THE ARCHITECTS' JOURNAL

No. 2599] [VOL. 100

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★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone number of the organizations concerned. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association. 34/6, Bedford Square, W.C.1.	Museum 0974
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
BC	Building Centre. 23, Maddox Street, W.1.	Mayfair 2128
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. Shobnall Road, Burton-on-Trent.	Burton-on-Trent 3350
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	British Steelwork Association. 11, Tothill Street, S.W.1.	Whitehall 5073
BSI.	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CEMA	Council for the Encouragement of Music and the Arts. 9, Belgrave Square, S.W.1.	Sloane 0421
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CSI	Chartered Surveyors' Institution. 12, Great George Street, S.W.1.	Whitehall 5322
DIA	Design and Industries Association. Central Institute of Art and Design, National Gallery, W.C.2.	Whitehall 2415
DOT	Department of Overseas Trade. Dolphin Square, S.W.1.	Victoria 4477
EJMA	English Joinery Manufacturers Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1.	Canonbury 2041
FS (Eng.)	Faculty of Surveyors of England. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 55, Great Ormond Street, W.C.1.	Holborn 2664
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
HPS	Housing Production Society. 1, Old Burlington Street, W.1.	Regent 3380
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 3158
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128-29
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3767
MARS	Modern Architectural Research. 46, Sheffield Terrace, W.8.	Park 7678
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Belgrave Square, S.W.1.	Sloane 4522
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300
MOI	Ministry of Information. Malet Street, W.C.1.	Euston 4321
MOLNS	Ministry of Labour and National Service, St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Abbey 7711
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1.	Abbey 1010
NBR	National Buildings Record. 66, Portland Place, W.1.	Welbeck 1881
	All Souls' College, Oxford.	Oxford 48809
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041
NFBTO	National Federation of Building Trades Operatives. 9, Rugby Chambers, Rugby Street, W.C.1.	Holborn 2770
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 2881/2/3
NT	National Trust for Places of Historic Interest or Natural Beauty. 7, Buckingham Palace Gardens, S.W.1.	Sloane 5808
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
PWB	Post War Building, Directorate of. Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
RCA	Reinforced Concrete Association. 91, Petty France, S.W.1.	Whitehall 9936
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Welbeck 5721
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Temple Bar 8274
SFMA	School Furniture Manufacturers' Association. 13, New Square, Lincoln's Inn, W.C.	Chancery 5313
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 6147
TPI	Town Planning Institute 18, Ashley Place, S.W.1.	Victoria 8815

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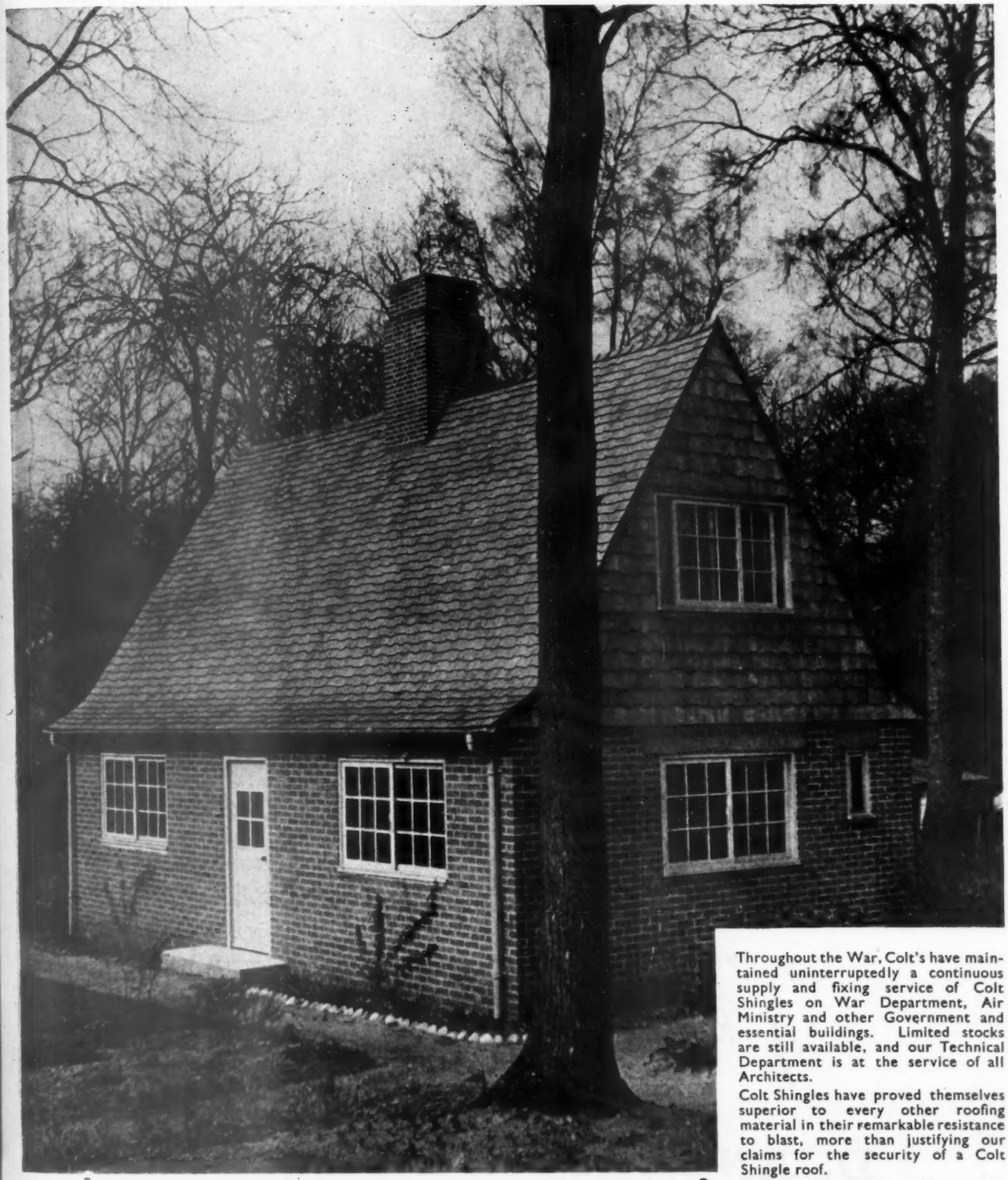
THROUGHOUT THE WAR and INTO PEACE . . .



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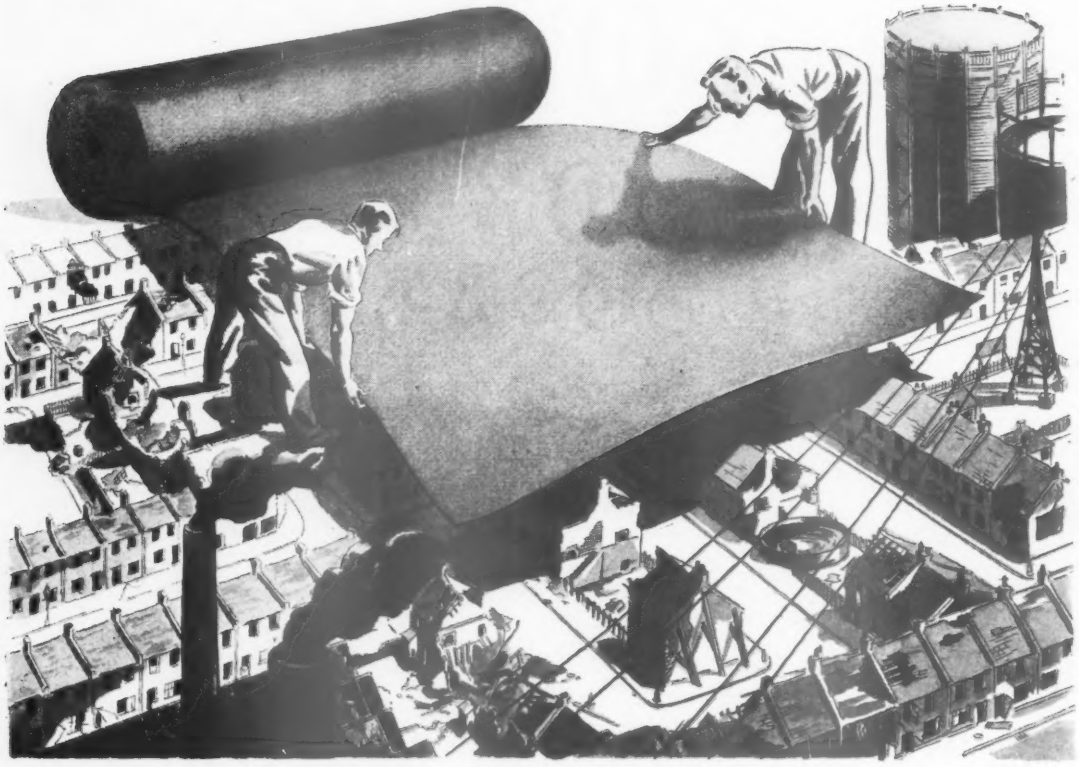

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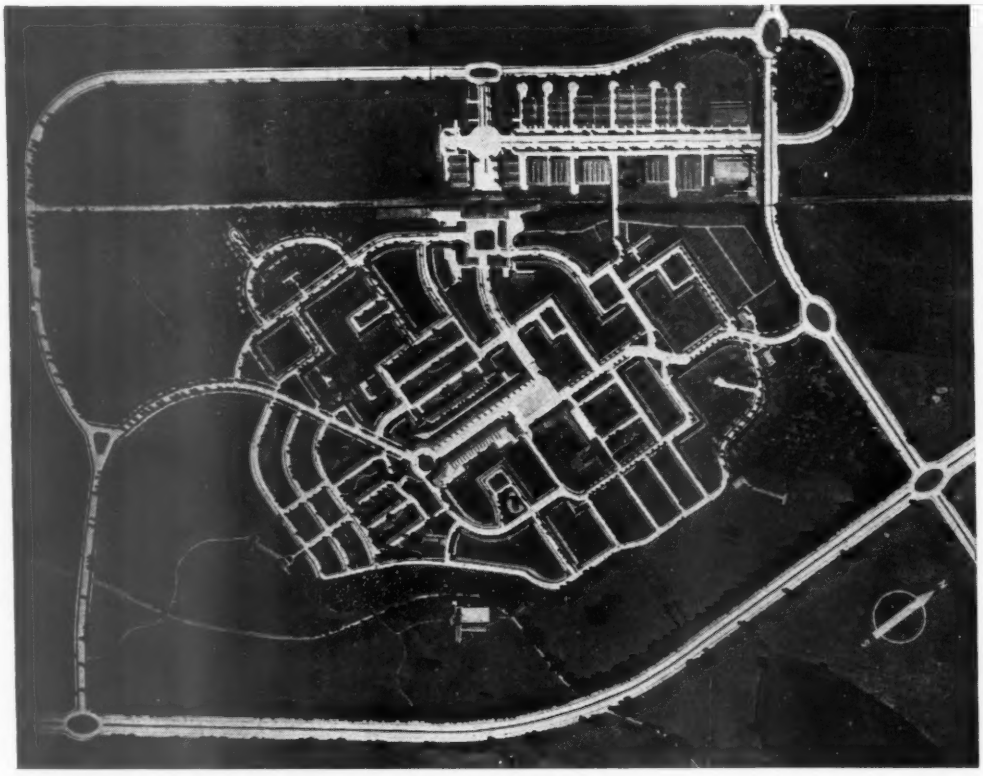

Model of a new town by Thomas Sharp. Reproduced from "Our Birmingham" published by Cadbury Brothers, Ltd.

THE REGIONAL PLAN IS ONLY THE BEGINNING

Within the regional plan, with its provision for the particular requirements of the areas concerned, the new buildings of the post-war world will arise.

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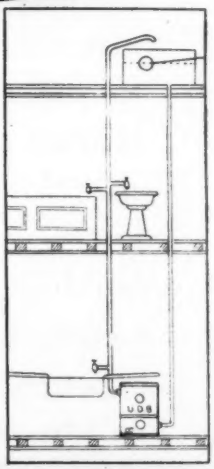

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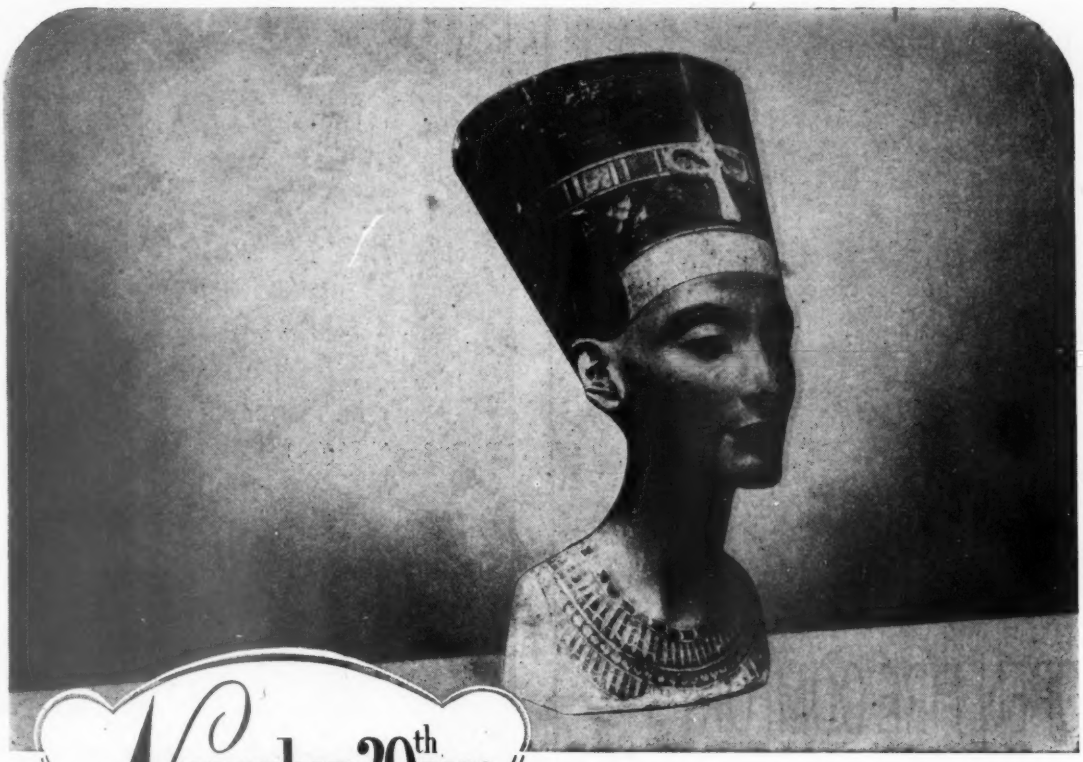

November 29th 1922

The Tutankhamen discoveries in 1922 resulted in world-wide appreciation of this superb bust of Queen Nefertiti, illustrations of which were previously not generally available.

Those were the days when correspondents in Cairo were cabling home front page news of a bygone civilization; when we at Crown Works were playing our part in creating fine buildings such as Dickins & Jones', Craigweil House, Bognor; Imperial College of Science, Ascot Grand Stand, Gamages of Holborn, and a number of country mansions, office buildings and factories of great variety.

