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No. 2551] [VOL. 98

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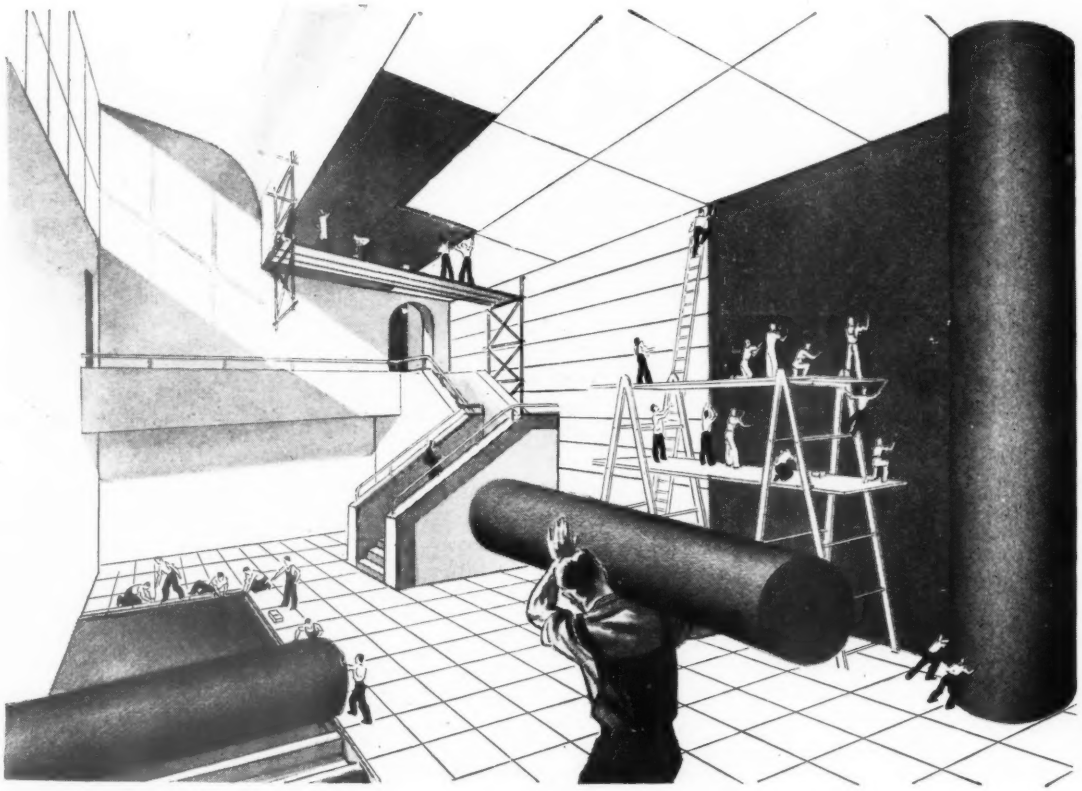
★ The war has both multiplied the number of Official Departments and encouraged Societies and Committees of all kinds to become more vocal. The result is a growing output of official and group propaganda. A glossary of abbreviations is now provided below, together with the full address and telephone 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. 32, 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 6927.
BC	Building Centre. 23, Maddox Street, W.1. Mayfair 2128.
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. 110, Bickenhall Mansions, W.1. Welbeck 3335.
BOE	Board of Education. Belgrave Square, S.W.1. Sloane 4522.
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 7618.
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.
FMB	Federation of Master Builders. 23, Compton Terrace, Upper Street, N.1. Canonbury 2041.
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.
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.
ISPH	Committee for the Industrial and Scientific Provision of Housing. 1, Old Burlington Street, W.1.
LIDC	Lead Industries Development Council. Rex House, King William Street, E.C.4. Mansion House 2855.
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3767.
MARS	Modern Architectural Research. 8, Clarges Street, W.1. Grosvenor 2652.
MOA	Ministry of Agriculture and Fisheries, 55, Whitehall, S.W.1. Whitehall 3400.
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' 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.
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 Street, 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.
RC	Reconstruction Committee RIBA. 66, Portland Place, W.1. Welbeck 6927.
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.
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646.
TCPA	Town and Country Planning Association. 13, Suffolk Street, S.W.1. Whitehall 2881.
TDA	Timber Development Association. 75, Cannon Street, E.C.4. City 6147.
TPI	Town Planning Institute. 11, Arundel Street, Strand, W.C.2. Temple Bar 4985.

Alphabetical Index to Advertisers

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



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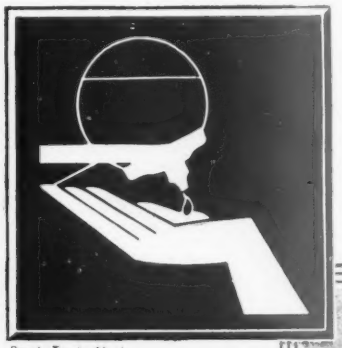

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The Ministry of Fuel and Power has announced . . .

the 2½ Year Criterion

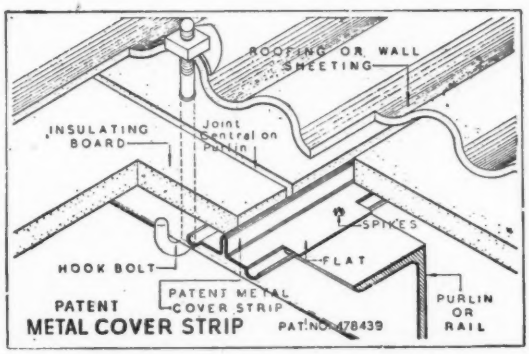
A common standard for licensing has been agreed upon by the authorising departments of the Government which requires that the estimated economy in fuel that would be secured within 2½ years from the date the scheme is authorised shall exceed in value the capital cost of the equipment, plant or instruments needed to procure the economy. *(See Fuel Efficiency News No. 8, October, 1943.)*

This means that, subject to availability of labour and materials, permission will now be granted for the proper thermal insulation of buildings as follows :—

1 IN EXISTING BUILDINGS where the value of the estimated fuel saving in 2½ years exceeds the applied cost of insulation.

2 IN NEW BUILDINGS where the value of the estimated fuel saving in 2½ years *plus* the reduction in cost of heating plant together exceed the applied cost of insulation.

Fuel Efficiency Bulletin No. 12 (issued free by the Ministry of Fuel and Power) stresses that "*Insulation may save more than half the fuel required to heat an uninsulated building.*"



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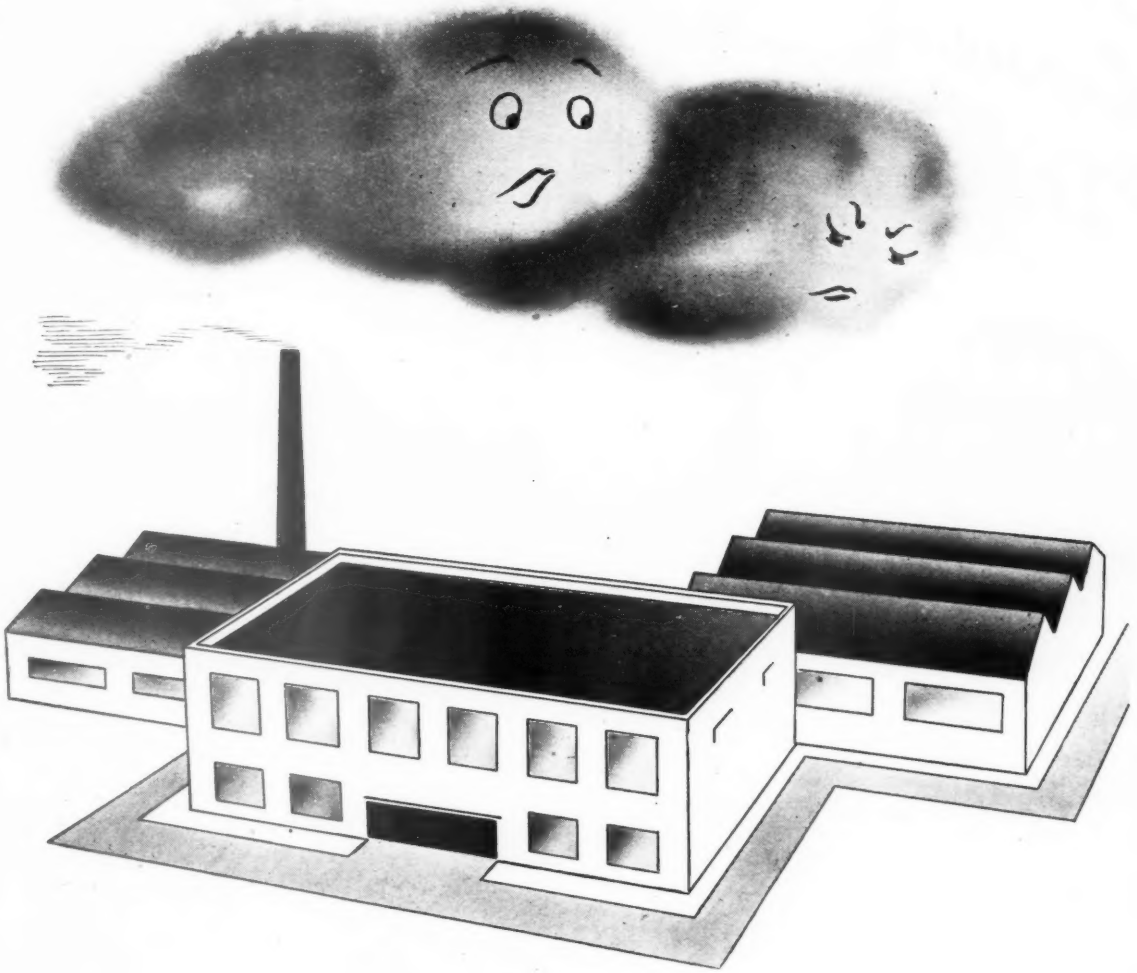

My dear be sensible, it's a waste of effort for a cloud to burst over a factory protected by a

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Shapes are constantly changing

Simple things, like ploughs and pitchforks, change slowly. With the complicated things that enter into modern living—vacuum cleaners, wireless sets, cameras and telephones for instance—the change is often surprisingly rapid. Go to a museum and look at a sewing machine of 1880 or a gramophone of 1905!

There is food for thought here for manufacturers who normally make any mass-produced consumer article. Shapes will change radically after the war. New materials and processes, including new developments in plastics, will call for a new outlook on design. Bakelite Limited are endeavouring now to visualise some of the shapes of tomorrow. The views and advice of their Industrial Design Department are at the disposal of any manufacturer who thinks that plastics may play some part in the re-styling of his products.

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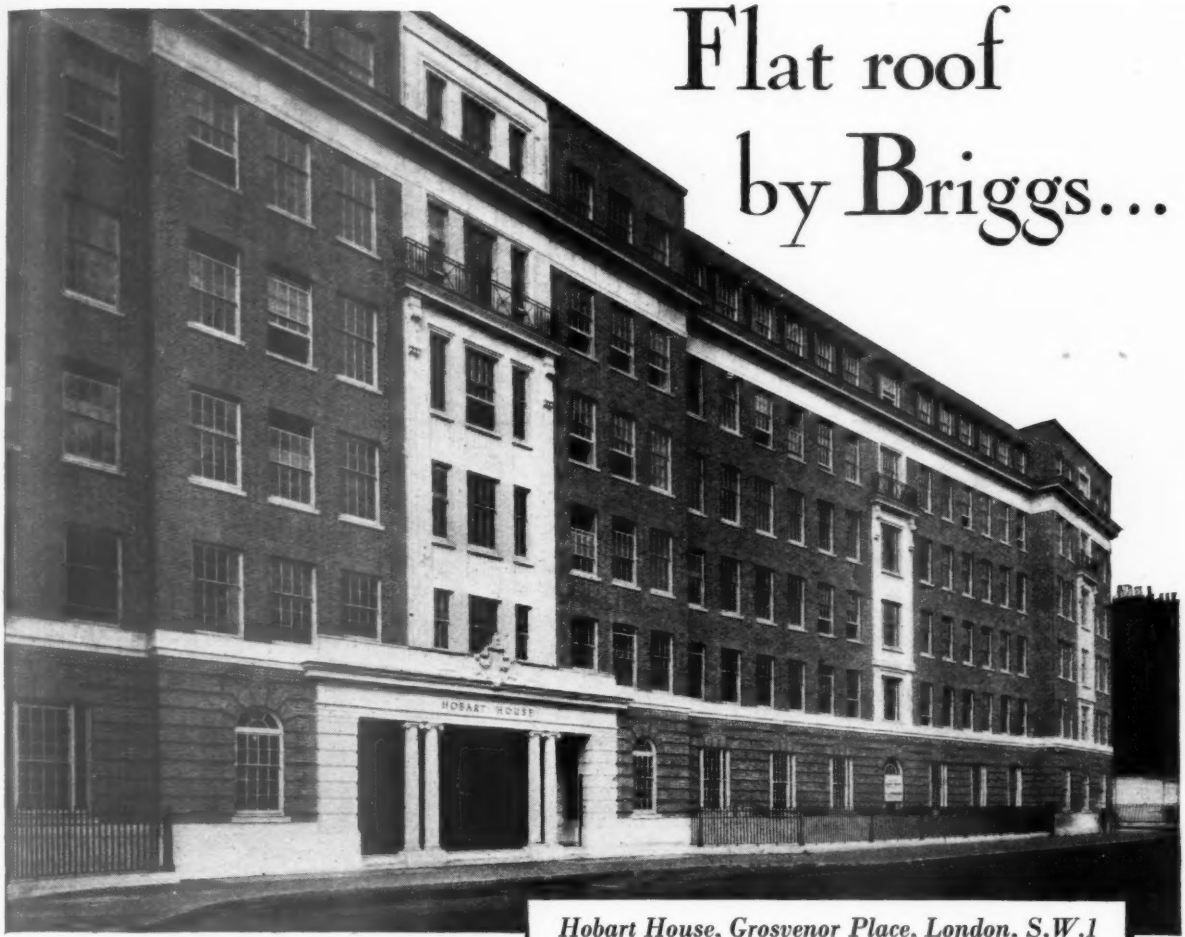

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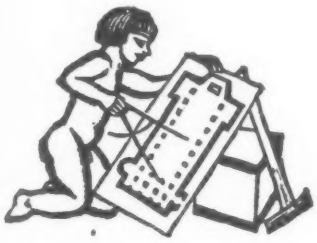
In common with every other periodical this JOURNAL *is rationed to a small part of its peace-time needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the* JOURNAL, *and made of raw materials now in short supply, are not necessarily available for export.*



DIARY FOR DECEMBER, JANUARY AND FEBRUARY

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.

CARDIFF. *Rebuilding Britain Exhibition.* (Sponsor, BIAE.) DEC. 20-JAN. 17

DERBY. *Rebuilding Britain Exhibition.* At The Museum and Art Gallery. (Sponsor, BIAE). DEC. 20-JAN. 8

GLASGOW. *Rebuilding Britain Exhibition.* At Glasgow Building Centre. (Sponsor, BIAE). DEC. 16-23

ISLE OF ARRAN. *Living in the Country Exhibition.* (Sponsor, HC.) DEC. 16-27

LONDON. *Chinese Art.* Exhibition of 60 paintings from China, organized by the British Council, at the request of the Ministry of Information, at the Royal Watercolour Society's Galleries, 26, Conduit Street, W.1. Thirty-one artists—from eight different provinces—are represented. Among them are Ju Peon, Sun Tsung-wei, and two women artists, Miss Sun Lu-chin and Miss Tsai Shu-shen. Wu Heng-chin, who painted *Air Raid in Chungking*, is secretary of the All-China Artists' Association, a member of the same institute, and an official war artist; Hsu Chieh-min fought in the Army. Some of these artists are still painting according to traditional Chinese methods, but in others can be seen the influence of Western art. Many of the artists have studied art in Europe and America. DEC. 16-24

Edgar Morton, M.SC., on *The Geological Basis of Planning.* At Essex Hall, Essex Street, W.C.2. 2.30 p.m. (Sponsor, TPI.) DEC. 16

LCC Architects Department: Exhibition of Members' Sketches. At Room 150, County Hall, Westminster Bridge, S.E. The exhibition is in aid of the Central Red Cross Fund. (Sponsor, LCC Staff Association). Dec. 16-17. 12 noon to 2 p.m. and 5.30 p.m. to 7.30 p.m. Dec. 18. 12.30 p.m. to 3 p.m. DEC. 16-18

When We Build Again Exhibition. At Heal & Son, 196, Tottenham Court Road, W.1. (Sponsor, TCPA, in conjunction with Cadbury Bros.) DEC. 16-18

Motorways for Britain Exhibition. At 22, Lower Regent Street, W.1. It has been designed by G. A. Jellicoe, President of the Institute of Landscape Architects. (Sponsor, British Road Federation.). DEC. 16-24

Russian Ancient Buildings Destroyed by the Germans. Exhibition of photographs. At 66, Portland Place, W.1. 10 a.m. to 6 p.m. (5 p.m. Saturdays). (Sponsors, RIBA and USSR Embassy.) DEC. 20-JAN. 8

Film Evening. Films selected by Paul Rotha, who will give an informal talk. At 34-36, Bedford Square, W.C.1. 6 p.m. (Sponsor AA). Postponed until March 14.

