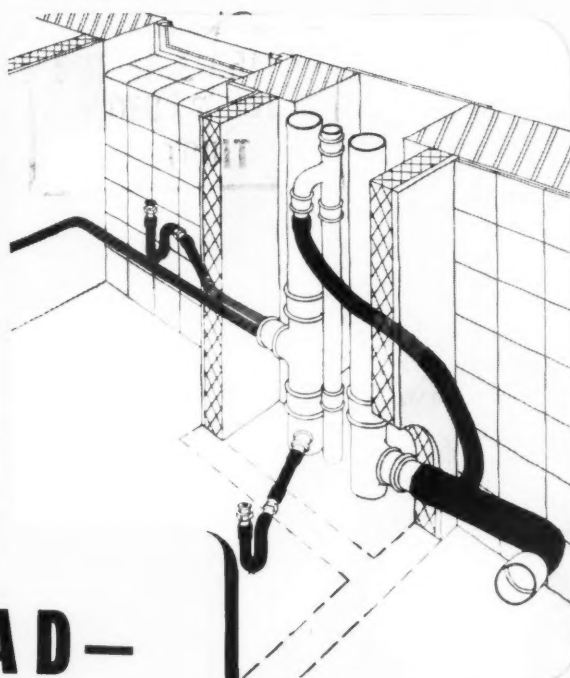
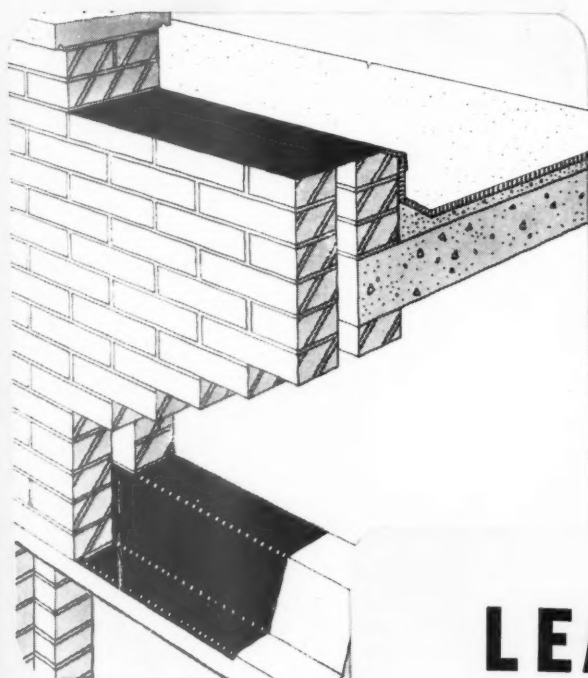


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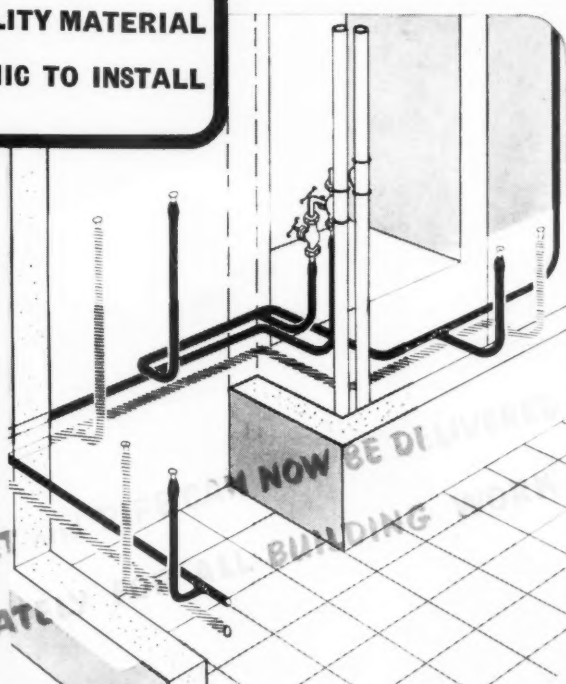
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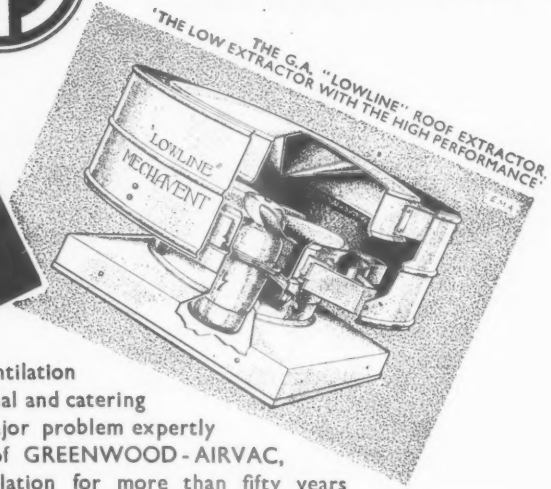
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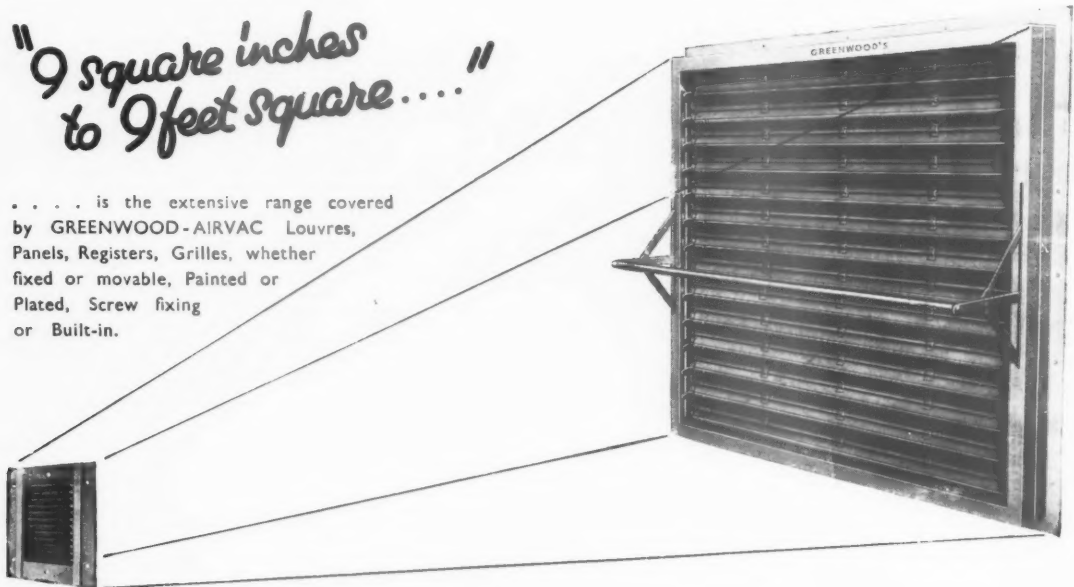


