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

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

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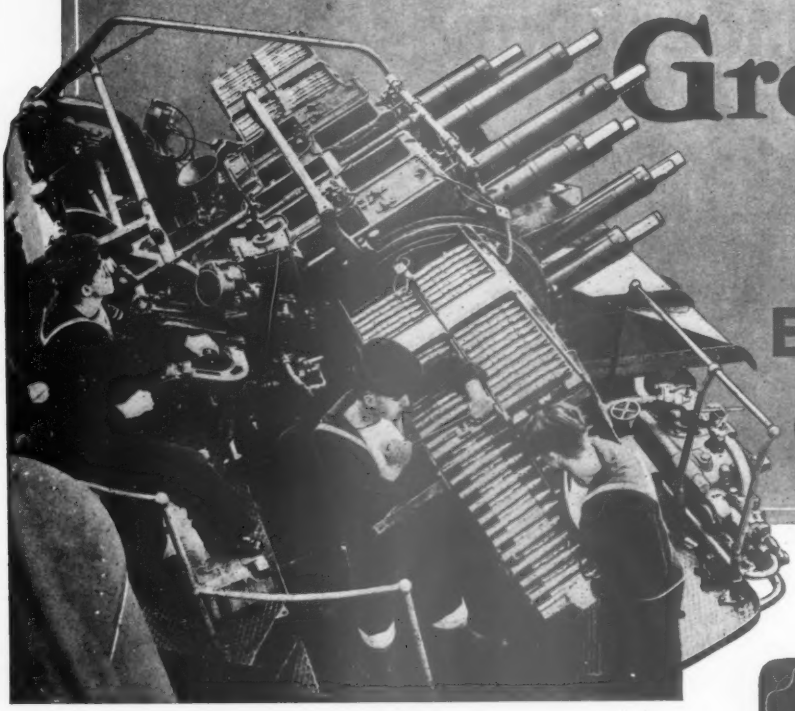

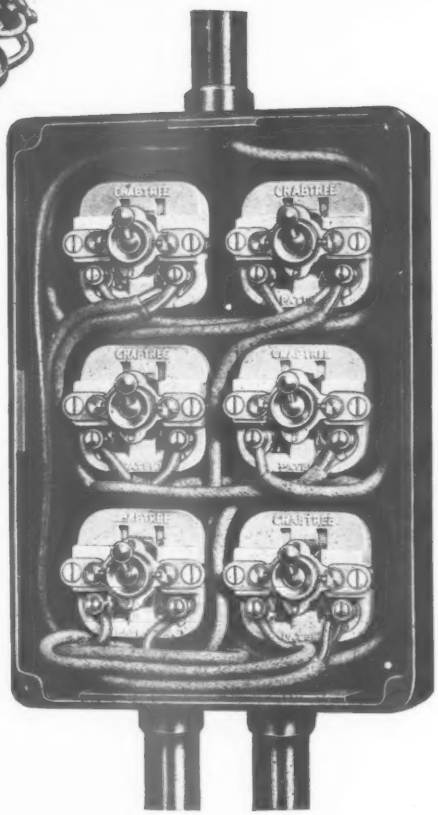

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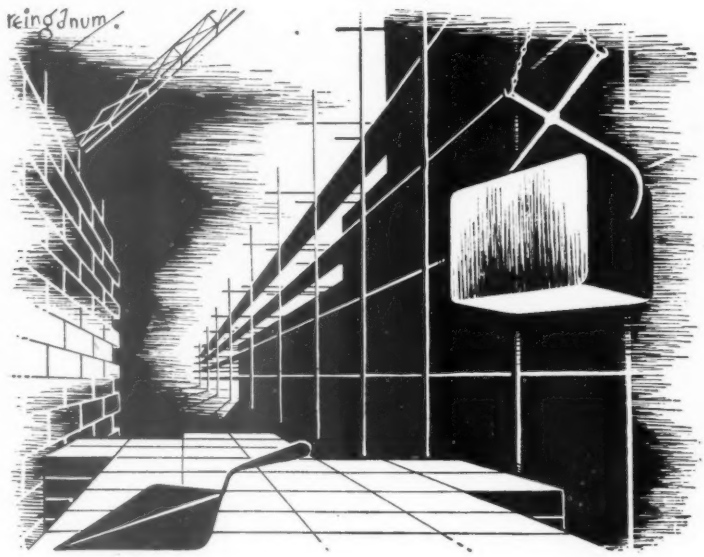

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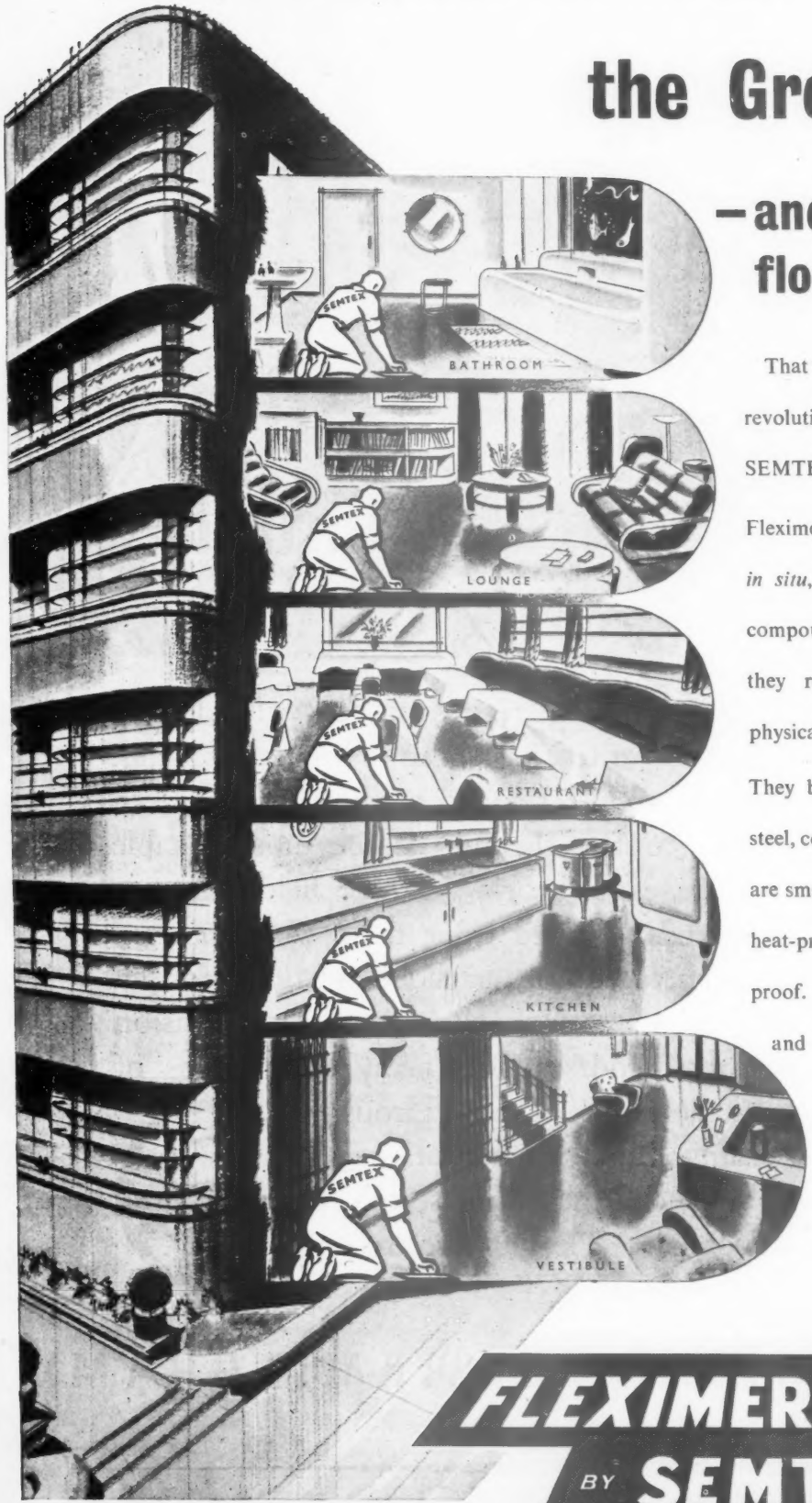

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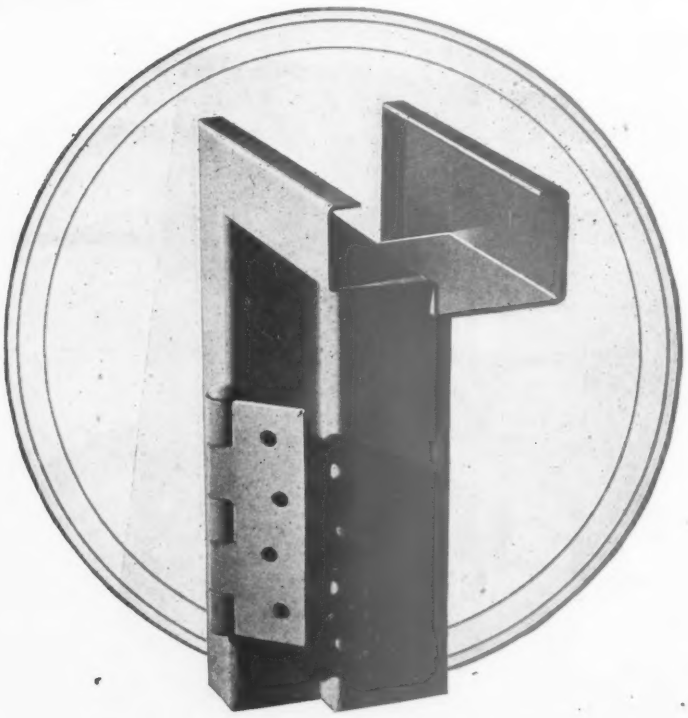

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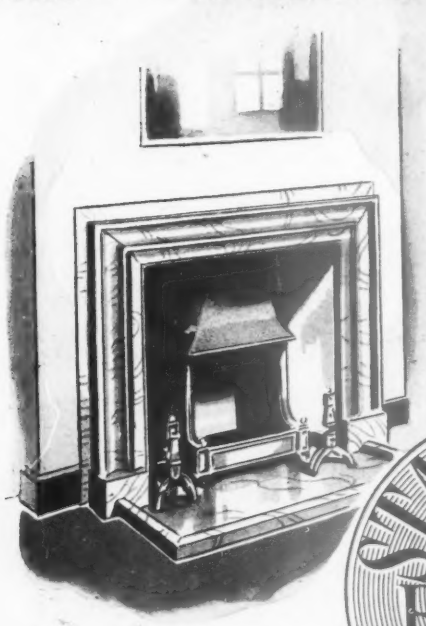

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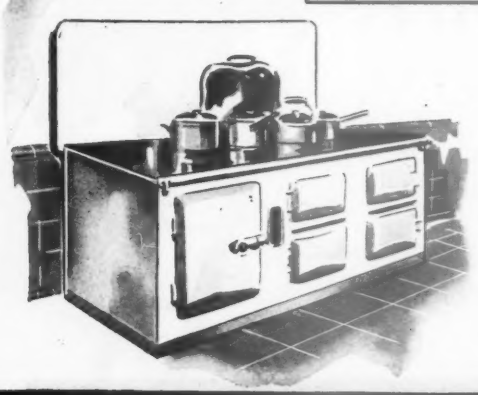

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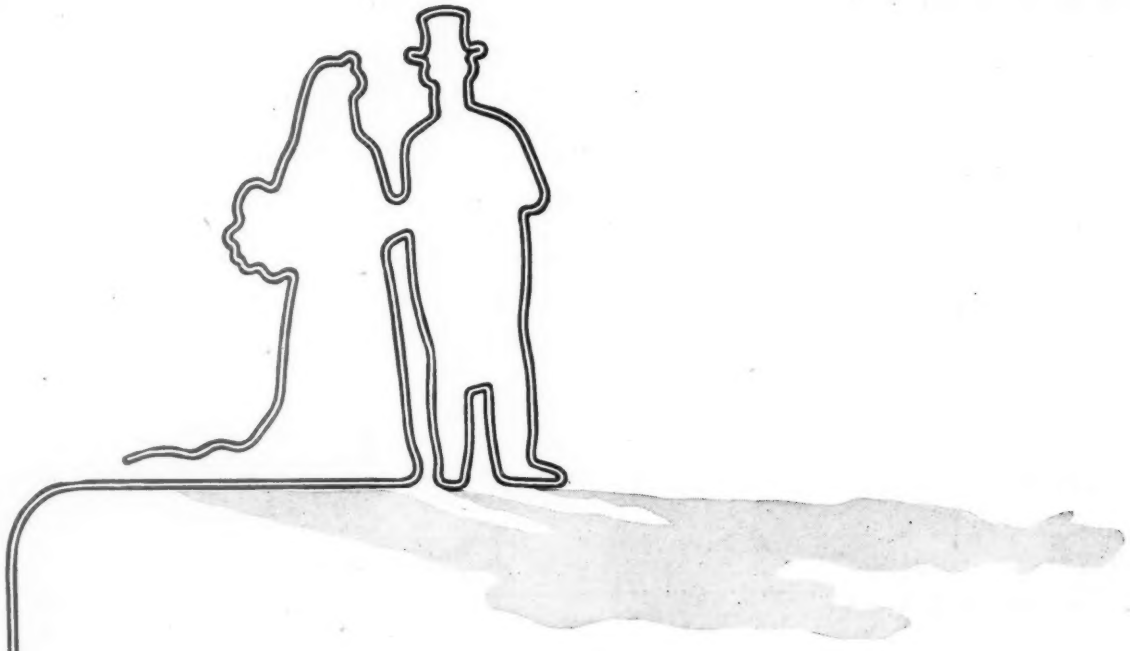

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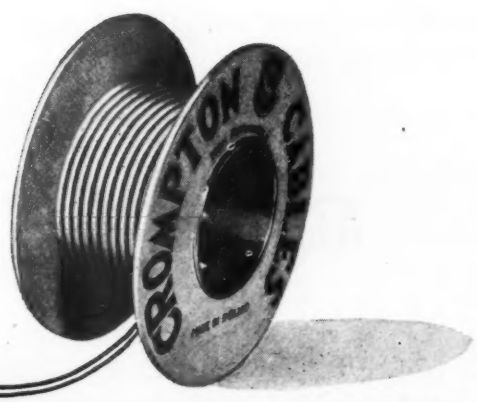

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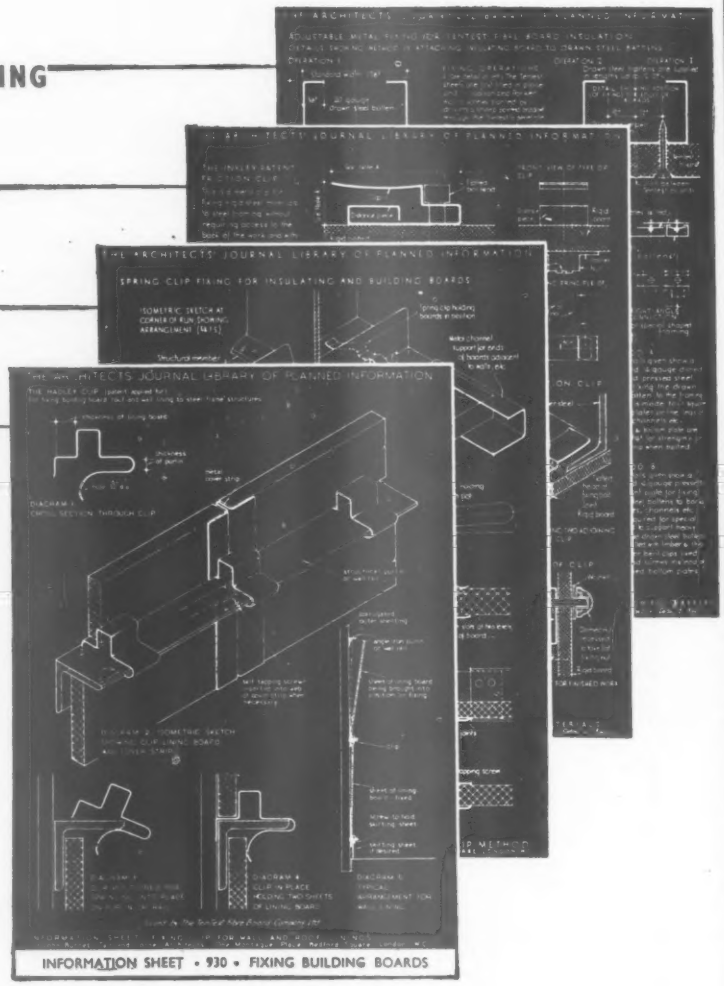

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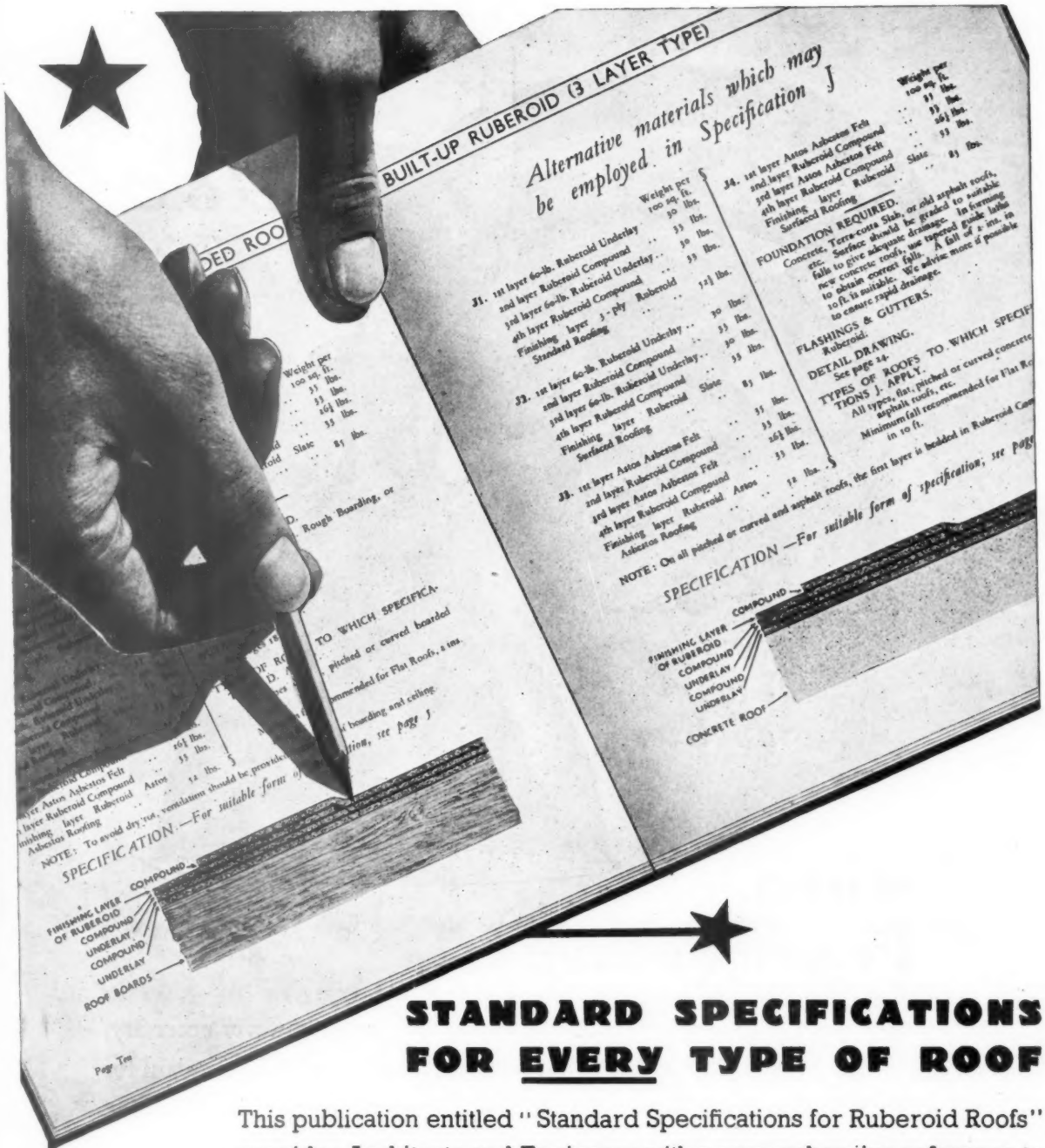