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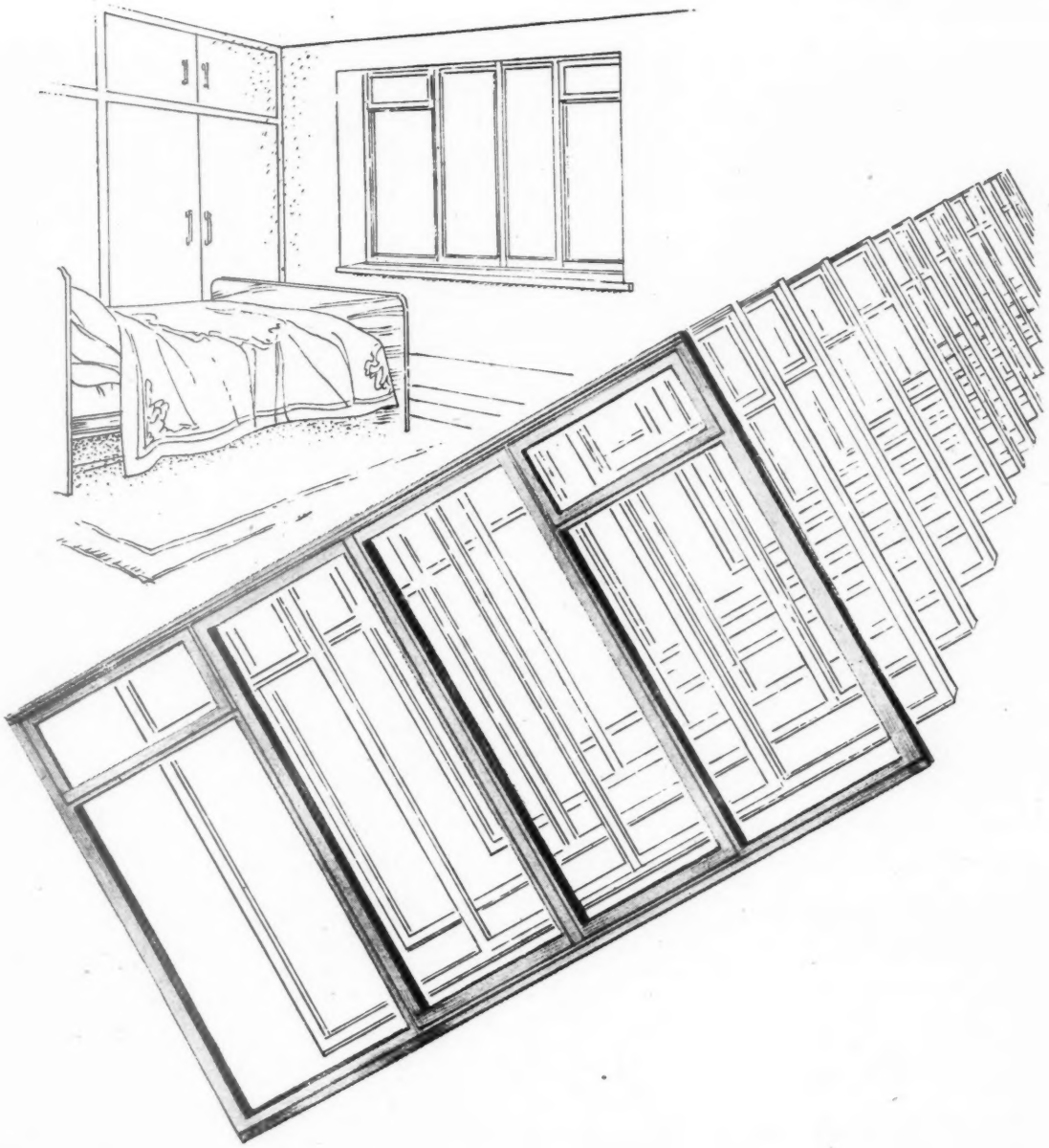

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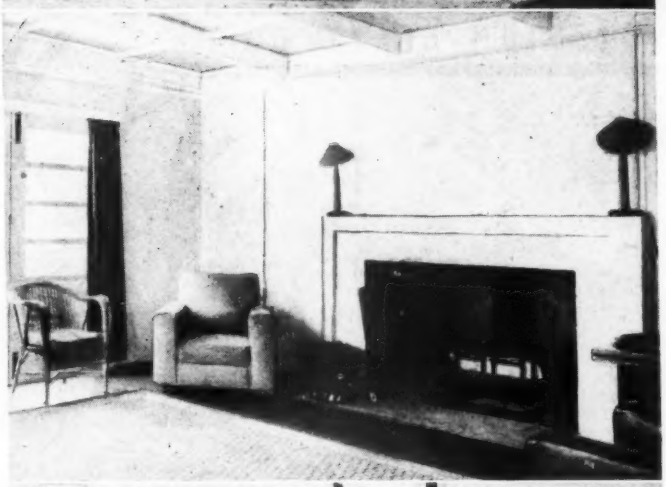

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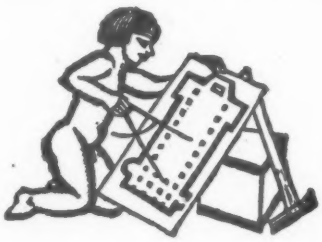


DIARY FOR NOVEMBER DECEMBER AND JANUARY

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.

BERWICK-ON-TWEED. *When We Build Again.* Exhibition and Film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.). DEC. 9-16

BIRMINGHAM. *Illuminating Engineering Society (Birmingham Centre).* At the Society of Arts Gallery, New Street, Birmingham. *Recent Development.* Papers by an Architect and an Illuminating Engineer. Joint Meeting with Birmingham and Five Counties Architectural Association. 6 p.m. Nov. 17

BLACKBURN. *Living in Cities.* Exhibition. At the Assembly Hall (Sponsor, BIAE). Nov. 18-DEC. 1

BROMLEY, KENT. *Your Inheritance.* Exhibition. (Sponsor, Housing Centre). Nov. 23

Good Neighbours. Exhibition. (Sponsor, Housing Centre) Nov. 30

DURHAM. *When We Build Again.* Exhibition and film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) Nov. 16-18

HOLBEACH, SPALDING, LINCS. *The English Town—Its Continuity and Development.* Exhibition. (Sponsor, TCPA). DEC. 4-16

LONDON. G. E. Moore. *Planning the Future Electricity Meters.* At Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE). 5.30 p.m. Nov. 17

Sir Peirson Frank. *Presidential Address to the Town Planning Institute.* At Caxton Hall, Caxton Street, S.W.1. (Sponsor, TPI). 6 p.m. Nov. 16

The Effect of Welding on Electricity Supply. Discussion. At the Institute of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE). 5.30 p.m. Nov. 20

County of London Plan and *Town House.* Exhibitions. At the National Association of Maternity and Child Welfare, Piccadilly, W. (Sponsor, Housing Centre). Nov. 21-24

T. P. Bennett, late Director of Works, Ministry of Works. *Principles of Organization and Management as Applied to the Building Industry.* At the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1. Second of three lectures and discussions. Fee 2s. Outline syllabus of lecture. The contribution of main contractor, sub-contractor, agent, foreman, clerk of works and operative. The organization of operations: programme and progress (*a*) before commencement of contract; and (*b*) on the site. (Sponsor, University of London in co-operation with the Institute of Industrial Administration). 5.30 p.m. Nov. 21

Dr. R. Wittkower. *Lord Burlington's Architectural Method.* At the Courtauld Institute of Art, 20, Portman Square, W.1. 1.15 p.m. Nov. 23

T. P. Bennett, late Director of Works, Ministry of Works. *Principles of Organization and Management as Applied to the Building Industry.* At the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1. Last of three lectures and discussions. Fee 2s. Outline syllabus of lecture. Division of the contract between head office and site: (*a*) architect; (*b*) building contractor. Site organization: (*a*) information; (*b*) material; (*c*) labour and welfare; (*d*) sub-contractors. Control of time and cost. (Sponsor, University of London in co-operation with the Institute of Industrial Administration). 5.30 p.m. Nov. 28

Dr. N. Pevsner. *Vincent van Gogh.* At the Courtauld Institute of Art, 20, Portman Square, W.1. 1.15 p.m. Nov. 30

K. de B. Codrington. *The Art of Seeing.* At the Courtauld Institute of Art, 20, Portman Square, W.1. 1.15 p.m. DEC. 7

T. P. Bennett. *The Architect and Organization of Post-War Building.* At the RIBA, 66, Portland Place, W.1. (Sponsor, RIBA). 6 p.m. DEC. 12

The Insulation of Buildings, Domestic and Industrial. Fifth paper in series on *Thermal Insulation.* At the Institution of Mechanical Engineers, Storeys Gate, S.W.2. 2.30 p.m. DEC. 13

J C. Nicol. *Organization of Industrial Electrical Maintenance.* At Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor IEE). 5.30 p.m. DEC. 14

RICHMOND YORKS. *Rural Housing.* Exhibition. (Sponsor, Housing Centre). Nov. 22-29

SPALDING, LINCS. *The English Town: Its Continuity and Development.* Exhibition. At the East Elloe Post-War Housing Committee, Holbeach. (Sponsor, TCPA). DEC. 4-16.

NEWS

THURSDAY, NOVEMBER 16, 1944
No. 2599. VOL. 100

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.

Mr. Dalton, President of the Board of Trade, has decided to appoint a Furniture Production Committee, to advise him how to ensure an abundant supply of GOOD DOMESTIC FURNITURE at reasonable prices.

Mr. Charles Tennyson, chairman of the board of governors of the National Register of Industrial Art Designers and member of the Council for Art and Industry, will be chairman. The committee will comprise members from both sides of the industry, together with a few non-trade members.

Eight farms between Berkeley Vale and the Cotswolds have been BOUGHT BY THE BRISTOL CO-OPERATIVE SOCIETY.

The property, which also includes 11 cottages, a village inn and 1,231 acres, was bought for £38,000. Explaining the purchase, Mr. W. Coldwick, president of the society, said: We are very much interested in the future of agriculture. The tenants need not be perturbed, because it will be a long time before the society embarks on farming. No decision regarding the inn has been reached.

From AN ARCHITECT'S *Commonplace Book*

ARP PROPOSALS OF 1926. [*From* Architects and the Next War, *by Henry W. Nevinson* (*two articles in the Architects' Journal, January* 13 *and* 20, 1926).] What, then, can be done? And, first, what might architects do? One proposal, I can imagine, must be for the Government to insist upon the construction of deep bomb-proof chambers below the foundations of every new important commercial building put up. These chambers should have steel ceilings and roofs of reinforced concrete. If they were sunk deep in the gravel or London clay, not even a two-thousand-pound shell of delayed action, penetrating through lofty buildings, such as we now see in Regent Street, could reach them . . . it would be advantageous to have the shelters connected by passages, and at intervals to construct stairways down into the tubes, so that a thorough underground communication might be maintained from one part of London to the other. . . . For lighting and cooking in the subterranean shelters and tubes, electric power must be provided; and at the very first possibility of war, power-stations should be constructed underground, and the essential wires laid ready. . . . If such a scheme be thought altogether too vast for any Government to contemplate, at least the Government cannot refuse to prepare similar protection for the edifices that shelter the brains of the State, such as the War Office, the Foreign Office, and Downing Street. The existence of the State could thus be maintained, even though the citizens of the metropolis were gradually or rapidly exterminated.

Work is to be started almost immediately on the building of A GREAT ELECTRIC POWER STATION, costing three-and-a-half-million pounds, on a site at Bromborough, near Birkenhead.

Birkenhead Corporation will be responsible for the erection of the power station, which will be one of a number of similar buildings to be erected in different parts of the country in connection with the general electrification scheme.

The Executive Council of the Amalgamated Union of Building Trade Workers emphatically protests at the ILL-INFORMED CRITICISM OF BUILDING TRADE OPERATIVES in connection with bomb damage repair work in London and Southern England.

The Executive Council points out that these are the same men whose achievement of the Government's war building programme marks them as the greatest builders in history. To suggest that these same men are now oblivious of the terrible plight of the people of London and Southern England whose dwellings have been damaged or destroyed by enemy air attack, especially from the flying bombs, is, the Council states, ridiculous in the extreme, and a gross libel against a section of workers who have rendered very material assistance towards victory in this war. As a practical solution in the speeding up of bomb damage repairs the Council puts forward the following proposals:—The vesting of complete directive authority and responsibility in one Government Department, *i.e.*, the Ministry of Works. This is all a practical job of building work. The creation of a central body, representative of the public authorities, building employers and building trade unions, empowered to maintain a constant supervision of activity and to demand progress reports from all areas concerned. Only such a body can ensure that the full weight of public authority, the maximum resources and capacities of the building industry, and the most effective application of building labour and skill, are brought to the task. In regard to the great host of building workers, for example, many difficulties could have been avoided if there had been the closest consultation and co-operation between those charged with management and the officers of the trade unions. To-day encouragement to do the best work, the spirit of emulation, the raising of industrial morale, rests entirely with the good trade unionists headed by the job stewards. The most effective regional planning of the work, so as to prevent overlapping; the establishment of materials dumps, so as to render the essential materials readily available; and a more intensive examination of billeting and transport arrangements.

Harold W. Hopgood, of 45, *Langton Street, Preston, was PROSECUTED AT PRESTON Magistrates' Court on November* 6*th by the Architects Registration Council of the United Kingdom, under Section* 1 *of the Architects Registration Act,* 1938.

He was fined £15 with £6 19s. costs. The defendant is well known in the neighbourhood, and is alleged to have done important work as a surveyor. He wrote letters of a touting character, in which he held himself as an architect, to builders in the blitzed areas in different parts of the country.

★

Joint local inquiries to be held by the Ministry of Town and Country Planning and The Electricity Commissioners into THE PROPOSED DURHAM POWER STATION will begin on December 5.

The local enquiries ordered by the Minister of Town and Country Planning (Mr. W. S. Morrison) and the Electricity Commissioners into the proposal of the North Eastern Electricity Supply Company to erect a new generating station at Kepier, near Durham, are to be held jointly. They will open at the Shire Hall, Durham, on December 5, at 10 a.m.; and will, if necessary, continue on the following days. The Minister of Town and Country Planning has appointed Mr. G. L. Pepler, and the Electricity Commissioners have appointed Sir Cyril Hurcomb, and Mr. C. G. Morley New to hold these inquiries. Copies of the relevant plans will be available for public inspection at the Shire Hall, Durham, during normal office hours in the week ending December 2. Any person interested will be afforded an opportunity of giving evidence at the inquiries. It will be recalled that following an application to the Electricity Commissioners for consent under Section 11 of the Electricity (Supply) Act, 1919, the Company also applied to the Durham Rural District Council for permission to erect this new station. The application was referred to the Minister of Town and Country Planning, in pursuance of a direction given by the Minister under Section 6 of the Town and Country Planning (Interim Development) Act, 1943.