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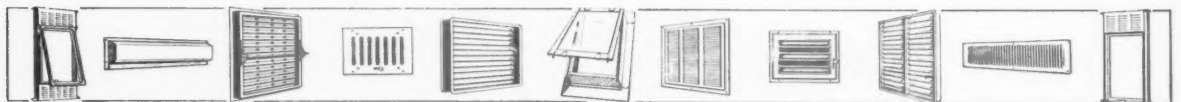
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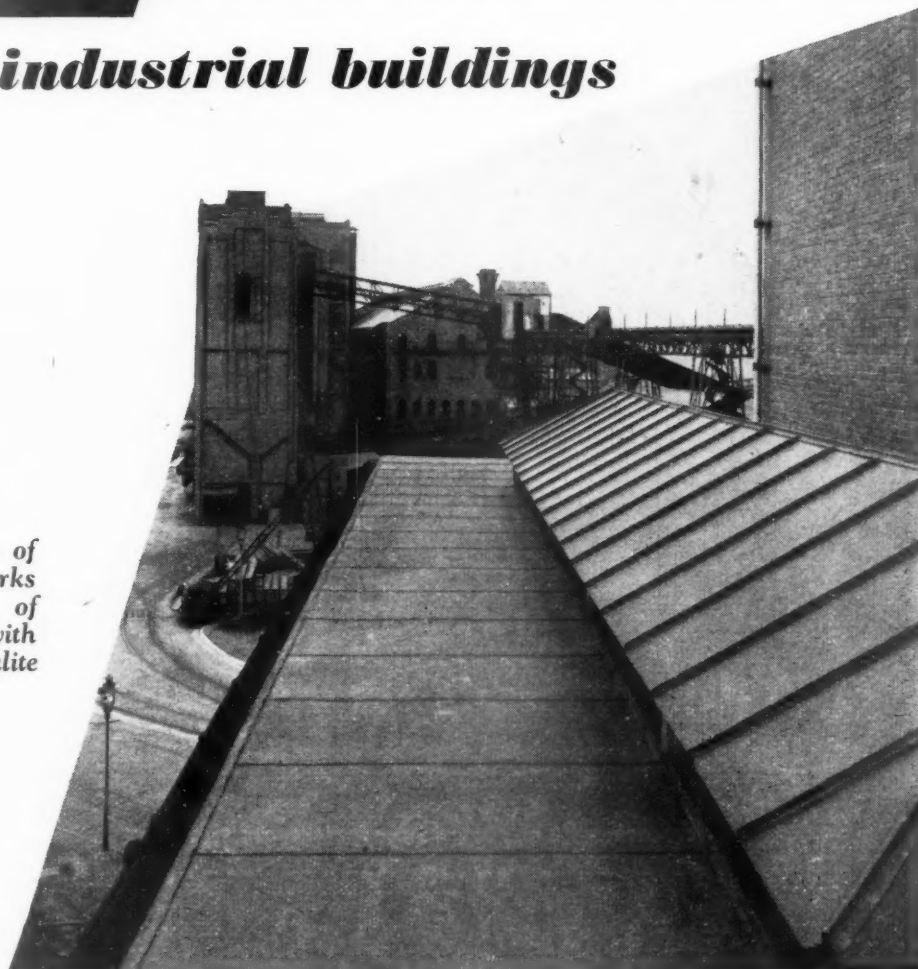
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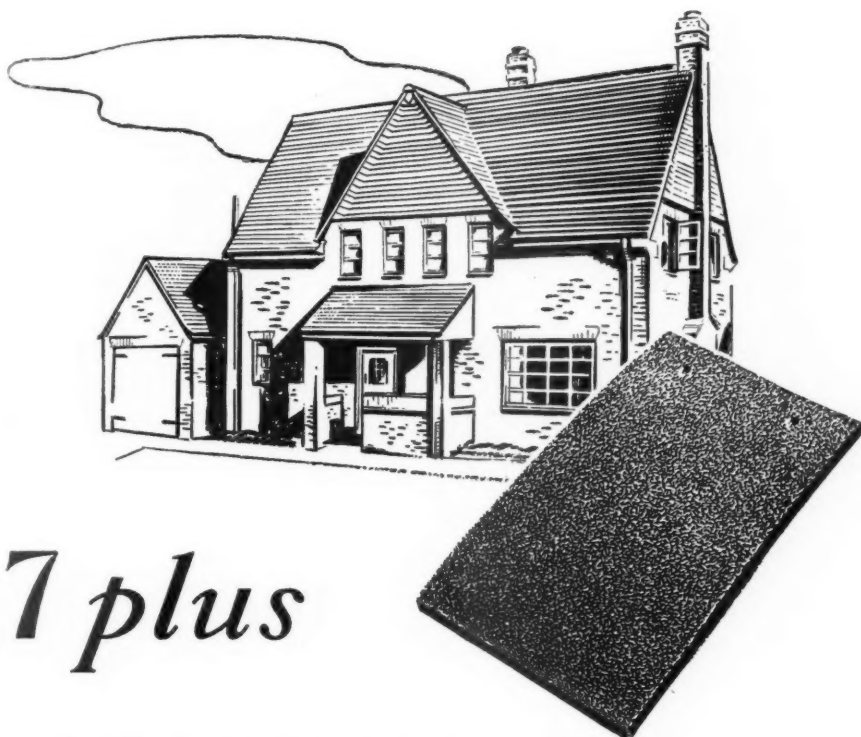
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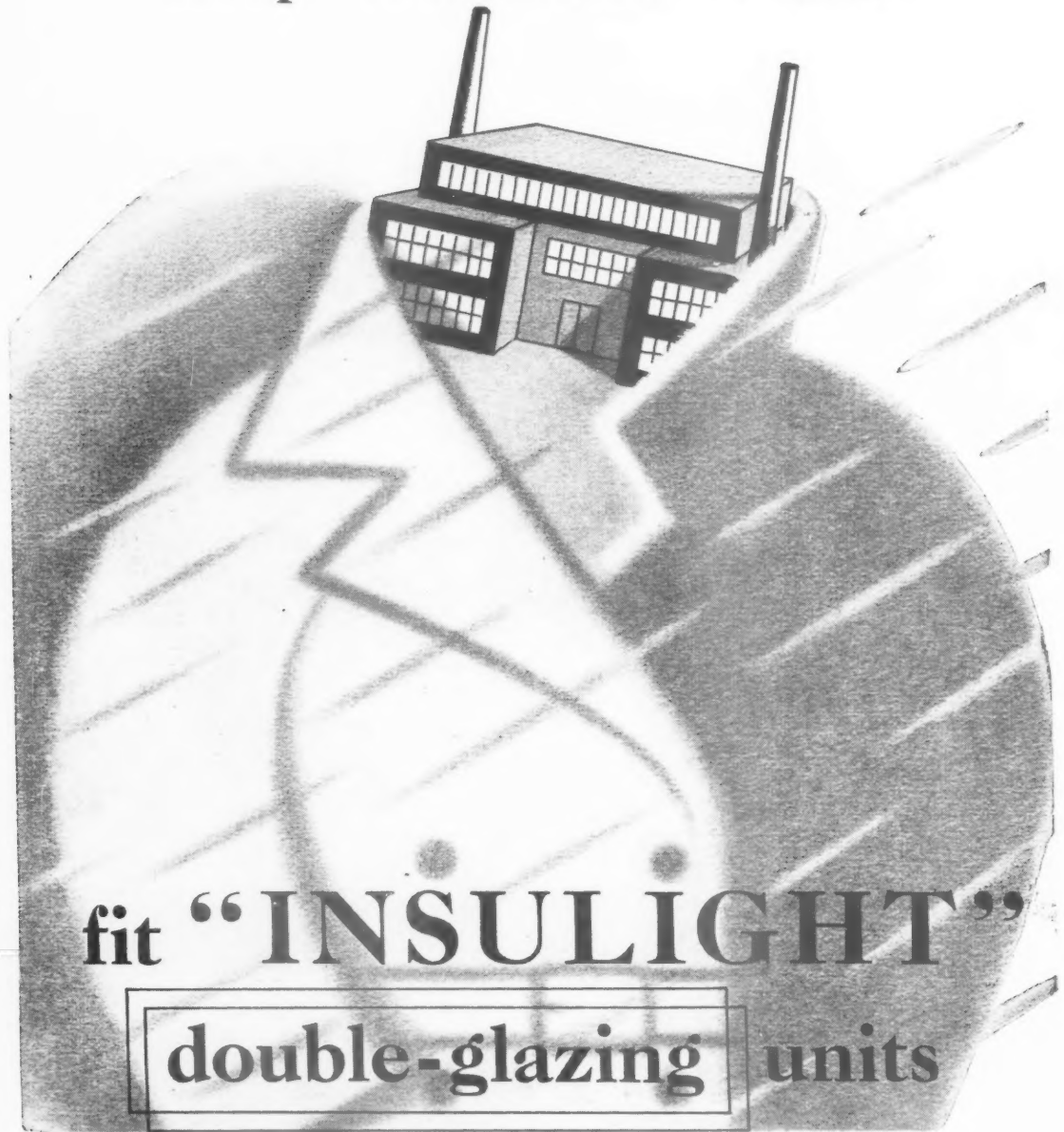


