday) from September 30, at 3 p.m. and 7 p.m., in the Lecture Theatre of the Victoria and Albert Museum. The talks will last 30 minutes, followed by 10 minutes' discussion. Admission, 1s. (Sponsor, DIA.) OCT. 3 onwards

Illuminating Engineering Society. Opening Sessional Meeting. At the School of Hygiene and Tropical Medicine, Keppel Street, W.C.1. 5.30 p.m. Light refreshments. 6 p.m. The new President, J. S. Dow, will be inducted and will deliver his Presidential Address. OCT. 8

Designers Conference. At the Victoria and Albert Museum, Saturday, October 12, 3 to 7 p.m., *Britain Can Make It,* a discussion on the content and significance of the current exhibition; chairman, Allan Walton; speakers, Dudley Ryder, N. Edgar Rawson, and others. Saturday, 5.30 to 7 p.m., *Can Industry Do Without the Designer?* Chairman, John Gloag; speakers, John M. Ryan, Norbert Dutton, and others. Sunday, October 13, 3 to 4.30 p.m., *The Designer in Action;* chairman Lord Sempill; speakers, Misha Black, Dr. Nikolaus Pevsner, F. E. Middleditch, Victor Skellern, W. H. Russell, Alec Hunter, Douglas Scott. 5.30 to 7 p.m., *A Design Brains Trust;* question master, W. D. H. McCullough. The Conference is open to all; the ordinary ticket, 30s., will admit to all sessions and includes buffet tea and reception on Friday evening; a special student's ticket, 15s., admits holder to all sessions on Saturday and Sunday inclusive of buffet tea. (Sponsor, Society of Industrial Artists, 9, Conduit Street, W.1.) OCT. 12-13

Furnishing To-day Exhibition. At the Good Housekeeping Furnishing Studio, 28-30, Grosvenor Gardens, S.W.1. The first of a varied series of small exhibitions to be held in the studio. Its purpose is to show how the ordinary householder can contrive attractive and practical equipment for the home from materials now available, and at very low cost. OCT. 7-NOV. 15

NEWS

THURSDAY, October 3, 1946
No. 2697 VOL. 104

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.

★

Sufficient experience has been gained of the BUILDING OF NON-TRADITIONAL HOUSES for it to be evident that they have considerable advantages at the present time:— MOH Circular to Housing Authorities. Not only do they make less demand than traditional houses on certain scarce building materials, and on some types of skilled craftsmen (*e.g.*, bricklayers), says the circular, but also they can be erected more quickly. Further steps have, therefore, been taken to ensure that houses of non-traditional construction are readily available, and it is hoped that all Councils to whom these houses are offered will accelerate and extend their housing programme in this way. The houses approved in the circular are: CCC, Easiform, Orlit, Scottwood, Steane, Unity, Wates, Wimpey No-Fines. Approval has been given to a number of experiments with new systems of construcion, but it is now considered that attention should be concentrated on building the maximum number of new houses by methods which have already been approved. Experimental work will therefore only be sanctioned in future if the proposed system shows *prima facie* evidence that it is likely to compete successfully with traditional construction in both efficiency and cost, and that it will be brought into large-scale production at an early date.

From AN ARCHITECT'S *Commonplace Book*

THOUGHTS OF A 19TH-CENTURY SHARAWAG: VENETIAN PICTURESQUE. [*From* The Art of Building Cities *by Camillo Sitte* ; *translated by Charles T. Stewart* (*Reinhold Publishing Corporation*).]

No theatre ever created a more sublime tableau than the spectacle to be enjoyed at Venice. . . . This unequalled grandeur assuredly was attained through extraordinary means : the effect of the sea, the great number of buildings embellished with sculpture, the magnificent colouring of Saint Mark's, and the towering Campanile. But the exceptional effect of this assembly of marvels is due largely to skilful arrangement. We may be quite certain that these works of art would lose much of their value if they were located haphazardly by means of the compass and straightedge according to the modern system. Imagine St. Mark's isolated from its surroundings and transplanted to the centre of a gigantic modern square ; or the Procuraties, the library, and the Campanile, instead of being closely grouped, spread out over a wide area, and bordered by a 200 foot wide boulevard. What a nightmare for an artist ! The masterpiece would thus be reduced to nothing. The splendour of buildings alone is not enough to form a magnificent whole if the general arrangement of the square is not carefully worked out. . . . What an impression is made by several grouped squares on the person who goes from one to the other ! The eye encounters a new scene every instant, and we feel an infinite variety of impressions. This may be observed in photographs of St. Mark's and of the Signoria of Florence. There are more than a dozen popular views of each square, taken from various points. Each one presents a different picture, so much so that it is sometimes difficult to believe that they are all views of the same place. When we examine a modern square of strict right angle design, we can get only two or three views of different quality, for in general they express no artistic feeling. They are only surfaces of so much area.

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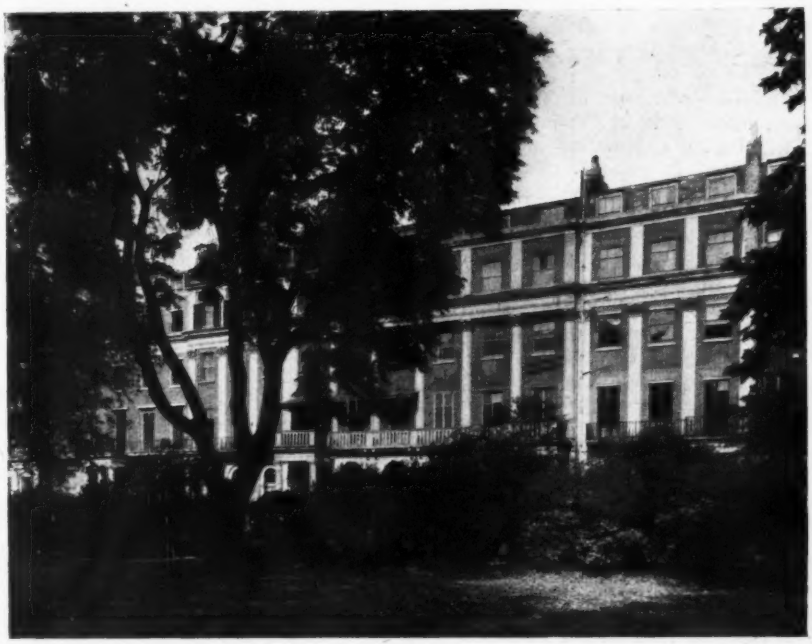
The first annual Report of the NORTHERN IRELAND HOUSING TRUST has just been published (*HMSO*, 8*d.*).

The Report refers to events leading up to the formation of the Housing Trust and points out that a survey carried out in 1943 by the Ministry of Home Affairs showed that about 100,000 new houses were required in Northern Ireland in order to provide reasonable housing conditions. Now contracts have been placed for just over 3,000 houses on sites where roads are either completed or are sufficiently near completion to allow building. Of these, 116 houses are now tenanted. Under the Housing Act (Northern Ireland), 1945, states the report, cerain conditions governing the selection of tenants are laid down. Tenants must be Workers as defined in the Act, a residence qualification is required, and preference must be given to ex-Servicemen and to bombed-out families. Subject to these conditions, the Housing (Management of Accommodation) (Northern Ireland), 1945, Regulations, made under the Act, require that need shall be the decisive test for securing a house. A duty is placed on the Local Authority to keep a list of applicants for houses, and a form of application has been prescribed. In any area in which the Trust is building, it will work from the Local Authority forms and lists.

Squatters were hardly in a position to buy houses. THESE INCIDENTS ARE SIMPLY NOTHING to the trouble there would have been if we had in power a Government which handed the housing programme over to the speculative builder to produce houses to sell:—The Minister of Health.

Accommodation has so far been provided for 200,000 families, states Mr. Bevan—120,000 of them in London—and the great bulk of this has been made available for letting and fairly allocated to those in greatest need. Of the 60,000 permanent and temporary houses already completed, 48,000 have been let at reasonable rents, to those who needed homes most badly, and 12,000 have been built by private builders for sale to people of their own choice. That is a ratio of four houses to let for every one for sale, and I am going to see that it is maintained. If that four-to-one ratio had been reversed—and that is what the Government's opponents want—and the ex-servicemen had found that most of the new homes available were reserved for those with the money to buy them, then this country would really have had trouble, and it would have had it months ago. There were in hand or projected at the end of July 437,000 houses, made up as follows:—185,000 permanent houses in local authority contracts; 57,000 houses licensed to private builders; 35,000 BISF permanent steel-frame houses; 160,000 temporary houses. Of these, 20,000 permanent and 40,000 temporary houses were completed and occupied, and 134,000 permanent houses and 28,000 temporary houses were under construction. The aim must now be to get more houses finished quickly, without interfering with the serial production which was necessary in order to secure a big and steady flow of completed houses next year. During the last few months the Government has, therefore, concentrated on attacking bottlenecks in the factories producing materials, components and fitments, in order to clear the way for a Finish the Houses drive during the autumn and winter.



In the special* JOURNAL *issue on Conversion of November 15 of last year, a photograph of Eaton Square, London, was published as a frontispiece with the heading* Ripe for Conversion, *and a caption pointed to the immediate need to convert such property. The* JOURNAL*'s plea may now be realized and Eaton Square may in time be completely converted into flats. Already licences have been granted for the conversion of four of these houses. Type layouts by Arcon are shown on pages 245-7 of this issue. Above is a view of the Square from one of the gardens.

International Conference

On the platform at the International Conference of Architects held at the RIBA last week and organised by the British Committee of the International Reunion of Architects in association with the British Council. From left to right, Gordon Stephenson (G.B.), Professor F. Pardal Monteiro (Portugal), Pierre Vago (France, General Secretary, International Reunion of Architects), Auguste Perret (France, President, IRA), J. Murray Easton (Vice-President, RIBA, welcoming the delegates), Sir Patrick Abercrombie (President, British Section, IRA), Erno Goldfinger (Hon. Organising Secretary of the Conference), Jules Ghobert (Belgium). Also on the platform but not seen in the photograph was J. P. Vouga (Switzerland). Leading architects from twenty-two countries took part in the Conference, whose main topic of discussion was the possibility of a permanent world federation of the profession. As Sir Patrick Abercrombie has stated, "We architects must create our own international organization as a means of sharing our ideas and casting our creations into the pool of the common heritage . . . Frequent meetings, discussions, inspections of methods, exhibitions of designs and examinations of achievements are called for. A policy of disinterested sharing would do much to advance building as an instrument of international understanding as well as of national projects of reconstruction." At the time of going to press it is too early to state whether this call has been unanimously approved by the Conference, but it is encouraging to know that Sir Patrick was able to open the discussions by reading a letter from Dr. Julian Huxley, Secretary-General of UNESCO, in which he wrote that UNESCO would welcome the formation of a real international federation.

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The results of the COMPETITION FOR THE DESIGN FOR A PUBLIC DRINKING FOUNTAIN sponsored by the Royal Society of Arts has been announced.

The results are: First Premium (£50) to Cyril G. Pinfold, A.R.I.B.A., A.M.T.P.I. Second Premium (£25) to Peter S. Ferguson. The design submitted by Mrs. Roberta Everett received commendation. 192 designs were submitted by a total of 165 competitors. The Assessors were: O. P. Milne, F.R.I.B.A., Keith Murray, R.D.I., F.R.I.B.A., and Surgeon Vice-Admiral Sir Reginald Bond, K.C.B. The winning and commended entries, together with a selection of other designs submitted for the competition, will be on view to the Press and public in the library of the Royal Society of Arts from Monday, September 30, to Monday, October 7, inclusive, between 10 a.m. and 4.30 p.m. (Saturday, 10 a.m. to 12.30 p.m.) The Assessors' Report, with illustrations of the premiated and commended designs, will be published in the Journal of the Society for Sept. 27.

The Chairman and Committee of the London Region of the Design and Industries Association are holding a reception TO MEET DR. SIEGFRIED GIEDION of Zurich.

The reception will be held at Brown's Hotel at 4.30 p.m. on October 10, when Dr. Giedion will speak on *Changing Aspects of Comfort from Mediæval to Modern Times.* Dr. Giedion is the author of *Space, Time and Architecture.*

By arrangement with the Reinforced Concrete Association, the Northern Polytechnic is repeating the course of INSTRUCTION IN REINFORCED CONCRETE CONSTRUCTION during the 1946-47 Session.

The first lecture was given on Friday, September 27, 1946. The curriculum comprises lectures and laboratory instruction in the properties of concrete and of aggregates and cement; the proportioning, mixing, placing and consolidation of concrete; the preparation and fixing of reinforcement; formwork; and the processes of construction generally. The syllabus has been drawn up primarily to meet the requirements of resident engineers, foremen, clerks of works and others who have had some experience in the industry, and will include visits to works. The lecturer is Mr. L. J. Murdock, M.SC., A.M.INST.C.E. Classes are held on Friday evenings, the fee for the course being £1. Intending students will be interviewed and enrolled from 5.30 p.m. to 7.30 p.m. on any evening after the opening of the Session. Further particulars may be obtained from the Head of the Department of Architecture, Surveying and Building, Northern Polytechnic, Holloway Road, London, N.7.

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In London and Castle Bromwich from May 5 to 16 next year: the FIRST BRITISH INDUSTRIES FAIR SINCE 1939.

Date of the first British Industries Fair to be held since 1939 is given in the forms of application for space sent to United Kingdom manufacturers by the Board of Trade. The Fair is to be held from May 5 to 16 next year at Earls Court and Olympia, London, and at Castle Bromwich, Birmingham. As in pre-war years, exhibits will be grouped in two main sections. The lighter industries in London and the engineering and hardware at Birmingham. The London section of the Fair is organized by the Export Promotions Department, Board of Trade, 35, Old Queen Street, London, S.W.1, and the engineering and hardware section by the Birmingham Chamber of Commerce, 95, New Street, Birmingham, 2. Special attention will be devoted to the display of United Kingdom products suitable for export, and it is hoped the Fair will attract many buyers from abroad as well as in Britain.

The Queen inspects a sectional model of a Third Class double-decker sleeping car at the opening of the Britain Can Make It Exhibition at the Victoria and Albert Museum. With the Queen is Mr. Misha Black, designer of the sleeping car. On the right is Mr. Attlee.

THE ARCHITECT AND DESIGN

ON Tuesday, September 24, the Council of Industrial Design, which was set up by the Government about a year ago, made its first public appearance as producers of the Exhibition Britain Can Make It. To those who have for many years worked hard to improve the standard of industrial design this official recognition of the importance of their aims and efforts will give great encouragement. Although many of the exhibits will not be available in this country for the time being and the immediate purpose of the Exhibition is to stimulate export markets, it is hoped that the goods shown may so whet the public appetite that when the time comes it may insist on a higher standard of design in the commodities for its own enjoyment.

This event is an appropriate occasion on which to take stock of the part played by architects in the long campaign and to consider what more they can contribute in this field. Apart from sporadic individual efforts, the first organized step towards encouragement of good design in everyday things was taken with the foundation of the Design and Industries Association in 1915 with its slogan Fitness for Purpose. Architects were among the leaders in this movement, which has had such a healthy and all-prevailing influence in every field of contemporary art.

Their first move was a complete overhaul of the system of architectural education whereby students should be taught to lay aside preconceived notions and tackle each problem logically and on its merits, exploring the possibilities of new materials and methods of construction. This training, new to this country, rendered the younger school of architects particularly apt at industrial design in which several of them have played and still play a prominent part.

The fact is, the elements of all design are basically the same and a man who has received a sound training in solving architectural problems need not be afraid of tackling any design problem provided the programme is clearly set before him and he is given the opportunity of studying the methods of production. In view of the universality of design it has even been suggested that all designers might to advantage take the early part of their training together, branching off in the later stages into specialized lines. Though theoretically this proposition has much to commend it, the ever-widening scope of architectural education and its already overburdened curriculum might make this impracticable. Much more, however, should be done to bring the student of architecture and industrial design closer together and to foster a uniformity of outlook and appreciation of each other's problems.

Like architecture, industrial design promises to develop into such a wide and highly technical field that it is doubtful whether there will much longer be room for architects, *qua* architects, as active practitioners, but this certainly does not mean that their interest or influence should therefore be diminished. On the contrary, with the growing tendency

towards prefabrication and more elaborate equipment in buildings, the products of industrial design will concern them to an even greater degree than in the past. It is in his demand for the highest standard in this equipment, and his selection of the best, that the architect can and should exert his influence on industrial design.

The Architects' Journal

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NOTES & TOPICS

THE WORLD COMES TO LONDON

While these notes are being written, the International Architects' Conference is in session in London, and by the time this issue of the Journal appears, the delegates, having finished their deliberations, will be half-way round England on the Grand Tour the British Council has arranged for them.

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So it is too early to say anything about the results of the Conference, but not too early to pronounce it a definite success, since, apart altogether from any official results achieved, a meeting of representative architects from twenty-two countries was bound to be a stimulating, and, indeed, a moving, occasion after such a long time. So many faces brought back pre-war memories, faces of people that it seemed six years ago might never meet together again: Aalto from Finland, looking older but as full of ideas and enthusiasm as ever, the learned Dr. Giedion from Zürich, van Eesteren from Holland, Nansen from Norway [an inspiring name at such a meeting for his father was one of the great internationalists], Professor Monteiro from Portugal, Krejcar from Czechoslovakia, and many others.

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With Grand Old Man Auguste Perret, in the chair and Professor Abercrombie, Britain's delegate, welcoming them all with his usual charm, the Conference began in a much pleasanter atmosphere than we have recently come to expect from international assemblies. An encouraging start to the discussions was given by a letter from Dr. Julian Huxley, Secretary-General of UNESCO, who said how much UNESCO would welcome the formation of a real international federation. There are indeed just as many architectural as political matters that nowadays *must* be dealt with internationally.

CONGRES TECHNIQUE

England apparently made a strong impression at the session on planning at the International Technical Congress in Paris, where two papers by the APRR were submitted from this country on the layout of trunk roads and on new towns. It seems that we are quite respected abroad for our planning activities and our delegates had no difficulty in correcting mistaken ideas on such questions as horizontal versus vertical building and the neighbourhood unit theory. In fact, British representation was strong enough to secure a better resolution on the result of the planning discussions.

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The same cry that is heard in England came from most of the other countries represented at the Congress, I hear—not enough men and materials to cope with reconstruction. For example, France can only find half the man-hours necessary to reach normality in ten years, and to solve this problem standardization, new methods and an increase in the number of workers was advocated. [Abroad, of course, the first priority is not so much on housing, as it is here, as on railways and bridges].

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The most useful suggestion which came from this section of the Congress was a resolution to seek the establishment of an international pool of labour, methods and materials. If such practical international co-operation could really happen, perhaps there would be no more need for Peace Conferences.

PRIVATE VIEW [SOUS-BRAS]

Facing South Kensington station was a huge notice: "Britain Can Make It, Dress Shields: Sous-Bras." Averting their eyes the crowds hurried on, past the National Theatre site [displaying new uses for ARP equipment] and up Exhibition Road, never perhaps so busy since the days of Albert and Sir Henry Cole.

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Across the road, empty, echoing, stood the Geological Museum, sucking its Portland stone teeth in anticipatory relish. "Space ships and radio-equipped bicycles" it seemed to say, "air-conditioned beds and plastic egg-cups will all be no more than fossils one day. They can make it—we will wait for it." But the crowds were still undeterred. Backs on the past, faces to the future we converged on the entrance doors, forged in a hot turbid stream through the lobbies and into the dim blitz-background of the first few rooms which engulfed us like an inky mill-pool.