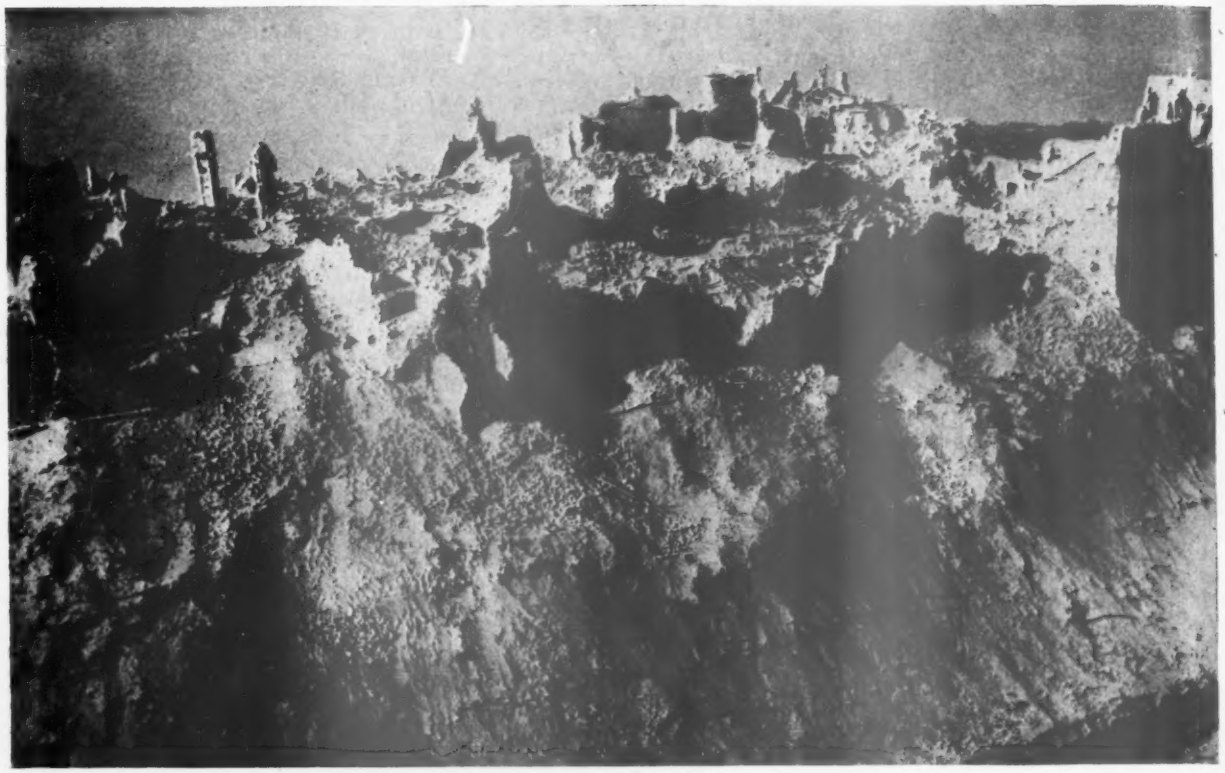
★

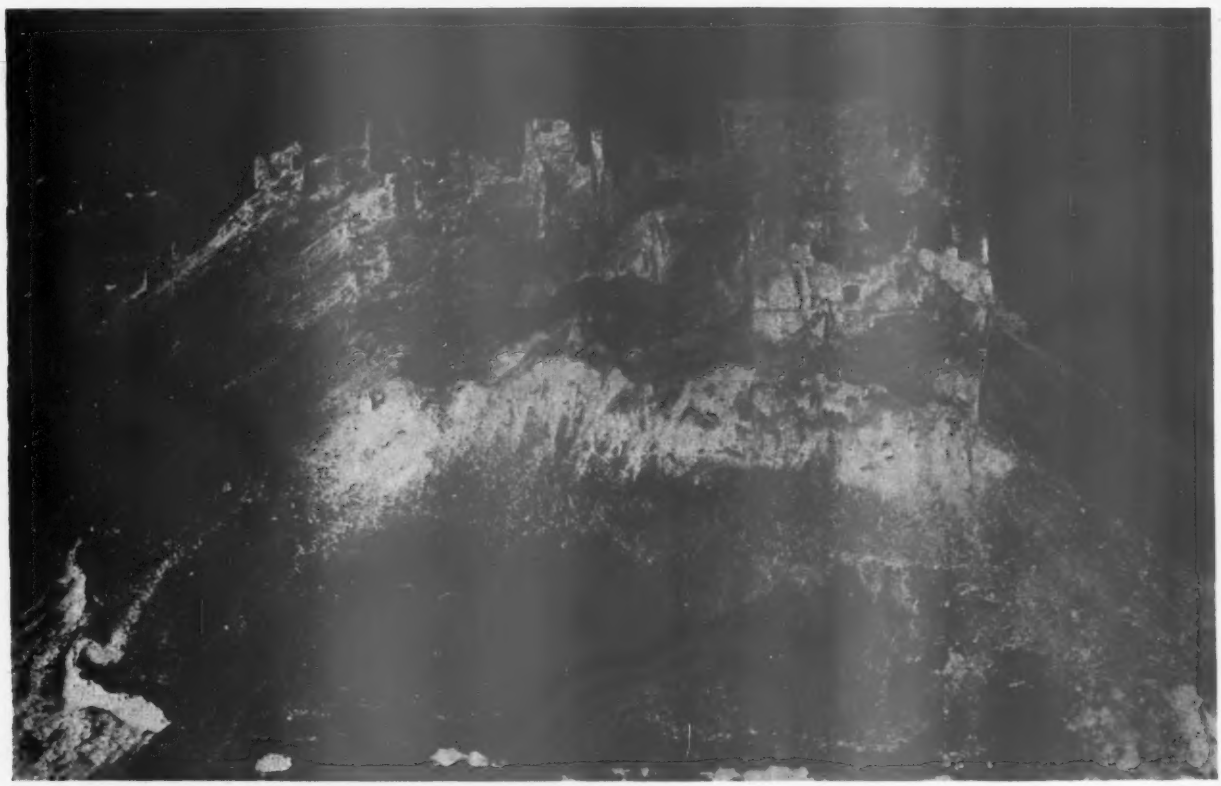
Mr. E. R. Chilton, A.R.I.B.A., A.M.T.P.I., has been APPOINTED PLANNING OFFICER FOR THE COUNTY OF KINCARDINE.

Mr. Chilton was a member of the Planning Dept., North Riding, Yorks, County Council, and of late he has been engaged in H.M. Government Service.

After the war Brighton will make a strong bid to become BRITAIN'S SPORTS LOVERS' SEASIDE RESORT NUMBER ONE.

The Post-War Entertainments Planning Committee set up by the Corporation to consider the use of their sites is now submitting suggestions to the Council. "The Stroller" of the *Evening News* has talked to Alderman Talbot Nanson, three times Mayor (chairman of the committee) and Mr. George Stanley Godfree, Borough Clerk of the Peace and chairman of Sussex County Cricket Club Committee. The days have gone when a visitor was content just to sit on the beach, said Mr. Godfree. The kiddies will be looking for safe boating lakes and swimming pools, the eighty-year-olds for their bowling greens. People of other ages will want tennis courts and golf courses. Alderman Nanson added that among suggestions he had to make was that the Corporation should provide indoor bowling greens.





Unprotective Architecture

These apocalyptic views of Monastery Hill, Cassino, after its capture by the Allies last May, remind one of a lunar landscape. Can it be that the men in the moon, after centuries of war which has given their globe the scarred surface we know, have retired below ground? Is that why we see no signs of life there through our telescopes? Perhaps we in future will also have to go below? This is a distressing thought, but is it lunatic to face it? In an article in this issue, John Gloag does not reveal how our buildings may be affected by future wars, but he does suggest that architects must now be prepared for their possibility and thus initiate a new protective architecture.

★

Earl Winterton's Select Committee recommends the design of Sir Giles Gilbert Scott, R.A. for RE-BUILDING THE OLD CHAMBER OF THE HOUSE OF COMMONS destroyed in the blitz.

The committee considered whether there should be competitive designs for the new chamber, but decided against this, and after taking advice selected Sir Giles Gilbert Scott, R.A., as best qualified to provide plans in keeping with the Gothic style of the Palace of Westminster. The plans recommended by the Committee are signed by Sir Giles Gilbert Scott, and his brother, Mr. Adrian Gilbert Scott. The Committee invited Dr. Oscar Faber to submit a ventilating and heating scheme. The advantages of the new scheme are: Preservation of the traditional dimensions and essential features of the House; increase of Press and strangers' seats; concentration in separate galleries of reporters and of all other strangers, thus making for convenience of access and control by the Sergeant-at-Arms; improvements in vision from all strangers' seats; an up-to-date system of heating, ventilation and lighting; provision for secretarial, interview and conference rooms not hitherto available to members; improvements to the Whips' and staff offices; improved access to all parts of the House. The plan will necessitate the provision of an alternative site for the Lobby Bar, and of additional refreshment facilities for the Press and other strangers. The cost is put at approximately £784,000, but this excludes certain fees and salaries. Building, it is estimated, will occupy four to five years. Apart from this 18 months will be required for the preparation of architects' working drawings and other preparations.

★

The Inter-Departmental Committee on the establishment of a School of Aeronautical Science recommends the building of a TWO-AND-A-HALF MILLION POUND AIR COLLEGE at Aldermaston, Berkshire, or Dunsford, Surrey.

Both these sites meet the committee's requirements that the college should be situated near its own airfield, within easy reach of London, and near the principal research establishment, which is at Farnborough, Hants. However, since the committee considers the time factor to be of vital importance in setting up the new college, it has made an alternative recommendation that it should temporarily occupy an R.A.F. station until permanent quarters are ready. The cost of such a scheme would be £150,000 for the adaptation of existing buildings and £300,000 for new equipment. The full scheme would involve expenditure of £2,610,000 and an annual cost of £380,000.

Prizes worth £5,000 are to be offered to British architects in a competition for DESIGNS FOR A NEW CRYSTAL PALACE.

The competition is being promoted jointly by the Trustees of the Crystal Palace and the Council for the Encouragement of Music and the Arts.

DEMOBILIZATION

THE Government must have been reasonably gratified at the reception their plan for demobilization, or, more correctly, for the re-allocation of man-power, received from the public. As it was coupled with an increase in Service pay, they have also reduced somewhat the criticism that compulsory national service meant one thing, financially, when you donned uniform and quite another when you were allowed to work in civilian clothes

Essentially, the scheme is simple, and that is one of its best features. It is in two parts. The first is an overall plan for the reduction of the armed forces as and when they can be reduced. The intake continues. The only two factors taken into account in determining which men are to be released, as the numbers of the men in the Forces are reduced, are age and length of service, two months' service being equivalent to one year in age. The only exception is that all men of fifty or more are given first priority, regardless of the length of their service.

But the second part of the scheme is one of major interest to those who are concerned in the resumption of national industry on a peace basis. This section provides that, over and above the regular discharge of men by age and service, specialists may be released for urgent reconstruction work in industry. These men will be released by the Services in bulk, being replaced by the new intake, but only at the request of a Government department, and the indications are that these men will be called for on the basis of their peacetime trades. For example, the Ministry of Works may ask for 10,000 bricklayers. The Services will release 10,000 of the men who were bricklayers when they entered the Services, choosing particular individuals from those whose qualifications of age and length of service best entitle them to release.

No indication has yet been given of the kind of tradesmen who will be required by the Government departments for this early release, but already the claims of the specialists are rising. When the war in Europe is over, it is only too likely that practically every trade, from canal lock-gate keepers to cinema car-park attendants, will have some plausible, if not convincing, argument for the special release of their men.

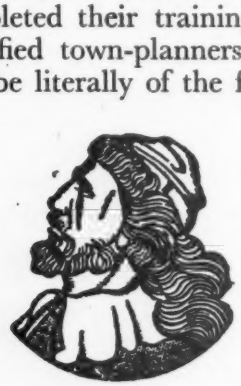
It is for this reason that it is essential the Government should cease to talk in generalities and come down to facts. Before builders and contractors, before municipal corporations, can embark on any plan with confidence that it will bear some resemblance to reality, they must know how their labour force of specialists will be augmented in this way. Unless these facts are known, we are still in the never-never land of things it would be nice to do if you could.

It is to be hoped that the Government will reach early decisions on these matters, decisions which can only be made if the Government now provides a properly conceived and co-ordinated plan of reconstruction to which demobilization is related.

The RIBA's Demobilization Committee is wisely "taking immediate action to secure official recognition of the importance and urgency of architectural work and a preliminary step in reconstruction, and of the vital necessity of transferring architects and students of architecture to Class B, so that their early release can be arranged."

The ABT also is urging that demobilization should give priority to building workers and particularly to teachers of building subjects. It makes the sound suggestion that adequate subsidized training and refresher courses must be made available to those whose war jobs, whether military or civilian, have interrupted their training or have resulted in the individual's loss of touch with new developments in technique.

Especially early demobilization should be given, not only to students of architecture and planning who had only half-completed their training when called up, but above all, to qualified town-planners, an all too rare breed, whose work will be literally of the first importance in rebuilding.



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

NOTES & TOPICS

BIG BEN

You can always tell a Londoner in London by two things—first, by the unhesitating way in which he dashes down the passages in the Tube which are marked No Entry; and secondly, by his ignorance of the history, and often even of the whereabouts, of his city's monuments

*

How many, for instance, of the thousands who glance daily at the familiar fretted face of Big Ben are aware of its history, of its designer's identity, or even of the reason for its name? Yet Big Ben stands for London to many millions of people—more even than the Tower, or Bow Bells, or the scarlet buses circling the statue of Eros. Even those who have never seen it—in fact, or upon the flanks of an H.P. bottle—feel an affection for it which has been strengthened by the war.

*

Assuming that you, like me, are among those ignorant thousands—and God knows stranger things have happened—let me pass on the knowledge I have gained from a pamphlet (author Mr. Gillgrass) which has been sent to me by Mr. J. S. Allen, of the Leeds School of Architecture.

*

First the name is, strictly speaking, the name of the big bell, and is so called after Sir Benjamin Hall, then chief Lord of the Woods and Forests (as the Portals of those days were titled). Parliament decided to have a clock in 1844, commissioned architect Charles Barry to arrange for it, and asked the Astronomer Royal to write the specification. His conditions of timekeeping were so exacting that six years later there was still no clock in existence.

*

Then a Mr. Denison, first Lord Grimthorpe, barrister, amateur biologist and inventor of the Grimthorpe Gravity Escapement, entered the field which was already littered with the broken hopes (and wheels) of Britain's ace clockmakers. By 1854 he had designed a clock, had it made by Messrs. Dent (the same firm which to-day services Big Ben), and caught Barry napping—for the tower was not ready to receive it. Denison found, too, that though Barry had specified a 14-ton bell he'd forgotten to order it—these *architects*—so Denison went ahead and designed and cast the monster.

*

This cracked when being tested for tone, but the next attempt prospered, and Big Ben was drawn in triumph to Westminster through decorated streets. The tower was ready, the bells hoisted, the movement wound. But the clock wouldn't go. It was that architect again. The hands he had designed were too heavy. Denison replaced them with a lighter model, and on May 31st, 1859, the clock started.

*

For those who wish to set up in their homes as amateur Commander Goulds, here are a few more facts. Big Ben has been slightly cracked since 1859. The chime and striking parts are wound three times a week by electric motors. The dials (22½ ft. in diameter), which are from the design of Pugin, cost more than the clock, and the pendulum is the heaviest in the country—twice a day since 1859 the clock telegraphs its performance to Greenwich, and apart from odd stoppages, it has never been more than 4 seconds away from true time.

FIGURES ABOUT RENTS

I have been reading a bulletin from the Institute of Statistics, Oxford, on the subject of expenditure on rent. The bulletin is based on an inquiry carried out in May last by the British Institute of Public Opinion.

*

The inquiry collected information from 1,736 families. The number seems small, but the families were carefully selected, both as to location and income, so that they do form a small but exact replica of the national total of some estimated 12,800,000 families. The incomes ranged from £2 per week to £15 per week, the rents from 8s. 8½d. per week to 29s. 5d. per week. The average rent was 16s. 7d.

*

The results are interesting and important. They are not startling, since it is common knowledge that the lower the income the greater the percentage of it that goes in rent. But here are the actual percentages: Income of up to £2 a week, 29 per cent. in rent; income £5 per week, 17.6 per cent. in rent; income £10 per week, 12.2 per cent. in rent; income of over £15, 8.9

per cent. in rent. Figures for rent include rates and water charges.

*

The inquiry also produced some data on the proportions of families within these ranges that owned or were buying the houses in which they lived. The overall percentage of owner-occupiers was 24.5 per cent., but only 13 per cent. of the families with an income of £2 a week or less were owner-occupiers, while in the income groups of £10 a week and greater the proportion rises to just under 50 per cent.

*

If you like drawing morals from figures, there are plenty here. One is the social danger of a relaxation of the present rent control. If a general increase were permitted, the families it would hit most harshly are the very families who are already paying too high a proportion of their incomes in rent.

*

The Departmental Committee on Rent Control, which was appointed about a year ago and, therefore, presumably can hardly claim that the urgency of the problem is an obstacle, should read this bulletin and think rather carefully over its implications before they break their silence.

A NEW BOOK ON BATH

A portrait has been described as a picture in which something is wrong with the mouth. Portraits of cities——Rasmussen's London and the Sitwell's Bath and Brighton are notable exceptions—are often equally unsatisfying though for different reasons. Successor to Oxford and Cambridge in Batford's series of city portraits is *Bath* by the late R. A. L. Smith. The price is 12s. 6d.

*

Like all famous beauties, Bath—the Lily Langtry of English urban architecture—has submitted to many attempts at recording her celebrated form. Mr. Smith's effort is a recognizable likeness. The distinguishing features are there—Royal Crescent curving like some huge Hapsburg lip—the background is carefully painted in, and it is presented in one of Batsford's most handsome frames. Yet the result is as flat and pompous as a picture postcard.

*

It is not, of course, Mr. Smith's fault that he is more interested in people than in buildings, and that, as a mediævalist, his attitude to 18th century architecture is correct rather than comprehending. It is his fault that he has limited the lavish quotations from other authors—Chapter 6 is almost entirely written by Jane Austen—with a commentary which is pedestrian, sententious, and at times couched in the obsequious jargon of the railway guide book.

*

The quotations are amusing enough, and there are so many it would perhaps have been wiser to make the book frankly an anthology or scrapbook. The illustrations, except for an illegible map, are well chosen, pretty, and admirably reproduced.

Prior Park, Bath, on its completion in 1750, showing Ralph Allen's Tramway for carrying up Bath Stone from the Quarries. From Bath *by R. A. L. Smith, reviewed by Astragal this week.*

POETS' CORNER

MEDITATION

We learn that each succeeding generation
Will live in homes of pure prefabrication—
Let us, without exaggeration,
Or persiflage, or prestidigitation,
Project our minds in simple speculation
On ways and means of giving animation
To this new type of human habitation.

Consider first your new home's one foundation.
Ignoring any local undulation,
One pedestal eschews all excavation,
And on this pole will perch in splendid isolation
Your panelled palace of reverberation.
Though not, perhaps, without some slight vibration.

Floors will be made with due consideration
For the domestic servant situation.
Not lino with its swift deterioration,
Nor marble from a co-belligerent nation,
Nor carpets for a fuhrer's mastication—
But mastic plastics with self-lubrication.

Next, windows—here baulks imagination
At new forms of ogrish fenestration.
The sash cord in its frayed annihilation
Will vanish. And vanish all vexation
In vast walls of natural illumination;
Bringing of course a certain revelation
Of dressing gowns, and deshabillitation
In every stage and varied combination.

Turn now in rapt anticipation
To means of heating, and of ventilation.
The first, to aid our failing circulation,
Will take the form of some irradiation
Graded from Inert to Full Incineration.
Then, every whiff of human exhalation,
Or smells of cabbage, mixed with Broad Street Station,
Will be removed by unperceived rotation.
Of fan blades with electric motivation,
While other fans inject a sweet sensation
Of atmospheric ozone, wafting pot-pourri carnation.

Will there be stairs, and sinks, and sanitation?
Will there be larders full of dehydration?
Shall we be plagued by every short wave station
Through walls designed for art, not insulation?
And will, oh will, there be some slight cessation
Of my outpouring, nay, of my libation
Down the twin drains of rating and taxation.

