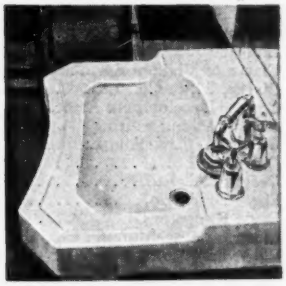
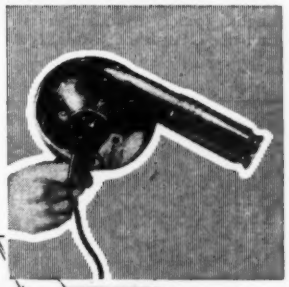
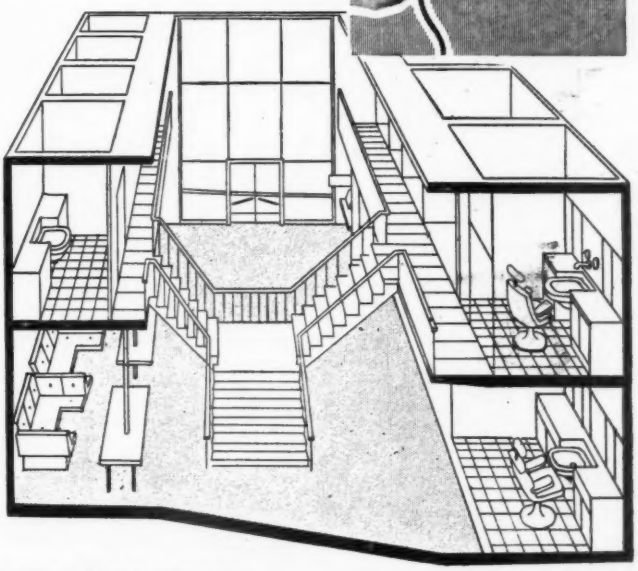
Customer flow in the Twentieth-century Barber Shop

The problem of customer flow is more complicated in this department than in the rest of a store: in order to halt this flow for appreciable periods, and then once more to release it, special plans have to be made. Comfort and privacy must be assured, any feeling of hurry eliminated; and the whole department planned for smooth running. None of these considerations worried the early nineteenth-century barber.





A suggestion for an efficient barber shop department, giving all the essential needs in a minimum of space combined with an orderly and smoothly working plan.



WHAT THE BARBER WANTS Some degree of privacy for clients. Easily accessible storage for his implements. Up-to-date fittings. Concentrated and first-rate lighting. Convenient storage for customers hats and coats. Well-planned traffic lanes IN and OUT of department. Facilities for sales display. Easily operated cash-desk system. Easily accessible and *visible* waiting-room.

WHAT MODERN METHODS CAN OFFER A working plan which provides comfort for both customer and client. An efficient layout. A feeling of restfulness for the client allied to swift working facilities. Smooth materials, which retain a permanently hygienic condition with the minimum of upkeep. Lighting which is restful to the eyes but provides the maximum degree of light necessary for good work. Air conditioning to maintain a comfortable and even temperature.

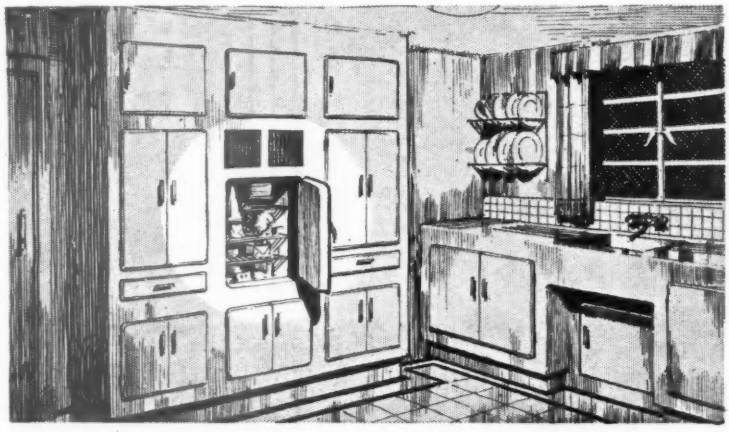
Alphabetical Index to Advertisers

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

What about their Home?

IN the interests of a healthier post-war Britain, we should see to it that their home is equipped with a refrigerator of ample size.

"Prestcold" designers consider 4½ cubic feet capacity, which holds sufficient perishable food for a family of four, to be the minimum practical size. Further, that it should be fitted at waist height to avoid backaches from frequent stooping. They have worked out plans for an ideal all-purpose refrigerator for moderate-sized post-war homes. It is designed for mass-production and, owing to war-gained experience in making the most economical use of vital materials, can be sold at a surprisingly low price. Note the following 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 refrigerator door, allowing access to interior without stooping.

Height adaptable by varying position of supporting frames.

Refrigerator 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.

PRESTCOLD *Refrigeration*

A PRODUCT OF THE PRESSED STEEL COMPANY LIMITED

. . . . . our technical staff can be released from vital war problems to be at the service of the Engineering and Building Industries—to play their part in the reconstruction of Britain.

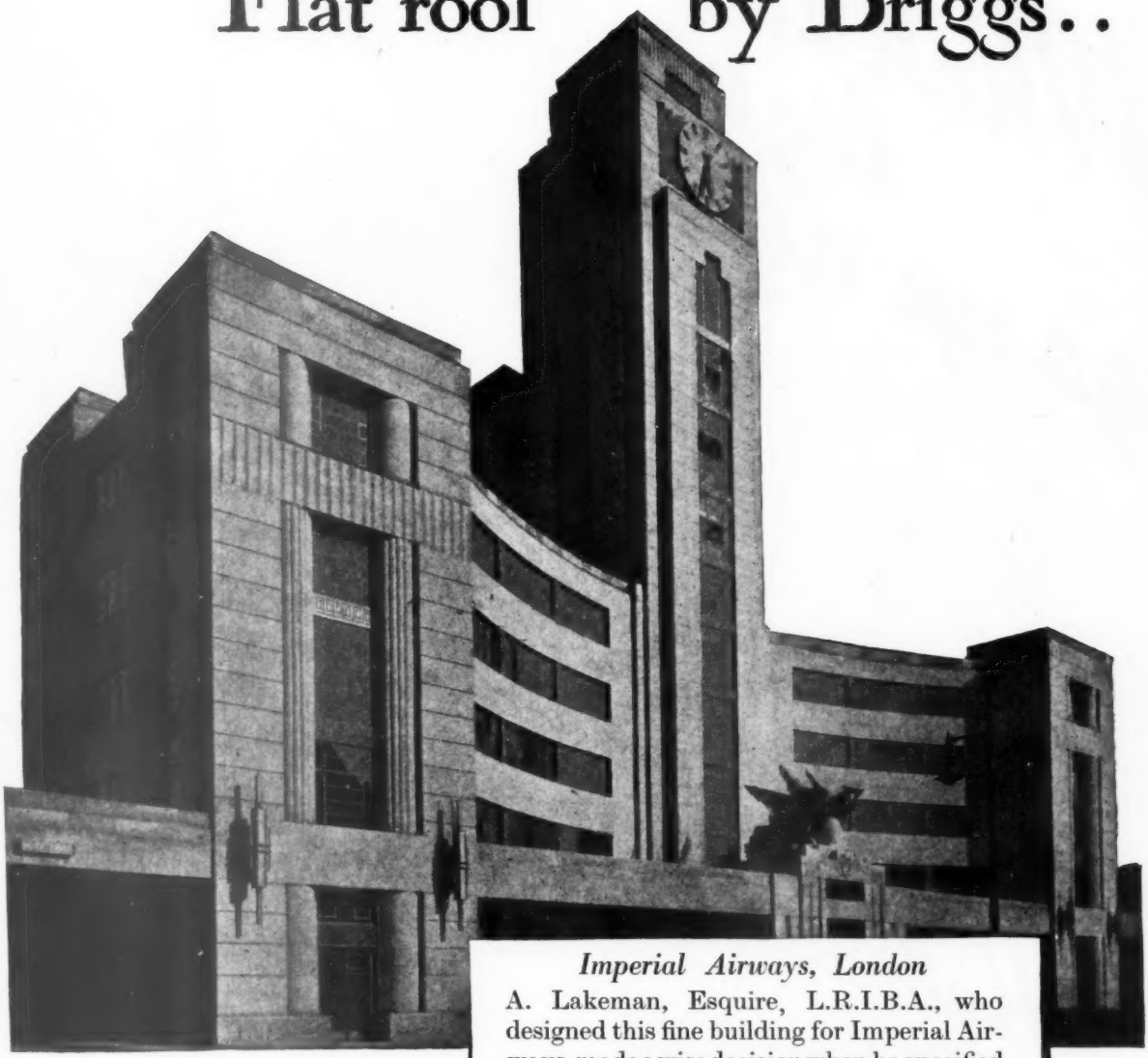
Meanwhile all our efforts in every department must and are being directed in helping to bring Victory nearer.

AIRWORK
GENERAL TRADING CO LTD

NATIONAL WORKS — BATH ROAD — HOUNSLOW — MIDDLESEX

TELEPHONE: HOUNSLOW 5451

Flat roof by Briggs..



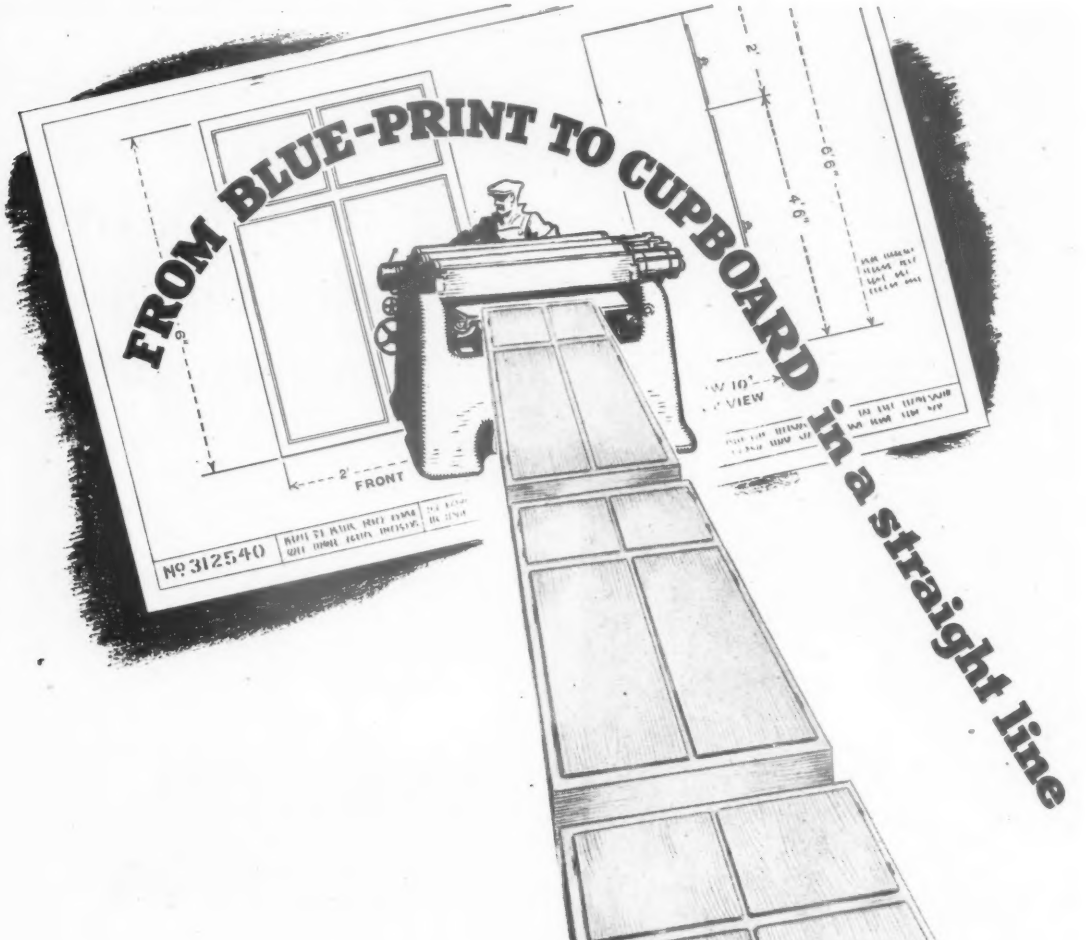
Imperial Airways, London

A. Lakeman, Esquire, L.R.I.B.A., who designed this fine building for Imperial Airways, made a wise decision when he specified a FLAT ROOF BY BRIGGS. Messrs. E. A. Roome & Co., Ltd., were the contractors.

THIS imposing terminus of Imperial Airways is yet another important pre-war building with a "CHALLENGE" Flat Roof by Briggs. Our trained engineers co-operated throughout in the construction of that roof. They will co-operate just as closely when rebuilding starts once more, using to advantage their war-time experience and research in the reconstruction of the peace.

William Briggs & Sons Ltd., DUNDEE

LONDON: VAUXHALL GROVE, S.W.8 : ALSO AT GLASGOW, EDINBURGH, LIVERPOOL, BRISTOL, ABERDEEN, NORWICH



The trend to provide fitted cupboards either as complete units or as facings to recessed walls, offers no problems to Magnets straight line production. Timber comes to the machines for processing; the members to the jigs for assembly; the finished cupboards to store for despatch—all in a steady stream.

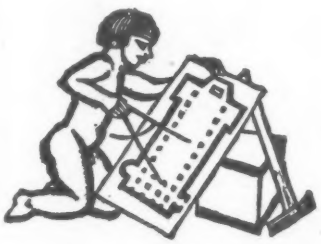
MAGNET JOINERY

WHITLEY STREET, BINGLEY, YORKS

WEST THURROCK, GRAYS, ESSEX • ANNE ROAD, SMETHWICK, BIRMINGHAM

Stoneham and Kirk

In common with every other periodical this JOURNAL *is rationed to a small part of its peacetime needs of paper. For this reason it is virtually impossible for Newsagents to accept new orders for the* JOURNAL *for the time being, and the Publishers are also now unable to enter new subscriptions. Intending subscribers should, however, send in their names either to their Newsagent or direct to the Publishers to be recorded on the "waiting list" when they would be advised as soon as a vacancy occurs. The annual post free subscription rate is £1 15s. 0d.. Single copies, 9d., postage 2d. Special numbers, price 1s. 6d. are included in the annual subscription. 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 extra. Goods advertised in the* JOURNAL, *and made of raw materials now in short supply, are not necessarily available for export.*



DIARY FOR JUNE JULY AND AUGUST

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

BRIGHOUSE. *Rebuilding Britain Exhibition.* At the Gas Showrooms. Guide lecturer, Miss Ivor Jones. (Sponsor, BIAE).
JUNE 24 to JULY 8

CHELMSFORD. *The English Town: Its Continuity and Development.* Exhibition, and *When We Build Again.* Film. (Sponsor, TCPA.) SEPT. 1-9

GRANTHAM. *The English Town: Its Continuity and Development.* Exhibition. At the Guildhall, Grantham. (Sponsor TCPA.) JULY 12-26

KETTERING. *The Englishman Builds Exhibition.* At the Museum and Art Gallery. Guide lecturer, Miss M. McLeish. (Sponsor, BIAE). JUNE 24 to JULY 8

LONDON. *RA Exhibition.* Weekdays 9.30 a.m. to 7 p.m. Sundays 2 to 6 p.m. Admission: One Shilling. JUNE 22-AUG. 7

National Buildings Record Exhibition. At the National Gallery. Photographs of buildings of architectural interest throughout the country taken during the past three years for record purposes. Most parts of England, from Northumberland to Cornwall, are represented and the subjects range from the Central Tower of Durham Cathedral to Georgian wallpaper in a house at Falmouth. (Sponsor, National Buildings Record.) 10 a.m. to 12.30 p.m., 2.15 p.m. to 6 p.m.
JUNE 22-JULY 15