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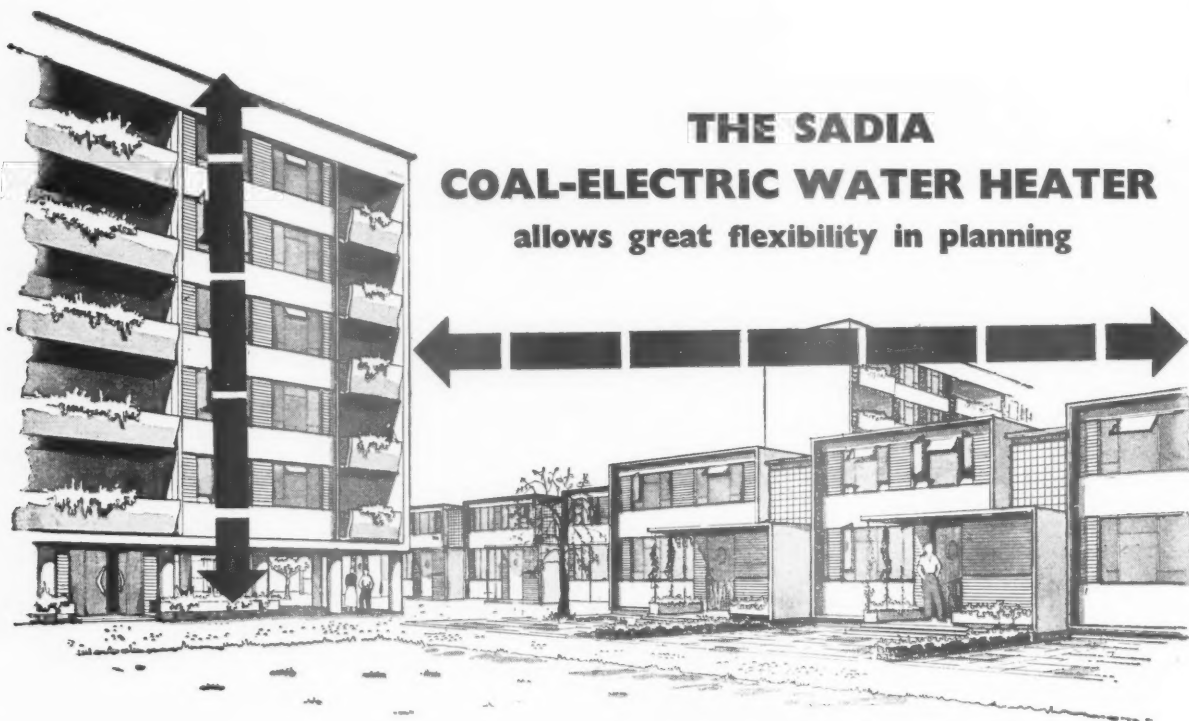
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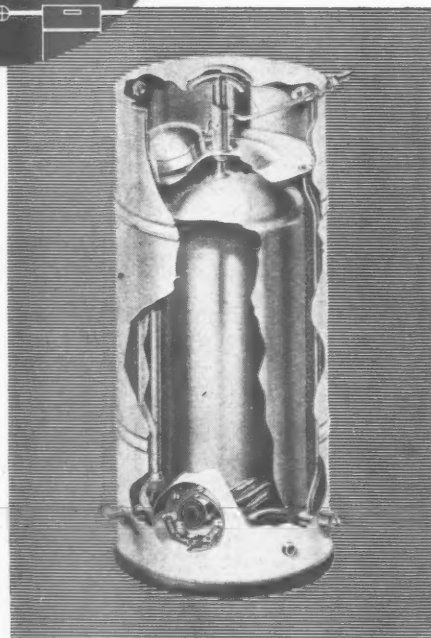
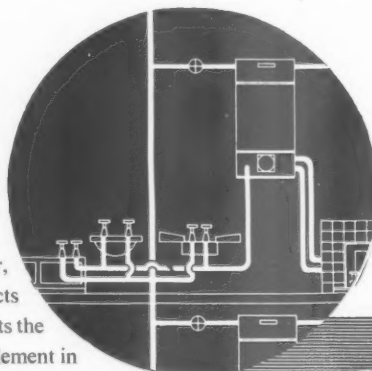