Leslie Hardern, on *Refrigerators for the Small House.* At the Housing Centre, 13, Suffolk Street, S.W.1. 1.15 p.m. (Sponsor, HC.) DEC. 21

Alastair Morton, on *Good Design in the Textile Trade.* At Royal Society, Burlington House, Piccadilly, W. Buffet lunch 2/6 from 12.45 to 1.30 p.m. Talk and discussion 1.30 to 2.30 p.m. (Sponsor DIA) JAN. 4

Miss J. Tyrwhitt, on *Adapting Wartime Sites for Post-war Industry.* At the Housing Centre, 13, Suffolk Street, S.W.1. 1.15 p.m. (Sponsor, HC.) JAN. 4

Science in the Art of Lighting. Discussion at a joint meeting of the RIBA and the IES. The subject will be introduced by R. O. Ackerley, Past-President of the IES, and A. G. Macdonald, F.R.I.B.A., Chairman of the Architectural Science Board of the RIBA. At 66, Portland Place, W.1. 5.30 p.m. (Sponsors, RIBA and IES.) JAN. 18

Henry Berry, chairman, Metropolitan Water Board, on *London's Water Supply.* At Royal Society of Arts, John Adam Street, Adelphi, W.C.2. Chairman, Viscount Falmouth. 1.45 p.m. JAN. 19

John Gloag, *The Selling Power of Good Industrial Design.* At Royal Society, Burlington House, Piccadilly, W. Buffet lunch 2/6 from 12.45 to 1.30 p.m. Talk and discussion, 1.30 to 2.30 p.m. (Sponsor DIA) FEB. 2

E. C. Goldsworthy, on *Light Alloys in Post-war Britain.* At Royal Society of Arts, John Adam Street, Adelphi, W.C.2. 1.45 p.m. FEB. 2

John Dower, M.A., A.R.I.B.A., M.T.P.I., on *Planning and Landscape.* At Essex Hall, Essex Street, W.C.2. 2.30 p.m. (Sponsor, TPI.) FEB. 3

LUTON. *Living in the Country Exhibition.* (Sponsor, HC.) DEC. 16-30
Rural Housing Exhibition. (Sponsor, HC.) DEC. 16-30

MALDEN. *Your Inheritance Exhibition.* (Sponsor, HC.) DEC. 16-19

RHYL. *Home from Home Exhibition.* (Sponsor, HC.) DEC. 16-JAN. 1

WEST HAM. *When We Build Again Exhibition.* (Sponsor, TCPA.) JAN. 8
TCPA Conference. JAN. 15

NEWS

THURSDAY, DECEMBER 16, 1943
No. 2551. VOL. 98

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.

Dr. Garbett, the ARCHBISHOP OF YORK, HAS RESIGNED from the Central Housing Advisory Committee of MOH owing to pressure of work.

He will be succeeded by the Rev. St. John B. Groser, Vicar of Christ Church, Watney Street, E.

As a first instalment, 4,570 HOUSES ARE TO BE BUILT IN STIRLING.

This number, it was stated at a meeting of the Stirling County Council Housing Sub-Committee, will be needed to rehouse people living in condemned or overcrowded property.

Radiation Ltd. invites the application of artists for participation in a competition aiming at the DESIGN FOR A HOUSE MARK.

First prize, £100; second, £50. The prizes will be awarded upon the recommendations of a professional jury of independent artists and the company's designer. Applications for entry form (enclosing ½d. stamp to comply with Paper Control Order) to be addressed to "Design," Radiation Ltd., Radiation House, Aston, Birmingham, 6. The competition closes on February 29.

from AN ARCHITECT'S *Commonplace Book*

COLOURED SKETCH OF RIO. [*From* Brazil Builds, *by Philip L. Goodwin* (The Museum of Modern Art, New York, 1943)]. Rio apartments face the sea for the views and the constant breezes which make the summer tolerable. Hardly an apartment is without some form of partly sheltered outdoor space; the European custom of balconies is ideal here. Whereas screens are absolutely essential in most of the United States, continuous winds seem to make them unnecessary in Brazilian coast towns. This encourages a pleasantly open relationship between indoors and outdoors. The openness extends to the shops, which are often entirely without glass and protected by folding iron grills during the night. The exteriors of these new apartment houses are usually of cream or grey stucco, completely shorn of ornament but with pleasing arrangements of openings. The entrances are lined with plain marble slabs relieved by boxes of green plants. We naturally associate much strong colour with warm countries, but aside from one exceptional building in Sao Paulo, where at least five different bright-coloured canvases were used for awnings against a grey stucco wall, what one actually finds are neutral colours, white curtains and frequent use of blue. The popularity of blue and white is traditional: those were the colours of the flag of the Portuguese monarchy. Such good and simple taste is not to be found in the fussily furnished lobbies of Park Avenue.

★★

In his first speech in the House of Lords since his appointment as Minister of Reconstruction, Lord Woolton revealed that there will be NO MINISTRY OF RECONSTRUCTION, and that responsibility for formulating plans would rest with the departments concerned.

In reply to the question: When are the plans of the Minister of Town and Country Planning to be produced?, Lord Woolton said that the proper development of land should not be prevented by motives of personal gain or selfishness. Plans would be laid before Parliament at a very early date. The plans for reconstruction were not going to be carried out by him but by a number of Ministers and Government departments who were responsible for formulating and executing them. That was why there was going to be no Ministry of Reconstruction. What he had to try to do was to see the reconstruction plan as a whole, to bring them into relation with one another, and to make sure there were no gaps, no overlapping and no conflicts between departments. He would have to see that nothing was left undone by his colleagues that the War Cabinet wished to be done.

Replying to the Reconstruction Debate in the Lords a few days later, Lord Woolton announced that a White Paper would be available soon after Christmas on the Government's intentions regarding process of purchase of property including application of the 1939 ceiling, and regarding acquisition of land essential to proper planning of an area including land outside the immediate limits of devastated areas. The White Paper would form the background against which a Parliamentary Bill would be presented. The post-war programme, said Lord Woolton, would be based on a statement of priority. It had been arranged that MOH, MOW, MOTCP, MOA and other departments concerned, should collaborate in preparing for the guidance of local authorities, a manual of general instruction on housing matters. This would ensure that MOH and the local authorities would have the full benefit of the special knowledge of MOW. It would ensure that this technical advice was available without the local authorities having to submit their schemes to MOW as well as to MOH. Primary responsibility for housing would rest with MOH, but MOW had now become the essential Government authority on designs, specifications, materials and building technique. The question of the acquisition of land, continued Lord Woolton, was a matter of great urgency. Until it was settled it would not be possible to proceed to specific development proposals. There would be no delay between the time it took to draft the necessary legislation and its submission to Parliament. While he remained in office, he said, he was not going to have anything to do with political parties. He was going to remain completely outside.

In the House of Commons, replying to the debate on the King's Speech, Sir William Jowitt, Minister Without Portfolio, agreed that SOCIAL MATTERS ARE AS IMPORTANT AS WINNING THE WAR, but said there must be some kind of priority.

He said: Lord Woolton, the new Minister of Reconstruction, presides over a powerful committee of Ministers, and predigested material for the War Cabinet. Where there is a dispute between departments he will harmonize plans. He has also to see that there are no gaps. The shape of things to come is now clearer. The time for decision has come, and the time for preparatory work is drawing to an end. Lord Woolton's staff will be small, highly skilled and hand-picked. Plans will be prepared by whatever Ministry is concerned. He will see these plans and pass them round to other departments to get their views. If he thinks the plans are not complete he will say so and ask for them to be filled in. In other words he will be both a co-ordinator and an initiator. I am quite certain that he will regard it as an essential part of his task to put first things first. That is why the Prime Minister referred to those three fundamental things—food, homes and employment. They will not be able to make planning a reality until they have some control of development for new purposes, whether in town or country. Some basis of true but not excessive valuation must also be devised, as must a system to secure betterment. The Uthwatt conclusions are exceedingly controversial. I have received as many violent letters against them from the Socialist benches as from the Conservative side. Lord Woolton will use his powers to secure that the bill promised for this session will be as wide and comprehensive as possible, and that the Government's views are put before the House as soon as may be.

One of the photographs in the main feature at the Motorways for Britain *Exhibition now on view at 22, Lower Regent Street. It shows a motorway with its dividing strip of foliage forming part of the pattern of the unspoiled countryside.* (*See news item on next page*).

The New Acting Secretary of the RIBA

Mr. Cyril D. Spragg will become Secretary of the RIBA for the duration of the war on the retirement of Sir Ian MacAlister at the end of the year. Born in 1894, Mr. Spragg was educated at Christ's Hospital, and entered the service of the RIBA in 1913. He was appointed Assistant Secretary in 1926, and has been closely associated with Sir Ian in the outstanding events and developments of the Institute during the past 20 years. He has been Joint Secretary with Norman H. Walls of NFBTE of the Joint Tribunal on Standard Form of Contract since the formation of the Tribunal, and is Joint Secretary with W. J. Rudderham of LMBA of the Joint Committee of London Architects and Builders. He is also RIBA representative on the Architecture and Public Utilities Committee (Central Register Advisory Council) of MOLNS, and RIBA representative on the Home Office Central Board of Advisory Panels and Professional Consultants. In the absence of E. J. Haynes on war service, he has acted as Secretary to the Board of Architectural Education since September, 1939. During the last war he served with the Queen's Westminster Rifles in France, Salonica and Palestine, and in this war he is a Platoon Commander in the Home Guard. His chief recreation being travel and having motored extensively in Germany, Czechoslovakia, Belgium and Holland, it is worth mentioning that he has taken a vast number of photographs of buildings in Berlin, Hamburg, Lubeck, Rostock, Hanover and Nuremberg, which have almost certainly been demolished by the RAF.

The House of Commons has appointed a select committee to consider plans for the REBUILDING OF THE HOUSE OF COMMONS. *The committee has a membership of* 15 *M.P.s.*
They are: Commander Agnew, Mr. G. Benson, Captain de Chair, Mr. Erskine Hill, Sir Patrick Hannon, Sir Percy Harris, Mr. Hore-Belisha, Mr. Godfrey Nicholson, Mr. Pethick-Lawrence, Miss Rathbone, Sir Geoffrey Shakespeare, Mr. Bracewell Smith, Mr. Wilmot, Mr. Wedderburn and Earl Winterton.

The exhibition at 22, *Lower Regent Street, S.W.*1, *on* MOTORWAYS FOR BRITAIN, *sponsored by the British Road Federation, was opened last week by Sir William Rootes, K.B.E.*
The exhibition was designed by G. A. Jellicoe, F.R.I.B.A., M.T.P.I., President of the Institute of Landscape Architects, and is the first public exhibition in this country of the Motorway System. It shows what a Motorway is—a high road 100 feet wide, divided into two 30-foot one-way drives by a centre strip planted with flowering trees and shrubs. It runs through open country, by-passing villages and towns, adapting itself to the natural contour of the landscape; only fast-running motor traffic is allowed access to this long-distance through road, and then by the use of junctions like the Clover Leaf. Models, plans and photographs show different features of the new roads, including a scheme of a 1,000 mile net-work of motorways covering the whole country. They indicate how these new roads would save time, money and lives, while being invested with charm and beauty by the landscape architect, unimpaired as they would be by ribbon development. A feature of the exhibition compares an existing main road between two industrial towns 100 miles apart with its congestion, dangerous crossings and continual stoppages with a motorway, illustrating how the latter would save 2½ hours in travelling time and 28 per cent. in transport cost. The exhibition remains open until December 24.

Watford Trades Council have agreed to support the LCC plan for a SATELLITE TOWN AT OXHEY *to house* 15,000 *Londoners.*
The Council represents more than 6,000 workers. Watford Council have already endorsed the plan.

Speaking at Birmingham, Mr. L. C. M. Amery, Secretary of State for India, said that we may have TO IMPORT READY-MADE HOUSES.
We shall not be able to afford to build our houses for eternity, said Mr. Amery. We may have to import ready-made houses, with all their fittings, by the hundred thousand. . . . No vested interests, whether in land or in old-fashioned building methods, and no out-of-date regulations must stand in the way of the largest possible number of decent houses being run up in the shortest possible time.

ARCHITECTS WANTED

IT is now evident that the Government appreciates that at least *some* physical reconstruction will be necessary after the war, and that the legal and administrative machinery to facilitate the post-war building programme must be created at the earliest possible moment consistent with war legislation. In fact, a few necessary decisions have already been announced. One vital factor, however, has as yet escaped serious consideration—the training of a sufficient number of architects and planners for the great task of rebuilding.

We and many others have endeavoured to instil into Government and public the idea that all building projects should be supervised by architects, not the least of whose contributions, contrary to a too common belief, is the ability to build economically and to reduce building costs. We believe that MOW, now recognized as the technical adviser to the Government on all building matters, appreciates this. We therefore visualize an enormous amount of work for architects after the war.

But today there are obviously not enough architects (or planners) to do the job. Mr. Walter O. Hudson, Secretary of the Institute of Registered Architects, informs us that there are less than 15,000 registered architects, of whom some 11,000 are assistants. Approximately one-third of the profession is in Government or Local Government employ. Of the remainder about 500 live permanently abroad, 3,200 are boss architects and 6,300 are assistants. Mr. Hudson estimates that if all these men were mobilized to deal with repair work in London alone it would take them five years—unless the machinery of the LCC were considerably simplified. It would occupy too much of our space to detail the red tape through which one must go to clear the plans, for instance, for such a small job as the reinstatement of a blitzed top floor in the West End. Architects know all about the difficulties involved.

It is clear from Mr. Hudson's statistics and estimate that architects must at once formulate their own plans for education and recruitment to the architectural and planning profession. The profession has often chastised the Government for not preparing its plans in good time. The profession should not have to chastise itself for the same reason.

We must see to it that there are enough architects to carry reconstruction through in the right way—for architects will be blamed for most of the things that go wrong when hostilities have ceased. Architects have been blamed unfairly for the mining-camp squalor of inter-war building—unfairly because only about one-tenth of it was designed and supervised by qualified architects. The profession will again be blamed for the shambles that may result after the war unless rebuilding is supervised by people sufficiently trained both in technics and æsthetics to do the job as it should be done. The blame would then be warranted,

for the profession would have missed an opportunity, which may never recur, to add their contribution to the coming new phase of civilization.

As *A Middle Aged Member* in his excellent letter which we published last week points out, "Sir Ian's retirement requires that the whole of the RIBA—its growth, machinery, aims and relationships—should be examined afresh. With Sir Ian's going, an era is closed, a great lease is ended. Before a new lease begins is the time for inspection, assessment, thought and re-equipment." One of the most urgent matters now requiring "inspection, assessment, thought and re-equipment" by the RIBA is the education of the architect and planner—not only relating to the *kind* of training and schools that will be required in the future, but to the steps needed for recruiting a *sufficient number* of the right type into the profession. If the RIBA does not act, it must declare that it will not be considered as *lèse majesté* for the IRA or for any other official body to produce a scheme. It will not even be able to object to the Government's producing a scheme.

The Architects' Journal

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

NOTES & TOPICS

ARCHITECTURAL EDUCATION

Education rivals housing in headline interest at present. Years ago the Spens report scarcely got beyond the Educational Supplement; the Hadow came up a little on that, while the Butler White Paper hit the public in the eye. The building industry came in it for its share in the recent report on Apprenticeship. The two engineering institutes concerned with building are revising their examinations; the Structurals have a new system which comes into effect in the summer of next year. All this prompts the question of what the RIBA is doing about Architectural Education.

There are a number of architects who believe that a very much higher standard of technical knowledge is necessary if the profession is to maintain its position. This was shown, by inference, in the first report of the Education Committee of the Architectural Science Board on the Teaching of Building Construction. The last that was heard of the committee was that it had practically completed a report on the teaching of Building Science. On the eve of the post-war building programme and the expansion of architectural education which must accompany it, a review of the methods of teaching building science would be timely to say the least.

*

Then there is the Special Committee on Architectural Education set up by the Board of Architectural Education. One document has emerged in two years, which showed no realization of the urgency of the problems involved.

*

The other document was a rather complacent survey of architectural education generally, and came from the Board of Education. It was far from making the review of technical and æsthetic requirements and of assessing the present policy of architectural education in regard to them which is necessary to-day. The Architectural Science Board's report was precluded by its terms of reference from presenting a complete picture but the partial examination it made, led to the conclusion that such a general survey was necessary. The engineers are making substantial advances in their curriculum. There is a suspicion that the RIBA may be left behind in the educational sphere.

*

Presumably the special committee will soon be in a position to publish its report, and we hope that this, coupled with the reports from the other RIBA committees—the ASB—will indicate what developments in architectural education are to be expected.

BRAZIL BUILDS

Every architect has, I suppose, his blind spot—some style or period with which he is completely out of sympathy. Sir Reginald Blomfield, you remember, was allergic to Modernism and Pugin to Classicism. Less famous personalities are probably not quite so certain about things, but I for one must confess to a strong dislike of Cheshire half-timbering, the Purbeck-marble napkin-ring sort of twelfth century Gothic, the blatant brickwork of the late Victorian (or Pevsner) period, particularly of the elaborate mullions and "strapwork" of large sixteenth century English houses. (As for Burleigh House, I can only agree with Douglas Byng's translation of *Ars est celare artem*—"if that's Art, for heaven's sake conceal it.") Nor, I'm afraid, do my personal prejudices stop there. I believe, for instance, that fine detailing is *not* among the many contributions made to modern architecture by the Latin Races. In the new buildings of France, Spain, Italy or the South Americas you will find many qualities—drama, *panache*, vigour—but never that exquisite, crisp precision of detail which so delights the visitor to, say, the Scandinavian countries.