Open Meeting of artists, designers and architects practising industrial design. In the Henry Jarvis Room at the RIBA, 66, Portland Place, W.1. The meeting is convened by the Society of Industrial Artists to discuss the future professional organisation of industrial and commercial designers. The Society will submit a policy and programme which includes plans for reforming its own constitution by creating under one central authority two semi-autonomous groups respectively serving the interests of industrial designers and artists working for marketing and publishing. 2.30 p.m. JUNE 24

RIBA Council Election Results. To be announced at general meeting at 66, Portland Place, W.1. Followed by informal meeting at which Sir Malcolm Trustram Eve, Chairman of the War Damage Commission, will talk on *The War Damage Act and Architects.* (Sponsor, RIBA). 6 p.m. JUNE 27

R. A. Duncan, Assistant Director (Architecture and Building). British Coal Utilization Research Association. *Solid Fuel and the Modern House.* At 13, Suffolk Street, S.W.1. (Sponsor, HC.) 1.15 p.m. JUNE 27

The Design and Industries Association. Mr. Harcourt Johnstone, Secretary to the Department of Overseas Trade, will be the chief guest of honour at a luncheon at the Waldorf Hotel, W.2, on June 28, at 1 p.m., preceding the first annual general meeting of the newly Incorporated DIA. Mr. Harcourt Johnstone will speak on *Design for the Export Trade.* The general meeting will follow the luncheon at 2.45 p.m. JUNE 28

Ernö Goldfinger. *Housing, Towns and Roads.* At 13, Suffolk Street, S.W.1. (Sponsor, HC.) Lunch 12.45, Talk 1.15 p.m. The lunch will introduce the touring exhibition *Traffic,* which Ernö Goldfinger and Ursula Blackwell have made for the Army Bureau of Current Affairs. JULY 4

Miss Judith Ledeboer. *Post-War Housing.* At 2, Savoy Hill, Strand, W.C.2. (Sponsor, TCPA). 1.15 p.m. JULY 6

Federation of Master Builders. Luncheon meeting preceding Fourteenth Quarterly Meeting. At the Connaught Rooms, Great Queen, Street, W.C.2. Guest of Honour, Lord Portal, Minister of Works. 12.45 for 1 p.m.
JULY 27

NEW MALDEN, SURREY. *The English Town: Its Continuity and Development.* Exhibition. At the Public Library. (Sponsor, TCPA.) AUG. 19-26

PEMBREY. *When We Build Again.* Exhibition and Film. (Sponsor, TCPA in collaboration with Messrs. Cadbury Bros.)
AUG. 5-15

READING *When We Build Again Exhibition.* At the Museum and Art Gallery. Models and screens show diagrams of replanned city areas, factories, shopping centres, schools and nursery schools, parks, hospitals, houses and kitchens. Other screens illustrate how congested cities may be replanned with fewer people to the acre to allow for more open spaces and gardens—the surplus population going to new and existing towns, and not to further suburbs. Two full size kitchen models by the Gas and Electricity Industries are displayed. The film *When We Build Again* (running time 20 minutes) will be shown daily at 11.0 a.m. and 2.30 p.m. (Sponsor, TCPA, in collaboration with Cadbury Bros.) JUNE 22-24

TAUNTON. *The Englishman Builds Exhibition.* At the School of Art. Guide lecturer, G. Mayer-Marton. (Sponsor, BIAE).
JUNE 22 to JULY 1

NEWS

THURSDAY, JUNE 22, 1944
No. 2578. VOL. 99

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

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

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

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

The appeal of Dr. Barnardo's concerning THE BOYS' HOME IN THE NEW FOREST has been allowed by Mr. W. S. Morrison.

Mr. W. S. Morrison, Minister of Town and Country Planning, has given his decision in the appeal of Dr. Barnardo's Homes National Incorporated Association against the refusal of the New Forest Rural District Council to permit the use of the residential building, "Annesley," Bank, near Lyndhurst, as a Boys' Home. The Minister proposes to allow the appeal subject to the condition that the total occupation of the premises should at no time exceed 50 persons, including children and staff. Annesley is a large house with outbuildings and about seven acres of land. Formerly a private residence, it was recently purchased by Dr. Barnardo's Homes for use as a branch residential home for about 40 of their children. A local inquiry was held at Lyndhurst on April 14 last by Mr. G. T. Pound, an Inspector of the Ministry.

The Minister of Works has appointed MR. HUBERT M. FAIRWEATHER, F.R.I.B.A., to be Chairman of the Codes of Practice Committee for Civil Engineering, Public Works Building and Constructional Work, in succession to the late Sir Clement Hindley.

from AN ARCHITECT'S *Commonplace Book*

VICTORIAN ROMANTICISM OF THE CARIBBEAN. [*From* West Indian Summer, *by James Pope-Hennessy* (*Batsford*)]. Cashel had grown very fond of his cottage, and of the gulley, Nutmeg Ravine, in the Botanic Garden. They both exemplified the Victorian romanticism which had come to seem the main appeal of the Caribbean. . . . The A.D.C.'s cottage was a complicated building of tarred wood. It was of the chalet-type, with fretwork gables, more doors than windows, and a miniature verandah on two sides. . . In the long walled gardens of another Government House grew cannon-ball trees and calabash trees, cabbage palms, and cluster upon cluster of bamboo. . . . This garden seemed to him a lithograph of the 'sixties brought to life. The house, on the other hand, conformed closely to Cashel's previous illusions about the West Indian colonies. It is a well-proportioned eighteenth century building, low and white, with windows curved against the buffeting insistence of the warm, perpetual Barbados gale, a big cruciform drawing-room, a portico, clattering jalousies, and chandeliers in which each separate candle-flame is protected by a vase of glass. It seems severed from its garden by at least one hundred and fifty years. As he gazed upon this garden Cashel realised how the Victorian interest in the odd and the excessive found its ideal object in tropical foliage. He understood the vogue of the conservatory and of the glass-house. It was easy to picture English visitors of the 'fifties strolling entranced about this very garden. . .

Mr. Ronald Bradbury, of Manchester, has been APPOINTED HOUSING DIRECTOR OF GLASGOW at a salary of £1,500 rising to £2,000 per annum.

The final section of THE KING'S BIRTHDAY HONOURS includes the following awards: *O.B.E.* (*Civil Division*): F. M. Lea, D.SC., Assistant Director of Building Research, Department of Scientific and Industrial Research: R. A. H. Livett, A.R.I.B.A., Chief Billeting Officer and Housing Director, Leeds; W. A. Rutter, Assistant Director of Works, Ministry of Works. Other Birthday Honours conferred by the King, issued a day or two previously, were Knight Bachelor: Professor C. H. Reilly; O.M.: Sir Giles Gilbert Scott; and C.B.: G. L. Pepler (see page 441 of our last issue). Four of the recipients of Birthday Honours have close connections with the Leeds School of Architecture, Leeds College of Art, namely, Professor C. H. Reilly, until recently External Examiner; Sir Giles Gilbert Scott, Visitor to the School since 1935; Mr. G. L. Pepler, External Examiner in Town Planning and Housing; and Mr. R. A. H. Livett, Special Lecturer in Housing in the Department of Town and Country Planning and Housing of the School. Leeds is believed to be the only school to set up a lectureship especially devoted to Housing.

Glasgow Corporation has completed an experimental block of four houses at Penilee which represents a new approach to the problem of MASS PRODUCTION OF PERMANENT HOUSES, different from all experiments so far made in this country. Briefly, the walls are of large factory-made units in foamed slag concrete, jointed on the site and rendered in such a way that it is impossible to distinguish the completed house from a rendered traditional brick building. The units are up to a size of 10 ft. by 8 ft. 8 ins. and are assembled by cranes. The design is a definite departure from traditional building methods and with external walls of only 6 ins. thickness (i.e., 1/17 of the clear floor heights) is contrary to existing bye-laws. The floor and roof are in pre-cast reinforced concrete and an in situ foamed slag concrete screed laid to fall forms the thermal insulation of the roof. The block now completed is being tested by the Building Research Station for strength, thermal insulation, sound insulation, etc. A full report on details of construction will be published later. Horizontal joints between wall units are avoided by extending them over the full floor height, corner joints by use of L- and T-shaped units in plan. Glasgow Corporation intends to erect a factory in which such large units can be mass produced after the war. This method of building has been developed by Mr. J. H. Ferrie, L.R.I.B.A., Chief Housing Architect, Glasgow Corporation, in collaboration with Mr. W. Kerr, L.R.I.B.A., his deputy.

The Recognition by the RIBA of THE PORTSMOUTH SCHOOL of Architecture of the Southern College of Art marks a further development of the regional planning of architectural educational services. Some years before the present war the Board of Education issued a circular requesting education authorities in the country to consult together on a regional basis in order to achieve a more systematic co-ordination of art education. One of the results was the establishment of a Federal College organization for the region including Hampshire, the Isle of Wight and part of Dorset with a Council representative of six local education authorities. Under the scheme the Portsmouth Centre of the College has the status of the Faculty for Architecture. In the development of architectural education in the area the Hants and Isle of Wight Architectural Association has given strong support and representatives serve on the Advisory Sub-Committee. Since the outbreak of war the Portsmouth Centre has evacuated to Winchester, where it is working in joint association with the Southampton Centre and the Winchester School of Art. The School of Architecture has four drawing studios, a lecture room and a reference library, all well equipped and in addition has the use of laboratories in the Science School of Winchester College. The Recognition of the School for Intermediate Exemption has been granted by the Council of the RIBA for a Three-Year Course (full-time day course) leading to a Certificate in Architecture awarded by the Council of the Southern College of Art. The Head of the School, who is also responsible for the co-ordination of all architectural education in the Region, is Mr. A. C. Townsend, F.R.I.B.A., DIPL. ARCH. (L'pool).

Mr. F. Longstreth Thompson, P.P.T.P.I., has been APPOINTED COUNTY PLANNING ADVISER to the ESSEX County Council. Mr. Longstreth Thompson has acted as Town Planning Consultant to a large number of local authorities and joint committees in this country including three of the principal Joint Planning Committees in Essex. He has for many years been Town Planning Adviser to the Witwatersrand and Pretoria Town Planning Committee in South Africa. Since the war he has advised the Government of the Union of South Africa on a large planning scheme at Cape Town and is now engaged upon an Outline Plan for Merseyside for the Minister of Town and Country Planning. It is anticipated that Mr. Longstreth Thompson will take up his duties as County Planning Adviser for Essex on July 1.

The Dean and Chapter have invited Sir Charles Peers, F.R.I.B.A., to act as consultant in regard to the future treatment of the north churchyard of WINCHESTER CATHEDRAL and their properties adjoining it. Improvement of the north and north-east sides of the cathedral has been under consideration for some time, and some steps to this end were taken before the war.

The accident to SIR IAN MACALISTER which occurred on March 2nd, proved to be more serious than was at first supposed, but after a second operation he is making satisfactory progress.

TVA versus MOW

This week's leading article criticizes the basic principles of MOW's Emergency Steel House and suggests that the Trailer House built by the Tennessee Valley Authority as temporary accommodation for war workers has some lessons to teach us. The two houses are compared above. The TVA house has the advantages of great mobility, the need for a minimum of site work, light construction, flexibility and a more honestly temporary character—advantages lacking in the MOW prototype. It is built in three-dimensional units, 22 ft. long by 7½ ft. wide, which are hauled from the factory to the site on trailers complete with all fittings behind an ordinary car or light truck. These sections, or slices, weighing about 3 tons each, are then simply jacked onto masonry piers, bolted together, and the house is ready for occupation. Three slices form a one-bedroom house (with living-dining room, kitchen, bathroom and storage), four slices a two-bedroom, and five slices a three-bedroom house. See also page 466.

Four schemes for the REBUILDING OF SHEFFIELD were submitted to Mr. J. H. Manzoni, the city engineer of Birmingham, for adjudication.
Three of the schemes are by officials of the Sheffield Corporation, and the other is by local architects. One of the schemes has been selected by Mr. Manzoni as the basic plan, and he recommends its adoption with features from the other plans. Mr. Manzoni has outlined his proposals to members of the City Council. These proposals, according to *The Times*, include a city circle similar to a large central roundabout about 500 yards in diameter, involving new roads and the widening of other roads, providing convenient routes across the centre from any radial, and ensuring that through traffic does not meet an opposing stream at right angles. Other recommendations include a square enclosing about four acres of gardens and flanked by the City Hall, the Town Hall, Municipal Buildings, Law Courts, and other important buildings. This, he said, would be an achievement of which any great city might be proud, and, more important, it was possible to carry it out in a reasonable time and without too much disturbance. To the east of the square Mr. Manzoni suggested a revision of the plan for the proposed technical college on approximately the same site, which would give another square and improve the general appearance of the surroundings as well as the line of the city circle. A viaduct at the Wicker and approaches was not only practicable in dealing with heavy traffic to the north, but could be constructed while retaining the existing roads in use. Theatres and cinemas should be grouped to have a large car park in the immediate vicinity, and the proposed sports stadium should not be built within the city circle but outside.

Croydon Housing Committee recommends the purchase of an additional HOUSING SITE FOR 240 HOUSES.
Croydon housing committee recommends the council to seek a Compulsory Purchase Order to acquire the site, an unnamed one. This is in addition to the council's recent application to acquire nearly 40 acres of Beckenham golf course, on which the decision of the Minister of Health is awaited. The committee recommends that estimates totalling £42,564 for preparatory work on the golf course site be submitted to the Ministry for approval to enable work to begin at once.

Three schemes for the replanning of LEICESTER SQUARE GARDEN have been submitted to the Westminster City Council Works and Traffic Committee by the RA Planning Committee.
The three schemes prepared for the Royal Academy Committee by Mr. W. Curtis Green, R.A., Mr. Edward Maufe, A.R.A., and Mr. P. D. Hepworth, will be considered further by the committee when the city engineer has reported on them. Meantime they recommend that the Royal Academy be informed that their co-operation with the council in its efforts to improve the amenities of the London squares is greatly appreciated, and that the council will go fully into the matter in the hope that it may be able to make good use of one, or a combination of more than one, of the designs.

RECONSIDER THE PALACE

ENOUGH time has passed in which to have been able to reconsider with care, both in general and in detail, the prototype of the Ministry of Works factory-made house, colloquially known as the Churchill House or Portal's Palace. This proposed advance on the housing front by the Government is an important one. It demands very serious thought, not only because several hundred thousand of these houses may be made to shelter a large part of the population, not only because they may become a familiar part of our landscape for a good many years to come, but also because here is a large-scale experiment on the part of a department of the British Government in a new method of house building with enormous implications and potentialities. It is vital, therefore, that this first step should be made on the right foot. The criticisms of the Churchill house recorded in the Press and elsewhere are rather ones of planning detail than of constructional technique or of principle, and the main suggestions made by the public have already been incorporated in a revised model. Yet the house as it now stands is, in some ways, less satisfactory than the original. Many remaining criticisms of detail could be made, but it is on questions of principle that we would now concentrate.

The fundamental idea of the temporary demountable house is perfectly sound, but there is a danger that if this initial step is not carried out with intelligence and imagination the public may refuse to accept the idea itself, together with its essential concomitant of mass-production, and a big jump in building evolution will be frustrated from the start.

We believe that several serious errors of a general kind have been made. For instance, to repeat a former criticism, it has been wrong to concentrate on a type house rather than on a flexible system. Such a system would make possible a variety of plans, and the later addition of units or rooms when a family is increased in size. It would also prevent a dull uniformity. A major advantage of standardized mass-production lies precisely in the power of flexibility, of combining in a variety of ways a limited number of basic units. This is an advantage both practical and æsthetic, for only by limiting the number of building elements can mass production become economical, and variety *with* coherence supersede architectural chaos in the environment—a truth we should have learned from the domestic building of the eighteenth and early nineteenth centuries.

Another criticism of principle is that MOW has fallen between two stools in designing a house which is neither sufficiently temporary in character from one point of view, nor sufficiently permanent from another. The house should be frankly a temporary factory-made job.