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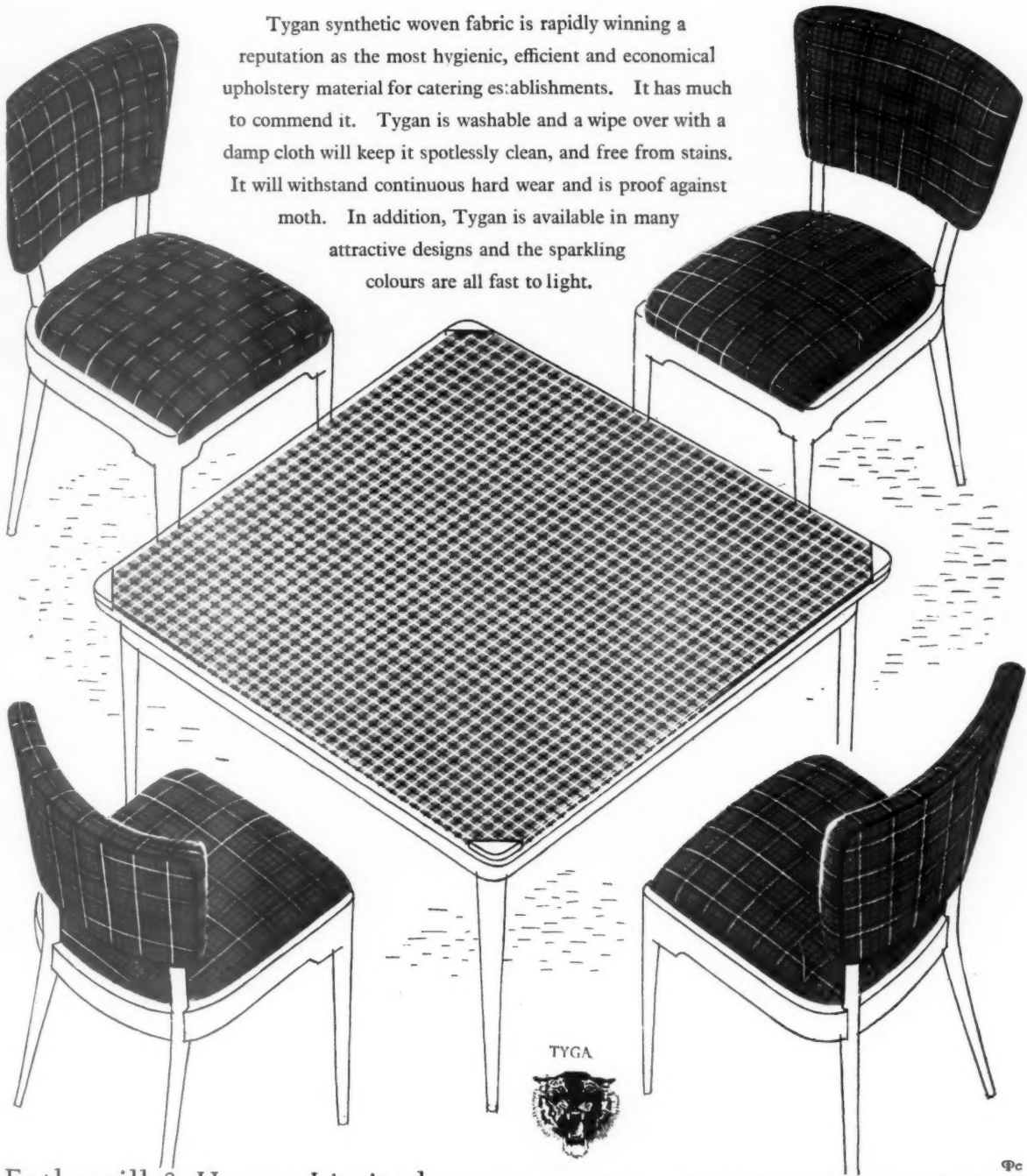
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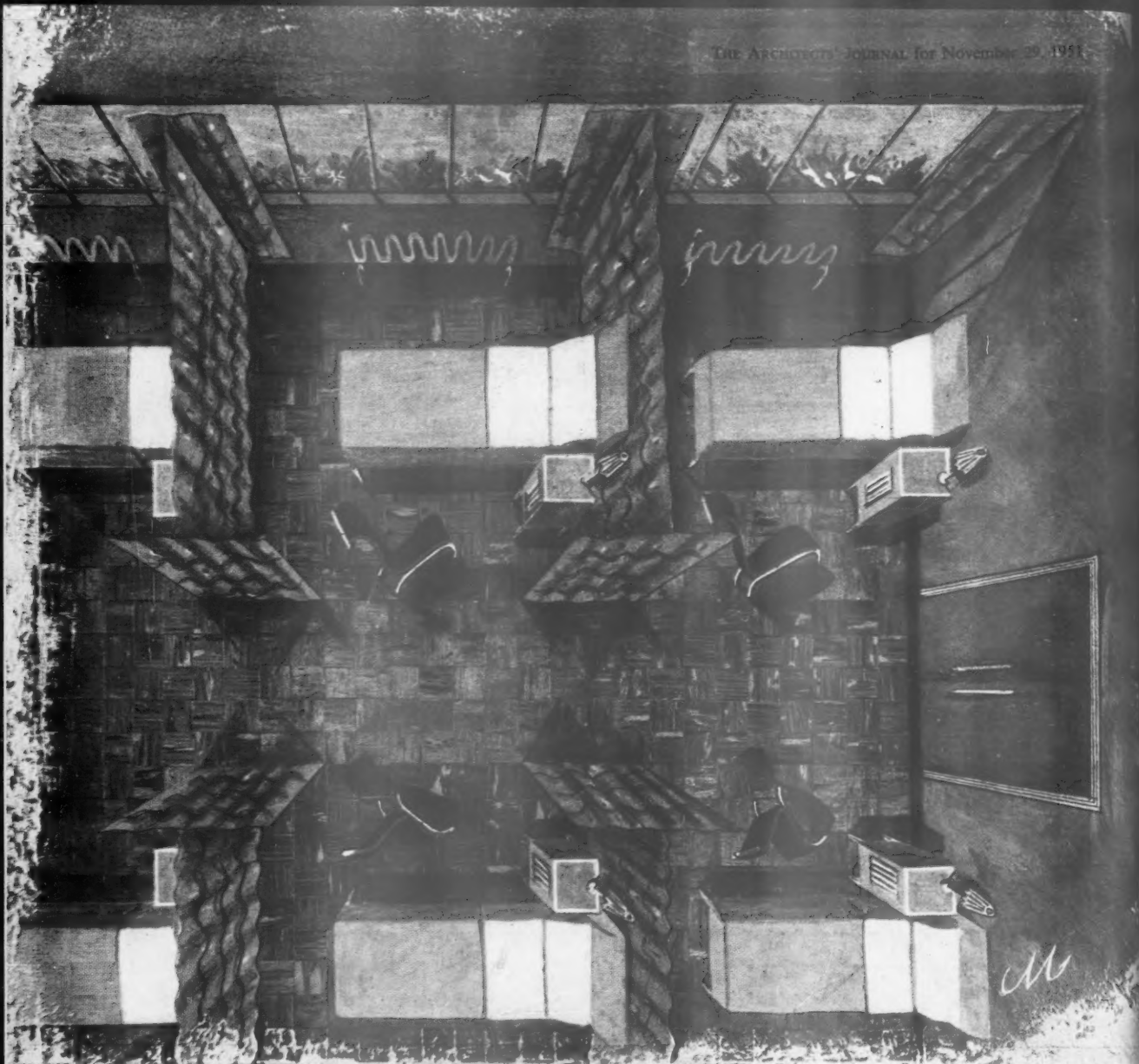