*

This opinion has been strengthened by reading *Brazil Builds*, published early this year by the Museum of Modern Art. Despite a loosely-woven commentary and a sad scarcity of plans and sections, it is a handsome and exciting book—

particularly that part which deals with the old architecture of Brazil. There's richness indeed. As for the new—well, here it all is again, immaculately photographed by Mr. Kidder-Smith (heir to the throne of Dell and Wainwright)—the rough polygonal stonework butting against the sheet of glass, the free-shaped pool, the stepping-stones across the lawn, the wavy concrete canopy wandering beneath the hot blue sky, the tree shadows dancing on the blind white walls. Some of it—like the fabulous façade of the Ministry of Education building in Rio—is superb, some of it is admirable, some of it is mere pastiche. In nearly all of it the detailing is poor.

★

However, detail is not everything, and for some time we shall not expect any student to be able to resist incorporating *brise-soleil* in his next one day's esquisse for an office block. France, Germany, Sweden, Finland and now Brazil. Every year the shrines become more distant, the pilgrimages more expensive. Let us hope, for the sake of our pockets, that the architects of Alaska and Cathay don't get hold of a copy of *La Ville Radieuse*.

ASTRAGAL

The Ministry of Education and Health, Rio de Janeiro, Brazil. Architects: Juno Costa, Oscar Niemeyer, Alfonso Reidy, Carlos Leão, Jorge Moreira and Ernani Vasconcelos; Le Corbusier, consultant. This building was begun in 1937 and was still under construction in 1942. An innovation is the elaborate brise-soleil *shielding the glass-walled façade. An internal concrete frame permits the north and south sides to be entirely of glass. The narrow east and west walls, as well as the columns which lift the building from the ground, are veneered with a pinkish-gray local granite. The curved structures on the roof, containing water tanks and lift apparatus, are covered with vitreous tiles. See Astragal's note above.*

LETTERS

W. F. Grainger, F.R.I.B.A.

Arthur Ling, A.R.I.B.A.

R. Perry, Executive Officer, C.I.S.P.H.

G. B. J. Athoe, Secretary, I.A.A.S.

Sir Ian MacAlister: Changing the Pilot

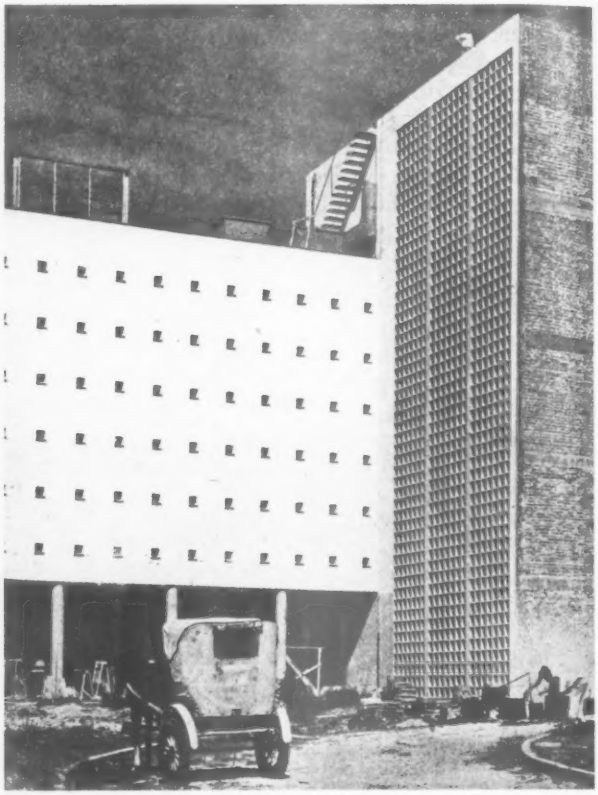
SIR,—I have read with great interest the letter published in this week's Journal by *Middle-Aged Member*, and would like to add one or two observations.

Sir Ian MacAlister has done magnificent service for the RIBA, in fact he is the RIBA. His work was commenced at a time when life in the profession was very leisurely, and a Secretary with Sir Ian's academic attainments had many opportunities to carry out good work for the RIBA. This, however, has altered since the last war. The pace has quickened—engineers are trying to steal our thunder — Government Departments have placed work in the hands of engineers that should have been carried out by architects. I am not for one moment blaming Sir Ian or the RIBA but consider we members are more to blame for not taking sufficient interest in the activities of our Institute.

In my opinion the retirement of Sir Ian marks an end of one era and the beginning of a new, thus giving the members an opportunity to march with the times, and if I might suggest, some of the aims to strive for should be as follows :—

1. A Committee should be formed to approve the appointment of a new Secretary, preferably a man of the calibre of the late Mr. Frank Pick.
2. To safeguard the serving member by seeing he gets post-war education, if required, and is guaranteed absorption into the profession.
3. Educate the general public by propaganda as to the duties of an architect. Dispel the idea that he is a person who only makes pretty drawings and is an expensive luxury.
4. To carry out research and co-ordinate all new ideas, design, planning and the use of new materials.

THE OLD AND THE NEW IN BRAZIL



Left, the elaborately carved stone façade of the Church of the Third Order of São Francisco, built in 1703*—an almost unique Brazilian example of the Spanish* churrigueresque *style so brilliantly developed in Mexico. Right, the Vital Brazil Institute, Niteroi, Rio de Janeiro (Alvaro Vital Brazil and Ademar Marinho, architects,* 1942*), a laboratory for the preparation of snake-bite serum. The small windows light the corridors. The projection on the right is the stair-hall. An Exhibition of Brazilian Building is to be shown in this country next March.*

All these schemes and many others can be carried out by the RIBA if members will take a more active interest in the work of the Institute, attend meetings and let each one know what the other is thinking about in terms of Architecture and the Profession.

Bromley W. F. GRAINGER

SIR,—I hope that *Middle-aged Member's* sincere plea for an RIBA new deal will stimulate a healthy discussion on the Institute's future policy and machinery. Along with many others, I have always maintained that the essential basis for a successful Institute is confidence of the membership as a whole in their Council and Committee, and the realization on their part that they are there to represent the members, not to damp down their enthusiasm or frustrate their wishes. This can only be achieved by a vigorous and vigilant membership working through democratic machinery. I am perfectly certain that if the members insist strongly enough they can have a decisive influence in questions of policy, machinery and personnel. The demand for elections and general meetings, culminating in the request by some 160 members for a postal ballot, is evidence of this. The RIBA Council at their meeting on October 19 approved the recommendation of the War Executive that further informal meetings should be held during the present session and a committee has been set up to make the necessary arrangements. Furthermore, subject to certain formalities with the Privy Council, the Council have decided to hold elections in 1944. The success of the members' efforts on this issue should encourage every member to take an active part in making the Institute a really live body, strengthening its influence and formulating a courageous and progressive policy for the post-war years. The possibilities, arising from the present situation after four years of suspended elections on which *Middle-aged Member* expresses misgivings, can only materialize if members are apathetic. The 1944 elections will give them the opportunity of answering these misgivings with a unanimous voice.

London ARTHUR LING

Temporary Houses

SIR,—The leading article in your issue of November 25 is timely and there is no doubt that the subject of mass-produced houses should receive serious attention from all concerned, including, of course, the relevant Government Departments.

Nevertheless, your coupling with this demand of the word "temporary" appears to us to be premature. It may well be that the principal value of the application of factory production methods to the provision of housing will be in an interim period immediately following the end of the war. There is, however, a considerable danger that the primary value of such methods will be thrown away if the consideration of them is limited by this concept.

The whole question of the economics of factory production is intimately interwoven both with the length of life of the product and the suggestion, put forward in some quarters, that short-life housing should form a permanent part of the year-to-year provision of housing in general. This is a matter calling for very careful research and enquiry.

In addition to this point, your article raises again the question of co-ordination and, whilst it is undoubtedly necessary that there should be some body sufficiently established officially to receive legislative backing, it is the considered opinion of this Committee, as promulgated in its Report, that there is also a vital need for an independent research and co-ordinating body to serve industry, the professions and the Trades Unions. This body we shall very shortly establish.

R. PERRY,
Executive Officer,
Committee for the Industrial and Scientific Provision of Housing.

London

Registration Fee

SIR,—A number of architects (including members of the RIBA) have asked me how they may effectively protest against the proposal of the Architects Registration Council to increase the present retention fee of ten shillings to one guinea. Incidentally 17 members of the Council voted for the proposal and 16 against—a majority of one only.

The answer is quite simple: Before the increase can take effect, it must be approved by the Privy Council; and any person wishing to protest is entitled to address his objection to The Clerk of the Privy Council, Whitehall, London, S.W.1, not later than December 17.

G. B. J. ATHOE,
Secretary, IAAS.

London.

PHYSICAL PLANNING

THE JOBS TO BE DONE

This issue begins the series of articles in which we shall consider the actual job of physical planning. Up to now, as a necessary introduction, we have taken the wider view which included the historical, sociological, economic and political background to physical planning, as well as the big-scale problems of administration, organization, training and public relations which it raises. We have, in fact, been taken up on to a high mountain and been shown in which direction lies the environment we all desire. We are now starting on the more detailed part of the job, and our success in tackling it will largely be determined by the sense of direction we gained from the wider view. Professor Taylor urges that planners should now press for the formulation of a comprehensive fact-finding survey programme suited to the regional and local levels. Until we have constructed a uniform national framework for this job our planning will continue to be piecemeal.

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Problems

The Job

Professor Taylor, whose article on Fact-finding, Analysis and Diagnosis is published this week, is Professor of Geography at the University of London and has been head of the Department of Geography, Birkbeck College, since 1931. She was educated at the North London Collegiate School for Girls and at the Universities of London and Oxford. She is the only woman Professor of Geography in Britain.

WE MUST PLAN THE SURVEYS FIRST

by Professor E. G. R. Taylor

planning in blinkers

The idea is familiar that even when intellectual assent has been given to a particular proposition or argument, emotional assent may still be withheld. Moreover, since the majority of us are spurred to action mainly by our feelings, a mere intellectual assent is barren of results: nothing is done. The subject of integrated planning is a case in point. No one can deny that in general, local plans must conform to the character and needs of the broader region in which the locality is situated, and hence that they must be dovetailed into a regional plan. No one can deny that regional plans must conform to the national plan. It is easy to demonstrate, too, that the national plan itself must take into consideration the economic and social plans formulated by the Allied Nations on a world scale. Yet in point of fact we are (with certain noteworthy exceptions) actually replanning our cities within the ring fence of their administrative boundaries, and when a well-known architect and planner declared that the sum total of such independent plans would constitute a national plan, his dictum went unchallenged. A fortuitous heap of building stones does not constitute a building, but it is easier to plan for a city envisaged as a "thing in itself," and more flattering to civic pride. Those who raise the intellectual issue are told that Englishmen are never logical, and if they persist, the emotional hare is started: No dictation from Whitehall!

linked surveys, the basis of planning

This very real danger and difficulty can only be met obliquely. Fortunately it will be largely so met and even overcome when we possess a uniform series of fact-finding surveys and analyses at all four levels—local, regional, national and global—the mastery of which will be part of the training of every professional planner.

To take, for example, a factor in planning which happily only rarely carries an emotional fringe, that of transport. It is obvious that the local system, in so far as it is not purely local, must fit into the regional system and this into the national system, whether of roadways, waterways, railways or airways. A few moments' reflection, too, indicates that the national system is tied to the world system, so that the "high spots" of origination of traffic in a commercial country

are the seaports affording the major links with the world at large—a London, a Liverpool, a Glasgow. These "high spots" dictate the pattern of trunk routes and of traffic flow, which in turn exerts a profound influence upon the pattern of industrial location. Once the results of the survey and analysis of these patterns find their place in every town planner's manual, he will adjust his ideas and plans to them as a matter of course, just as he now accepts the limitations and opportunities of the local topography.

The population question is to most people a less abstract one than transport. Pride in growth is a very deep-seated emotion, and is of enormous strength when it connotes growth of income—due, in the case of growing towns, to increasing rateable value. Hence every local planning authority (with the exception perhaps of such giants as the LCC) thinks of population and housing problems in terms of an assumed continuing "present rate of growth," with the fantastic results that have often been pointed out. Here again the impartial national survey and analysis will not merely dispassionately display and make available the facts, but will indicate such less obvious points as that the figures of "growth" are often fallacious, since they may merely represent boundary shifts to embrace neighbouring populations, and not either the attraction of newcomers to the city or town or a high reproduction rate.

separation of survey from planning

The consideration of population figures and trends illustrates another general principle in respect of the organization of fact-finding surveys. The analysis of such figures calls for a high degree of specialized skill, for a trained statistician in fact, and this drives home the point, well made by Max Lock in discussing the Hull Survey, that team-work is essential to ensure the right combination of skills. While, however, it is true that population structure (including the distribution of age-groups upon which the forecasting of housing and school-place needs depends) differs markedly from one locality to another, it would not be feasible for each local authority to engage a statistician, and indeed there are many good reasons for an organization on the basis of an almost complete separation between surveying and actual planning so far as personnel is concerned.

surveys must be objective

Apart from the fact that the ideal survey team would comprise as a minimum a geographer, a statistician and an economist—a choice that we shall return to presently—the need for complete objectivity and freedom from bias in fact-finding, strongly suggests the divorce of surveying from planning. The local planning officer (or the consultant called in by the wealthier cities) has neither the time nor the staff for extensive survey, while it is extraordinarily difficult for him to be quite dispassionate. It is essential that unfavourable and unpleasant findings should be given equal weight with their opposites, but the local man has to steer his way tactfully among the shoals of vested interests, cliques and antagonisms, not to speak of civic pride and prejudice. Nor does he wish to lose his job by stirring up local "feeling."

Bias, however, is not the peculiar danger of the local man. Planning in this country has, until comparatively recently, been theoretical and idealistic, and the people who have written and talked about it most have been theorists and idealists, too often with a rich fund of preconceived ideas as to what sort of an England, what sort of towns, and what sort of homes people "ought" to like, or (worse still) what sort of a physical environment would be "good for them." It may be true that there is something wayward or even wicked in preferring a flat to a cottage with a garden. It may be true that some magic virtue is drawn by the countryman from the earth which cannot reach his town brother through the pavement. But these mystic notions smack too closely of the myths of "blood and soil" with which Nazi Germany is gulled by its leaders, and it is unfortunately true that the doctrinaires who hold them have been called to prominent advisory if not, indeed, executive positions in the planning world. To counter their propagandist ardour, and the strong influence they are bound to exert on the rank and file of planning officers, it is doubly important that fact-finding surveys should be carried out by trained men who have no axe to grind, no mission to fulfil.

man, place, work

Fortunately this appears to be the policy of the Ministry of Town and Country Planning, for their Research Department, already well advanced with fact-finding surveys at the national level, is staffed by men and women chosen for their technical skill rather than for their planning ardour or zeal for de-urbanization. Before their programme can be examined, it is necessary to say a few words about the underlying principles (not necessarily formulated or declared) of the Ministry's work, and, indeed, of all physical planning. It assumes that the fundamental problem is to secure human efficiency—taking the word in no narrow economic sense. Furthermore, that the maximum of efficiency is achieved when the settlement pattern is most harmoniously adjusted to the natural environment on the one hand and to employment and occupations (not necessarily or even mainly gainful) on the other. The Le Play formula, MAN—PLACE—WORK, that interlocking triad which affords a key to social analysis, proves equally serviceable for planning at all levels.

An efficient settlement pattern at the national level is one that is suitably balanced between rural and urban regions, between industrial and commercial centres, extractive and manufacturing groups and so on. At the global level such a pattern is very far from being achieved; over-population and under-population are not the least of the causes of world wars. At the regional level, the efficient settlement pattern involves the correct size, siting and spacing of individual cities, towns and villages, in accordance with their specific functions, whether agricultural, industrial, commercial, residential, cultural, or recreational. At the local level it is the lay-out of the single settlement, the three dimensional arrangement of its streets, shopping centres, factories and workshops, recreational and cultural facilities, that can be efficiently or inefficiently planned, that can harmonize with the physical environment and human needs, or on the other hand can lead to uneconomic living and frustration of happiness. Men, women and children can all be envisaged as living *there* and doing *that*, moreover as living *there* because they are doing *that*, or alternatively, doing *that* because they are living *there*: MAN—PLACE—WORK is an integral whole. The physical planner's job is PLACE, but in manipulating place we cannot avoid making or marring MAN and his WORK.

the survey team

It will now be obvious why the sociologist, whose study is man in society, the geographer whose study is place, the economist whose study is work, must form the team supplying factual material to the planner. But our formula is a hyphenated one. Man, place and work are interconnected by arteries of circulation, by traffic of all sorts, and the efficiency of these links, almost negligible in a primitive self-contained society, looms all-important in the modern world. Here, therefore, the engineer joins our fact-finding team, and is the more useful in that he is trained to some very precise notions concerning efficiency.

the survey programme

This then is our team. The general purpose for which they are to be employed has been defined. What should be their programme? So far, apart from the work being done at the Ministry, which is still at the national level, fact-finding surveys have been carried out by pioneers, individuals or groups, devising their own *ad hoc* content and technique. Notable examples are, of course, the surveys of the West Midland Group at the regional level, largely in the hands of geographers, of Gloucestershire on a county basis, carried out by the County Planning Officer, Mr. Gordon Payne, and that of the City of Hull, a local survey in its regional setting, designed and carried out by Max Lock and his team of co-workers. Geographers and sociologists have long been accustomed to carry out academic regional and local surveys, with the object of studying the phenomena and seeking to establish principles of relationship and causation, and while their work would

need re-orientating to be of direct use to planning officers, they have developed a methodology not only of survey but of analysis and exposition which deserves adoption. Much time and effort is being wasted in experimental and amateurish work by individuals in the planning field, architects, engineers and others, who are unaware of the existence of well-tried techniques.