*

On again, along the bright-lit tributaries lined with consumer goods, we drifted in our darned socks and mended stockings, our shiny suits and weather-beaten hats, mouths ajar, eyes glassy, like shoals of rather shabby fish. Occasionally we came to rest, fins faintly flapping, in quiet backwaters marked Fire Exit, and finally emerged, sides heaving with exhaustion, into the Cromwell Road. What crowds, what heat, what lights and

colours and shapes. How impossible to form a judgment of its merits, how impertinent to criticise its faults. Yet here, with some diffidence, are a few visual reactions obtained from glimpses over shoulders and beneath arms [Britain Can Make Them] at the private view.

Designs at the Britain Can Make It Exhibition, reviewed by Astragal this week. Top, the Wingsail Catamaran invented and designed by Wells Coates. Centre, the air-conditioned bed designed by F. C. Ashford. Bottom, the portable electric sewing machine designed by F. H. K. Henrion.

Presentation, generally speaking, excellent and gay—better as a rule than the objects presented. Display style —born out of Paris 1937 by MARS 1936, Misha Black accoucheur—imaginative throughout, reaching at times standards of elegance and originality which not even those excellent war-time exhibitions of MOI attained. Top marks for showmanship to Robert Goodden's brilliant composition of masts, cones, ropes and sea-gull, the colour scheme of which catches the breath, and next, the Egg-Cup Display by Misha Black and his associates. As always Mr. Black is astonishingly fertile in ideas and completely assured in his methods of achieving them.

*

Top marks in the Furnished Rooms to David Booth's dining room and Frederick Macmanus' Kitchen-Dining-Room—both, with their careful detailing and cool clear colours, examples of British design at its very best. Other notable successes are Lewitt-Him setting for luggage and umbrellas, R. D. Russell's living-room furniture, Wells Coates' catamaran-dinghy, F. H. K. Henrion's sewing machine, the whole of the book section, the standardised fire sign, and two circular hoardings of high-spirited posters by Bob Scanlon—the liveliest pieces of publicity design I've seen for years.

*

Brickbats are a bit unfair when made from the scanty straw of one visit, but I can't resist hurling a few at some of the furnished rooms—and particularly at the bathrooms, one of which is a truly monumental piece of vulgarity.

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On the whole then, a thoroughly invigorating exhibition, in which the designers, ably led by James Gardner and Basil Spence, have thoroughly enjoyed themselves. Don't be put off by the people who say that the emphasis on luxury is too heavy, or that the display of things you want but cannot buy is merely annoying. Window Shopping is a traditional amusement, and at the V. and A. you will find it as delightful and stimulating as ever.

ASTRAGAL

LETTERS

E. Goldfinger,
Honorary Secretary, International Reunion of Architects, British Committee

D. E. E. Gibson,
M.A., A.R.I.B.A., A.M.T.P.I., City Architect

G. P. White
Lt., R.A.

I R A

SIR,—Sir Patrick Abercrombie is the President of the *British Section* of the International Reunion of Architects, and *not* President of the IRA, and was representing the *British Section* in Paris, and not the International organisation.

E. GOLDFINGER,
Honorary Secretary,
International Reunion of Architects,
London British Committee

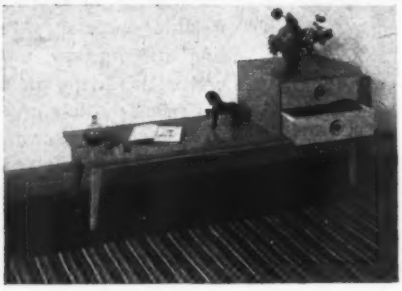
Planning in the Third Dimension

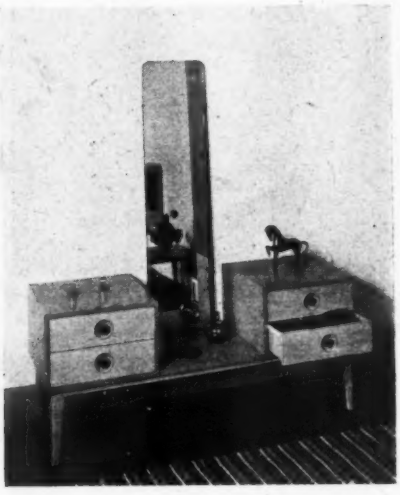
SIR,—I recently attended the Town and Country Planning Summer School at Durham, and after returning wrote a letter to Mr. Waide. As the subject of the letter may be of interest to your readers, and may possibly bring forth suggestions and ideas upon this subject, I thought you might be interested to publish a part of it and I therefore give below an extract:—

"At one of the discussion groups I asked the Chairman to suggest that next year there might be a paper dealing with various aspects of planning in the third dimension. The time is rapidly approaching when actual rebuilding will commence in blitzed cities. We in Coventry are now faced with the consideration of this problem (a problem upon which there is likely to be a great deal of controversy) and doubtless many other cities are similarly placed.

"The sort of paper which would seem to be most useful would be one incorporating

NEW UNIT FURNITURE AT THE V & A





This standard unit furniture, designed by Ernest Race, is on show at the Britain Can Make It Exhibition. The units, six in number, are of panels composed of aluminium alloy sheets enclosing an expanded lightweight insulating material. The finish is in cellulose. Draw and cupboard fronts are veneered with wood, while legs are of cast aluminium alloy. The chair frames are cut from tapered cast aluminium alloy tee sections and are upholstered with rubberised cushioning. Table tops are of wood veneer bonded by heat and pressure to a laminated plastic base giving a scratch and burn-proof finish. Philip Scholberg comments on the furniture this week on page 250.

some of the following points:—

1. The object of control.
2. The History of Control, both in Britain and other countries, and the lessons to be learned from the results which were achieved.
3. The safeguarding of individual initiative, and the avoidance of monotony, within the framework of control.
4. Methods of controlling design, either by the preparation of outline designs, or by the use of models, or by negative restrictive control.
5. The characteristics desirable in the Controller, and how they can be assured.
6. Conclusions, and if possible, a suggested outline code for adoption by cities now facing the problem.

"It seemed to me that this Summer School largely dealt with planning in two dimensions. Whether or not our towns are to form a beautiful and satisfying environment will depend very largely upon planning in the third dimension. A city with planning problems still unsolved may yet be beautiful (think of Durham), whilst a city with an excellent road plan and zoning may yet be the dullest place on earth. Those who heard Thomas Sharp's paper on Durham, and who saw the recent third dimension changes in the Market Square, brought about by some of the chain stores, will see the urgency of this matter in both old and new towns."

D. E. E. GIBSON.
Coventry City Architect

European Houses in the East

SIR,—Quite recently I was invited to inspect a private house, which had just been purchased in the residential area on the outskirts of Singapore. This was my first opportunity to make a close examination of a European type of domestic dwelling in this part of the world, and I was at once impressed by the marked dissimilarity to its Western counterpart, both in design and general planning.

The architect had adopted a form of open-type plan, to obtain maximum air circulation, so essential in hot climates, as distinct from the "box layout" as is common in England, in which floor plans comprise simply a series of water-tight compartments, connected by corridors or short passages.

All the principal ground floor rooms, *i.e.*, dining room, living room, study, etc., are grouped around a large central hall, and open externally through gate pattern swing doors, on to a continuous corridor, or loggia, surrounding the entire building and connected at both ends to the entrance hall. An open newel staircase rises from the hall to a large landing, which is extended forward over the entrance portico. This space is utilized as a lounge, or smoking room, and is a common feature in the East. The main bedrooms are adjacent to the landing and open directly on to a corridor exactly similar, and placed immediately above the one on ground floor level, with the ends linked to the lounge through open doorways.

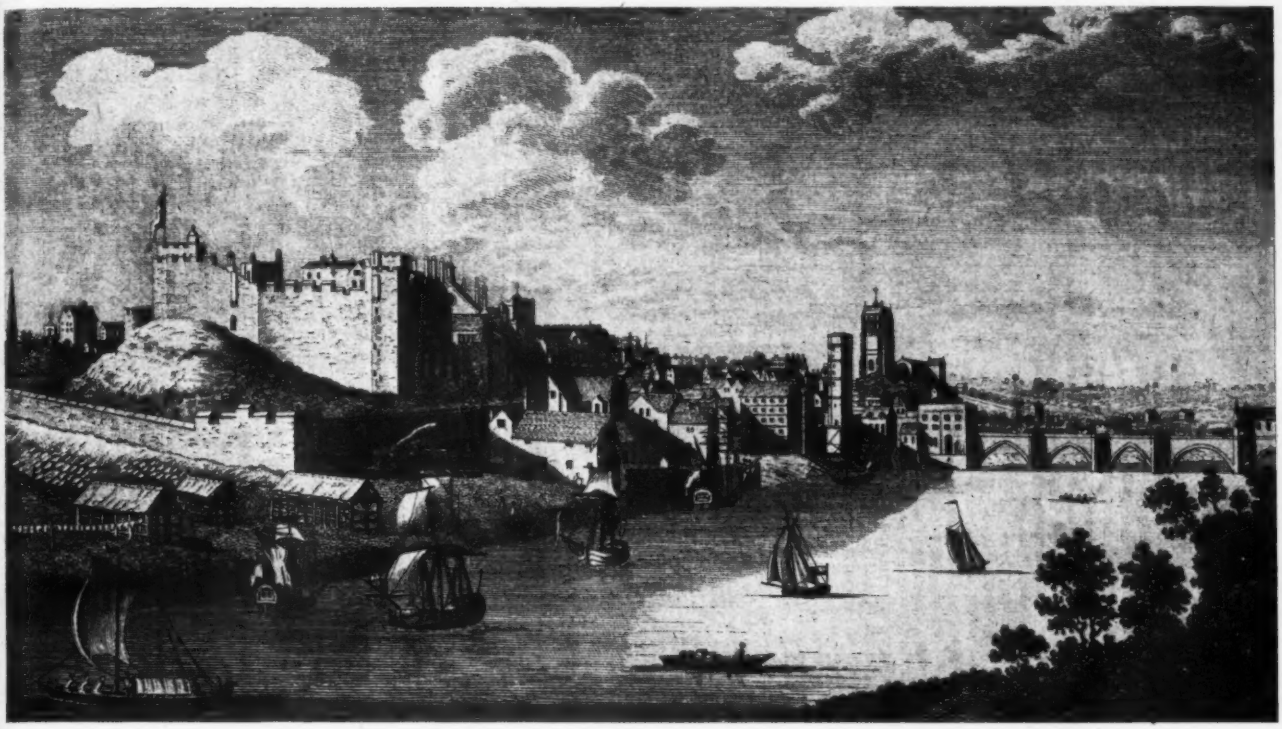
Throughout the house the ceilings are extremely high, being approximately sixteen feet from floor level. The rooms are ventilated by means of direct currents of air entering from the corridor, above and below the inter-connecting swing doors. In addition, pendant fans are installed to provide adequate air circulation. The corridors are protected from the heavy monsoon rains by large overhanging eaves and light weight cane roller-blinds. There is a complete dispensation of glass in the structure, and it is interesting to note that the glazier's trade is almost non-existent in Singapore.

The main construction is of a reinforced concrete frame with light panel screen walls. These are cement rendered externally and are painted white to reflect the sun's rays and reduce radiation. The roof is possibly the one feature of the house which is typically English. It is timber framed, with a Roman tile covering. Another noticable feature is the absence of gutters and downpipes. Surface water falls directly from the roof into deep open concrete drains, which surround the building, and discharge into the storm ditches dug parallel with the road.

This is but a brief description, but it will suffice to give the technical reader some idea of the typical European house constructed at the present time, in the great British Crown Colony of Singapore.

G. P. WHITE,
Singapore Lt., R.A.

PHYSICAL PLANNING SUPPLEMENT



THE CITY OF CHESTER

A PLAN FOR REDEVELOPMENT

The City of Chester Town Planning Scheme dates from 1919, when the original resolution to prepare a Scheme was passed by the City Council. The built-up part of the City has been included since 1930. The new Plan for redevelopment, reviewed below, was prepared by Charles Greenwood, the City Engineer and Surveyor, and deals chiefly with the two serious defects in the City—old and overcrowded housing areas, and traffic congestion in the centre. Proposals for the improvement of the railways and the surroundings of the many beautiful old buildings are also discussed. The Report on the new Plan concludes with an Appendix dealing with the old Buildings and Houses of Chester by Alderman P. H. Lawson, a local Architect. Above, an old print showing the South Prospect of the City of Chester.

The City of Chester has its own problems in replanning peculiar to this choice gem amongst England's cathedral cities. It is not sufficient, for example, to preserve the famous Rows as museum pieces, and any new proposals should be directed towards keeping them in busy occupational use as part of the life of the City. This and many other difficulties require a comprehensive survey preceding the plan which must be sensitive to heritage and tradition, and alive to the needs of the City in its many rôles. The two chief defects from which Chester suffers are first the old and overcrowded areas of outworn small type houses, and second, the need for improved traffic facilities to relieve the acute congestion in the heart of the City, particularly during the week-ends in the summer months. The new Plan for the redevelopment of Chester deals mainly with the older part of the built-up area of the City. The planning of the remaining parts, it is considered, offers no special problems, and is covered by the Planning Scheme which had its inception in 1919 when the original resolution was passed to prepare a scheme for the undeveloped land within the City.

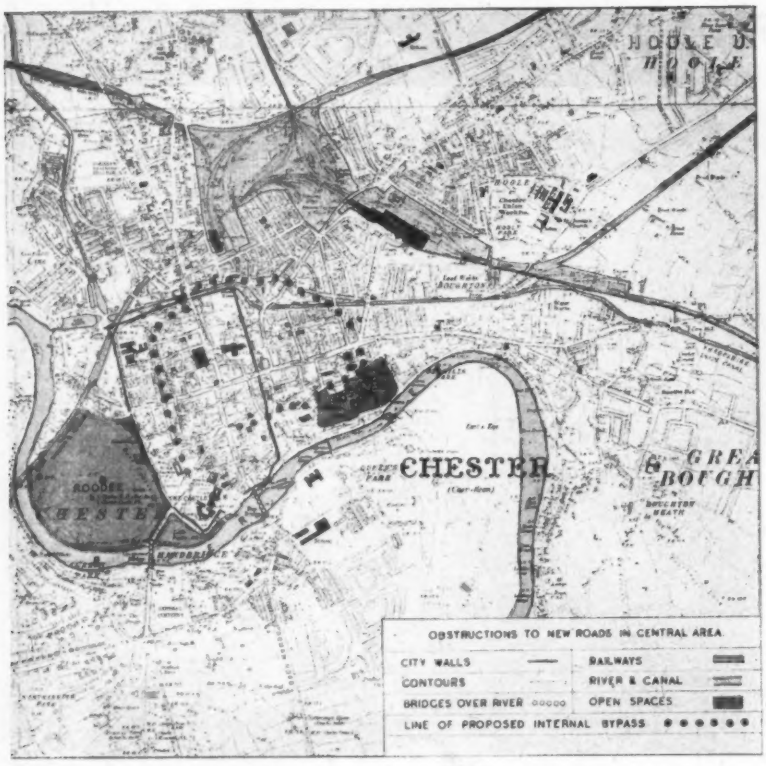
basis

Chester possesses a most complex structure due, no doubt, to its long and eventful history. While it no longer holds the position of pre-eminence it possessed in mediæval times, it is still a busy and thriving community, and a focal point of the social and business life of a wide area. The most important functions of the City are (1) a military centre, (2) an ecclesiastical centre, (3) a shopping and market town, (4) a county and assize town, (5) a town of archæological and historical interest, (6) an inland pleasure resort, (7) a road and railway centre, (8) a residential town, and (9) an industrial town to some extent. The new Plan recognises these uses and emphasises the preservation of the inner area as far as possible in its existing form and character, making such improvements and adjustments as may be necessary within its present structure. Widening of main streets should be avoided as far as possible, and traffic congestion relieved by inner and outer by-passes. The recognition that new buildings within the Walls should conform in spirit and character with those existing, and the clearance of congested areas, completes the basis upon which replanning is proposed.

communications

Chester is one of the most important of the provincial railway centres operated by three of the main companies, LMS, GWR, and the LNER. The General Station is

COMMUNICATIONS

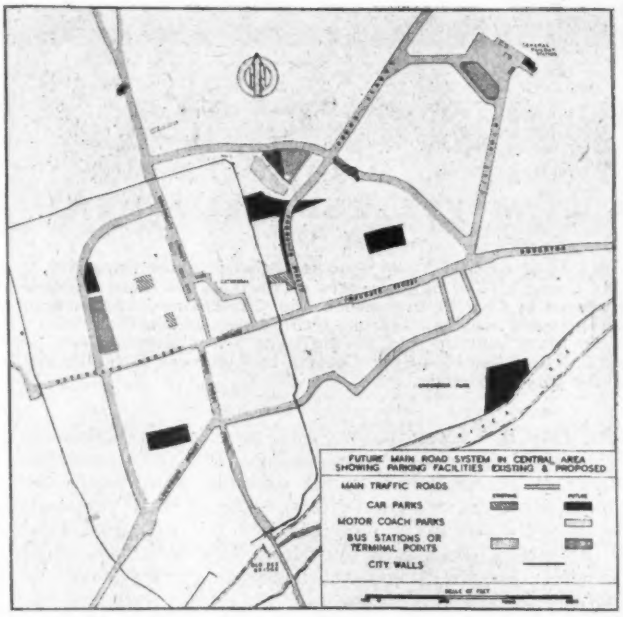


Left, a map showing the old area of Chester set within the Walls ; and the proposed internal by-pass which will relieve traffic congestion in the heart of the City. Above, Northgate Street in 1835 from an old print, illustrating the intimate atmosphere of the streets, now unsuited to modern traffic conditions. Below, the future main road system in the central area showing car parks and bus stations.

served by the LMS and GWR, and it is considered that if the Northgate Station of the LNER could be combined with it, a considerable advantage would result. More immediate proposals are suggested to improve the approaches to the General Station from the northern part of the City, involving a new road through the built-up area in Sibell Street. It is considered that the redevelopment of the land would provide a worthy entrance to the station, with a new hotel and bus station. The re-siting of the Post Office building and the Wagon Repair premises is also included in this scheme.

No major alterations are proposed for the canal system, although the section eastwards is considered an obstruction to good planning, bridges requiring long approaches on both sides. It will, however, serve a new industrial zone on the east of the inner area.