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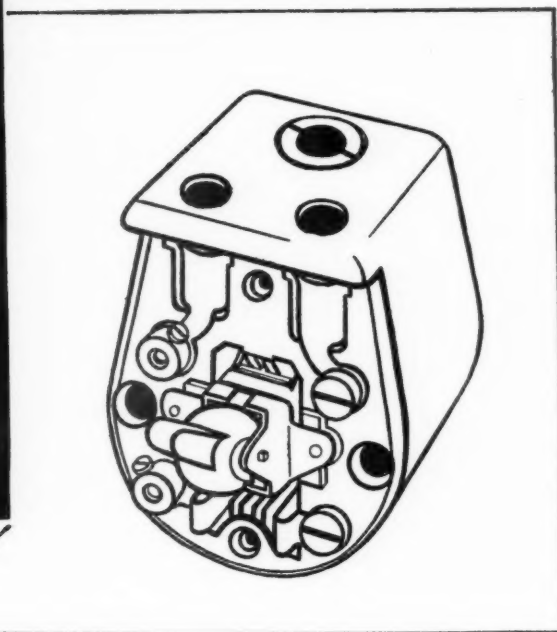
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Architects: T. P. Bennett & Son, F.F.R.I.B.A.



Left: 77-91, New Oxford St., London, W.C.1.