The time is in fact ripe for the formulation of model programmes for surveys to be carried out on uniform lines, it being understood that not all the elements of such programmes would be applicable to each individual area or locality. The headquarters of the existing Regional Planning Officers suggest themselves as suitable centres of operations, the survey team forming part of the R.P.O.'s staff. A great deal of their work would consist of the analysis and adaptation of existing statistical and other material, but they would also have to do field-work, and for such purposes they would no doubt be attached to each local planning officer in turn, thus resembling the "flying team" envisaged by Max Lock.

work in progress

The framework of their programme is already provided at the Ministry, where a list of priorities has been established, and whence the fundamental surveys at a national level are being issued to the public. These are taking the form of maps on a uniform scale of approximately ten miles to the inch, with provision for maps on a much larger scale to serve for regional purposes. The Ordnance Survey are producing the maps, and the Geological Survey is also collaborating with the Ministry to supply the types of information required. So far as topography, rock structure, soils, mineral and water resources, administrative boundaries, road classification, and some other matters are concerned, the official surveys provide information at all levels. Dr. Stamp's Land Utilization Survey, now recognized as a most important contribution to knowledge, was from the first carried out on a local scale, and here the work of the Ministry has been one of generalization, so that the pattern of land use may be grasped at the national level. The local maps (6 in. to a mile) are available in photostat copies, the published sheets (1 in. to a mile) being suitable for regional purposes. These maps have served (in conjunction with other data) as an index to the quality of agricultural land, and a classification has been arrived at which serves the planner at the national and regional levels, but which has to be supplemented by further field-work at the local level. Certain qualities of land are advised to be secured permanently to agricultural use.

Land use (paralleled by building use within a built-up area) is of course not static, and since the town and country planner has to plan for the future, it is most important for him to get a sound idea of trends. So far, among the most important maps produced by the Ministry has been a trend map, that of changing population distribution between the last census and the eve of the war. This map will be made available in due course at the regional as well as at the national level, but at the local level it is appropriately replaced by graphs. Not only is it valuable for the picture that it gives of spontaneous population movements (movements which many planners wish forcibly to reverse), but it is a very good model of cartographical technique, and also indicates the wealth of material which lies to the planner's hand in the Registrar-General's returns, awaiting transformation from column after column of figures into pattern of settlement and settlement conditions.

conclusion

Space will not allow of a detailed analysis of the Ministry's list of basic maps, nor is it necessary. What it is desired to establish here is that planners should now press for the formulation of a comprehensive fact-finding survey programme suited to the regional and local levels. It is also strongly suggested that survey personnel should be distinct from planning personnel, although the survey team must be at the service of the planning officers as need arises. And since it is always well at the end of an essay to look back to the beginning, the need to secure integrated as opposed to piecemeal planning is reiterated—again and yet again!

PLANNING REVIEW

DEBATE ON THE ADDRESS

In the debate on the Labour Party's amendment to the King's Address, Mr. Barnes deplored the timidity of the Government's approach to the internal problems which would follow the war. He called for public ownership of land, also of all forms of motive power and transport, and State control over financial policy.

Sir William Jowitt explained, at the end of the debate, that Lord Woolton is to be both a co-ordinator and initiator. He will have a very small staff of about 12 to 14 highly experienced persons.

As *The Times* pointed out in a leading article, hardly a dissentient voice was raised against the amendment, which regretted the delay of the Government in announcing decisions on the action which Parliament will be called on to take in the coming Session to prepare Britain for the transition from war to peace. The common view appeared to be that the war had reached the stage at which the announcement of Government policies on major economic and social issues can no longer be safely postponed.

The article points out that a Coalition Government which accepts the sole law of its being, that is to say, the duty of action, cannot but welcome the pressure from all parties, to which it is now increasingly subject, to make public its ideas about the future, and that Lord Woolton could ask for nothing better than the unison with which his Parliamentary colleagues are wishing him godspeed in his new duties.

The *News Chronicle* uses the military term "inching" to describe the progress of the Government in the field of post-war reconstruction. It points out that none of the separate problems which are clamouring for solution can be satisfactorily solved until a social policy has been outlined which has reference to the post-war situation as a whole. People are just as keen on having decent homes and good jobs to come back to as they are on winning the war—in fact, this is what they are winning the war for. When will the Government grasp this elementary fact?

MINISTER OF RECONSTRUCTION

Lord Woolton, making his first public speech since his new appointment at a lunch given by the IAAS, drew attention to the danger in talking of pre-war and post-war, dividing time as if it were compartmented, when it is continuous. He said that the people must not be misled into dreaming of a prefabricated great new world to be brought in immediately the war with Germany ended.

Mr. A. C. Bossom, leader of the British Building Mission, in whose honour the lunch was given, believes that 75 per cent. of new post-war homes could be made in factories, leaving only 25 per cent. of the work to be done on the sites. He urged that the building industry should come entirely under the control of one Ministry, possibly MOW.

POPULATION TRENDS

A Royal Commission, with Lord Simon as chairman, has been appointed to examine present population trends in Britain, their causes and probable consequences, and the measures that may be necessary to influence future movements. As *The Times* emphasizes in a leading article, no subject could be of greater importance or more worthy of official attention and national action. Britain, in common with all Western Europe, has reached a turning-point in history. The great expansion of the white races which began some three hundred years ago, reaching its climax in the nineteenth century, is, on all the present evidence, drawing to an end. Among the white nations only the Soviet Union, which is demographically in the position of Britain a hundred years ago, can confidently expect a rapid and sustained expansion of numbers throughout the coming generation.

SCOTT AND UTHWATT REPORTS

The Labour Party in its revised statement of policy on the land and agriculture, gives its support to the principal proposals of the Scott and Uthwatt Reports and, as a method of land nationalization, proposes that a general Enabling Act should give the State power to acquire all agricultural land and lay down the basis of compensation to the owners. The Minister would thereafter be empowered to issue orders specifying the date for the acquisition of particular areas. Acquisition should be carried out rapidly and on as large a scale as possible.

In answer to a deputation from the Association of Municipal Corporations and representatives from the LCC, requesting the introduction of legislation on the lines of the Uthwatt Report, Mr. W. S. Morrison stated that he was in agreement with much that had been said on behalf of the deputation, and could assure them that powers would be forthcoming this Session, so that the work of survey and planning, with which the local authorities had, in fact, already made good headway, could proceed. Substantial progress had been made towards the preparation of legislation, and he intended at an early date to bring representatives of the local authorities into consultation regarding the form and scope of the necessary powers.

OXHEY ESTATE

Lord Latham, referring to Professor Reilly's letter in *The Times* in regard to the Oxhey Estate (Planning Review, December 9, 1943), stated that the Professor had been misinformed. The question of the acquisition of the site was fully discussed with those responsible for the preparation of the County of London Plan.

PLANNING REVIEW

LOCAL PARTICIPATION IN PLANNING 3. SURREY FEDERATION OF LABOUR PARTIES

THE PLAN FOR SURREY

has been drawn up with the important factor in mind of the relation of Surrey to the County of London. The report shows how an additional quarter of a million people can be housed in Surrey. The principal towns of Surrey lie across the main highways to London. The authors therefore mapped the main arterial roads first, and having seen where these came in relation to existing towns, where necessary, shifted the town centre, the principle being that no main roads should run through towns but that towns should be close to them and connected by service roads. Where possible the main roads have been brought alongside railways, thus shortening routes and economizing in land. The most important job is considered to be the replanning of the North-East area of Surrey, which it proposes to divide into a series of townships grouped within the new, green road-rail belts. Each house is thus brought within half a mile of open country. The authors of the scheme believe that their ideal township will have a maximum population of 50,000 inhabitants housed at an over-all density of 25–30 people to the acre, giving a maximum housing density of 50 people to the acre. Although, since there will be flat accommodation in most towns which might rise to a density of 100 persons to the acre, houses will probably work out on an average at about 7 or 8.

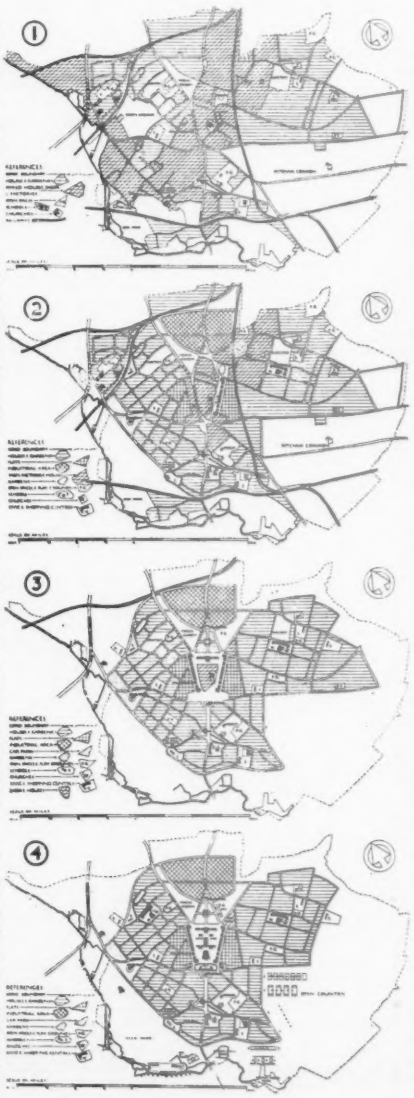
MITCHAM

The following drawings show four five-year stages in the replanning of Mitcham. This town has the most of its area occupied by a jumble of shops, industrial and housing property. The main London road runs through from north to south. It has no defined civic, shopping or other centre.

The first five years result in a newly defined industrial area on the north side. The mixed housing and industrial area on the east has been cleared and redeveloped partly as a housing area, part being left as open country. The civic and shopping centre has been started. The two central flat areas are cleared and blocks of modern flats erected.

The second five years' work reduces the population from its present figure of 53,073 to about 45,000. Open country replaces poor quality mixed development on the outskirts, and the branch railway line is cleared away. A new tube railway is opened. The western side of the new civic centre is built. All the old shops have been removed and the new housing areas are complete.

The conclusion of the third five-years' work completes the Mitcham replanning. The population is reduced to its scheduled figure of about 35,000. The main civic and shopping centre is completed. The new Mitcham will be a self-contained town with all amenities, having grown naturally out of its present condition.



The Planning Sub-Committee responsible for the Town and Country Plan for Surrey, illustrated on this page, was appointed by the Surrey Federation of Labour Parties on January 16, 1943. It is composed of the following Councillors: Mrs. F. E. Smyth, A. J. Bain, J.P., G. L. Deacon, F.C.I.S., County Councillor Tom Braddock, F.R.I.B.A., and Messrs. Wallace Edgar, P. D. Liddiard, B.Sc., A.I.C., G. M. Slater and J. Walker. The Committee state, in their preliminary report, the three main assumptions upon which their plan is based, these are: 1. Land must be publicly owned. 2. The building and civil engineering trades must be a Public Service. 3. The financial machine must be publicly controlled. Any attempt to realize the plan on the basis of profit-making, either in land or building, will doom the whole scheme. The Committee note that the limitation in making such a plan is that it must finally take its place in a much wider master plan. The three main essentials in the division of the area are listed as: (1) Land for agriculture; (2) land to be preserved in its natural state; (3) those remaining parts where we are to have our homes, industrial and other buildings associated with the carrying on of a communal and democratic condition of life. It is emphasized that the scheme contains no suggestion of a clean sweep and a new start. The plan is firmly based on existing conditions, and is a practical one. To put it into effect basic powers must be obtained; when this is done all present development will be stopped. After scheduling all existing housing accommodation, the space must be employed for the shelter of those who need accommodation. Building up will start before pulling down. As the new buildings are completed old ones will be vacated, and the sites cleared and rebuilt (if in a residential area), or left as an open space, or a school site, etc. The villages and rural dwellings will remain. They must combine utility with artistic qualities and modern amenities. The report emphasizes that each township should be a definite entity, having its own centre, shopping area, open spaces, etc., which should promote a sense of town-consciousness in its population. One thing is vital—there must be no Suburbia. We must be able to see where town ends and country begins. The following calculations have been made concerning the realization of the scheme; on the assumption that the national building service will have a personnel of 1,500,000; Surrey will have 50,000 building trade workers. On the generally accepted basis that each man can do £10 worth of work per week, the value of the output will be twenty-five million pounds per annum. The value of the whole of the buildings in Surrey at present can be taken at the outside figure of five hundred million pounds. Assuming that 75 per cent. of these are rebuilt to a new plan, this will take 20 years to complete. It is, therefore, obvious that a matter of seven or eight years will see all the worst aspects of the county cleared up. This calculation includes the building of all schools, libraries, hospitals, health centres, etc., and the provision for new industrial buildings and services required to meet the needs of the population. The report concludes by stressing that ideas as to the rights of man can be allied to living conditions in such a way as to make those rights a reality and an achievement.

There is no doubt that this is an excellent piece of planning by an unofficial group of planners. Although it is possible to criticize it in detail, it is not possible to over-emphasize the importance of such contributions to national planning. It serves to stress once more the imperative need for some statement by the Government on national planning policy and for action by MOTCP in order that such efforts may be encouraged to take place within a pre-arranged framework. The three examples of Local Participation in Planning (1 and 2 in Planning Review, 25 : 11 : 43 and 2 : 12 : 43) show enthusiasm and creative action on the part of the people. Let this be an incentive to Parliament in the new session when so much planning legislation is promised.

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PRINCIPLES OF SOUND TRANSMISSION REDUCTION BY STRUCTURAL ISOLATION (2).

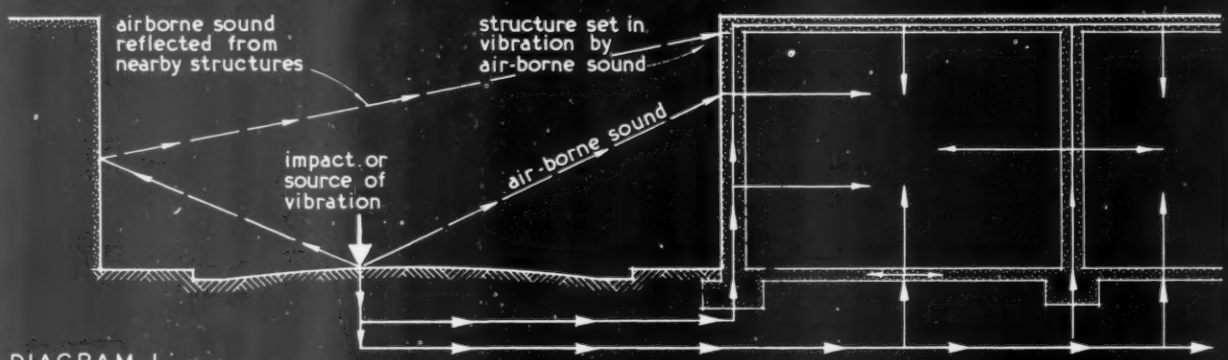

DIAGRAM 1:
Typical propogation of sound from an external source through structural media.

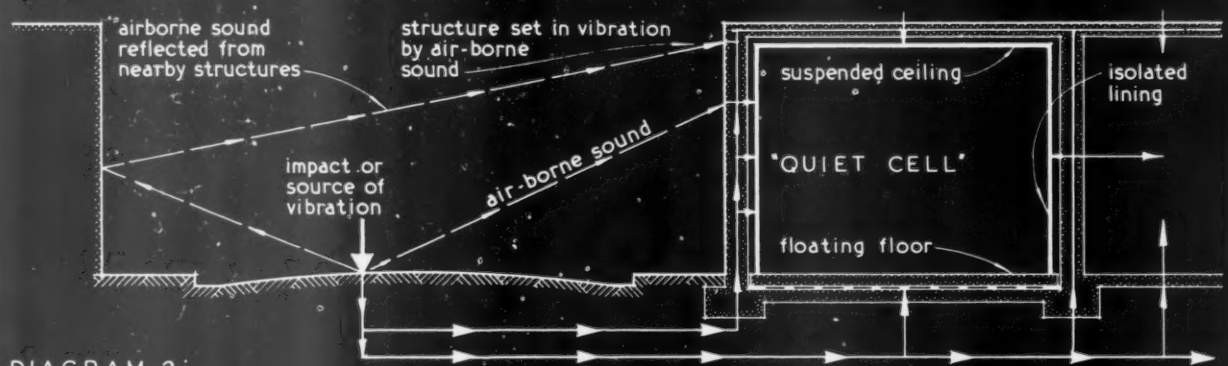

DIAGRAM 2:
Insulation of structural cell from sound transmitted through solid media, by isolation.

METHODS OF ISOLATION AGAINST SOUND ARISING FROM IMPACT.

dance floor, or similar conditions

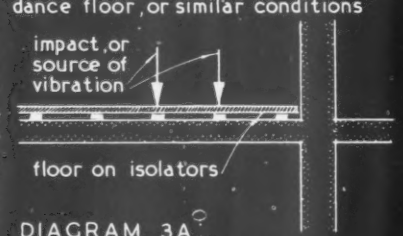

DIAGRAM 3A:
Vibrations isolated at source "quiet cell" without isolation.

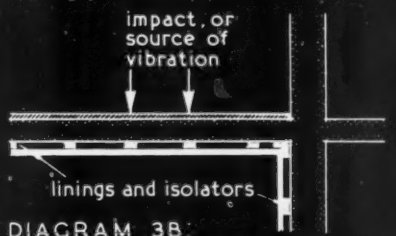

DIAGRAM 3B:
Vibrations transmitted to structure: "quiet cell" isolated.