This week's frontispiece illustrates another temporary factory-made dwelling, the Trailer House built by the TVA, from which MOW might take several lessons. The house does

not pretend to be anything but temporary, nor does it attempt to ape the traditional dwelling, yet it has a character of its own, which is the result of a straightforward and objective approach to the problem. It is small, yet through careful planning and equipping it is not cramped. It is, moreover, of light construction, it is highly mobile, and it is flexible. This raises a third criticism—that the design of the house has been too much conditioned by traditional ideas of permanent building, as though a motor-car manufacturer had designed a horseless carriage. One doubts whether adequate use has been made of the relevant technical engineering knowledge available. The house should be considered in the same spirit as a modern bomber, which is a very complicated piece of compact planning of light yet strong construction, technologically right up to the minute. The result is as near functional perfection as possible, and is, incidentally, usually beautiful as well. Compared with that of a bomber the production of a small factory-made house is, technically speaking, child's play. Yet the results to date in this type of house, including the Churchill prototype, have been, to say the least, unadventurous.

There is surely time to reconsider the whole question of these temporary houses before the country is committed to production. That a trial start has been made is good. Now we want a more imaginative approach to this great experiment.

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

NOTES & TOPICS

SOCIAL SURVEY

A lecturer who tries to compete for public attention with an invasion has a difficult task, but those who, at the RIBA on the evening of D-day, listened to Mr. Denis Chapman were rewarded with a most interesting (and disquieting) address. His subject—the work of the War-time Social Survey, of which he is the director—was absorbing, and it was clear that Mr. Chapman was fully aware of the limitations as well as of the possibilities of this comparatively new science.

★

The necessity of a survey of needs before a policy is established cannot of course be over-emphasized for its value has constantly been proved. (Mr. Chapman's own work for the Scottish Housing Committee and the BRS are outstanding examples), but surveys have their dangers. The most serious of these, as Mr. Chapman warned us, is that if they are unscientifically planned and carried out they are worse than useless. They can do actual positive harm. But if surveys are to be preludes to action and not merely collections of information, there are other snags to remember.

★

First, the snag of bulk. The amount of information is so fantastically huge, often so constantly changing, that it is unwieldy. Someone is needed — a technical committee perhaps—to reduce it to manageable proportions for those who are to make use of it.

Second, the snag of interpretation. Somebody, a social psychologist presumably, must try to disentangle those difficult answers described by a speaker in the discussion as " the things people *think* they want, *say* they want, *ought* to want, and *really* want."

★

Third, the snag of proportion. This is a danger so many specialists fail to avoid of going on so far in enthusiastic research that aims are forgotten in the delights of the chase, and their efforts become faintly ridiculous. When this happens it is lethal. If social surveying is to carry on its useful work and not stimulate a thoughtless reaction in the public it *must* keep both feet on the ground. Mr. Chapman, for instance, showed a slide of what looked like two crocodiles battling in a bathing tent, and was in fact a full size 3 dimensional model of a man undressing. It was designed presumably as a sort of template for deciding upon the suitable size of a dressing-room. An interesting toy no doubt, but so obviously a laboratory product and perilously near being just funny.

★

Fourth, the snag of the human mind. Whole aspects of life are outside the scope of planning, and therefore of the surveys which are prepared exclusively for planning aims. You cannot, as Mr. Herbert Read has pointed out, plan the moods of the human mind, for they are irrational and wayward. This is tiresome of course for the tidy-minded. Dr. Glover has called the mind an anachronism, but any plan or preceding survey which tries for its elimination will be a certain failure.

SIR CHARLES REILLY

In the Game of Draughts that is played continuously on the chequer-board of public affairs, the architects have scored another Knight—the seventy-year-old but ever-young Professor Reilly. This means that from being a Single Piece, able to move only in one direction, he becomes a Double Piece, more agile and more powerful ; and that counts for a good deal in the battle

for the Architectural Idea, to which Reilly has devoted nearly half a century of his full and active life. It adds a special pleasure to that felt by his countless friends and students at the sight of his name in the recent Honours List, to know that his knighthood cannot possibly add a grain of starch to his character nor a shade more discretion to his behaviour. Discretion was never the better part of this knight's valour, and it would be altogether out of keeping to see this particular armour now added to his accoutrements. In fact, he would probably despise it. I remember his comment on a distinguished colleague : " So-and-So is a very good fellow—of course, he's an old student—but in the last few years he has grown so disappointingly *careful*."

★

Application, audacity and attack—these are the qualities, rather than any skill in defensive tactics, which have kept him in the public eye ever since he was appointed to the Roscoe Chair of Architecture in the University of Liverpool thirty-five years ago. Sorties on the Faculty of Arts, strategy in the Senate, recruiting drives for young architects that eventually became imperial in their scope, lightning raids on the RIBA in London on the occasion of competitions and scholarships, campaigns on behalf of his students among employers, including a special invasion of New York, and a ceaseless bombardment of the public with every weapon that academic and press publicity could put into his hands—all these different forms of attack were brilliantly employed. As the leader of an architectural commando Professor Reilly grew very skilled in the disposition of his troops. It is remarkable how many of them are to be found in theatres as distant as Rome, Alexandria, Bombay, Baghdad, Capetown, Malta, the West Indies, West Africa, Columbia, Ottawa, Sydney and Chungking, as well as at home in local government offices, ministries, service departments, and private practice.

Sir Charles Reilly, sketched by Mrs. W. G. Holford.

★

Recently he invaded the planning field, as a protagonist of the socio-architectural idea in housing. Almost immediately the Birkenhead front became front page news. Defeated by a narrow margin in the Council Chamber, over his preliminary proposal for the Woodchurch Housing Estate, he nevertheless won a considerable popular victory outside. And all over the country people began to take the first step in architectural education by finding out what the row was all about.

★

All through his career the Professor has had that rare capacity for arousing enthusiasm and interest in architecture. This alone would have made him great as a teacher ; but to it is added a strong sympathy for two philosophies of architecture which, somehow, he knows how to make compatible—the eighteenth century, and the modern. Occasionally this leads to friction, as in the circumstances which led to his resignation from the Georgian Group. But generally he personifies them both ; in himself, in his pictures, in his lovely cellar-mansion at Twickenham. It is nice to think that although he will be *Sir Charles* to all the world, he will still be *Prof* to so many of us.

SAYINGS OF A CYNIC

A Co-ordinator is a man who brings organised chaos out of regimented confusion. *A Statistician* is a man who draws a mathematically precise line from an unwarranted assumption to a foregone conclusion.

ASTRAGAL

LETTERS

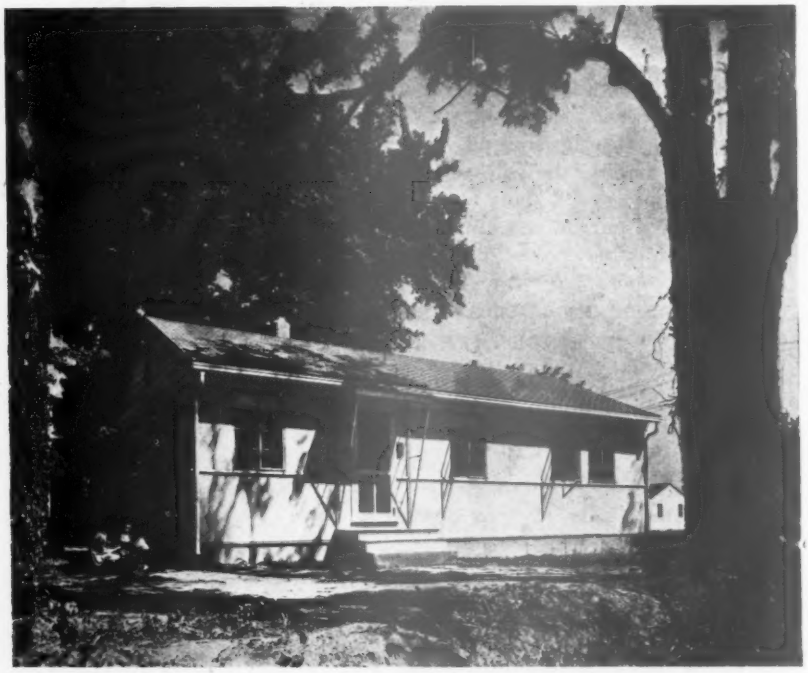
E. Kelly
Philip H. Cundall, A.R.I.B.A.
John C. Tickle
G. V. Downer
Eustace H. Button, R.W.A., F.R.I.B.A.
George C. Oldham, L.R.I.B.A
John Leech, F.R.I.B.A.
M. Mactaggart

The Churchill House

SIR,—The Prime Minister has stated that the Temporary Housing Programme is to be handled as a Military Operation. From this it might be claimed that the same financial profligacy, which characterises the production of armaments in war time, is permissible.

Taxpayers will protest against this facile argument. The erection of half a million of these sub-standard houses will involve the taxpayer in a commitment amounting to 275 million pounds, plus land and drainage costs. The fact that these houses are designed for a useful life not exceeding ten years renders the investment financially unsound. Speculative builders would confirm that it is impossible to recover capital outlay in so short a period, having in mind the incidence of rates and of heavy upkeep costs. Either the rents charged must be extortionate in relation to the amenity offered, or the taxpayer must " carry the baby."

Is this crazy finance a necessary attribute of Emergency Housing ? Certainly not. It derives solely from the constructional theme and the material which MOW have chosen for their approach. The problems associated with emergency housing are not new to the world. They have been studied and successfully solved in the States since 1940, and it is amazing that the MOW designers have taken no cognisance of this or of the systems evolved by many British firms who have been working on the problem for some years.



The Churchill House (top), and the TVA Mobile House referred to in Mr. E. Kelly's letter.

In our national scheme for housing, which must follow immediately upon the Armistice with Germany, it is not merely the provision of shelter which should be considered. Not less important is the question of how that shelter can be provided in the places required, and at the moments when the everchanging concentration of population demands it. We foresee a considerable period during which our population will be highly mobile. Masses of workers will move from district to district, following the variable industrial demand during the period of reconstruction. This in itself demands a type of dwelling far more mobile than that displayed at the Tate Gallery, for we cannot escape, in the post-war period, that movement of population which the Americans have had to provide for under their Defence Programme.

The American solutions for factory-finished mobile houses have received less adequate publication than their excellent qualities deserve. Such photographs as have been published in England are of types already out of date in the States. The illustration above, of a 1943 TVA mobile house, shows that they have moved far beyond the hutted camp mentality. Architecturally, and in the matter of technical quality, these houses set a higher standard in all respects than does the Tate Gallery prototype. Their cost is less, their planned accommodation is better and, thanks to the advantage of demountability, their useful life is no less than that of contemporary normal construction. On some such basis as this our emergency building programme could be made to satisfy the full requirements and would become a financial asset in the national sense.

The Tate Gallery house, in contrast, is static in its architectural expression and static also in its constructional theme. In the opinion of many engineers who have examined it, the claim that it could be moved to another site, or exported abroad, is insupportable. The problems of jointing and inter-joint corrosion are inadequately solved and are in fact insoluble so long as the 18-gauge steel panel construction is adhered to. The internal lining panels will be subject to corrosion by heavy condensation, particularly in the kitchen and bathroom where open-jointed steel panels form the lining material to walls and ceilings.

While frequent applications of paint externally and internally may retain a reasonable standard of appearance over the ten-year period, corrosion of the structure itself will render it unsafe to move after a much shorter time. In this matter of corrosion resistance, the structure compares unfavourably with the Weir and Atholl houses of twenty-five years ago.

I have referred to the Portal house as being "sub-standard." It is interesting to compare the standards recommended by the Burt Committee, and by the MOH, with those adopted by the MOW in their own design. Some of the comparative figures are set forth below, together with certain of the recommendations of the Ministry of Health in the matter of minimum room dimensions :—

BURT COMMITTEE RECOMMENDATIONS.	PORTAL HOUSE.
1. *Thermal Insulation.*	
For external walls of living room :	
"U" not to exceed .. 0.20	0.25 to 0.33
For ground floor 0.15	0.60
For roof with ceiling .. 0.30	0.33

The figures quoted for the Portal house are those applicable to the Alfoil insulation in its fully bright condition. The efficiency is known to fall below these values after the initial reflectivity has been lost by surface corrosion and dust collection.

2. *Internal Sound Insulation.*	
Between living-room and bedrooms 45 decibels reduction.	No figures have been released for the Portal House, but expert examination of the light steel cupboards forming all the partitions shows that, as acoustic barriers they are valueless and instead, are serious sources of impact noise.
Between other rooms excepting service-rooms. 35 decibels reduction.	

MINIMUM STANDARDS, MINISTRY OF HEALTH, 1935.	
Living-room—	
180 sq. ft. (1440 c. ft.)	142 sq. ft. (994 c. ft.)*
1st Bedroom—	
150-160 sq. ft. (1280 c. ft.)	125 sq. ft. (875 c. ft.)
2nd Bedroom—	
120-130 sq. ft. (960-1040 c. ft.)	125 sq. ft. (875 c. ft.)
Ceiling height .. .. 8 ft.	7 ft.

* 50 per cent. sub-standard.

In his preface to the Burt Report, Lord Portal states that "its contents are authoritative and cannot but be of great value to all concerned with preparation for building after the war." In the light of this it is difficult to understand why the recommendations have been so completely disregarded by his Department.

London. E. KELLY.

SIR,—Congratulations to Mr. Brian O'Rorke for his more realistic approach to the discussions on the Ministry of Works Emergency House. His ingenious re-planning of the accommodation required within the four walls of the metal box, is a clear-cut advance on the MOW plan, and his rooms, tending more to the square in shape, would probably be better, both in appearance and from the furnishing angle.

The keyword to this infant phenomenon is, on account of its agreed short-term of life, *mobility*—mobility that is, in contrast to the permanent structure built from the ground up, and surely its accredited place in building classification, is with that of the larger caravan, a caravan which has come to rest after its progress off the conveyor belt.

It seems curious, therefore, that the engineers, after successfully eliminating the building tradesman, should retain (possibly as an anchorage) the old-fashioned brick chimney to provide a flue for the living-room stove boiler. One assumes that this flue has been tried-out by the MOW experts, at its present height from the ridge it would seem to be of questionable efficiency.

Mr. O'Rorke, by the way, skilfully avoids this "nigger in the wood-pile" by showing no signs of it in the charming elevational sketches which accompany his plan.

The general opinion appears to be that the present exterior of the MOW article is hideous, it lacks modelling and light and shade and is reminiscent of the army hut.

May I suggest that vivacity—another aspect of mobility—might be induced by raising the Brian O'Rorke model on sites above damp-course level; the cost of excavating for foundations thereby saved, might be spent in throwing a stoep or verandah across the front to give colour and liveliness to the street frontages in the American fashion.

Also in place of the heavy brick chimney, an 8 in. cast-asbestos flue pipe would surely be more in the logical line of development of this factory-made dwelling house.

Reading. PHILIP H. CUNDALL.

SIR,—After inspecting MOW's factory-made house, I suggest the following alterations :

1. Four r.w.p.'s can hardly be necessary. Why not omit two and save cost of pipes and drainage ?

2. In cottage work I have always found one large window both looks better and is cheaper than two small ones. Tenants also prefer one window (saves curtains). With mass production it may be possible to make windows into a shallow oriel, as sketch. If so, I am sure it would be an improvement.

3. I consider most people would prefer to have the w.c. door *in* the bathroom rather than in the hall.

4. I doubt very much the utility of a folding table. If the kitchen is in use a table is always required, and when not in use it cannot matter whether it is up or down.

5. In practice, the door between living-room and kitchen will be open whilst the children are playing. The glazed screen, therefore, appears unnecessary.

6. The worst item is that the " cycles " will not take bicycles *on the flat*. I suggest utilizing savings on 4 and 5 in order to make " cycles " big enough to take two bicycles (without tipping) plus a few other sundry articles.

7 There is no fuel store.

8. I doubt very much the utility of the enamelled sink and drainers. I would like to see these after six months use.

Letchworth. JOHN C. TICKLE.