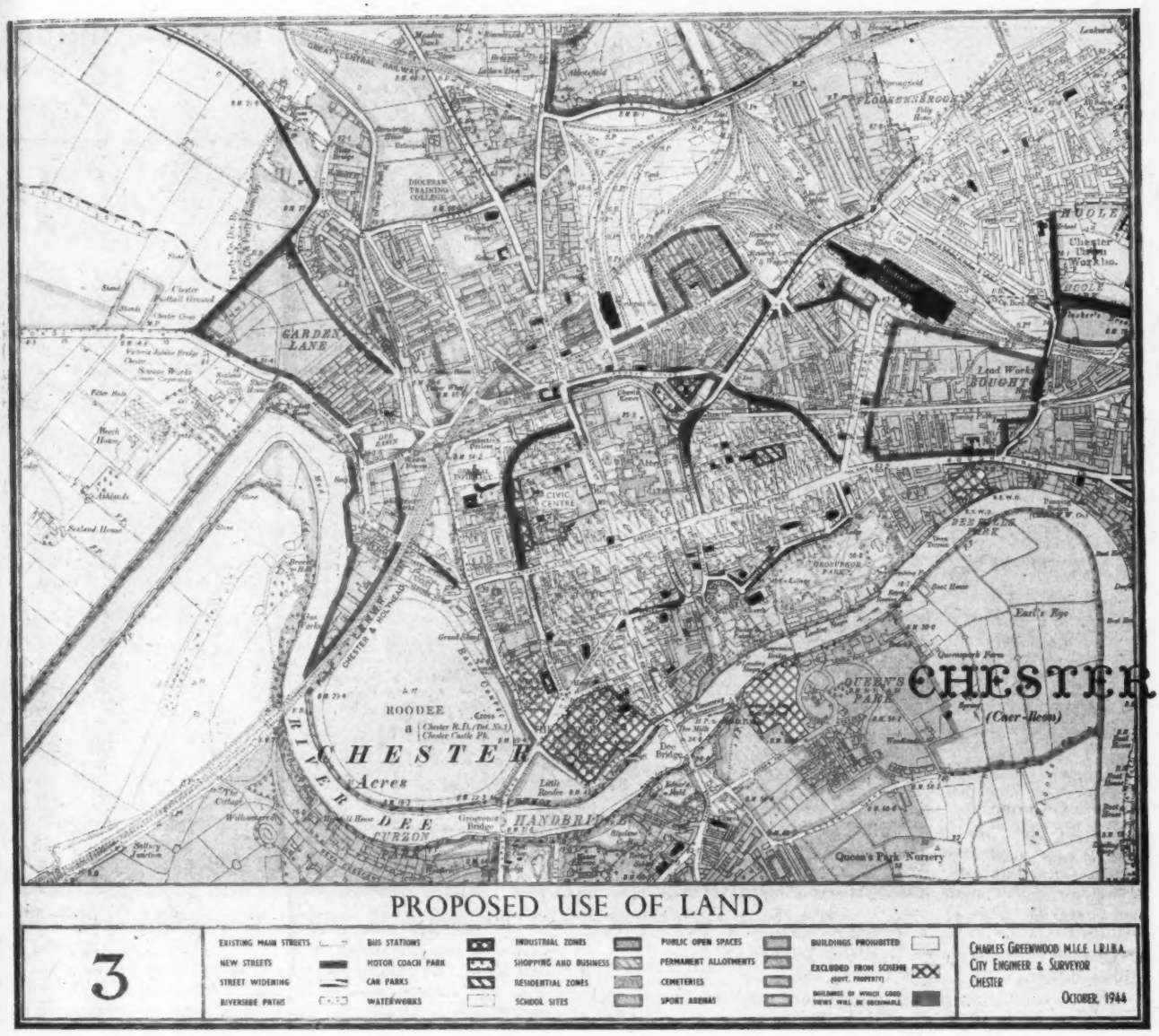
The road traffic problem in the heart of the City is serious, and particularly at the Cross where there is a bottleneck. No widening of the adjoining streets is possible without involving the demolition of old St. Peter's Church, and the Rows in Eastgate Street. Proposals have therefore been put forward to construct by-pass roads. An outer ring road has been a major project of the Planning Scheme since its inception and its completion is considered to be a matter of priority. It will not alone, however, solve the congestion problem within the City, and an inner by-pass is planned to take local and visiting traffic. The line of this inner road has been influenced by the many physical obstacles—the avoidance of buildings of architectural and historical interest. These considerations and the urgency of the matter have suggested the use of existing roads as far as possible. The proposals for this inner by-pass are shown in the illustrations and physical difficulties have necessitated that the route must for part of its length lie within the Walls. Various alternatives for the new inner by-pass road are discussed in the Report on the new Plan, and draw attention to the many difficulties which are present in a city of the particular character of Chester. The suggested width of the by-pass road is 60 feet with a 10 feet building line, allowing the construction of a system of Rows, affording protection to pedestrians in inclement weather. Further proposals in the road system consist in widening certain streets and removal of traffic danger points.



The existing bus services operate from the Market Square, Delamere and Lower Bridge Street. To relieve the principal streets of the inner area from traffic, it is recommended that all bus services should be removed from the Market Square and the adjoining streets to new bus stations on the east and west of the shopping area. Four car parks are suggested on the fringe of this area and it is considered that further accommodation may become necessary in the future.

shopping and business centre

The greater part of the central area has been zoned for shopping and business uses. It is recommended that the



REDEVELOPMENT PLAN

The Land Use Map from the new Plan for the City of Chester, including some of the more important aspects of the Plan, such as the new internal by-pass and the Civic Centre. The particular value of old Chester from the architectural and historical points of view does not lend itself to major reconstructions, and the new Plan seeks to preserve and enhance this aspect. In the case of the new Civic Centre, however, the proposals are grandiose and will lie unhappily in the mediaeval atmosphere of the City. This is a strong case for submission to independent judgment—the City having a national as well as a local value.

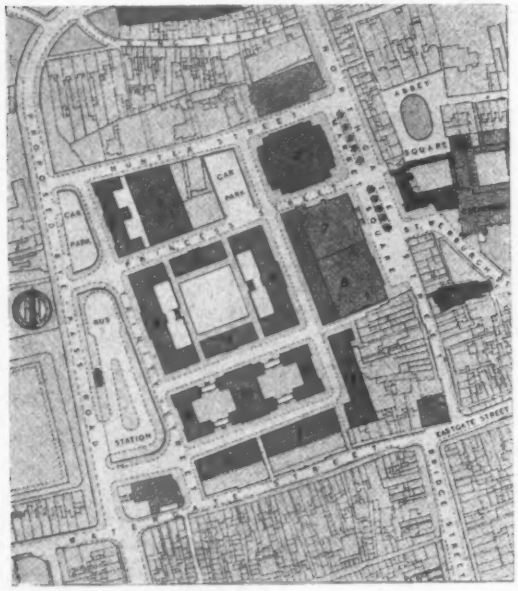
frontages to the streets should be developed for shops or offices, with warehouses and other business premises at the rear. Apart from the preservation of the Rows, it is suggested that this particular method of shop planning should be seriously considered for new frontages. The erection of the large type of departmental store in the principal streets within the Walls is deprecated, and Foregate Street is considered a suitable place for such buildings. Back access roads 18 to 20 feet wide are suggested for goods traffic to the shops.

industry

Several areas have been zoned for light industry, generally in positions well served by rail and water transport. No land within the Walls has been zoned for this purpose, and it is recommended that serious consideration should be given to the removal of the brewery in Northgate and a similar type of building in Pepper Street, proposals which would help towards the solution of the by-pass problem.

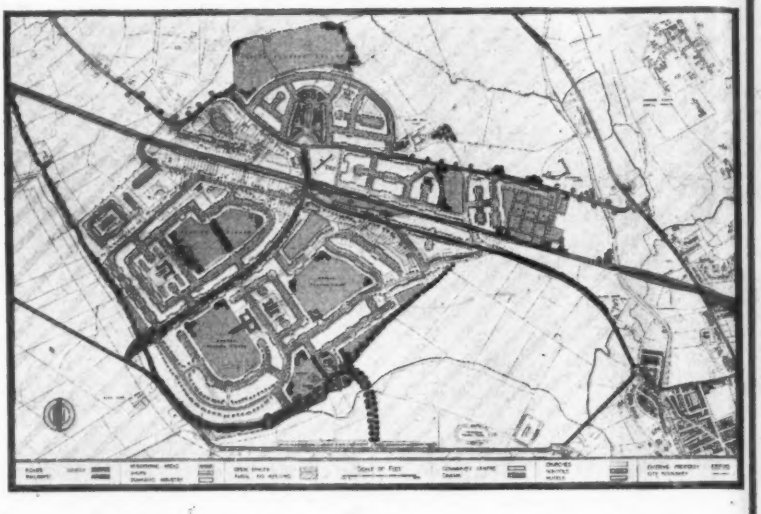
housing

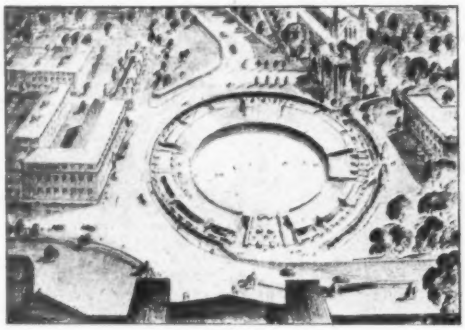
Within the central area of the City there are several large concentrations of houses built more than 100 years ago, and now outworn. Some of the dilapidated areas have already been cleared, but those that remain await a resumption of the pre-war policy of the clearance of unhealthy areas. If the zoning proposals are approved approximately 2,500 houses will be demolished, and 300 new houses erected on redevelopment sites, leaving 2,200 to be provided on new sites. On the basis of an ultimate population of 75,000 for Chester and the surrounding area, it is suggested that eight neighbourhood units could be developed. The Plan includes

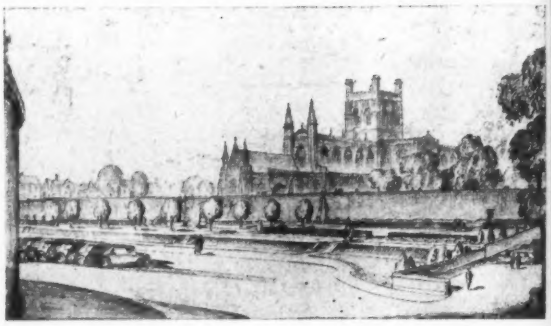


CIVIC CENTRE

NEIGHBOURHOOD UNIT







Above, the proposals for the new Civic Centre. Above right, the layout of a suggested neighbourhood unit at Blacon. Right, the view from Newgate showing the inner by-pass and the proposed excavation of the Roman amphitheatre; also a new view of the Cathedral.

a proposal for the development of Blacon as a neighbourhood unit of about 8,000 to 10,000 population.

civic centre

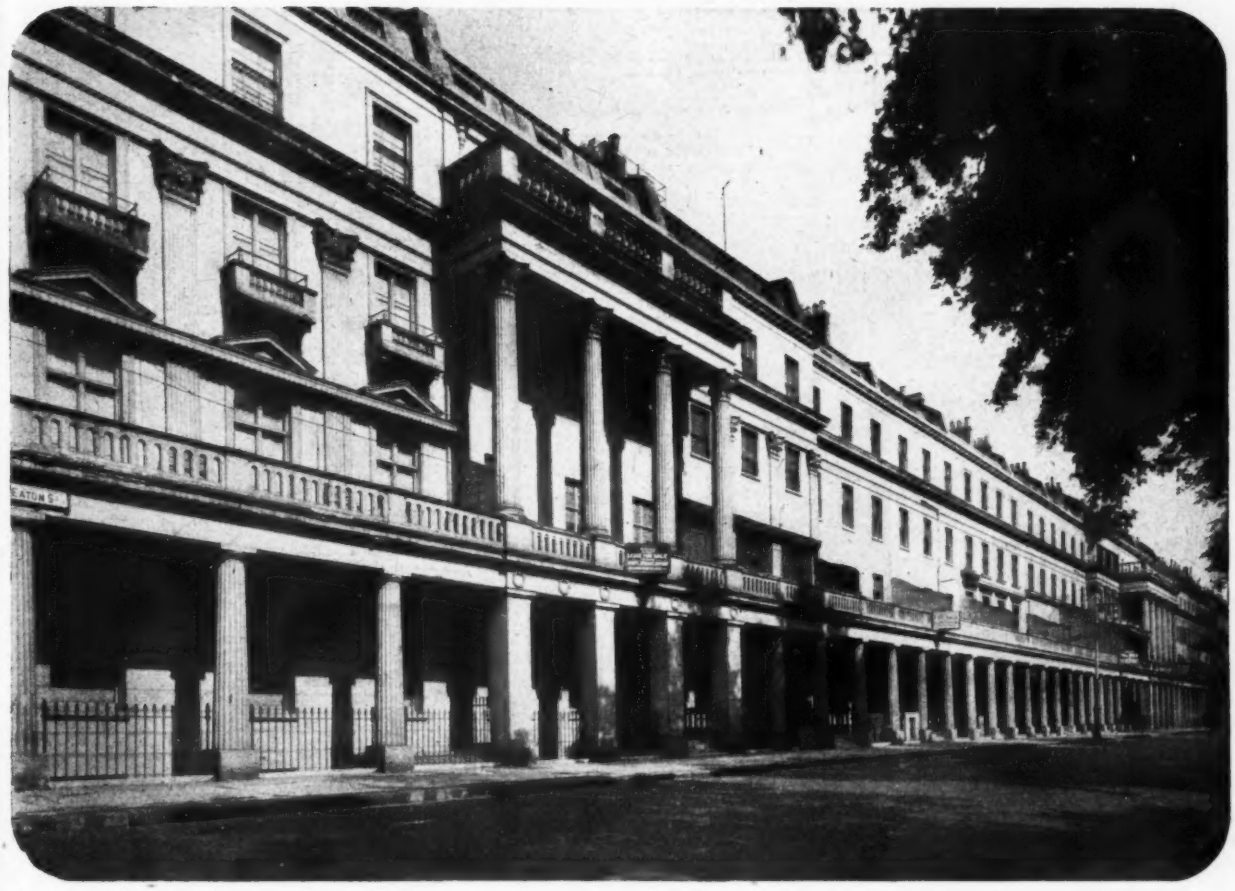
The centralization of the public and administrative buildings is recommended on a cleared site at the rear of the existing Town Hall. This proposal would require the removal of some buildings which remain in the clearance area and is not considered an insurmountable difficulty. Chester has long felt the need for a large concert and conference hall, and a suggested site lies on the north side of the Town Hall. An Art Gallery and Museum, Public Library, Health Clinic, Police Offices and Courts are also included in the scheme for a civic centre. A point of criticism lies in the proximity of the Cathedral to the large area of public buildings proposed, which will not bear any relation to the mediæval surroundings, small in scale, in which the Cathedral grew up.

recreation

Adopting the recommendation of the National Playing Fields' Association (five acres per 1,000 population for public playing fields and two acres at least for general park space), Chester is sadly deficient in public open spaces to the extent of some 174 acres. A site of 46 acres in Hough Green, recently offered to the City, and the levelling and seeding of the Roodee for use as playing fields, will assist in rectifying the open space deficiency. Among the proposals for the improvement of the amenities of the River Dee, the extension of Grosvenor Park to the river with restaurant, ballroom, bandstand and swimming pool, is of importance.

ancient monuments

Great importance is rightly laid on the preservation of Chester's many ancient buildings, and it is recommended that as opportunity occurs the buildings abutting on both sides of the Walls for the greater part of their length should be demolished and the land laid out as public gardens or lawns. The excavation of the Roman amphitheatre with public gardens in Newgate and St. John Streets will constitute improvements, and the control of elevations of new buildings, signs and advertisements, in a manner more effective than hitherto is considered necessary. The visual approach in the replanning of Chester is of primary importance, and raises many questions of the adaptation of old patterns to new ways of life. How far outside interests should be allowed to participate in the replanning of a city of national interest like Chester, is a matter on which policy is not definite, although the Ministry for Town and Country Planning should submit such schemes to independent judgment.



CONVERSION

OF EATON SQUARE, BELGRAVIA

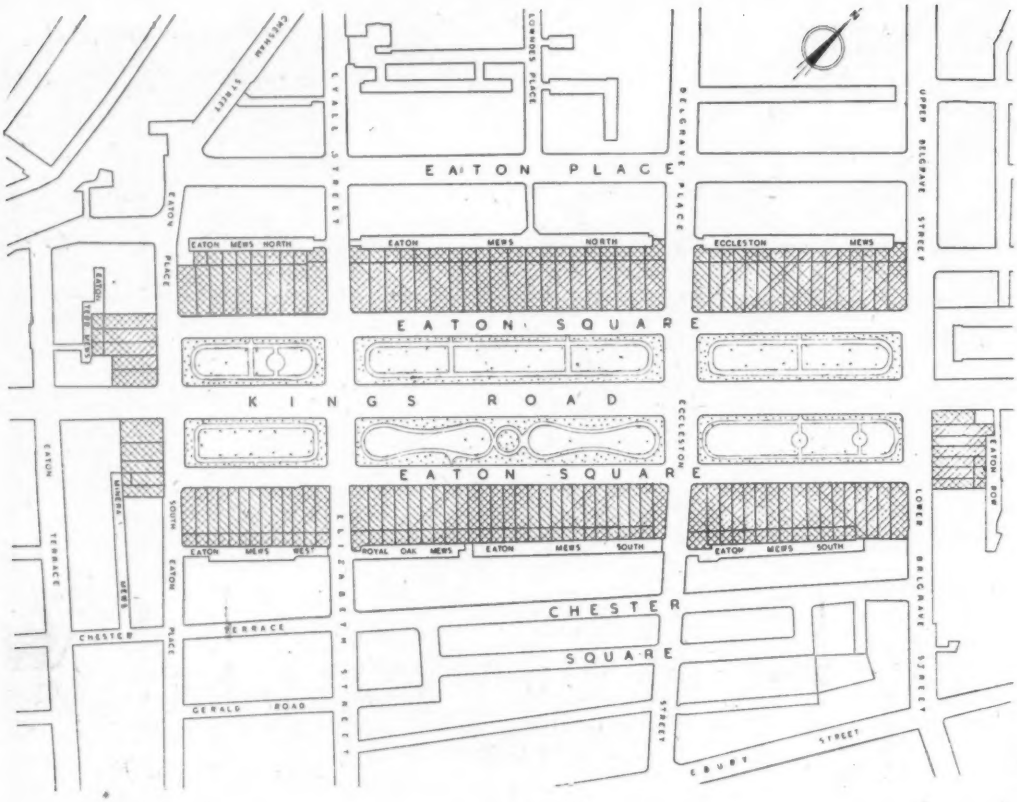
DESIGNED BY ARCON

GENERAL — The Westminster City Council has recently issued a licence for the conversion of Nos. 1-4, Eaton Square into 11 self-contained flats. It is hoped that, in due course, it will be possible to convert some 100 out of the 120 houses in the Square in a similar manner. The conversion of Nos. 1-4 may, therefore, be regarded as a Pilot Run. The promoters are Comonte Estates, working in conjunction with the Grosvenor Estate. Type conversions by Arcon are shown overleaf.

The overall conversion of the square must take some time and it is proposed to carry through the conversion in blocks. In some cases, this block conversion makes it possible to leave certain houses in one-family occupation, but the success of the scheme as a whole must depend upon the co-operation of the leaseholders.

The Square—now scheduled as *Buildings of Historical Merit*—forms part of the Duke of Westminster's Grosvenor Estate. The houses were built from 1814-1853 and were designed, firstly, as family residences and, secondly, to provide worthy settings for social occasions. From that time until the outbreak of World War 2, the bulk of the houses have remained in one-family occupation. World War 2 left the Square virtually undamaged by bombing, but has not dealt so kindly with the former tenants. High taxation and servant shortage are, in most cases, insuperable obstacles to the re-use of the Eaton Square houses as one-family residences.

Apart from conversion into self-contained flats, there were the possibilities of conversion into offices or into family multiple



LAYOUT OF EATON SQUARE

occupation, *i.e.*, separate living-rooms and bedrooms but shared bathrooms and kitchens. The nature of the Eaton Square houses made multiple conversion totally uneconomic and although office conversion could have been financially justified, it was the official preference to maintain Eaton Square as a residential unit.

From the beginning, the promoters of the scheme, fully supported by the Grosvenor Estate, have taken the long term approach. This left the planner free to approach the question of density with a perfectly open mind.