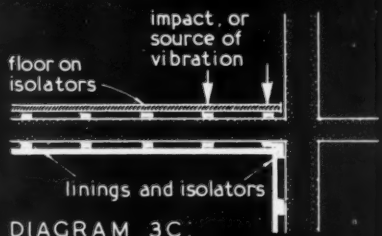

DIAGRAM 3C:
Vibrations isolated at source and "quiet cell" isolated.

METHODS OF ISOLATION AGAINST SOUND ARISING FROM VIBRATION.

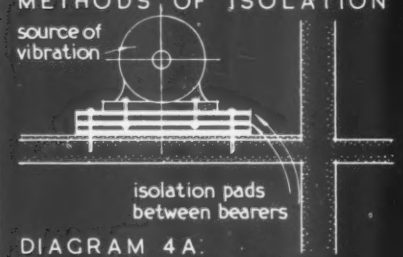

DIAGRAM 4A:
Isolation of vibration at source.

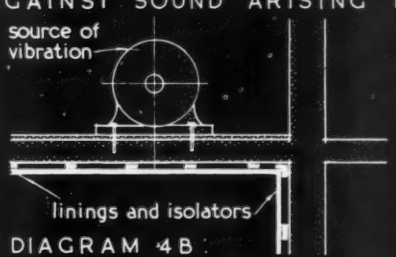

DIAGRAM 4B:
Isolation of "quiet cell" below sound source.

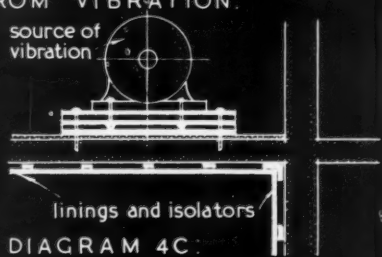

DIAGRAM 4C:
Combination of both methods.

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INFORMATION SHEET: FIBRE BUILDING BOARDS 13: SOUND ISOLATION.
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INFORMATION SHEET

• 920 •

BUILDING BOARDS

No. 13

Subject : Principles of Sound Transmission Reduction by Structural Isolation (2).

General :

This Sheet is the second of the group dealing with sound insulation, and illustrates diagrammatically the principles of isolation in connection with structure-borne sound arising from impact or vibration at some point continuous with the structure, although situated outside the building itself. Vibrations set up by impact or contact with vibrating machinery may be prevented from effective continuation in the structure by isolators. The interposition of suitable resilient isolators may occur either immediately at the source of vibration, or the " quiet cell " itself may be isolated, or both.

Diagram 1 indicates the propagation of vibrations set up on the surface of a roadway being transmitted through the ground and the structure continues with it, resulting in sound vibrations within the structure ; Diagram 2, effect of isolation of the " quiet cell " by structural discontinuity. Secondary sound transmissions air borne to the structure and thence transmitted as above, are also indicated.

Diagrams 3 and 4 indicate methods of insulation by isolating impact or vibrations at source, at the point where quiet conditions are required, or both.

Where a machine is to be isolated from its supporting structure, it is important to avoid, as much as possible, structural continuity through bolts or studs, by use of resilient spacing collars and washers.

Insulwood :

This grade of board belongs to the low-density range; and is suitable for use as an isolator to reduce structural continuity, it has a sound reduction figure of 20 decibels at a frequency of 500 cycles per second.

It is available in various thicknesses and in sizes up to a maximum of 12 ft. by 6 ft. Further technical data, methods of working, fixing, etc., are given in other Sheets of this series.

Previous Sheets :

Previous Sheets of this series on wallboards are Nos. 893, 895, 896, 898, 900, 902, 904, 909, 911, 912, 913, and 916.

For Pimco systems of metal ceiling and partition fixing see Sheets Nos. 854, 858, 861, 864, 868, 872, 879 and 884.

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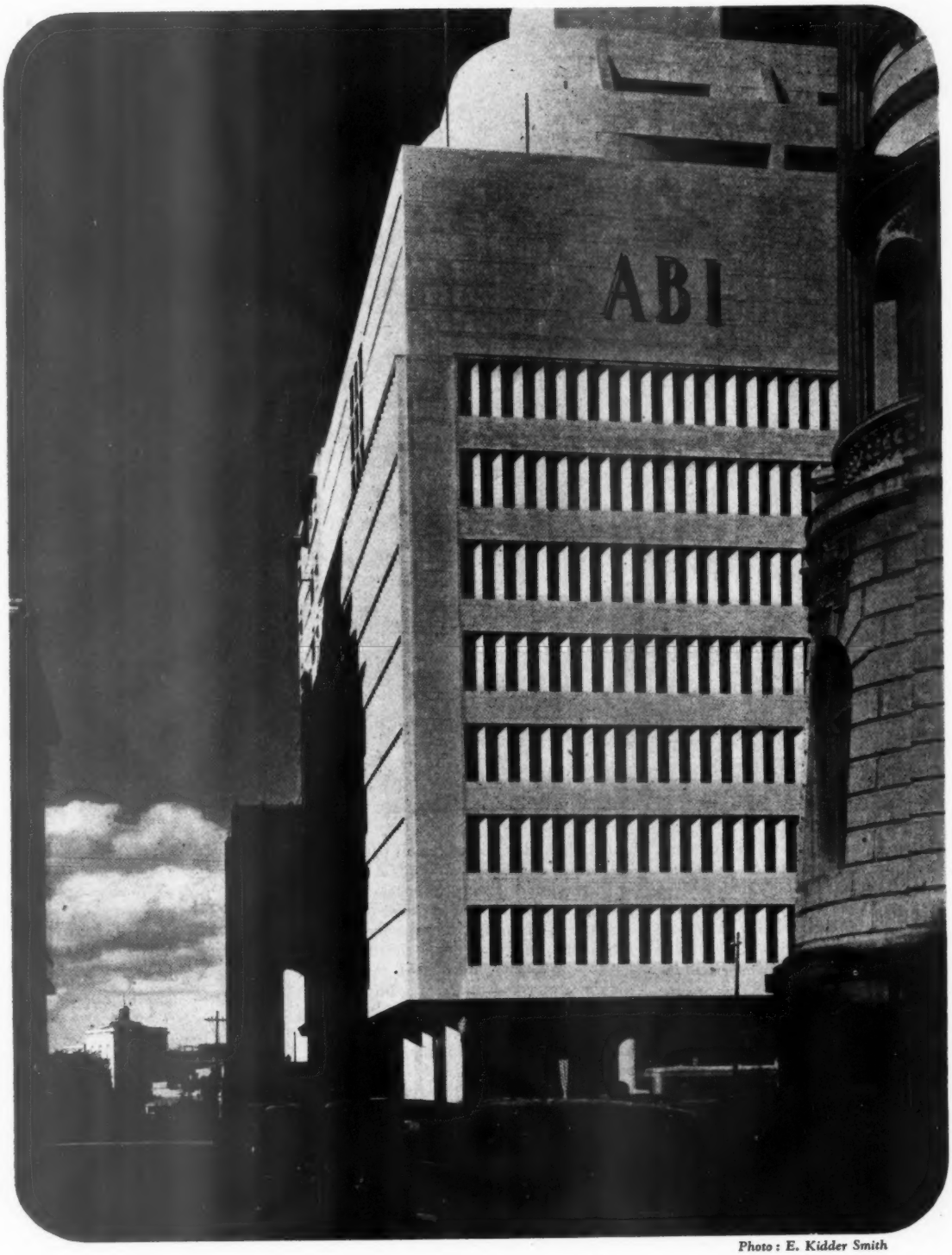
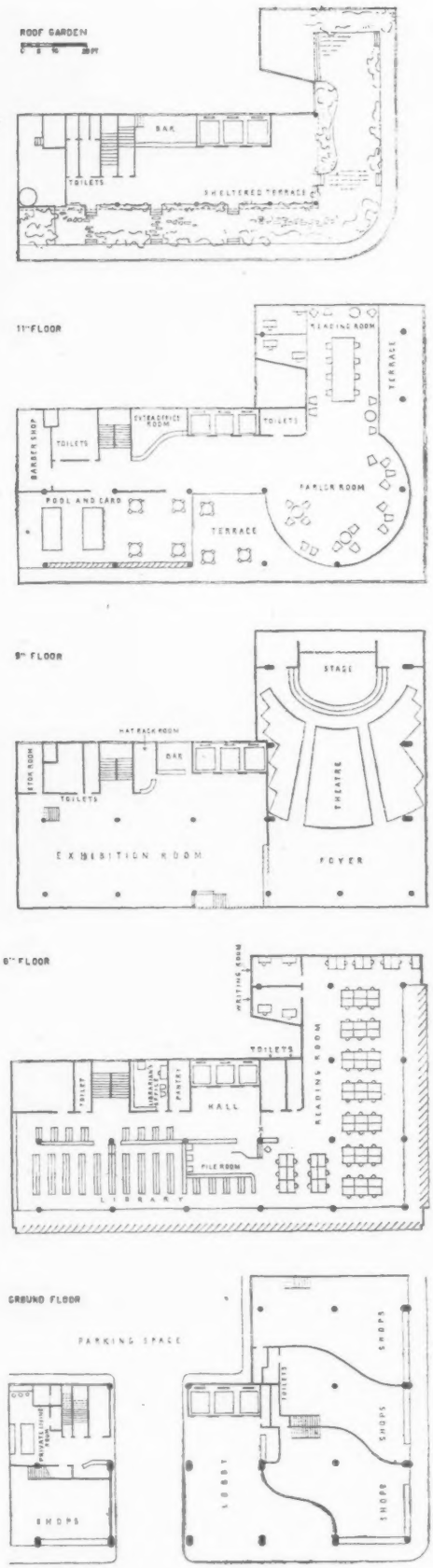


Photo : E. Kidder Smith

BRAZILIAN
PRESS ASSOCIATION
AT RIO DE JANEIRO
DESIGNED BY MARCELO & MILTON ROBERTO



Little was known of modern Brazilian architecture in other countries until the Museum of Modern Art in New York published *Brazil Builds* early this year. With text by Philip L. Goodwin and photographs by G. E. Kidder Smith, the book shows how advanced and untrammelled is the contemporary architecture of Brazil, which though influenced mainly by modern European design, especially that of Le Corbusier, has added an original contribution of its own in the control of the sun's heat and glare on glass surfaces by means of external sun louvres.

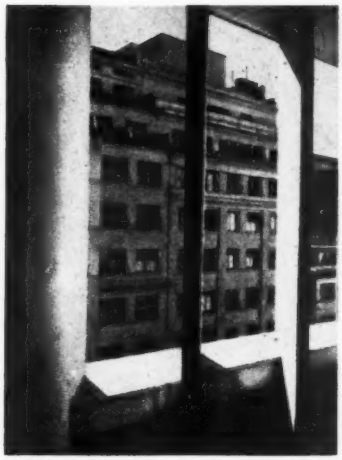
These sun blinds are usually known by the French term *brise-soleil* (in Portuguese, *quebra sol*). They are either vertical or horizontal, movable or fixed, and while baffling the direct light and heat of the sun, admit reflected light and fresh air. In this system Brazil has something to teach other countries where the heat and light of the sun is troublesome, especially the hotter parts of the USA. There the existing complicated and expensive air conditioning machinery could have been rendered largely unnecessary by this method of sun louvres.

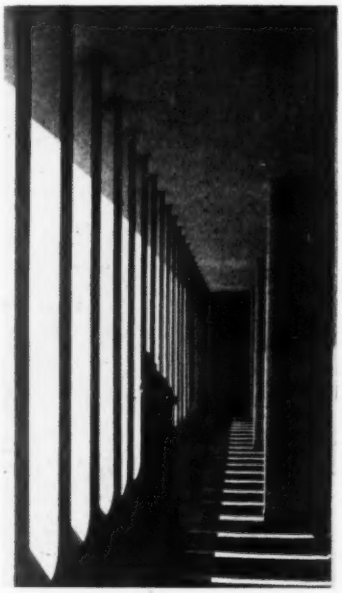
In the ABI building (Associação Brasileira de Imprensa), the Rio Press Club, the *brise-soleil* is of diagonally fixed concrete blinds separated from the offices by narrow cantilevered corridors, providing a layer of insulating air round the rooms. This *brise-soleil* is a good example of how practical construction can be used to create a dramatic æsthetic effect.

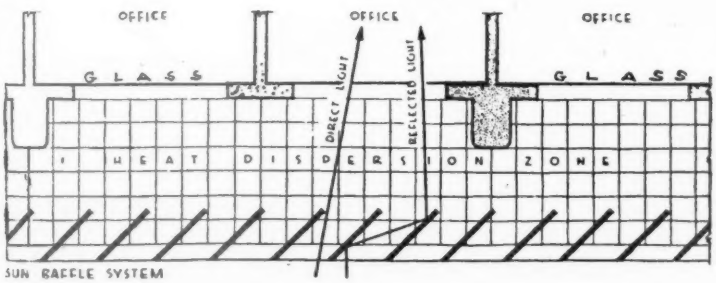
The ABI building is the result of an open competition, won by the brothers Marcelo and Milton Roberto, respectively 27 and 20 years of age. It was completed in 1936, and was the first building of its kind in the world. It brought fame to its creators, who have now developed their Venetian slat from a plane surface to a curve, which gives greater refraction of light.

The simple rectangular block of the ABI building is set upon recessed reinforced concrete columns, exposed at the ground floor. The