ROYAL ENGINEER IN PERTURBATION

BEACHCOMBER'S CORNER

The proprietors of Snibbo are pressing for the removal of Westminster Abbey, as it will interfere with the view from Victoria Street of their new posters, showing the Snibbo Girl.—(Beachcomber in the *Daily Express*.)

ASTRAGAL

LETTERS

Edward H. Pinto

Nathan Fielker
(*Executive Director, Housing Production Society*)

R. Lovatt, M.Inst.R.A.
D. Falkus

K. M. Greenwell
(*Forces Committee, Association of Building Technicians*)

Plunger

Major D. A. Goldfinch

Keep Their Memory Green

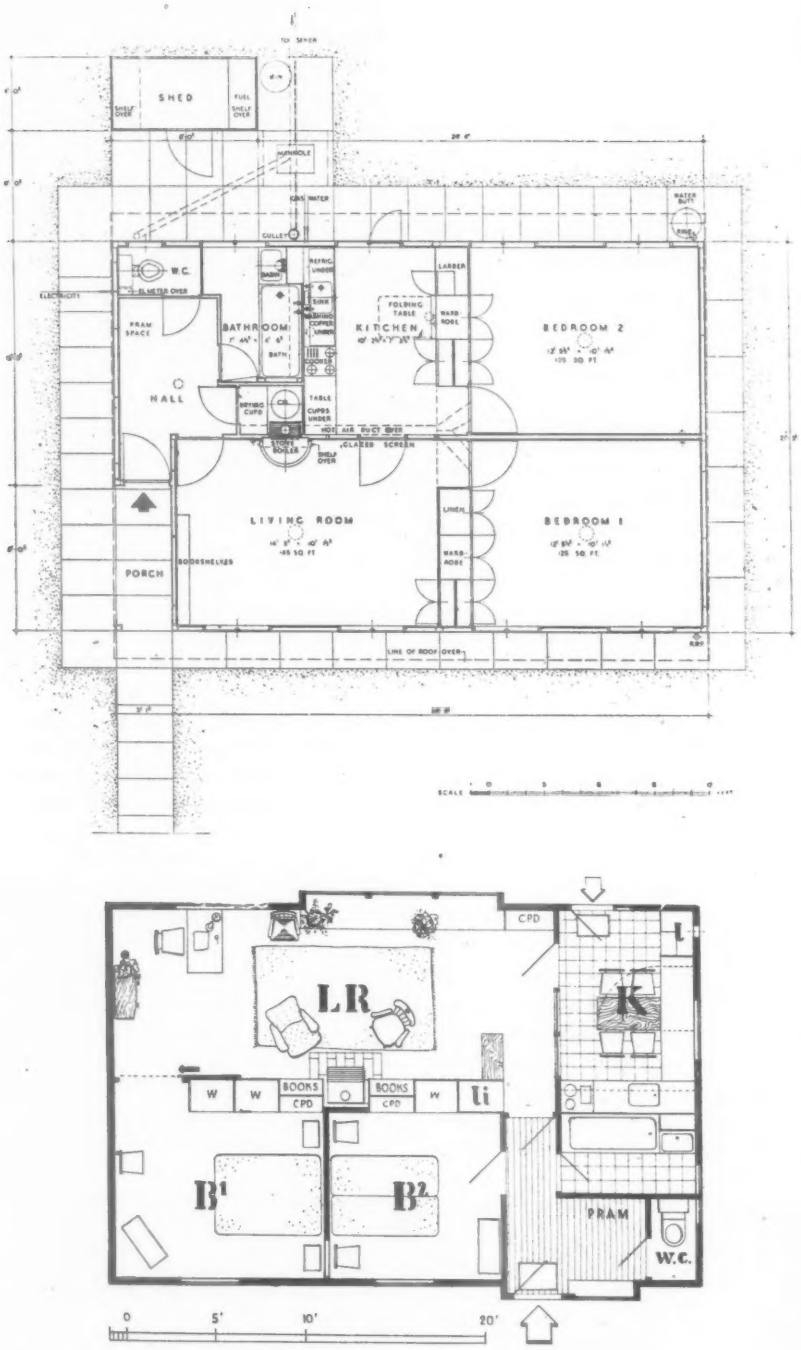
SIR,—Thoughts are beginning to turn to the designing of memorials to our dead. May I, through your columns, put forward the plea that, instead of resorting to dead stone and cold metal, this time we should keep green the memories of those who have fallen by planting living trees; at least one tree to commemorate each one who has gone forth never to return.

Memorial avenues could be planted in the devastated centres of our great cities, in our suburban or village streets, and in our parks and open spaces. Under the trees should be seats with the backs carved or engraved with the names of the dead. The multitudinous variety of trees which is available to suit the soil and climate of different localities and the lovely changes of colour in their foliage during the seasons, would ensure a wide diversity in the avenues, which would beautify every part of this island. The seats in their pleasant shade would provide rest and comfort for the weary and the maimed.

Finally, it should be remembered that timber is a munition of war, and not only has this war denuded our countryside of two out of every three available softwood trees and one out of three of our hardwoods, but many of our brave sailors and their ships have been lost in bringing timber to this country. In fact the increase in labour necessitated by the use of less suitable substitutes may be said to have lengthened the war.

A large reafforestation scheme is essential and, should war ever be forced on us again, the memorials to our dead would provide a last reserve which would help to save the lives of a future generation. It is really a revival of the wise custom of the mediæval church in planting yews for defensive bows and arrows.

London. EDWARD H. PINTO



The Churchill House. Top, the amended plan of the Ministry of Works. Bottom, suggested plan by Astragal.

Modular Co-ordination

SIR,—It is encouraging to read your leader and know that the subject is considered important, as the apathy that is met in pursuance of this subject is lamentable. More lamentable from the approach by architects than by industry, because industry at least has attempted to make some contribution towards modular planning, but lacks the necessary co-ordination.

The profession is blinding itself to the future, which demands co-operation not only between its members, but co-operation

with industry; an industry which is feeling its way into a new field, that of factory-made houses, and is looking for guidance.

Already a complaint is being heard that there are not enough architects to design for this newer industry; we have architects by the thousand, but not enough enlightened ones who are willing to co-operate with industrialists and technicians with the resultant advantage to both and to the general public which sits back in bewilderment and dismay.

London NATHAN FIELKER

The Churchill House

SIR,—Serving overseas with H.M. Forces makes it difficult to keep in touch with events happening at home, but through the ARCHITECTS' JOURNAL we have been fortunate in seeing the various designs for the Churchill House.

The only design up to the present, which, in our opinion, is getting anywhere at all is Astragal's House, published in your Journal for July 2. Keeping his spacious and pleasant living room, we have, however, developed the enclosed improved design with the following comments:—

(*a*) Spacious living room with dining recess easily accessible from kitchen.
(*b*) Inclusion of a utility room, and coals in building.
(*c*) Kitchen, bathroom and w.c. (similar to Ministry of Works plan), with cylinder linen cupboard and boiler, all grouped together.
(*d*) Easy access to bathroom and w.c., etc., from bedroom (not so in MOW plan).
(*e*) Elevation much more pleasing than MOW design.
(*f*) Retained pitched roof and type of construction as MOW design, over main part of building, but with flat roof over bedrooms, this enables the house to be easily converted into a 3 bedroom type. (See enclosed plan).

R. LOVATT
D. FALKUS

Technical Journals for the Forces

SIR,—On behalf of the Association of Building Technicians, may I thank those of your readers who have so generously responded to our appeal for technical journals for our members in the Forces.

More than four hundred journals are despatched nearly every month, and the ever-increasing demand from serving members at home and abroad makes it difficult to fulfil all their requests. Letters we are continually receiving show how much this service is appreciated.

To avoid disappointing any of these men, many of whom would otherwise be completely out of touch with technical matters, may we appeal once again to the generosity of your readers and ask them to send along as many journals as they can spare.

K. M. GREENWELL
Forces Committee, Association of
London Building Technicians

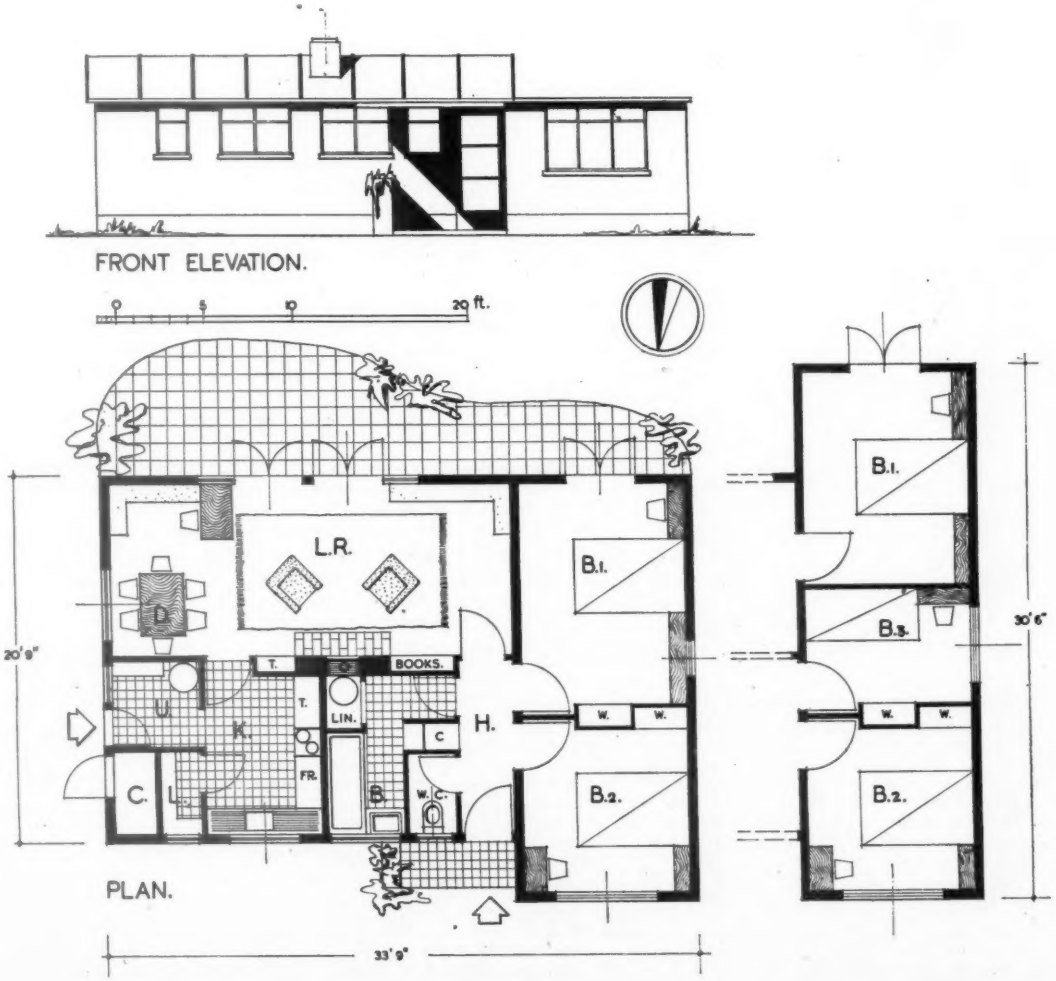
Domestic Hot Water Supplies

SIR,—Having visited the experimental method of obtaining domestic hot water by houses at Northolt, it occurs to me that the means of an Ideal type boiler which has has been adopted in the majority of types erected leaves much to be desired. In some instances it is installed in what would have to be the Dining Room. Is not this a retrograde step?

In view of the capital cost involved in the provision of this expensive equipment in millions of houses in post-war Britain, involving as it does a considerable expenditure of steel, waste of fuel and labour, I submit that the system is open to criticism. Even if the premise be that it relegates to obscurity the once cherished smoke abatement theory.

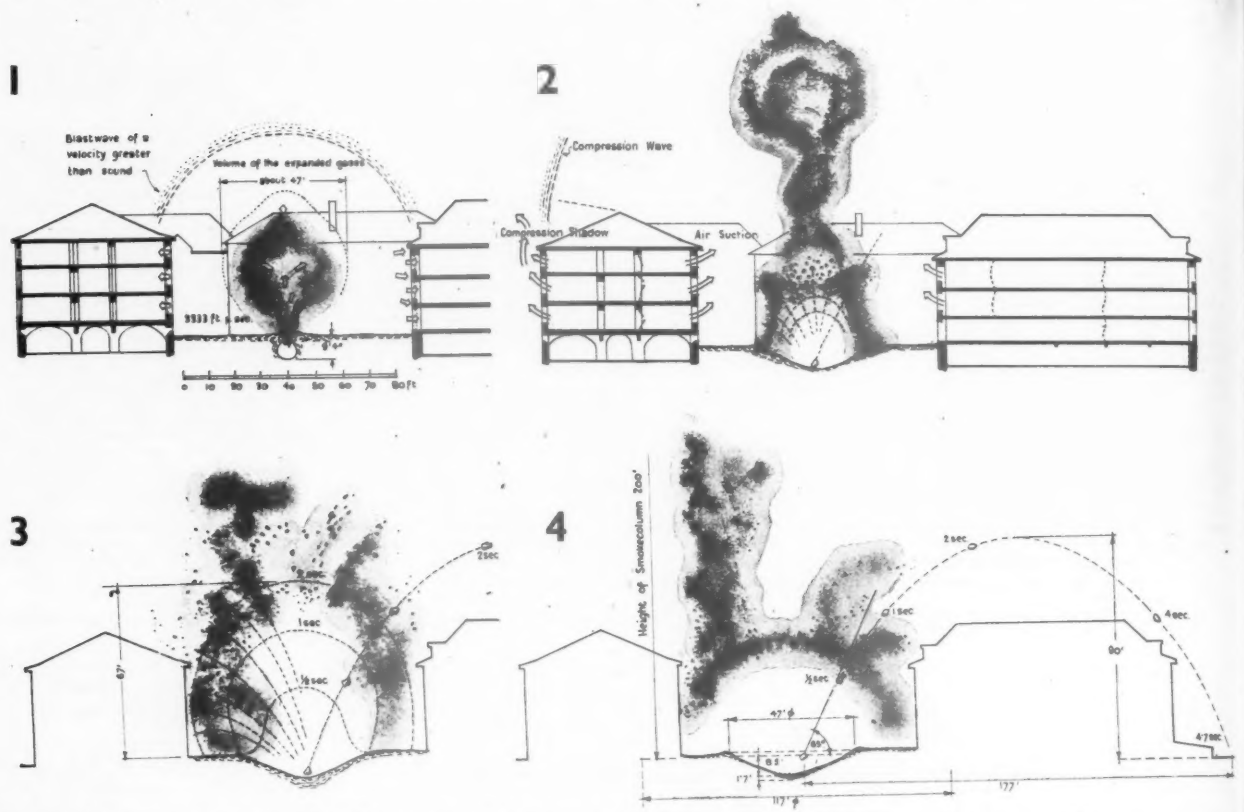
Realizing that only constructive criticism is of any use, I suggest that the time has now arrived for consideration to be given to the vital importance of communal hot water on grounds of national economy.

Under certain circumstances coal may



The Churchill House, suggested plan by R. Lovatt and D. Falkus. See letter on this page

WHAT HAPPENED WHEN A BOMB FELL



These diagrams appeared originally in the Schweitzerische Bauzeitung *in February this year and are the result of the scientific investigation made in Switzerland into the affects of bombing when ten bombs were dropped on Samaden in October,* 1943. *One fell directly in the centre of the village square and the results are an interesting and typical example of the capricious effects of bombing.* (1) *A delayed action bomb of* 880 *lb. arrives with a speed of* 333 *ft. per second and penetrates the soil deeply. On explosion, hot gases at* 4,532° *F. are formed at a pressure of some* 700,000 *lb. per sq. in. The gases take the line of least resistance and rise vertically, faster than sound, at an initial velocity of* 3,333 *ft. per second. The final average diameter of the expanded gases at this velocity is about* 47 *ft., within which range all buildings would be destroyed. The village square at Samaden being* 90 *ft. wide, the damage there is therefore due to the blast wave, which is more rapid than that of the gases. Closed windows, doors and shutters perpendicular to the direction of the blast wave are shattered. Those parallel to the direction of the blast remain intact. The blast energy has been largely destroyed in the soil, so that the walls and foundations of the buildings are unharmed.* (2) *About half a second after the explosion the earth has already been thrown several yards upwards. Stones of up to* 1,100 *lb. fly over the roofs at* 83 *ft. per second. The central overrun now causes suction and windows, doors, light partitions, contents of cupboards are drawn inwards. At the back of the village hall an additional outward suction occurs in the "shadow" of the progressing blast wave, and window panes are pulled out. At the centre of the building a balance of forces occurs and doors and partitions remain intact.* (3) *The earth reaches its highest point at* 70 *to* 100 *ft. after about* 2 *seconds. The finer material and the broken panes fall to the ground.* (4) *The smoke cloud approaches a height of* 170 *to* 200 *ft. and the heavy stones begin to fall, heaps of earth form on the ground, some falling back into the crater, which now appears less deep than it was originally. Uninjured people thrown to the ground begin to pick themselves up. A stone of* 660 *lb. which has taken* 4.7 *seconds to travel in a curve, reaches the ground* 177 *ft. away from its starting point. The final damage is surprisingly small, as a result of the bomb's being of a delayed action type and falling in the very centre of the square.*

become, in future, too valuable a commodity to burn wastefully, and while this matter is still in an experimental stage, surely this is the time to explore still further the possibility of greater economy in order that a little more much needed floor area might be included in the rooms.