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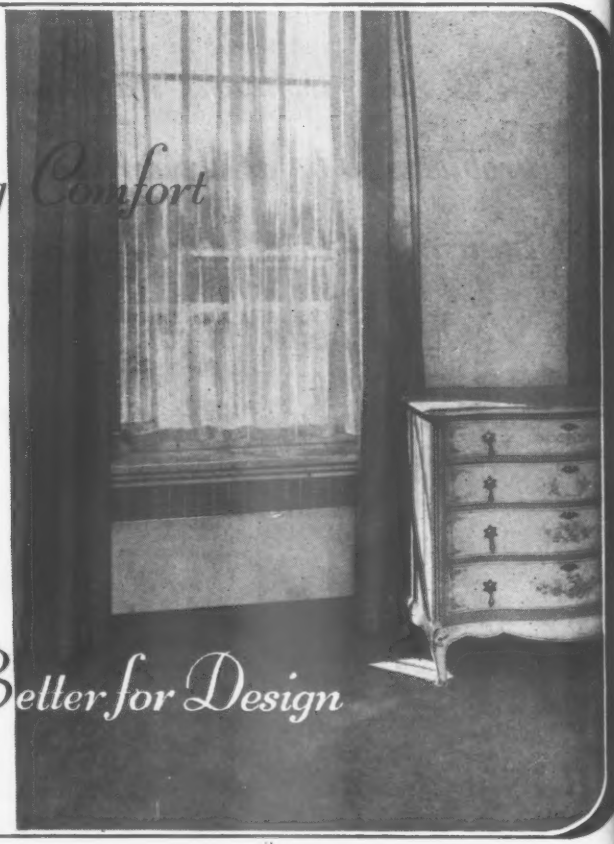

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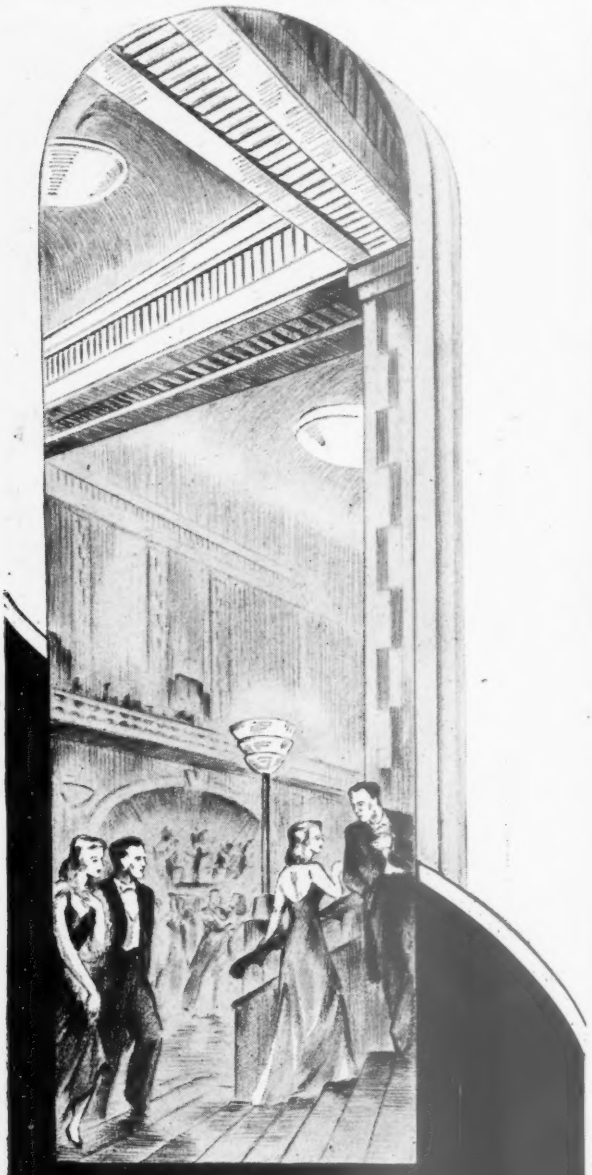

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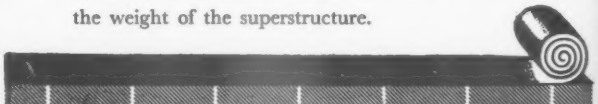

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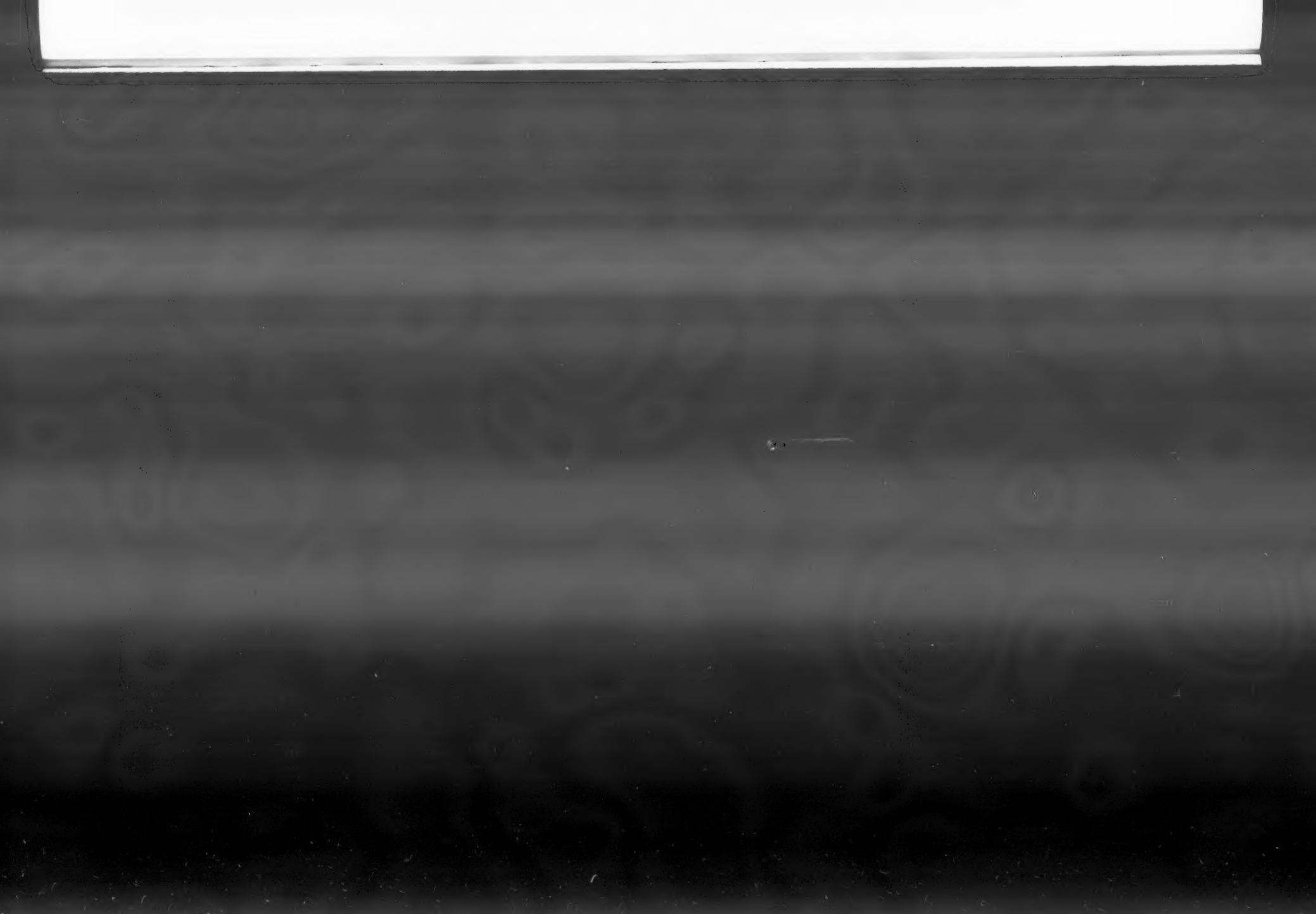

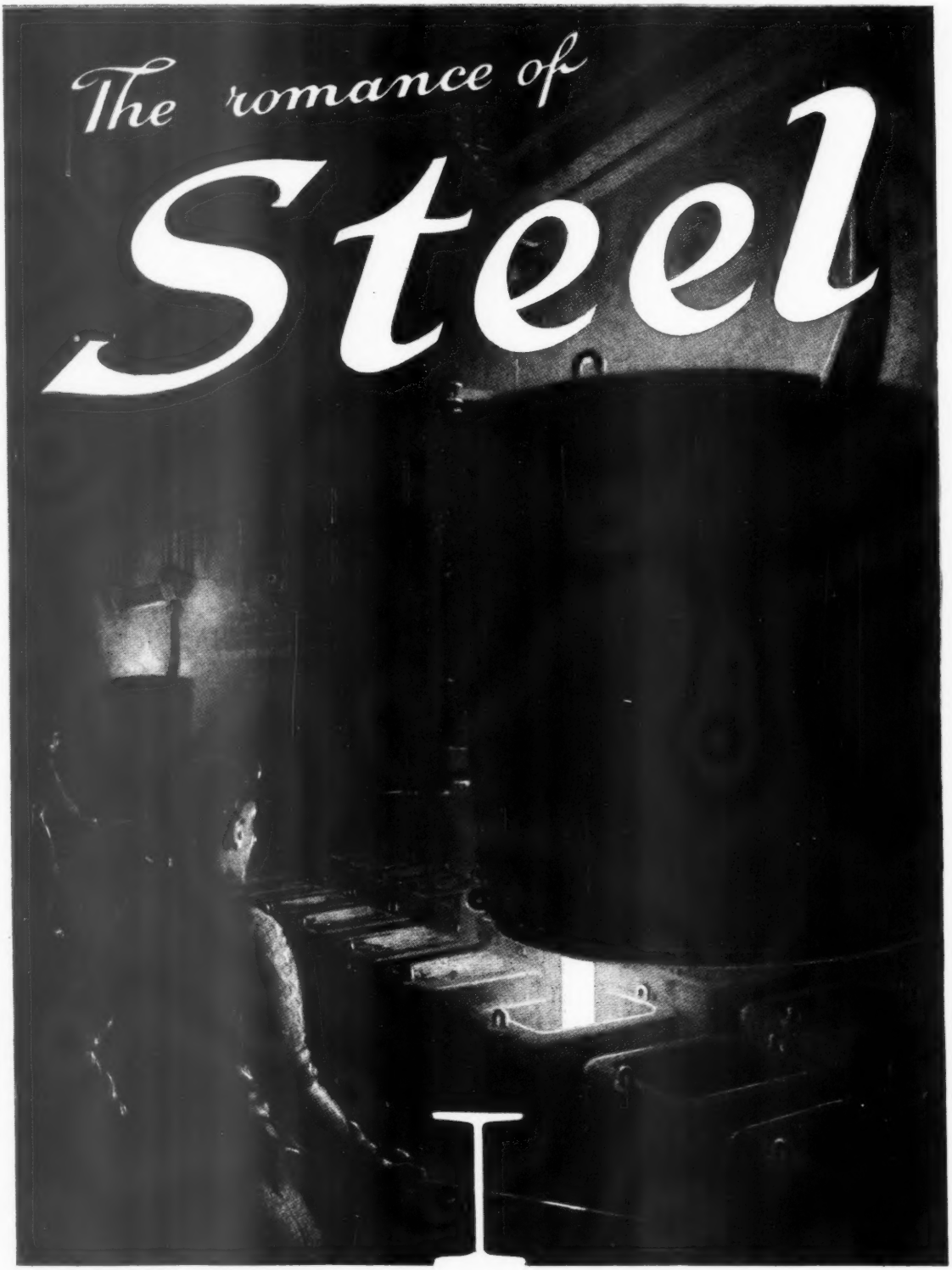

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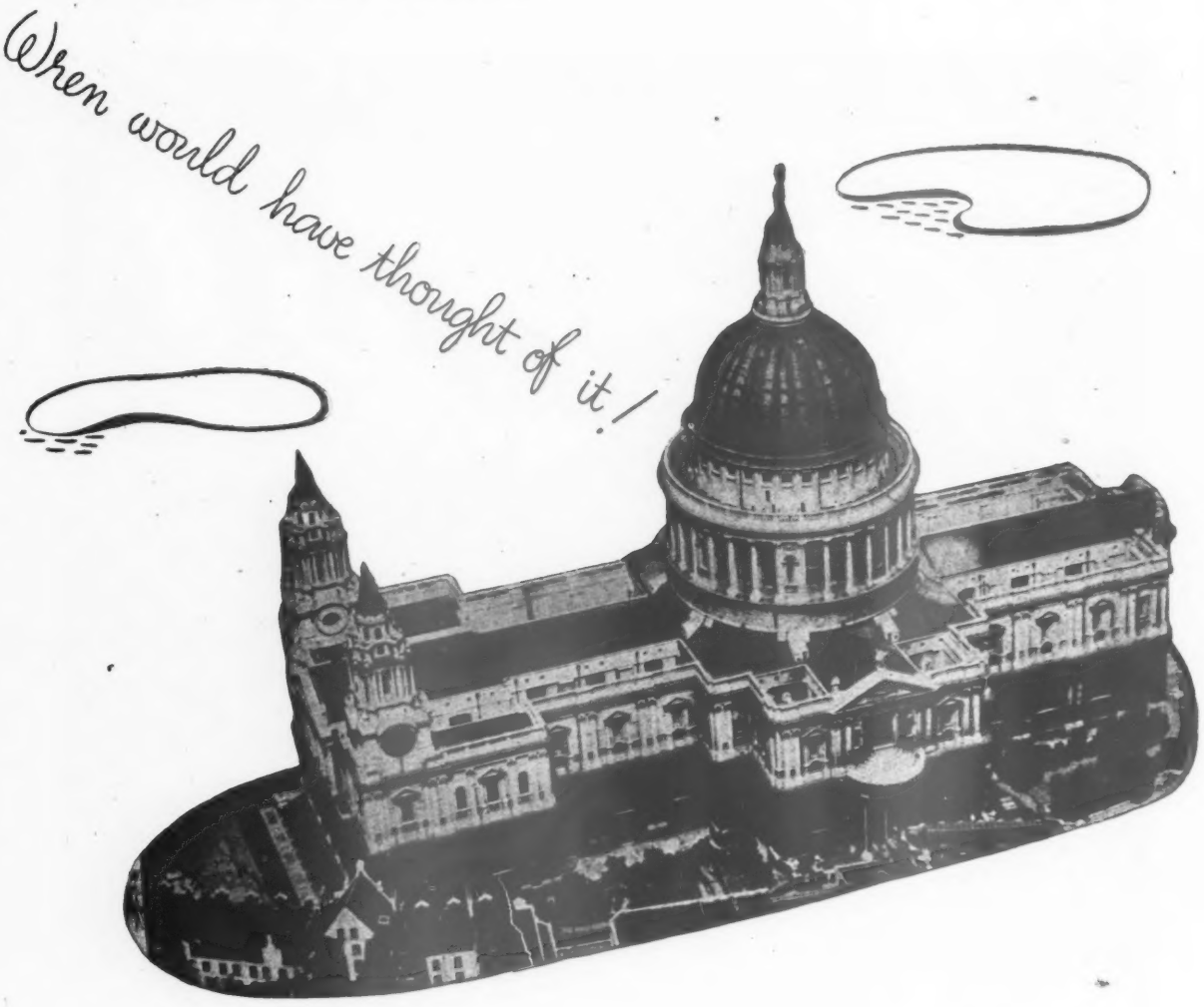

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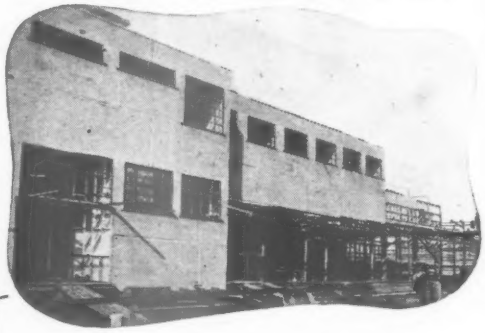

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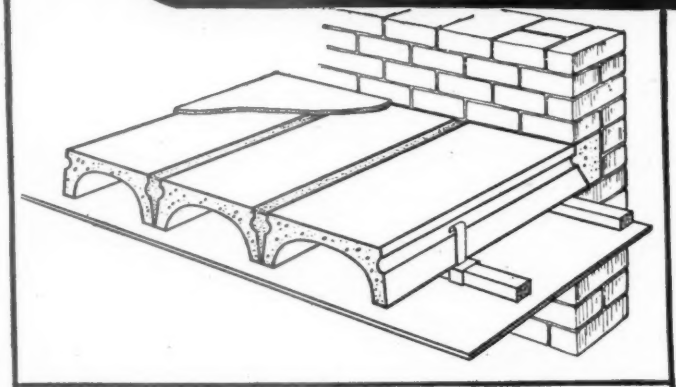

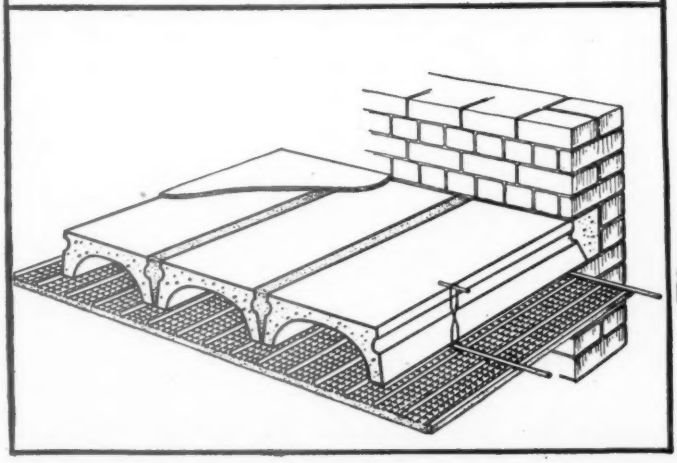

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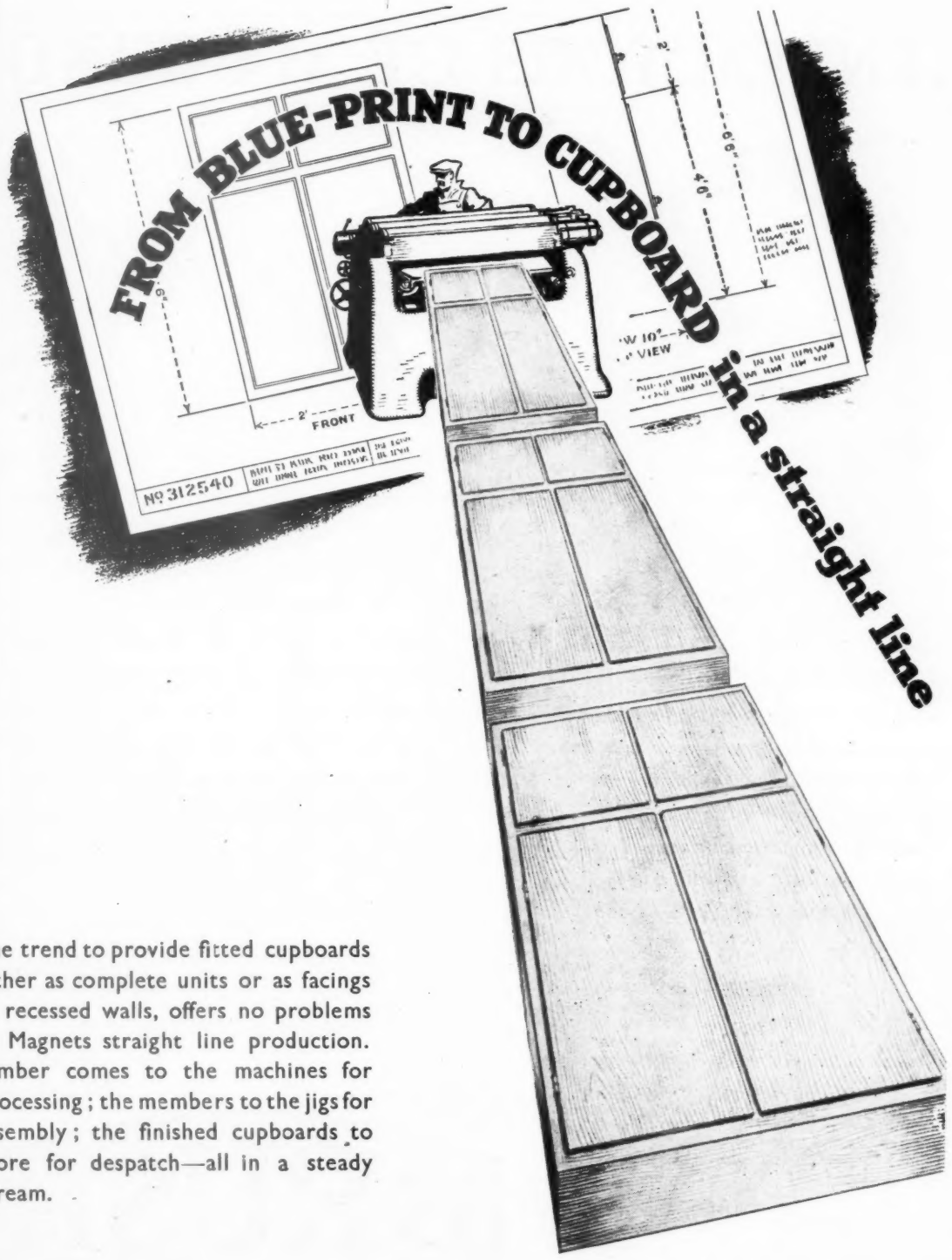

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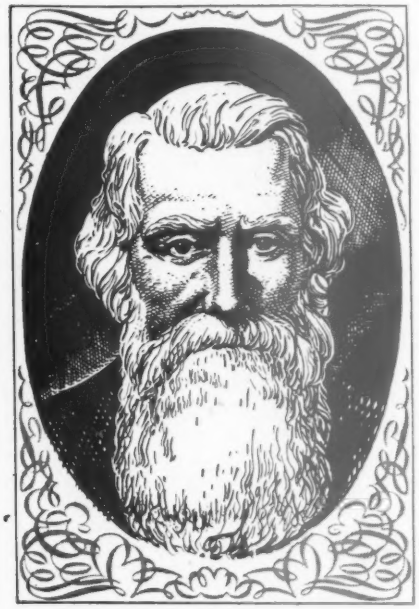

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MANY branches of industry have benefited from the accomplishments of Sir Joseph Wilson Swan, but those which his research and original application have advanced most directly are chemistry, photography and electricity. To electrical engineers he is probably best known through his connection with the development of the carbon filament lamp. He invented the cellular surfaced lead plate for storage batteries and added greatly to the knowledge of electro-deposition of metals, and devised apparatus for measuring electric currents.