BRAZILIAN PRESS ASSOCIATION

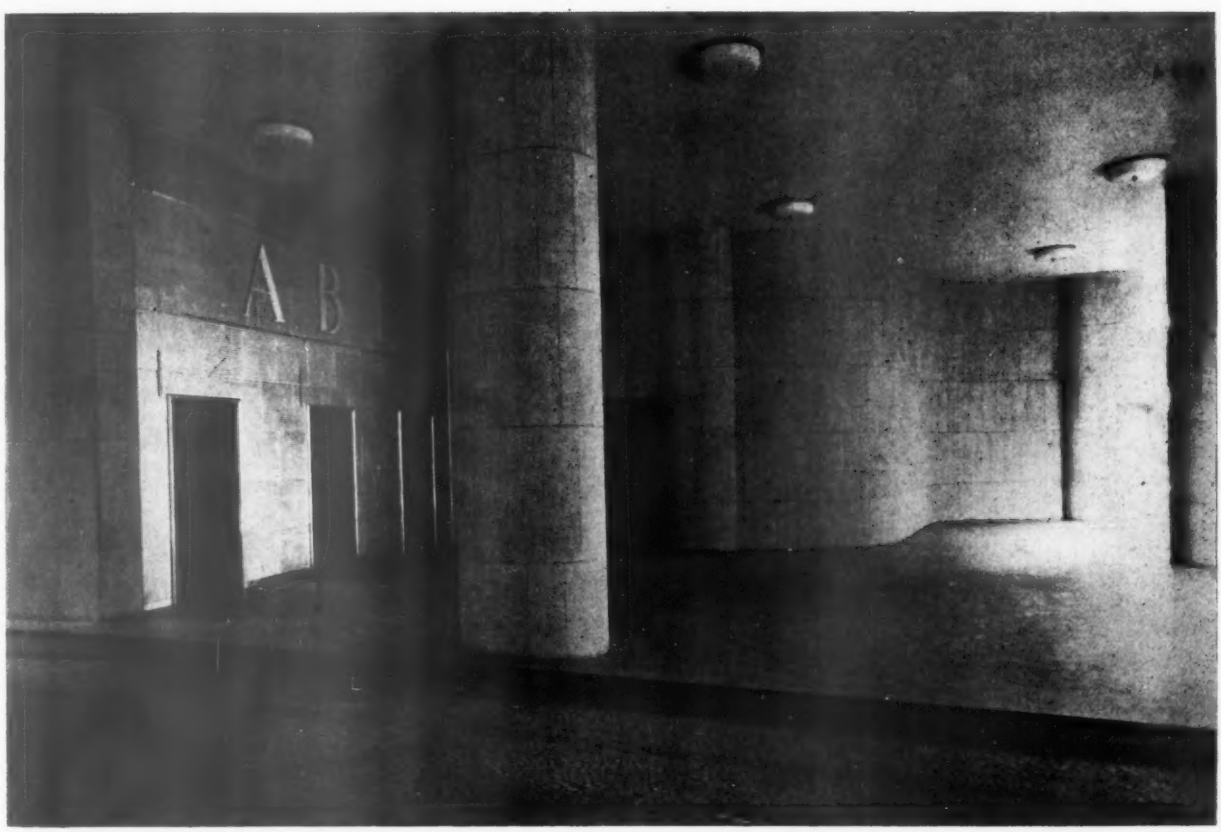




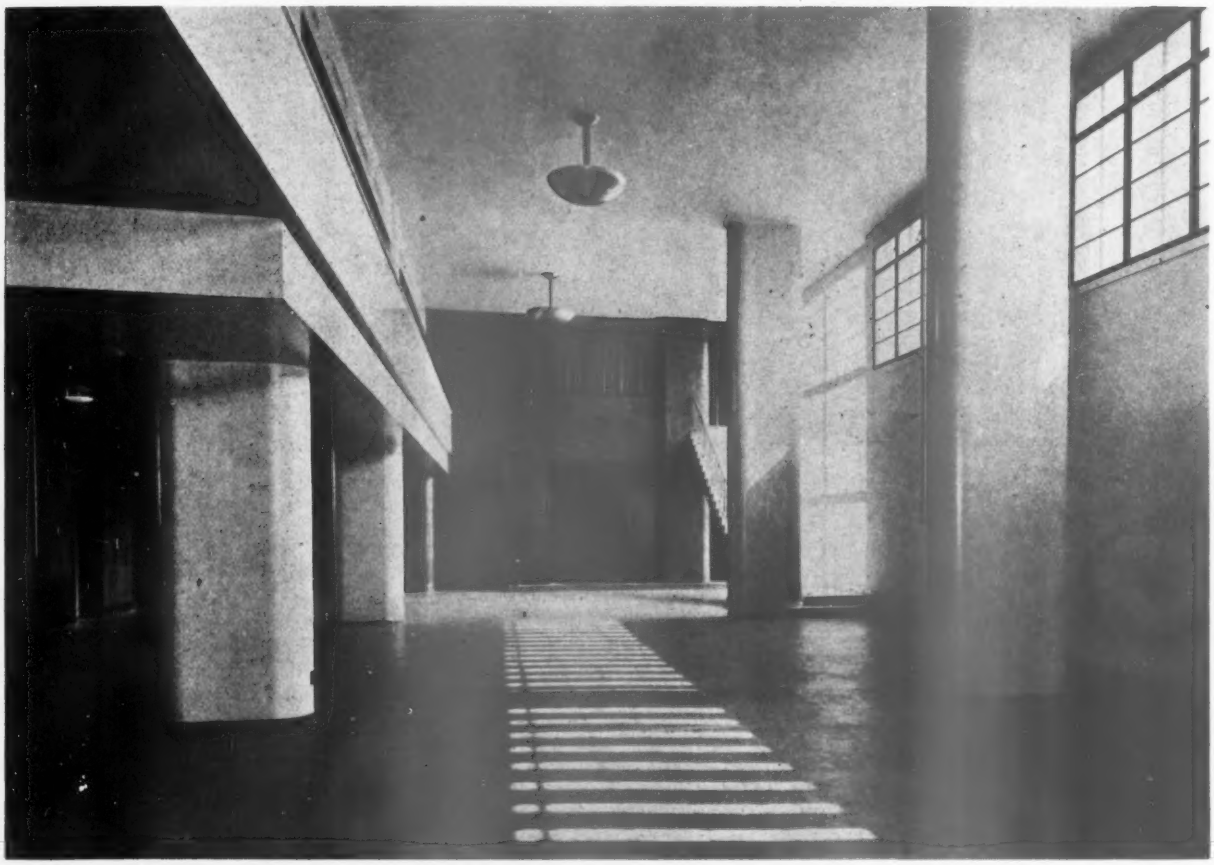


SUN BAFFLE SYSTEM

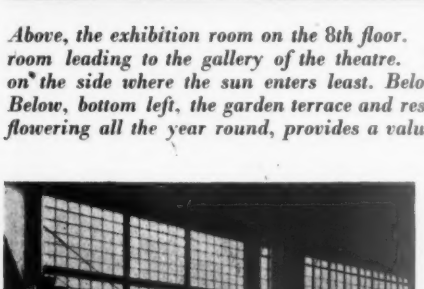
Above, top left, a closer view of one of the street elevations illustrated on the facing page. Top centre and right, views from the heat insulating corridors surrounding the offices, showing the fixed concrete louvres of the brise-soleil. *Left, a diagram of the* brise-soleil *system. Below, the street entrance.*

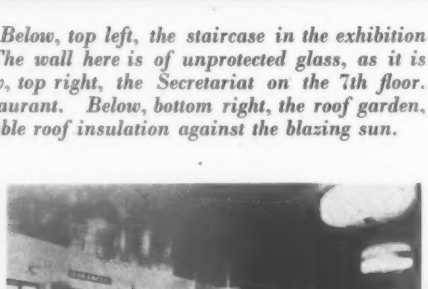


DESIGNED BY MARCELO AND MILTON ROBERTO



Above, the exhibition room on the 8th floor. Below, top left, the staircase in the exhibition room leading to the gallery of the theatre. The wall here is of unprotected glass, as it is on the side where the sun enters least. Below, top right, the Secretariat on the 7th floor. Below, bottom left, the garden terrace and restaurant. Below, bottom right, the roof garden, flowering all the year round, provides a valuable roof insulation against the blazing sun.





BRAZILIAN PRESS ASSOCIATION

two top floors, irregular in shape, are again recessed, while the intermediate floors are cantilevered out some four feet to contain the insulating corridors, and in the case of the exhibition room and theatre to contain the extra space required.

The external walls are faced with a kind of travertine marble from Argentina.

Apart from offices, board room and council chamber, the building contains an air-conditioned theatre, an exhibition hall, club rooms, a roof restaurant and a roof garden. A complete floor is given over to a medical clinic, while other floors have been sub-let as offices.

The flow of people to the lifts is often heavy, and therefore space was robbed from one of the ground floor shops to form a funnel shape converging to the lifts. This space is open to the street and provides a shelter for passers-by against sudden tropical showers.

At the top of the building the roof garden is not only ornamental but provides a useful covering of earth insulating the flat roof, preventing the blazing heat of the sun from cracking the concrete.

INFORMATION CENTRE

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

PHYSICAL PLANNING

1323 Disposal of the Dead

DISPOSAL OF THE DEAD. *Assocn. for Planning and Regional Reconstruction.* (*Report No.* 25, *September*, 1943). Discussion of burial and cremation in recent times with details of well-run system at Hörnli, in Switzerland.

In some European communities, funeral management is regarded as a public utility, with varying degrees of control by State or Municipality.

However, all over the Western world, and in particular in Great Britain and the USA, respect for the dead has become a pretext for the commercial exploitation of the living, and the position of the so-called "funeral trades" is one of great strength and stability.

The dignity of the English country Church and Churchyard, God's Acre, has survived in many places, but the separately consecrated cemeteries of the large towns, established to ensure hygienic disposal, have rapidly become an affront to the dead and a major social and town-planning problem for the living.

Many of our older cemeteries have accommodated more than 6,000 corpses per acre, but nowadays it is customary to regard 1,000 graves per acre as excessive; this figure assumes a substantial number of common graves holding eight corpses and of private graves holding three to four.

So strong is the revulsion against the "third-class or common grave" that popular opinion would probably resist the supreme economy of making the disposal of the dead a municipal function and a public charge. This antipathy, however, is less likely to arise in the case of a project for a municipal crematorium, combined with some degree of control of the funeral trades.

The establishment of a cemetery in a district lowers the value of surrounding property by destroying amenity, whereas the grounds and gardens of a crematorium can remain beautiful and reverent. The disposal of ashes by burial, by dispersal, or by enclosure in a niche or family vault, is at all times simple, cheap and dignified. Furthermore little land is necessary. The central crematorium and the local Garden of Remembrance may well become features of the cities of the future; every Garden of Remembrance should have its own Chapel of Repose, where the body may rest between death and cremation, and be visited or watched by relatives.

STRUCTURE

1324 Prestressed Steel in Houses

ELECTRIC PRESTRESSING OF REINFORCING STEEL USED FOR SMALL HOUSE CONSTRUCTION. *K. P. Billner.* (*Engineering News Record, September* 9, 1943, *pp.* 406-408). Prestressing of reinforcement in thin walls of concrete houses by electric heating. Reinforcing bars surrounded with thermoplastic which restores bond after cooling.

A new method of prestressing (see Information Centre No. 1175) has been successfully tried in two concrete houses built for the U.S. Maritime Commission's Housing at Tampa, Fla. The houses are one-storey, two-bedroom units about 25 ft. by 30 ft. Walls are only 2½ in. thick and have shallow horizontal grooves cast in the face for architectural effect. Rods are coated with a thermoplastic material that is melted by the heat, temporarily relieving the bond, while the rods elongate through the concrete. The elongation is taken up a predetermined amount by nuts on the threaded ends of the rods and cooling is then permitted.

Without prestressing it is not possible to utilize in full the potential strength of either steel or concrete. Prestressing has the added advantage of eliminating cracks due to shrinkage and increases greatly the resistance to shear. The electrical method causes very little delay and does not warm the concrete appreciably because of almost instantaneous heating of the rods.

The walls were precast on the concrete floor, two at a time. They were reinforced both longitudinally and transversely and the reinforcement was placed in the centre of the wall thickness. Mild steel with a yield point of 40,000 lb./sq. in. was used and prestressed to 35,000 lb./sq. in. If high tensile steel of a yield point of say 75,000 lb./sq. in. had been available, the prestressing could have been carried to 50,000 lb./sq. in., and one-third of the steel could have been saved. Both the longitudinal and transverse reinforcement were prestressed. The concrete was vacuum-processed on the side that becomes the inside of the wall to expedite hardening and increase strength. The required temperature of the rods was 250° F. A.C. of 500 A at 30 V was used. No insulation is necessary at this low voltage, the rods may be touched even if wet. The prestressing was done shortly before the walls were lifted into position, four days after pouring. The time required to heat and elongate each rod, including affixing and releasing the electrodes, was about 30 seconds.

The walls were lifted and set in place by a crawler crane through a vacuum attachment. The vacuum connection held the walls with a force of 25 tons, whereas the actual weight was only 3 tons. The success of handling the large thin flat slabs, weakened by door and window openings, was due to prestressing. Any appreciable tension in the concrete would have resulted in cracking, but the concrete was in a state of compression throughout because of the prestressing and could not crack.

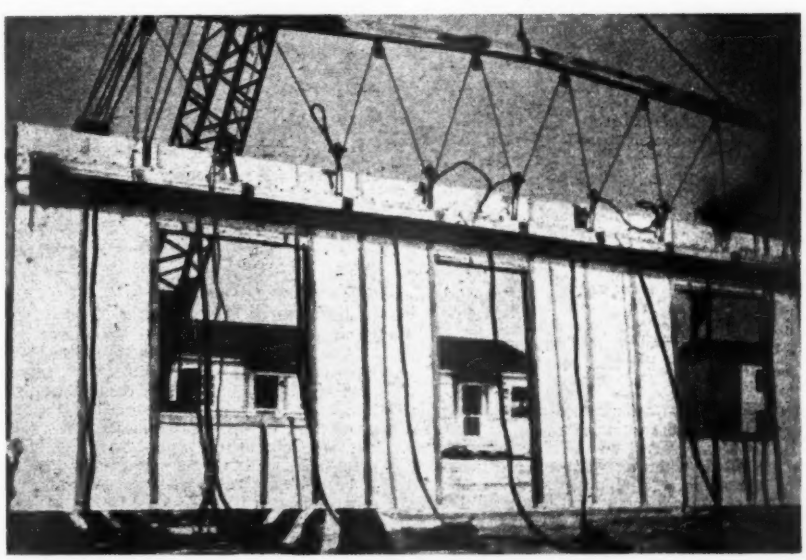
Wall boards ½ in. thick were nailed to furring strips on the inside of the walls. These houses proved so successful that many more are to be built at once.

1325 House Collapse

REPORT OF THE HOUSE COLLAPSE INQUIRY, BOMBAY. *Chairman: B. J. Wadia; Assessors: H. J. Nichols, J. A. Taraporewala.* (*Journal of the Indian Institute of Architects, July*, 1943, *pp.* 11-18.) Collapse of a five-storey reinforced concrete framed building caused death of 58 people. Use of bad materials, bad workmanship, lack of supervision, bad design. Architect and contractors mainly responsible, but also engineer and Bombay Municipality.

On the afternoon of June 28, 1942, a reinforced concrete framed building under construction, situated on the Back Bay Reclamation, Bombay, collapsed, resulting in serious loss of life and injury to persons. The Government of Bombay appointed a committee to inquire into the causes of the collapse of the building, to fix the responsibility for the collapse, and to suggest measures to prevent the recurrence of such mishaps.

The building was a reinforced concrete structure, 114 ft. by 80 ft., for a block of flats consisting of a ground floor, five upper floors and a terrace on the top. When the terrace



Concrete wall section being lifted by an equalizer attached to a T-beam containing a series of vacuum caps. The section is of precast concrete reinforced by electrically prestressed reinforcement. (*See Item* 1324).

slab was nearing its completion, the building collapsed suddenly and engulfed within its ruins over 150 men, women and children. 58 people were killed, several others received injuries. The possible causes of failure are: (1) bad materials; (2) bad workmanship or method of construction; (3) bad design.

(1) *Materials.*

Steel and cement were up to British Standard Specifications. The aggregate appeared to be satisfactory. The sand contained objectionable quantities of organic impurities and was unfit for use in reinforced concrete construction. By thorough washing and cleaning it would have been possible to render it satisfactory for concrete. The specified mix was 90 lb. of cement to 6 cu. ft. of mixed aggregate. There is considerable evidence to indicate that the actual mix used must have been 90 lb. of cement to 9 cu. ft. of aggregate. The quantity of water was not controlled. The man in charge of the mixer estimated the required quantity entirely by eye. No attempt was made to adjust the quantity of water added to compensate for the wetness of the sand used. The crushing strength of samples taken from the collapsed building varied from 620 to 1,470 lb./sq. in., the ages varying from 2 to 6 months. The minimum cube strength expected at the age of 28 days was 2,200 lb./sq. in. One specimen was taken from a standing column and the test gave a result of 1,025 lb./sq. in.; the mix was supposed to be 1 : 1½ : 3, and it must have been over six months old. No tests were carried out on concrete cubes during the work. Had this been done, defects in the concrete could have been discovered in time.

(2) *Workmanship.*

Various photographs indicated that the setting out of the building was extremely poor. From the existing pile caps and the column stumps still standing, it is evident that no care was taken in placing the reinforcing bars. Irregularities in placing and spacing steel bars were found in fractured portions collected from all parts of the building. The construction joints were badly made and in some cases even clay was noticed in the joints between the old and new concrete. Apparently no attempt was made to clean the old surface of the concrete before the new was added. The concrete was hand mixed. There was considerable evidence of insufficient tamping, coupled with excess water. The most serious defect was at the connection between the piles and the pile caps. In 90 per cent. of the cases inspected no concrete connection existed between the tops of the piles, as cut, and the undersides of the pile caps. In some cases extremely lean concrete was found between the top of the pile and the pile cap, while in other cases sand and aggregate without cement existed.

The cutting of the piles was done by one sub-contractor, whereas the caps were carried out by another sub-contractor. The pile heads had apparently been buried in loose material, which was not removed and the concrete of the caps was poured on top of it. In a number of cases exposed reinforcing bars projecting from the pile heads buckled.

According to the report this defect was not a contributory cause of the collapse but it would have become a most serious trouble at a later stage.

Collaboration between the architect and the reinforced concrete specialist was poor. Alterations made by the architect were unknown to the reinforced concrete specialist.

(3) *Design.*

No attempt was made to design the building as a continuous frame. No bending moments on columns were taken into account, no calculations whatever were made with respect of the shear of the beams. A number of columns were overstressed under full load. No bar bending drawings were provided.

Failure originated from the fifth floor which, at the age of 23 days, was carrying a total load of approximately 170 lb./sq. ft.; the stress in the slab reached about 1,000 lb./sq. in., i.e. the ultimate strength of the concrete, and caused the collapse of the slab which led to the destruction of the fifth floor beams. The failure of these beams resulted in great eccentricities of the loading of the columns which in turn collapsed. The process was repeated laterally and vertically.

The deficiencies in the calculations and the complete absence of detailed drawings were contributory causes, in that when the collapse had started at one point they were primarily responsible for the totality of the collapse.

After careful consideration of the part played by the building owner, the architect, the reinforced concrete specialist, the contractors and the authorities, the report arrives at the conclusion that the main responsibility for the collapse lies on the architect and the contractors. The reinforced concrete specialist and the Bombay Municipality are also partially responsible.

A number of preventive measures are suggested for the future, among others the preparation of a Code of Practice for Reinforced Concrete by the Bombay Municipality. No such by-laws were in existence on the date of the report (October 27, 1942).

PLUMBING and Sanitation

1326 Plumbing and Pure Water

NEW PLUMBING STANDARDS TO KEEP DRINKING WATER PURE. (*Plumbing and Heating Journal, September*, 1943.) Dangers of pollution due to back flow from fittings. Basic principles. New standards proposed for USA.

The danger of serious epidemics due to water pollution from faulty plumbing connections is insufficiently appreciated. The number of occasions when this occurs may be small but each case may be very serious. The dysentery epidemic at the 1933 Chicago World Fair was a tragic example. Two possible methods of prevention may be used—by air gaps or by back-flow preventors. Air gaps are ideal except where the user is likely to make them useless by the addition of extra fittings.

The use of these two methods is discussed and certain types of back-flow preventors are illustrated.

The article is based upon two new standards just completed by the American Standards Association. The main parts of these standards are included at the end of the article.

While not of immediate application in this country the principles outlined are obviously equally important here as in the USA.

1327 Copper and Iron

THE PROBLEM OF COPPER AND GALVANIZED IRON IN THE SAME WATER SYSTEM. *L. Kenworthy.* (*Industrial Heating Engineer, July*, 1943.) Description of tests by British Non-Ferrous Metals Research Association to discover reasons for early failure of galvanized iron tanks. Full scale trials described. Possible remedy.

The practice of installing galvanized hot tanks or cylinders in conjunction with copper pipes has led to many failures. Preliminary tests suggested that such a combination was likely to accelerate corrosion of the zinc protection. Observation was made of two estates operating on same water supply and with identical hot-water systems except that in one case copper pipes were used and in the other galvanized pipes. Of 1,000 installations with copper pipes 50 per cent. had tank failures within four years whereas of 50 houses with galvanized iron pipes there were no failures in six years.

Another series of observations was made on two neighbouring estates with differing water supplies but with similar, copper piped installations. On one estate every tank failed within four years while on the other there were no failures in ten years. The difference was assumed to be due to the difference of free carbon dioxide content of the water. In the bad case the water contained a most unusually high percentage.

In some cases corrosion of cold tanks occurs but this is usually found only in cases of badly designed installations where the cold cisterns are placed so near to hot tanks that back circulation takes place.

There was no evidence of increased corrosion due to direct electrolytic action, and it was concluded that the corrosion was due to small amounts of copper dissolved by the water and subsequently deposited on the galvanized coatings.