" PLUNGER "

When They Return

SIR,—It was with great interest that I read your Leader entitled When They Return in the Journal for September 7, which has just reached me in the somewhat forgotten, but none the less hot and dusty, backwaters of the Persia and Iraq Force.

Many architects from the staffs of local government departments are serving overseas, and while we appreciate that many of us will be some five years behind the times when we return, it is with very great concern that we constantly read the advertisements of appointments vacant, and realise that appointments for which we should normally submit an application are daily being filled from the ranks of those who are either fortunate enough—from the point of view of their future professional status only—to be not liable to military service or are able to obtain a release. Appointments to which I refer are city or county architects, deputies and chief architects appointments, and principal assistants. Surely these appointments should either be made temporary, in the absence of many suitable applicants, or if absolutely essential then representation to the Government should be sought to include those serving.

The tendency for local authorities to form separate departments for their architectural work is just what we desire, and it is with great joy that we see the Official Architect taking his right place among other chief officials, but the thought that all these new appointments will be filled long before we finish serving our country overseas, is a great strain upon our morale.

Persia DONALD A. GOLDFINCH

PHYSICAL PLANNING SUPPLEMENT

northern boulevard, long island; new york park commission.

robert moses, new york park commissioner.

the great planning ILLUSION

To believe, as many do, that in planning there are two alternatives to be chosen—between the long-haired visionary dreaming of revolutionary theories with his elbows on the drawing board and the practical planning go-getter busying himself in the market place—is an illusion. It is on this illusion that the Moses attack, which has stirred planning circles in the USA, is based. The following article is an attempt to dispel the illusion, no less prevalent although much less clearly defined in this country, and by analysing Mr. Moses' attack to arrive at a truer picture of what the relation should be between short-term and long-term planner.

"In municipal planning we must decide between revolution and common sense—between the subsidized lamas in their remote mountain temples and those who must work in the market place," thus the opening sentence of the *Moses Manifesto*, the New York Park Commissioner's philippic against long range planners and a defence of his own work against the critics. Published in the *New York Times Magazine* of June 25, 1944, under the heading of *Mr. Moses dissects the 'long-haired' Planners*, this attack has stirred the planning world in an unprecedented manner. The New York Park Commissioner went for pretty well every outstanding name in the profession. He called the master-planners "revolutionary planning sophisticates," if their studies led them to believe in fundamental changes of the city organism. His approach is the oblique one; rarely did he bring forth a valid argument against their ideas. He rather accused foreigners of being foreign and revolutionaries of being revolutionary, a fact that must have been known to them, and which was used here to discredit the theories of long range planning. The foreigners (a strange term to be made use of in America) he calls the *Beiunskis*, derived from the German *bei uns* meaning *with us*, implying that it is their disconcerting habit of saying "with us they did it this way."

market place and mountain temple

Mr. Moses has in fact employed all the familiar tricks of demagogy, and of misinterpretation. His attack introduces a new note into planning discussions. But then Mr. Moses is known not only for his magnificent park schemes; not for nothing has he the reputation of getting things done; he is a hard hitter—sometimes below the belt—yet in what has come to be known as the Moses dispute, he has been getting as much as he gave. The attack was not entirely unprovoked. For quite some time there have been critics who maintained that the Commissioner was "doing a little too much park and road building and too little slum clearance," or in other words too many disjointed schemes, admirable in themselves, without a fundamental policy to put the things right that needed putting right in the city. Those whom he chose to call the "revolutionary planning sophisticates" were gaining ground, and in recognizing this fact he handed them the following handsome bouquet: "It is a mistake to underestimate the revolutionaries. They do not reach the masses directly, but through familiar subsurface activities. They teach the teachers. They reach the people in high places who in turn influence the press, universities, societies learned and otherwise, radio networks, the stage, the screen, even churches." The revolutionaries evidently had got hold of the influential Luce publication *Fortune*, which in a series of planning articles took up the cause of strategy or long range planning as against Moses' tactics or short term planning. In an introduction to one of the articles they said: "We looked into the current city planning controversy between the celebrated Park Commissioner Robert Moses and his school of thought, on the one hand, and those whom he has characterized as 'starry-eyed planners' on the other. Our examination of the facts of recent history convinced us that the Moses approach, for all its air of realism, contributes little to the realistic thinking that our urban problem demands; that the piecemeal remedies applied from time to time in accordance with Mr. Moses' theories have not only failed to solve the fundamental difficulty of the urban communities, but have in many instances aggravated it. . . ." (*Fortune*, January, 44.) *Fortune* has even gone further and is now participating financially in a long range planning venture for the City of Syracuse and

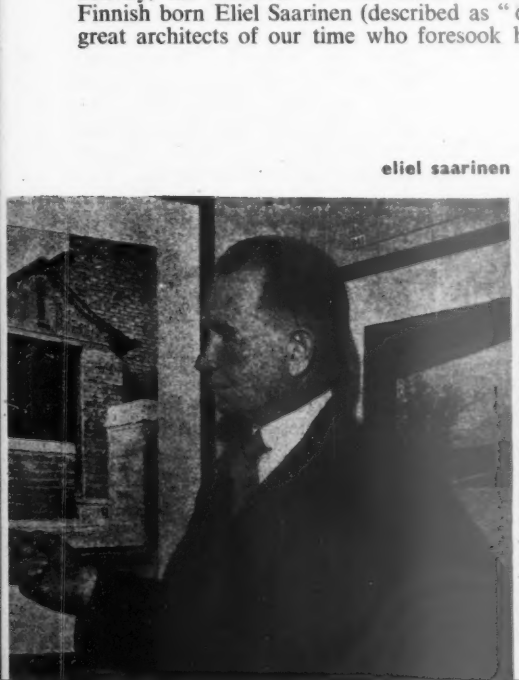
Above, Manhattan Municipal Asphalt Plant; mentioned by the Museum of Modern Art as an outstanding piece of imaginative design; branded by Moses as " . . . horrible modernistic stuff, a cathedral of asphalt with a nearby corrugated shoe-box. . . ."

Onandaga County, State of New York, a large community with a population of 300,000 inhabitants. (See Planner's Scrapbook, p. 366.) Here the principal of strategy before tactics is applied, and a determined effort is made to back up the strategy with the full support of the community.

Criticism from the market place

What exactly are Mr. Moses' objections to long range planners? He accuses them of being revolutionaries, that is to say, of not respecting the premises on which the short term planner bases his work, that is the present day socio-economic set up or, in the case of Moses' field of activity, the interests of real estate. Thus the crime of Finnish born Eliel Saarinen (described as " one of the really great architects of our time who foresook his profession to become a revolutionary planner ") is, that in his book, *The City*, he recommends organic decentralization, which may or may not imply communal ownership of land—this is *lèse majesté*, of course. The fact that he is a Scandinavian, and that the method of public acquisition of land and resale in the interest of the tenants is practised in Sweden, adds to condemn Mr. Saarinen. (If Moses is so worried by the Scandinavian method, remarks a critic, the whole of the American housing movement should be condemned as revolutionary.) And so it would, no doubt, if the park commissioner had his way. Next on the black list comes German born Prof. Walter Gropius, of Harvard University, Mass. Here the attack is varied and enters the field of architecture, a ground Mr. Gropius could not have chosen better himself. " Intelligent Americans are just beginning to realize that Gropius is hurting our architecture by advocating a philosophy that does not belong here and fundamentally offers nothing more novel than the lally column and the two by four timber." (Note the contradictory nature of the statement, accusing Gropius of introducing an alien philosophy, and then reprimanding him that this new philosophy produces no more than the forms of construction traditional to New England.) That Mr. Moses' views on architecture are not universally held was shown recently, when the Manhattan Municipal Asphalt Plant, in his words " . . . horrible modernistic stuff, a cathedral of Asphalt with a nearby corrugated shoe-box . . .", was mentioned by the Museum of Modern Art as an outstanding piece of imaginative design. A quotation from Gropius' *New Architecture and the Bauhaus* about the fundamental failings of the modern city joins the professor to the ranks of the revolutionaries. A description of the traffic arrangement in the town of the future given in a recent lecture, procures the rope for the *emigré* architect Eric Mendelsohn. Even more dangerous to Mr. Moses' peace of mind are the " British revolutionaries " who are alleged to have had great influence in America. One of them is named Uthwatt, as author of a " revolutionary scheme of land expropriation." The heresy hunt then turns to the native sons: Lewis Mumford, distinguished author of *Technics and Civilization, The Culture of Cities, The Condition of Man*, is described not without wit as " an outspoken revolutionary often quoted with approval by conservatives who obviously have no notion of the implications of his philosophy." Frank Lloyd Wright, so one gathers, is the " subsidized Lama," a taunt to which he has laid himself open by the messianic pantomime of the Taliesin fellowship; Rexford Guy Tugwell (now governor of Puerto Rico), who must have crossed Mr. Moses' path many a time

eliel saarinen



walter gropius

Left, two of Mr. Moses' " revolutionary planning sophisticates," called by him *Beiunskis* (from the German *bei uns*, meaning *with us*) implying that it is their habit to say " with us they did it this way."

Right, two Americans who are also included in Mr. Moses' attack. Lewis Mumford is described as "an outspoken revolutionary often quoted with approval by conservatives who obviously have no notions of the implications of his philosophy."

lewis mumford

frank lloyd wright

as chairman of the New York City Planning Commission, sponsor of a "revolutionary green belt plan" which was demolished by a group of realists, including Mr. Moses, and also as author of the *Fourth Power,* which suggests the setting up of a central planning authority of independent and wide powers; finally in the way of a private vendetta, and not much to the point, an attack on Adolf Berle (now political adviser to the Roosevelt administration) to discredit ambitious global planners.

return fire from the mountain temple

Why bother about this irresponsible attack on long range planners? Those criticized can well afford to remain silent, though many well meaning people have generously defended them and their viewpoint both in the *New York Times Magazine* and in the *Architectural Forum.* The dispute is of wider interest for several reasons. The achievement of Robert Moses as Park Commissioner of New York is outstanding and brilliant as well as extremely tangible. It has no doubt contributed enormously to the well being of New York, a fact that must not be obscured by this diatribe which adds very little credit to the Park Commissioner's name. His practical achievements are much more weighty than his ill-advised journalism; in fact, they are very impressive to many of us who have become a little weary of so much talk. But practical results are not all on one side only. The long range planners also have something real to show, something more than analytical plans on paper, and that is the unique example of the T.V.A.; it is well to remember this fortuitous instance of long range planning in an advanced stage of execution. Another important reason for giving prominence to Mr. Moses is that although one may strongly object to his demagogic methods of condemning out of hand anyone who does not conform to the rules which he has taken upon himself to make, there are important issues involved in a dispute between short and long-term planning. Issues that ought to be clearly understood, for if they are not well aired they will remain a permanent skeleton in the cupboard to be dragged out by one side or the other whenever a new plan is produced.

the great illusion

The difference between short and long-term planning is pretty obvious, and has been expounded elsewhere. They have different objectives and employ different techniques for getting there. They are both needed in city planning. Yet it was a feature of the Moses manifesto, that whilst long-term planners never deny the need for the short-term planners, it was the short-term planner who tried to prove that long-term planning policies are unnecessary and indeed harmful. It was here that the dispute entered the political field. In fact Moses warns of the dangers of long-term planning to the vested land interests; he denounces the ideas of communal ownership not as a faulty social theory, but as a threat to the present day set-up. Parkways and parks do not interfere with it too much, but fundamental change in the town organism, would join battle all along the line with the existing forms of land ownership. Moses is perfectly right here, and the long-term planners are, to say the least, disingenuous, or victims of self-deception, if they pretend that their plans can be carried out merely as a technical exercise upon the face of the town, without heavy repercussions in the social, economic and political field. This gives their schemes that taint of utopianism which sends them all too often to the already overfilled shelves. From both the short-term and the long-term planner, therefore, adjustments will be demanded in the interest of sane planning. The short-term planner, even if working in conjunction with a flexible master planning policy, has to cope with his problem in terms of the present day existing social and political facts, whilst the long-term planner will not regard the present day set up as all that static. To take as an example the problem of private ownership of land, for the partial planner a very real one, may not, in the long run, be of such great importance, for we know of times in English history when there existed other forms of land ownership. In a technique of combined operation between short and long term planning, we shall therefore have the necessary complication of plans proceeding not only on different planes, but also working on different premises. This is not an altogether uncommon procedure in other branches of science, where experimental progress is made on assumptions which in the advanced theoretical fields are no longer held. The short term planner will in such a combination find the effectiveness of his plans multiplied a hundred times. The long-term planner in his turn must not expect his ultimate plans to take shape all at once, nor must he fix their nature too rigidly. The Moses dispute, as to the merit of the one type of planner against the other, is therefore based on the illusion, that either the one or the other alternative must be chosen. The sooner this illusion is dispelled, the better for the healthy development of our physical environment.

PLANNER'S SCRAPBOOK

LAYOUT FOR LEISURE

Air surveys will form an important part of post-war planning information. These two airviews are part of a survey made by Margaret Bourke White for *Life*. Above, Hollywood Riviera described by *Life* as "a superexclusive subdivision overlooking the Pacific Ocean. . . ." This scattered, arbitrary, "spec" development presents a striking contrast to the Defence Layout on the right.

LAYOUT FOR DEFENCE

Above, Channel Heights war housing development near Los Angeles, designed by Richard J. Neutra. Described by Richard Sheppard in the *Architectural Review*, August, 1944, as a layout which shows "the way in which mechanized plant, bulldozers and excavators can be used to create "an attractive estate on land unsuitable for other purposes."

POWER FOR LINCOLN

The result of the inquiry into the proposal to erect two 230-ft. cooling towers as part of the Lincoln's Corporation electricity power station (see Planners' Scrapbook, 19.10.44), has been announced to the Lincoln City Council, in a report from the Electricity Commissioners. The Commissioners disapprove of the towers as originally proposed, but they would consent to them if they were limited in height to 90 ft.

All parties appear to be satisfied with the revised height : this is puzzling, since there was presumably a fairly good reason for the original height of 230 ft. However, Sir Robert Pattinson, chairman of the Witham and Steeping Rivers Catchment Board, has now advanced a proposal which, by pumping water from the river Trent, seven miles away, would not only provide a cheaper method of cooling but would do away with the need for towers altogether.

TWO KINDS OF PLANNING

1. The City of Syracuse and Onandaga County, State of New York, a large community with a population of 300,000, has embarked on a post-war planning project with the financial assistance of Luce's Fortune magazine. This ambitious planning venture is to provide a long-term development scheme for the region, to ensure the maximum use of the available resources of man power, commercial, industrial, cultural, social, and physical facilities. A planning council has been set up to co-ordinate the activities of other existing planning agencies, such as the Housing Authority, the Committee on Postwar Planning of the Chamber of Commerce, and the County Park and Planning Board. The Planning Council has all along encouraged and indeed relied upon public participation. It has stimulated public interest in the problems of urban planning and has delegated responsibility for study projects to qualified groups to assist the professional planners in their work.

2. The City of Portland, Oregon, has commissioned Robert Moses, the well-known public works planner of New York, to be consultant on a report covering the post-war development of Portland. Mr. Moses and his staff of engineers have brought out a report, which limits itself "to very definite recommendations, all looking towards the expediting of needed and desirable public works." According to the *New York Herald Tribune*, public reaction to the plan has been "apathetic." Obviously, the public does not share the Park Commissioner's optimistic mood, expressed in the statements, that "he found no slums which cannot be overcome by normal private reconstruction," and that "he cannot recommend any organized post-war project for permanent homes or apartments built by governmental agencies."

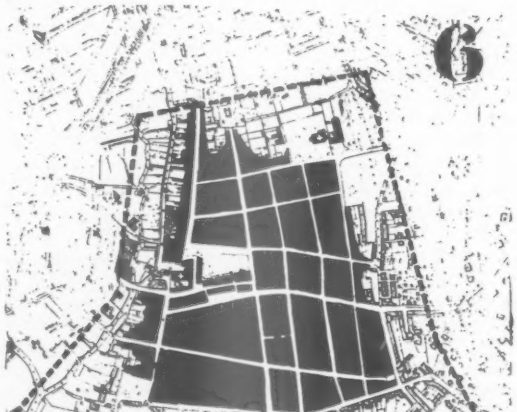
Does the public perhaps at last begin to realize, that a town development scheme is something more than a number of public works projects; that it is rather (in the words of Mr. Christopher Tunnard), "a development programme, in which housing, health and community facilities, business, industrial and other needs can be integrated so that any section of it, including that of public works, can be carried out with some chance of being useful."? A realization which still eludes Mr. Moses, whose technical and administrative talents outstrip his understanding of social needs by the number of decades that divorce us from the original Haussman of Paris.