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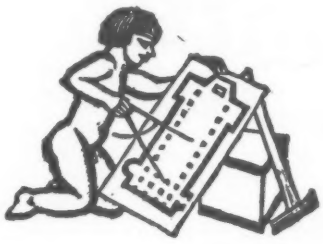
In common with every other periodical this JOURNAL *is rationed to a small part of its peacetime needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents 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 AUGUST SEPTEMBER AND OCTOBER

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.

AYLESBURY. *When We Build Again.* (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) SEPT. 4-8
Town and Country Planning Association Conference. SEPT. 6

BUXTON. *When We Build Again.* Exhibition and Film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) OCT. 14-21

CARDIFF. *When We Build Again.* Exhibition and film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) SEPT. 16-23

CARLISLE. *Living in the Country.* Exhibition. (Sponsor, HC.) AUG. 24-SEPT. 2.

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

CLECKHEATON. *Homes to Live In.* Exhibition. At the Central Library. Guide lecturer, Miss Ivor Jones. (Sponsor, BIAE). AUG. 17-26

DURHAM.—*The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA). OCT. 4-18

GREENFORD. *When We Build Again.* Exhibition. Speaker, Miss E. E. Halton. At 8 p.m. on September 14. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) SEPT. 14-16

GUILDFORD. *Rebuilding Britain.* Exhibition. At Stoke Park Technical College. (Sponsor, CEMA.) AUG. 17-19

LONDON. *American Housing in War and Peace Exhibition.* At the RIBA, 66, Portland Place, W.1. The exhibition, prepared by the Museum of Modern Art in New York, brought here by the US Office of War Information at the request of the Council of the RIBA, tells the story of American housing before and during the war. Photographs, diagrams and text show the work of the US Government Housing Agencies and private organizations in the various fields of housing in cities and in rural areas. The exhibition demonstrates the high quality of the dwellings erected, the new materials and new methods of construction that have been used in wartime building. Many of the solutions and experiments are relevant to British post-war problems of providing housing for temporary occupation while permanent houses are going up. Pictures of several large schemes of permanent town building completed before the war and largely inspired by legislation and planning in Britain are also included. The designer of the exhibition at the Museum of Modern Art is Mrs. Mary Cooke, who worked for government housing authorities in Washington after her return in 1935 from Britain, where she worked with the architectural firm Tecton. AUG. 17-26

What is Modern Architecture? Public discussion. At the RIBA, 66, Portland Place, W.1. Sir Charles Reilly, honorary member of MARS Group, will preside and sum up. (Sponsor, MARS Group.) 6.30 p.m. (Cancelled, see page 117.) AUG. 21

Judith Ledeboer. *Design for Dwellings.* At 2, Savoy Hill, W.C.2. Chairman, Professor Patrick Abercrombie. (Sponsor, TCPA). 1.15 p.m. SEPT. 7

John Charrington. *The Place of Solid Fuel in Town and Country Planning.* At 2, Savoy Hill, W.C.2. (Sponsor, TCPA.) 1.15 p.m. SEPT. 21

Sir Albert Howard. *Fresh Food and Town Planning.* At 2, Savoy Hill, W.C.2. Chairman, Lord Portsmouth. (Sponsor, TCPA.) 1.15 p.m. OCT. 19

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

NORFOLK. *Your Inheritance.* Exhibition. (Sponsor, HC.) AUG. 17-SEPT. 30

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

STOCKPORT. *When We Build Again.* Exhibition. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) AUG. 19-26

STRETFORD, MANCHESTER. *When We Build Again.* Exhibition and film. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) SEPT. 30-OCT. 7

SUDBURY, SUFFOLK. *The English Town: Its Continuity and Development.* (Sponsor, TCPA.) SEPT. 21-30

SWADLINCOTE. *The English Town: Its Continuity and Development.* Exhibition. (Sponsor, TCPA.) OCT. 24-NOV. 8

TORQUAY. *When We Build Again.* Exhibition and Film. At the Gas Company Showrooms, 112, Union Street. (Sponsor, TCPA, in collaboration with Messrs. Cadbury Bros.) To be opened by The Mayor of Torquay (Councillor E. H. Sermon) at 2.30 p.m. on September 2. SEPT. 2-9

WAKEFIELD. *Recording Britain.* Exhibition at the Museum and Art Gallery. (Sponsor, CEMA.) AUG. 17-19

NEWS

THURSDAY, AUGUST 17, 1944
No. 2586. VOL. 100

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

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

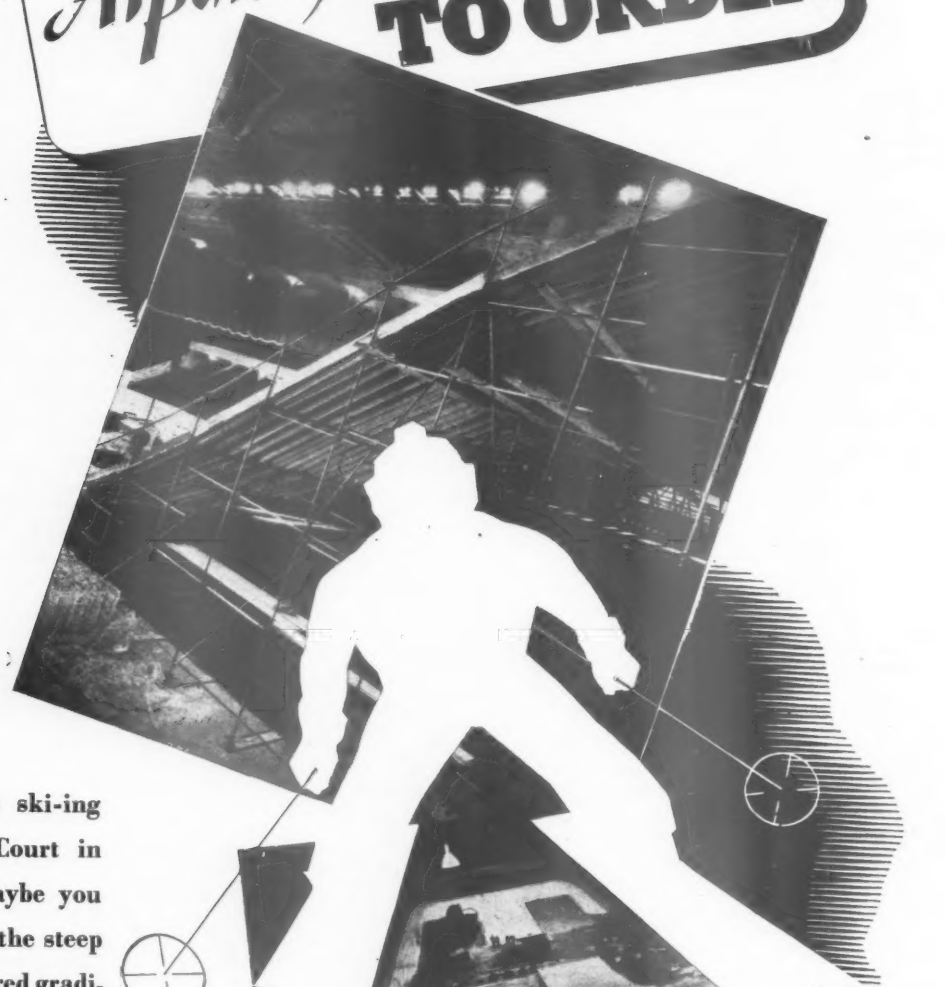
★★ *means important news, for reasons which may or may not be obvious.*

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

Here are the EXAMINATION RESULTS OF THE WELSH SCHOOL OF ARCHITECTURE.

The following awards have been made as a result of the Sessional Examinations at the Welsh School of Architecture, The Technical College, Cardiff. Professor L. B. Budden, M.A., F.R.I.B.A., and Professor R. A. Cordingley, M.A., F.R.I.B.A., were the External Examiners. Fifth Examination: For the Diploma awarded at the end of the Five Years' Full-time Day Course, with exemption from the RIBA Final Examination and qualifying for registration under the Architects' Registration Acts:—M. C. Williams and T. A. Freeston, Diploma. Fourth Examination: Miss J. E. J. Lewis, S. H. John, E. W. W. John, W. N. Chapple, P. N. Powell. Third Examination: For the Certificate awarded at the end of the Three Years' Full-time Day Course with exemption from the RIBA Intermediate Examination:—G. K. Porter, Certificate with Distinction; C. Griffiths, Miss E. Evans, D. H. Richards, Certificate. Second Examination: G. Corne, M. P. David, D. W. Fletcher, D. G. Grossey, J. G. Gwilliam, W. A. V. James, G. Robinson, H. J. Slade. First Examination: G. W. Bright, S. T. Burley, Miss D. F. Collcutt, Miss J. S. Colwill, Miss M. C. Davies, Miss E. H. Gwilliam, J. R. Gammon, H. A. D. Gibson, G. P. Griffin, J. Lishman, J. H. Phillips, R. H. Lewis, H. M. Hughes, A. W. Lamb, K. C. McCutcheon, R. S. Williams, Miss V. Mollin, J. D. Walters. Second Examination (Degree of B.Arch.): E. J. Kluge.

Alpine heights TO ORDER



There was ski-ing at Earls Court in 1938. Maybe you remember the steep snow-covered gradient down which the skiers hurtled and leapt at incredible speeds. The manufactured snow was none of our business . . . but our designers and our scaffolders built the great hill of steel. Tubular steel construction affords the widest adaptability, and for temporary jobs . . . it's UP—and DOWN AGAIN—in no time.

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BRANCHES AND DEPOTS THROUGHOUT THE COUNTRY.

From AN ARCHITECT'S *Commonplace Book*

HOW TO PACK A DRAWING. [*A letter from Ruskin to Rossetti. From* The Pre-Raphaelite Tragedy, *by William Gaunt (Jonathan Cape)*]. Pack up your drawing, finished or not, in the following manner :— 1. Sheet of *smoothest* possible drawing paper laid over the face and folded sharply at the edges over to the back, to keep drawing from possibility of friction. 2. Two sheets of pasteboard, same size as drawing, one on face, the other behind. 3. Sheet of not too coarse brown paper, entirely and firmly enclosing drawing and pasteboards. 4. Wooden board, a quarter of an inch thick, exact size of drawing, to be applied to the parcel—drawing to have its face to board. 5. Thickest possible brown paper firmly enclosing board, parcel and all, lightly corded, sealed and addressed to me : Calverley Hotel, Tunbridge Wells. *Paid per fast train.* Take it to London Bridge station yourself and be sure to say it is to go by fast train. And there is no fear.

Should Ludgate Hill Bridge be demolished to give A BETTER VIEW OF ST. PAUL'S CATHEDRAL?

Answering questions at the exhibition of drawings of the City of London Plan at the Guildhall, Mr. F. J. Forty, the City Engineer, said: From the æsthetic point of view the removal of the Ludgate Hill railway bridge will doubtless help to show St. Paul's Cathedral, but the curve of Ludgate Hill will make it difficult to see anything but the lower part of the Cathedral even were the bridge removed. The proposals of the committee will, however, give a better view than is now obtainable. The bridge cannot be sunk beneath the level of the street unless the approaches are dealt with. That will mean beginning the sinking at a long distance from the City and the cost will be reckoned in tens of millions of pounds. It is not for the Corporation to bear the cost of such a scheme. The present bridge will be too narrow if the scheme of the committee for a wider Ludgate Hill is adopted and another bridge will have to be built. (See A.J., Aug. 3, p. 76.)

The request by the Dean and Bishop for a public inquiry into the proposed erection of the LINCOLN POWER STATION is being supported by the City Council and the Friends of the Cathedral.

Speaking at a meeting of the Friends of the Cathedral, the Dean, the Very Rev. R. A. Mitchell (who made the request for a public inquiry in a letter to *The Times*), said: It is very natural that Friends of the Cathedral should take some interest in the question, but it will be most deplorable if the issue came to be regarded as a conflict between cathedral and city. There is nothing in the proposal which threatens to injure the cathedral or to disturb the tranquillity of those who dwell around it. Our view of the cathedral will not be obstructed, and unless we go out of our way to look for them we shall not see the cooling towers. The sole objection to this scheme is that it may seriously ruin and obstruct a peculiarly beautiful distant view of the city, not of the cathedral alone. I have looked across to the city from the other hill and have come to the conclusion that there can be in the length and breadth of this country few views which are more attractive. It therefore seems a pity to erect in the very forefront of this picture two enormous towers, 220 ft. in height, and each 100 ft. across at the top, and to place close to them chimneys more than 300 ft. in height. The resolution: "That the Friends of Lincoln Cathedral have heard with anxiety of the proposal to erect a new power station at Lincoln and appeal to the Minister of Town and Country Planning not to permit the proposal to be proceeded with until a public inquiry has been held," proposed by Sir Clement Newsum, was adopted.

Mounted in a mobile trailer, a new exhibition, YOUR PAPER GOES TO WAR, is to tour the country.

The exhibition, produced by the Waste Paper Recovery Association, was inaugurated by Mr. C. U. Peat, M.P., Joint Parliamentary Secretary to the Ministry of Supply, in Westminster. Introducing the exhibition to Members of Parliament, Mr. Peat thanked the Association, on behalf of the Ministry, for its magnificent work in the recovery of waste paper, and announced that 3,600,000 tons has been salvaged since the beginning of the war, from all sources. Paper has emerged, said Mr. Peat, from a material usually associated with newspapers, books, greetings cards, etc., to being one of our most important and, at the moment, most critical raw materials. It is now being consumed at the rate of 2,000 tons per day. Much of this consumption is irrecoverable. As an example: the Royal Air Force drop 200 tons of paper leaflets per month on enemy and occupied territory. The drop tanks fitted to fighter aircraft and jettisoned when empty are also made of paper. Mr. S. T. Garland, General Manager of the Association, outlined the scope and purpose of the exhibition, which is to go, not merely into the principal industrial areas, but into the factories themselves. He appealed to Members of Parliament to support the exhibition when the six-months' tour planned for it reached their territories. He concluded by presenting Mr. Peat with a souvenir of the exhibition in the shape of a paper plastic key to the trailer.

Mr. George Bernard Shaw has GIVEN HIS HOUSE at Ayot St. Lawrence, Hertfordshire, to the Nation.

After his death it will be maintained by the National Trust as a literary shrine, with so much of the contents, including furniture, books, and some of Mr. Shaw's MSS., as the committee of the Trust think will furnish the house appropriately and enhance its interest for visitors. The house was built about 40 years ago, and Mr. Shaw has occupied it since 1908. With two acres of ground, it stands on a corner site—which has already become Shaw's Corner on the Ordnance map—in the village of Ayot St. Lawrence. In the garden is the hut in which Mr. Shaw has done most of his writing in recent years.

We regret to record the death of MR. C. B. PEARSON, F.R.I.B.A., senior partner of C. B. Pearson and Son, of Lancaster.

Born in 1876, he was articled to the late E. Howard Dawson, ARIBA, of Lancaster, attended the RA School for three years, set up in private practice in 1904, and entered partnership with his son, Mr. Charles E. Pearson, FRIBA, in 1931. Among his principal works were Ramsey Grammar School, Isle of Man; Llandudno Hospital, Scunthorpe Civic Centre (in abeyance), all of which were won in open competition; Penwortham Junior School, Preston; Ulverston, Lancs, Emergency Hospital, and the rebuilding of the Central Pier and Pavilion at Morecambe. He was a member of the Lancaster District Regional Town Planning Committee, valuer to the Halifax Building Society, and quantity surveyor to various public authorities. In 1906 he won the Tite Prize (medal of merit) and in 1921 the Godwin Bursar. He exhibited at the RA on nineteen occasions.

It is to be hoped that all schemes, similar to those for the DURHAM AND LINCOLN POWER STATIONS will receive full examination from the æsthetic standpoint in their early stages.

This opinion is expressed by Lord Esher, Chairman of the Society for the Protection of Ancient Buildings. In a letter to *The Times*, Lord Esher says: This society welcomes the timely publicity given to the proposals threatening the amenities and prospects of such cities as Durham and Lincoln, but in its concern for the desire to protect ancient buildings from incongruous neighbours it has no desire to stand in the way of advancement of human progress. Just as it believes that the best way to preserve an individual building is to make it adaptable to modern needs, while maintaining its historic interest and character, so with the ancient city, to which electricity must come as a boon with its great blessings of cleanliness and adaptability resulting in healthy life, smoke abatement, and so forth. The society does not wish to criticize the form of such buildings as electric cooling towers which are straightforward expressions of the purpose they serve. It does, however, protest that by close proximity to mediæval buildings a disastrous contrast in scale is produced. Similarly an electric power station may, with due architectural consideration, be an agreeable and imposing building, as is demonstrated at Battersea, but had this been placed in juxtaposition to St. Paul's or Westminster Abbey, the whole sense of scale of the latter buildings would have been destroyed. With modern high power

Design for Music

Even in war we are allowed our leave from fighting or working, so here is an apt picture to symbolize this holiday season—a charmingly informal little demountable band-stand designed by Erik Glemme for the Stockholm municipality. The woodwork is of pine and the fabric is canvas. Not a monument, perhaps, but it's architecture.

transmission and suitably placed transforming stations, the position of the actual power station is rendered very flexible, particularly as the use of cooling towers dispenses even with the necessity for a riverside situation. The whole question therefore resolves into suitable site-planning, and it is to be hoped that this agitation will bring the strong public feeling on the matter to the notice of the Ministry of Town and Country Planning, to whom the nation looks for the preservation and protection of its amenities. It is also hoped that all similar schemes will receive full examination from the æsthetic standpoint in their early stages by the Ministry, and that our superb artistic inheritance will not have to be saved at the last moment by recourse to letters in your columns.

The public meeting called by the MARS Group for August 21 at the RIBA to discuss WHAT IS MODERN ARCHITECTURE? with Sir Charles Reilly in the chair has been POSTPONED till the autumn.

Under the auspices of the Town Planning Institute, the TOWN AND COUNTRY PLANNING SUMMER SCHOOL will be held at the University of St. Andrews from September 18 to 25.

The objects of the school are to provide an opportunity, during a brief period each summer, for the discussion of principles and methods of town and country planning and kindred subjects; to enable those engaged in the practice of town and country planning to exchange views regarding their several experiences of its administration and application; and generally to promote education in all matters relating to the science and art of planning in town and country. Residential facilities are available in the University Halls, but the accommodation is limited to 210. Applications can therefore only be accepted from members wishing to stay for the full period of the School, but those able to make their own arrangements for accommodation will, of course, be welcome for any period of the School they wish to attend. Because of restricted accommodation it will be necessary to limit the number of local authority representatives to not more than two bookings. The fee for membership of the School is £2 2s. for the full week, or 10s. 6d. per day. These fees include admission to all Sessions covered and a free copy of the report of the proceedings when published. The charge for those staying in the Halls of Residence will be 12s. 6d. per day. Gratuities will be met by a 5 per cent. cover charge on all fees. The inclusive charge for those staying in the Hall is therefore £6 16s. The programme this year is being planned on the same general lines as that in 1943, with an emphasis on the more detailed aspects of town and country planning. It is proposed to hold a small exhibition of maps and photographs of planning interest and members who have examples of work which may be of general interest to the School are asked to communicate with the Hon. General Secretary, Town and Country Planning Summer School, Tilbury House, Petty France, London, S.W.1.