Architects: Lewis Solomon & Son, F.R.I.B.A.



Below: Charles House, Kensington, W.14.

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AN INTERESTING NEW PRIMARY SCHOOL



Wentworth Drive County Primary School, now completed, has some novel and interesting features:

"A primary school to accommodate 320 pupils. A school that is practical, pleasing to see, and one that the ratepayer can afford. A school, above all, to be built quickly." These were the broad terms of the brief given to Mr. S. H. Loweth, F.S.A., F.R.I.B.A., M.I.Struct.E., Kent County Architect. Only 16 months later, pupils began taking their first lessons in Wentworth Drive School.

Speed of erection was a prime consideration. Wentworth Drive thus became one of the first schools in Britain to incorporate aluminium construction. Although the front of the building, as seen from the road (i.e. the Admin. Wing, Assembly Hall and School Meals Unit), is constructed of yellow stock brick in traditional style, the two long classroom-wings—which stretch out behind—were brought on site in the form of pre-fabricated aluminium units four feet wide, ready clad both outside and inside, and supplied by the Bristol Aeroplane Company. The result is a good-looking combination of old and new.

Classrooms and corridors were both con-

structed on direct-to-earth concrete, thereby saving time and expense. The flooring material used was Accotile (thermoplastic tile made by Armstrong Cork Company).

So satisfactory has the architect's design proved, that a second and adjoining school is shortly to be built next-door to the existing building, on similar lines. Wentworth Drive's heating-chamber and meals-unit are, therefore, double-sized. They will, eventually, serve both schools.

There are many modern features in the new school. It is, for instance, wired throughout for radio and gramophone reproduction. Perhaps, however, its most interesting facet is the quality of its interior decoration. A great deal of thought was devoted to this, in order to give pupils a pleasant place to work in, with no lack of variety. The colour-schemes, particularly, have been carefully devised, and have won praise from high authority.

Every classroom has a different colour-scheme—set off by the tile floors. Here, the architect was helped by the wide range of

colours in which Accotile is available.