PLANNER'S QUIZ

THE ANSWER TO THE LAST PROBLEM

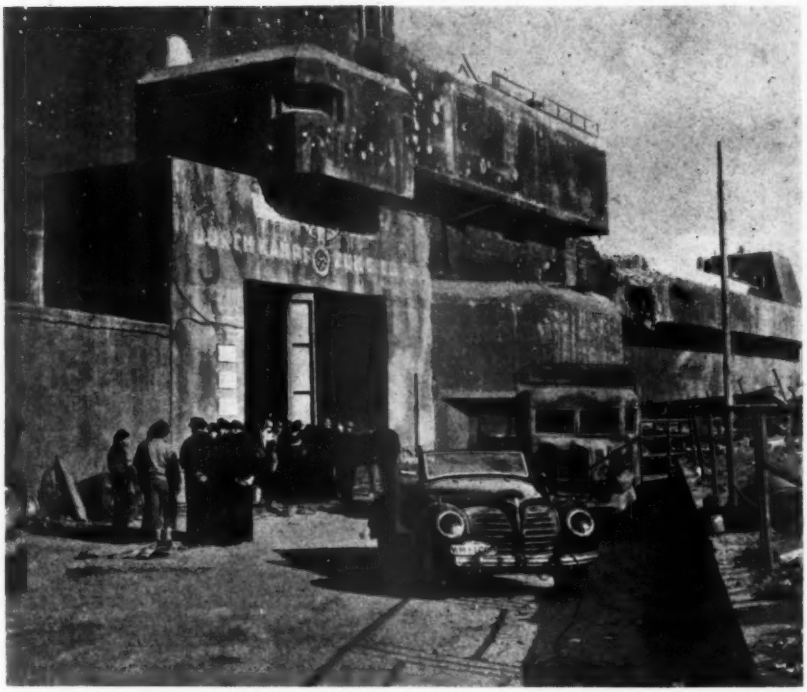
5. Saint Omer, France—13-14th century—Typical mediaeval walled town gradually built up by burgher-citizens. It has three main centres, a market place in the middle of the town, the Place de Notre Dame at the south-west and the Monastery Place at the north-east, by the river. In addition, there are several small centres of local neighbourhoods, sometimes focussing on the churches, sometimes not. A typical small town of organic internal growth and varied local life, the citizens having a common interest in the defence of the town against marauding bands of soldiers.

Can you place this town pattern ? Its historical background, the form of social organization underlying it, the town planning approach employed, the locality ?



Answer in the next Planner's Scrapbook

We must face the possibility of future wars, says Mr. Gloag in this article, wars whose character will be entirely changed by the flying bomb and the rocket. These weapons may indeed change the whole character of civilization. Architects, together with engineers and doctors, should therefore, he maintains, be realistic enough to take the lead in co-ordinating research, and drawing up a programme, for a new architecture of protection.



PROTECTIVE Architecture

[BY JOHN GLOAG]

Late in the nineteen twenties, that great English journalist, H. W. Nevinson, wrote some disturbing and unusual articles for the ARCHITECTS' JOURNAL. He was concerned with the effect of air warfare upon the character and function of architecture, and he suggested that the architect had acquired some new and novel responsibilities; novel, that is to say, in the supposedly enlightened twentieth century, for in former ages the architect had been called upon to study the art of fortification, and Vitruvius included such study as part of an architects' normal education. Vitruvius, it may be recalled, dedicated his books to the Emperor Augustus, when that ruthless administrator was attempting to create the first United States of Europe. Augustus succeeded; but the Romans were realists: they never abandoned the study and practice of fortification.

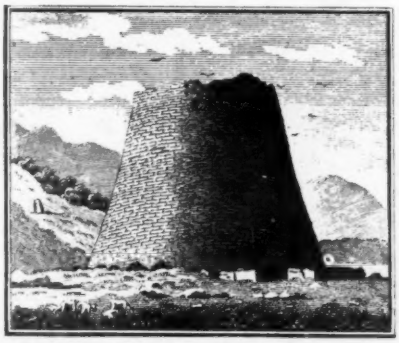
Since the moats of the strong-walled mediæval manor houses were filled in and adorned with flower beds, fortification has not affected architecture in England. The needs of the first world war were regarded as temporary; and in the optimistic 'twenties people were inclined to think that, through the League, a United States of Europe was just around the next corner. To many architects Nevinson's article must have seem far-fetched; a piece of unjustified pessimism. To many architects, the subject of this article may seem not only far-fetched and pessimistic, but positively heretical; for it is not based on the illusion that a new heaven and a new earth will arise in splendour from the dark turmoil of the second world war.

It has become commonplace now to say that we are living in a revolution; and most people when they say that are thinking of social and economic revolutions; but there has been another, and far deadlier revolution, and one that has made Nevinson's ideas about air warfare out of date. The flying bomb and the rocket have changed the whole character of war, and may conceivably change the whole character of civilization, as we know it, and all the familiar ways and ideas of mankind.

The revolution in the character of offensive weapons has not yet affected the post-war plans for housing the people, and for the rebuilding of devastated areas, and it is hopeless to expect from official minds the imaginative effort that would allow them to co-ordinate simple facts about life and death.

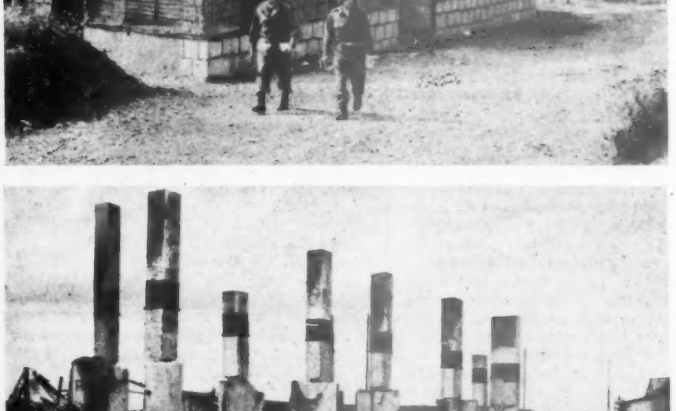
Some years before this war, Professor J. B. S. Haldane—one of the best brains in the country—advocated, in a talk designed for broadcasting, the building of deep underground shelters and the storing of foodstuffs in huge protected granaries all over the country, as the best possible precautions against war. The BBC did not permit the broadcast to be made; but Professor Haldane's views were fortunately published by a popular newspaper. They were, of course, ignored by the nervous simpletons who were then misdirecting the destinies of the Empire; as indeed were the recommendations of skilled and highly qualified technicians at the beginning of the war, when the need for deep shelters became imperative. Far-sighted individuals and groups of technical specialists can be ignored; but it is difficult for any government, or any government department, to ignore the considered and vigorously advertised views of a great profession.

If the architectural profession, as represented by the Royal Institute of British Architects, proclaimed that a certain course of action was essential for the protection and welfare of the country, what Minister would care to flout its recommendations? If the architectural profession set up a research council to make con-



We have only to compare this ancient stone fort, built by the Danes long ago in Inverness-shire, with the U-boat pens, built by the Germans in this war at Brest, shown at the top of the page, to see how the character of battle has changed through the centuries. But no longer is reinforced concrete proof against the block-buster, however thick. The new changes in warfare of to-day will need still newer kinds of protective architecture.

Above, an aerial view of the German U-boat pens at Brest, which no longer give protection against the biggest bombs. Probably protective architecture of the future will have to go underground like the subterranean city built by the Germans three years ago between Soissons and Laon as an army headquarters. It contains 25 sq. miles of tunnels and will accommodate 100,000 men. As shown in the photographs below, it is camouflaged above ground by fake buildings—"farmhouses" of plywood and netting, and "bombed buildings" round which charcoal and rubble are spread.



structive recommendations for the rebuilding of cities, and the planning of housing schemes, properly fortified against flying bombs and rockets, what government, what authority, what political party could stand against this new architecture of protection? If the British Empire is to survive, if the civilization of Europe is to be saved, we must be realists, and address our attention to the study and practice of fortification. It is not the purpose of this article to suggest modern methods of fortification; and although the duplication of essential services deep below our cities, and the sinking of supply depots and vast shelters in the entrails of our hills and mountain ranges could be discussed at length, there is no doubt that technicians in this country could solve this problem.

Now is the time for archaic professional interests to be abandoned: alone the architectural profession cannot accomplish this task, nor accept the full and final responsibility for the research that would lead to its accomplishment. The knowledge, goodwill and energy of architects, civil, structural and electrical engineers and the medical profession could and should be pooled. As architects—if the other professions named will forgive the statement—have, as professional men, a livelier sense of civic responsibility and a keener sense of the significance of individual acts upon the scale and amenities of social life than most other technicians, it is not a partial nor unreasonable suggestion that the architectural profession should give a lead in co-ordinating the research and pressing for the action that must follow.

The time has come for responsible professions to give a lead to the State. Unless they do so they will either be ignored or controlled by the State.

The inevitable question of finance arises. First draw up the programme; then invite British industry to finance the research. The professions and the industrialists should lead in this matter; and the willingness of one industry, the Building industry, to finance educational propaganda about rebuilding Britain is an example of the latent public spirit that awaits leadership in modern industry. Industries concerned with the production and fabrication of building materials and the production and distribution of power are unlikely to be averse to backing the creation of a new architecture of protection, that would make their country unaggressively strong in peace and well armoured in modern war.

INFORMATION CENTRE

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

STRUCTURE

1670 *Power Plant*

ARCHITECTURAL RECORD'S BUILDING TYPES STUDY NUMBER 89; prepared in collaboration with Power Plant Engineering. (*Architectural Record, May,* 1944, *p.* 85-104.) Architecture and engineering of the power plant. Procedures in design. Wartime production. Future progress in power plant programme for rural areas.

If a power plant is to operate well and with a minimum of effort it must be well designed and finished. The modern power plant is a much more refined building than the crowded haphazard growth of the old type of plant, and the designer has to consider not only the technical advancements in methods and machinery, but also recent improvements in industrial conditions. The client of to-day will not only want a building to provide protection for the equipment, he will expect ample space, good lighting, easy access to all parts of the building, locker rooms and other facilities for the operating crew, an office for the chief operating engineer, a small laboratory for checking the treatment of water for the boilers, and so on.

The design is based on co-operation between the architect and the engineer. The main governing factor of the design is still the power-house equipment, and the architect's work begins when the equipment has been decided on. If the drawings for the equipment are in hand it becomes possible to establish definite clearances for boiler framing, supports and framing around compressors, provision for drawing tubes and shafts, etc. In all conventional designs the supports for heavy power equipment are integrated with the building framework. The modern designer should bear in mind that the equipment will normally have a shorter economic life than the building, and it should be possible to replace it. Supports for boilers and turbines should therefore be independent of the building framework.

The series of very interesting articles discusses the numerous aspects of engineering and architectural questions which enter into the design of a modern power plant and also the possible post-war trends (for instance window versus windowless plants, elimination of tall stacks, disposition of ash-storage tanks, etc.). The illustrations of existing plants show how much freedom and variety can be achieved in the architectural treatment of these strictly functional buildings. The sketch studies included in the illustrations are also very instructive.

1671 *Book on Building*

THE PRACTICAL BUILDER. *Edited by R. Greenhalgh.* (*Odhams Press,* 9*s.* 6*d.*) Comprehensive and well illustrated guide to latest methods of modern building practice and building organization. Valuable to apprentices and craftsmen.

The book contains 17 chapters by different authors on subjects relating to building practice. It is written in elementary style, intended for apprentices and craftsmen, and is well illustrated. The diagrams are very clear; they give many details, and explain the meaning of technical terms in a lucid manner. Consideration is given to modern ideas regarding the organization of building operations.

1672 *Book on Brickwork*

ELEMENTARY PRINCIPLES OF BRICKWORK CONSTRUCTION. *J. G. V. Proudman.* (*Volume One. Chapman & Hall,* 7*s.* 6*d.*) Fundamentals of bricklaying in theory and practice, illustrated by 25 plates. Useful guide for apprentices and students. Reference to Model Byelaws.

Bricklaying requires a high standard of craftsmanship. During the last five years very few opportunities have been afforded the bricklayer to display the better qualities of his craft, and apprentices could not obtain adequate training. The author has produced an excellent guide for apprentices and students. The theoretical treatment should, so the author says in the introduction, be supplemented by work executed in practice. He gives a systematic description of the materials used and of all operations connected with bricklaying, with particular reference to the requirements of the Model Byelaws of the Ministry of Health. The diagrams form an essential part of the book; they have been prepared with great care, and illustrate a variety of details of brick construction.

1673 *Book on Bricklaying*

METHODS OF BRICKLAYING. *D. G. R. Bonnell, D. W. Aldred and L. W. Baldwin.* (*The Builder, July* 28, 1944, *pp.* 75-77.) Investigation of various modifications of normal practice of bricklaying.

The investigation, carried out by the BRS, has shown that the bricklayer can be helped considerably by certain modifications of the normal technique of bricklaying. These modifications are designed to reduce as much as possible the amount of unproductive effort on the part of the skilled craftsman, *e.g.*, stooping, bending, reaching, walking, turning the brick before placing in the wall. The increased output of the bricklayer need have no material effect on the quality or appearance of the finished brickwork.

1674 *Conversion Tables*

BRITISH STANDARD CONVERSION FACTORS AND TABLES. *B.S.* 350:1944. (*British Standards Institution,* 3*s.* 6*d.*) Useful basic tables of units. Standard conversion factors and multiples. Selected tables.

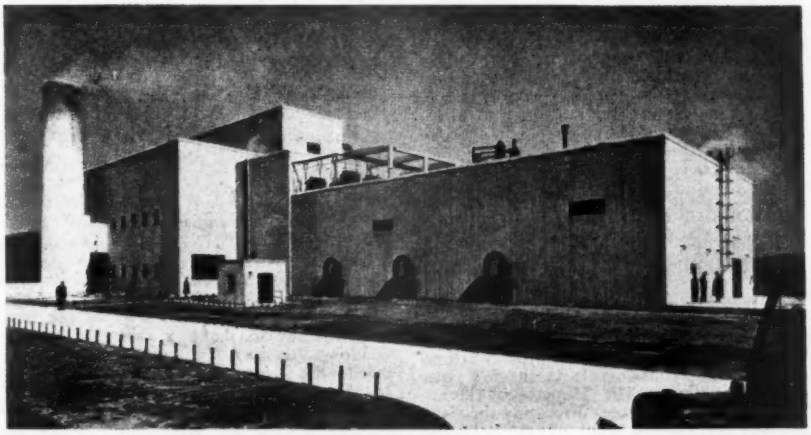
The booklet contains a large number of tables with the definition of British, USA and metric units and their conversion into each other. Linear, square and cubic measures, weights, speed, stresses, weights per unit length, density, moments, moments of inertia, work, heat, energy, temperature, etc., are included. It is a very useful collection for all who have to do such calculations.

In a revised edition it would be desirable to include conversion factors for units of heat transmission, which are of great importance to architects and heating engineers, for the comparison of standards of thermal insulation in this country with those abroad.

MATERIALS

1675 *Concrete*

TESTS OF CONCRETES CONTAINING AIR-ENTRAINING PORTLAND CEMENTS OR AIR-ENTRAINING MATERIALS ADDED TO BATCH AT MIXER. *H. F. Gonnerman.* CONCRETES CONTAINING AIR-ENTRAINING AGENTS. *A Symposium.* 16 *contributions by* 15 *different authors.* (*Journal of the American Concrete*



The second power plant at Wright Aeronautical plant at Lockland, Ohio. The shortened stack is made possible by induced draft fans. Architects : Albert Kahn, Architects and Engineers Inc. See No. 1670

Institute, June, 1944, *pp.* 477-596. *Reprints from USA,* $1.25) Laboratory and field experience with concretes containing air-entraining agents—and problems still to be solved.

Normal cement concrete frequently has two deficiencies: it needs more workability in ordinary mixes, and in severe winter exposures it needs greater durability. It has been found in USA that both deficiencies can be cured by increasing the air or other gas entrapped in the concrete while it is plastic. This may be accomplished in two ways: air-entraining materials such as natural wood resins, animal or vegetable fats or oils, alkali salts of sulphated and sulphonated organic compounds, etc., may be ground with the cement clinker or added directly to the batch of concrete materials.