UNDERNEATH FINANCE

IN the inter-war years private enterprise provided 3 of every 4 new houses with profit to those who financed and built them and reasonable satisfaction to the large majority of tenants and purchasers. Those who gained a living from this great activity—which produced a ¼ million houses a year for this last 6 pre-war years—want to do the same after this war, and there is every reason why they should if it can be ensured that the houses they provide will be fair value on fair terms for all who live in them. The circumspect report* of the Ministry of Health Committee implies that financiers and builders of private enterprise housing accept the principle of public safeguards, but, reading between the lines of a document greatly concerned with how much subsidy for how much safeguard, the impression is gained that private enterprise is seriously worried by more fundamental questions. And it has cause to be.

Two centuries ago a house was a heavy weatherproof casing, devoid of all equipment, which with modest attention to repair could be occupied without alteration for several generations. In 50 years' time a house may be a collection of short-lived and expensive equipment, clothed with a thin skin, which is wholly or partly scrapped every 5 or 7 years. The public's idea of a house to-day is something about halfway between these two alternatives, but there are signs that the rate of change of that idea is accelerating quickly.

Second, it will be necessary that a large proportion of the houses built during the first post-war years should be available for letting. Even in the most settled conditions, the provision of houses for letting to families of moderate or small income is a more risky financial venture than provision for sale, and during years of high building costs, followed by a sharp decline, it is a particularly hazardous operation. 1945-50 will be years of this kind : yet private enterprise must take part in house building during those years, and even in the first two years, if it hopes to operate thereafter on anything like its inter-war scale. How is it going to do it? *Private Enterprise Housing* does not answer this extremely difficult question. A full answer cannot be given by anyone at the present time. But the report, in the JOURNAL's view, does not suggest the right places in which to look for an answer. It concentrates on finance, and suggests that the short-term financial difficulties of the high cost period are the core of the problem. Finance is certainly one worry but there is also another—the social and technical, which can be summed up in the question: What will the public think of Churchill Houses? It is certain that these houses will create a demand for higher standards of equipment than were fulfilled in any pre-war house costing less than £1,000. But will they also remove

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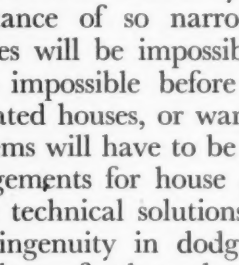
* *Private Enterprise Housing*—Report of the Private Enterprise Sub-Committee of the Central Housing Advisory Committee of the Ministry of Health, HMSO. Price 1s.

current prejudice against prefabricated houses or lead to a general preference for renting rather than buying? If the prejudice vanishes, private enterprise must, if it is to hold its own, study and master new problems which are technical first and financial second. And even if the prejudice does not vanish, private enterprise will still face the technical problem of providing much better equipment and a higher standard of construction in " semi-permanent " houses which will be within the financial reach of the ordinary man.

In the inter-war years the building societies played the leading part in the development of private enterprise housing. It was, however, a strictly financial part. When the technicians had fumbled things into some sort of order, the building societies came in and any outstanding technical liabilities were borne by the builder or the purchaser. The acceptance of so narrow a responsibility by the building societies will be impossible after the war, and was beginning to be impossible before it. Whether the public want prefabricated houses, or want normal houses to let, new technical problems will have to be solved, and sound long-term financial arrangements for house production will depend on the merit of the technical solutions and not on guarantees, subsidies or legal ingenuity in dodging liability. The building societies have large funds and great energy. The JOURNAL believes that they will also have the foresight to recognize that in this time of transition technique is too serious a matter to be left to the technicians, that they will have to take a direct interest themselves, using all existing research organizations and, where necessary, paying for research and even for large-scale experiments of their own.



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NOTES & TOPICS

WAY FOR THE CHAIR

Mr. R. W. Ford was in training in an architect's office until he had the misfortune to develop a complaint which tied him permanently to an invalid chair. Undaunted he continues as far as he is able to work at his chosen profession and sends me some notes of which those concerned with future building might well heed for the benefit of an unfortunate and, as a result of war, a growing minority—" those men and women, who, because of a physical disability, can only get about in wheel-chairs, pushed by an attendant."

" Because the needs of that minority," he writes, " are not generally appreciated, much unnecessary petty annoyance is caused to people who, every thoughtful person will admit, should be spared as much as possible. Almost every other group is claiming a hearing on post-war planning, so now seems an opportune moment for people like myself to try to make themselves heard before the clamour increases any more. What is our complaint? Chiefly this: that we find ourselves cut off from much enjoyment and from many chances of securing a foothold in business life simply because a few easily-provided facilities are lacking."

*

" What recommendations have we to bring forward? (*a*) Above all, in public halls, churches, cinemas and theatres with fixed seats an occasional bay should be left at the end of a row next to a gangway or aisle, in which a wheel-chair can be parked out of people's way. If an exit or entrance is nearby so much the better. Figure 1 shows one of the most popular types of invalid chair. It is also one of the largest—except bath-chairs, which are less and less used to-day. From the dimensions given, it can be deducted what floor and manœuvre space to allow. Where there is not much room, the handle can be folded as shown to save 5 inches at the back, and the footrest will retract completely beneath the chassis, so reducing the length forward by another 17 inches or so. The chair is of metal strip construction, and can be folded flat. It can be lifted in that position by one man. The tyres are rubber and do not permanently mark the flooring in any way."

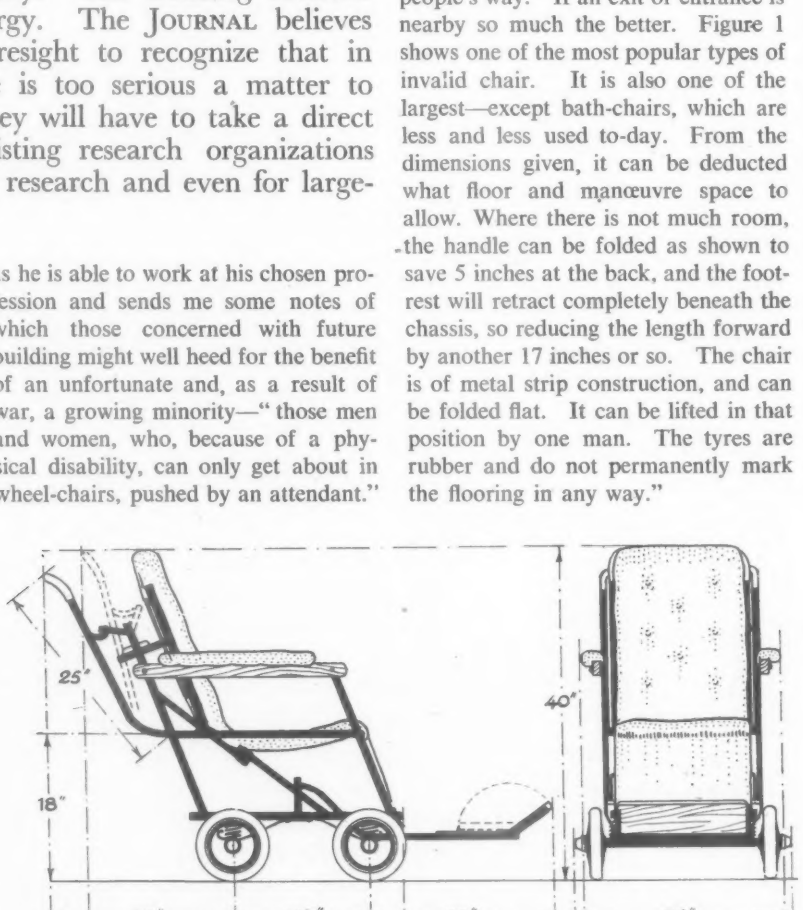


Figure 1

Figure 2

"(*b*) Lifts should be large enough to take the chair with handle and footrest retracted. (*c*) Series of steps or curbs should have treads wide enough to accommodate both front and rear wheels together, as in Figure 2. Such progress is easy. Figure 3 shows steps

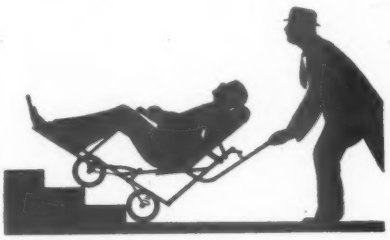


Figure 3

of the type which are the most commonly encountered obstacle. It may be possible to get the front wheels on the second step, but the third step then prevents the back wheels from being lifted on to the first, so that the position is checkmate. The chair cannot be taken up backwards unless there are at least two attendants, one of whom must lift the front bodily by the wheels, not by the footrest, or the chair will begin to fold up, with the occupant in it. Where wide steps cannot be provided, there should be ramps. A single step of quite considerable depth is no obstacle, but two steps, unless conforming to the specification of width given above, are usually as insuperable as three. A rail deeper than about 4 inches, as at the bottom of a wicket let into a larger door, is also very difficult, if not impossible, to negotiate."

*

"(*d*) Wicket-gates in fences should have a long runway so that the chair can be backed in and the gate allowed to swing over clear. 6 ft. 6 in. by 4 ft. 6 in. are the minimum dimensions that should be allowed for a fully extended chair, with space at the back for the attendant to manœuvre it. (*e*) Bollards and gateposts are a frequent source of annoyance because there is insufficient clearance. The hub-caps are the projections most likely to cause trouble, as they do in confined spaces like passages, especially at staircase and other corners, or against built-in furniture and fittings. At least 28 inches should be allowed for width."

*

"(*f*) The same width should be the very least for paths defined between two curbs or other boundaries which cannot be encroached upon. (*g*) Where footbridges, etc., are slatted transversely, as they sometimes are to afford purchase on a steep incline, 6-inch gaps should be left in the slats so that there is a consecutive wheel-track of 20 inches centre to centre. (*h*) To deter motor cars, but not chairs, erect a single barrier just below breast height. The chair is pushed forward until the bar touches the occupant. The attendant then depresses the back sufficiently to get the invalid's head under the bar, pushes forward in that position until it is clear, and then gets under himself."

*

"If the dimensions given are followed most other types of four-wheeled chair will be accommodated. Similar ideas might also be worked out to make less harassing the lives of mothers with perambulators, which conveyances we hope will increase at a greater rate than the ones I have been dealing with here."

POETS' CORNER

TOWN AND COUNTRY SHAMMING
or
HOMES FOR NEROS.

Rome is burning,
Rome is burning,
Falling are the Monuments,
The Temple of the Squire
And the Forum of the Few,
The Columns of the Shire
And our old Imperial View,
But still I'm at my fiddling
The good old tune of Property,
The Sacred Song of Property,
There's nothing else to do.

Rome is burning,
Rome is burning,
Save my marble palaces,
The Domus Speculatus
And the Casa Profitia,
The Murus Exploitatus
And the Villa Financia,
Then listen to my fiddling
The good old tune of Property,
The Sacred Song of Property,
There's nothing else to hear.

EDWARD LEWIS

ASTRAGAL

LETTERS

G. B. J. Athoe
(*Secretary IAAS*)

P. J. Marshall, Capt., R.E.
(*General Secretary, SAO*)

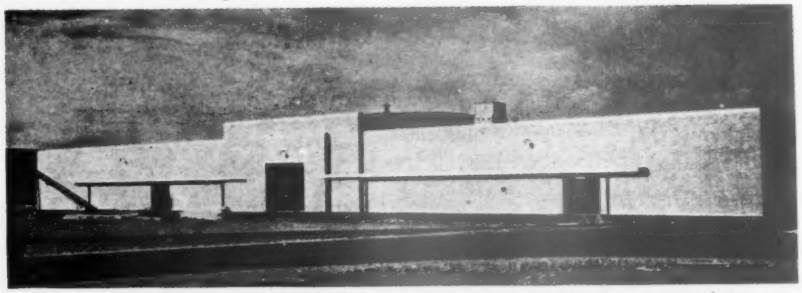
Farm Buildings

SIR,—I would like to thank you for your leader in the JOURNAL and also for the very interesting and informative article by Mr. Gerhard Rosenberg, emphasizing the supreme importance of agriculture and especially the farm buildings side of it. If one uses the term farm buildings to include also farmhouses and the cottages of the workers, then, as my Association pointed out in its reconstruction report, these and agriculture generally must occupy a leading place in our post-war plans. Your remarks on the national food supply in this connection are very timely and ought to be taken to heart in the proper quarters.

It has been authoritatively stated recently that it will be necessary to spend several millions of pounds on modernizing and new construction of farm buildings; and although, as you very truly point out, the architect has figured but poorly of late in the design of such buildings, there should be plenty of scope for his labours in this field. I believe the Ministry of Agriculture and many of the County Executive Committees have long given the subject the serious attention it merits, and architects who have any special knowledge and experience in this line should be made known to the Committees and possibly other bodies such as the NFU as soon as possible.

Your reference to Mr. J. Bailey Denton's book on "The Farm Homesteads of England" published in 1865, has led me again to look up some of the farm building books in our library. The earliest we have dates back to 1827, and, as was customary in those days, it has a very elaborate and detailed title page which includes among many other things: "Designs for Agricultural Buildings, including Labourers' Cottages, Farm-houses and Out-Offices, conveniently arranged around Fold yards, and adapted to farms of various size-

WINDOWLESS ORDNANCE PLANT



This machine shop building of a USA munitions plant is entirely windowless and air conditioned, the reasons being the heat of its southern location, the 24-hour operation of the plant making artificial light saving a small factor, and the need for efficient and high quality workmanship. Six miles of fluorescent tubes provide high-intensity lighting. Air outlets are controlled in groups of eight, with twelve zones. The facade, unrelieved by a single window, is 300 ft. long. (*From* THE ARCHITECTURAL RECORD.)

and descriptions: to which are prefixed An Essay on the Improvement of the Condition of Cottagers, etc., etc., by the late Charles Waistell, Esq., Chairman of the Committee of Agriculture of the Society of Arts, with Joseph Jopling as Architect and Editor." Another valuable old book on our shelves is Loudon's "Encyclopædia of Cottage, Farm and Villa Architecture," of which we have the second edition 1846, the date of the first edition being 1833. This is truly a monumental and exhaustive work of more than 1,300 pages, covering a very wide and varied range, including an arrangement of "eighty dwellings of the humblest class, placed together, with a view of being "heated by one common fire, and enjoying other benefits, on the co-operative system," which sounds interesting in connection with modern ideas on district heating. It has also much to say about farm-house and other indoor fittings and furniture, as well as kilns, malt-houses, cider-houses, and country inns.

But I suppose farm buildings to-day must be strictly limited to housing the animals, implements, etc., excluding cottages and farmhouses, or even "portable cottages for the use of emigrants" described in Loudon. The little books of more modern times, such as those of McHardy and others, are thus limited, and are no doubt very helpful so far as they go; but there is doubtless plenty of room for new ideas and designs. Personally I think the wider treatment of the subject to include cottages and cider-presses and perhaps even some furniture is preferable, though it runs counter to modern specialization ideas. There would then be less risk of the animals being better housed than human beings, as is often the case.

G. B. J. ATHOE,
Secretary Incorporated,
Association of Architects and Surveyors

London.

Dartington Hall Competition

[*The following letter has been sent to the RIBA by Capt. P. J. Marshall, RE, General Secretary of The Service Architects' Organization*

SIR,—This organization is extremely disappointed that the RIBA was unable to arrange for postponement of the closing date for the above Competition. On behalf of the hundreds of architects and students in the Services overseas it feels very strongly that earlier notice should have been given through Service Organizations such as the SAO with special facilities to enable them to compete. Copies of the Conditions were sent by us to all Groups and the OSAC as soon as they were received, through normal Army channels, but it is well known that these channels are extremely slow sometimes, and in this case prevented many competitors from submitting designs within the time limit.

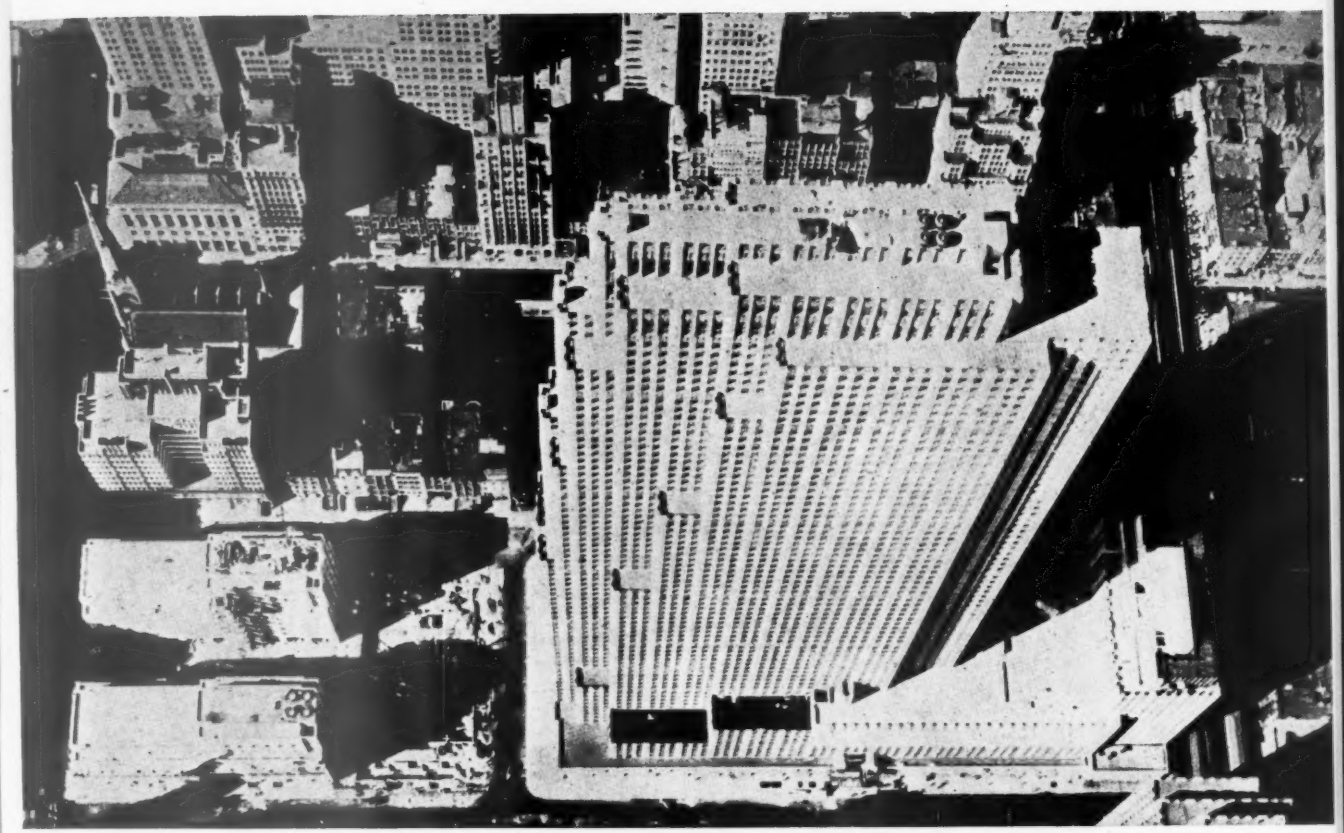
We are informed by our 256 Sub-Area Group that another Competition of a similar type has been arranged by the Timber Development Association. Will you please forward the Conditions by AIR to the above address for onward transmission to members, and also arrange for a postponement of the closing date for at least two months. This Organization is willing to act as a collecting centre for designs, if necessary.

Will you also please forward by AIR conditions of any other competitions, such as that for the London Airport, which some of our Groups are proposing to enter for.

P. J. MARSHALL,
General Secretary,
Service Architects' Organization.

★This supplement started out with a series of articles on the groundwork of physical planning. Now that chances of realization are drawing near, it will try to record notable developments in theory and practice so that they may be assessed in relation not only to other aspects of physical planning but to the whole picture of national reconstruction.

PHYSICAL PLANNING SUPPLEMENT



Above is an air view showing the central buildings of the Rockefeller Centre, New York in 1935. In Manhattan the assessed value of taxable properties per net usable acre is over 6 times the city average, almost 300 times the Queens, 19 times the Bronx and 11 times the value per acre in Brooklyn. In this case ingenuity and block planning have overcome many of the disadvantages of such high density which are evident in the surrounding blocks. Although high assessed land values in Britain have not resulted in the same phenomena, the problem they present to planners is equally acute. As the author of the following article points out, it is only by establishing accurate criteria, based upon full surveys of the causes leading to the present position, that the problem of land values will be solved

LAND VALUES

by Henry J. Crone

Part One

It would not be putting it too highly to say that present physical planning activity will precondition the whole future of Britain. It is surprising therefore that the majority of planning surveys and advisory schemes ignore, or take little account of, the vexed problem of land values. This is the point at which the problems of physical planning and political economy come together. Neither the problems of the economist nor those of the planner can be solved in isolation.