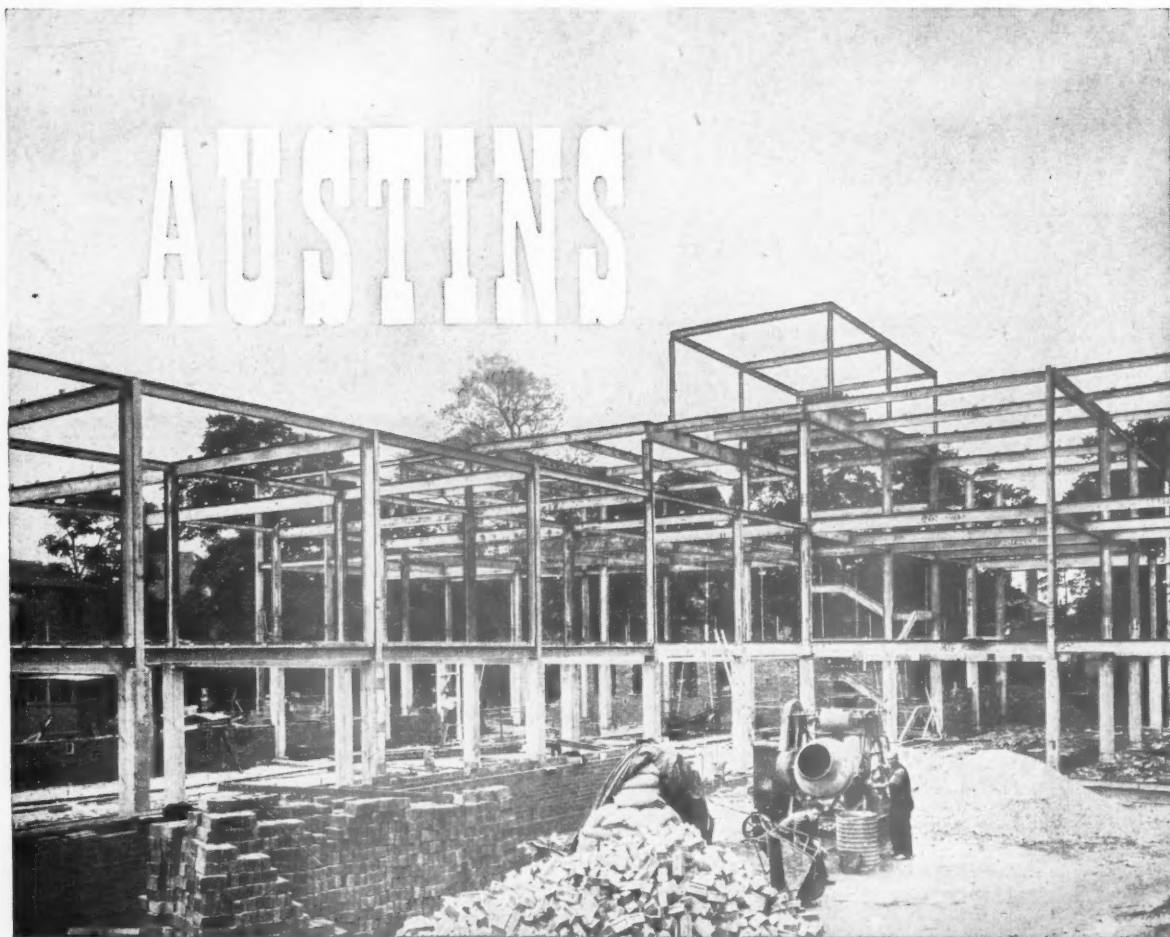
All in all, a not-unimportant part in the project was played by Armstrong's Accotile. The decorative qualities of the tiles have given the floors an appearance of near-luxury. It is quiet to walk upon, and even in the corridors, where the hardest wear is expected, it will last well. It is very easily cleaned and—most vital—its extremely low price has helped to make Wentworth Drive School not only a first-class building but "one that the taxpayer can afford."

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The following were responsible for Wentworth Drive County Primary School: S. H. Loweth, Esq., F.S.A., F.R.I.B.A., M.I.Struct.E., County Architect; R. T. Green, Esq., F.R.I.B.A., Deputy Architect (in charge of Schools); R. C. Passmore, Esq., A.R.I.B.A., Principal Assistant; C. B. H. Cremer, Esq., A.R.I.B.A., Architect in Charge; Messrs. Gilbert Ash Ltd., 2 Stanhope Gate, London, W.1, General Contractors.