Experimental roads of considerable size have been built in 10 different States, in most of which severe climatic conditions exist. In addition, many series of tests have been carried out in laboratories with a wide variety of air-entraining cements and with different kinds and amounts of air-entraining materials. The resistance of the concrete to scaling and to freezing and thawing while immersed was markedly improved. At the same time the increase in air content of the concrete caused reductions in flexural and compressive strength. Each percentage point increase in air content reduced the modulus of rupture 2 to 3 per cent., and the compressive strength 3 to 5 per cent. Taking into account both strength and resistance to freezing and thawing, excellent performance was obtained when the total amount of entrained air in the fresh concrete was about 3 per cent., or about 2 percentage points higher than that of concrete without air-entraining additions. Higher air contents caused further reductions in strength without any compensating increase in resistance to scaling and to freezing and thawing. The performance under service conditions of experimental pavings constructed since 1938 with air-entraining portland cements parallels the results of laboratory studies.

It appears that it is preferable to add the air-entraining agent at the mixer, than to the cement, varying the quantity as needed on each job. Concrete having an air-entraining agent requires less water for a given slump than normal concrete. In fact, a mixture of sand and coarse aggregate containing no cement mixed with an air-entraining agent develops all characteristics of a well designed concrete mix. This shows that the application of aeration requires very strict control. The effect of aeration varies with the type of cement and aggregates used. It is greater in lean mixes than in rich mixes. The length of the mixing time and the type of mixer are also essential factors. There are still many practical problems to be solved, but in spite of certain difficulties aeration, properly applied and controlled, offers promise of becoming one of the significant improvements in concrete technique. It deserves the full attention of all authorities concerned with road building in this country.

1676 *Fibre Building Boards*

METHODS OF REDUCING THE FIRE RISK IN FIBRE BUILDING BOARDS IN WARTIME BUILDING. *Issued by the Ministry of Home Security. (F. G. Leaflet No.* 19.) Results of research. Flame retardant paints. Fire breaks.

Some sheet materials used in wartime buildings add considerably to the fire risks of the buildings. The Ministry of Home Security has issued notes discussing the risks and the precautions which should be taken against them. Present research on the spread of flames along surfaces of walls and roofs within a building has led to valuable suggestions. The leaflet is mainly concerned with the risk in wood-fibre insulating boards. Flame retardant paints and the introduction of fire breaks are described. In buildings in which the risk of fire is increased by the contents or the heating system, etc., the notes recommend that combustible roof and wall lining should not be used.

1677 *Timber Connections*

ARE TIMBER CHECKS AND SPLITS SERIOUS? *V. Ketchum, T. K. May, F. J. Hanrahan. (Engineering News Record, July* 27, 1944, *pp.* 110-113.) Suggestions for maintenance of timber connections in structurally sound condition, made by group of experienced timber engineers.

Working stresses for structural grades of lumber make allowance for checks and splits normally expected. Extensive checks and splits at sharp angles with the axis, excessive relative movement of members at a joint and any other evidence of distress, such as elongated bolt holes, being potentially dangerous, should be studied more carefully. In some cases expensive and unnecessary repairs and replacements are made on members which, despite checks, still have the full load carrying capacity for which they were designed. In most cases timber framing requires only that fastenings be kept tight.

The article presents general information as a guide to whether or not a check or split is serious. It is well illustrated.

1678 *Roofing Felts*

BITUMEN AND FLUXED PITCH ROOFING FELTS. *War Emergency British Standard* 989:1944. (*British Standards Institution,* 2*s.*) Classes of roofing felts. Single layer work on sloping roofs. Double layer work on flat roofs and gutters. Details of eaves and expansion joints. Fluxed pitch for roofing felt.

LIGHTING

1679 MOW *Interim Code*

INTERIM CODE OF FUNCTIONAL REQUIREMENTS FOR DWELLINGS AND SCHOOLS (CLASSIFICATION CODE). CHAPTER I(*a*), DAYLIGHT. *Codes of Practice Committee of the Ministry of Works.* (*British Standards Institution,* 2*s.*) Draft for comment, subject to revision. New scientific approach through standards based on Daylight Factor values. Methods of obtaining recommended standards. Compensation for external obstructions. Siting of buildings.

Standards are based on daylight factor values. The recommendations for dwellings are given in terms of an area of the room lighted to a certain daylight factor, plus a minimum penetration into the room of the same daylight factor. This is a new approach, and appears to be the first real attempt to make a scientific use of windows for day lighting. As such it merits the closest attention of architects. In the case of schools the recommendations are given in terms of a minimum daylight factor at desks and places of work.

Part II of the Code deals with methods of obtaining the recommended standards. It refers to two graphical methods, the Waldram Diagram and the Daylight Factor Protractor. Both of these are fairly well known. It also refers to the use of standard tables of window performance (see also Information Centre No. 1529, 13.7.44). All these methods are described. Methods of compensating for external obstructions are described, and there is an appendix on the design and siting of buildings as factors in day lighting.

1680 *Factory Lighting*

LIGHT SOURCES AND UTILISATION. *W. Sturrock. (Illuminating Engineering, November,* 1943, *p.* 499.) Brief review of newly developed design rules for factory lighting. New circuits and starters described.

HEATING and Ventilation

1681 MOW *Interim Code*

INTERIM CODE OF FUNCTIONAL REQUIREMENTS FOR DWELLINGS AND SCHOOLS (CLASSIFICATION CODE). CHAPTER VIII, HEATING AND HEAT INSULATION. *Codes of Practice Committee of the Ministry of Works.* (*British Standards Institution,* 2*s.*) Draft for comment, subject to revision. Temperature requirements and insulation values. Heating methods not covered. Method of determining desirable insulation. Solar heat and equivalent temperature.

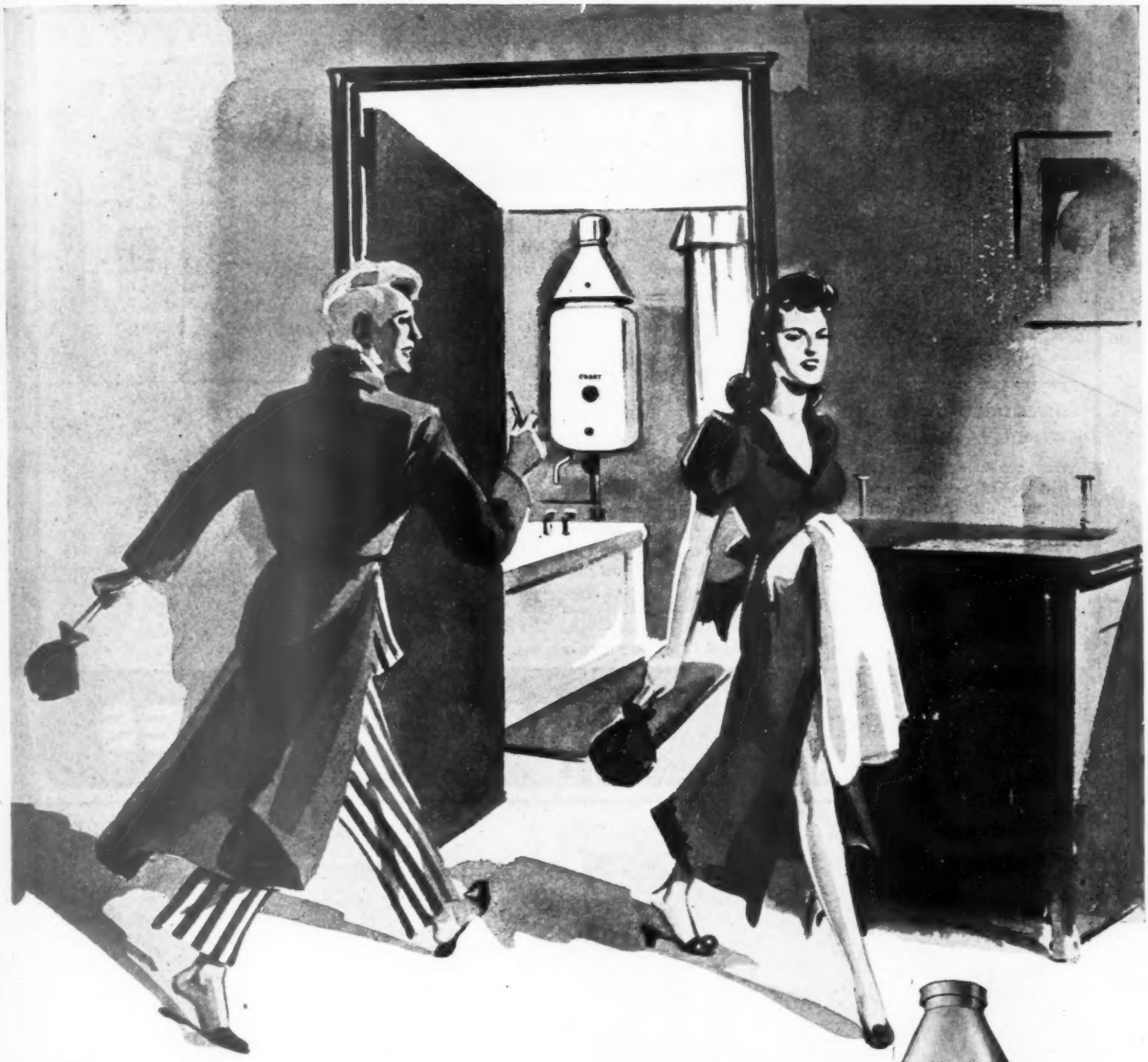
This is one chapter of the classification code, and is at present issued in draft form for comment.

It covers temperature requirements and insulation values, but not methods of heating or types of apparatus. Appendices deal with Calculation of Thermal Transmittances, and include a graphical method of estimating the desirable amount of insulating for parts of buildings. This graphical method is not applicable to small domestic buildings, which are dealt with by direct quantitative recommendations in the body of the chapter. There are also appendices on Solar Heat and an Equivalent Temperature and its measurement. A Degree day map of the British Isles is also included.

1682 *Underground Factory Scheme*

HEATING AND VENTILATING. (*Electrical Review, April* 28, 1944, *p.* 582.) Scheme in an underground factory. Plenum system.

The heating and ventilation scheme was specially designed for an underground factory making aero-engine components. A plenum system is used, the conditions aimed at being: winter, 65 deg. F. dry-bulb temperature, 55 per cent. relative humidity; summer, 68 deg. F. D.B. temperature and 65 per cent. R.H. Six air-changes are provided in offices, 9 in machine shops and 33 in the kitchens. The temperature rise due to machines and personnel is absorbed by the evaporation of moisture from the rock surface; but this does not seriously affect the humidity conditions. Inlet fans have a capacity of 327,000 c.f.m., and the extract fans a capacity of 314,000 c.f.m. A heating "battery," supplied by steam at 60 lb./sq. in. from an external boiler house, is provided at the base of each intake shaft to warm the incoming air. The boilers also provide process steam and steam for the kitchen.



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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.*

1683 Building Costs

Q *What is the present level of building costs compared with those of* 1939, *preferably sub-divided as follows:—*
1. *Housing. (a) Cost of Materials. (b) Cost of Labour.*
2. *All building (or all other building except housing). (a) Cost of Materials. (b) Cost of Labour.*

A Your question is a difficult one. Labour costs vary according to the type, size and position of the job and the organization running it—whether it is suitable for bonusing, whether labour has to be imported or not, whether Designated Craftsmen have to be employed as labourers, and whether adequate supervision is available or not, etc. The rise in materials costs is not consistent and the cost of a house (for instance) depends a great deal upon its design—whether cheaper materials have been substituted for the more orthodox materials which are now costly, such as concrete for timber.

A great deal of conflicting conclusions have been reached by responsible people, even upon average costs, and everyone is at liberty to put their faith in the Authority they choose.

Mr. S. Moos has attempted to examine the evidence in his article, *Labour Costs in Housing*, in the Institute of Statistics (Oxford) Bulletin, Vol. 5, No. 15, of September, 1943.

After referring to Lord Portal's figure of 105 per cent. for labour and materials, and the fact that "some experts consider Lord Portal's figure rather an underestimate," Mr. Moos goes into the matter in some detail, and arrives at the following conclusions:—

Increase in rates of wages		31%
Payment by Results		
Overtime and Sunday time ...		
Transferred Labour		60%
Holidays with Pay		
Guaranteed week and new facilities		
Total Increase		91%

Later, in Bulletin Vol. 5, No. 15, Mr. Moos examines the increased cost of materials, incidentally paying a tribute to the prices published in THE ARCHITECTS' JOURNAL, and ends up with an average increase for materials of 55.5%. Assuming that labour and materials are used in the ratio of 45:55, he then concludes that the cost of building has increased by 72.0% (using the 91% for labour mentioned above).

Unless one is prepared to go into the matter thoroughly and venture ones own opinion, which will certainly not be agreed by everybody, it is better to quote from one Authority without comment. We would point out, however, that in our opinion Mr. Moos has not made sufficient allowance for decreased output due to inferior labour and inferior supervision. He contends that the Bonus Scheme has resulted in an increase over pre-war output at a relatively economical cost, but appears to have taken too little account of decreased output (compared with pre-war) on non-bonusable operations or non-scheduled sites, which is considerable.

SOCIETIES AND INSTITUTIONS

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

RIBA

Council Minutes

The following are notes from the MINUTES OF THE COUNCIL of the RIBA of October 17.

APPOINTMENTS

Ministry of Works Codes of Practice Committee.—Mr. C. Lovett Gill (F.) in place of Mr. H. M. Fairweather (F.), who has been appointed by the Minister of Works to succeed the late Sir Clement Hindley as chairman.

RIBA Code of Practice Committee on Finishings.—Mr. O. Howard Leicester (F.), in place of Mr. H. M. Fairweather (F.).

RIBA Code of Practice Committee on Roofs.—Mr. C. W. Hutton (A.) as an additional member.

British Standards Institution: Committee on Meter Space.—Mr. J. H. Greenwood (A.).

RIBA Representatives on the Council of the British School at Rome.—Mr. A. B. Knapp-Fisher (F.), and Mr. Basil M. Sullivan (F.).

RIBA Representative on Architects' Registration Council.—Mr. Cecil Burns (F.), in place of Mr. Joseph Addison (F.), who has resigned.

APPOINTMENT OF COMMITTEES AND STUDY GROUPS

The Council approved a recommendation of the War Executive Committee that the Town and Country Planning Committee should now be re-appointed.

On the recommendation of the Library Reconstruction Committee a Committee has been appointed to consider the Provision of Professional Text and Reference Books.

The Council also approved the appointment of Study Groups of the Architectural Science Board to consider "Building Needs" and "Building Technique."

CODE OF PRACTICE FOR THE CONSTRUCTION OF FLUES AND CHIMNEYS

It was reported that the RIBA had been invited to convene a Committee to prepare a Code of Practice for the construction of Flues and Chimneys, and that the Walls Committee had been asked to undertake this work.

CONFERENCE ON TOWN AND COUNTRY PLANNING BILL CONVENED BY THE CPRE

It was reported that the President had nominated Mr John Summerson (A.) to represent the RIBA at a conference on September 21, convened by the Council for the Preservation of Rural England, at which agreement had been reached regarding an amendment of the Town and Country Planning Bill designed to secure the preservation of buildings of architectural or historic importance.

FORMATION OF TAUNTON GROUP OF THE BRISTOL SOCIETY OF ARCHITECTS

It was reported that a Taunton Group had recently been formed for the purpose of holding local meetings of members of the Bristol Society of Architects.

PROPOSED ERECTION OF POWER STATIONS AT DURHAM AND LINCOLN

The Council decided to call the attention of the local Allied Societies to the public enquiries to be held in connection with proposals to erect power stations at Durham and Lincoln in order that they might consider whether it was desirable that they should be represented.

EXAMINATION OF LICENTIATES TO QUALIFY FOR CANDIDATURE AS FELLOWS

The Officers of the Board of Architectural Education reported that, as a result of examinations held in London and Edinburgh, 3 Licentiates had qualified for the Fellowship.

FELLOWSHIP

The Acting Secretary reported with regret the death of the following members and Students:—Sir Clement Kinloch-Cooke (Hon. A.), Edward William Harvey Piper (Hon. A.), Alexander Lorne Campbell (F.) (Mr. Campbell was a past member of the Council), Alfred Cox (F.), Sydney Edmund Eaton (F.), George Alan Fortescue (F.), Thomas Ashton Lofthouse (F.), Charles Bulman Pearson (F.) (Mr. Pearson was awarded a Medal of Merit in the Tite Prize Competition, 1906, and was Godwin Bursar for 1921), David Robertson (F.), Herbert Shepherd (F.) (Mr. Shepherd was a former member of the Council, and represented the RIBA on the Committee of Management of the Architects' and Surveyors' Approved Society), Joseph Berry, J.P. (Retd. F.), John Priestley Briggs (Retd. F.), Herbert Frederick Tomalin (Retd. F.), Bernard John Brown (A.) (killed on active service), Francis Roland Foster (A.), Brendan Molloy (A.), Geoffrey Ronald Gilbertson Topham (A.), Sheikh Abdul Hamid (L.), Peter Peirce (L.), Percy King Allen (Retd. L.), Godfrey William Arnold (Student) (killed on active service), Paul Edward Cleeve Napper (Student) (killed on active service), William John Parsons (Student) (killed on active service), Humphrey Peter Bowstead Wilson (Student) (killed on active service). Messages of sympathy have been conveyed to their relatives.