Many responsible people speak about land values in such a way that untried theories are made to appear as practical solutions. In this way the general public develop a wrong idea as to the complexity of the problem and readily follow the political agitators by whom any who question these theories are immediately seen as reactionary.

The Uthwatt Report constitutes one of the best attempts at a solution of the value problem. It is, however, only an instrument for the planner to use. It is still incumbent on him to acknowledge the existence of values, to comprehend them and to tackle the problem in a realistic manner.

Stated simply, the issue confronting the planner is that the progressive development of centuries has produced a system of land tenure and use which gives varied values to the plots into which the land is divided. Development has wedded buildings and land in such a way that their values are interdependent. These values have been created by individual development which would have been pointless but for the community, yet they are private property and neither law nor custom support any other view.

the planner's problem

Whatever action a planner proposes toward reorganizing the existing land use, he is bound to cause values to shift from one parcel to another, and to create new values where none existed before. He is bound, also, so to canalize the life of the community that some values will increase while others decrease. Some owners will merit compensation, some will be liable to repay some or all of the increased value of their property, while the community will be bound to compensate some and recover betterment from other owners.

Existing Buildings

Above is a typical area in one of Britain's larger cities. It shows the area and the building plots into which it is sub-divided. The majority of these are occupied by four-storied blocks of flats. There are eleven houses to a block near the main road, reducing to eight houses to a block at the western end

The situation is further complicated by the following facts:

1. Land values are not fixed according to a rigid standard, but are a matter of opinion, since the future of any parcel of land is entirely hypothetical, and a variation in use may affect value very considerably.
2. To prove that land has been bettered is not easy at the time. Only after a period of years is betterment proved by increased returns. Even then extraneous factors may, or may not, have contributed to the increase in value.
3. The complicated mixture of ownerships, including freehold, leasehold and other interests, multiplies the difficulties which surround compensation and betterment, since the owner of each interest can claim that the value of his interest is different in nature from the others.
4. Even allowing for the experience and reliability of the Inland Revenue Valuation Department and the local experience of assessors and official arbiters, there is no last word on values, which can never really be, since land values are mixed up with personal views, existing and potential uses and a number of other unpredictable factors.

Add to these difficulties the fact that the old school of valuers has made something of a mystery of its craft and has kept its data secreted. It is evident that solving this problem is a Herculean task.

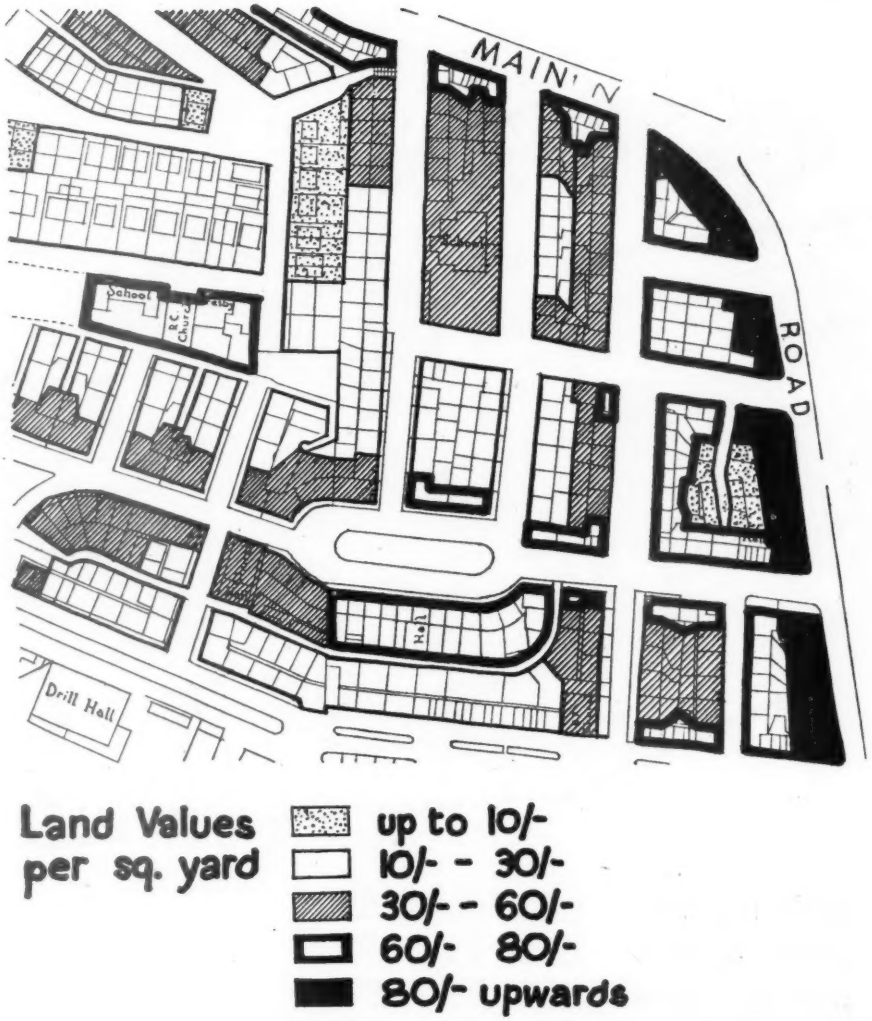
fact-finding is the solution

To put forward pat solutions may be amusing, but all of them break down on one or all of the issues enumerated above. If a real solution is to be found, it must be along the painstaking way by which other problems of planning have been solved. Criteria must be established, recorded graphically, and seen in relation to all the other factors in the survey of the area.

The criteria divide into two groups, existing and future. The former is the data relative to existing land use, the latter, which is dealt with in detail along with the social aspects of value, concerns data showing what will happen when the area is replanned.

In considering the existing pattern of values the following are the basic factors for comparison:—

1. Rate per super yard for land alone.
2. Rate per super yard for land and buildings combined.
3. Rate per foot run of frontage for commercial and industrial sites.
4. Rate per cubic foot for other buildings.
5. Ratio of total value to population for residential areas shown as a value per head.



Above is the same area with only the land values indicated. A real solution to the problem of land values will only be found along the painstaking way by which other problems of planning have been solved. A thorough, graphic survey must be made and criteria established.

The aims in establishing and plotting this data for the area of a planning scheme are:—

1. To ensure that all concerned with the preparation of plans shall see, clearly and immediately, what effect their proposals will have on land values. This in turn will show what opposition is likely, from where it will come and how far their plans can be revised to meet, or overcome, such opposition.
2. To establish the pattern of present values, to analyse how each value has arisen and to see, therefore, whether such values are anti-social or not.
3. To establish the trends in value and to estimate how these may be affected by planning.
4. To narrow down the wide field over which floating value can be claimed at present to a minimum number of sites where values are likely to accrue.
5. To provide a basis for the ultimate stabilization of the wide fluctuations at present occurring between the various value opinions for certain plots of land and buildings.

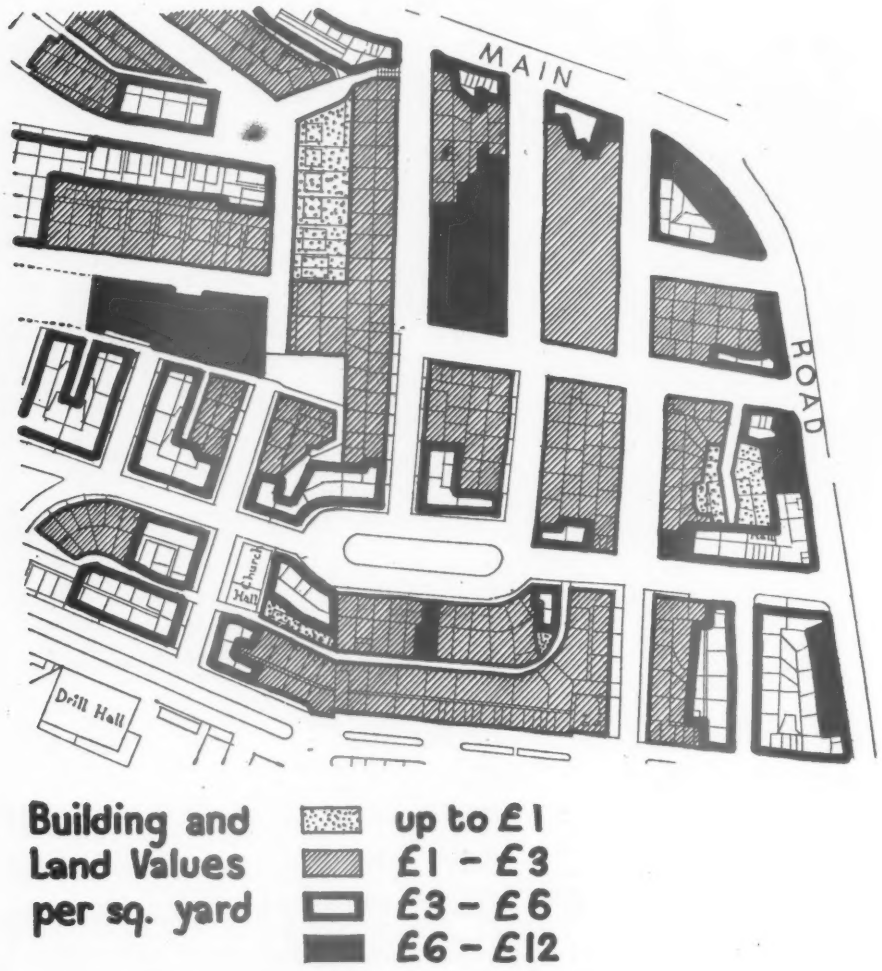
In recording and analysing such data there are pitfalls. Some of these are technical and can be overcome if the work is entrusted to experienced valuers. Others, however, are caused by different theories of political economy which lead to a biased interpretation of the facts. These latter must be avoided at all costs if the research is to bear the stamp of authenticity.

pitfalls for planners

The danger to most physical planners is that their vision is related to certain political ideologies. This is inevitable if the vision is to be worthwhile. The insistence of that vision, however, tends to cloud their realization of what exists around them and makes it difficult for them to accept the existence of land values where these obstruct their plans. Such obstructions can be removed, but only when they are removed according to true evolutionary development will such removal leave the plans unharmed.

Another pitfall lies in misinterpretation of the phrase that value "is a matter of opinion." This does not mean any old opinion. It means that certain land may have various values according to the viewpoint of the valuer. As an example: where a small residential estate of 50 acres is in the vicinity of a city, and has an overlarge mansion house and unkept grounds, its values as (*a*) a residence, (*b*) a private school, (*c*) for development as an exclusive housing estate, are widely divergent, but all are real in the sense that if the property is put to that particular use, it will yield a rental return which will justify a certain capital investment. Such uses are all quite justifiable, but no one piece of land can enjoy them all, and while all owners claim the right to expect the highest value, only some will in actual fact receive it.

To adopt the attitude that none of these values exist,



Above is the same area with the combined value of land and buildings indicated, both of which are expressed as a price per square yard. All buildings are of three or four storeys, with the exception of a very few houses, and the industrial buildings which occupy back lands between blocks of flats.

especially where the value is private property, is just as absurd as it is for the owners to claim that they are all entitled to compensation at the highest level. It is paradoxical that unrealised value, that is speculation value, is often worth much more than the value of the same property developed to its utmost extent. Without carefully compiled comparative data there is no way out of this *impasse*, but if the data is recorded it will be demonstrated that only some sites can reap maximum prices and others will get nothing in the way of accrued value.

The tabulation of this data will not constitute a last word on values. It will still remain for it to be revised in the light of claims and discussions as the planning proceeds. These criteria, however, form a sound basis from which to work toward the establishment of accurate values for the area.

changing standards

No matter what views we hold as to the several implications of the private and public rights to these land values, it is not a practical solution to say they should be swept away. The interplay of individual enterprise, community needs, community enterprise and individual needs, has resulted in a pattern of varied values over the land and buildings of Britain. Where the land is developed, buildings and land are one unit and must be seen as such. Previously the standard of comparison has been one of cash value, seen as part of a capitalist economy. This standard will change.

At present our whole scale of values is being changed from the old system to a new system of social values. The conflict over land ownership and land values is possibly the kernel of the problem, and in its solution lies our hope for the future. It is essential for that solution that the existing pattern of land values, its causes, and its effects are clearly comprehended. Such comprehension is possible only when the data is graphically recorded in conformity with other planning data.

In establishing this other data the way has been shown. It rests with the physical planners to establish the facts concerning this problem in the same way. To do so is no light undertaking, but with the data collected by the War Damage Commission, the Inland Revenue Valuation Department, assessors and private practitioners it is possible and, once the task is done, many present difficulties will disappear entirely from the planning sphere.

Doubts have been expressed as to the possibility of achieving this, but such doubts can never be disassociated from the fact that they arise, in some measure, from that very sensitive human barometer—the pocket book.

EXPERIMENTAL FLATTED HOUSES IN GLASGOW

Top, front elevation of completed block. Above, a precast wall unit of reinforced foamed slag concrete being lifted by a crane for stacking, after being removed from its metal form.

DESIGNED BY J. H. FERRIE, CHIEF HOUSING ARCHITECT, GLASGOW CORPORATION, AND W. KERR, HIS DEPUTY

As reported in the *Architects' Journal* for June 22 (p. 459), Glasgow Corporation recently completed an experimental block of four houses at Penilee. The method adopted by the Corporation is quite different from other similar experiments made in this country.

Large reinforced foamed slag concrete units, up to a size of 10 ft. by 8 ft. 8½ in., are mass-produced in a factory. They are cast vertically in steel moulds, being reinforced with a mesh. The moulds filled with concrete are treated in a steam chamber, from which they are removed on the following day. As a result of steam curing it is possible to strike the moulds after say 20 hours and lift the units. The units are then stacked in the yard and the moulds re-used. The number of moulds is considerably reduced by this process as against manufacture without steam curing, since moulds for one day's output only are required. Much room is saved in stacking and the units can be sent to the site much sooner.

The lay-out and elevation of the experimental block follow the design of brick houses built earlier on the same site. The external walls are only 6 in. thick in one single

leaf, the partition walls only 4 in. Elaborate tests have proved that these thicknesses are adequate in a building of two storeys from the point of view of strength.

The foundations are prepared in the usual way ; then a damp-proof course is laid. The ground floor is formed by hollow pre-cast reinforced concrete beams and extends within ½ in. of the outer face of the walls. The wall units are erected on top of the ground floor by means of a crane, and extend to the soffit of the first floor. Thus, horizontal joints in the walls are avoided. The floor and wall slabs are held in alignment by dowels. Hollow vertical grooves are provided at the edge of all units and the space formed by placing the grooves together is grouted in foamed slag mortar. The joints are covered with metal scrim on both sides.

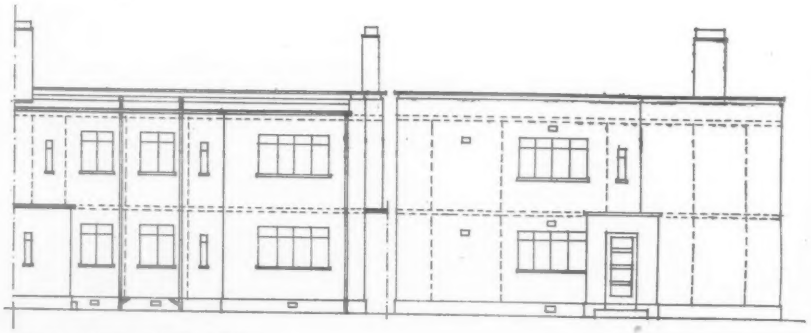
The erection of the first floor and the walls of the upper floor is a repetition of the previous operation at the ground floor. The roof is composed of similar units to the floors, and a foamed slag concrete screed, laid to fall, provides the required thermal insulation.

The chimney breasts are also built in pre-cast foamed slag concrete units, the flues being formed by fireclay vent lining. They are erected in two sections on each floor.

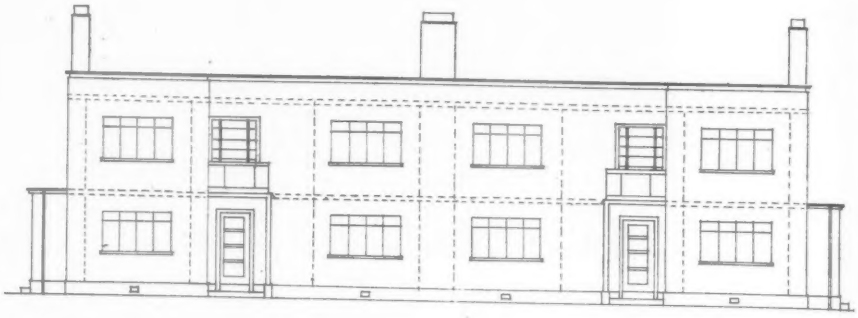
The external walls of the whole block of four houses are composed of 72, and the internal walls of 66, pre-cast units. The maximum weight of a unit is 25.25 cwts. The walls of the completed building are roughcast with cement rendering on the outside and plastered inside.

An earlier experimental building of one storey with the same type of walls, erected three years ago, has proved that this surface treatment successfully prevents moisture penetration and that even an unrendered foamed slag concrete wall of 6-in. thickness is satisfactory in this respect.

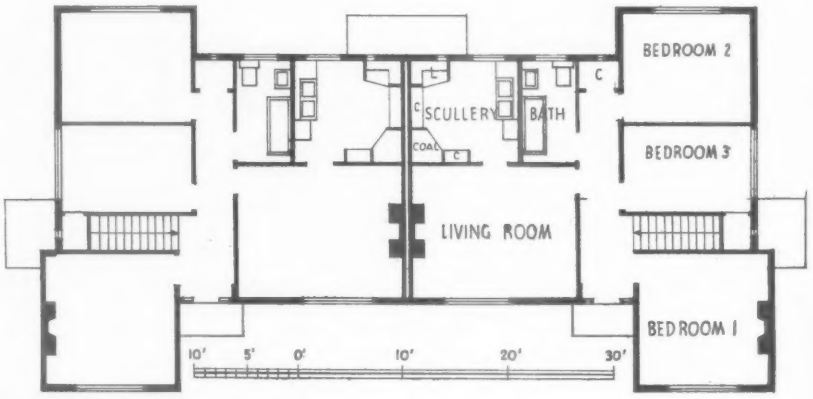
The block illustrated here demonstrates that though composed of large factory-made units, it does not differ in appearance from traditional brick buildings with the same surface treatment. In some ways, however, it is fundamentally different from the traditional brick building. The thermal insulation provided by the 6-in. foamed slag concrete wall (heat transmittance ·26 B.Th.U/sq. ft. hr. °F) is slightly superior to that of an 11-in. unventilated cavity brick wall (·30). The inner face is free from condensation. With the same internal dimensions, the overall area is smaller, since the walls only occupy a strip of 6-in, width instead of