After weighing and balancing permitted densities, conversion costs and flat types one against the other, it was decided :—(*a*) to base the overall conversion on a density of 3·5 flats plus one mews dwelling per house : (*b*) to allocate half the total floor area available in the Square to conversion into large flats and half into small flats.

TYPICAL PLANNING—A typical Eaton Square house consists of a basement and four floors above ground. The basement is only a basement if viewed from Eaton Square. At the rear of the house, the basement floor level is only some 2-3 ft. below the ground level of the mews. In the course of years, the small gardens or courtyards that at one time existed at the rear of the houses, between the house and the mews dwellings, have been largely built over. Similar rearward extensions exist, in varying forms, on ground, first and occasionally second floors.

The area available in the basement is, generally speaking, to be used for boilers, fuel storage and tenants' storerooms. In certain basements, however, it may be possible to provide accommodation for service staff.

Above ground floor level the general principles will be as follows :—

(*a*) Maisonettes, re-using existing entrances and staircases, are suggested for ground and first floors. Every so often, where existing staircases are required for access to flats on higher floors, the maisonettes yield to medium size flats.

(*b*) Large flats, each created out of one floor of two houses, are suggested for the second and third floors. Here again, the large flats yield to the smaller flats at main vertical access points.

(*c*) The small flats are on the fourth floor and since at this height alternative means of escape are necessary, the central corridor access is appropriate.

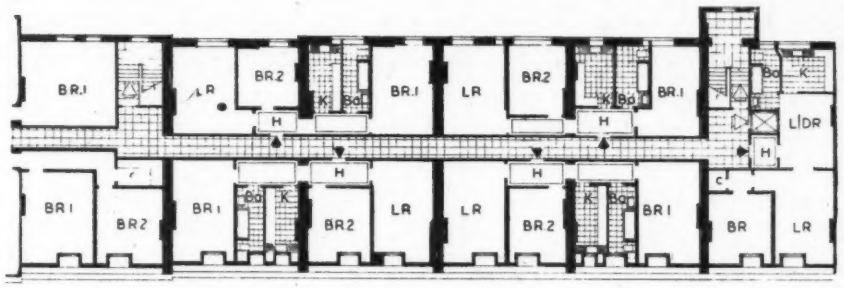
This method of conversion enables the large reception rooms and magnificent staircases to be retained virtually intact.

Conversion is envisaged as a two-stage process. Stage 2—additional bathrooms, cupboards, and a higher standard of finish both externally and internally—must await a time when rationing is less severe. Stage 1 is austerity.

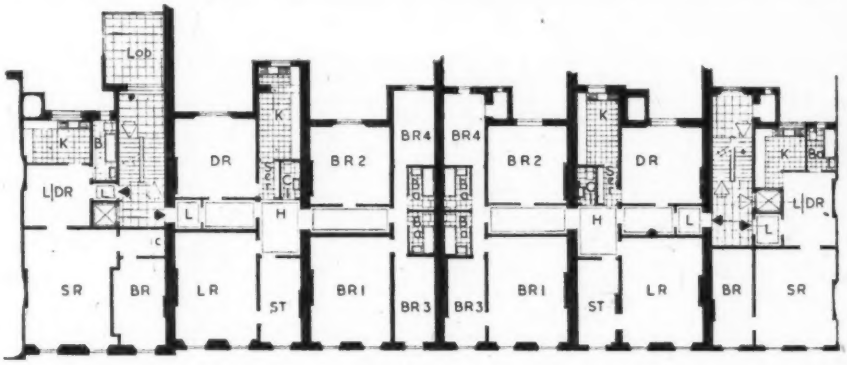
COST—The costs of converting Nos. 1-4 work out at 15/6 per square foot as compared with present day prices for new two-storey housing at 21/- to 24/- per square foot and new five-storey flats at 35/- to 38/- per square foot.

The first floor rooms of one of the houses.

CONVERSION OF EATON SQUARE



FOURTH FLOOR



SECOND AND THIRD FLOOR

FIRST FLOOR

GROUND FLOOR.

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

2750 *Density and Planning*

DENSITY AND PLANNING. *W. P. Haldane.* (*The Surveyor and Municipal and County Engineer, June* 14, 1946, *pp.* 467-469.) Paper presented at Annual Meeting of Scottish branch of Institution of Municipal and County Engineers, Dundee. Density in recent history. Residential, recreational, industrial and commercial densities. Advantages and disadvantages of low-density housing. Suitable standards for housing densities.

Density should be regarded as the counterpart of zoning. If zoning relates to the use of the land, then density relates to the rate of the use of land.

A short survey of recent history shows that the density standards first set up by Ebenezer Howard led eventually to the adoption of the twelve, sixteen and twenty-four houses to the acre standards. Time has shown that unduly low densities are wasteful. The reckoning of residential densities in terms of persons rather than houses per unit area is referred to as an improvement. Howard's basis was five and a half person per house, whereas to-day a figure of three and three-quarters is more representative.

The Barlow Report points out that the density of population per square mile in Great Britain is 518, and emphasizes the need to make the best use of the land available, if such density is to be maintained. It is, therefore, necessary to examine typical densities in detail so as to arrive at satisfactory allocations of land under a long-term policy. The following densities are dealt with:

(*a*) *Residential Densities* giving number of persons per acre where bungalows, modern four-storey flats and tenements are chosen as types of development. A useful table is provided indicating standards recommended in reports issued by the London County Council, Liverpool, Birmingham, Manchester and Plymouth.

(*b*) *Recreational Densities* which are referred to as simultaneous occupation densities for periods of relatively short occupation. Numbers of persons per acre are given for sports grounds (tennis, bowling, golf, badminton), and for cinemas and dance halls.

(*c*) *Industrial and Commercial Densities.* It is stated under this heading that standardization is non-existent, and that it is impossible to stipulate precise densities. An endeavour is, however, made to indicate the nature of industrial and commercial densities. Regarding the industry of agriculture where variation is enormous, it is probably better to think in terms of food output instead of persons per acre or even square mile. The wartime Agricultural Executive Committees adopted this practice, which was also recognized by the Forestry Commission in its report on Post-War Forest Policy. It was recommended that the acreage of land to be used for forestry should be determined on the basis of effective forest output per acre. Other aspects dealt with in this section include modern light industries, trading estates, and commercial buildings.

In connection with densities for school buildings, the author does not agree with single-storey construction which he describes as a singularly ineffective use of land.

A most interesting argument dealing with advantages and disadvantages of low-density housing is a further aspect examined in detail. Analysing the advantages as generally put forward in connection with spaciousness; light and air; sunshine; gardens; low proportion of roads, and privacy, the author arrives at the conclusion that it cannot at all be taken for granted that the balance of advantage lies with low-density housing. He undertakes to prove in every instance that it lies with multi-storey buildings, *i.e.*, high residential densities, and he mentions as clear disadvantages the high cost of low-density housing, whether expressed in terms of £ s. d. or materials and effort, and the waste of land based on longer communications and all that that entails.

In conclusion, suitable standards for housing densities are mentioned, and it is stated that the planning study appended to the Dudley Report is the best guide which has so far been given. It recognizes the need for different degrees of compactness in our towns, providing for densities varying from 30 to 120 persons per net residential acre.

STRUCTURE

2751 *Steel*

THE STRUCTURAL USE OF STEEL IN BUILDINGS. *Draft for Comment. BS Code of Practice. CP*: 1946. *General Series.* , *Codes* 1.21, 1.211 (*British Standards Institution,* 3*s.* 0*d.*) Structural use of steel in buildings in general. Riveted and bolted construction.

The first section of the main code defines the functions of (1) consultant, (2) designer and (3) contractor, and the data required by (2) and (3) respectively. It stresses the necessity of collaboration between engineer and architect from the outset of a project. The most important section deals with design. Three types of design are distinguished:

A. *Simple design* (*i.e.*, structures which for the purpose of design are assumed to be pin jointed.)

B. *Semi-rigid joint design.*

C. *Rigid joint design.*

The present draft is confined to A. Further clauses dealing with B and C are contemplated.

Special forms of construction not provided for in this code may be employed where the methods of design are such as to ensure a standard of strength at least equivalent to that required by this code. Where, by reason of the unconventional nature of the construction, calculation is not practicable or where the methods of design given in this code are inapplicable or inappropriate, loading tests are suggested to ensure that the construction has adequate strength and stiffness.

The permissible stresses are based on the guaranteed yield point of the steel used. In the case of mild steel complying with BS15 (*i.e.*, without guaranteed yield point) the basis stresses are as follows:—

Axial stresses in tension	...	8 t/sq. in.
Bending stress	... ...	9 ,,
Shear ,,	... ...	6 ,,

In cased beams the stanchions, stresses up to 50 per cent. in excess of the above figures may be used in certain cases. For combined bending and axial compression, and for combined shear and bending new formulæ are introduced which avoid the deficiencies of previous codes. Stresses due to wind-forces may be 33⅓ per cent. higher. The various kinds of working stresses in different parts of the structure are clearly set out in a table. For temporary constructions higher stresses are allowed.

The fire protection of steel beams and stanchions is related to the *Code of Functional Requirements*, chapter IV. According to the particular occupancy and size of a building or compartment, protection for ½ to 4 hours (based on the standard test) may be required.

In the sub code permissible stresses in rivets and bolts and some structural details are specified.

The method of determining the effective length of stanchions is illustrated by several examples.

Besides the new formulæ for combined loading, the proposed code contains several innovations as a result of recent research. As an example, the difference in permissible stress for axial tension and bending tension may be mentioned. The formula taking into account the lateral instability of beams or flange buckling is also an improvement on the formula used hitherto.

The code shows a progressive spirit. It accepts the fact of redistribution of stresses, and leaves the door open to any further development and encourages the use of new types of construction, provided their safety and stiffness can be proved. (See also *A Commentary on the Draft Code or Practice for the Structural Use of Steel in Buildings by John Mason, The Structural Engineer, May* 1946, *pp.* 245-274.)

It would be desirable to include more definite suggestions regarding the limiting deflection of beams than the obvious recommendation that the deflection of a member should not be such as to impair the strength or efficiency of the structure, or lead to damage of finishings. With the increased stresses permissible for high tensile steel the limiting deflection will in future be of far greater importance than in the past and designers need numerical data for deflection in the same way as for stresses.

2752 *Load-Bearing Walls*

STRUCTURAL RECOMMENDATIONS FOR LOAD-BEARING WALLS. *Draft for Comment. BS Code of Practice CP*: 1946. *General Series Codes* 1.24, 1.241, 1.242, 1.243. (*British Standards Institution,* 2*s.* 0*d.*) Materials and design considerations for brick and cast *in-situ* concrete walls.

This code establishes principles of design for load bearing walls on a more scientific basis than usual in existing by-laws. It introduces maximum permissible uniformly distributed compressive stresses on masonry

members with slenderness ratio of unity from which the permissible stresses can be obtained for varying slenderness ratio. The slenderness ratio of a wall is the ratio of the effective height to the effective thickness. The effective height of a wall, supported laterally top and bottom, is defined as three-fourths of the storey height. In the absence of top lateral support the effective height is defined as one and a half times the height of the wall above the bottom lateral support. Coefficients are given for the effective thickness of walls stiffened by piers. The effective thickness of cavity walls is determined by a formula which supplies, for a cavity wall formed by two 4½ in. leaves, an effective thickness of 6 in.

By means of the formulæ and tables incorporated in the code, it is easy to find the permissible working stress for a given quality of brick and mortar in every practical case.

The maximum permissible slenderness ratio of walls is 18. Thus, the storey height of a 4½ in. load bearing partition must not exceed 9 ft., that of a load bearing cavity wall 12 ft.

Where there are additional stresses due to eccentricity of loading and/or lateral forces, the maximum stresses resulting from the combination of these, with the stresses due to distributed loading, may exceed the stresses permissible for distributed loading by not more than 25 per cent. Additional stresses of a purely local nature, as at girder bearings, column bases, lintels or other concentrated loads, should not exceed the permissible stress by more than 50%.

Permissible stresses are given also for reinforced masonry, in direct compression as well as in flexural compression. For this type of construction the slenderness ratio may be up to 24. The same limit applies for cast-in-situ concrete walls, both plain and reinforced.

2753 **Concrete Laid Jointless**

CONCRETE LAID JOINTLESS ON A CONCRETE BASE. *Draft for Comment. BS Code of Practice CP*: 1946. *General Series Code* 2.12. (*British Standards Institution*, 2*s.* 0*d.*) Materials. Design considerations. Work on site.

The code deals in length with the information to be exchanged, at an early date, between all the parties concerned. It defines the quality and grading of materials and makes suggestions for their proper choice and application to meet different conditions of use. The finish may be laid either before the base concrete has hardened, thus forming a monolithic slab with the base, or on the set and hardened concrete. In both cases it is essential that no foreign material should be present on the base concrete surface when the topping layer is applied. Practical rules are given for the minimum thickness of finish on floors and stairs, for the mix, the method of mixing, size of bays, the method of laying, curing and maturing, and surface treatment.

MISCELLANEOUS

2754 **Farm Buildings**

FARM BUILDINGS IN SCOTLAND. *Post-War Building Studies, No.* 22, 1946. (*HM Stationery Office*, 1*s.* 6*d.*) A report which adds to the information given in the earlier Ministry of Agriculture report. Interesting discussions on ventilation and multi-span buildings. Many plans of 250 acre farms. Piggery plans not previously published. Dimensions of implements.

Four months after the completion of the 200 odd page Ministry of Agriculture report on Farm Buildings the Scottish Committee appointed by the Secretary of State for Scotland concluded its parallel and apparently quite independent investigations which are now published as a 100-page book.

The particular value of the new report consists in the direct application of modern farming ideas to the 200- to 250-acre farm. In nine sheets of plans, a well considered set of alternative layouts are drawn up which give more or less all the practical alternatives of management—from the dairy farm with the traditional cowhouse, or byre, to the mixed arable and dairy farm, with either byre or cow courts, where the cows are kept in covered yards rather than in tie-up stalls; and to the cattle breeding and feeding farms suitable to districts too remote for profitable milk production. There are other plans as well, for the 75-acre steading, the 20- to 30-acre smallholding and the crofter's steading of 5 to 10 acres. The last seems to be drawn up with some reluctance, with heavy freestone walls, in the manner of crofter's traditional highland cottages.

The Scottish Report differs from the English Ministry of Agriculture Report in more than matters of terminology. There is a widely different approach to the whole question of ventilation, temperature control and relative humidity, which—if confirmed—will bring about some very radical changes in requirements now considered essential. Ventilation takes place through the ridge, which opens from a permanent minimum of 4 inches along its whole length to a maximum wide enough to act as inlet as well as extract vent, thus making it unnecessary to rely on exposed outside walls for inlet ventilators.

Roof lights rather than windows in walls are recommended. These two recommendations lead to the planning of large compact buildings of great depth under a series of roofs or under wide span roofs, much like factory floors, where all kinds of stock can be kept under cover, while being separated by solid partitions.

Another difference between the two reports concerns the recommendations for standard spans of buildings. While the wide standard span recommended by the Ministry is 33 feet, the Scottish Report, advocates 40 feet for workshops, implement sheds and barns. The 33-feet span seems to be obsolete in the view of the Scottish Report, because it does not favour feeding passages in double range cowhouses. Without these passages, 26 feet would be sufficient span for a cowhouse.

Of considerable interest are the Committee's conclusions about the arrangements for mechanical milking. The majority of the plans reproduced show well thought out schemes for machine milking in separate buildings with a small number of milking stalls. Six cows can be tied up simultaneously and be milked by three vacuum pump driven milking units which convey the milk in sealed pipes from the teat to the releaser over the cooler in the milk room. Since the milk is not exposed in the milking stalls at all, the report suggests that Milk and Dairies Byelaws should allow such Milking Parlours to be in direct communications with the covered cow courts where the cows are kept. The milk room, where the cooler and churns are placed, would still have to be separated from any access to parts which may be in danger of infection from cows or cowmen.

The two Reports, taken jointly, throw a great deal of light on a subject which has so far found little interest among architects. There is room for further research and further contributions, and the need for such research is described in detail and stressed in both reports.

2755 **Soil Fertility**

CHEMICALS, HUMUS AND THE SOIL. *D. P. Hopkins.* (*Faber & Faber*, 1945, 12*s.* 6*d.*) Simple presentation of contemporary knowledge and opinions about fertilisers, manures and soil fertility written for laymen. Three appendices. Four plates.

The first part of the book deals with the case for the use of fertilizers and with the general principals of the maintenance of soil fertility. The second part examines the case against the use of chemicals as expressed in numerous opinions.

Appendix 1 gives a useful collection of practical information on crop needs. Appendix 2 deals with the influence of lime on fertility, and Appendix 3 contains a select bibliography of books on soil fertility.

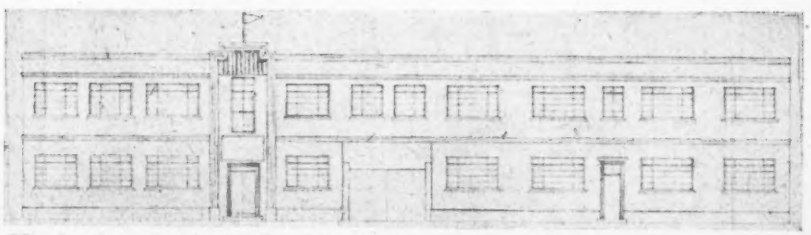
QUESTIONS and Answers

THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential, and in no case is the identity of an enquirer disclosed to a third party. Questions should be sent to: THE ARCHITECTS' JOURNAL, *13, Queen Anne's Gate, Westminster, S.W.1.*

2756 **Design Disapproval**

Q *As a City Planning Architect I have the somewhat difficult duty of advising the City Council on the control of elevations, and I enclose the elevational drawing of a building recently submitted for approval. In this case my criticisms are viewed with scepticism; it is even thought to be rather an imposing building. I should be glad to have an independent opinion through your Questions and Answers column. Is the standard of design so low that the Council is justified in rejecting the scheme? The developer, a builder, who is a member of the planning committee, is strongly resisting any suggestions of amendment and resents the implication that it is not a fine design.*

A In our opinion the elevation is bad architecture and lacks any æsthetic sensibility. The Council, we believe, is definitely justified in rejecting the design.



The elevation referred to in Questions and Answers above. *See No. 2756*

This special section is virtually a resumption of our pre-war Trade Notes. It now covers a wider scope, however, under a new title recording not only the marketing of new designs and the reappearance of familiar products, but also the general trend of developments within the industry. Manufacturers who have new designs in hand or any other news of interest to architects are invited to send full information to the Editor.

THE INDUSTRY

[*by Philip Scholberg*]

BRITAIN CAN MAKE IT

These notes are written within a few hours of the opening of the Britain Can Make It Exhibition and can therefore indicate little more than trends in current design so far as it applies to building industry products. After the inevitable last minute rush of the Press and private views it is easy to say that there is a thought too much display and not enough goods, but it must not be forgotten that this is the very first occasion where a Government department has insisted on good design and not thought purely in terms of financial turnover. It is, of course, intended for the general public, and the architect can presumably be classed as one of the converted, but that is no reason why he should not go to it, even if it is only to see what is available and what is not. Every exhibit bears a label saying whether it is available now or later on, but too implicit reliance on these will be somewhat frustrating. So far as the building industry goes it is all a matter of WBA forms anyway, but with many of the goods in other sections "available" really means "available if you happen to get to the right shop just after they have come in and can work appropriate blandishments on the girl who is keeping them under the counter for somebody else."