Teaching Architectural Appreciation in Schools

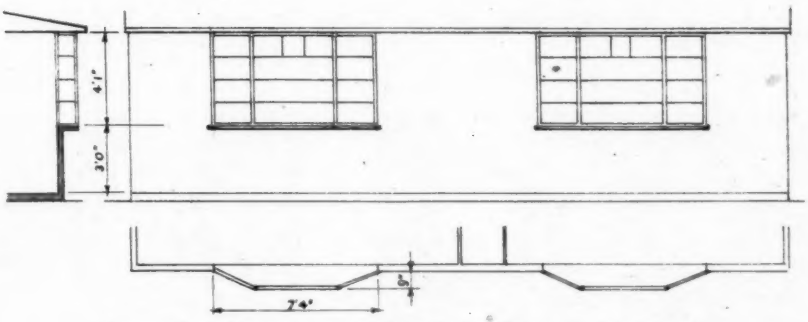
SIR,—I welcome Mr. Martin-Kaye's recognition of the importance of the impressionable earliest years of childhood, and I agree of course with Mr. Willcocks that " the child from the earliest period should be brought up in well-designed surroundings."

Mr. Martin-Kaye thinks this impossible or extremely improbable for a couple of generations, and so it will prove if we permit the continuance of the present insane economic system, under which money controls real wealth and we allow ourselves to be told by the Treasury that we " can't afford " this or that, even though all the necessary materials and labour are available to produce it. This only means that the Bank refuses to create enough book-entry credits for the desired purpose, but when we have learned, as you so clearly put it in your editorial, " to distinguish between money and real wealth," we shall refuse to accept any such artificial financial restriction, and shall insist that whatever is physically possible shall be made financially possible.

In peace time we suffered from gluts of almost everything, including man-power, and after the war there will be all the new materials and processes discovered in the last few years in addition to all the old ones, and there will be no excuse for failing to provide homes, schools and other surroundings of the best possible design, materials and workmanship for all children.

At the same time I heartily agree with Mr. Martin-Kaye as to the importance of educating our future educators. All teachers and especially those who are to teach the youngest children should be the most highly paid and/or the most highly honoured, so as to attract the best brains and characters available.

The most important part of a building is the foundation, and it is no use trying to build a beautiful or magnificent edifice on rotten foundations. Similarly the building up of character and personality requires the laying down of sure foundations in the earliest years.



Suggested window treatment for the Churchill House. By John C. Tickle.

The whole system of education also needs overhauling and adapting to the coming age of leisure when, having at last distinguished, as you express it, " between unemployment and unempayment," we have learned to welcome the former and abolish the latter. Education must then be designed, as the word implies, to draw forth and develop the potentialities of the individual, rather than to stuff into his brains a standardized collection of statistics.

London. G. V. DOWNER.

Vacancies for Architects

SIR,—Mr. G. B. J. Athoe in his letter displays a quite unnecessary inferiority complex about the status of his Association.

It is obvious that local authorities, when they advertise for professional employees, desire to obtain as candidates young men of good architectural education. The Royal Institute of British Architects, a long-established and experienced Institute, whose eminence has been recognised by Royal Charter, is the only body which has fostered and controlled architectural education in the Empire and has instituted qualifying examinations for architects. The standard of all qualifying examinations of the Recognised Architectural Schools is regulated by the RIBA through its Board of Architectural Education.

It is natural therefore that most candidates for these advertised posts will be men who have entered the profession by examinations, which qualify them for membership of the RIBA, and not men who have acquired their status as registered architects only through length of service.

EUSTACE H. BUTTON.

West Wycombe and Northampton Competitions

SIR,—Now that the West Wycombe and the Northampton Women's Institutes' Rural Housing Competition Exhibitions have closed their London doors, it is a grim reflection that only a fraction of all that prodigious labour, so cheaply purchased, will come to anything.

Many will remember that in 1926 the *Daily Mail* sponsored a housing competition for which there were over 1,300 entries. The fifty plans adjudged the best were published in a book sold to the public for a shilling or two. That book contained what amounted to the best solution the profession had to offer to the problem of the three- and the four-bedroomed house. How many of your readers have seen any of those plans built among the odd four million three- and four-bedroomed houses constructed since that date ? Personally I saw one—built by the architect for himself.

There have been many housing competitions since that great *Daily Mail* affair, just as there were housing competitions before it. Each competition threw up the best the profession had to offer. Yet these competitions appear to have influenced the general housing of this country not at all.

It is time surely that something was done to harness all this effort to some practical purpose.

Or are we to continue to give so much for so little, in the certain knowledge that our combined efforts are to be ignored in perpetuity, while the kind of stuff that has been disfiguring the country for the past quarter of a century is allowed to flourish ?

Poole. GEORGE C. OLDHAM.

SIR,—I made a special visit to town on May 30 to see the Northants competition drawings, and like Mr. Farquharson, I was told on arrival that the drawings had been prematurely removed by someone. In view of the enormous amount of time and thought spent by entrants in such Competitions, promoters and others concerned should realize that the least they can do is to offer an opportunity to entrants to see their colleagues' work. Such exhibitions can be most interesting and instructive alike both to competitors and non-competitors.

Harpenden. JOHN LEECH.

Hatch and Dining Table Fitment

SIR,—If, instead of a fixed cantilevered table and fixed cantilevered seating, your correspondent, Mr. H. R. Humphreys, had (*a*) invoked the aid of an ordinary table on four simple legs, and (*b*) had added four ordinary chairs, he would have lost nothing of importance to his idea. On the contrary, he would have gained in flexibility of floor space. He would also have made it possible for the occupants of the seats nearest to the wall to leave their seats without having to climb out backwards or else cause the occupants of the outer seats to permit departure. The idea of a fixed shelf in or under a hatch opening in a wall or partition has, of course, occurred to me, and is explicitly instanced in my provisional specification. The idea of letting what is virtually the back of a modern dresser fitment itself form the wall or partition containing the hatch has also occurred to me. That I did not illustrate it, but confined myself instead to the substance of what may be to a great extent a new idea, is because I thought such a contrivance already too obvious and commonplace to be in need of explicit portrayal.

I know that many diners may not like the idea of facing a wall. I, personally, whenever I enter a restaurant, always choose such a seat if one is available. One can easily find oneself up against worse things than walls. But the reason why I adhered to a table along the wall is not because of any tempermental peculiarity ; I found that a table along the wall (vide page 294 of the ARCHITECTS' JOURNAL for April 20, 1944) affords mechanical and operational advantages over a table that sticks out, and is generally easier to fit into a plan.

Berkhamsted. M. MACTAGGART.

TWO TYPES OF TEMPORARY HOUSES

1. MOW STEEL HOUSE

2. TVA TRAILER HOUSE

On page 460, the exteriors of the TVA Trailer House and the MOW (Churchill) Steel House are compared. Here are some comparative views of the interiors. The TVA system, as indicated in this week's leading article, tackles the problem of the temporary demountable house far more logically and objectively. It is a frankly temporary job, relatively unconditioned

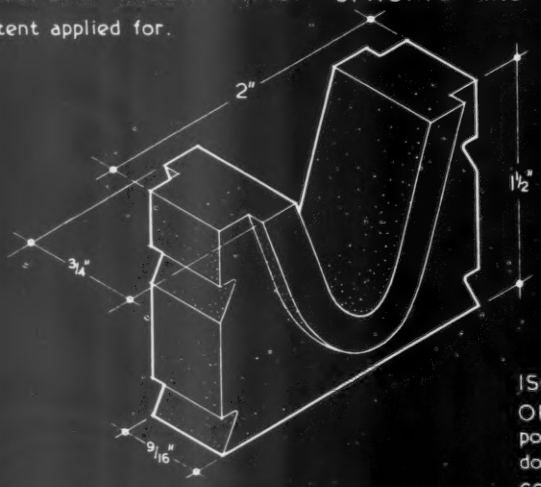
by traditional building preconceptions, and has the compact yet spacious character of the well-planned caravan or ship's cabin. Above and below, views of the living-room and kitchen-dining-room of the Churchill House. Right, views of the living-dining room of the TVA House; the central picture shows the kitchen in the background, which can be curtained off.

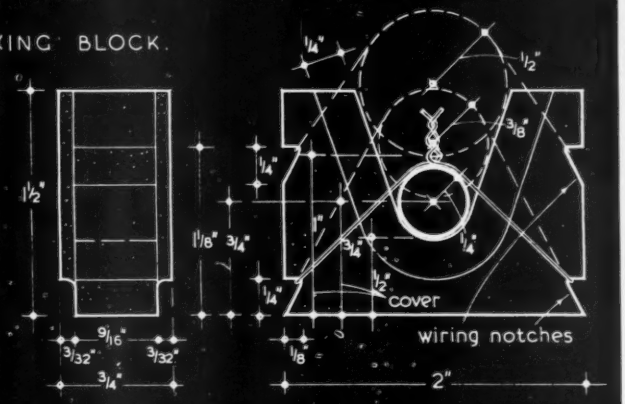
51

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

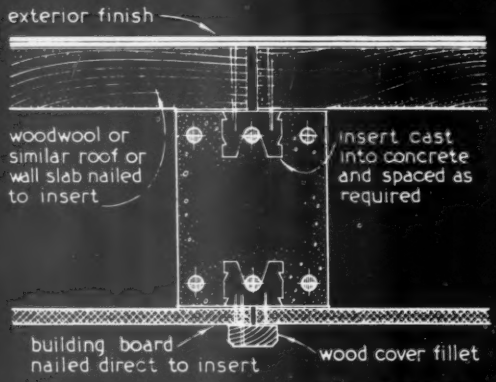
·PHILPLUG· INSERT Nº 101 – SPACING AND FIXING BLOCK.

Patent applied for.

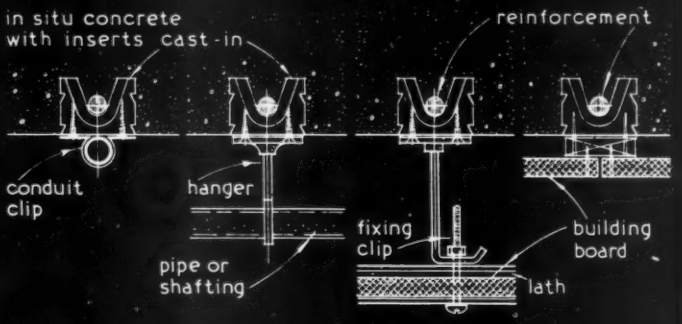




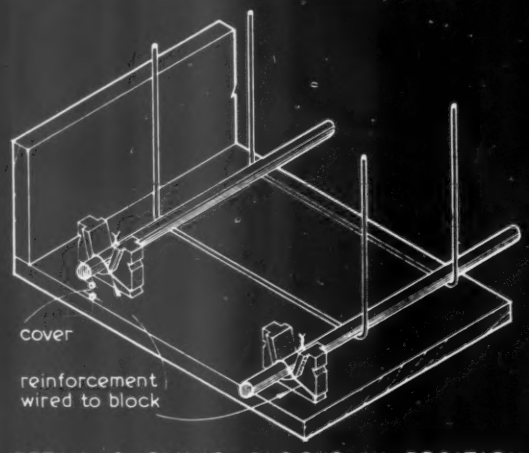
ISOMETRIC SKETCH, SIDE AND END ELEVATIONS OF FIXING AND SPACING BLOCK showing ½" rod in position, and relative positions of ¾" and 1" rods shown dotted – the slot ensures any size rod having adequate cover in accordance with the Code of Practice.



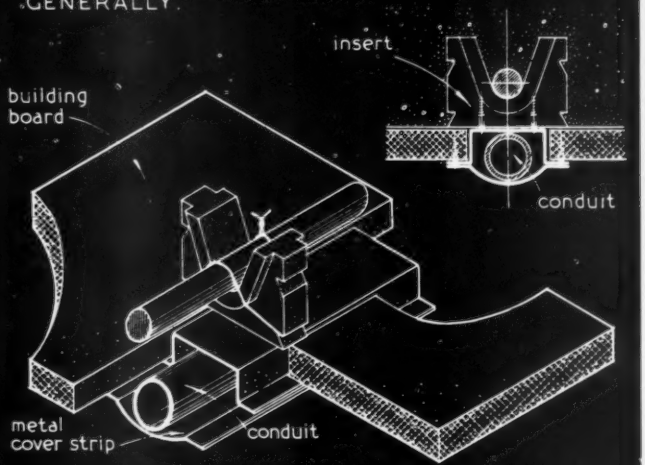
DETAILS SHOWING TYPICAL FIXING OF ROOF AND CEILING SLABS TO R.C. BEAM. (Also applicable to columns).



TYPICAL INSERT FIXINGS FOR CONDUIT, LININGS, AND HANGERS GENERALLY.



DETAIL SHOWING BLOCKS IN POSITION IN MOULD, FUNCTIONING AS SPACERS FOR REINFORCEMENT.



DETAIL SHOWING CONDUIT HOUSING AND COVER STRIP TO BUILDING BOARD LINING SECURED BY INSERT.

Issued by Philplug Products Ltd.

INFORMATION SHEET. FIXING BLOCK FOR USE WITH CONCRETE CONSTRUCTION.
Sir John Burnet Tait and Lorne Architects One Montague Place Bedford Square London WC1

444

INFORMATION SHEET • 942 • FIXING BLOCKS

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 492 •

FIXING BLOCKS

Subject : Philplug Insert No. 101 (Spacing and Fixing Block) for use with concrete construction.

General :

This Sheet described Philplug Insert No. 101 and gives examples of reinforced concrete construction using cast-in Inserts functioning as fixing and spacing blocks.

It should be noted that one standard size block ensures correct cover in accordance with the Code of Practice for any size rod up to 1 in. diameter, the patented V-shape slot automatically fixing the rod in the desired position, whilst ensuring correct minimum cover for small diameter bars.

Physical Properties and General Characteristics of the Material :

The Inserts are made of an asbestos and special cement material which is waterproof and rotproof and will not corrode ferrous metals. The asbestos content renders it fireproof, an advantage over wooden Inserts. The material forms a high strength bond with Portland cement concrete, and its co-efficient of expansion is almost identical with that of normal concrete mixes. The breaking load of a No. 12 screw embedded 1 in. in the Insert is 4 cwt., the material taking the full load immediately.

The drawings on the face of this Sheet indicate the dimensions of Insert No. 101 which, as mentioned above, is suitable for all sizes of bars up to 1 in. diameter inclusive, Inserts for larger bars being in course of preparation. The slot formed in the Insert, as well as being used as a housing for reinforcing rods can, where the Insert is fixed with the slot downwards, be used to take conduit heating coils, etc.

Notches are provided in the side of the Insert for the purpose of wiring it in position on the reinforcements when required. These notches as well as the flange ensure a good key to the concrete.

Fixings may be made into the Insert by nails or screws. Nails may be driven in directly but holes should be prepared for screws by a bradawl. The material will retain the screw thread formed indefinitely, thereby allowing the same hole to be re-used.

Application of Insert No. 101 as Spacing for Reinforcement :

Inserts placed in a concrete mould box at appropriate intervals in the width and with the reinforcement located in the slots, ensure the correct cover as called for by the Code of Practice. They should be placed at suitable intervals in the length of the reinforcement to prevent deflection.

Application for Fixing Generally :

The drawings on the face of this Sheet illustrate typical fixing arrangements using Insert No. 101.

Finishes :

The Insert may be finished by similar treatments to those normally used with Portland cement concrete.

Oilbound paints should not be used without first priming the surface.