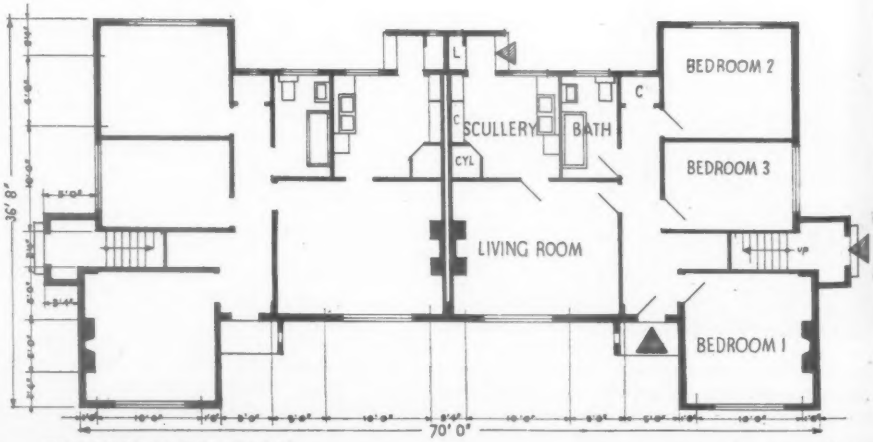
PART BACK ELEVATION — SIDE ELEVATION



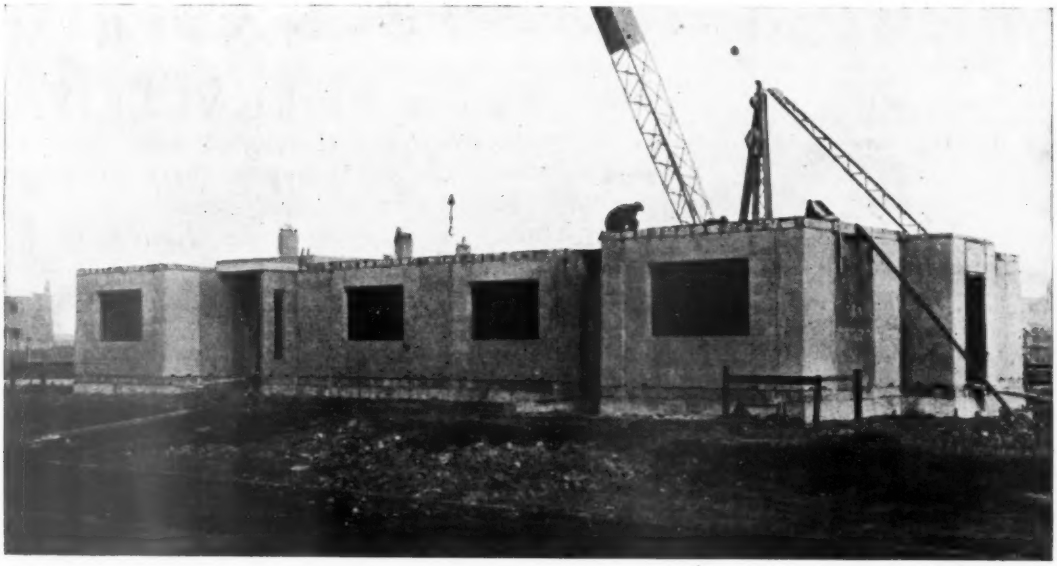
FRONT ELEVATION

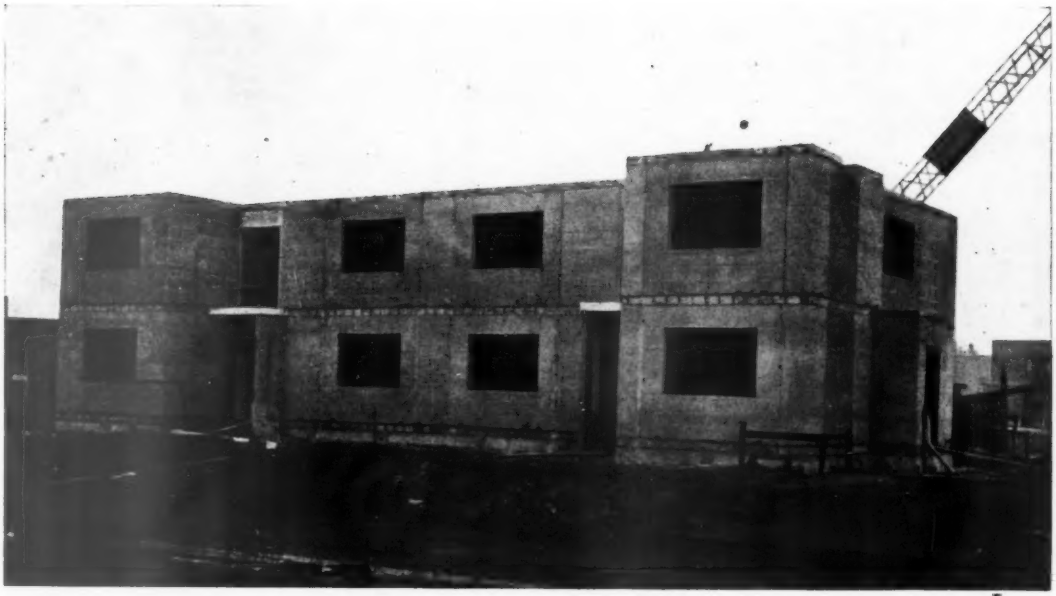


FIRST FLOOR PLAN



GROUND FLOOR PLAN (Scale ⅛" = 1' 0





On the facing page, plans and elevations of the experimental block. Note the following features : (a) *Joints at corners are avoided by the use of* L- *and* T-*shaped units, which increase stability during erection and ensure easy plumbing ;* (b) *window and door openings are provided for in the casting, the bedding and setting of cills and lintels are avoided ;* (c) *the party wall is in two leaves of* 4 *in. to improve sound insulation. Top, erection completed up to first floor ; note the surface pattern formed by the ribs of the steel mould. Above, erection completed up to roof level.*

EXPERIMENTAL FLATTED HOUSES

DESIGNED BY J. H. FERRIE AND W. KERR

11-in. No damp proofing is required around the windows. Since the whole carcass of the building does not contain any inflammable materials, the fire resistance is superior to that of a building with timber floors and staircases. The greatly increased speed of erection and the reduction of skilled labour need hardly be mentioned.

Tests carried out by the Building Research Station have shown that the sound insulation of the party wall just reaches the standard suggested as desirable in Post-War Building Studies No. 1

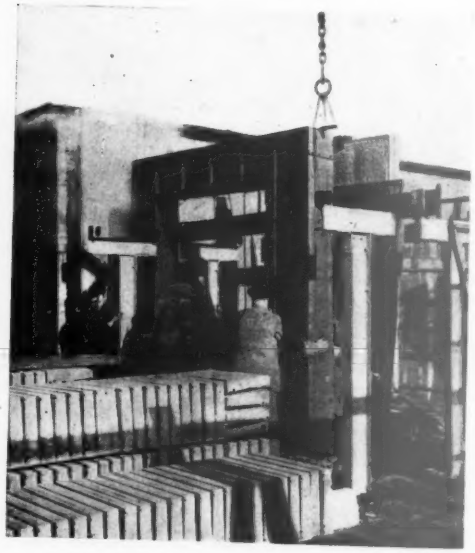
The heat transmittance value of the roof varies between ·26 (3 in. screed) and ·14 (9 in. screed), but even the minimum is better than the standard suggested in Post-War Building Studies No. 1 (·30).

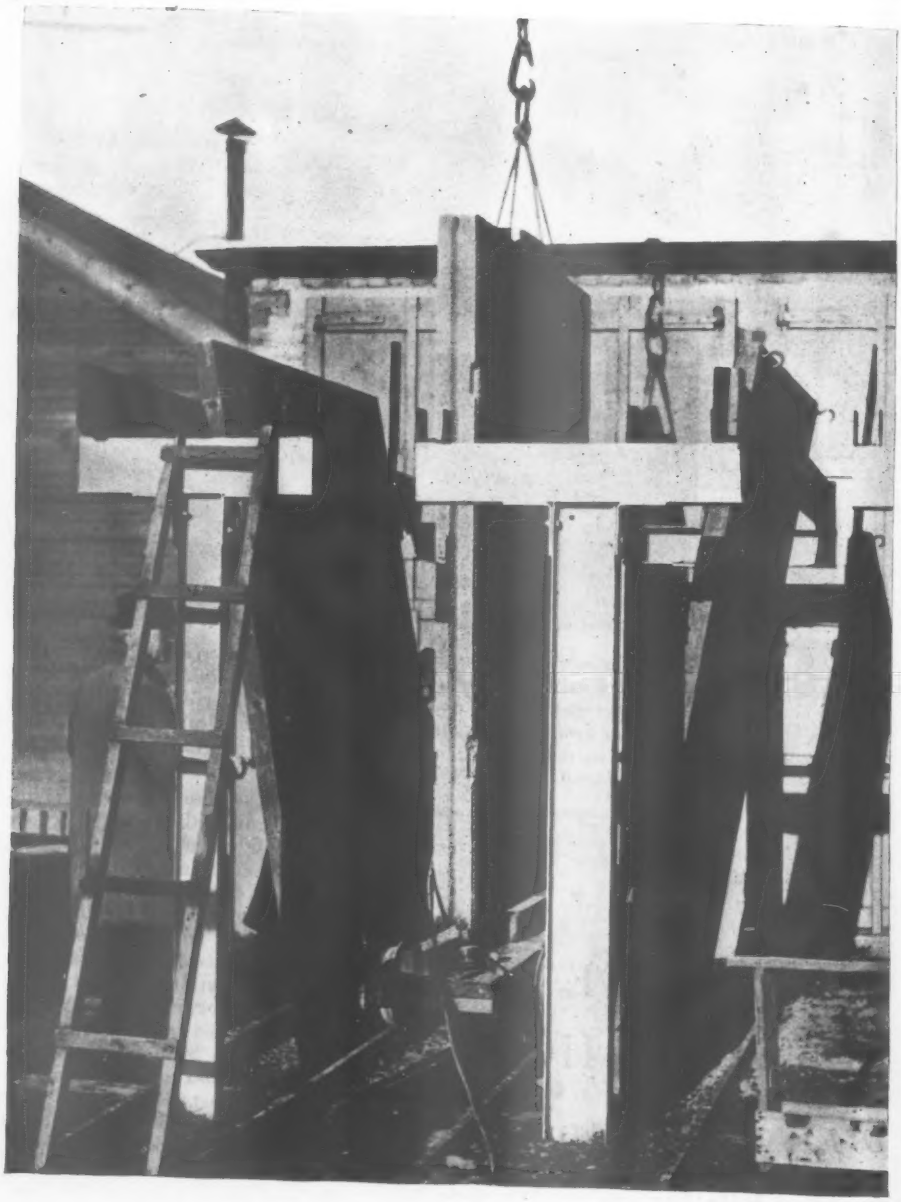
This method of manufacture and erection can be used for any design and features such as bay windows can easily be introduced. The experimental block has a flat roof, but a pitched roof could as easily be incorporated.

The particular job illustrated here is not, perhaps, of great æsthetic merit, but it is the structural system which is of interest, since the possibilities of design, which it allows, are wide.

EXPERIMENTAL FLATTED HOUSES

DESIGNED BY J. H. FERRIE AND W. KERR





Top, a precast wall unit is removed in its mould from the steam chamber after a day's curing; note the window opening. Right, the metal form is struck and the wall unit is ready to be lifted from the trolley for stacking.

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

1558 *Plans for London*

POST-WAR LONDON. *N. G. Brett-James. (Transactions of the London and Middlesex Archæological Society, Volume VIII, Part III.)* Useful and comprehensive analysis of post-war plans, schemes and reports for London that have been prepared during war.

The material sorts together the work of the Royal Academy Planning Committee, the London Regional Reconstruction Committee of the RIBA, the LCC County of London Plan, the Architectural Buildings Record, and comments and ideas arising from books and exhibitions.

STRUCTURE

1559 *Asphalt Plant*

MUNICIPAL ASPHALT PLANT. *Designed by the Office of the President of the Borough of Manhattan. Architectural Forum, March,* 1944, *pp.* 109-112.) Manhattan's Municipal Asphalt Plant, built entirely in reinforced concrete barrel vault construction. Light structural steel trusses used both as centering and reinforcement of ribs.

The architectural treatment of the new plant has evoked much comment and objection. The novelty of form is, however, fully justified by the functions and machinery the building encloses. The arch shape of the processing building was determined by the parabolic flow of the equipment layout. The three-barrel bays are designed to accommodate three individual, identical manufacturing units which operate simultaneously.

For construction, a method was used known on the Continent as System Melan. Structural steel ribs served as both centering and reinforcement. The steel trusses were prefabricated in three sections and erected on the site. Concrete was poured simultaneously from both sides, maintaining balanced pressure on the exposed framework. Plywood formwork was used for interior surfaces.

If the building had contained a larger number of bays, the use of movable formwork might have been justified. Under the circumstances the method adopted was faster and cheaper and left the interior free for installation of equipment while the building was under construction.

1560 *Reinforced Concrete*

REINFORCED CONCRETE STRUCTURES. MINISTRY OF WORKS POST-WAR BUILDING STUDIES, NO. 8. *By a Committee convened by the Institution of Structural Engineers.* (*HMSO,* 1944, 6*d.*) Consideration of Code of Practice. Loads on floors and roofs. Stresses in steel and concrete. Improvement in design and construction methods. Loan periods. Pre-stressed and vibrated concrete. Welding. Composite construction. Schedule of symbols for use in reinforced concrete and structural steelwork calculations.

The terms of reference of the Committee were similar to those on which Report No. 7 is based. The Committee recommends that a new Code of Practice for reinforced concrete should be prepared, preferably administered on a national basis, that this code should contain a power of waiver, and that any waivers granted should be published. It also recommends that the code be revised every three years, that any published waivers be incorporated in so far as they may apply generally, and that the code be made applicable throughout the United Kingdom. Further it is recommended that the Institution of Structural Engineers' Schedule of Symbols (included in the Report) should be adopted in the code.

The Committee's recommendations regarding loads are similar to those in Report No. 7, but some additions are made. For domestic buildings of not more than two storeys a superimposed load of 40 lb./sq. ft. on slabs and of 30 lb./sq. ft. on beams is recommended. The corresponding figures for roofs having a slope not exceeding 20° are 30 and 25 lb./sq. ft. respectively.

It should be noted that these figures do not agree with the recommendations of Report No. 1 (see Inf. Centre No. 1516).

It is recommended that the concrete stresses in compression due to bending should be raised by 10 per cent. from those given in Tables III and IV of the BINC Code of Practice. With regard to steel reinforcement, " the Committee feels that a small increase in steel stresses makes only a very small difference in the cost of a building or structure, and that increased stresses in steel reinforcements in reinforced concrete have to be limited by two considerations :

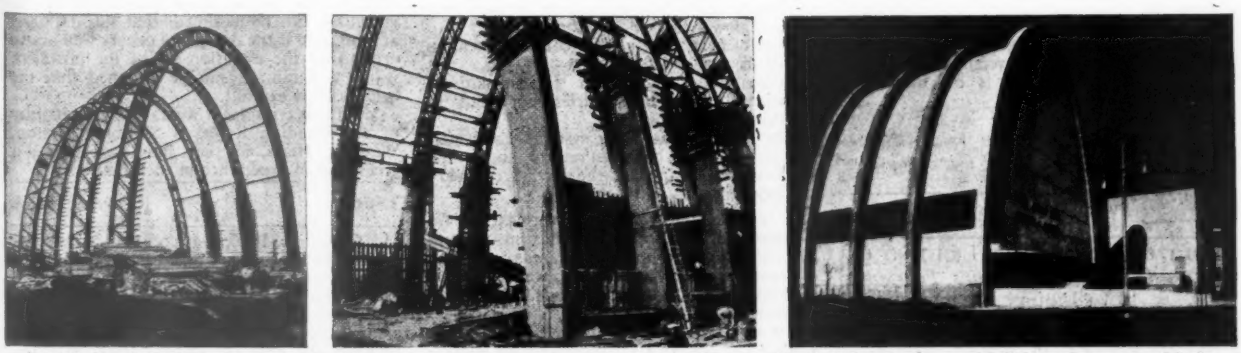
(*a*) The yield-point of the material ;

(*b*) the production of cracks in the concrete which would be damaging to the permanence and general usefulness of the structure."

The present BS for mild steel does not specify any yield-point and the Committee recommends that this should be remedied. Until this is achieved the present stress of 18,000 lb./sq. in. in tension should be adopted. With regard to steel of a yield-point higher than that of mild steel, the Committee recommends " that the working stress may be taken as half of the guaranteed and tested yield-point subject, however, to a proviso that in no circumstances shall the stress ever exceed ceiling stresses of 25,000 lb./sq. in. for beams and 27,000 lb./sq. in. for slabs."

Stresses including the effect of wind may exceed those permissible without wind by 33⅓ per cent. for the reinforcement and 20 per cent. for the concrete, provided that the excess is solely due to wind. This increase of permissible stresses does not apply to roof constructions above the topmost floor level and is limited by the ceiling stresses as stated above.

The Committee makes various recommendations to ensure a higher standard of workmanship. Only experienced reinforced concrete contractors should be employed on reinforced concrete work ; the operatives engaged in the mixing and laying of concrete should be trained as craftsmen and be known as " concretors " ; steel fixing and bending as well as the erection of formwork should be recognized as special trades ; persons supervising reinforced concrete construction should receive a suitable training and be certificated. Where work is designed by qualified chartered structural or civil engineers, there should be no need to submit calculations to the authorities, provided the qualified designing engineer has furnished a certificate that the work complies with the Code of Practice for Reinforced Concrete. The designing engineer should be consulted at the earliest stage of planning. Formwork or shuttering should be designed and not left to the foreman on the job. A report should be prepared on reinforced concrete work carried out in cold weather. Recommendations should be drawn up for finishings to exposed concrete surfaces. For external work not otherwise protected the cover of concrete over the reinforcement should



A municipal asphalt plant designed by the Office of the President of the Borough of Manhattan, built of reinforced concrete with light steel trusses used both as shuttering and reinforcement of ribs. Left and centre, under construction. Right, the completed job. See No. 1559.

be increased by half an inch above the present requirements.

It is felt that reinforced concrete has now long passed the experimental stage and that there is no longer any justification for the authorities granting shorter loan periods for reinforced concrete than for other forms of construction, as has been insisted upon in the past in many cases.

Attention is drawn to special considerations in reinforced concrete foundations which are generally more economical than steel grillages encased in concrete and brick footings with mass concrete under.

It is recommended that the use of pre-stressed concrete should be permitted, and that any new code should be extended to provide for this.

Welding should also be permitted under suitable conditions and with suitable safeguards.

The Committee suggests that composite structures consisting of a slight structural steel frame, subsequently cased with concrete and additionally reinforced, should be designed on the basis that steel and concrete act together with their appropriate modular ratios.

The Committee recommends that the existing Code of Practice for the Use of Reinforced Concrete in the Construction of Buildings, as amended by BINC, with certain modifications, should form the basis of the new code.

Reports Nos. 7 and 8 are closely connected with each other. It would appear that the recommendations of Report No. 8 regarding a Code of Practice for reinforced concrete, to be administered on a national basis, equally apply to steel structures. On the other hand, similar principles as laid down in Report No. 7 regarding the handling of contracts for steel-frame buildings, should apply to contracts for reinforced concrete buildings. On the whole, the approach of Report No. 7 is more scientific than that of Report No. 8. Whereas Report No. 7 mentions the load carrying capacity of the structure as the desirable basis of design rather than limiting working stresses, Report No. 8 still adheres to working stresses without reference to more up-to-date methods of design and seems to ignore the result of fundamental research.

The method of dealing with the question of "ceiling stresses" in reinforced concrete is particularly regrettable in both reports. No doubt it is necessary to control the width of cracks, but the figures recommended seem to be rather arbitrary and disregard the type and size of reinforcement which is of great influence (see Inf. Centre No. 1368).

A stress of 25,000 lb./sq. in. for large diameter bars of plain hot rolled steel may result in undesirable widths of cracks after repeated loading, whereas for cold worked steel of small sizes or threaded bars stresses even higher than 30,000 lb./sq. in. are safe from the point of view of cracking. As Report No. 8 stands, stresses due to wind may reach 24,000 lb./sq. in. in mild steel without any guarantee of the yield-point, but must not exceed 25,000 (or 27,000 lb./sq. in. in slabs only), irrespective of the guaranteed quality of the steel. The report implies that steel with a guaranteed yield-point of more than 54,000 lb./sq. in. is of no economical advantage in reinforced concrete. This is contrary to experience.

A further deficiency of the report is the lack of any reference to light-weight concrete although the use of light-weight aggregate in reinforced concrete work is of increasing importance.

LIGHTING

1561 **Fluorescent Lighting**

EFFECT OF FLUORESCENT LIGHTING ON VISION. (*Lighting and Lamps, February*, 1944, *p.* 14.) Inquiry to find out if fluorescent lamps have any exceptional effect on eyesight or general health.

The Smaller War Plants Corporation of America addressed a letter of inquiry to several authorities on light and health. The letter covered the problems of flicker, colour, temperature, light spectrum and ultra-violet radiation. Replies generally were that no exceptional effects on health, positive or negative could be observed. The Metropolitan Life Insurance Co. remarked that two authenticated cases were known of skin-rash, probably due to ultra-violet radiation, but added that they were probably photo-sensitive individuals who might suffer equally in strong sunshine.

1562 **Lighting Analysis**

THE SKY FACTOR VALUE OF WINDOWS. *P. J. Waldram.* (*Trans. Illuminating Engineering Society* (*Eng.*), *January*, 1944, *p.* 16.) Modifications to Waldram methods of lighting analysis, with brief notes on other recent developments.

Mr. Waldram has frequently modified his well-known method of daylight analysis by computing window data and putting it in tabular or graphical form. This paper concerns the latter, and draws comparisons with some newer methods described by Burnett in a lecture to the RIBA (see JOURNAL, 12.8.43).

HEATING and Ventilation

1563 **District Heating**

DISTRICT HEATING. *P. G. Kaufman.* (*Industrial Heating Engineer, January*, 1944, 15.) District heating in Russia. General information and recommendations. Justified in Western Europe on social if not economic grounds.

In Russia, district heating was conceived in 1920, and begun in 1924; progress was very rapid between 1933 and 1937:

Year.	No. of stations.	Power capacity, million kWh.	Heat output, Million therms.
1929	14	0.056	—
1933	53	0.53	218
1938	90	1.40	813
1939	106	1.75	874*

* 16.8 per cent. from combined heat and power stations.