Clothes, pottery, silverware and several other sections of the show do not properly belong on this page, but so far as building equipment is concerned it is not unreasonable to say that the majority of the fittings are good 1939 with a few extra improvements. Several of the designs are definitely post-war, some of them the products of firms new to the building industry, but there are really no shattering developments, nor would it be fair to expect them.

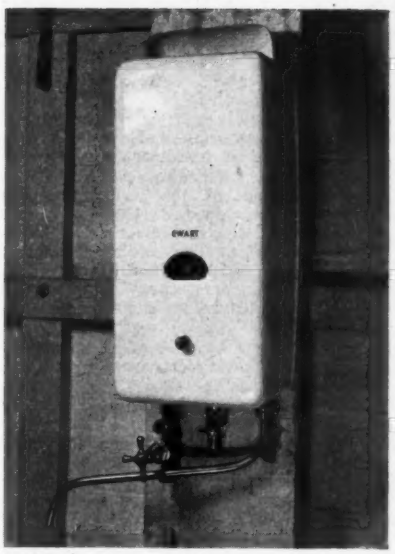
Electric cooker manufacturers, after maintaining for years that oven thermostats were unnecessary, now seem to have changed their minds, or to have had them changed by the gas companies, who have been doing so well for so long with developments of the original Regulo. So far as can be seen the majority of the thermostats are true temperature controllers, but another type, known as the Simmerstat seems to have possibilities and to be comparatively cheap. This type controls the heat by switching the element on and off at regular intervals, temperature control being obtained by varying the proportion of "on" to "off" time. It will be realised that it is not possible to set the control to a definite temperature, as this will depend on the size of the oven and element employed, but the adjustment is graduated in numbers like the Regulo and it is presumably as easy to learn, with the added advantage that simmering temperatures are possible. The unit replaces the normal three heat switch and would be a useful fitting on the ovens or hot plates of existing cookers.

Several of the gas cooker and fire manufacturers have reverted to the old luminous flame type of burner but have christened it "non-aerated" or made a feature of its silence. From the point of view of thermal efficiency there is nothing to choose between the two types, but since at first glance it would seem very much cheaper to cast the ordinary Bunsen type aerated burner and drill the necessary holes, I have made a number of inquiries about the reason for this.

I have met with a certain amount of hedging, but the reason seems to boil down to the problem of servicing. Gas companies are the main buyers of appliances and generally install them with a servicing agreement. Anyone who has hired a fire knows that the maintenance fitters always fiddle with the gas/air adjustment with muttered comments on the competence of the man who did it last. The gas companies, I gather, are so short of men that they have no time to train newcomers in various adjustments which are a matter of trial and error, whereas any oaf can be taught to unscrew a defective burner and put in a new one in a few minutes.

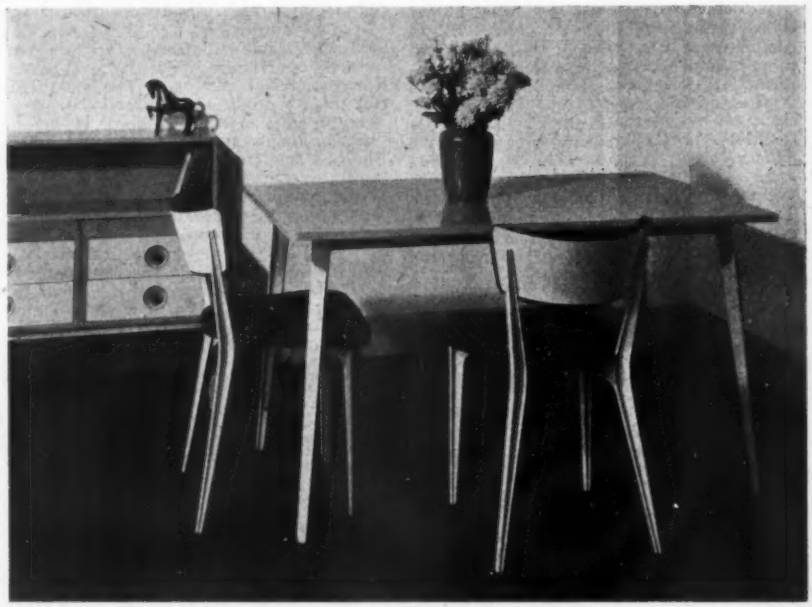
Gas water heaters are well represented with the new De La Rue model whose case is designed by G. Grey Wornum, and I also noticed a revised Ascot model with black side panels and a white front. This restyling which has had a considerable slimming effect and is perhaps aimed at the rival De La Rue which, since the baffle is within the case, is inevitably somewhat larger than one had expected. At the other end of the scale there is a very neat little single point sink heater by Ewarts with an output of 1½ gallons a minute and a simple little deflector which is much pleasanter than most of the current designs.

Solid fuel appliances include little that has not already been seen at the numerous fuel shows which have been held during the last year or so. Much development work has been done, particularly with open fires to burn the smokeless fuels, but coal supply is in such a parlous state that there must be a considerable demand for appliances which will burn anything from cabbage stalks upwards with something approaching Aga efficiency. It can't be done, of course, but that is the target rather than the appliance which requires a single grade of fuel. I speak from experience, having clocked up a total of several weeks bashing large lumps of anthracite with a hammer in the vain hope of reducing them to the pea size suitable for a heat storage cooker.



The new Ewart sink heater.

Furniture is more difficult to review, since a good deal of the designs in the set rooms are purpose made and no arrangements have been made for their production in quantity. But plenty of the EJMA cupboards are to be seen in Mr. MacManus's kitchen and the new Utility range is also on show. The Tea Room (if you can get in) has some light alloy tables and chairs which are not strictly part of the exhibition, but which show an intelligent appreciation of the possibilities of the material. The legs are cast and have a tapering tee section, and the seat and back are sheet. The same firm, Ernest Race, Ltd., 22, Union Road, S.W.4, is also producing unit furniture made up from panels faced with aluminium sheet with a filling of lightweight expanded material which stops the unpleasant rattles and drumming so often found in metal furniture. Drawer and door fronts are finished in wood veneers. The chairs and tables shown here are now in production, but the full range of furniture will not be on sale for some months.



The Ernest Race table and chairs at the Britain can Make It Exhibition referred to this week in The Industry. *Other illustrations of this unit furniture appear on page 240.*

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SOCIETIES AND INSTITUTIONS

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

TPI

G. Stephenson

At Durham University. Town and Country Planning Summer School organised by the Town Planning Institute. Paper on NEW TOWNS read by Gordon Stephenson, F.R.I.B.A., A.M.T.P.I., Chief Research Officer, Ministry of Town and Country Planning.

G. Stephenson: The first step in the process of planning New Towns is the preparation of a regional plan. In certain regions the need has already been demonstrated (at the moment it is clear in the Greater London, Manchester and Clyde Valley Plans). In the regional plan the location should be established. The physical, industrial and population surveys will indicate the size of town required. The location will result from studies which will ensure that there is ample land for the full growth of the town, and it should be land where the minimum upset to first-class farming will be caused. An abundant water supply should be available near at hand, and the topography such that an economical sewerage and sewage disposal scheme can be designed. There should be first-class road and rail facilities linking the site to other parts of the region and country. Finally, there should be adequate land of a character which would allow the design of an efficient industrial layout, and the land for the residential areas should be of good exposure (preferably with south facing slopes) and interesting in form. Healthy and interesting living quarters will add much to the vitality of the town.

PROCEDURE

Before the Government decides to proceed with the establishment of a New Town inter-departmental examination of the proposal is an obvious necessity. The Departments mainly concerned are Health, Transport, Trade, Agriculture and Labour, with Town and Country Planning making the case. Consultations with Local Authorities concerned must proceed at the same time. The case having been established the first step is taken under the New Towns Act. The Minister has a very preliminary plan prepared either in his own department or by a consultant appointed by him. This plan is sufficient to show that a town of requisite size could be built within certain boundaries and would satisfy the conditions and standards laid down. The area of land needed is approximately 1,000 acres for each 10,000 population. This is a higher figure than was suggested by the Reith Committee for the built-up area (including recreational open space), but it does not include any land for a peripheral green belt. It should not be necessary to purchase any land for green belts. A New Town should certainly be surrounded by a rural area. This can and will be safeguarded by planning rather than purchase.

When the required area has been delimited and agreed the Minister makes a draft order which explains the designatory area and the purpose for which it is proposed to purchase the land. A map showing the area is available for examination by all interested parties. Objections to the draft order are heard at an enquiry. After examining the evidence of the enquiry the Minister makes his decisions. Unless some rare error of judgment has been made it is extremely unlikely that the project would be abandoned. It is possible that he may decide to make alterations in the boundary line.

As soon as the result of the enquiry is announced the designatory order can be made. Then all the land within the area becomes liable to compulsory purchase. At this time the Minister establishes a Development Corporation, with extensive powers to carry on all the development work needed to complete the town, either through its own organization or through agents acting on its behalf. The Development Corporation will consist of a chairman, vice-chairman and several other members up to seven in number. They will all be paid and their appointment will follow consultation with Local Authorities interested in the project.

The establishment of a Development Corporation for a new town will not affect the powers and duties of Local Authorities within the area, or the powers and duties of statutory undertakers. The powers of the development corporations are however expressed in terms which would enable them, if necessary, to undertake the provision of water, electricity, gas, sewerage and other similar services.

The development plans prepared by a corporation are subject to approval by the Minister. After approval the Minister makes a special interim development order granting planning permission for any development carried out in accordance with the approved plans.

A corporation is enabled, with the consent of the Minister to acquire land either by agreement or compulsorily. The procedure of the 1944 Act and of the corresponding Scottish Act of 1945 is followed and expedited completion under those Acts can be applied.

The Minister controls the disposition of land by the corporations. In England and Wales this will be limited to leases of 99 years, save in exceptional circumstances.

The Act provides that the corporations shall be deemed to be housing associations within the meaning of the Housing Acts. This will enable them to build houses for exporting Local Authorities and such houses will attract the Exchequer subsidy. The corporations can, of course, build working-class houses to fulfil their own programmes and they will receive the same Exchequer subsidy.

Provision is made for the transfer by agreement at any time of any part of the undertaking of a development corporation to the appropriate Local Authority or statutory undertakers; but if the transfer entails the reduction of the capital liabilities of the corporation to the Exchequer, the Minister's order will require the approval by resolution of the House of Commons.

When the Minister considers that a corporation has substantially achieved its purpose he will make a further order transferring what remains of the undertaking to the appropriate local authority or statutory undertakers. If a reduction in the corporation's liability to the Exchequer is involved the order will require the approval of the House of Commons.

It should be borne in mind that while the corporation is building the New Town the Local Authority will be growing at a more than normal pace. It will more and more represent the views of the ultimate population and should in the closing stages of the undertaking be able and willing to take over. It is very likely that Local Authority boundaries will be adjusted at a very early stage so that a New Town area comes under one Local Authority.

THE CORPORATION'S JOB

Very briefly I have tried to describe the scope and powers of the Act. They will largely determine the planning procedure. I would like to give a few views on the job which faces a Corporation and the kind of organization it will need in order to fulfil its very considerable programme. By way of example, let us consider one of the New Towns to be built within the overall framework of the Greater London Plan. If these towns are to make a full contribution to the effectiveness of the orginal plan they must be substantially complete in ten years. If the new and expanded town building in the Outer Country Ring falls behind schedule more incursions into the Green Belt Ring are inevitable.

To build a new self-contained town for a population of 50-60,000 (Gloucester, Lincoln and Worcester have populations of this order) will cost, on an average, 3 to 4 million pounds per year over the ten-year period. In other terms one can say that the labour force required will average between 3 and 4 thousand men over the ten-year period. Peak expenditure (say at the fifth-year stage) may well be about £7 million in a year when the labour force would be over 6 thousand men strong. Many agencies and possibly hundreds of contractors will be at work on the site. The organization required to carry through the overall planning will have to be efficient, versatile and balanced. The administrative technical and clerical staff employed by the Corporation will number somewhere in the region of 200. If the Corporation acts as a general contractor—and it may have to do this if the contracting with its many problems of labour and material supply is to be properly co-ordinated—it will, of course, employ many more.

Under a chief executive officer the Corporation will have to establish several executive arms. For convenience I put them into three main groups. First there will be the administrative and financial; second, the technical; and third, the construction group.

The first will include sections dealing with the following matters: financial, legal, personnel, accommodation, contracts, social welfare, estate management, information.

The second will be responsible for design and supervision in the following fields: town planning, architecture, landscape architecture, civil engineering, mechanical engineering, structural engineering. In this group there will be a number of quantity surveyors and a small corps of works supervisors.

The third executive group will have to deal with the many phases of contracting, with labour and labour welfare, materials, transport, machinery and maintenance.

There is little precedent in this country for such an organization; the next few years will be a testing time. Pre-war planning has only a remote relation to the kind of procedure required. The nearest parallel is perhaps the large-scale operation conducted during the war when ordnance factories and hostels were built in record time. Then special organizations, including hundreds of technicians, were established. If we really want to see a fairly exact parallel we have to look at the Tennessee Valley Authority and the way it works. It is a public corporation established to carry through a very large-scale development programme.

One of the first steps a Corporation may take is to set up an information office on the site. From the earliest stage it is essential the public should be kept fully informed of the decisions and actions which are being taken; public opinion will also have an increasing effect on the character of the development.

The Corporation must quickly establish the principles and main lines of a Master Plan. This is no easy job—heaven only knows what will happen if an abstract geometrician, masquerading as a planner, is let loose on the territory. A thoroughgoing survey is an essential pre-requisite. An exact knowledge of the site and the many activities on it will help shape the plan into a workable instrument ready for the action stage. For example, the majority of the land will be in farms, and they should not lightly be disturbed and unsettled to make a planners' holiday. The farm units should be taken in orderly sequence, many of them remaining undisturbed for several years. Again, there is no point in opening up territory if services to it cannot be supplied until a later stage. But perhaps the most important reason for not rushing out an "ideal" pattern is that there are many people, organizations, authorities, departments and statutory undertakers who must be consulted.

MAIN AREAS OF THE MASTER PLAN

The first step in the drawing of the Master Plan will be the determination of the main areas for the different main uses. The factory area and the central area will almost inevitably be the most difficult to settle. Though it is not possible to lay down universal rules, land of about the following acreages will be required for the main use areas in a town of 60,000 population.

	Acres.
1. Industrial	600
2. Main Centre (including shops, offices, parking, administrative buildings, wholesale business, bus station and railway station approach, P.O. facilities, theatres, County College, central assembly hall, cultural buildings and a modest allowance for planted spaces)	100
N.B.—The Reith Committee estimate of 60 acres is, in my view, too conservative.	
3. Residential (including local open space)	2,000 minimum
4. Neighbourhood business areas	60-80
5. Schools and school playing fields	300
6. Major public open spaces (including parks, parkways, woodlands, playing fields)	1,000
7. Other open land (including farms, market gardens, golf course or courses, hospital area, etc.)	1,500
8. Railway land	100-200

1. *Industrial Area:* On a normal site it will be preferable to have one major industrial estate and this should be on land which is relatively flat, adjacent to the railway and easily linked to the main regional roads adjacent to the town. The industrial estate should not break up the other main use areas; it should flank the town rather than form a wedge. There must be room for efficient exchange sidings between it and the railway (the exchange sidings and industrial sidings will be designed and built by the Corporation). The main roads in the industrial area should connect directly to the regional roads without passing through the rest of the town. The layout should be spacious, with trees, planting, and small recreational areas in evidence. Careful calculations should be made to ensure that carriageways, cycle tracks and footwalks are adequate for peak-hour traffic.

2. *The Main Centre:* The Town Centre should literally be in the centre of gravity. The desirable location is between the main industrial area and the residential areas with the main roads, linking homes with work, flanking it. The railway station and bus station should be adjacent to the centre; together they will form the hub of the traffic system. I do not agree with the Reith Committee conclusion that there should not be a central park. I think a park of modest dimensions containing restaurants and sports facilities would be well placed adjacent to the central area.

3. *Residential Areas:* Despite the critics, who propose no alternative, I think the residential parts of the town will inevitably be developed as a series of residential neighbourhoods. Common to all will be the town centre and the industrial area. In addition there may be certain buildings and facilities (such as secondary schools and swimming baths) which would serve one or more residential neighbourhoods.

4. *Neighbourhood Centres:* Strategically located in the residential neighbourhoods should be a series of shopping and neighbourhood centres. These may range between fairly large groups of buildings to quite small and very local centres.

5. *Schools and School Playing Fields:* The Education Act, 1944, with its regulations, can be translated into a magnificent school system. The most surprising aspect of the translation, and many planners will have experienced the feeling of surprise, is the amount of land required for school buildings and their playing fields. It should be possible to make an ideal school pattern, with primary schools within the neighbourhoods and easily within half a mile of every home even in areas of low density.

6. *Major Public Open Spaces:* On any site the survey will show quite clearly that some parts should be included in the major open space system. They may be existing woodlands or parks surrounding country houses; they may be small valleys including streams; they may be flat pastures eminently suitable for playing fields. There may be patches of first-class land which could easily be developed for allotment gardens. All these should be woven into a balanced open space system. It should be possible to arrange the pattern so that people can walk through and about the town in land which is free of buildings and roads. The major open spaces should be complimentary to and link up with the local or neighbourhood open spaces.

7. *Other Open Land:* It will be necessary to take some land for purposes which cannot be defined in the early stages. For example, we know that hospitals and health buildings will be planned on a regional basis; until this planning is done the programme for hospital building cannot be formulated. At least one golf course, and possibly two, will be needed before the town is completed.

8. *Railway Land:* It is certain that additional land will be needed for railway purposes in a New Town. There will be a new passenger station and a new goods station.

DEVELOPMENT PROGRAMME

Though the Master Plan will be most important, the key to a successful achievement of aims will be shown in a map or series of maps which will indicate the stages of development. The Master Plan should be a statement of principles, though it must lay down certain lines which cannot easily be altered. A carefully considered development programme must lie between it and the many hundreds of detailed plans which will be prepared as the development proceeds. It would be wrong, if not idiotic, to attempt to draw out a town plan in full detail before building the first house or factory. The Reith Committee was wise in saying precise planning should "never be too far ahead of actual construction. A growing town is a living entity, and its final shape in detail cannot be exactly predicted or prescribed. Moreover, changes in technique, in taste, in standards of living, and in habits and ideas, continually produce new requirements and put others out of date. There must be a master plan for the whole town based on the knowledge and expectations of the planning team, and in particular on careful estimates of the areas likely to be required for all foreseeable purposes. But this master plan, though its major principles must not be lightly changed, should be under constant detailed revision as knowledge grows and requirements change. And each section of development within the lines laid down in the master plan should be planned in detail before, but not long before, its construction is authorized."

We are to build twenty towns in the next ten years. We have much to learn as we go along. We will make mistakes and we must be prepared to do so. The new towns will be built by pioneers for pioneers. The new towns will be the homes of many happy people. There will be visitors from the four quarters of the globe—and they will come to famous places.