The effect of alloy pipes was examined and showed that a pre-treated aluminium-brass alloy was particularly good.

Tests were carried out on various forms of filters which could be placed over the flow-pipe entrance to the hot container to extract copper from solution. Some were effective in eliminating copper but interfered with the flow. Zinc turnings as a filter medium seem to offer the most practical remedy so far investigated. With this type of filter approximately 40 per cent. reduction of copper content was obtained initially with a tendency for efficiency to increase later. A description is given of practical trials using this method.

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.*

1328 Operating Theatres

Q *We have been asked to quote for an Operating Theatre. Would you be good enough to tell us: Length and width of room to suggest; size of glass bay window.*

A Operating Theatres vary in size, but a usual size is 16 ft. by 20 ft. with a height of 13 or 14 ft., excluding Washing, Sterilizing and Anæsthetic Rooms, etc. Ideal conditions are not necessarily possible in wartime, but vertical glazing to the whole of one end above cill level is usually recommended, sloping back at the top at an angle of 45°, the vertical section being in obscured glass and the sloping portion in clear glass.

We give below a list of periodicals which illustrate certain Operating Theatres which have been built, and also a list of articles dealing with the subject.

RIBA Journal, November 7 *and* 21, 1938.—Planning, Lighting, Heating and Ventilating Operating Theatres.

Building (*Sydney*), *May* 24, 1943.—Royal Hobart Hospital, Tasmania. Photographs of Operating Theatre and Kitchen.

Official Architect, September, 1941.—Splinter-proof construction in two hospitals in Edinburgh.

Architect and Building News, May 21, 1937.—Supplement. Kent County Ophthalmic and Aural Hospital, Maidstone. Details of Operating Theatre.

Hospital and Nursing Home Management, February, 1943.—Walsall General Hospital. Operating Theatre Suite. Plan, View and Equipment.

SOCIETIES AND INSTITUTIONS

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

HC

C. C. Handisyde

November 30, at the Housing Centre, 13, Suffolk Street, S.W.1. Talk by C. C. Handisyde, A.R.I.B.A., on HOUSE CONSTRUCTION: METHODS AND STANDARDS.

C. C. Handisyde: Methods of construction can, I think, be divided into two main classes: Traditional Methods and New Methods.

TRADITIONAL METHODS

It seems obvious to me that to deal with the enormous building programme the best of both methods will have to be used. The existing craftsmen being employed for traditional work and new labour for the new methods. What perhaps is not so obvious is that traditional methods are probably amenable to fairly considerable improvement while still retaining their same general form and that such improvement may easily result in extra building capacity with the same labour force. This I suggest is most important as I rather think that, with one or two possible exceptions, shortage of labour is likely to be much more serious than shortage of materials in the immediate post-war year or two. The building industry is an old one and has, for the most part, "just growed." Except in a few isolated instances there has not been any really critical study of building procedure, or of building construction, as applied to housing. For example, there has been very little change in method in building houses by the hundred from that used for building small numbers. Mechanical plant is designed mainly for civil engineering work or for application to very large buildings and is mostly unsuited to house building. There is, I believe, considerable scope for study along these lines. Construction and the use of materials is very little changed from that of years ago. The information which science has made available has, for one reason or another, been comparatively little used. For example, the ordinary brick wall is much stronger than it needs to be in most houses.

It appears that American building costs are not as much higher than ours as the difference in wages would lead one to expect. We ought to examine the reasons for this most carefully. Possibly the whole of their organization is better than ours. In one respect at least they differ. They have absolutely complete details of every operation ready before building commences at all. This means the elimination of waste due to cutting and making good and permits of very close tendering. Whether or not the total time from the beginning of design to the completion of the building may or may not be reduced, I am not sure. What does happen, however, is that much time previously wasted by a number of operatives on the job is saved at the cost of a little extra time on the part of a very small number of design staff before building commences. There is a moral here which I think might be noted by clients who almost without exception bully their architects into rushing the preliminary stages. And by clients I mean not only private individuals but members of building committees.

My first main point, therefore, is that traditional methods will have to continue to be used, but there is a good case for a critical examination of the technique.

NEW METHODS

These include the possible use of new materials and the much discussed question of prefabrication and standardization. I do not propose to go into the question of æsthetics but would like to make two points:

1. Any form of building construction which relies upon fixing together on the site by a dry technique a collection of units constructed elsewhere is quite different from traditional house building in that it requires a much higher degree of dimensional accuracy. With some methods this high degree of accuracy may be required primarily in the factory, but where this is to be the case a very foolproof type of design will be essential. With many methods the site labour will have to be quite skilled in the carrying out of this new type of assembly, but will not require to be skilled in normal building craftsmanship. It seems possible that the type of skill required for this kind of building may need less time for training than would a traditional building craftsman. If this is the case, it might have a considerable effect upon possible production of buildings in the immediate post-war years.

Incidentally, the properties of materials must be carefully re-examined from the point of view of suitability to "precision" building. Materials which give excellent results with traditional methods may be quite unsuitable or may need a very much modified kind of use.

2. My second point is regarding the use of standardized prefabricated units. For the best results they must usually be produced in large quantities, sufficient to take full advantage of the factory technique of mass production. If full advantage is to be obtained from this type of construction I believe that a comparatively small number of "winners" will have to be chosen from the legion of bright ideas now being discussed. There must then be a careful analysis of the optimum rate of production lines and orders must be placed in advance in sufficient quantity to ensure smooth running to maximum efficiency. This will mean large-scale ordering which will be beyond the capacity of any but the largest of our present building authorities. Some method of pooling the needs of the smaller authorities will therefore be required or else some form of middleman distribution organization will have to be set up on the lines of the regional car distribution centres.

COMBINATION OF TRADITIONAL AND NEW METHODS

There may be a case for some form of combination of methods, but I foresee some difficulty in mixing "precision" units and normal construction unless the fabricated units are fixed first and used as a kind of template for the remainder of the work. The only large-scale example I can think of in present practice is in steel frame buildings where the steel frame does in fact go in first and acts as a guide to the rest of the work.

There is one exception to this rule. That is in the case of some of the equipment of a house. I hope there will be a real improvement over the present deplorable standard of kitchen planning and equipment, but I cannot see how this can be achieved without the introduction of mass produced equipment units. Here again mass ordering will simplify economic production and reduce costs.

STANDARDS

Whatever method of construction may be used the question of standards is a vital one. In the past there has been insufficient analysis of the real requirements for a house. I realize, of course, that a lot of people will say that we shall not be able to afford better standards because the post-war cry will be for quantity above all else. This may have some validity in relation to certain things. For example, with any given type of construction an increase in the size of a house will almost always mean some increase in labour and cost. We may, therefore, as a matter of emergency have to give way to some extent upon standards of accommodation. There are a number of amenities, however, which can be improved without necessarily involving any appreciable increase in cost, other than that of the use of a little additional brain power by the designer. Sound insulation, for example, can be vastly improved by the exercise of a little care if modern developments in this field are studied. Natural lighting in some houses and many flats has not always been adequate. At densities of development similar to those used just before the war the daylighting can be made entirely adequate, even in the case of flats, without any addition to cost.

Heating is an important item in the weekly budget of most households. To reduce the heating bill two things can and should be done. Heating appliances should be chosen on a basis of their efficiency—an idea quite foreign to house builders of the past, whether private or official. Further, the house structure should be insulated against heat loss to the optimum economic condition. First cost alone is an insufficient guide in this matter of heating. It is first cost plus running cost which must be considered.

These are only examples but they illustrate my point that there must be careful consideration of standards of performance of houses whatever type of construction is adopted. In passing, I suggest that the light type of construction such as is often suggested for prefabricated houses can have adequate heat insulation incorporated without any difficulty, but that it may be more difficult to obtain good sound insulation with this method.

THE LIFE OF HOUSES

There occurs fairly frequently a suggestion that houses should have a limited life. From the purely social point of view I am in favour of this since a period of 30 or 40 years is bound to bring such changes that houses will become unsuited to the new requirements. When the advocates of this idea suggest that such houses can be of cheaper construction, I think they are on less secure ground. In actual fact I think it is very difficult to design a structure which will give good service for a fair time and then cease to be habitable. If there is an answer to this problem I think it lies in using materials and methods which are fairly certain to give a high salvage value. Without some such safeguard I fear the temptation to retain the "temporary" structure would be too strong to be resisted.

IAAS

A. C. Bossom

December 2, at Claridge's Hotel, London. Luncheon given by the Incorporated Association of Architects and Surveyors in honour of the BRITISH BUILDING MISSION on its return from the USA. Alfred Bossom, F.R.I.B.A., M.P., leader of the Mission, and Vice-President of the IAAS, gave an address. Two other members of the Mission were present—Sir George Burt and Sir James West. Guests included Lord Woolton, Lord Portal, W. S. Morrison and Ernest Brown.

Lord Woolton (left) and Mr. Bossom at the IAAS luncheon at Claridge's.

A. C. Bossom: The problems of peace and reconstruction are unlimited, but here to-day we are interested in those affecting the building industry. The industry will have to provide :

1. Homes—we have been assured by the last Minister of Health that something like four to five million homes will be required ;
2. Schools—the raising of the school-leaving age will necessitate at least an additional 20 per cent. to the number of our school buildings, irrespective of the replacement of obsolete school buildings ;
3. Repairs, replacements or fresh treatments for all bombed areas—a gigantic task in itself ; and
4. New municipal and commercial buildings—the great shopping districts in many towns with their large stores and public services ; industrial districts with their factories and flatted factories ; museums and places of amusement, in fact, there is no type of building that will not come under close examination when plans for post-war building are made.

Let me illustrate the extent of some of these problems :

1. So far, one in every five houses in the country has been damaged by the "blitz" and, if every available mechanic were turned over to this problem the day the war ended, it would take 18 months to straighten out this item alone without providing a single new house.

2. If all the mechanics available were put on the construction of homes, it is doubtful whether there would be a sufficient number of men and amounts of normal materials available to supply even our immediate demands.

3. I assume that, to date, there may be anywhere from 20 to 25 thousand sites assigned to local authorities upon which houses can be constructed, yet this is but a drop in the ocean compared with the vast responsibility that will descend upon the industry the moment the war drums cease rolling.

What are the conditions we must have ready to enable real progress to be made for this general demobilization ?

Our roads and lines of transport in the country must be determined. If new roads are to be constructed, where are these to be ? Are secondary roads to be built, altered or widened? Until this is decided, the location of other schemes to be carried forward cannot be settled.

The regulations of the Ministry of Town and Country Planning must be made known. The Ministry is to be congratulated on its statement of last Tuesday in the House of Commons which goes far, but not quite far enough. We must know if green belts are to be required for many of our present-day towns, where National Parks are to be situated, and whether zoning is to take place within city limits ? And these decisions themselves all hang upon one crucial point : *Where is the money coming from to pay for all this* ?

Building laws.—Is the Minister of Health ready with his decisions for widening the scope and simplifying the application of present-day building laws and regulations ? For clearly, no architect or engineer can go ahead with full preparation of his work unless he knows beforehand where and under what regulations he can build.

Materials.—I believe the Minister of Works has the question of an adequate supply of cement and bricks well in hand, but we shall also require large quantities of timber, and ships will have to be made available for its transport. Why should we not take what we need from Germany as a form of reparation ? Over one-third of that country is to-day covered with timber.

In addition to the foregoing, there are some other matters of vital importance that will be concerning us all during coming months :

1. *Permits.*—The procedure for the issuance of permits must be greatly simplified, and one authority should be so informed as to be able to give the necessary permit, covering all regulations as to siting, planning arrangements and materials.

2. *The conveyance of land.*—Giving a conservative estimate, the conveyance of land takes between six to twelve months. This endless rigmarole must be cleaned up and it should be possible for the transfer to be completed, if necessary, within a month.

3. *The financial position.*—After the war we cannot rely on private owners doing much until prices are stabilized. You will remember that after the last war it was approximately five years before the private owner again came into the field. This means that during the first few years of the post-war period, all work will have to be done under Government or municipal direction, so that the financial position must therefore be settled.

4. *Labour.*—With a force of barely half a million operatives and building labourers to-day, and even added to these the men to be demobilized, the number will be totally inadequate to handle the programme outlined. Where can new operatives be found ? The answer is obvious, though, no doubt, highly controversial. But, in the name of logic and commonsense can we say to the women of the country who have worked on the gun sites, and who have formed a defensive roof over our very heads, can we say to them that they shall not help in the construction of their own homes ? Surely here is a great untapped and potential reservoir of skilled and semi-skilled labour.

Here again, however, if we insist on adhering entirely to outworn practices and methods, even this additional labour will not suffice to meet the country's needs.

What is the next step suggested ?

Prefabrication.—Well, our clothes, our furniture, our watches and so on are all made in factories. At least 75 per cent. of our post-war homes could be made in factories, under covering, free from weather troubles, in comfortable surroundings, supplied with the latest tools and equipment, leaving not more than 25 per cent. of the work to be done on the site, thus obtaining speed and accuracy on the one hand, with individuality and character on the other.

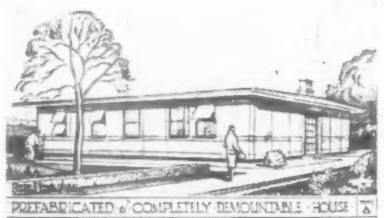
I could say much on this subject having just, as you know, returned from America, where I have seen some of the finest houses ever built, and they have been built by the process just outlined. They are houses in which anyone would be proud to live, be he an artist or a mechanic—but the rest must wait until the report of the British Building Mission is presented to the Minister of Works !

Equipment.—We cannot attempt to provide all the special equipment, gadgets and labour-saving devices necessary to-day to make our homes drudgery-proof, but we can provide at the time of erection the electrical point needed so that as the various items come on the market they can be installed, thus providing the housewife with the opportunity of living in comfort and cleanliness, without the soul-destroying drudgery and giving the younger married couples returning from the services the amenities they will be demanding. I am of the opinion that if our Minister of Reconstruction would so focus the general control of the building industry as to be under one Minister, it would be of the greatest possible advantage to the nation. In my judgment, the Ministry to handle this should be the Ministry of Works. This is a great break from tradition. Many will contend that the Minister of Health should handle this housing programme, with the Minister of Town and Country Planning busy on the laws governing the control of land, but surely it is better for one department to be responsible for the laws, location and materials which are to mould our post-war housing and building schemes. This co-ordination under one responsible Minister would mean a very great saving of time and money.

EE

J. T. Peddie

November 30, at Alliance Hall, Palmer Street, S.W.1. Opening of a HOUSING EXHIBITION OF ECONOMIC EQUITY by its President, J. Taylor Peddie. The houses and flats exhibited were designed by Charles E. Elcock, F.R.I.B.A. The exhibition closed on December 3.



Prefabricated house designed for Economic Equity *by C. E. Elcock.*

J. T. Peddie : Each of the professions —architectural, electrical, mechanical and chemical—possesses ideals which it seeks to bring to reality, but the realization of which are frustrated or compromised, because of the restrictive influences imposed by the monetary and economic systems as constituted. We can now see clearly that applied science—if the post-war monetary and economic difficulties created by the monetary and economic system are to be solved—cannot be divorced from religion and politics since each are an indispensable part of the practical way of life. In effect they mean one and the same thing.

We have a very great difficulty to overcome, which is the inability of the average man in the street to understand the technical terms of monetary and economic science. It does not matter whether the words we may use are the simplest we can find, it would still be impossible for the average man in the street

to understand the technical terms involved, and their implications.

Hence the reason for the exhibition. In the drawings and photographs we have endeavoured to illustrate in graphical form the fourteen essential monetary and economic reforms. Through these drawings and photographs the average man in the street can at least see the economic ends we are seeking to achieve for him—and this after all is the one thing that matters to him.

Your first impression of our modest exhibition may lead you to assume that it is no way different to many others of a similar character held elsewhere, but this would be a mistaken view. The real essence of the exhibition is that we are able to offer a spacious £950 house fully equipped with all labour-saving equipment for the low rent of 13s. 3d. per week, including maintenance and management charges, but excluding rates.

We are suggesting that if the post-war rebuilding proposals of the Government are to be based on the same method of finance, the taxpayers will revolt—hence we cannot see that the Government can go very far on the present lines in its rebuilding proposals.

Most of the reconstruction proposals you have seen elsewhere can show what ought to be done provided the money can be found through borrowing and taxation, and this applies to social security proposals as well, but as there are very definite limits beyond which we cannot prudently go in that direction, the total volume of reconstruction work must necessarily be limited, and this limitation imposes on all architects and engineers the need to effect economies in cost, which in turn imposes on them the need to compromise their ideals. Hence the sense of frustration which has arisen. Under the Science of Physical Economy there is no limit imposed as to the amount and quality of the work which can be undertaken. Architects and engineers are free to give full expression to their ideals.

RIBA

New Members

AS FELLOWS (15).—Borrett, Major Albert Reginald (Windsor), Chamberlain, Thomas Lewis John (Reading), Day, Benjamin Ivor (Bristol), Greenidge, John Theodore Waterman (Kettering), Matthews, Harold Ewart (Dorchester), Ridley, Geoffrey William, O.B.E., J.P. (York), Squire, Raglan Hugh Anstruther (London), Urwin, Samuel Ernest (Gloucester), Watson, John, DIP.ARCH.GLAS. (Glasgow), Adie, George Mountford (Ruislip), Ashby, Leslie John (Oxford), Edwards, Clifton (Stoke-on-Trent), Fifield, Cyril, A.M.T.P.I., P.A.S.I. (Dorchester). *Overseas*: Fayazuddin, Mohammad (Hyderabad (Deccan), India), Walgate, Charles Percival (Cape Town).