Issued by : Philplug Products Limited
Address : Lancelot Road, Wembley, Middlesex
Telephone : Wembley 0140-1

PHYSICAL PLANNING

A SUMMARY OF THE ARTICLES ON THE JOBS TO BE DONE

The Physical Planning Supplement in the New Year issue of the Architects' Journal, 20 : 1 : 44, contained a summary of the articles on the planning bogies and problems. This week the sixteen articles are summarized which have surveyed the jobs to be done. Each article outlined one aspect of physical planning towards which the skill and energy of planners must be directed. Much of the preliminary work on these jobs is now under way; with fuller collaboration between the different planning specialists much more could be undertaken now. By presenting an outline of the jobs within one series the Journal has aimed to give a more complete picture of the work on which planners should get well ahead before the war ends. Even though the Government may continue "dreaming of a White Paper," this must not hinder progress on the important preliminary stages of planning.

19

WE MUST PLAN THE SURVEYS FIRST

E. G. R. Taylor

Local plans should conform to Regional and Regional to National. Yet we are actually replanning our cities within the ring fence of their administrative boundaries. We need a uniform series of fact-finding surveys and analyses at all three levels, mastery of which will be part of the training of every planner. The need for complete objectivity suggests that survey work should be divorced from planning. The assumption that planning sets out to secure human efficiency suggests that the team should consist of a sociologist, an economist and a geographer. Teamwork is essential to ensure the right combination of skills. The framework of a comprehensive fact-finding survey programme has already been provided by MOTCP's list of priorities; also by the surveys which it is making at the national level. A well-tried technique of survey, analysis and exposition also exists, worked out by geographers and economists. (*A.J.*, 16.12.43, *p.* 443).

20, 21

WE MUST RELATE SERVICE CENTRES TO SOCIAL GROUPS

R. E. Dickinson

A hierarchy of community units already exists in our society based on the central service centre, be it village, town or metropolis, and on neighbourhood institutions and commercial subcentres inside the metropolis. The study of these relationships is called human ecology. The majority of villages in Britain have less than 300 inhabitants. Local services are usually concentrated in an occasional village which assumes a certain urban character. It seems that the services which an urban village should support require a population of 1,000-1,500 — 3-5 parishes—a figure which corresponds closely to the actual trend. Throughout the country such administrative areas are based on medieval parishes and hundreds. They should be based on service areas, e.g., areas required for the effective organization of each service. A district with half a dozen or more villages and 2,000-3,000 inhabitants (market district) might serve as a suitable unit area in a new system with an urban village (750-1,000) or small town (1,000-5,000) as service centre.

The great concentrations of basic industries which grew up during the nineteenth century were dovetailed on to the pre-industrial service network. Industries in these places became dominant and centralized services of secondary importance. The importance of the latter have however increased with the rising standard of living during the last decade. Country towns with a population of 2,500-10,000 often retain a good functional balance. It is easier to encourage the growth of an old country market town than to fit new towns into the existing network of social services but legislation is necessary to secure equally effective planning control. Industrial location must also influence the pattern of settlement. (E. G. R. Taylor, *Geographical Journal*, Vol. XCII, 1938, pp. 22 and 499.) The broad common features of British cities are well known. A method of survey has been established by American studies. (Maurice R. Daire, "The Pattern of Urban Growth.") A systematic survey is needed on the same lines as the land utilization survey.

The main types of existing settlement are urban village (1,000) and rural town (over 5,000). Towns with rudimentary functional zoning (25-50,000). Large cities (over 750,000). Beyond the city is the region—a homogeneous geographical area. The idea of the region has developed in connection with (i) the inadequacy of existing local government areas and (ii) the need for decentralization of larger towns. Detailed analysis of the actual flow of goods and persons is needed as a basis for dividing Britain into natural administrative regions. (*A.J.*, *Part I*, 23.12.43, *p.* 463. *Part II*, 30.12.43, *p.* 481).

22

WE MUST BALANCE COMPETING DEMANDS FOR THE LAND

L. Dudley Stamp

Planning in essence is determining the right use in the national interest of every acre of land. In Great Britain there are only 1¼ acres of land per person. Broadly the area is fixed and inextensible. There is, therefore, no land we can afford to see lying waste or idle. Scenery and sort are exceptionally varied. As nine-tenths of Englishmen live in towns on one-tenth of the land, industry has prior claim to land necessary for its proper development, but the decision must be based on the national interest and not necessarily on that of a particular firm. Secondly, land is needed for rehousing. Often the best land for imaginative housing layouts is relatively poor for farming. Thirdly, land is needed for farming and forestry. The former employs about 1,000,000 people—more than are engaged in Canada or Australia. Agriculture must be accorded in common with other industries, the essential conditions for successful prosecution. One of them is stability. Fourthly, land is needed for recreation, but we must not forget that most rural land is what it is because it is used by forester and farmer, and access to it must not be allowed to interfere with its use.

Fifthly, land is needed for communications. New roads can be beautiful as well as efficient. An approximate analysis of land use is as follows: Industry and housing 6,000,000 acres or 10 per cent. Forest and woodland 12,000,000 acres or 20 per cent. Open moorland shooting, etc., 8,000,000 acres or 13 per cent. Farmland or improved hill pastures 34,000,000 acres or 57 per cent. (*A.J.*, 13.1.44, *p.* 25).

23

WE MUST BASE THE PLANS ON ACCURATE DEMOGRAPHY

D. V. Glass

An estimate based on the 1939 Census shows the population of England and Wales beginning to decline during the next decade and falling to about 30,000,000 in 1990, while numbers of separate families continue to increase till 1960 owing to an even more rapid decrease in the size of the average family. If the standard of life were to rise further and more accommodation were to become available, the increase in the number of families requiring separate accommodation might be even greater. If on the other hand the numbers of old people living in institutions were to increase it might be less. For housing purposes it is less important to know the average size of family than the trend and distribution of families of different sizes. On all these questions there is little information. There is very wide scope moreover for the collation of official census and vital statistics with sample enquiries into circumstances and opinion in providing indispensable data on housing needs. This is necessary at the local as well as at the national level as there are great local variations. A positive population policy can aim at achieving a certain level by encouraging any one of a large number of possible combinations of family sizes. Housing will vary according to the pattern aimed at, unless we can afford always to build for the largest families. There must be a margin to allow for movement. (*A.J.*, 27.1.44, *p.* 79).

24

WE MUST PLAN THE EXTRACTION OF MINERALS

H. H. Read

The distribution and quality of mineral deposits is of great significance to the planner. Mineral deposits which are worth working can be roughly classified in three groups: (1) Large units, in regions, fixed in position, e.g., coal, iron, salt; (2) small units, fixed in position, e.g., tin, zinc, lead, copper, barytes, china clay, glass sand, etc.; (3) small units with great total production and choice of sites, e.g., igneous rocks, chalk, limestone, shale, gravel, sandstone. Coal fields raise several problems, e.g. disposal of waste; rehousing; restoration of worked out areas and of newly worked areas; extension of workings into agricultural areas; transport of finished product. Old iron ore fields raise the same problems as coal fields. The great and expanding exploitation of Jurassic ores by means of open cast working has raised in an acute form the problem of restoration. Rocks listed in group three, worked in a great number of smallish pits and quarries, and providing very great total output, offer plenty of scope to the planner, with choice of site controlled in some measure by the application of the product. Quarrying raises the problem of landscaping. Gravel workings that of afforestation. (*A.J.*, 3.2.44, *p.* 97).

25

WE MUST PLAN FOR A PROSPEROUS AGRICULTURE

L. Dudley Stamp

The two keystones of agricultural policy should be the feeding of the people, and maintenance of soil fertility. The latter implies the continuation of a Ministry of Food with power to buy the output of the home producer and import all other food required, apart from luxuries, and so control prices that the poorest can afford to buy what is necessary for health. Prices must be fixed to encourage the production of the protective foods and discourage inefficiency. Other crops will take their place as part of a balanced rotation. Prairie farming with large fields and large-scale mechanization would be a retrograde step. Fields of 10-20 acres are large enough to take advantage of tractor machinery. The English system of farming at its best is the acme of good husbandry with conservation of soil fertility and elimination of soil erosion both guaranteed. Changes needed are in the direction of rationalization of holdings, drainage, substitution of clumps for hedgerow trees, and grouped housing for rural workers. The size of British farms can be regarded as stabilized but there is scope for grouping them into co-operatives or limited liability companies forming units of up to 100,000 acres. As the result of the war Britain has the most highly mechanized agriculture in the world. (*A.J.*, 10.2.44, *p.* 117).

26

WE MUST PLAN FOR A REVITALIZED FORESTRY

Ray Bourne

Forestry supplies much that agriculture needs in the way of shelter and woodland products and can absorb surplus agricultural labour during the short winter months. In this connection it is essential that much, though not all, forest land should be mixed with agricultural land. Woodlands actually required for shelter would occupy only a small proportion of the area actually devoted to forestry. With the exception of these, and others required for recreational areas, forestry should be restricted to profitable sites. In England, Scotland and Wales there are millions of acres in the aggregate, though often on small areas, which are unsuited to agriculture, but which are, or could be, profitable forest land.

Responsibility for developing and establishing a profitable forest estate in Britain lies as much on landowners as on the State. The primary need is for a survey of potentially profitable woodlands carried out by foresters in conjunction with soil scientists, ecologists, agriculturists, planning authorities, and the timber trade. The State should, in the interests of national security, demand that all land which can be devoted to profitable forestry be brought and kept under intensive forest management; and that a considerable proportion of conifers should be cultivated. It is most important to use only the best strains or race of a species for each locality. In Switzerland a central seed research station is maintained and no plants may be raised for sale and planting in any area except from approved seed. Reserve stocks of imported timber should be maintained during the next 30-50 years in case of war. It is urgently necessary to build up an efficient cadre of forest managers. In the meantime plans for felling and planting should be submitted for approval to some central authority. (*A.J.*, 17.2.44, *p.* 133).

27

WE MUST SURVEY AND PLAN THE LOCATION OF INDUSTRY

O. W. Roskill

The location of industry is not a simple problem: (i) Consideration must be given to where people want to live; (ii) the State is concerned to prevent wasteful extension of the social services, and (iii) to secure proper use of natural and industrial resources. As industry is constantly changing it is important to have industrial surveys and keep them up to date. A beginning has been made in the Special Areas and Nuffield College has attempted a survey covering the whole country; (iv) town planners are concerned from the point of view of preserving amenities; (v) finally, the whole question is closely linked with the concept of Regionalism. The main factors affecting location are raw materials (which may be the finished product of another industry); labour (of diminishing importance because the trend is away from large-scale employment of craft labour); siting and services (soil, climate, accessibility, availability of transport and utility services, and sometimes of cheap fuel or power and of facilities for disposing of effluent); markets (this and the transport question are closely linked with the structure of railway rates); finance (the Nuffield Trusts), Special Areas Reconstruction Association and Treasury Fund have done good work in reversing the trend of industry to go where money is already and their work is believed to have shown a profit). The Barlow Report envisaged a national Industrial Board to collect information, carry out

research and advise the Government. The Board of Trade and the Ministry of Town and Country Planning already exercise more effective powers under the Location of Industry Order. A problem closely connected with industrial location is that of industrial flexibility. Emphasis hitherto has been on bolstering up declining industries; in future it should be on the most rapid possible method of cutting our losses. This implies an energetic public research and development policy. There are undertakings which might benefit a region but are unlikely to attract private enterprise. Increasing stress laid on the social responsibilities of industry should not be allowed to obscure the fact that as a rule population should be planned round industrial sites rather than vice versa. (*A.J.*, 2.3.44, *p.* 169).

28

WE MUST BASE OUR HOUSING PLANS ON SOUND ECONOMICS

Arthur Ling

Overcrowding and sharing of dwellings, coupled usually with inadequate sanitation, are common. The success of the immediate programme will depend on the extent to which it alleviates these hardships. New construction will have to be supplemented by conversion of structurally sound buildings with 10-20 years' life, and by temporary buildings. The housing problem can be stated numerically but progress in solving it should be measured by the extent to which the houses provided meet the most urgent needs of the population. We need first a plan for industry since population follows industry; secondly, standards of equipment and amenity on which development plans can be based instead of on abstract density figures. Thirdly, we need a policy for equating rents and incomes, without which improved standards may merely put new housing out of range, or result in other evils of malnutrition or subletting. A break with the past policy of minimum State subsidy combined with minimum standards implies a general rise in the standard of living due to family allowances or some other means and/or power for local authorities to house for profit combined with loans at a low rate of interest. This would allow profit to be balanced against loss and encourage the development of complete communities with a mixture of social classes and a more rational use of land, e.g., highest densities on the best sites. (*A.J.*, 9.3.44, *p.* 187).

29

WE MUST PLAN TRANSPORT AS A COMBINED OPERATION

F. M. Wilson

The fundamental difference between road and rail is that whereas road freights are comparatively frequent and small (normal upper limit ten tons), a train is better adapted to operate over long distances in connection with heavy industrial concentrations. Before 1910 railways were able to give preferential rates to staple materials and recoup themselves by heavier charges on finished goods. This balance has been upset by the preference of modern light industry for road transport. We have 13% motor cars per mile of road as compared with 9 in America. New roads, however, will not make it possible to combine speed with safety unless access and user on either side are strictly controlled and roads are classified according to the purpose they serve. Road planning in short is inseparable from use zoning. The railways suffer from over capitalization due to uneconomic duplication of services in early competitive days and to excessive prices originally charged for land. (Nominal value, £1,100 mill.; value quoted on stock exchange £750 mill.). This means that they have not the resources to make necessary improvements, e.g., technical economies to make basic industry rates economic; separation of long distance from regional and local traffic and goods from passenger traffic, to give improved service; electrification of suburban lines in the interest of speed and amenity. Some central authority is needed to distribute the financial burden and secure rail/road harmony. As a basis for reorganization we need a plan for the location of industry. (*A.J.*, 16.3.44, *p.* 205).

30

WE MUST PLAN TRANSPORT AS A COMBINED OPERATION

L. F. Richards

The useful canal system of England is in the form of a letter X. The centre of the system is Birmingham and the extremities are the rivers Mersey, Humber, Thames and Severn. The whole system is much used except for the Kennet and Avon Canal, but only narrow boats about 7 ft. wide, carrying 25-30 tons, have universal access to all canals. There has been a demand for widening all the canals of the X to take barges of 60-100 tons but this scheme failed probably because there has been no likelihood of industrial planning since it was proposed in 1909. Transport represents 15 per cent. of the national capital, and canal capital amounts to about 3 per cent. of this. Of all goods transported canals carried 4 per cent., roads 24 per cent., and railways 72 per cent. The tonnage carried by canals has fallen from 34-13 million tons since 1905. In so far as canals are ousted by more convenient methods of transport, it should be as part of a national policy. An advantage of canal transport is that through rates can be quoted from Birmingham to Montreal. Outstanding aspects of approach to the problem of post-war civil aviation are (i) air-worthiness. The British Air Registration Board (1937 Air Navigation Act) has already set standards. (ii) Personnel. (iii) Airport provision. Neither (ii) nor (iii) will present any problems after the war, though the provision of marine bases for seaplanes may be more difficult. (iv) Status: is the rôle of airways to be the same as that of other transport agencies? In selecting airports for future use, separation of the different types of traffic and appropriate surface access must both be considered. Time distance rather than linear distance is the important factor when considering access. (*A.J.*, 23.3.44, *p.* 223).

31

WE MUST PLAN LEISURE SPACE FOR THE USE OF ALL

John Bolland

Proposals for facilitating access to unspoiled areas of open country were contained in the Scott report and are being reviewed by the Ministry of Town and Country Planning. The best known provides for the establishment of national parks. This involves prohibition of disfiguring industries in the areas selected and control over buildings needed to accommodate visitors, but all the land concerned could be continued in its natural farming use though being kept or made widely accessible for public enjoyment and open-air recreation. Other proposals for providing access to the countryside concern rights of way. The report recommends the appointment of a footpaths commission with power to compile a record of all existing rights of way, investigate all disputed cases and undertake the restoration of footpaths closed under the Defence Regulations. Proposals for the establishment of new footpaths are also put forward, e.g., the Pennine Way—a continuous footpath of 250 miles from Edale over the Pennines and Cheviots to Wooler in Northumberland. Seventy miles of new footpaths are required to link up those which exist. The cost is estimated at less than that of constructing a few yards of motor road. Access to mountains and uncultivated moorlands is also claimed. The Access to Mountains Act 1939 did nothing to improve the present position. Opposition comes chiefly from water authorities and sporting interests. There is reason for doubting whether there are any real grounds in either case. (*A.J.*, 6.4.44, *p.* 259).