RIBA

Released Members

The following members have notified the RIBA that they have been released from the Services and are resuming practice and would like to receive trade catalogues, information sheets and other data:—

Cyril Adler (A) (late Capt., R.E.), 31, King's Road, Sloane Square, S.W.3; A. V. Banks (A) (late Major, R.E.), 46, Beachwood Avenue, Coulsdon, Surrey; F. E. Bromilow (A), Messrs. Bromilow, While and Smeeton, 72, Newhall Street, Birmingham (Central 6672); W. T. P. Bryce (F) (late Major, R.E.), The Bridge House, Donnington, Lechlade, Glos.; E. Lionel Crosby (A), 3, Dawson Street, Dublin; John S. Hirst (A), 104, Roehampton Vale, S.W.15; Edward Roughley (L) (late Major, R.E.), High Street, Prestatyn, North Wales; E. C. R. Sandon (A), Lord's Waste, Bredfield, Woodbridge, Suffolk; R. A. Smeeton (A), Messrs. Bromilow, While and Smeeton, 72, Newhall Street, Birmingham (Central 6672); S. W. J. Smith (A) (late Lt.-Col., R.E.), "Yendens," Chelsfield, Kent; G. H. While (A), Messrs. Bromilow, While and Smeeton, 72 Newhall Street, Birmingham (Central 6672); R. B. Wragg (A), 4, Clifford Road, Sheffield, 11.

Announcements

R. J. Roycroft, M.R.I.A.I., Chartered Architect, has recommenced Practice and will be pleased to receive trade catalogues at 56, Marlborough Park South, Belfast. ('Phone: 66118.)

The Minister of Supply has now appointed the following to be members of the Iron and Steel Board:—Sir Archibald Forbes (Chairman), Sir Alan Barlow, A. Callighan, Lincoln Evans, G. H. Latham, R. Mather. A. C. Boddis, of the Ministry of Supply, has been appointed Secretary of the Board. R. B. Williams-Thompson, the Chief

Information Officer of MOS, will act as Information Officer to the Board. An additional member, with experience of general industry, is to be appointed. His name will be announced shortly. The main duties of the Board will be:—(a) To review and supervise programmes of development needed for the modernization of the iron and steel industry, and to watch over the execution of approved schemes in such programmes. (b) To supervise as necessary the industry in current matters, including the provision of its raw material requirements, and the administration, under powers delegated by the Minister, of such continued direct control as may be required over the production, distribution, and import of iron and steel products. (c) To advise on general price policy for the industry and on the fixing of prices for controlled products.

Mr. Harold Billiard has been appointed Architect to the Rhodesian Railways in Bulawayo in succession to Capt. J. R. Hobson, who is retiring.

Mr. Michael Ryan (A.), Mr. John R. B. S. Penoyre (A.), and Mr. Sergei G. Kadleigh (A.), wish to announce that upon release from the services they have entered into partnership and are practising under the style of Ryan and Partners at 63, Abingdon Villas, London, W.8. Tel No.: WES 1447. They will be pleased to receive trade catalogues, etc.

The British Council's Press Office telephone number (Paul Reed, Press Officer; Colin Mann, Assistant Press Officer) is now MAYfair 9448. The number for other Departments of the British Council (MAY: 8484) is unchanged.

The address and telephone number of Cyril Sweett, F.S.I., Chartered Quantity Surveyor, is now:—Kimberley House, 14-17, Holborn Viaduct, London, E.C.1. CENtral 7282.

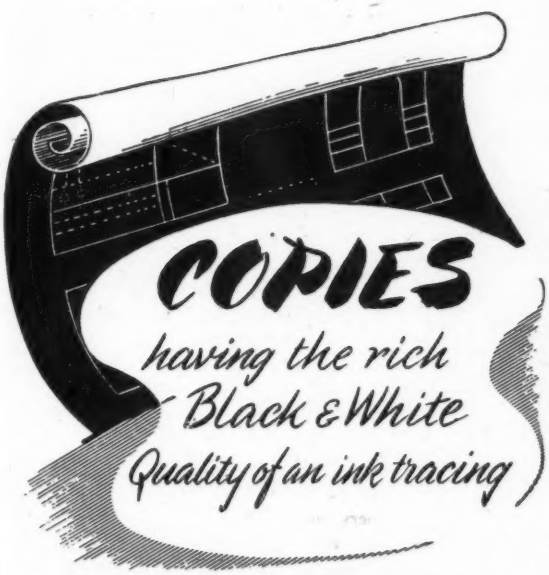
Mr. J. H. Cox, A.R.I.B.A., and Mr. G. W. Hughes, M.B.E., L.R.I.B.A., have entered into partnership and are conducting the practice under the title of Cox and Hughes, Chartered Architects and Surveyors, National Provincial Bank Chambers, 21, High Street, Aylesbury, Bucks. They would be pleased to receive trade catalogues and technical information, especially that in connection with rural housing.

Mr. R. Gresham Cooke is retiring from the position of Secretary of the United Steel Companies Limited in order to take up the position of Director of the Society of Motor Manufacturers and Traders. Before Mr. Cooke became Secretary of the United Steel Companies in 1939, he was Secretary of the British Road Federation. Previously he had practised at the Bar. Mr. R. Peddie will succeed Mr. Cooke as Secretary of the United Steel Companies on October 1. Mr. Peddie, who has been with the firm over three years, is a chartered accountant and a B.A. of Cambridge University.

Mr. D. G. Thornley, B.A., A.R.I.B.A., would be pleased to receive trade catalogues at No. 30, Regent Street, Nottingham.

Mr. H. R. Surridge, L.R.I.B.A., of Gotch, Saunders & Surridge, Chartered Architects, Bank Chambers, Kettering, has taken into partnership Mr. Edward W. Cowell, A.R.I.B.A., who has been associated with the firm for the last fifteen years. Mr. Cowell was articled with the firm and has been with it continuously, except for the war period, during which he served as a Territorial, being demobilized in November last with the rank of Major. The name of the firm for the present will continue to be: Gotch, Saunders & Surridge.

Messrs. Aerialite, Ltd., have opened a sales office and show room at 91/93, Baker Street, London, W.1. Telephone: Welbeck 7986.



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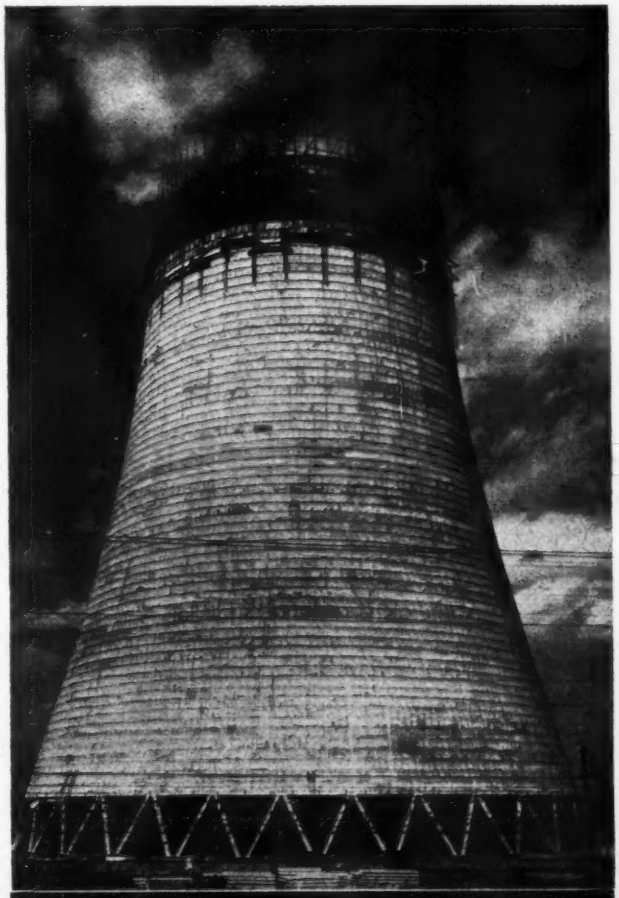

The construction of hyperbolic reinforced concrete Cooling Towers is a specialist's operation and represents the peak of achievement in concrete construction work. The Mitchell Construction Company has wide experience of reinforced concrete construction work of all types. The illustration shows a Cooling Tower in the course of construction for Hull Electricity Department.

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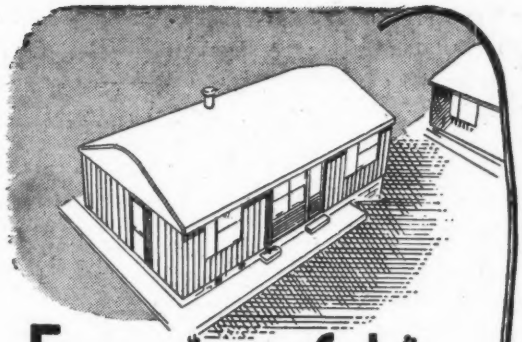

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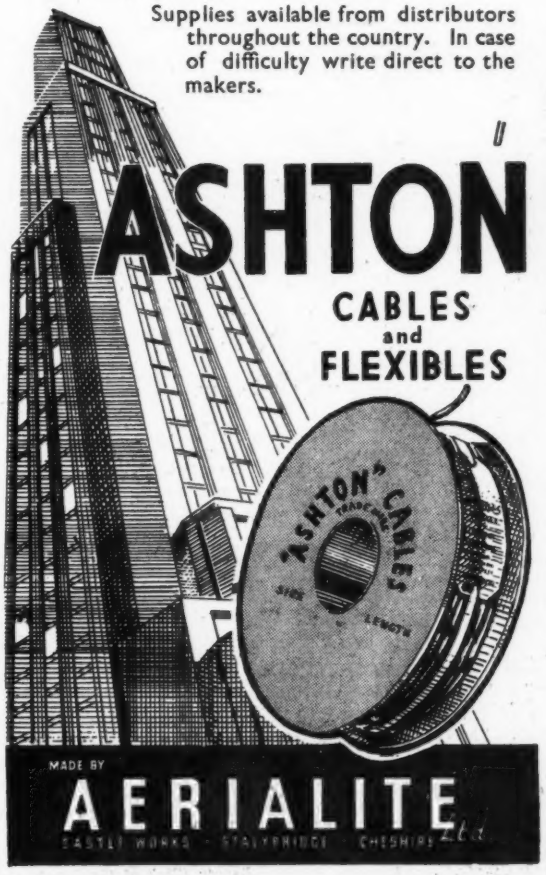

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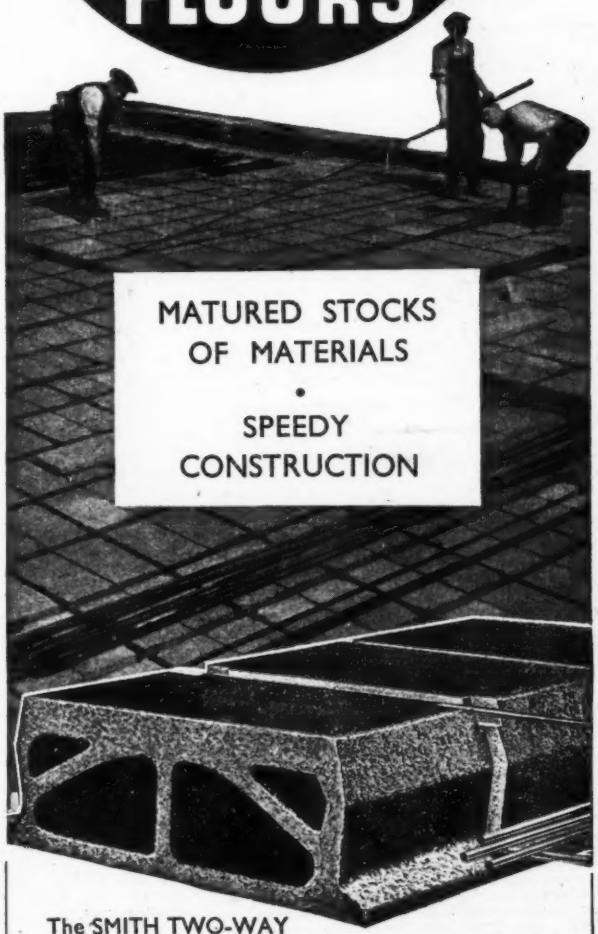

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CLASSIFIED ADVERTISEMENTS

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, 10s.; each additional line, 1s. 6d.

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

LONDON COUNTY COUNCIL.

Applications are invited for the following positions:—

(1) QUANTITY SURVEYORS AND ASSISTANTS (SENIOR AND JUNIOR). Required for:

(a) "Taking-off" quantities, measuring, and adjusting variations under building contracts and preparing estimates.

(b) Preparing estimates and measuring repairs and minor works under schedule of prices (experience of London County Council War Department or Office of Works Schedules).

(c) Working up, etc., in connection with domestic buildings and general working up (junior).

(d) Measurement of roads and sewers and housing work on cottage estates, preparation of interim and final bills on Schedules.

(2) ARCHITECTS, BUILDING SURVEYORS, TECHNICAL ASSISTANTS (ARCHITECTURAL) AND JUNIOR DRAWING OFFICE ASSISTANTS. Required for:

(a) Work in connection with the design and development of housing schemes for cottage estates and block dwellings (experience in domestic architecture preferred).

(b) Similar work in connection with schools and hospitals.

(c) The preparation of estimates and specifications for works of cleaning and painting, repairs and minor alterations at schools and hospitals.

(d) Assistants to district surveyors. A knowledge of the London Building Acts and by-laws is necessary for these positions.

(e) Junior drawing office assistants for general drawing office work. Should be able to finish plans from rough drawings, take dimensions and make sketches. Pay, according to age and experience, up to 65s. a week, plus cost-of-living addition.

(3) HEATING ENGINEERS AND HEATING AND VENTILATING ASSISTANTS. Good technical education required. Applicants must be experienced in the design of, and preparation of drawings, specifications and estimates for, modern hot water heating, ventilating and hot water supply schemes.

Except as otherwise shown, salaries for the above positions will be determined by qualifications and experience up to a maximum of £420 a year, together with cost-of-living additions up to £90 a year, according to basic salary. Salary up to £500 for certain positions of heating engineer and building surveyor. Successful candidates will be engaged on a temporary basis, but will be eligible for appointment, according to merits, for permanent appointment on the occurrence of vacancies. Temporary staff are required to contribute to the Council's Superannuation and Provident Fund.

Ex-Service candidates with experience prior to their war service will be specially considered.

Application forms may be obtained from the Clerk of the Council, County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelope.

Canvassing disqualifies. 947

BOROUGH OF NELSON.

Applications are invited for the appointment of SECOND ARCHITECTURAL ASSISTANT, in the Borough Surveyor's Department, at a salary in accordance with Grade III of the National Scale, £390—£15—£435, plus cost-of-living bonus, at present £59 16s. per annum.

Candidates should have had experience in housing and general work. Applications, giving detailed particulars of experience and qualifications, endorsed "Architectural Assistant," with copies of three recent testimonials, to be delivered to the Town Clerk, Town Hall, Nelson, Lancashire, on or before Saturday, 12th October, 1946.

F. W. ROBERTS,
Town Clerk.

Town Hall, Nelson, Lancashire.
18th September, 1946. 511

DEPARTMENT OF HEALTH FOR SCOTLAND.

CHIEF ARCHITECT AND PLANNING OFFICER.

Applications are invited by the Department of Health for Scotland for the post of Chief Architect and Planning Officer in Edinburgh, at a salary of £1,800 inclusive.

The appointment is subject to the usual Civil Service conditions as to pension, holidays, etc. If the successful applicant is a pensionable official of a local authority, the Local Government and Civil Service (Superannuation) Rules, 1936, will apply.

Candidates must be between the ages of 35 and 50 on 1st September, 1946, must be members of the R.I.B.A. and the T.P.I., and must have extensive experience of housing (with particular reference to layout, design, and the new forms of construction) and of town and country planning.

Forms of application, with further particulars of the appointment, may be obtained from the Establishment Officer (Room 31), Department of Health for Scotland, St. Andrew's House, Edinburgh, 1, and must be returned to him not later than the 31st October, 1946.

Those candidates who appear best qualified will be required to attend a Selection Board in Edinburgh or London. 827

OXFORDSHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Appointment of:—

(a) ONE SENIOR PLANNING ASSISTANT.
(b) ONE PLANNING ASSISTANT.
(c) ONE JUNIOR ASSISTANT.

Applications are invited for the above-mentioned appointments, in the County Planning Department of the County Council. The Council have adopted the National Joint Council's Scale of Salaries.

For appointment (a) the salary will be according to Grade V of the Administrative, Professional and Technical Division, £460 per annum, rising by three annual increments to £510 per annum, plus bonus.

Applicants should have had wide experience of all aspects of statutory planning, the control of interim development, preparation of basic surveys and statutory planning schemes, and should have passed the final examination of the Town Planning Institute. Any additional professional qualification will be an advantage.

For appointment (b) the salary will be according to Grade III of the same Division, £390 per annum, rising by three annual increments to £435 per annum, plus bonus.

Applicants should have had similar but less responsible experience to that required for appointment (a). Candidates should at least be studying for the examination of the Town Planning Institute, and preference will be given to those who have passed the final examination. Any other qualification will be considered an advantage.

For appointment (c) the salary will be according to Grade I of the same Division, £330 per annum, rising by three annual increments to £375 per annum, plus bonus.

Applicants should be neat and expeditious draughtsmen. Preference will be given to those having previous experience in a planning office and who have knowledge of surveying and levelling.

All these appointments will be superannuable, and the successful candidates will be required to pass a medical examination.

Applicants for appointments (a) and (b) will be required to provide a car for use in connection with their official duties, for which travelling expenses on the Council's Scale will be allowed.

Applications, stating age, qualifications and details of experience, accompanied by copies of three recent testimonials, and with the envelope clearly marked with the appointment for which the application is made, should be forwarded to the County Planning Officer, County Hall, Oxford, not later than Saturday, the 19th October, 1946.

F. G. SCOTT,
Clerk of the Council.

County Hall, Oxford.
12th September, 1946. 977

BUCKS COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ASSISTANT QUANTITY SURVEYOR, experienced as a "worker up" and in abstracting and billing dimensions for public works. Salary scale £420 × £15—£465 per annum, plus bonus (now £59 19s. per annum). The appointment is superannuable and subject to medical examination.

Forms of application may be obtained from F. A. C. Maunder, F.R.I.B.A., A.M.T.P.I., The County Architect, County Offices, Aylesbury, to whom applications must be delivered not later than Friday, 18th October, 1946.

GUY R. CROUCH.
Clerk of the Bucks County Council.

County Hall, Aylesbury.
17th September, 1946. 523

EAST SUFFOLK COUNTY COUNCIL.

APPOINTMENT OF ASSISTANT ARCHITECT AND HEATING ENGINEER

Applications are invited for the following appointments, on the permanent staff of the County Architect's Department, both of which are subject to the National Scheme of Conditions of Service:—

ONE SENIOR ASSISTANT ARCHITECT, at a salary of £460 per annum, rising, subject to satisfactory service, by £15 to £600 per annum, plus bonus.

Applicants must be Registered Architects, preferably Associates of the Royal Institute of British Architects, and have had experience in the service of a large Local Authority. They must be thoroughly experienced in architectural design, and capable of preparing preliminary sketch plans, complete working drawings, and details of schools, public buildings, etc., without supervision.

ONE SENIOR HEATING AND LIGHTING ENGINEER, at a salary range of £460 per annum, rising, subject to satisfactory service, by £15 to £600 per annum, plus bonus. Commencing salary according to experience and qualifications.

Applicants must be Members or Associate Members of the Institution of Heating and Ventilating Engineers, be capable draughtsman, fully experienced in the design and supervision of modern heating, hot water and ventilation systems of all types for local authority buildings, and possess sound knowledge of all mechanical equipment connected therewith.

Preference will be given to candidates who have also had experience in design of electric lighting and power installation.

The successful candidate will be required to provide and maintain his own car, and will be paid a travelling allowance in accordance with the Council's scale.