AS ASSOCIATES (37).—Alport, Peter Greenwood (The Technical College, Cardiff) (Newport, Mon.), Bolland, Francis Senior (Victoria University, Manchester) (Cheadle, Cheshire), Broadbent, John Desmond (Architectural Association) (London), Byram, David Radcliffe (Victoria University, Manchester) (Uppermill, near Oldham), Caton, Kenneth James (Leeds School of Architecture) (Leeds), Childs, Derrick Rigby (University of London) (King's Langley, Herts), Cresswell, Donald Randal (Chilwell, Notts), Eden, Albert Maurice (New Barnet, Herts), Evershed, Dudley Graham (University of London) (St. Albans, Hertfordshire), Greenen, Frank Rowland (University of London) (Shalford, Surrey), Hurst, Ronald Walker (Brighton), Hyland, Miss Joan Lutzen, B.ARCH. (University of London) (London), Isaacs, Adolph Mendel, B.A. (Victoria University, Manchester) (Manchester), Jarrett, Maurice Charles (Coventry), Jones, Herbert (Liverpool), Kirkpatrick, Geoffrey (Tunbridge Wells, Kent), Lambert, Ronald (Halifax, Yorks), Law, Charles (Liversedge, Yorkshire), Lurie, Samuel (University of London) (Ampthill, Beds), Naunton, Miss Margaret Doreen (Victoria University, Manchester) (Manchester), Own, Stanley George (Birmingham), Palmer, Walter George (The Polytechnic, Regent Street, London) (Twickenham, Middlesex), Partington, James Ernest (Victoria University, Manchester) (Bolton), Pearce, Arthur Roger (Ipswich, Suffolk), Penrose, George Richard (Hampton, Middlesex), Robinson, Henry Adrian (University of Liverpool) (Craigavad, N. Ireland), Sidwell, John Roland (Coventry), Singer, Thomas Stanley (Warwick), Skelton, Leslie George (Thornton Heath, Surrey), Smyth, William Granville (Belfast), Turner, Ronald James (Leigh-on-Sea, Essex). *Overseas*: Bock, Hans Eddie, B.ARCH. (Rand), (Johannesburg), Cohen, Lionel George, DIP. ARCH. (C.T.) (Cape Province, South Africa), Levy, Denzil Nathan David, B.ARCH.(Rand) (Port Elizabeth), McAlister, William Albert (New South Wales, Australia), Malcolm, Nigel Kenneth Roy (New South Wales), Skarratt, Eric Norris (New South Wales).

AS LICENTIATES (17).—Allott, Arthur Bennett (Rotherham), Bately, Irvine, J.P. (Portslade, Sussex), Brown, Vivian Henry Allport (Stafford), Edwards, David Mervyn (Wolverhampton), Ford, Ronald William (London), Hand, John Charles (Stoke-on-Trent), Jones, Rupert (Leeds), Page, William Harry (Wolverhampton), Pegrum, Major William Aubrey (Purley, Surrey), Raven, Oscar Boultbee (London), Robinson, Walter (Hereford), Russell, Arthur Henry (London), Scott, Francis Clunie (Glasgow), Shearer, James (Dunfermline, Fife), Taylor, Miss Gertrude Molly Justice (Bath), Trantom, Harold James (Liverpool), Whatley, Alfred George (London).

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal." War Address: 45 The Avenue, Cheam, Surrey, and should reach there by first post on Monday morning for inclusion in the following week's paper.

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

Public and Official Announcements

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

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

CITY OF PORTSMOUTH.

CITY ARCHITECT'S DEPARTMENT
RE-PLANNING STAFF.

Applications are invited for the undermentioned positions in the City Architect's Department:—

(A) Two Senior Assistants at £390—£435.
(B) Four General Assistants at £330—£375.
(C) One Junior Assistant at £90—£240.
(The latter according to age and experience).

The salaries are rising by annual increments of £15, but the first of such increments will not become payable until the 1st April, 1945, with subsequent increments payable on the 1st April in each succeeding year. The Council also pay the Whitley Council Scale of War Bonus.

Applicants with planning and/or architectural qualifications are required, and experience of the procedure under the Town and Country Planning Acts is desirable for (A) and (B); applicants for (C) should be good draughtsmen.

The persons appointed will be required to pay the appropriate contributions under the Local Government Superannuation Act, 1937.

The appointments are subject to one calendar month's notice on either side, and the persons appointed will be required to pass the Corporation's Medical Examination as to fitness.

The Council will not make any permanent appointments during the war, but it is expected that these appointments will be for a period of at least five years.

Applications, suitably endorsed, and accompanied by three recent testimonials, should be sent to the undersigned not later than 10 a.m. on Wednesday, the 5th January, 1944.

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

FREDERICK SPARKS,
Town Clerk.

Royal Beach Hotel,
Southsea, Hants.
29th November, 1943. 1

OVERSEAS EMPLOYMENT. — ARCHITECTS required by the Nigerian Government for one tour of 12 to 24 months in the first instance with good prospects of permanency. Salary scale £475, rising to £840 a year. Commencing salary according to qualifications and experience. Free passages and quarters. Candidates must be Associates of the Royal Institute of British Architects, have had experience in the design of public buildings, and be able to take charge of a Drawing Office. Applicants should write to the Ministry of Labour and National Service, Central (Technical and Scientific) Register, Advertising Section, Alexandra House, Kingsway, London, W.C.2, for the necessary forms. The reference number EA.785A must be quoted. 2

OVERSEAS EMPLOYMENT.--ARCHITECTURAL ASSISTANTS required for the staff of Mr. Maxwell Fry, Town Planning Adviser to the Resident Minister in West Africa for a term of 12 to 24 months in the first instance, with possibility of continued employment. Salary between £450 and £600 a year according to qualifications and experience, plus a local allowance of £290 a year if married and £185 a year if unmarried. Outfit allowance £25. Free passages, quarters and medical attention. Preference will be given to candidates possessing architectural qualifications and experience, and who have an interest in Town Planning problems. Applicants should write to the Ministry of Labour and National Service, Central (Technical and Scientific) Register, Advertising Section, Alexandra House, Kingsway, London, W.C.2, for the necessary forms. The reference number EA.786A must be quoted. 3

BIRMINGHAM CENTRAL TECHNICAL COLLEGE.
Suffolk Street, Birmingham, 1.

Principal: DR. D. S. ANDERSON.

Applications are invited for a temporary full-time appointment as lecturer in the Department of Building and Structural Engineering.

The subjects to be taught are: Building Construction and Quantity Surveying up to Higher National Certificate standard, and ancillary subjects.

Particulars of the appointment and form of application will be sent by the Principal on receipt of a stamped addressed envelope.

P. D. INNES,
Chief Education Officer.
5

APPLICATIONS ARE INVITED for the TEMPORARY POSITION OF TOWN PLANNING ASSISTANT in the Borough Engineer and Surveyor's Department of a London Metropolitan Borough. The salary payable will be at the rate of £400 per annum plus current war bonus (at present £45 10s. per annum), and the successful candidate will be required to contribute to the Council's Superannuation Fund.

The Provisions of the Local Government Staffs War Service Act, 1939, will not be applied in the event of the successful candidate being called up for service with H.M. Forces, or under the Industrial Registration Order, 1941.

Candidates must have had practical experience in the preparation of Planning Schemes, particularly for built-up areas, and a good general knowledge of Planning Administration. Preference will be given to candidates with suitable technical qualifications.

Applications giving full particulars of experience and qualifications and accompanied by copies of two recent testimonials, should be addressed (no callers) to The Ministry of Labour and National Service, Appointments Department, Sardinia Street, London, W.C.2, quoting Order No. Q.319. X.R. 6

Architectural Appointments Vacant

Advertisements from Architects requiring Assistants or Draughtsmen, and from Assistants and Draughtsmen seeking positions in Architects' offices will be printed in "The Architects' Journal" free of charge until further notice. Other "Appointments Vacant" and "Wanted" will be found under later headings, and are subject to the charge given under each heading.

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

SURVEYOR'S ASSISTANT required by Yorkshire industrial company. Experienced in preparation of schedules of dilapidations and surveying of existing buildings. State age, experience, salary required and liability for military service. Box 998.

TOWN PLANNING ASSISTANT required to Local Authority (London Area). Capable of preparing schemes under supervision; interviewing; knowledge of the Acts. Salary £400—£450, according to ability. Box 4.

Classified Advertisements continued on page xxxii

ARCHITECTURAL DRAUGHTSMAN required in Westminster. General all round experience useful. Provided he has had some previous experience it would be opportunity for ex-Service man now studying for A.R.I.B.A. Send details in full to Box 221.

ARCHITECTURAL ASSISTANT required Westminster district, mainly for industrial work. Good draughtsman with planning ability preferred. Give age, experience, salary and state if release from present work could be obtained at short notice. Box 222.

A LARGE FIRM OF ARCHITECTS AND SURVEYORS practising in the Midlands have vacancies for the following: SENIOR ASSISTANT. Qualifications required: A.R.I.B.A. or better; excellent designer and draughtsman essential; capable of preparing coloured perspective drawings. SENIOR ASSISTANT. Qualifications required: A.R.I.B.A. or better; first-class experience in modern cinematograph theatre design and construction essential. Box 223.

SENIOR ASSISTANT required immediately by London architect, to work on experimental houses. Responsible position, £12 per week. Junior also required. Box 224.

JUNIOR ASSISTANT wanted in country architect's office near Worcester. Able to make measured surveys of existing buildings and prepare plans therefrom for post-war schemes. Salary £5 per week. Box 225.

CLERK OF WORKS required immediately for factory extension in West Riding of Yorkshire. Steel-framed construction with alterations and connections to existing factory whilst maintaining production. Close Time-Schedule, U.A. and E.W.O. operating. Box 226.

Architectural Appointments Wanted

ARCHITECT ASSISTANT, age 25, ex-service man, requires position in London; 8 years practical experience on various types of work, including factory (R.C. and steel) design, layouts of housing estates, site supervision, specifications and bills of quantities. Box 195.

JUNIOR requires post in architect's office (London area), keen and willing. At present attending Municipal College and School of Building. Box 197.

A.R.I.B.A., 25, exempt, seeks responsible position in London. Box 198.

CHIEF ARCHITECT of a Government Department desires change. Aged 32, married. Exempt (medically). Preferably Eastern Area. Experienced Government and Local Government service. Please state salary, and if housing accommodation available. Free at month's notice. Box 201.

ENGINEERING AND ARCHITECTURAL ASSISTANT. Eleven years' wide experience of civil and structural engineering calculations, site organization and supervision and quantities. Able at short notice to execute detail draughting efficiently and expeditiously. Have own drawing office in London. Travel no object. Age 28. Medically exempt. "Rahmen—Structures," 708, Chelsea Cloisters, Sloane Avenue, London, S.W.3. Kensington 5535. 206

YOUTH (17), keen, intelligent; has G.S.C.; desires situation in architect's office with view to being articled. Leatherhead and Dorking district. Marshall, 12, Brook Cottages, Cobham Road, Fetcham. 207

CHIEF ASSISTANT (Chartered Architect), desires change to an executive or similar position of responsibility with a Municipal, Industrial or Commercial Undertaking. Wide experience including recent design and supervision of large factory contracts of national importance. State details and salary. Box 208.

SENIOR ASSISTANT requires new position, preferably London. Age 33, medically exempt. Considerable experience in first-class architects office. Box 210.

ARCHITECTURAL ASSISTANT. Age 23, medically exempt. With 5 years' wide experience in industrial architecture, requires new position. Box 211.

ARCHITECT offers part-time services on drawings at own home; 20 years' London experience. Box 213.

ARCHITECT AND SURVEYOR offers services in spare time; London office, car, own assistant; moderate terms. Box 214.

A.R.I.B.A., exempt military service on medical grounds, requires controlling position with post-war interests, in commercial or private enterprise. Development of materials, pre-fabrication and research. Possessor of keen brain and desire to use it. London area preferred. Salary according to work offered. Box 218.

ARCHITECT, experienced in carrying through works complete, specialized in large industrial and commercial building. Box 216.

ARCHITECT AND SURVEYOR, with own office near Exeter, seeks free lance or part-time work. Experience in all branches of the profession, especially in brewery, licensed premises, domestic, war damage and maintenance work, schedules of condition and dilapidation. Speedy, accurate draughtsman with high capabilities in design and construction. Box 217.

DIP. ARCH., A.R.I.B.A., 38, exempt, is looking for an appointment with responsibility and prospects. Box 219.

ARCHITECT, with 20 years' experience in all branches of the profession, with special qualifications in domestic work and decoration, desires to change from his present position. Write Box 220.

Other Appointments Vacant

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

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

Other Appointments Wanted

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

ADVERTISER of proven ability and with valuable existing contacts with Architects, Government Departments and the building industry generally, would like to hear from progressive and well-established company requiring the services of a keen and responsible sales executive. Box 205.

Miscellaneous

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

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

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

WANTED, one complete set of information sheets, either loose or bound, please state price. Box 988.

MERCHANT NAVY OFFICER, studying architecture for post-war career, wishes to purchase *Building Construction*, Vols. I and II. By Mitchell. To replace copies lost with his ship in recent action. Please write Box 991.

WANTED: Set of Drawing Instruments, Slide Rule and Miniature Camera. Particulars to 27, School Lane, Grenoside, near Sheffield. 993

SOME OLD ARCHITECTURAL TEXT BOOKS in excellent condition and attractive bindings. Might interest collector. Also drawing board and T-Square. Apply 20, Clifton Avenue, Finchley, N.3. Finchley 3147. 215

AN ARCHITECT requires two or three perspectives made from his drawings. Send address and fees required to Box 1000.

Educational Announcements

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

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Mr. C. W. Box, F.R.I.B.A., M.R.San.I.
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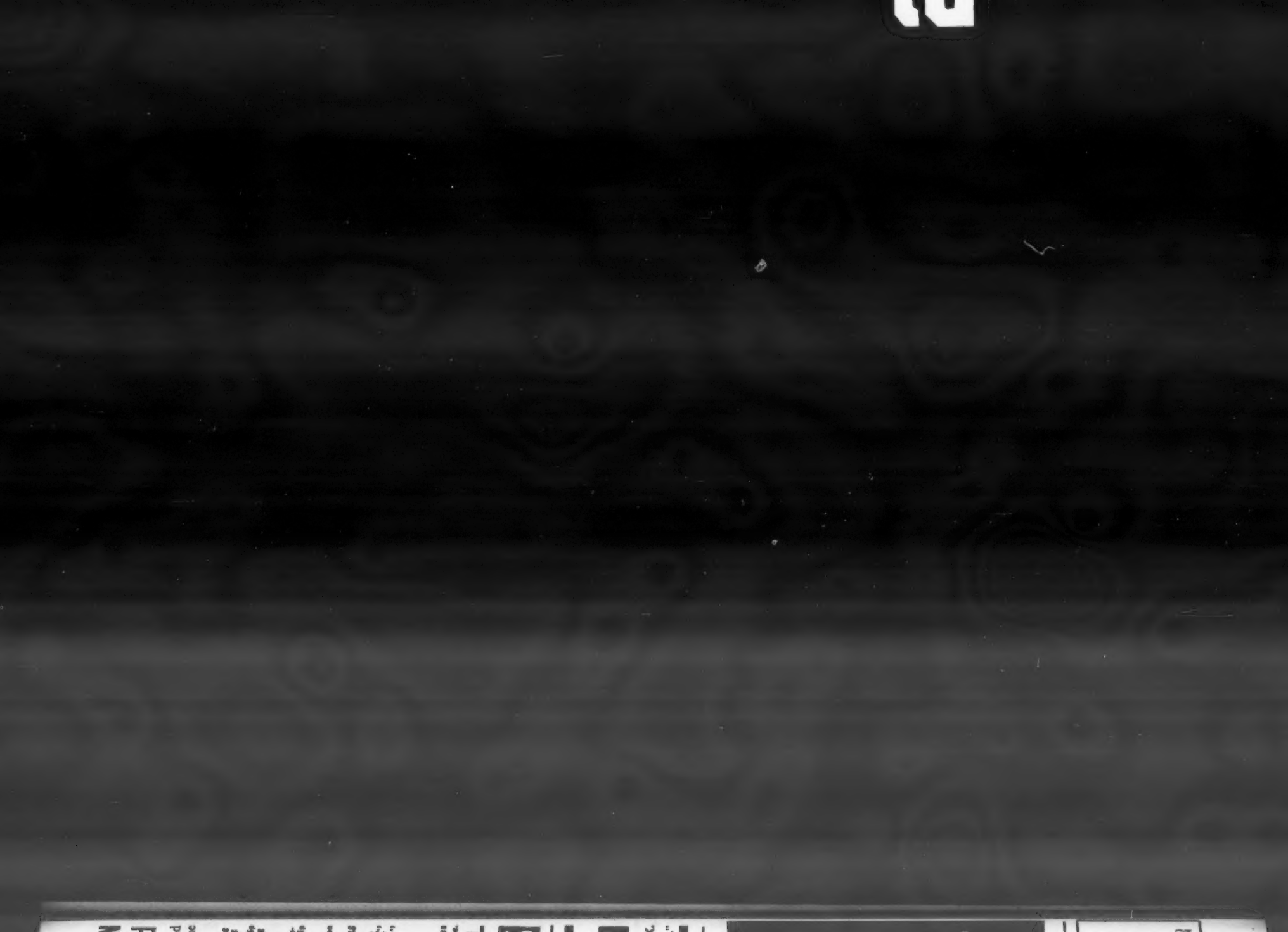

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