32

WE MUST PLAN SERVICES WITHIN A NATIONAL POLICY

Leslie Hardern

Plans put forward by the coal, gas, and electricity industries show a certain similarity. Each is thinking of national planning and of regional planning of larger and more efficient working units, and of a levelling-up

of services to the public in all parts of the country. Final responsibility rests with Parliament but the highly technical considerations involved place much responsibility upon the Ministry of Fuel and Power. Co-operation of the fuel industries themselves should be facilitated by the National Fuel Advisory Council which is being set up by the Minister. Rigid control of fuel used for various purposes would not be tolerated by the public but a national fuel advisory council containing representatives of the various fuel industries should be able to establish lines of policy in the national interest. Influence could be exerted by publicity and by prices and charges rather than by regulations. Among the first tasks of the National Fuel Advisory Council should be the framing of a policy for coal conservation, smoke abatement and coal prices, and to review the functions of and the legislation governing the fuel industries. It is assumed that housing and planning authorities will allow the occupants freedom of choice between different fuels. This will be secured if all houses are built with flues and piped for gas and electricity at the time of erection. (*A.J.*, 13.4.44, *p.* 277).

33

WE MUST PLAN SERVICES WITHIN A NATIONAL POLICY

L. B. Escritt

The desirable area of administration for a river is the catchment area. The gathering ground for a water supply company however does not necessarily coincide with the catchment of surface run-off. Water supply areas should coincide as far as possible with the areas from which water is gathered. An authority with power to assess needs and allocate resources is needed to decide cases where there is competition for a common source of supply. Distribution in town and country is best dealt with by local offices or subsidiary companies. Sewerage areas should be planned to minimize the length of main sewers and obviate pumping but from the administrative point of view an area limited only by the convenient radius of travel is needed to secure skilled supervision. In so far as natural drainage water supply and sewage influence land use, they indicate that on the whole low-lying alluvial lands are best for industry; sloping hillside sites for housing and level uplands for farming. Early reservation of lands needed in connection with water supply and sewage disposal is important. There are as a rule only a few sites suitable for sewage disposal works in any particular case. (*A.J.*, 20.4.44, *p.* 295).

34

WE MUST MAKE CERTAIN THE PLANS ARE REALIZED

David Brookes

For each town plan that found its way to execution in England between the wars, there were a hundred that remained on paper. Their initial failure to be translated into action may have a practical, a political or a philosophical cause at bottom. The realization of those projects which were wide enough in scope justifiably to come under the heading of planning was either due to (1) a particularly urgent need, such as that of modern traffic which, unplanned, was causing distressing loss of time and life; or (2) statutory regulations already in force. This cannot always be termed realization, for in many cases the plans merely established, in legal form, development which had already taken place. Such planning was, at best, only partial. There was no clear link between initial planning and subsequent development. It is only when technique and policy are brought together within a clearly defined programme that the realization of community planning becomes possible. Even then, if the procedure is to be democratic, success ultimately depends upon public relations. Ambitious plans have been realized without public participation, but the resulting disadvantages outweigh any gain. It is the easier, the speedier, way but it is not the way for those who aim to satisfy the diversity of individual needs and to provide a human setting for community life. The hard way, the approach to which has been outlined in this series of articles, is the way of survey, diagnosis and planning through public participation. It means a full use of our resources of scientific and technical skill, with solutions worked out at the national, regional and local levels, and arrived at by democratic consent. (*A.J.*, 27.4.44, *p.* 313).

35

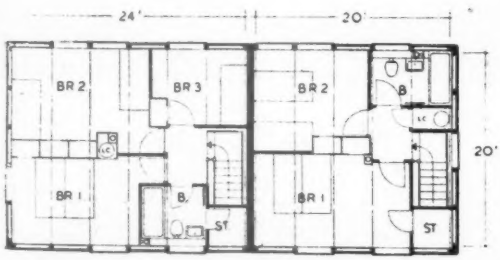
WE MUST FORMULATE A VISUAL PLANNING POLICY

G. M. Kallmann and Ian McCallum

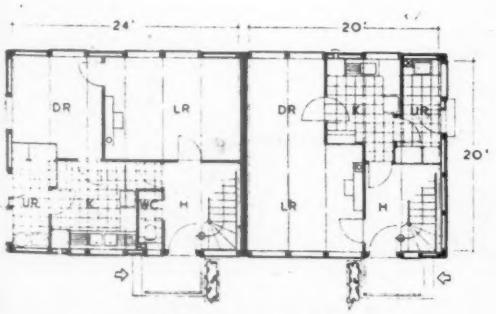
In the absence of a visual policy, physical planning remains merely a formula. It is essential, therefore, to evolve a policy for visual planning, not only as a complement to physical planning, but also as an indispensable instrument for winning public support. Planning proposals will only be fully understood by the man-in-the-street when he sees the visual effect they will have on the street. Our finest artists and designers who have an interest in the function and formation of the landscape must collaborate with physical planners, in the role of visual planners, to create real pictures showing the exciting and, as yet, largely incalculable visual possibilities of the contemporary landscape. Since the culminating achievement of the eighteenth century, visual mastery over the landscape has been gradually relinquished. The attitude of man to nature has, at all times, been the prime influence behind each landscape picture. It changed from the mediæval state of detached hostility, through the seventeenth century concept of it as an inversion of human order, to the eighteenth century discovery that *Man* and *Nature* were not contradictory expressions. The eighteenth century partnership created a superb landscape for England, but it broke down under the onslaught of industrialism. Contact with nature was lost in the factory and the factory slum. The nineteenth century engineers showed the basis upon which the partnership could have been re-established, but theirs was a very small voice crying in the new man-made wilderness. The twentieth century brought disintegration and destruction on an even wider scale, for increased speed of movement and ease of power distribution made enormous areas ripe for development by expanding and unplanned, or partially planned, industrialism. Many were the schemes produced by artist, architect and philosopher to counter the prevailing disasters to the landscape. But in most cases their divorce from the realities of their day, whether practical, political or philosophical, sent them to the pigeon-hole reserved for the visionary utopia. There were, nevertheless, some realistic although scattered attempts made to regain visual control. They seldom extended further than the bounds of the individual or communal garden, for opportunity was limited by the absence of community planning. It is clear, by now, that the main obstacle to the formation of a unified and coherent landscape picture is the lack of unity and coherence in society. It is possible, however, that out of the melting pot of war visual control may be regained. Whether it will be achieved as the result of a new form of autocracy, bringing with it all the monumental paraphernalia expressing the centralized power and the mass demonstration, or whether it will be achieved as the result of a further development of the democratic tradition which will demand the new expression of a community planning for freedom, is still uncertain. Nevertheless, it is upon the latter assumption that the *physical* planner works, and it is upon that assumption that the *visual* planner must work. His task is no easy one. He must have a clear understanding of the functions which take place in the landscape, and he must express accurately their spheres of influence, whether national, regional or local; he must appeal to the sensuous demands of the eye, and through it to the intellect and emotions; he must provide for the varying speeds at which the eye is likely to travel; and, what is most important, he must assimilate and express in his work the best tendencies of his society, and through his perception arouse energy and the desire for achievement. (*A.J.*, 1.6.44, *p.* 403).

UNIBUILT DEMONSTRATION HOUSES

DESIGNED BY G. GREY WORNUM AND RICHARD SHEPPARD

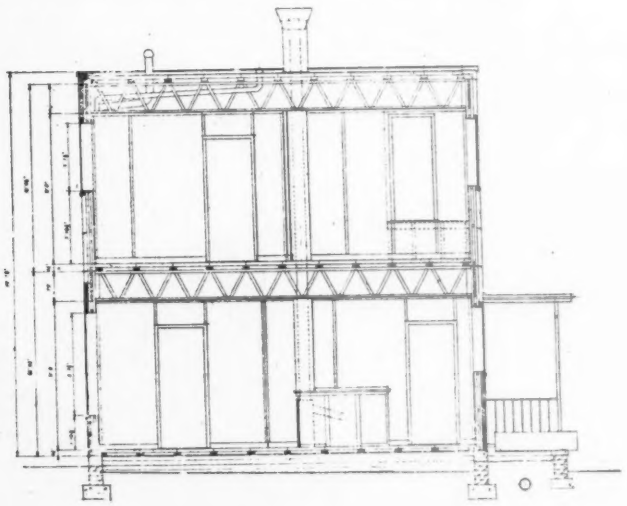


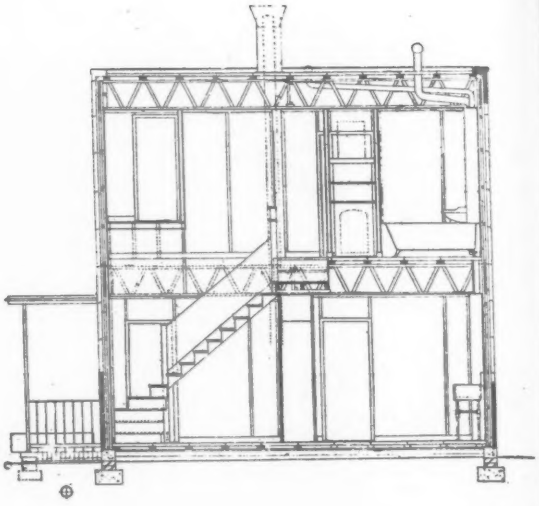
FIRST FLOOR PLAN



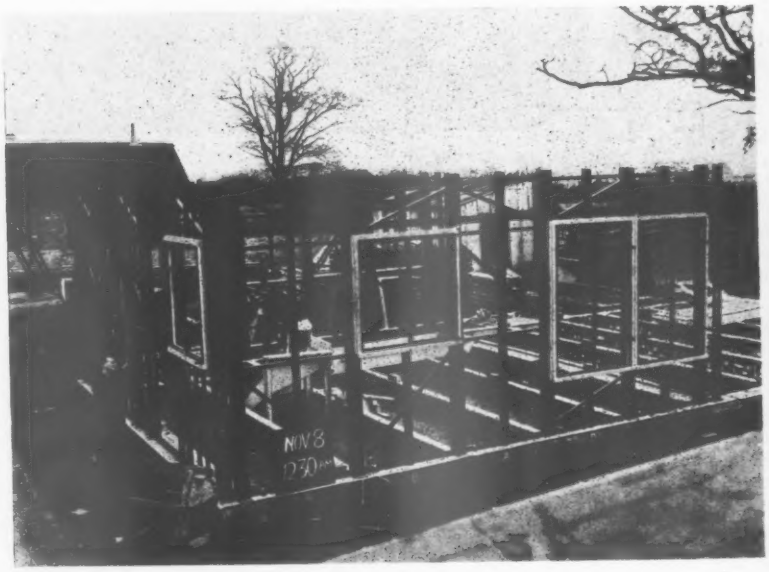
GROUND FLOOR PLAN

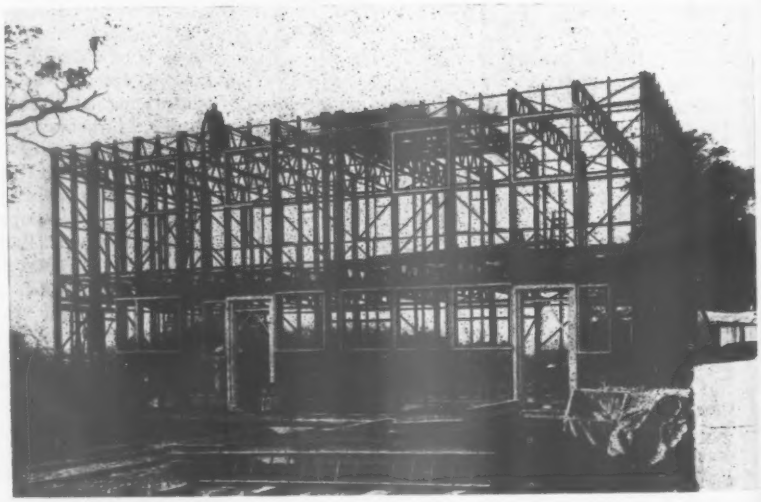
A pair of Unibuilt semi-detached houses erected as experimental prototypes at Mitchell Avenue, Canley, Coventry. Unibuilding is the application of GBS Unibuilt Construction Units to houses and other buildings and has been designed and developed jointly by Gyproc Products Ltd., J. Brockhouse & Co., Ltd. and Joseph Sankey & Sons, Ltd. It is defined as the technique of assembling essentially factory-made construction units for speedy and permanent erection into buildings of one or two stories. Light steel frames fabricated from cold rolled steel sections are produced in standard sizes for walls, ceiling and roof members which can be made to span up to 24 ft. Four semi-skilled men it is claimed can erect the steel frame for one house on ordinary foundations in a few hours. A clipping device for holding the exterior cladding permits a choice of several alternative facing materials. Floor slabs are of 2½ in. aerated concrete covered with lino or composition, but if wood is available and desired, floorboards can be laid directly on the trusses. The roof may be flat or pitched, the former being rather more economical when used with aerated concrete slabs with slight slopes and finished with built-up Ruberoid or similar finish. Windows are mounted in steel chassis wall frames, and sizes can be varied by preselection in designing to meet most normal requirements. Interior walls and partitions are of ½ in. fireproof plasterboard jointed with flush metal panel strips. As the walls are





Above, sections. Facing page, top, plans and section through wall showing method of construction and fixing; and a view of staircase. The progress photographs show: This page, top, November 8th, 1943, 12.30 p.m. erection of the steel chassis units to traditional foundations; bottom, November 10th, 12 noon, completion of chassis and trusses. Facing page, top, November 12th, 5.30 p.m., stairs erected; bottom, January 6th, 1944, scaffolding down.

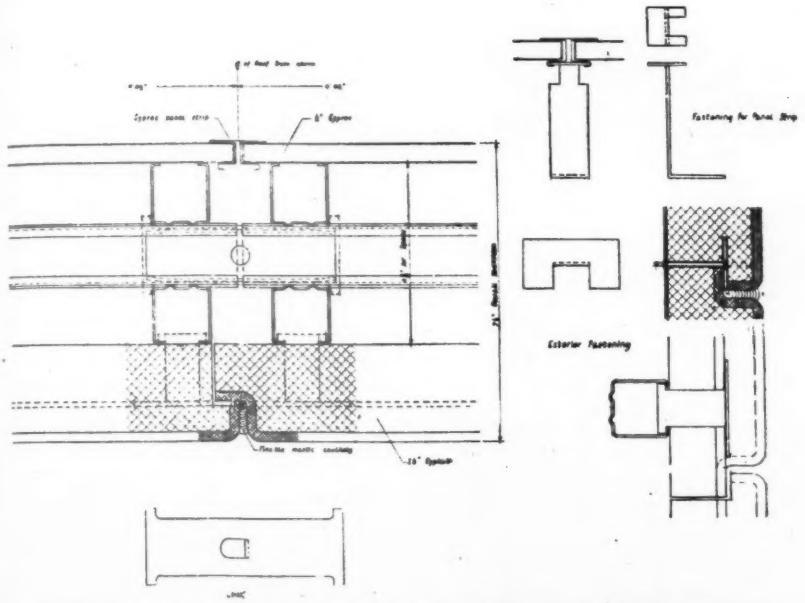




hollow, any type of plumbing, whether factory-designed and produced units or in situ construction, can be incorporated in the design, as is the case with the electrical services. Trusses span either 20 ft. or 24 ft. and can also be shortened for trimming to provide openings for standard uses and other features. Thus freedom is obtained in the disposition of the internal partitions, none of which is load bearing.