The successful candidates for both appointments will be required to pass a medical examination, and the appointments will be subject to one month's notice on either side. Both posts are superannuable.

Applications, stating age, full details of previous experience and qualifications, accompanied by copies of not more than three recent testimonials, must be delivered to E. J. Symcox, F.R.I.B.A., County Architect, County Hall, Ipswich, not later than Friday, 11th October, 1946.

Canvassing, either directly or indirectly, will be a disqualification.

CECIL OAKES.
Clerk of the Council.

County Hall, Ipswich. 518

CITY OF ST. ALBANS

CITY ENGINEER AND SURVEYOR'S DEPARTMENT.

TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the temporary post of Architectural Assistant, in the above Department, at a salary of £400 per annum, plus current cost-of-living bonus (£59 16s. per annum).

Applicants must possess an architectural qualification, and have experience in the preparation of plans, working drawings, specifications, and layouts of modern municipal housing estates, including surveying and levelling.

The appointment is subject to one month's notice on either side.

Applications, in writing, stating age and experience, together with copies of two recent testimonials (non-returnable), must be received by the undersigned not later than first post on Saturday, 19th October, 1946.

S. H. E. CRANE.
Town Clerk.

Town Clerk's Office, 38, St. Peter's Street, St. Albans.
19th September, 1946. 532

CORNWALL COUNTY COUNCIL.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, on the Established Staff of the County Architect's Department, at a commencing salary of £360, rising, subject to satisfactory service, by annual increments of £15 to £405, on Grade II, recommended by the National Joint Council, plus war bonus, at present £59 16s.

Candidates will be required to prepare estimates, bills of quantities, and measure work and adjust variations on contracts.

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

Forms of application may be obtained from the County Architect, County Hall, Truro, to whom applications must be sent, not later than Saturday, the 12th October, 1946, accompanied by copies of three recent testimonials.

E. T. VERGER,
Deputy Clerk of the County Council.

County Hall, Truro.
11th September, 1946. 561

NEWMARKET RURAL DISTRICT COUNCIL.

ARCHITECTURAL DRAUGHTSMAN.

Applications are invited for the appointment of an Architectural Draughtsman, in the Architect's Department of the above Council. Applicants should have had experience in connection with housing schemes undertaken by a Local Authority, including the preparation of working and detail drawings; a knowledge of surveying and levelling will also be considered an advantage.

The salary for this appointment will be in accordance with Grade II of the Clerical Division of the National Joint Council Scale of Salaries, *i.e.*, £315 per annum (plus war bonus), rising by three annual increments of £15 to £360 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.

Applications, stating age, qualifications, and previous experience, accompanied by copies of three recent testimonials, must be delivered to the undersigned not later than 7th October, 1946.

A. E. AUSTIN,
Deputy Clerk of the Council.

Rural District Council Offices,
Park Lane, Newmarket. 530

NEWCASTLE-UPON-TYNE EDUCATION COMMITTEE.

TECHNICAL SCHOOL OF BUILDING CRAFTS.

Wanted, for January, 1947 :—

(*a*) A QUALIFIED ASSISTANT MASTER. To teach Carpentry and Joinery.

(*b*) A QUALIFIED ASSISTANT MASTER. To teach Plumbing and Metalwork.

Good City and Guilds qualifications essential. Ability to assist in teaching of Building Geometry and Calculations desirable. Burnham Scale. Prescribed form to be returned to undersigned within 14 days of the appearance of this advertisement.

THOS. WALLING,
Director of Education.
539

COUNTY OF SOUTHAMPTON.

Applications are invited for the following appointments on the established staff of the County Architect's Department :—

(*a*) ASSISTANT ARCHITECTS, Grade V. Salary £460×£15 and £20—£510 per annum.

(*b*) ASSISTANT ARCHITECTS, Grade IV. Salary £420×£15—465 per annum.

(*c*) ASSISTANT ARCHITECTS, Grade III. Salary £390×£15—£435 per annum.

(*d*) ARCHITECTURAL ASSISTANTS, Grade I. Salary £330×£15—£375 per annum.

(*e*) JUNIOR ARCHITECTURAL ASSISTANT, General Division. Salary according to age, varying from £120 per annum at the age of 19 years to £300 per annum at the age of 30 years.

(*f*) ASSISTANT QUANTITY SURVEYOR, Grade V. Salary £460×£15 and £20—£510 per annum.

(*g*) ASSISTANT QUANTITY SURVEYORS, Grade III. Salary £390×£15—£435 per annum.

(*h*) ASSISTANT QUANTITY SURVEYOR, Grade I. Salary £330×£15—£375 per annum.

The cost-of-living allowance, at present £59 16s per annum, will be payable in addition to the salaries stated, in respect of appointments (*a*), (*b*), (*c*), (*d*), (*f*), (*g*) and (*h*); cost-of-living allowance for appointment (*e*) will vary from £36 2s. per annum at 19 years of age to £59 16s. per annum at 21 years and over.

Candidates for appointments (*a*), (*b*) and (*c*) must be Registered Architects, preferably A.R.I.B.A., with good general experience in design and construction of public buildings.

Candidates for appointments (*d*) should have passed the intermediate examination R.I.B.A., and have had some practical experience.

Candidates for appointments (*f*) and (*g*) should have the qualification P.A.S.I., and experience in the preparation of Bills of Quantities and Estimates, and in the settlement of final accounts on building contracts.

Candidates for appointment (*h*) should have passed the Intermediate Examination of the Surveyors' Institution.

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

The appointments will be terminable by one month's notice on either side.

Applications should be made on forms to be obtained from Simpson Low, A.R.I.B.A., Dipl. Arch., County Architect, The Castle, Winchester, to whom they should be returned so as to arrive not later than Tuesday, the Members of H.M. Forces serving overseas may apply direct by letter, giving details of qualifications, experience, and date of release.

15th October, 1946.

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

The Castle, Winchester.
September, 1946. 534

BOROUGH OF MANSFIELD.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments, both of which are subject to the Local Government Superannuation Act, 1937, a medical examination, and one month's notice on either side. The salary scales are those of the A.P. and T. Division of the National Scales, and are exclusive of the cost-of-living bonus, at present £59 16s. per annum.

(*a*) SECOND ARCHITECTURAL ASSISTANT. Grades IV/V, £420—£15—£15—£15—£10—£15—£20—£510 (commencing at £435).

(*b*) GENERAL ENGINEERING ASSISTANT. Grade I, £330—£15—£15—£15—£375 (commencing at £330).

Candidates for appointment (*a*) must be Registered Architects and Associates of the Royal Institute of British Architects, with considerable experience in the design of houses, municipal architectural work and building quantities. Candidates for appointment (*b*) must hold at least one of the following qualification : (*a*) Engineering Degree of a British University, (*b*) sections A and B of the Associate Membership Examination Inst. C.E., (*c*) Testamur of the Inst.M. and Cy.E., and must have had experience in Municipal Engineering work. Application forms may be obtained from Mr. E. T. Crowe, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor, Carr Bank, Mansfield, to whom applications, appropriately endorsed, must be delivered not later than Friday, 25th October, 1946. Canvassing, either directly or indirectly, will disqualify.

A. C. SHEPHERD,
Town Clerk.

Carr Bank, Mansfield.
23rd September, 1946. 531

COUNTY BOROUGH OF SMETHWICK.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments :—

ARCHITECTURAL.

(1) ASSISTANT ARCHITECTS (Two), Grade III. Salary £390-£435 per annum.

(2) ASSISTANT ARCHITECT, Grade II and III. Salary £360-£435 per annum.

(3) JUNIOR ASSISTANT ARCHITECT, Grade I. Salary £330-£375 per annum.

The above salaries are exclusive of the cost-of-living bonus, which is at present £59 16s. per annum. Candidates should have appropriate qualifications and experience for the position applied for. The appointments are subject to the provisions of the Local Government Superannuation Acts, 1937 and 1939, and the successful applicants will be required to pass a medical examination.

Applications for the appointments should be made out under the headings indicated in the following order :—

(*a*) The specific appointment applied for.
(*b*) Name and address.
(*c*) Age, nationality, and whether married or or single.
(*d*) Educational training.
(*e*) Professional qualifications.
(*f*) Present position, salary, and date of appointment.
(*g*) Previous positions and dates of appointments.
(*h*) Detailed particulars of experience.
(*i*) Any further remarks in support of application.
(*j*) Notice required to terminate present appointment.
(*k*) Names of two persons to whom reference can be made,

and should be delivered, suitably endorsed to, Mr. Roland Fletcher, M.Inst.C.E., Borough Engineer and Surveyor, Council House, Smethwick, as soon as possible, and not later than 21st October, 1946.

E. L. TWYCROSS,
Town Clerk.

Council House, Smethwick. 532

BOROUGH OF ROWLEY REGIS.

Applications are invited for the temporary appointment of 2nd ARCHITECTURAL ASSISTANT, in the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade V (£460-£510) of the National Scale of Salaries, plus cost-of-living bonus.

Candidates should be Registered Architects, preferably holding A.R.I.B.A. or equivalent qualification, with experience of Local Authority housing schemes. The appointment will be subject to the Local Government Superannuation Act, 1937, and terminable by one month's notice on either side.

Applications, stating age, education, qualifications and experience, together with copies of two recent testimonials, must be delivered to Mr. S. G. Wood, M.Inst.M. & Cy.E., M.R.San.I., Borough Engineer and Surveyor, Municipal Buildings, Old Hill, Staffs, so as to reach him not later than Monday, the 14th October, 1946. Canvassing, directly or indirectly, will disqualify.

R. HEGAN,
Town Clerk.

Municipal Buildings, Old Hill, Staffs.
19th September, 1946. 526

CITY OF BATH.

CITY ENGINEER'S DEPARTMENT, BATH.

SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Senior Architectural Assistant, in the architectural section of the City Engineer's Department, at a salary of £460, rising to £510 p.a., plus war bonus, at present £59 16s. p.a.

Applicants should be Registered Architects and Associates of the R.I.B.A., and preference will be given to applicants trained at a recognized school of architecture, and with good experience of architectural design and construction, particularly of housing estates and other work undertaken by a Local Authority.

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

Applications, giving particulars of age, education, qualifications and experience, and accompanied by copies of two recent testimonials, should be endorsed "Senior Architectural Assistant," and must be addressed to the City Engineer, Guildhall, Bath.

Last date for receiving applications, Monday, 14th October, 1946.

J. BASIL OGDEN,
Town Clerk.

Guildhall, Bath.
18th September, 1946. 502

MINERS' WELFARE COMMISSION.

Applications are invited for appointments in London (or Ashtead, Surrey, temporarily), and in Glasgow (or Edinburgh), Newcastle-upon-Tyne, Manchester, Sheffield, Nottingham, Cardiff.

(i) ARCHITECTURAL ASSISTANTS, Grade II(a), £340×£20—£430; ARCHITECTURAL ASSISTANTS, Grade II(b), £250×£18—£340.

(ii) QUANTITY SURVEYORS (London only), £650×£25—£900.

(iii) ASSISTANT QUANTITY SURVEYORS, £400×£25—£650.

(iv) TECHNICAL ASSISTANT, Grade I, £350×£18—£500; TECHNICAL ASSISTANTS, Grade II, £175×£18—£350.

Plus war bonus consolidated addition of £78 and £105 p.a.

In category (i) preference will be given to applicants who are Student Members of the R.I.B.A.

In category (ii) preference will be given to applicants who are members of the R.I.C.S., experienced in the preparation of Bills of Quantities and approximate estimates, and who have had considerable experience in a professional Quantity Surveyor's office.

In category (iii) preference will be given to applicants who are Professional Associates of the R.I.C.S., able to prepare Bills of Quantities, approximate estimates and final accounts, and to write specifications and reports.

In category (iv) preference will be given to applicants who are experienced "workers up" and/or able to prepare estimates of small works and take measurements on site.

Staff Pension Scheme after one year's satisfactory service.

Applications on forms obtainable from Miners' Welfare Commission, Ashley Court, Ashtead, Surrey (telephone Ashtead 3262). 504

PONTYPRIDD URBAN DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

The above Council invite applications for the appointment of an Architectural Assistant, at a salary of £490 per annum, rising by one increment of £20 to a maximum of £510 per annum, plus the appropriate cost-of-living bonus, at present £59 16s.

Candidates must be Associates of the Royal Institute of British Architects, or hold equivalent professional qualifications, and must not be over 45 years of age.

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

The person appointed will be required to devote the whole of his time to the service of the Council, and the appointment will be subject to one month's notice on either side.

Particulars of the mode of application are obtainable from Mr. W. Cecil Evans (the Council's Architect), Municipal Buildings, Pontypridd, and should be obtained by intending candidates.

Applicants must state in their applications whether they are related to any member or holder of any senior office under the Council.

Applications in form required accompanied by copies of not more than three testimonials, must be received by the undersigned not later than Saturday, 12th day of October, 1946.

H. L. PORCHER,
Clerk of the Council.

Municipal Buildings, Pontypridd. 520

COUNTY BOROUGH OF BIRKENHEAD.

APPOINTMENT OF SENIOR TOWN PLANNING ASSISTANT.

Applications are invited for the above appointment, at a salary of £420, rising to £465, per annum, plus bonus, at present £59 16s. per annum.

Applications will be accepted from members of H.M. Forces.

The appointment is subject to one month's notice on either side, and to the successful candidate passing a medical examination. The person appointed will be required to contribute the appropriate proportion of his salary in accordance with the Local Government Superannuation Act, 1937.

Applicants must have had considerable experience in the preparation and administration of Town Planning Schemes, and should be Associate Members of the Town Planning Institute. Preference will be given to those who also hold a professional Civil Engineering qualification.

Applications in accordance with particulars obtained from B. Robinson, M.Inst. M. & Cy.E., Borough Engineer and Surveyor, Town Hall, Birkenhead, must be submitted to me in a plain envelope endorsed "Senior Town Planning Assistant," but not bearing any other name or mark to indicate the sender, not later than Monday, 21st October, 1946.

E. W. TAME,
Town Clerk.

Town Hall, Birkenhead.
September, 1946. 547

CITY OF MANCHESTER.

CITY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF SENIOR HEATING, VENTILATING AND MECHANICAL ENGINEER.

Applications are invited for the appointment of Senior Heating, Ventilating and Mechanical Engineer, on the permanent staff of the City Architect's Department, basic salary £505 by £30 to £535, plus cost-of-living bonus, at present £60 per annum. The salary may be reviewed in the event of the Corporation adopting National Salary Scales.

The successful candidate will be required to pass a medical examination before the appointment is confirmed, to contribute to the Corporation's Superannuation Fund, and to execute the Corporation's Deed of Service.

Candidates should preferably be Members or Associate Members of the Institution of Heating and Ventilating Engineers, or of the Institute of Mechanical engineers, be capable draughtsmen, fully experienced in the design and supervision of modern heating, hot water and ventilation systems of all types for local authority buildings of every description. Candidates should also possess a sound knowledge of all mechanical equipment connected therewith.

Applications must be made on the appropriate form, which can be had at my office, and must be returned (together with copies of not more than three recent testimonials) to me—not to any member of the Council—on Saturday, 26th October, 1946, endorsed "Senior Heating, Ventilating and Mechanical Engineer."

Canvassing in any form, oral or written, direct or indirect, is prohibited, and will be regarded as a disqualification.

PHILIP B. DINGLE,
Town Clerk.

Town Hall, Manchester.
September, 1946. 548

NORTHERN IRELAND HOUSING TRUST.

APPOINTMENT OF ARCHITECTS.

Applications are invited for the following posts from Fellows or Associates of the Royal Institute of British Architects having a good knowledge of housing.

(*a*) Salary scale, £640×£25—£890.
(*b*) Salary scale, £428×£20—£628

In each case the entry point on the salary scale will be fixed according to the experience and qualifications of the successful applicant.

The Northern Ireland Housing Trust is a Statutory Body set up by Parliament, and has an immediate building programme of several thousand houses.

The Chief Technical Officer of the Trust is E. A. Ferriby, Esq., B.Arch., A.R.I.B.A., A.M.T.P.I. The appointments will be full time, and a successful candidate will be required to carry out such work in connection with the design, construction, and supervision of housing schemes from the layout stage to the completion of the houses as may be assigned to him.

Candidates should apply by letter to the address given below, stating the date and place of birth, qualifications and experience, the date when able to commence duties, and for which post they are applying, and giving the names of two referees. Applications will be received up to 17th October, 1946.

GENERAL MANAGER,
Northern Ireland Housing Trust,
5, Donegall Square South, Belfast. 563

EAST SUFFOLK COUNTY COUNCIL.

APPOINTMENT OF SENIOR PLANNING ASSISTANT.

Applications are invited from persons of either sex for the appointment of Senior Planning Assistant, in the County Planning Officer's Department.

The salary will be within the A.P. and T. Division, Grade II, of the National Joint Council's Scale, *viz.*, £360×£15—£405 per annum, plus bonus, with scale allowance for use of a motor cycle.

Candidates should have had previous experience in the preparation and administration of Planning Schemes and Interim Development procedure, and a sound knowledge of the relevant Acts and Orders, and must possess a recognized qualification in Town Planning.

Canvassing will be a disqualification.

Applications, endorsed "Senior Planning Assistant," stating age, experience, present position and qualifications, and accompanied by copies of three recent testimonials, to be delivered to the undersigned not later than the first post Saturday morning, the 19th October, 1946.

CECIL OAKES,
Clerk of the County Council.

County Hall, Ipswich. 536

COUNTY BOROUGH OF CANTERBURY.

CITY ARCHITECT'S DEPARTMENT.

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

(1) ARCHITECTURAL ASSISTANT (Temporary), Grade III. Salary of £390×£15—£435 per annum.

Applicants must be A.R.I.B.A., and should have had experience on educational buildings.

(2) ARCHITECTURAL ASSISTANT (Temporary), Grade I. Salary of £330×£15—£375 per annum.

Preference will be given to applicants who are A.R.I.B.A., and have some experience of housing work.

Cost-of-living bonus, at present £59 16s. per annum, is payable.

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

Applications, stating age, qualification and experience, together with the names of three persons to whom reference may be made, should be forwarded to the City Architect, Mr. L. Hugh Wilson, A.R.I.B.A., A.M.T.P.I., Municipal Buildings, Dane John, Canterbury, not later than Monday, 14th October, 1946.

J. BOYLE,
Town Clerk.

Municipal Buildings, Canterbury.
24th September, 1946. 538

FIFE COUNTY COUNCIL.

PROPERTY AND WORKS DEPARTMENT, KIRKCALDY.

ARCHITECTURAL ASSISTANT required for above Department. Salary £300 by £20 to £400, plus war increase, at present £78 to £90 per annum, with placing according to experience. Applicants must be under 45 years of age, preferably with previous experience of Local Authority Schemes, such as Schools, Hospitals, etc. Medical examination under superannuation scheme. Applications, with copies of testimonials, to be lodged with the undersigned not later than 15th October, 1946.

J. M. MITCHELL,
County Clerk.

County Buildings, Cupar-Fife.
20th September, 1946. 521

CITY OF PORTSMOUTH.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments, in the Department of the City Architect:—

(*a*) ASSISTANT ARCHITECTS (£450-£510).
(*b*) ASSISTANT ARCHITECTS (£390-£435).
(*c*) ASSISTANT ARCHITECTS (£330-£375).
(*d*) JUNIOR ASSISTANT ARCHITECTS (£255-£315).
(*e*) ASSISTANT QUANTITY SURVEYORS (£450-£510).
(*f*) JUNIOR ASSISTANT QUANTITY SURVEYORS (£255-£315).