MEMBERSHIP

Hon. Fellowship.—The Council unanimously elected as an Hon. Fellow of the Institute Sir Alfred James Munnings, President of the Royal Academy.

The Acting Secretary reported the acceptance of nomination by the Council for election as Hon. Fellows of the Institute:—The Rt. Hon. Peter Fraser, P.C., Prime Minister of the Dominion of New Zealand, the Rt. Hon. W. L. Mackenzie King, P.C., C.M.G., Prime Minister of the Dominion of Canada, Field-Marshal the Rt. Hon. J. C. Smuts, P.C, C.H., F.R.S., Prime Minister of the Union of South Africa.

Membership.—The following members were elected:—As Fellows (6), as Associates (8), as Licentiates (18).

Elected November, 1944.—Applications for election were approved as follows:—As Fellows (10), as Associates (21), as Licentiates (42).

Elected February, 1945.—Three applications for election as Fellows and 13 applications for election as Associates from overseas candidates were also approved.

Reinstatements. — The following ex-members were reinstated:—*As Fellows*: William Theodore Percival Bryce (Retd. F.), Sefton Stockford Careless. *As Associates*: Walter Ernest Dobson (Retd. A.), Berkeley Lowndes Moir, Ralph Bertram Pearce, Harold Pittaway. *As Licentiates*: Ernest Bower, Arthur Ernest King, Harold Edgar Robertson, Harold Samuels.

Applications for Transfer to the Retired Members' Class under Bye-law 15.—The following members were transferred to the Retired Members' Class under Bye-law 15: *As Retired Fellows*: Morrie Jacob Harris, David Thomson. *As Retired Licentiate*: Arnold Robinson Dearden.

Resignations.—The following resignations were accepted with regret:—Claude William Chambers (F.), Eileen May Sherwell (A.), Joseph John Clark (L.), Edgar Dugdale Dennis (L.), John Galt (L.), George Henry Goode (L.), Herbert Knight (L.), Lionel Hubert Parr Patten (Retd. L.).

TCPA

Luncheon

October 18, at the Waldorf Hotel, Aldwych. LUNCHEON given by the Town and Country Planning Association in honour of Sir Montague Barlow, Chairman of the Royal Commission on Location of Industry. Viscount Astor proposed the toast to Sir Montague, which was seconded by Sir John Barran. Chairman, the Earl of Lytton.

Lord Astor : Food growing is one of our most important industries. It exists in every district. In the past farmers and land owners have feared urban mentality and so resisted giving to Boroughs any jurisdiction over agricultural land.

This is short-sighted. They should face the inevitable flow of houses, shops, factories into the countryside. The best protection of rural rights and amenities is to make cities share in the wise administration of land interests. As soon as Town Councils have agricultural interests within their civic boundaries they will assume the responsibility for looking after the welfare of the countryside.

Our national policy should be to encourage the integration of rural with urban interests. The best unit is that one which intermingles different social groups and different occupations. Plymouth has tried to set a good example by scheduling for agriculture good dairy land within its boundary instead of covering every blade of grass with a brick.

Every ratepayer and taxpayer is entitled to three things. He should have a well planned district to live in and work in. He is entitled to know that the public services in his district for which he pays are as good as those elsewhere. He should be able to develop his sense of citizenship by being given a responsibility for the good administration of his town.

The Government intend to make a general survey of local authority boundaries, status and areas. This raises fundamental issues. What is the optimum size and the minimum wealth for a local government authority based on an urban centre? Are huge cities like Glasgow, Birmingham, Liverpool and Manchester to spread still further?

Some small Boroughs such as Scarborough and Torquay have high rateable values, but low populations. But in another category are small Boroughs which cannot afford to pay for first class officers and thereby guarantee good public services to their ratepayers and taxpayers. Is it fair to these ratepayers that these Councils be continued as autonomous authorities?

When we come to Boroughs with a population ranging downwards from half a million to 200,000 or 100,000, or even less, should we base the administration of their immediate suroundings upon them?

Every taxpayer is entitled to first class public service. Every ratepayer ought to be a voter in a local government community large enough to provide him with first class services,-but yet not so big as to kill collective civic feeling. He must feel local patriotism.

In the plan for Plymouth we are setting an example to remove popular apathy. We propose to divide the city into separate communities—6,000 to 10,000 population—in order to revive a sense of local collective consciousness and co-operation.

I have seen all the weaknesses of local government. But I am firmly convinced that we should preserve it. Centralized bureaucratic efficiency can never make up for the loss to the cause of democracy if we deprive citizens of a real share in the administration of their areas.

Sir M. Barlow : Slums and overcrowding of our great centres of population were the main concerns of the Royal Commission over which I had the honour to preside. The Commission were unanimous that these centres constituted "*serious handicaps*" and in some respects "*dangers to the national life.*"

June 7 last, therefore, was a red letter day in the history of planning in Great Britain: on that day the President of the Board of Trade, when introducing the White Paper on Employment Policy, announced that the Government accepted the "MAIN IDEAS" of the Barlow Report. It is refreshing to have so clear a statement from a Government Department. Their pronouncements are apt to be vague or even contradictory.

Those "main ideas" were shortly four:—

1. National Planning and a new Central Authority.
2. "Decongestion" of crowded cities.
3. Better balance of industry throughout the country; and
4. Prompt attention to the continued growth of industrial agglomerations and especially of the Metropolis.

As to—

1. National planning and a new Central Authority, these were formally accepted by Lord Reith 3 years ago on behalf of the Government.
2. "Decongestion" and redevelopment. This was to be the province of the Minister of Town and Country Planning.
3. Better balance and control of location of industry throughout the country; this would be the responsibility of the Board of Trade: the location of new industries would be influenced in the direction of helping "black spots" of unemployment old and new.

As to the continued sprawl of the Metropolis (which now with the Home Counties constitutes 12 out of 47 millions or one quarter of our whole population)—Mr. Dalton said the Government could not accept our conclusions: but each case must be considered on its merits; this is curious, for this is exactly what the Commission, or at any rate the majority, did say.

In any case the White Paper (C1.26 (9)) is express that the Government will take power to prohibit new factories in districts where disadvantages would arise. It is difficult to imagine that this would not include London.

In conclusion, the policy of decongestion, which may be said, as a Commission, to have inherited from Ebenezer Howard, is forcibly put before us in evidence by this Association. "Decongestion" is the short term and immediate remedy for slums and overcrowding. The other three main ideas are the long term remedies for the same evil *viz.*, a National Plan, balance and control of industry and power to prohibit growth of great cities. It is no use decongesting London slums if that merely results in super-congestion in Leeds or Birmingham.

Where then are the "decongested" people to go? This raises the difficult issue of "overspill" which the Plymouth plan has so forcibly illustrated. The Barlow Commission unanimously favoured the community principle, either new communities such as Garden Cities, or enlargement of existing units, *e.g.*, villages or small country towns.

Difficult issues of Municipal boundaries, rating adjustments, and, indeed, of Local Government generally are involved, which we have no time to enter on to-day.

Mr. Morrison has promised to consider this problem of overspill and to bring forward proposals at an early date.

I cannot but think that something in the nature of an *intermediate* authority between Counties and County Boroughs and Whitehall, as suggested recently in *The Times* newspaper may eventually prove necessary.

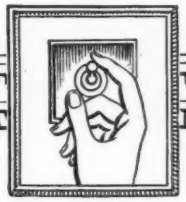
IME

A. Egerton

September 20, at the Institution of Mechanical Engineers, S.W.1. Meeting of the Institution of Heating and Ventilating Engineers. Address on TRENDS IN THE DESIGN OF HEATING INSTALLATIONS, by Professor Alfred Egerton. Chairman: Dr. Oscar Faber, President.

A. Egerton : About half the coal burned in this country is used for domestic purposes; half of this again is used for hot water and cooking requirements. We consume less coal per person than the United States but more than Germany, but in both these countries the standard of heating is higher than here. The efficiency of our heating appliances should be improved so as to reduce the consumption of coal and at the same time raise the standard of heating. To this end heating engineers should collaborate with architects and housing authorities.

What are the desirable living conditions in the small house? Measurements indicate that English people sitting at rest in their indoor clothing are comfortable at a temperature of about 65 deg. F., but the house should not be kept throughout at this temperature. In kitchens or utility rooms where



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

EDA

active work is going on 65 deg. F. would be too high, and in bedrooms this temperature is not required during the greater part of the twenty-four hours. The prevailing conditions of overheated kitchen, living room frigid in the morning, and icy upstairs rooms are not comfortable. The aim should be to improve the standard of comfort without getting people too used to warmth through overheating. The right principle is to provide background heat insufficient for sedentary comfort, and then top up when and where comfort is desired. Throughout the house background temperature should be sufficient to maintain dryness and to enable it to be easily brought to a reasonably comfortable condition by the provision of extra heat.

The living room should be at a temperature of 65 deg. F. for nine and a half hours spread over three periods, and 55 deg. F. for six hours in two periods. The hall should be at 55 deg. F. for fifteen and a half hours, and the bathroom at 60 deg. F. for half an hour. As to hot water, for a small house with two adults and two children there should be provided 250 gallons per week at 140 deg. F., which would allow of one full bath per day of the week. The temperature suggested is suitable for washing up, etc. Opinions differ as to the size of the storage tank; some think a small one economical, but others consider it should not be of less than 35/40 gallons capacity. Small or large, it should be very well lagged.

As to cooking, in the family house cooking arrangements for six people should be provided so that visitors can be entertained. The appliances should be easily cleaned. There should be a warm, but not hot, cupboard in which to keep linen, and a well ventilated cupboard in which clothes can be dried. Alternatively the arrangements for drying clothes or linen in the utility room should be so placed that warm air can circulate over them and when charged with moisture be led away out of the house.

A point that has been much neglected is the lining of rooms to improve insulation. Plaster finishes are about as bad as can be from most points of view. Wood is good: it can be a thin fire-proof veneer.

The heat requirements of a house are partly dependent on its siting and its latitude. In the north of this country the heat required may be twenty per cent. greater than in a southern district. Exposure may make ten or fifteen per cent. difference. Orientation is important: south facing rooms may require from ten to twenty per cent. less heat than north facing ones.

Stoves and methods of central heating and the flueless gas heater give fairly high efficiencies. Closable fires, small coke fired boilers and gas fires come in an intermediate position, while open fires and electric stoves come in the lowest category. Figures for the coal needed to give one therm of useful heat, show that district heating is at the top, followed in order by the anthracite stove, gas boiler, coke boiler, open coal fire, electric fire. These figures summarize the national aspect of the economy of fuel consumption for domestic heating in the present state of technology. Our aim should be to use methods for background warmth which are capable of giving efficiencies of fifty per cent. or better, *i.e.*, about 15 lb. of coal per therm, and to top up by methods which are easily controllable and have as high an efficiency as possible. What is wanted is the continuous delivery of a small amount of heat to remove the chill from a house while an intermittent supply of heat is provided to bring comfort when required.

The open fire is not so much a house heating appliance as a room warmer and ventilator. It should be regarded as a luxury. But there is now a body of knowledge about the design of open fires which may have some effect in their being used more efficiently. In all cold countries the closed stove is the method of heating most used. The semi-closed or openable fire is a type of appliance now undergoing considerable improvement. It is continuous burning. It can be arranged to provide convected heat like a closed stove, or it can be opened up. When opened up it gives a sight of the fire and increases the combustion rate. Thus background heat and topping up can be had from the one appliance. It is important that such stoves should be arranged for a low combustion rate—as for a closed stove—of about ¼ lb. or ½ lb. of coal per hour, and combustion should be maintainable during ten hours continuously. Therefore the stove must be carefully made with well machined surfaces to the doors and fitments.

With regard to appliances replacing the kitchen range, the combination of all three purposes—space heating, cooking and providing hot water—into one appliance is difficult, particularly as cooking is a service which may be required at the same time as space heating, but very efficient appliances can be designed for two purposes, *i.e.*, water heating with either cooking or space heating. The latest designs of lightly insulated cookers and water heaters are of great importance.

The most rational method of heating a house is by central heating. It should be suitably controlled to prevent overheating. If used as a means of getting background warmth little heat is needed from other sources to top up to comfort temperature. There is much scope for the development of small, efficient, convenient and easily installed central heating boilers which only require attention once in twelve hours. In small houses central heating systems ought to be arranged to supply hot water for household purposes.

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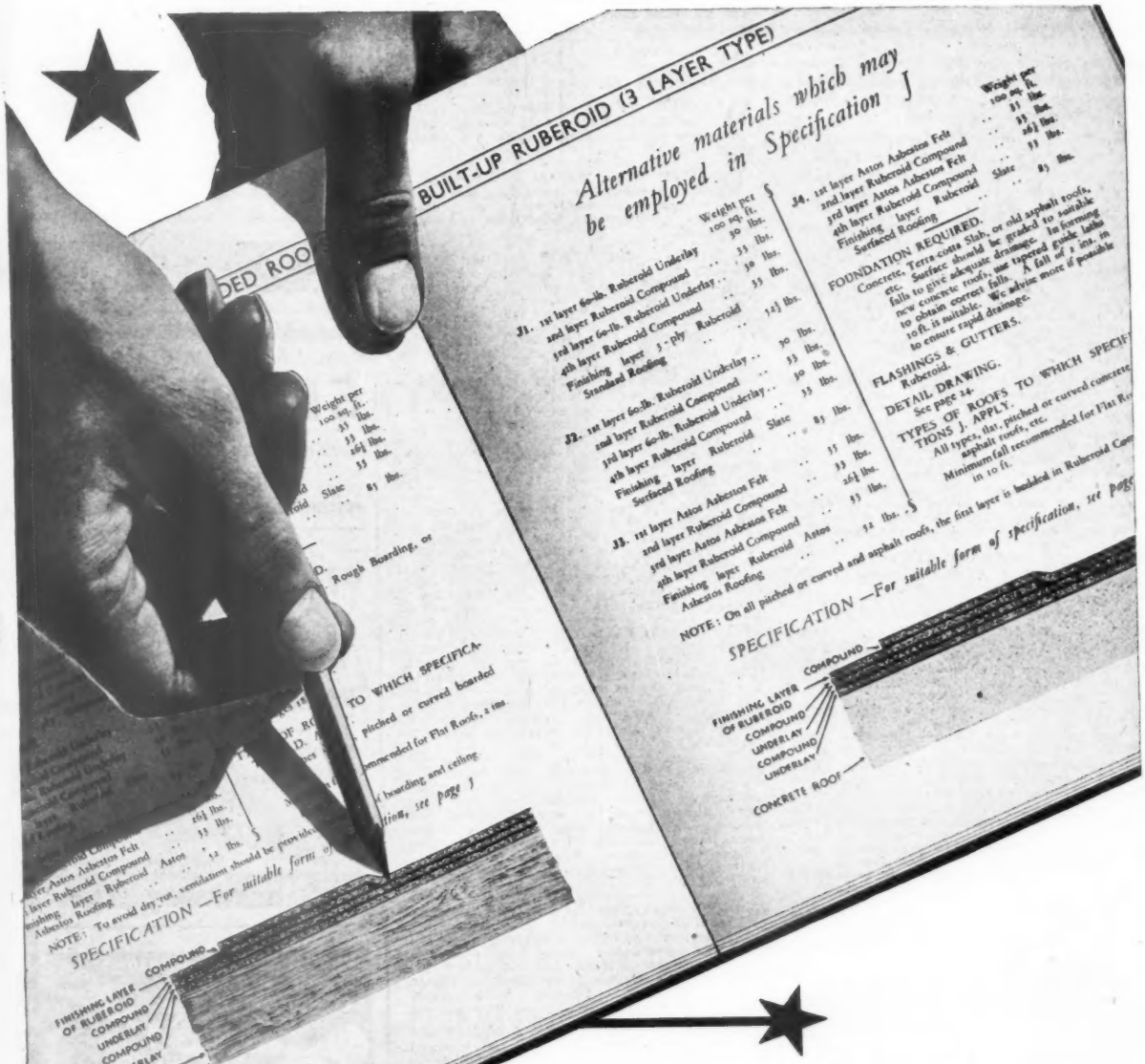

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BERNARD KENYON,
Clerk to the County Council.

County Hall, Wakefield. 866

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Clerk to the County Council.

The Courts, Carlisle.
3rd November, 1944. 864

MARKET HARBOROUGH RURAL DISTRICT COUNCIL.

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