Here is an abridged specification for the pair of houses at Canley with comments by the firms concerned. It must not be considered final or definite, as future modifications will be made as found necessary or expedient by the experimental work. The structural frame is of ridge-welded rolled strip steel sections, factory assembled into interchangeable units for walls and joists. All units have been designed for lightness without sacrificing strength and stability. No unit weighs more than 100 lb., and the heaviest can be lifted easily by two men; no special lifting equipment

UNIBUILT DEMONSTRATION HOUSES



is required and connection details have been kept simple. Providing the foundations are set level, the frame automatically plumbs itself as soon as the joist bolts are tightened. Facings are asbestos cement pans 4 ft. by 2 ft. filled in the factory with 2 in. wood-wool slabs. Flanges are formed which produce the necessary lap joints and provide facilities for caulking. Internal wall and ceiling linings: ½ in. thick plasterboard, the paper facing of which is finished with paint or distemper. Window linings: pressed metal in one piece, stove enamelled and finished in oil paint to match the room. Floors: these are 2½ in. thick, 4 ft. by 2 ft. Escor aerated concrete slabs laid on timber bearers spanned between the trusses to form the floors. Since suitable jointless flooring material is not available, these have been finished with a special damp-proof lino. Roofs: concrete slabs similar to the floors and finished with three-ply Ruberoid. Party wall: 2 in. laminated plasterboard in units 1 ft. 4 in. wide, with a core of wood-wool slabs, there being no physical connection between the two houses except at the extreme margin of the party wall, i.e., the outside section of the building and the roof slabs. The advantages of this construction are that it is soundproof, fire-resisting and of a dry construction, speedily erected. Equipment: the sinks, baths, stoves and electrical equipment have been obtained from such stocks

DESIGNED BY G. GREY WORNUM AND RICHARD SHEPPARD

as were available. Cupboards have been designed to replace partition units. The design enables the latter to be attached to the cupboards where they are needed. Hot water supply: a boiler in the enclosed stove. A thermostatically controlled immersion heater is used for summer. The double cylinder arrangement gives compact and cheap hot and cold water storage in the dimensions of a standard cupboard. Space heating: by a Courtier stove. This is attached to a 6 in. fluepipe, which is encased in a ventilated sheet metal duct, thus utilizing the warmth of the flue for space. It should be noted that the construction enables fluepipes to be carried up with little difficulty wherever they may be necessary. Electric radiant panels are used for supplementary heating and are easily embodied in this construction. For names of the firms who collaborated in the scheme see page xxviii.

Details of light steel frame. Left, chassis. Below, base plate (left) and chassis fixed to anchor bolts.

UNIBUILT DEMONSTRATION HOUSES

THE STUMP AT BOSTON

THIS is a landmark visible from King's Lynn.

There are also landmarks in the history of building practice; one was the invention of Portland cement little more than a hundred years ago, and another the introduction of 'PUDLO' Brand cement waterproofer, which remains pre-eminent after more than thirty years. The majority of those who now specify and use this pioneer British cement waterproofer have had previous proof of its unfailing dependability. You will be safe if you, also, specify and make sure that it is used according to the simple rules of good workmanship.

'PUDLO'

BRAND

CEMENT WATERPROOFER

Used with Portland Cement in renderings or concrete to exclude or retain water.

KERNER-GREENWOOD & COMPANY, LIMITED

ANN'S PLACE, KING'S LYNN

Sole Proprietors and Manufacturers

The word 'PUDLO' is the Registered Trade Brand of Kerner-Greenwood & Co., Ltd., by whom all articles bearing that Brand are manufactured or guaranteed.

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

1509 Russian Village

RE-BUILDING AN INDUSTRIAL VILLAGE IN RUSSIA. *I. Golosov.* (*Architectura No.* 2, 1943). Description of reorganization of a factory, administrative village, railway station and several collective farms after destruction by Germans.

Pre-war the village of Krasnia Polana was a straggling collection of log dwellings that served as administrative centre to a number of collective farms spread over a considerable tract of countryside. It also provided workers for a nearby factory.

The Germans had burnt and destroyed almost everything in the district. In one part only eight houses remained from 250. In many cases only traces of hearths or foundations showed where houses had stood. The temporary difficulties of transport between Krasnia Polana and the railway station forced the administrative functions to re-establish themselves beside the station. The destruction of the buildings of many of the collective farms meant that the farming of much of the land had to be reorganized.

It was decided that a plan should be prepared by a group of people from the Moscow Academy of Architecture, who first made a careful survey of the region. They worked throughout under the guidance of the directors of the various local organizations.

The district is a particularly beautiful one with many wooded hills and three big lakes, on the shores of which a holiday and rest centre might be established. The factory proposes, after the war, to employ 5,000 workpeople. This determined the size of Krasnia Polana at about 20,000 people. The village would have to grow in all directions, but particularly towards the railway station.

Two plans were prepared. One left the administrative centre at the railway station and connected this with Krasnia Polana by a long avenue designed only for the use of cars and pedestrians. New collective farms, buildings and small hamlets would be strung along this avenue. Heavy traffic was to be carried to the factory by a single track railway line and a metalled highway branching off from the main Moscow road.

In the other plan the administrative centre would be returned to Krasnia Polana and both passenger and freight traffic carried on a new branch railway line and highway. The local people will decide which plan they prefer.

MATERIALS

1510 Concrete and Frost

THE RESISTANCE OF CONCRETE TO FROST. *A. R. Collins* (*of the Road Research Laboratory of the Department of Scientific and Industrial Research*). (*Journal of the Society of Chemical Industry, Concrete and Constructional Engineering, April*, 1944, *pp.* 100-107.) Concrete road construction in wartime suffered severe damage by frost, due to porosity, caused by high-water-cement ratio. Experiments and tests.

The most common effect of frost on concrete roads is a slight surface scaling. The use of salt to remove ice or frozen snow from the surface makes this damage more serious, but experience before the war was that scaling did not penetrate more than about ¼ in. into the concrete. Since the war, failures of a much more serious kind have occurred without any application of salt. These have been due partly to the severity of the weather, but to a greater extent to the lower standards of construction in war-time. In some cases surface scaling has extended through the whole depth of a 6 in. slab.

War-time experiments to explain the mechanism of frost failure were not of fundamental character, but it has become clear that frost damage is linked in some way with the pore structure of the concrete and particularly with the size distribution of the pores. Cracking and scaling is due to the bursting stresses caused by the water freezing in the pores.

Frost damage to concrete may occur either in the aggregate or in the hardened cement paste. Failure of the aggregate occurs only when the aggregate itself is of low frost-resistance, such as limestone of high porosity and certain types of brick. Whether the aggregate is affected by frost or not, failure may occur in the cement paste with the consequent disintegration of the concrete.

The pores in concrete are of two types: the so-called Air Voids and Water Voids. The air voids are due to incomplete compaction and the consequent entrapping of air, while the water voids are formed by the excess of mixing water used over that required for the chemical hydration of the cement. In well compacted concrete the air voids are almost eliminated. When the concrete is not well compacted the voids are easily visible as honeycombing and are usually too large to retain water. They therefore do not play much part in causing frost damage. On the other hand, the water voids are nearly always very small and invisible to the naked eye. In normal conditions cement combines with about 20 to 25 per cent. of its own weight of water. In most concretes, however, the actual mixing water used amounts to about 50 to 100 per cent. by weight of cement. The water not combining with the cement remains in the concrete or dries out. In either case water voids are formed. They amount to 12 to 20 per cent. of the total volume of the concrete, or 40 to 50 per cent. of the total paste volume, according to the water-cement ratio.

The experimental measurement of the frost resistance of concrete is done by an accelerated freezing test. This consists of repeated cycles of alternative freezing and thawing under standard conditions. The assessment of the damage is rather arbitrary; generally the change of the modulus of elasticity or of the crushing strength is adopted as a measure. The advantage of using the modulus of elasticity is that it is a non-destructive test and the same specimen can be used throughout the test. This method is popular in the USA.

Test results so far obtained indicate that the water-cement ratio is the principal factor in determining frost resistance. To prevent frost damage, the maximum water-cement ratio must not exceed .9. This means an average of not more than .7. With clean, well graded aggregates and mixes not leaner than about 1:7½ by weight it is unlikely that a safe water-cement ratio would be exceeded. This is the reason why serious damage did not occur in peace time. Trouble arises in war-time conditions when the aggregate is an over-sanded, dirty all-in ballast and the mix is made of very high workability to speed up construction. It is then quite likely that a water-cement ratio as high as 1:2 would be used with mixes of 1:6 nominal proportions.

1511 Timber

FOREST PRODUCTS. *Cantor Lectures:* (1) TIMBER. *W. A. Robertson*; (2) TIMBER USES, NEW AND OLD. *H. A. Cox*; (3) THE MINOR PRODUCTS. *W. A. Robertson.* (*Journal of the Royal Society of Arts, January* 21, 1944, *pp.* 94-117.) Three lectures, under auspices of Forest Products Research Laboratory, Department of Scientific and Industrial Research, deal with fascinating subject of uses of forest products throughout the ages.

The field covered is an immensely wide and varied one, and the last years have brought great changes in the effective and economical use of timber in almost all ranges of its products. For the architect the most important change was brought about by the introduction of lamination. By arranging the timber in layers we set off the weakness of timber in one direction by its strength in another, and reduce the dimensional changes, i.e. the shrinkage and swelling. Timber thus has become a new structural material, the possibilites of which remain to be fully explored. Some fine examples illustrate the use of nailed laminated girders and laminated wooden arches.

1512 ASB Lectures

ASB LECTURES. 1. NEW DEVELOPMENT IN THE DESIGN OF STRUCTURAL TIMBER. (*February* 5.) *P. O. Reece, A.M.Inst.C.E., A.M.Inst.C. & Cy.E.* (*The Architects' Journal, March* 9, 1944, *pp.* 196-198.) 2. NEW DEVELOPMENTS IN THE DESIGN OF WELDED FRAMES. (*February* 5.) *Ramsay Moon, B.A., M.I.Struct. E.* (*The Architects' Journal, April* 6, 1944, *pp.* 269-270.) 3. NEW DEVELOPMENTS IN THE DESIGN OF CONCRETE FORM WORK. (*February* 12.) *C. Parry, D.F.C., M.I.Struct.E.* (*The Architects' Journal, April* 20, 1944, *pp.* 304-306.) 4. THE INFLUENCE OF NEW DEVELOPMENTS IN CONSTRUCTION ON ARCHITECTURAL DESIGN. (*February* 12.) *M. Hartland Thomas, M.A., F.R.I.B.A.* (*The Architects' Journal, March* 16, 1944, *pp.* 213-217.) Valuable series of lectures arranged by the Architectural Science Board of the RIBA concerned with new developments of three main structural materials: Timber, Steel, Reinforced Concrete.

Each of these materials has undergone great changes through scientific analysis during recent years or, as with welding, many years ago, but has not yet been used to full advantage by architects.

Timber, in fact, has become a new material.

Mr. Reece gave a description and analysis of the new developments (stress grading of timber, statistical methods of providing high working stresses for laminated forms of construction, the influence of stable and water resisting adhesives in providing highly efficient joints, new mechanized timber connectors, the use of plywood and its application to prefabricated methods, the new development of research into the anisotropic behaviour of wood) which, when properly assimilated, will influence the trend of modern design.

Mr. Moon's lecture will be a great encouragement to architects to think in terms of welded frames. His explanations and examples show that welding presents the architect with a new structural material which he, as an architect, can use effectively for the first time. Especially when steelwork is left unexposed does welding become really interesting. The unity of the structure and the rightness of the form will impress the beholder with great æsthetic satisfaction.

Mr. Parry's lecture must have conclusively shown that the control of form-work by the architect is the only line along which proper development in the appearance of reinforced concrete can be hoped for. His deprecation of imitation finishes and his recommendation of surfaces straight from the mould deserve the understanding of the designer.

Mr. Thomas, in his admirable concluding lecture, gave a summary of the three specialised lectures and of the wider bearings which the results of research into the nature of materials have on the structural form. The three methods of construction are approaching a similarity of form that should be particularly acceptable to architects. It is the architect's function to conceive the building project as a whole in all its implications. Structural theory is coming to meet the architect half-way in offering structures that are conceived as a whole rather than as the sum of separately calculated parts. It is necessary for the architect to acquire enough of the scientific outlook and become sufficiently well acquainted with the theories and experiments that lie behind the results to assess the value to architecture of the many different products and methods. The analytical knowledge of the materials must become part of the unconscious mental background of architectural design. Mr. Thomas outlines ways in which modern architecture may develop after the war and advocates a union of Science and Art.

PLUMBING and Sanitation

1513 **Rural Sewage**

THE PROBLEM OF SEWAGE DISPOSAL IN RURAL AREAS. *G. T. Cotterell.* (*Journal of the Royal Sanitary Institute, January*, 1944.) Broad survey of problem. Future town planning schemes should fully consider sewage and its disposal. Finance must not dictate.

The provision of a satisfactory water supply to all rural communities is essential and this should include provision for its use in w.c.'s. Such a water supply makes proper sewage disposal a necessity. All disposals should be based on advice of fully qualified authorities and each rural district should prepare a scheme to cover its whole area, zoning this area according to the requirements of site conditions for sewage disposal and laying down a standard to be adopted in each zone.

When considering dispersal of industry and of population into rural areas full consideration should be given to the adoption of existing camp sites with their amenities for this purpose. Any town planning schemes that have been adopted, or are prepared in future, should give full consideration to sewage and sewage disposal. Finance should not be the dictator of the necessary works, but these must be dictated by the requirements of the site conditions.

The above points are emphasized in the author's summary, but the paper discusses in more detail the possibilities of contamination even at long distance from the source of inefficient disposal and deals with various types of sewage discharged into streams and various other factors.

QUESTIONS and Answers

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

1514 **Warmed-Air Duct**

Q *I note with interest that in Mr. Percy M. Powell's winning design in the recent Northampton Competition for Cottages for Rural Workers, the Henry Martin warmed-air duct and flue type of heating was indicated in bedrooms 1 and 2. Could you give me any detailed information regarding this system or addresses from which I can obtain further details?*

A This system of heating was invented by Dr. Martin Henry who has obtained the help of Messrs. Pitchers, building contractors, 57, Ashburton Grove, London, N.7, in completing his invention. We understand that it is hoped to erect an experimental building incorporating this system, in the very near future, and that Messrs. Pitchers will be willing to help you further in this matter.

1515 **Registration**

Q *With reference to your answer to Q. No.* 1397, *appearing in the* JOURNAL *of March* 2, *am I correct in assuming that those persons who were eligible for application to become Registered Architects and failed to do so before the statutory closing dates are still allowed to apply for registration providing that their application is endorsed by six members of one of the recognized bodies of the Council? If this is so, could you let me know whether a special application form is required.*

A The particular regulation to which you are referring, states that "a person shall be eligible to apply for registration . . . . . provided (i) that no previous application from him has been rejected by the Council; (ii) that he produces certificates in the form following, signed by not less than six architects who are members of one or other of the constituent bodies mentioned in sub-paragraphs (i) to (vi) of paragraph 1 of the First Schedule to the principal Act, and (iii) that his application is supported by a majority at a meeting of the Admission Committee attended by not less than twelve members, and such Committee, in deciding whether to give or withhold their support to the application, shall have an absolute discretion."

"CERTIFICATE: I hereby certify that I have known Mr. . . . . personally for . . . . . years, and that I am satisfied that he had been in bona fide practice for not less than . . . . . years as an architect prior to July 29, 1938. I understand that the term 'practising as an architect' means that he was carrying on his profession as an architect habitually and as a means of livelihood.
Dated . . . . . Signed . . . . . "

Another regulation makes special provision for persons in the Armed Forces between January 1 and August 1, 1940, but we assume that this will not be applicable in your case.

If you are in any difficulties, we suggest that you write direct to the Architects' Registration Council of the United Kingdom, 68, Portland Place, London, W.1.

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 economise 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.

ABT

Charter

The Association of Building Technicians has issued THE BUILDING TECHNICIANS' CHARTER demanding better working conditions and salaries, greater responsibility for technicians, and a worthy rebuilding of Britain. Extracts from the Charter appear below.