Applicants for (*a*) and (*b*) should be Members of the Royal Institute of British Architects.

Applicants for (*c*) and (*d*) should have passed the Intermediate Examination of the Royal Institute of British Architects.

Applicants for (*e*) should be Professional Associates of the Chartered Surveyors' Institution, having qualified in the Quantities Sub-Division, and should have had experience in taking-off in a Quantity Surveyor's Office.

Applicants for (*f*) should be Registered Students of the Chartered Surveyor's Institution, and preferably should have passed the First Professional Examination, and have had experience in working-up in a Quantity Surveyor's Office.

The appointments will, in every case, be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Salaries are supplemented at the present time by cost-of-living bonus of £59 16s. per annum. Appointments will be terminable by one month's notice on either side.

Applications, stating name, age, qualifications, together with copies of three testimonials, must be delivered to the undersigned not later than 10 a.m. on Friday, 18th October, 1946.

Canvassing will be a disqualification.

V. BLANCHARD,
Town Clerk.

City Council Chambers, 1, Clarence Parade, Southsea. 517

EASINGTON RURAL DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

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

(*a*) FIRST ENGINEERING ASSISTANT. Grade III, A.P. and T. Division. Salary, £390-£435 per annum.

(*b*) FIRST ARCHITECTURAL ASSISTANT Grade III, A.P. and T. Division. Salary, £390-£435 per annum.

Plus cost-of-living bonus in both cases, at present £59 16s. (male).

Applicants for:—

(*a*) must have served articles as a Professional Engineer, and have had considerable experience in the office of a Municipal Engineer and Surveyor on works of sewerage, housing, road and sewer layouts, large scale surveys and Building Byelaws;

(*b*) must have served articles as an Architect or Architectural Assistant, and preferably had experience in the office of a Municipal Engineer or Architect on the design and layout of large housing schemes.

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

Applications, stating age, details of qualifications and experience, on a form obtainable from the undersigned, together with copies of two recent testimonials, are to be delivered to the undersigned not later than 12th October, 1946, in a sealed envelope, endorsed respectively "Engineering Assistant" or "Architectural Assistant."

Canvassing, directly or indirectly, will disqualify.

J. W. GRAY,
Clerk of the Council.

Council Offices, Easington, Co. Durham.
21st September, 1946. 529

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH.

Applications are invited for vacancies at the Department's Building Research Station, Garston, near Watford, Herts, for SIX ASSISTANT ARCHITECTS (Grade I) and EIGHT ASSISTANT ARCHITECTS (Grade II), with professional architectural qualifications, practical experience, and preferably some training in elementary science, required for the following general group of work: (*a*) For study of the functional requirements of buildings, and in particular lighting (daylighting and artificial), sound transmission and acoustics, and heating and ventilation, in relation to architectural design and construction. (*b*) For general liaison work with the building industry, inspection of and reporting on building practice and problems in different parts of the country, and assistance with technical enquiries. After a period of training the officers may also be required to assist in the running of training courses and lectures. (*c*) For work on the design of buildings to be constructed as part of the programme of the Station and for architectural design research. This latter work will probably give opportunity for specialised study of individual building types, *e.g.*, schools, hospitals, etc. (*d*) For work on the preparation of Codes of Practice.

ONE ARCHITECTURAL ASSISTANT. To assist in studies of the functional requirements of buildings, *e.g.*, acoustics. Candidates should have a good architectural qualification, and preferably some office experience.

These appointments will be on a temporary basis, but some permanent posts will become available at a later date.

Salary (for men): Assistant Architects, Grade I, in the range £575-£825 per annum, plus consolidation addition (at present £90 per annum at minimum and £98 at maximum of range); Assistant Architects, Grade II, £340-£600 per annum, plus consolidation addition (at present £78 per annum at minimum and £90 per annum at maximum of range), and Architectural Assistants £210-£420 per annum, plus consolidation addition (at present £78 per annum).

In the case of women lower rates will apply.

Write, quoting E.A.368/9/70, to Ministry of Labour and National Service, Technical and Scientific Register, Room 572, York House, Kingsway, London, W.C.2, for application form, which must be returned completed by 11th November, 1946. 543

Amended Advertisement.

COUNTY BOROUGH OF SWANSEA.

APPOINTMENT OF BOROUGH ARCHITECT.

Applications are invited for the post of Borough Architect. The salary is £1,400 per annum. A cost-of-living bonus will be payable (the present rate is £59 16s. a year), and a car allowance will also be made.

Applicants must be Registered Architects and Fellows or Associates of the Royal Institute of British Architects, and possess wide and thorough experience in the service of a Local Authority.

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

The appointment may be terminated by three months' notice by either party.

Terms and conditions of the appointment and forms of application may be obtained from the undersigned.

Applications, accompanied by copies of three recent testimonials, must be delivered to the undersigned not later than Friday, the 8th November, 1946.

Canvassing, directly or indirectly, will disqualify.

T. B. BOWEN,
Town Clerk.

The Guildhall, Swansea.
23rd September, 1946. 544

METROPOLITAN BOROUGH OF PADDINGTON.

ARCHITECTURAL ASSISTANTS (TEMPORARY OFFICIAL STAFF).

Applications are invited for the appointment of Assistants in the Architectural Section of the Borough Engineer and Surveyor's Department, at a remuneration of from £7 7s. to £8 8s. per week, according to qualifications and experience, plus a cost-of-living bonus (at present 23s. per week for men and 18s. 6d. per week for women).

Applicants should have had experience in general building design and construction, and must be neat and expeditious draughtsmen. Preference will be given to candidates who have passed, or are studying for, the final examination of the R.I.B.A.

Applications, stating age, qualifications, experience, the names of three persons to whom reference can be made, and endorsed "Architectural Assistant," must reach the undersigned not later than 24th October, 1946.

W. H. BENTLEY,
Town Clerk.

Town Hall, Paddington, W.2.
2nd October, 1946. 519

COUNTY BOROUGH OF BURY.

Applications are invited for positions at salaries (pending the regrading of the Administrative, Professional and Technical Services under the adopted National Joint Council Salary Scales), according to the scales of the Lancashire and Cheshire Provincial Council.

ARCHITECTURAL ASSISTANT, Grade "B." £285×£15—£315.

ARCHITECTURAL ASSISTANT, Grade "A." £230×£15—£275.

QUANTITY SURVEYOR, Grade "B." £285×£15—£315.

Plus cost-of-living bonus, at present £59 16s.

Applications, stating details of training, qualifications and experience, together with two references, must be forwarded to the Borough Engineer, Bank Street, Bury, not later than Saturday, the 5th October, 1946.

EDWARD S. SMITH,
Town Clerk.

Municipal Offices, Bank Street, Bury.
September, 1946. 559

COUNTY BOROUGH OF CROYDON.

ARCHITECTURAL ASSISTANTS—BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited from qualified persons for the permanent appointments of Two General Architectural Assistants, at a salary scale in accordance with Grade V (A.P.T. Division), *i.e.*, £480×£15 (2)×£20 (1)—£530, plus war bonus (at present £59 16s. per annum).

The commencing salary will be fixed according to age and experience, and the appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the satisfactory passing of a medical examination.

Applicants must have had a good general knowledge of Housing Architectural work undertaken by a local authority, including preparation of schemes for conversion and adaptation of large properties for housing accommodation.

Form of application may be obtained from the Borough Engineer, Town Hall, Croydon, and should be returned to me not later than the 18th October, 1946.

Canvassing will disqualify.

E. TABERNER,
Town Clerk.

Town Hall, Croydon.
25th September, 1946. 552

Architectural Appointments Vacant

Four lines or under, 5s.; each additional line, 1s. 6d.

Wherever possible prospective employers are urged to give in their advertisements full information about the duty and responsibilities involved, the location of the office, and the salary offered. The inclusion of the Advertiser's name in lieu of a box number is welcomed.

JUNIOR DRAUGHTSMEN required in Manchester Office; should be good draughtsmen, with sound knowledge of general construction, and competent in the preparation of sketch plans and working drawings under supervision; salary £250 per annum (plus war bonus of £73); successful candidates will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating educational qualifications, experience, and age, with copies only of testimonials, to Box 926.

ASSISTANT QUANTITY SURVEYOR required in Manchester Office; should be experienced in preparing Bills of Quantities, measuring work, and adjusting variations on Contracts and estimating; salary up to £400 per annum, according to qualifications (plus war bonus of £73), with good prospects of promotion. Also a JUNIOR QUANTITY SURVEYOR, able to take-off sub-trades, salary £250 per annum (plus war bonus of £73); successful candidates will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating age, qualifications, and experience, with copies only of testimonials, to Box 927.

ASSISTANT ARCHITECTS required in Manchester Office; should be experienced in commercial and industrial work, good draughtsmen, with sound knowledge of general construction; salary up to £400 per annum, according to qualifications (plus war bonus of £73); good prospects of promotion for competent assistants; successful candidates will be required to pass a medical examination for entry into compulsory Superannuation Scheme. Applications, stating educational qualifications, experience and age, with copies only of testimonials, to Box 940.

JUNIOR (16-17 years) urgently required in private practice engaged on housing and industrial work; good experience and prospects; previous experience an advantage, but not essential. Clark, L.R.I.B.A., 44, Gt. Russell Street, W.C.1. Museum 4400. 570

KEEN JUNIOR ASSISTANT wanted for working drawings, details, surveys, etc.; commercial work; £4 upwards, according to ability. Watson & Johnson, Victoria Square, Birmingham. 985

TECHNICAL ASSISTANT required for Architects' Journal Library of Information Sheets; applications are invited for appointment of Technical Assistant; applicants must be first-class draughtsmen, possess a sound knowledge of building practice, and be interested in the preparation of technical data; salary £300 to £500 per annum, according to qualifications and experience; applications may be made by members of H.M. Forces expecting early demobilisation. The Technical Editor, The Architectural Press, Ltd., 45, The Avenue, Cheam, Surrey. 108

ARCHITECTURAL ASSISTANTS required by the C.W.S. Architects' dept., London; salary £320-£450 p.a., according to qualifications, plus war bonus, at present £74 p.a.; superannuation scheme. Apply Chief Architect, C.W.S., Ltd., 99, Leman Street, London, E.1. 992

TWO JUNIOR ARCHITECTURAL ASSISTANTS required for progressive positions in the Architects' Department of a large chain store organisation; age preferred 19-25. Please write in confidence to Staff Manager, "R" Department, British Home Stores, Ltd., Abbey House, Baker Street, London, N.W.1. 993

EXPERIENCED ARCHITECTURAL DRAUGHTSMAN required; must have thorough knowledge of building construction and be capable of preparing detailed working drawings and specifications from sketch designs for large commercial and industrial buildings; knowledge of estimating and preparing of bills of quantities an advantage. Write, stating age, qualifications, and full details of experience; salary according to experience. Box 503.

ARCHITECTURAL ASSISTANT required, with all-round office experience. Write, stating age, qualifications and salary required, to Harold S. Hall, F.R.I.B.A., 26, South St. Mary's Gate, Grimsby. 505

ARCHITECTURAL ASSISTANT required; must be at least Student R.I.B.A., with general office experience. Apply by letter, giving full information, to Kenchington & Farms, 130, Crawford Street, W.1. 514

SENIOR and JUNIOR ASSISTANTS required immediately for Housing, Conversions and Town Planning. Reply to Atherton & Brenchley, 36, Paddington Street, Baker Street, W.1. Welbeck 6354. 516

ARCHITECTURAL ASSISTANT required immediately in busy office in county town; experience in work to licensed premises and housing desirable. State full particulars, training, and salary required, to Box 525.

MANCHESTER.—SENIOR ARCHITECTURAL ASSISTANTS required immediately; salary £500-£600, according to qualifications and experience. Also SENIOR ASSISTANT QUANTITY SURVEYOR; £450-£500. Ernest A. Newton, Leach & Booker, Chartered Architects, 28, Kennedy Street, Manchester. 524

VALUATION SURVEYOR'S JUNIOR ASSISTANT required for inspection and purchase of property; London area; previous knowledge of property desirable, but not essential; would suit young, intelligent, energetic ex-Forces man. Write Box 528.

JUNIOR ASSISTANT (R.I.B.A. inter standard) required by Architects' Dept. of large Commercial Firm in London; good draughtsman absolutely essential. Write Box 533.

YOUNG DRAUGHTSMAN or WOMAN required by manufacturers of Electric Light Fittings and Architectural Metalwork; the applicant must be interested in above-mentioned work; good knowledge of working drawings, gifted freehand drawing; good prospects for gifted and industrious person. Telephone Museum 9597 for appointment. 540

ASSISTANT DESIGNER (either sex) required for work on new building systems, by a London Company producing prefabricated buildings; engineering training an advantage; salary from £400 per annum, according to qualifications and experience. Apply, giving full particulars, to the Personnel Manager, Uni-Seco, Ltd., 25, Upper Brook Street, W.1. 541

ARCHITECT'S ASSISTANT required for London Office; must be keen, energetic, with firstclass experience in Industrial Buildings and War Damage work; permanent and progressive post, with excellent opportunities; salary £400-£500 p.a. Apply Mackintosh & Partners, 35, Tavistock Square, W.C.1. Tel.: Euston 2084 545

ARCHITECT, with busy practice, requires first-class Architectural Draughtsman; applicant must have had a good experience in general alteration works, and be a quick draughtsman; good prospects for keen fast worker. Write in first instance, stating salary required and when available, to Wilfrid L. Micklewright, A.I.A.A., 18, Queens Road, Brighton. 549

DRAUGHTSMAN as Assistant to Architectural Dept.; experienced in building construction and control of building operatives. Apply Austin Motor Co., Ltd., Birmingham. 550

ARCHITECTURAL ASSISTANT required immediately by Builders and Contractors engaged on Housing and Factory work; applicant must be keen, energetic, and able to prepare working drawings, surveys, road layouts, etc.; good progressive position to right man; salary up to £450 p.a. L. F. Halton, L.R.I.B.A., Company Architect, B. O'Sullivan, Lt., Cray Avenue, St. Mary Cray, Kent. Telephone: Orp. 3737. 551

ARCHITECT requires Junior Shorthand-Typist, with knowledge of general office routine; 9.30—6, Saturdays 12.30, with alternate Saturdays free; congenial working conditions, and excellent prospects for right candidate; knowledge of figures an advantage, but not essential; salary according to qualification. H. V. Lobb, 20, Gower Street, W.C.1. Museum 8575. 556

QUALIFIED ASSISTANT required; knowledge of Quantities preferable; for commercial and industrial schemes. State experience and give references to Gelder & Kitchen, 120, Alfred Gelder Street, Hull. 557

ARCHITECT'S ASSISTANT, a good and quick draughtsman and detailer, with knowledge of specifications and building surveys, required in Plymouth Office. Write, stating age, full details of experience, and salary. Box 558.

Architectural Appointments Wanted

Advertisements from Architectural Assistants and Students seeking positions in Architects' offices will be printed in "The Architects' Journal" free of charge until further notice.

STUDENT, R.I.B.A., age 22, seeks position with Architects in London; 5 years' office experience, mainly housing, including field and property surveys, and schedules of dilapidation. Apply Box 111.

EXPERIENCED ESTIMATOR requires position, in or nearest County of Durham; young, energetic; qualified A.M.I.E.T, L.I.O.B.; used to working on own initiative. Reply, stating salary offered, Box 115.

JUNIOR ARCHITECTURAL ASSISTANT (22, ex-R.A.F. pilot) desires position in Architect's Office, within reasonable distance of Aldershot; 3½ years' office experience; good draughtsman, with knowledge of drawing office routine; surveying, levelling, sketching, and preparation of working drawings. Box 119.

ARCHITECT'S JUNIOR ASSISTANT requires situation; moderate salary for further experience. Apply, Miss S. E. Shibley, 3, Crescent Road, Reigate, Surrey. 120

ASSISTANT (Inter R.I.B.A.), aged 26, desires change to progressive London office; experienced cinemas, office buildings, churches, housing, and conversions; salary required £450 Box 121.

A. R.I.B.A., demobbed Capt. R.E. (Works Services), aged 37, seeks post, preferably North of England or Edinburgh; 19 years' all-round experience, including schools, industrial and commercial work; minimum salary £550 p.a. Box 122.

STUDENT, young lady, school certificate, and one year in school of architecture, seeks position in an Architect's Office, in Birmingham district, for further training. Box 123.

ARCHITECTURAL ASSISTANT, experienced in domestic, factory and public building architecture, just released from commissioned service in the Forces, is willing to undertake spare-time assistance in preparation of designs or surveys in the Essex or Suffolk areas; drawings coloured, copied, or traced. Box 125.

ARTIST, accustomed to Architectural subjects in water colour; spare time might suit. Box 124.

Other Appointments Wanted

Four lines or under, 2s. 6d.; each additional line, 1s.

MECHANICAL ENGINEER / DESIGNER; wide industrial experience; offers part-time assistance to Architect, in London area, engaged on prefabrication or industrial design. Box 508.

PERSPECTIVES executed in any medium. Box 991.

PERSPECTIVES, Pencil, and other medium executed well and quickly. Box 999.

QUANTITY SURVEYOR desires spare-time commissions for the preparation of detailed Bills of Quantities, Estimates, etc., from plans and specifications; co-operative basis with architects welcomed. Box 513.

ASSISTANCE offered in spare time on site surveys, tracing, draughtsmanship, working-up drawings, design, etc; 20 years' experience. Box 542.

AN accurately detailed scale model of your scheme will greatly assist and please your clients; moderate fees; enquiry in confidence and without obligation. Box 554.

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ONE Drawing Board. 6 ft. by 3 ft., and one 6-ft. T-Square, £15; one Holbro "Advance" Drawing Table, 40 in. by 32 in., £20. Box 535.

LIMITED No. of Copies 1st Report of the "Committee for the Industrial and Scientific Provision of Housing (Social, Commercial and Technical Requirements of Quantity Production)," 5s.; 2nd Report "Some Technical History and Considerations," 10s. N. Fielker, 609, Nelson House, Dolphin Square, S.W.1. 537

EXTENSIVE Waterside Factory or Warehouse Premises for sale; London area; buildings of 1-4 storeys; floor area about 237,000 sq. ft., and large area of land, in all 7½ acres, including large open wharf. Apply sole agents, Leopold Farmer & Sons, Factory Specialists, 46, Gresham Street, E.C. 546

Miscellaneous

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DUPLICATING.—Specifications, etc., expertly duplicated or typewritten; good service; moderate fees; recommended. Miss Stone, 109, Jermyn Street, S.W.1. Whitehall 9682. 955

WANTED.—Complete set of "Typography." Box 487.

WANTED.—"Architectural Reviews," any copies for years 1938, 1939, 1940, 1941; will pay high price for copies in good condition. Box 989.

WANTED.—March, 1946, number of "Architectural Review." Write, stating price, to Edwards, 10a, Rawlinson Road, Oxford. 117

OFFICE ACCOMMODATION required by Architect; two or three rooms, about 600 ft. super; Victoria preferred, but would consider any district in London. Box 515.

TYPING.—Copying Specifications, Letters, Bills, etc., speedily and accurately carried out; moderate terms. Mrs. P. Gold, 41, Victoria Avenue, Surbiton. 512

WANTED.—Plan Chests; double elephant and/or antiquarian; good condition; wood or steel. Box 527.

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R.I.B.A. and T.P. INST. EXAMS. Private Courses of Tuition by correspondence arranged by Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I. Tuter, 212, Euston Road, N.W.1. Tel.: EUS. 7760.

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