The average load factor is 40 per cent.; thermal efficiency is 37-59 per cent., indicating that much power is still generated by condensing turbines. Boiler pressures are mostly around 500 lb. per square inch, but newer stations are designed for over 2,000 lb. per square inch. Kaufman advocates:

(*a*) combined heat and power stations;
(*b*) high boiler pressures;
(*c*) stations on town outskirts, near industries.
(*d*) emphasis on industrial consumers;
(*e*) use of small heat stations or Diesel exhaust-heat, as in Denmark, if industrial load is absent;
(*f*) connection to electric grid, to reduce worry about lack of balance between heat and power loads;
(*g*) use of heat storage, with correct allocation of storage cost to power;
(*h*) distribution by steam to substation; thence steam to industries, hot water to domestic areas;
(*i*) In some cases, 3-pipe system—hot water, space heating, common return—so that the flow and volume of the second can vary independently with weather.

He doubts the economic justification (in Western Europe) for district heating of, and hot water supply to, residential areas consisting of semi-detached types of dwellings, but recommends it on social grounds. Steam can be transmitted over 4-5 miles.

It is doubtful whether P. G. Kaufman has studied the cost of (*i*); otherwise his suggestions seem very reasonable.

1564 **Studs and Heat Loss**

EFFECTS OF STUDS AND JOISTS ON HEAT FLOW THROUGH FRAME CONSTRUCTIONS. *P. D. Close.* (*Heating, Piping and Air-conditioning, October*, 1943, *p.* 529.) Importance of considering effect of studding in calculating heat losses through framed constructions.

The author shows, by calculation, that the presence of framing may effect a reduction of up to 10 per cent. in the heat loss coefficient for framed walls with air space, as compared with the normal calculated figure when the framing is neglected. If, however, the wall is well insulated, e.g. by 3½ in. of fill insulation, the effect of the framing is to increase the heat loss; and the corrected value of the coefficient may be as much as 25 per cent. higher than the normal calculated value, neglecting framing. Curves are given to estimate the corrected values from the uncorrected coefficients.

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.*

1565 **Damp Walls**

Q *Can you give me any rules for a simple and definite test to decide whether damp walls in an old house are due to (a) damp course having "gone" and so needing a new one, or (b) porous brick, necessitating some such treatment as rendering with a waterproof cement.*

In my district (North Cheshire) the trouble is fairly prevalent. One house has had a new damp course, but shows no improvement, another had the walls proofed, but still it is damp.

A Questions of dampness in old buildings are always difficult to solve, particularly without a site inspection.

We are not personally acquainted with any tests other than the exposure of the damp proof course for examination, and laboratory tests of bricks and mortar.

You could also dig a small pit lined with clay or weak concrete, keep it filled with water so that the brickwork below DPC level is kept damp and watch results, but this again is a somewhat tedious process.

A fairly satisfactory diagnosis can usually be made by normal observation, i.e. if the dampness occurs within close proximity of the ground it can be assumed that the DPC is at fault, and if the dampness occurs well above ground on the elevation facing the prevalent winds and rain, it can be assumed that the brickwork is at fault.

You might consider it worth while to enquire of the Building Research Station, Garston, Watford, Herts, as they have, of course, a great deal of experience in such matters.

1566 **Reference Back**

In Q. and A. 1526, we gave the number of houses built in the Metropolitan area of London during a certain period. The period in question was between the end of March, 1931, and the end of March, 1939, and not as recently stated in the published answer between the end of March, 1941, and the end of March, 1939.

MIDDLETON, NEAR KING'S LYNN.
The Village Church and Pump

WELLS are not often so near as this to a churchyard, but there are equally dangerous, if less obvious, sources of pollution. Two essential precautions are apparent—the reduction of pollution due to leakage of filth from cesspools, and the exclusion from the wells of all surface water, or drainage, until it is purified by deep earth filtration. Both of these objects are achieved at moderate cost, and with great efficiency, by lining the cesspools and the wells with sand and cement renderings made completely impervious by the addition of 'PUDLO' Brand waterproofing powder.

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SOCIETIES AND INSTITUTIONS

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

RIBA

Council Meeting

Notes from the minutes of the Council:

Birthday Honours List.—The following awards were included in the Birthday Honours List and the congratulations of the Council have been conveyed to the members concerned:—O.M.: Sir Giles Gilbert Scott, R.A., Past President. Knight Bachelor: Professor C. H. Reilly, F.R.I.B.A. C.B.: G. L. Pepler, Hon. A.R.I.B.A. O.B.E. (Military Division): Lt.-Col. A. F. Hooper, F.R.I.B.A. O.B.E. (Civil Division): R. A. H. Livett, A.R.I.B.A.; W. A. Rutter, A.R.I.B.A. M.B.E. (Military Division): Major G. W. H. Ryland, F.R.I.B.A.

Ministry of Works Directorate of Post-War Building Study Committee.—The final Report of the Committee on the "Architectural Use of Building Materials," convened by the RIBA, has been submitted to the Ministry of Works.

Appointments.

British Standards Institution: Committee on Standardization of Builders' Ironmongery: Mr. G. M. Adie, F.R.I.B.A., in place of Mr. Thos. E. Scott, F.R.I.B.A., who has resigned owing to inability to attend.

British Standards Institution: Sub-Committee on Bath Panels: Mr. Arnold F. Hooper, F.R.I.B.A.

RIBA Representatives on War Memorials Advisory Council (convened by the Royal Society of Arts): Mr. Edward Maufe, F.R.I.B.A.; Mr. O. P. Milne, F.R.I.B.A.

Central Planning Advisory Committee: Mr. C. Lovett Gill, F.R.I.B.A., and Mr. Julian Leathart, F.R.I.B.A., in place of Mr. W. Curtis Green, F.R.I.B.A., and Mr. F. R. Hiorns, F.R.I.B.A., who have resigned.

Board of Architectural Education Schools Committee: RIBA Member: Mr. T. Bilbow, F.R.I.B.A.

County Borough of Ipswich: Joint Apprenticeship Committee: Mr. Martin J. Slater, F.R.I.B.A.

Simplification of Procedure for Approval of Plans.—A communication has been addressed to the Ministry of Works emphasizing that the question of simplification of procedure for the approval of plans is regarded by the Institute as one of vital concern in the reorganization of the building industry, and expressing the hope that careful consideration will be given to the subject by the Ministry.

Women Full-Time Students of Architecture.—The Acting Secretary reported the receipt of a letter from the Ministry of Labour and National Service stating that, in order to permit the completion of academic work required for the Final Examination of the RIBA, or an examination which is recognised for exemption from the RIBA Final, recommendations for reservation will now be considered from Universities and the Heads of Non-University Institutions where there is a School of Architecture in the case of

(*a*) women full-time Students in the fourth year of their course, who reached the age of 20 during the Session 1943-44, and who will complete their finals in the summer of 1945; and

(*b*) women full-time Students in the third year of their course who reached the age of 20 during the Session 1943-44 and are studying at schools where arrangements have been made to modify the course to enable them to complete their Finals by the end of 1945.

The Acting Secretary reported that the Heads of the Recognized Schools had been advised of this concession.

Obituary.—The Acting Secretary reported with regret the death of the following members and Students:—Charles Henry Biddulph-Pinchard, F.R.I.B.A.; Louis Blanc, F.R.I.B.A. (Mr. Blanc was formerly Hon. Secretary of the London Building Act Committee); Ernest Frank Stuart Biram, retd. F.R.I.B.A.; Alfred Bowman Yeates, F.S.A., retd. F.R.I.B.A.; Antony Doughty Browne, A.R.I.B.A. (killed on active service); Kenneth Burton, A.R.I.B.A. (killed on active service); Alexander Wood Graham-Brown, A.R.I.B.A.; Mrs. Creina Marian Hutcheson, A.R.I.B.A.; Lawrence William Ingham, A.R.I.B.A. (Mr. Ingham was Ashpitel Prizeman 1921); Owen John Currie Mason, A.R.I.B.A. (killed on active service); Gordon Stuart Reid, A.R.I.B.A.; Alexander Forrest, L.R.I.B.A.; William Griffiths, L.R.I.B.A. (Birkenhead); James Alexander Macdonald, L.R.I.B.A.; William Unsworth, retd. L.R.I.B.A.; John Cyril Buckley (Student) (killed on active service); George Noel Hammond (Student) (killed on active service); George Witham Lawson (Student) (killed on active service. Messages of sympathy have been conveyed to their relatives.

Common Preliminary Examination of the Engineering Joint Examination Board and the Probationership RIBA—On the recommendation of the Board of Architectural Education the Common Preliminary Examination of the Engineering Joint Examination Board is to be substituted for the Preliminary Examination of the Institution of Civil Engineers in the list of examinations recognised for the Probationership of the RIBA.

Report of the Board of Moderators.—The Board of Moderators reported the relegation of one candidate for the Special Final Examination held in Southern Rhodesia in January, 1944. The Board of Moderators also reported the following results of examinations for Prisoners of War in 1943:—Intermediate Examination, Spring 1943, Stalag Luft 6: F/Sgt. Douglas Pearcy: Passed: A. (History of Architecture). Relegated: B. (Calculations of Simple Structural Members). Papers not received:—C. (Design) and D. (Architectural Construction). Deferred: Testimonies of Study. Final Examination, Autumn 1943, Oflag IX A/H. Captain R. G. Bateson: Passed: B.1. (General Construction). C. (Hygiene). D. (Specifications). F. (Thesis). Exempted: B.2. (Theory of Structures). Deferred: A. (Design). E. (Professional Practice). Testimonies of Study.

Membership.—Fellowship. The Council by a unanimous vote elected the following architect to the Fellowship under the powers defined in the Supplemental Charter of 1925: Mr. John Francis Deighton Scarborough, President of the Royal Australian Institute of Architects.

Membership. The following members were elected:—As Fellows (3), as Associates (4), as Licentiates (17). Election October 1944. Applications for election were approved as follows:—As Hon. Fellow (1), as Fellows (2), as Associates (4), as Licentiates (18).

Reinstatements.—The following ex-members were reinstated:—As Fellow: Percival May Davson. As Associate: Edward Dominic O'Connor.

Resignations.—The following resignations were accepted with regret:—Frederick George Cundall, F.R.I.B.A.; Walter Barlow, L.R.I.B.A.; Arthur Ernest King, L.R.I.B.A.; Frederick Arthur Tanner, L.R.I.B.A.

TCPA

F. J. Osborn

The following notes on LOCATION OF INDUSTRY in relation to town and country planning and the issues raised by the White Paper on Employment Policy (Cmd. 6527) have been prepared by F. J. Osborn, Chairman of the Executive Committee of the Town and Country Planning Association.

1. The White Paper is of the greatest importance for the whole field of reconstruction policy. These notes are limited to its proposals on Location of Industry and Population.

2. The acceptance of the principle that Location of Industry is a national concern, is to be warmly welcomed. So also is the acceptance of the Barlow Report principle that the Government should exercise influence over such location.

3. Welcome also is the recognition that such influence should take account of strategic and social as well as industrial considerations. (Para. 26*a*).

4. Primarily the White Paper is concerned with maintenance of employment. Avoiding local unemployment is the only consideration fully studied, and the proposals are directed only to Development Areas defined as areas of potential unemployment (para. 26). This is too narrow a basis for a location policy; it deals only with one of the vital factors.

5. The Barlow Report recommended the regional diversification of industry as a cushion against unemployment. But the White Paper overlooks that the Barlow Report was equally emphatic on de-congestion of overcrowded city areas, coupled with decentralization to country towns and new towns, of excess industry and population.

6. This is vital for the satisfactory rebuilding of congested cities, and arises as a matter of first urgency in post-war reconstruction. If the housing schemes are based on the existing grouping of industry, they will in the main take the form of further suburban extensions of towns already too large.

7. It is true the White Paper proposes prohibition of new factories in districts where serious disadvantages would result from further industrial development—and this must be assumed to refer to congested cities (para. 26*a*), but unless this prohibition, or restriction under licence, is coupled with development of industry in smaller towns in the same regions, the decentralization proposed by the Barlow Report cannot happen. Priorities for factory building in decentralized community units, as well as in basic industry, Development Areas are necessary.

8. The White Paper, rightly, does not contemplate large transfers of population from one region to another (para. 29). Relief of the congestion of London, Birmingham, Manchester, Liverpool, Glasgow, etc., by transfer of their excess populations to the

"Development Areas" is not in question; an unemployment problem in the latter areas would certainly not be eased by more population. A Location Policy to relieve congestion must therefore consider a better distribution of the existing population within each region—a vital matter quite omitted in the White Paper. In this the considerations are essentially social and town-planning considerations, though a due local diversification to minimize unemployment is desirable in this case also.

9. An extended definition of Development Areas is needed to meet the case. Development Areas should include country towns and new industrial centres designated as suitable places for the absorption of the excess population, industry and business, from over large and congested cities. These, as well as basic-industry areas, will need reasonable priority for business buildings as well as for housing.

10. Redevelopment of congested and slum areas, and the many bombed areas, at lowered density and with adequate open space, does not imply a waste of existing "Social Capital." On a rising standard of living, urban workers will inevitably insist on family dwellings in a reasonably spacious environment. The only practical choice for large cities is between:

(*a*) A continuance of the inter-war sprawl of suburbs; and (*b*) opening out of centres and planned decentralization of some workplaces as well as dwellings.

The former (*a*) implies vast expenditure on suburban transport developments, with permanently unsatisfactory results, through the increase of daily travel. Some expenditure on new factories in satellite towns, where work can be near homes, will be no more costly but will be permanently satisfactory.

11. Nor would "social capital" always be saved by an attempt to rebuild congested centres at higher housing density, which is in any case too unpopular to be practicable. Such housing is more costly than housing in decentralized areas; and the cost of amplifications of water supply, drainage, etc., for over dense populations in modern dwellings may in many cases exceed that of providing new factories and services, for part of the population, in decentralized areas. The main point, however, is that rebuilding at excessive density cannot be a permanently useful expenditure of capital.

12. *Departmental Functions.*—The device of the Board of Trade as the Department to exercise influence on the location of individual enterprises (para. 30) has much to be said for it. But it should operate within a well-balanced framework of Physical Planning, in which considerations of family housing, community structure, transport, rural and urban amenities, and strategy, should be weighed along with those of agriculture, industry and trade. The Ministry of Town and Country Planning was created to relate the physical arrangement of these numerous vital factors; and no other single department can be competent to do so. It ought therefore to be given the status, resources and powers to exercise that function. It is surely this Ministry that must have, under the Cabinet, the primary responsibility for such matters as the size and density of towns, and the placing of work-place zones and housing and other zones, within towns, and in relation to the country-side. Which Department should be the body to promote the actual construction of factory estates and factory premises, or their finance, requires consideration. In development and re-development on a large scale, good results are only attainable by close co-ordination of all kinds of building —factories, shops, and community buildings as well as houses. Such developments will doubtless be undertaken by local authorities, public utility corporations, and private enterprise. It seems of great importance that they should be fostered and supervised and where necessary financed or assisted by a competent body able to view them as wholes and not piece-meal. The closely interlocked economy of land development points to unified supervision as well as to special technical skill. Some sort of Development Commission to promote and advise upon large-scale schemes, industrial estates, town extensions, etc., appears to be necessary. It is an operative rather than a regulative function.

13. There is now an imminent danger that the pressure for maximum housing at maximum speed will re-start forms of urban development recognized to be disastrous. It is therefore urgent that the proposals in the White Paper shall be adapted to and supplemented by a considered policy of town and country planning which includes decongestion, decentralization, and the corresponding country-town extensions and new town developments.

LMBA

H. C. Harland

July 27, at the Dorchester Hotel. Luncheon to Mr. H. U. Willink, Minister of Health, given by the London Master Builders' Association. President: H. C. Harland.

H. C. Harland: The Minister of Health is no stranger in our midst, but this is the first time we have had an opportunity of having Mr. Willink with us. I have great hopes of Mr. Willink, for whose character and gifts we all have the highest regard; when he has been at the Ministry a little longer, and knows us better, he will, I believe, be a first-class Minister, and we are out to help him in every way.

We do not always see eye to eye either with the Minister of Health or his Ministry. As a matter of fact, we do not always see eye to eye with any of the Ministries with which war-time conditions bring us into touch. As Ministries go, the Ministry of Health is one with more than a war-time record, and that is saying a great deal. That record is one of co-operation with our industry and one of achievement rather than of Committees and words, of White Papers and Reports, of which there has been a tremendous spate. The Ministry of Health has a record which we all look to Mr. Willink to maintain and continue. He has recently given us an indication of the encouragement he is to give to private enterprise, which was responsible between the two great wars for the building of three out of every four of the houses built in this country. It is through private enterprise, and every known organization connected with such private enterprise, that the great arrears of housing will be overtaken in the post-war period.

Mr. Willink said recently in the House of Commons that he hoped the building industry would be able to produce 300,000 houses in the first two years after the war, and there was serious criticism of his low estimate. I would like to say that, while it would appear to many a very conservative estimate, I agree that it represents the probable capacity of the building industry.

After the war, with the great problem of housing facing him, Mr. Willink must be one of the most important men in the Cabinet.

The Minister of Reconstruction will have finished his labours and, if rumour is to be trusted, will be viewing the results from an airy pinnacle far removed from Whitehall.

The Ministry of Works will, shortly after the war, we all hope, have crossed that far-west bourne from which there is no return. We all know the Office of Works as it existed pre-war, and look for the Ministry of Works to have this same, more lowly but very honourable title.

The Ministry of Town and Country Planning, exhausted by its efforts to understand the Scott, Barlow and Uthwatt Reports, will gradually have faded out, and its powers will have been transferred to the Ministry of Health, the Department ably responsible for all such matters in the pre-war era.

If my forecast is correct, there will remain as the one Ministry intimately connected with building, the great Ministry of Health, the Ministry with the knowledge and experience that are vital to the speedy and efficient building of houses; the Ministry with the record of success blossoming out of earlier failures between the last war and this; the Ministry which is trusted and consulted by Local Authorities, and from which we builders know we have least to fear and most to look for.

I say nothing about the recent indiscretion of the Ministry of Health on the Preparation of Housing Sites, which Mr. Willink, I think, would like to be allowed to forget. It is our earnest hope that, when the time comes for work in connection with his housing proposals, he will drop his original plans and start afresh with a programme in which the whole industry can economically co-operate.

Let me offer Mr. Willink a personal word of warning lest the fate which befell his predecessor should eventually overtake him. There are real sources of information and friendly help available for Mr. Willink, and if he comes to us, instead of accepting, as did his predecessor, the very unpractical advice which is, alas, often proffered by others, he will go from strength to strength. But that depends upon Mr. Willink.

SIA

Meeting

July 1, at 66, Portland Place, W.1. Open meeting of the SOCIETY OF INDUSTRIAL ARTISTS (National Gallery, W.C.2), with the object of gaining the support of all practising designers in carrying forward its new programme, set forth in a prospectus recently issued by SIA. The President, Milner Gray, R.D.I., N.R.D., opened the meeting with a brief resumé of the Society's history since 1930, and outlined the new policy and programme. Speakers included Misha Black, Wells Coates, Lt. Games, Warnett Kennedy, and others. The discussion brought out the importance of vocational education of designers.

M. Black: It has been a reflection on the design profession that in 1936 the Government found it necessary themselves to set up the National Register of Industrial Art Designers, as at that time there did not exist any body that could be accepted as representative of the profession, nor was there any recognized standard of proficiency.

While not officially representing the CIAD, I know that they are enthusiastic about the reformation of the SIA and the setting up of the body now envisaged, and the NRIAD will accept the status of the SIA as parallel to their own and acknowledge that the SIA activities on behalf of the profession will be far wider than their own.

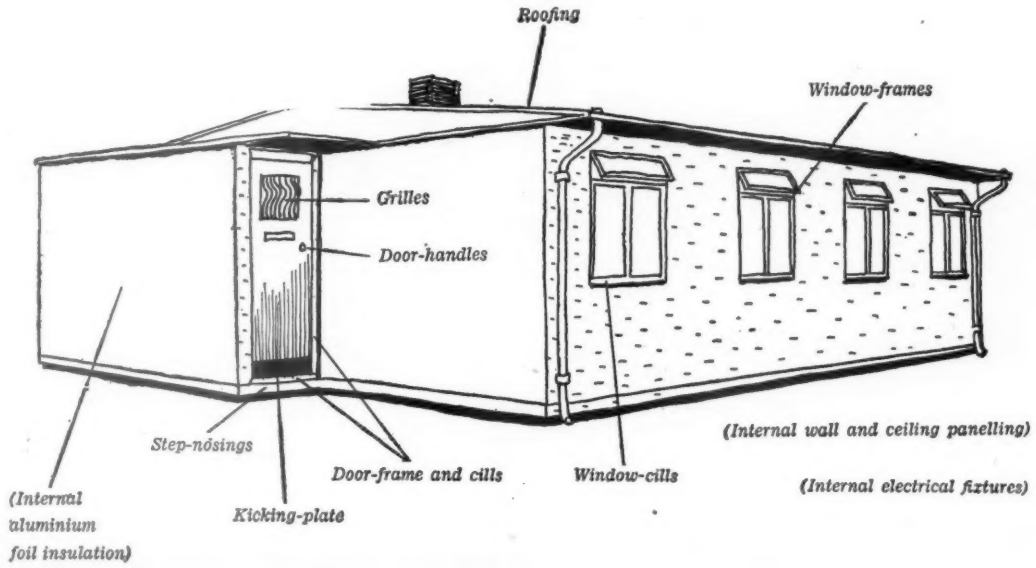
The Board of Trade Committee that has been sitting on the problems of industrial design has submitted recommendations which, if accepted, will materially influenee the future of industrial design.