I. PLANNING

Trained to planning in individual jobs, we stand for the planning of the whole of building within the framework of a National Plan for industry, transport and the location of new towns. Local authorities and private interests of all kinds need guidance and must be subordinated to this National Plan if new schemes are to serve the public well-being. There must be immediate measures to control land values and development, pending the achievement of public ownership.

II. JOB AND OFFICE ORGANIZATION

Technicians' abilities must be properly used. We believe the following measures are necessary for this.

Technical Control.—Too often the work of competent technicians is thwarted by bureaucratic interference. Those trained for technical work must be given the authority due to their experience and training.

Joint Production Committees.—These committees will be as important for the needs of reconstruction as they are for speeding up output in wartime. There should be Government direction to ensure the establishment of

these committees on all large contracts and the inclusion of technicians on the employees' side.

Group Working.—In all offices technicians must be given opportunities for an intelligent understanding of the whole of the job on which they are engaged. This can often be achieved by group working of all grades and classes of specialists—architects, engineers, surveyors—as needed, each group being responsible for a single job from start to finish.

Time and Progress Schedules.—An organized building programme is impossible without the preparation of time and progress schedules for all large jobs. We stand for scientific planning and businesslike realization of the plans. Technicians have the responsibility of perfecting methods of scheduling and of keeping a constant check on the attainment of the targets laid down.

III. Education

The system of technical education must be radically improved. Higher standards must be required of teachers, with more attention both to the results of scientific research and the gaining of practical experience on the job. The neglect of the economic and social aspects of building and planning should be ended.

Building technicians should have a common basic training and learn from the beginning to work together.

Junior employees must be given every facility —including time off—for study. We oppose the system of premiums and articled pupilage.

Many more scholarships must be made available, with equality of opportunity for all. There must be special facilities for building apprentices wishing to train as technicians.

IV. Demobilization and Re-employment

We suggest that there are building technicians whose early demobilization (irrespective of length of service) would bring more benefit to the mass of service men and women—in the form of a better and quicker rebuilding of Britain—than any rigid adherence to a "first in, first out" or similar scheme.

Refresher courses must give priority to demobilized men and women and there must be adequate grants to remove any financial obstacle.

V. Working Conditions and Salaries

Salaries and conditions of building technicians are at present dependent on bargaining by individuals, except where collective agreements exist. The Association aims to establish national agreements where employees are nationally organized as well as further local agreements. The long-term aims are :

(1) Minimum basic salaries for all building technicians.
(2) Equal pay for men and women for equal work.
(3) Overtime pay for all.
(4) A five-day working week.

The following is a programme for immediate action :

Hours : All technical staff to work fixed hours and not to be "on demand." Maximum for office staffs 38.

Overtime Rates : All time worked in excess of basic hours to be paid at the rates laid down in the National Working Rule Agreement for operatives.

Travelling Time : For travelling time outside normal working hours required by the employer, other than normal travel between home and job, to be paid at overtime rates.

Subsistence : Without prejudice to any existing rates, £2 per week for any employee working away from home.

Holidays : One day per month of service for the first 12 months, thereafter 2 full weeks plus Saturday before and the Monday after until 5 years' service has been completed, when annual holidays should be increased by one week. All Bank Holidays, including in each case the Saturday before, i.e. Easter, Whitsun, August Bank Holiday, Christmas (in England and Wales) and the first working day of the year (in Scotland).

Local Authority Staff : Certain variations are put forward for staff of local authorities.

Salaries : Temporary staffs to be placed on salary scales.

Conditions and Overtime : Whitley Council conditions to be applied where they are not in operation. Building technicians to be placed in the Whitley Scales in accordance with their specialized training and qualifications, so that their conditions are equal to those of technicians in other employment. All temporary staff to be placed on the permanent staff after two years' service.

BUILDINGS ILLUSTRATED

UNIBUILDING DEVELOPMENT SITE, COVENTRY (see pages 471 to 474). The following firms collaborated in the production and/or erection of items as sub-contractors : Cellactite and British Uralite Co., Ltd., asbestos cement ; Chamberlin Weatherstrips, Ltd., caulking compound ; Hitchins Flush Woodwork, Ltd., doors ; E. O. Shanks & Sons, Ltd., doors and window frames ; W. N. Froy & Co., Ltd., ironmongery ; Williams & Williams, Ltd., metal windows ; Aygee, Ltd., architectural ironwork and glazing ; Ruberoid Co., Ltd., roofing ; Escor Industries, Ltd., aerated concrete ; Hadfields (Merton), Ltd., interior paint ; W. & J. Leigh, Ltd., exterior treatment ; B. Finch & Co., Ltd., plumbing ; Mills Scaffold Company, Ltd., site erectors ; Garlicks, Ltd., site and builders' works.

ANNOUNCEMENT

Mr. H. H. Murray has been appointed consultant architect to Messrs. De la Rue (Insulation) Ltd., in connection with post-war development of Delarex and Delaron materials.

For the post-war house . . . . . .

The M.15 Electrolux Refrigerator can be built into a kitchen fitment at any height, and will hold all the perishable food of the average small family. It can be seen at The Building Centre, London, and in many experimental post-war houses and kitchens. Write for our "Better Kitchens" leaflet.

Is noiseless and without moving parts.

ELECTROLUX LIMITED

Works: **LUTON, BEDFORDSHIRE** *Tel:* **LUTON 4020**

Stoneham & Kirk

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 Monday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal." War Address: 45 The Avenue, Cheam, Surrey.

Public and Official Announcements

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

The Incorporated Association of Architects and Surveyors maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. Address: **75 Eaton Place, London, S.W.1. Tel.: Sloane 5615** 991

COUNTY BOROUGH OF EASTBOURNE.

APPOINTMENT OF SENIOR ASSISTANT ARCHITECT.

Applications are invited for the post of Senior Assistant Architect at a salary of £425, rising to £475 per annum, by two annual increments of £15 and one of £20.

Applicants should be Associates of the R.I.B.A., and should have had considerable experience in the design and construction of Schools, Public Buildings, and Housing Estates.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and will be determinable by one month's notice on either side. The successful applicant will be required to pass a Medical Examination.

Applications endorsed "Senior Assistant Architect," stating age, qualifications, previous experience, and position in respect of National Service, together with copies of three recent testimonials, should reach the undersigned not later than 12 noon on Monday, July 3rd, 1944.

F. H. BUSBY,
Town Clerk.

Town Hall,
Eastbourne.
June, 1944. 673

ESSEX EDUCATION COMMITTEE.

SOUTH-WEST ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART, FOREST ROAD, WALTHAMSTOW, E.17.

The Governors invite applications for the following full-time appointments in the Department of Building:—

(a) Lecturer and Studio Instructor in Architecture.
(b) Lecturer and Studio Instructor in Structural Engineering.
(c) Lecturer and Studio Instructor in Building Construction.

Salary Burnham (Provincial) Scale.

Applications, by letter, should be sent not later than the 3rd July to the Clerk to the Governors at the College.

B. E. LAWRENCE,
Chief Education Officer.

County Offices,
Chelmsford. 678

THE POLYTECHNIC, REGENT STREET, LONDON, W.1.

SCHOOL OF ARCHITECTURE AND TOWN PLANNING.

Applications are invited for the following posts:—

(1) Full-time Senior Lecturer and Studio Master in Constructional Subjects.
(2) Two Full-time Studio Masters and Lecturers in Architectural Subjects.
(3) Part-time Lecturers (Evenings) in Town and Country Planning Subjects, and Studio Masters in Planning and Civic Design.

Candidates for (1) and (2) must be Fellows or Associates of the Royal Institute of British Architects. The Degree or Diploma of a fully recognized School of Architecture will be a recommendation. Previous teaching experience is an essential requirement for (1).

Candidates for (3) should be Members or Associate Members of the Town Planning Institute.

Salaries in accordance with the Burnham Technical Scale for London (plus war-time bonus), subject to the usual 5 per cent. deduction for superannuation. Commencing salary according to qualifications and experience.

Further particulars and forms of application, which must be returned by 29th July, 1944, can be obtained by sending a stamped addressed foolscap envelope to the Director of Education, The Polytechnic, 309, Regent Street, W.1. 682

SURREY COUNTY COUNCIL.

EDUCATION COMMITTEE.

SUTTON & CHEAM SCHOOL OF ART.

Required for September, 1944, qualified part-time instructor to be responsible for teaching draughtsmanship and building construction to a class of boys age 14-16 years. The teaching periods are Tuesday and Thursday mornings and afternoons, and possibly Saturday mornings. Salary, 8s. an hour, plus reasonable travelling expenses. Applications should be sent to the Principal, School of Art, Throwley Road, Sutton, Surrey. 674

THE PEMBROKESHIRE JOINT PLANNING COMMITTEE.

TOWN AND COUNTRY PLANNING ACTS, 1932 AND 1943.

The above Committee invite applications for the appointment of Planning Officer.

Salary £500 per annum or by arrangement according to experience, plus travelling allowance and war bonus on the County Council scale.

Applicants must have had experience in the preparation of Planning Schemes, and preference will be given to Associate Members of the Town Planning Institute.

The Planning Officer will work in conjunction with the Consultant who is directing the preparation of the Pembrokeshire Scheme.

Applications, on forms to be obtained from this office, accompanied by copies of not more than three testimonials, addressed to the undersigned and endorsed "Planning Officer," should be received not later than the first post on Monday, the 4th day of July, 1944.

W. E. BUFTON,
Clerk to the Pembrokeshire Joint Planning Committee.

County Offices,
Haverfordwest.
9th June, 1944. 677

Architectural Appointments Vacant

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

Wherever possible prospective employers are urged to give in their advertisement 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.

TWO JUNIOR ASSISTANTS required by Reading firm of chartered architects. Apply stating age, experience and salary required—must be exempt from military service. Box 676.

ESTIMATING AND COSTING SURVEYOR OR ENGINEER wanted by small but well-established firm of Civil Engineering Contractors, E. London area, to take charge of tendering and costing for construction and maintenance contracts. Sound knowledge of building and civil engineering, and experience in contractors head office essential. Salary £500 to £700, according to age and experience. Applications in writing (no interviews), state date of birth, full details of qualifications and experience (including a list in chronological order of posts held), and quoting Ref. No. Q.R.106, should be addressed to the Ministry of Labour and National Service, Appointments Department, Sardinia Street, London, W.C.2. 675

MINISTRY OF LABOUR AND NATIONAL SERVICE.

TRAINING DEPARTMENT.

Applications are invited for the post of Deputy Chief Inspector (Building) at London Headquarters.

Salary range: £850 to £1,000.

Candidates are required to have good knowledge and experience of building and civil engineering practice, and of contract work in relation to these industries—high educational standard—professional qualifications an asset—must be capable of dealing with senior representatives of the industries and associated bodies—knowledge of working of Government Departments an advantage.

The successful candidate will be responsible for technical advice generally, preparation of syllabuses, inspection, organisation of training under production conditions, etc.; co-ordination and control of the work of the building technical staff in Training Department.

The post is temporary, but candidates would be expected to be available for the period of training contemplated in the Government White Paper on Training for the Building Industry.

Applicants should write, quoting E.998A to the Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2, for the necessary forms, which should be returned completed on or before 29th June, 1944. 681

Classified Advertisements continued on page xxxiv

ASSISTANT WANTED for work on Industrial Design. Please write Brian O'Rorke, F.R.I.B.A., 133A, Sloane Street, S.W.1. [Chartered Architect.] 679

ARCHITECTURAL ASSISTANT (TEMPORARY), preferably qualified, required by East London Local Authority. Experienced in preparation of designs, working drawings, specifications, bills of quantities and estimates. Experience of supervision of repairs to war damaged property desirable. Persons liable for military service ineligible. Salary £400 p.a. plus bonus (at present 19s. per week). Written applications (no callers), stating age, qualifications and experience, with copies of three references, to Ministry of Labour and National Service, Appointments Department, Sardinia Street, Kingsway, London, W.C.2, quoting reference Q.R.70. 680

Architectural Appointments Wanted

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

SURVEYOR, BUILDING SURVEYOR, INSPECTOR, Etc., with over 30 years' varied experience, qualifications (theoretical and practical), in all branches of the profession, and building trades, seeks responsible position in Birmingham, or surrounding five counties; with Local Authorities, or public bodies, etc.; experience in public offices; and includes war damage, dilapidations, etc.; exempt military service, over military age. Box 306.

MALE ARCHITECTURAL STUDENT, second year Liverpool school of Architecture, wants work of national importance in an architect's office, London preferred, during summer vacation after July 8th. Box 308.

BOY (aged 16½), trained draughtsman, very interested in architecture, requires post in architect's office. Box 310.

ARCHITECT AND SURVEYOR, L.R.I.B.A., A.I.A.S. (Quants.), Age 37, seeks contact with firm offering post-war prospects, preferably with view to partnership; 20 years varied experience; very excellent credentials. Box 309.

JUNIOR DRAUGHTSMAN (aged 17), 4 years' technical college (building) training; some experience; wants position in either architect's office or drawing office in London area. Box 311.

ASSISTANCE OFFERED by A.R.I.B.A. (exempt) in Birmingham and district. Box 312.

ASSOCIATE, medically discharged from the Army and now free, with over 20 years' varied experience, since leaving public school and architectural association, desires working partnership where real prospects of post-war work exist. Advertiser is useful designer and first-class draughtsman. London or country preferred. Reply Box 313.

ARCHITECT (registered), L.R.I.B.A. quantity surveyor, desires responsible position with post-war prospects. Experienced housing, factories, licensed premises, hospitals and nurses homes, alterations to existing buildings, working drawings, details, specifications, bills of quantities, checking accounts, land surveying and levelling, etc. Salary £450 p.a. Box 314.

CHARTERED ARCHITECT, 35 (school trained), on deferred service with RAFVR, seeks position in Yorkshire. Specialist in school design and quantities. Salary by arrangement. Box 315.

TWO COMPETENT DRAUGHTSWOMEN, third year students Regent Street Polytechnic School of Architecture, want office experience with architect or town planner, during summer vacation, starting July 31, London. Box 316.

ARCHITECTURAL ASSISTANT, with first-class experience, layouts, perspectives, details, surveying and levelling; age 35; exempt from military service; now available. Hugh R. H. Eades, 13, Stoke Road, Guildford, Surrey. 317

DRAUGHTSMAN TRAINEE. 16 years. 2 years Civil Service. Seeks position in South Yorkshire. Good Tracer. References. Carnley, 41, The Crescent, Bolton-on-Dearne. 318

Other Appointments Wanted

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

CONSULTANT available to advise on Schemes for Sanitary Services, Drainage, Plumbing, Heating, etc., for new construction or adaptations. Box 672

Planning

As originators of the Auto-Recorder System of Machine Milking we have had extensive experience of planning layouts to accommodate the new technique. The service of our Technical Department is available to any Architect planning or modifying farm buildings for this purpose. Write in confidence to:—The Planning Dept., Gascoignes (Reading) Ltd., Gascoigne House, Berkeley Avenue, Reading. 603

Other Appointments Vacant

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

ASSISTANT EDITOR wanted for Architectural Paper. Write, with full particulars of qualifications, salary required, &c., to Box 51.

Miscellaneous

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

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

SPECIFICATIONS AND BILLS OF QUANTITIES, etc., expeditiously and accurately typed or duplicated. Translations and Facsimile, Typewriting. All work treated confidentially. Miss G. Saunders, Typewriting Bureau, 17, Dacre Street, Westminster, S.W.1. Telephone: Whitehall 2605

FENCING AND GATES of every type, supplied and erected. Specialists in chain link. Boulton & Paul, Limited, Norwich. 662

MONOMARK service. Permanent London address. Letters redirected immediately. Confidential. 5s. p.a. Royal Patronage. Key tags 3 for 1s. 3d. Write BM/MONO5R, W.C.1. 44

Educational Announcements

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

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. Tutor, St. Catherine's College, Cambridge. 231

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