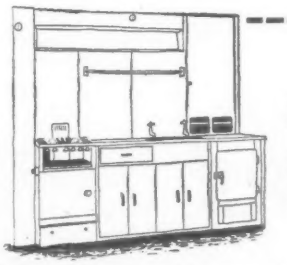
There is a real chance that the Government will take very serious steps to ensure

Post-war Priority No. 1 — **HOUSING**

ALUMINIUM and the Emergency Factory-made House

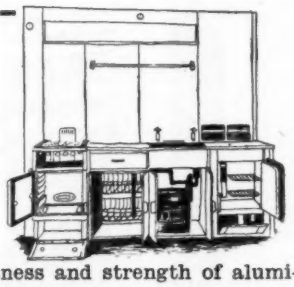
Sir Stafford Cripps, Minister of Aircraft Production, has formed a committee to carry out research into the application of aluminium and its alloys in factory-made houses. This will help to relieve the housing shortage; it will absorb skilled labour, and keep factories busy. Specialists agree that the aluminium industry could produce materials for 1,000 houses a week.





Cupboard Unit. This combined kitchen and bedroom unit with its larder, food storage racks, table, cupboards, wardrobes and so on, gives scope for the particular properties and finishes of aluminium.

Kitchen and Bathroom Unit Here aluminium alloys can be used to advantage. The kitchen assembly comprising cooker, sink and refrigerator, offers opportunities for originality in design, construction and surface finishes.



Here are a few of the more obvious uses for aluminium in the factory-made house. But apart from these, there are scores of interior uses, such as kitchen and bathroom equipment, ventilators, door and window-frames and architraves, skirting and cornice strips, and so forth. The lightness and strength of aluminium alloys together with their remarkable properties, good looks, resistance to corrosion, and colour finishes, suggest new techniques of construction and architectural design.

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that industrial design in this country will bear comparison with that produced elsewhere.

If the committee's recommendations are put into operation, it is essential that there shall be a recognized body of industrial designers to be consulted by the Board of Trade as being really representative of the men doing the work.

Discussion : The following subjects were brought forward as some of the many subjects on which the SIA will have to work:—

(*a*) The position of designers directly employed by the Government.
(*b*) The inclusion of professional practice as part of the education plan.
(*c*) The bringing of Parliamentary and publicity pressure to bear to ensure that SIA policies are accepted.
(*d*) Agreement on recognized standards of fees, particularly for the guidance of younger members.
(*e*) Affiliation with overseas organizations.
(*f*) SIA to add its weight to any effort directed toward the better appreciation of good design by the general public.

The following resolution was put to the meeting and, after being seconded by Mr. James Holland, was carried unanimously:—

"This open meeting of designers for industry and publicity believes that the post-war requirements of industry in both home and overseas markets cannot fully be met unless there is an improvement in the status of the designer. To this end effective professional organization is essential, and this meeting therefore endorses the policy and programme of the SIA as set forth in the prospectus here discussed."

Council : Since the above meeting was held a provisional industrial design council has been set up, and is completing the plan of reorganization and formulating the programme to be put forward for a general meeting of members. Membership of this group council is: Misha Black (Chairman), Wells Coates, O.B.E., B.A., F.R.I.B.A., Norbert Dutton, Frederick Gibberd, F.R.I.B.A., Alec Hunter, Warnett Kennedy, D.A., A.R.I.A.S., A.M.T.P.I., F. E. Middleditch, Keith Murray, E.D.I., Brian O'Rorke, R.D.I., F.R.I.B.A., J. Proctor, Elsie Ross; ex officio, Milner Gray, R.D.I. (President), Peter Ray (Hon. Sec., Central Council), Ronald Dickens (Hon. Treasurer).

BRF

G. N. Wilson

August 1, at the Savoy Hotel, London. Luncheon given by the British Road Federation in connection with the publication of the reconstruction report, ROADS AND ROAD TRANSPORT.* Speech by George N. Wilson, chairman of BRF.

G. N. Wilson : I now want to speak for a few minutes on the booklet *Roads and Road Transport*, of which you have had a copy and which, as you know, represents the post-war reconstruction proposal principles advocated by the British Road Federation.

First of all, I would emphasize that, whilst covering definitely the widest range of problems that have yet been discussed at one time by the road transport industry, the proposals constitute an agreed outlook upon these problems by virtually the whole of that industry. I refer you to the list of members given at the back of the Report, as showing the remarkable spread of interest covered under the BRF umbrella.

Most of us had long felt the need for a uniform policy and principles, endorsed by the whole of the industry. There is, as you know just as well as I, a very marked difference, however, in these matters between wish and fulfilment. It did seem, nevertheless, that the British Road Federation not only could, but should, strive to the utmost to obtain an agreed document. One of the potential defects of such a document, formed as it must be from so many shades of opinion, is that in the result it may become utterly colourless. Throughout its preparation we were determined to avoid a wishy-washy document, and now it has been produced, I hope you will agree that it is by no means colourless.

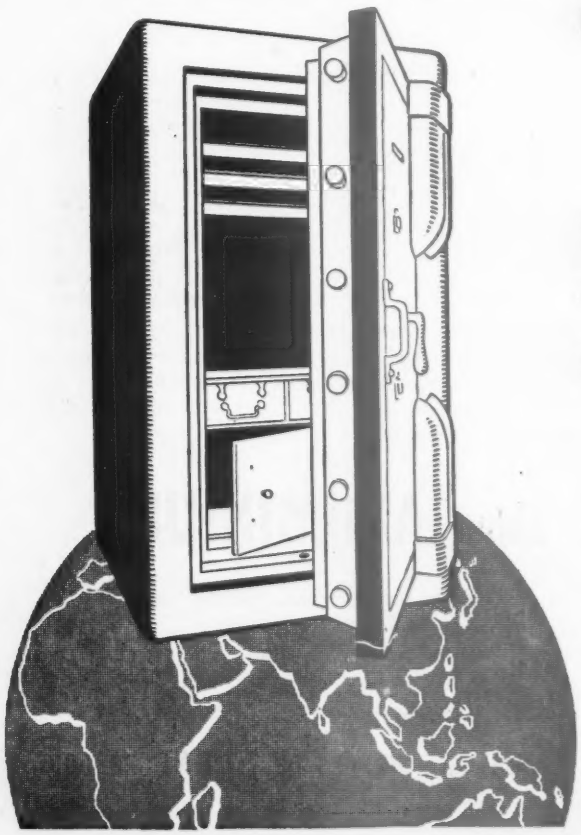
The report itself deals with the two main problems of the road transport industry. First, there is what I might call the economic and political side of relationships between the industry and Government, and also within the industry itself. Secondly, there is the physical side of road development, covering not only constructional matters, but questions of road safety and of æsthetics.

You will see that the British Road Federation's proposals are strongly against complete central control, not only by any Government, but also from a monopolist angle. Emphasis is, however, laid on the need for sound regulation in matters such as safety, wages, and so forth.

On taxation, the Federation presses for a more equitable distribution of the burden over all forms of transport, and for a reduction of taxation to a level comparable with existing expenditure on road requirements.

Now, as regards the development of the roads themselves: The Federation reaffirms its faith in a basic system of motorways, but demands also a general improvement of the road system, both in the open country and in built-up areas.

* Published by the British Road Federation (4a Bloomsbury Square. W.C. 1., 1s. 0d.)



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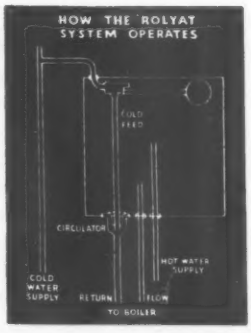

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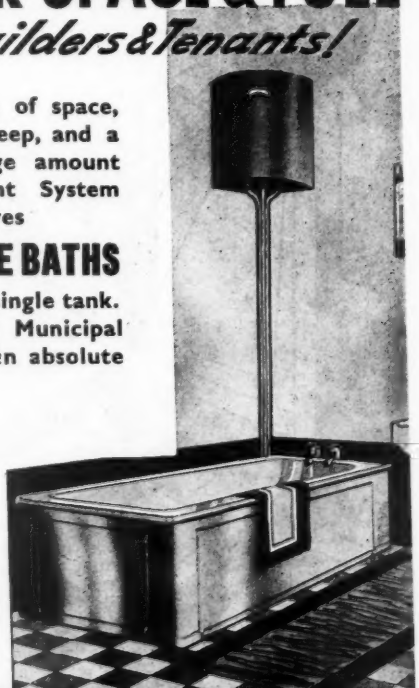

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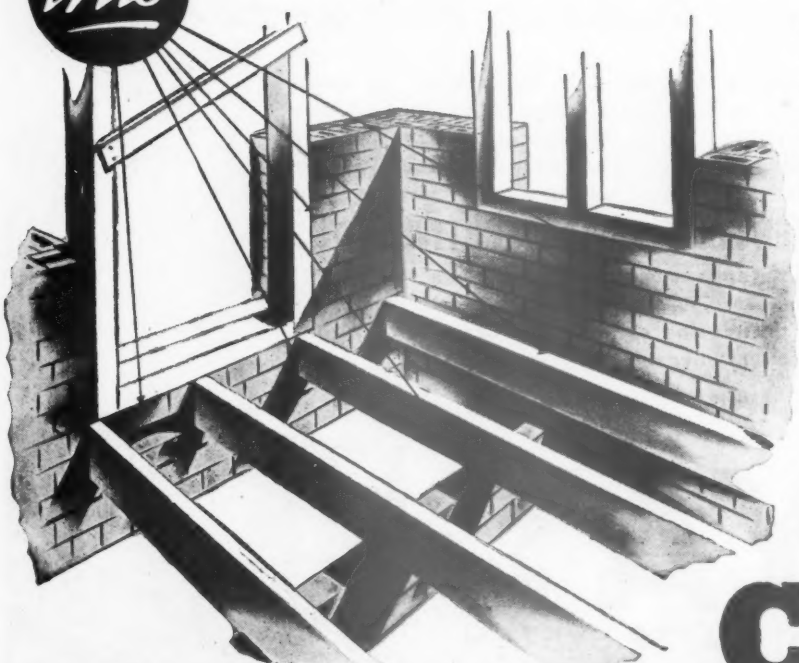

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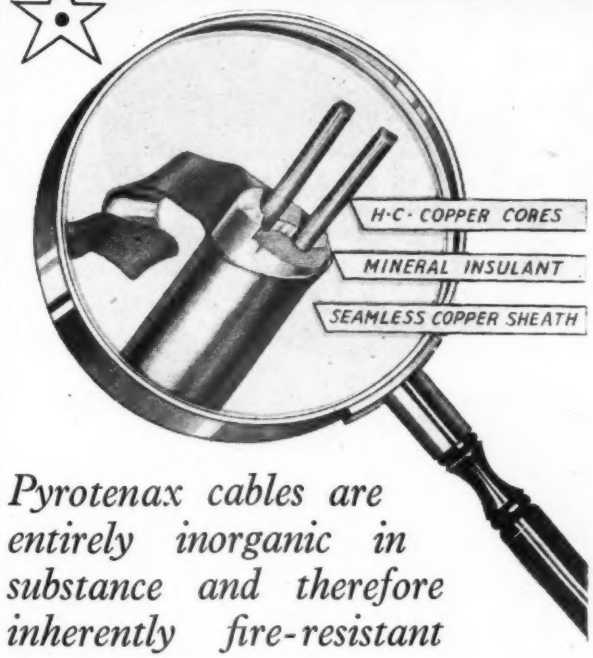

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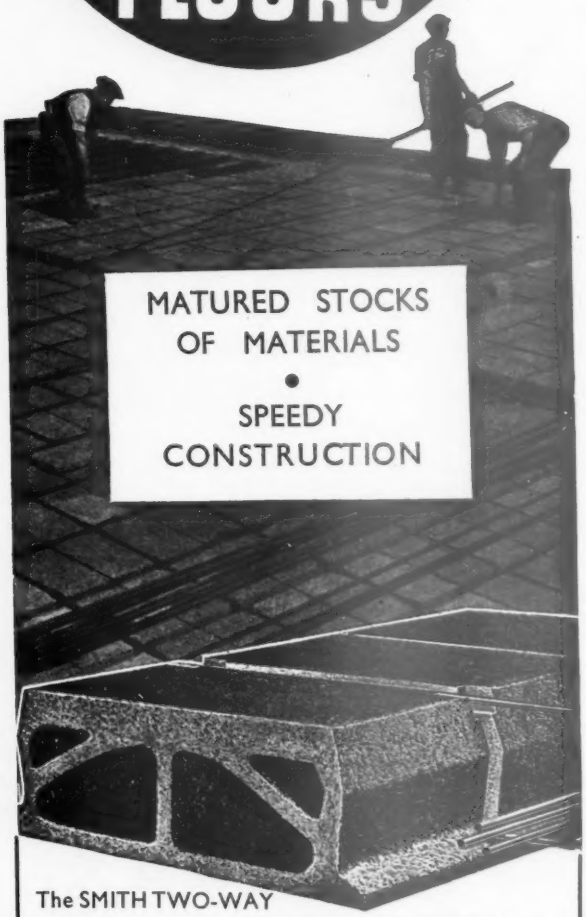

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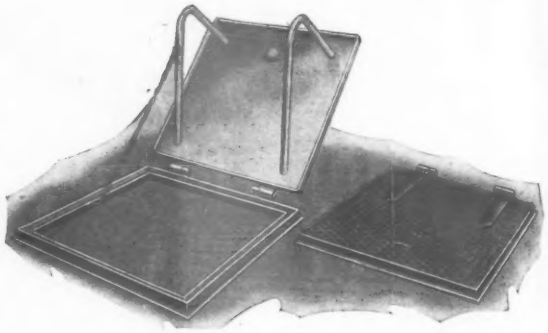

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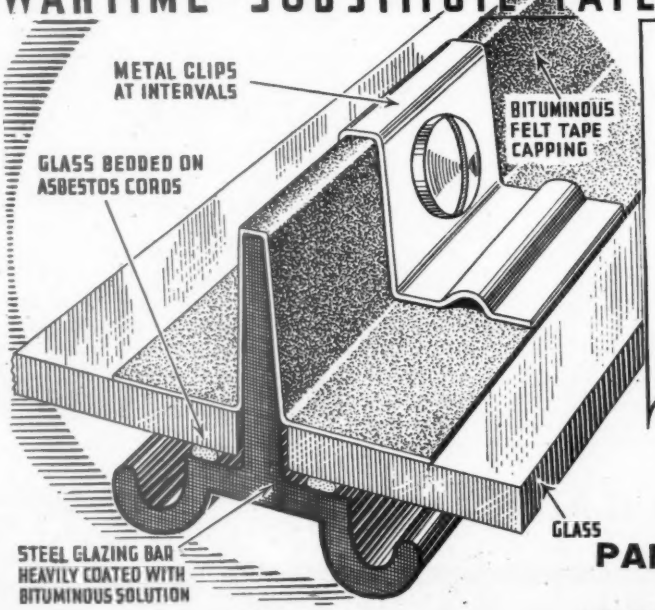

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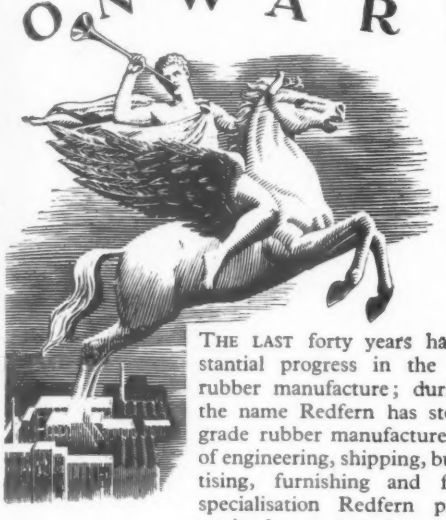

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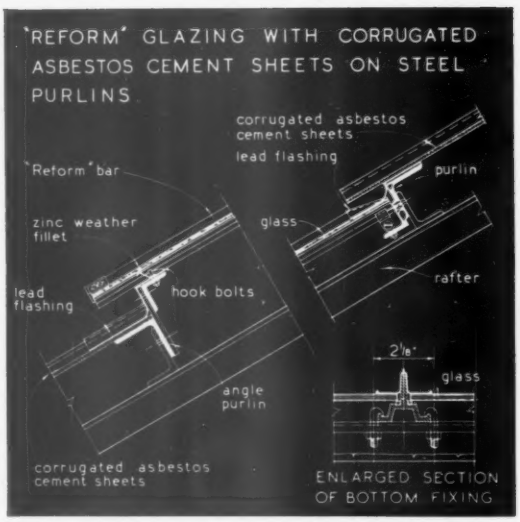

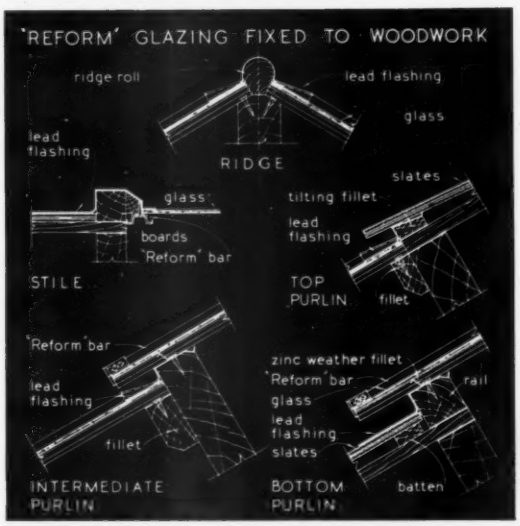

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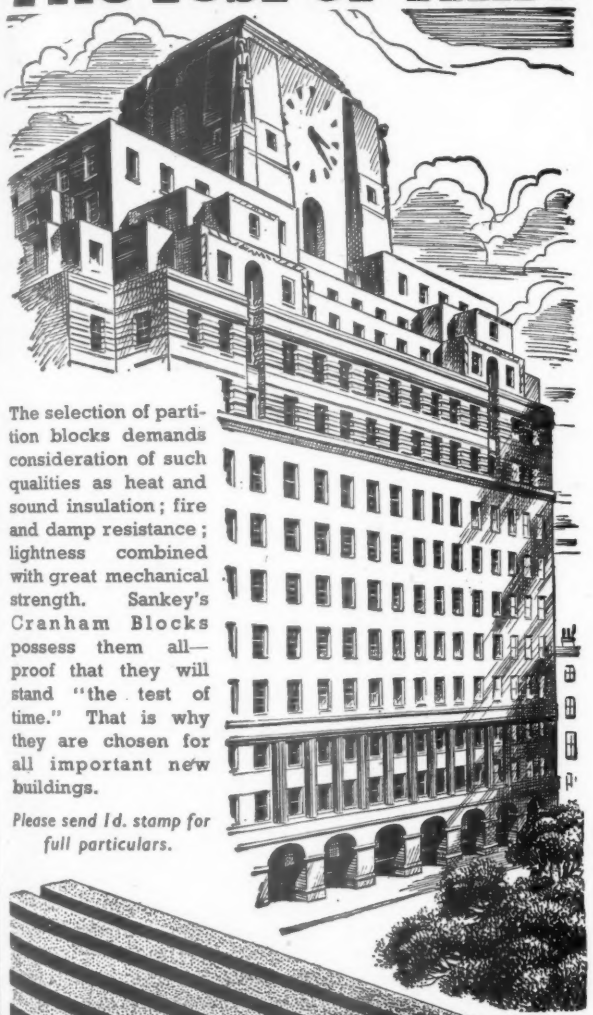

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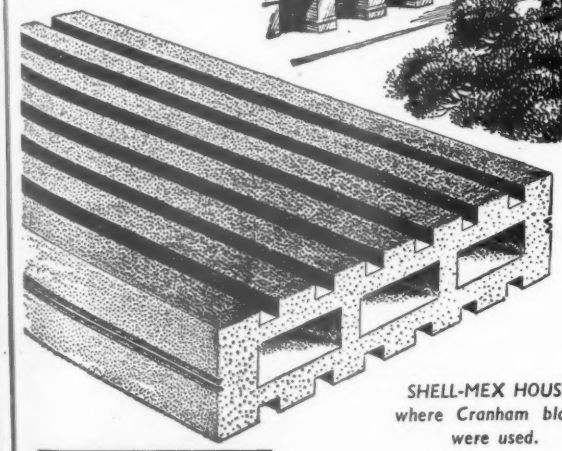

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