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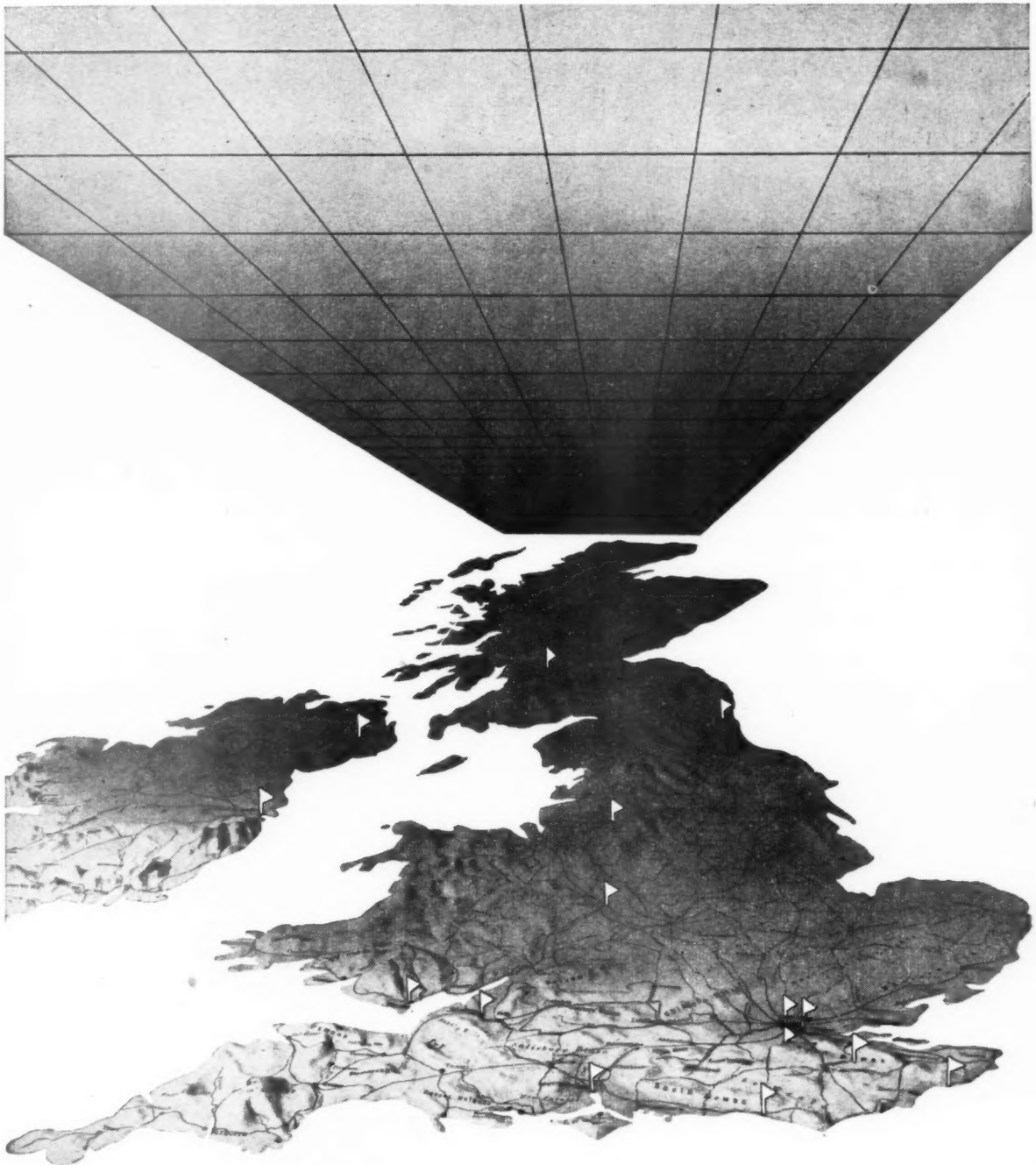
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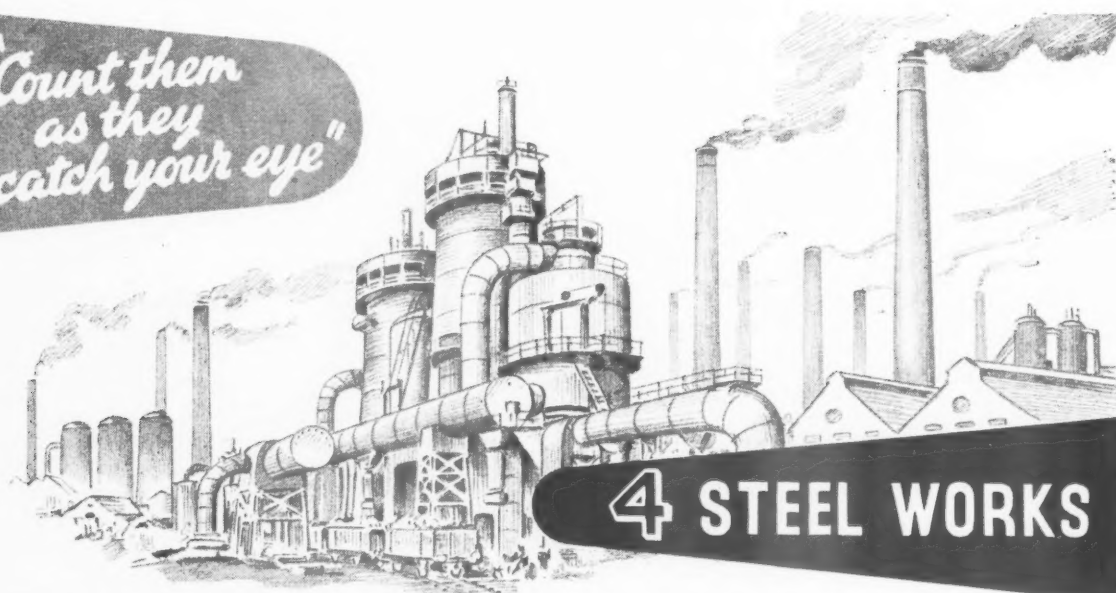
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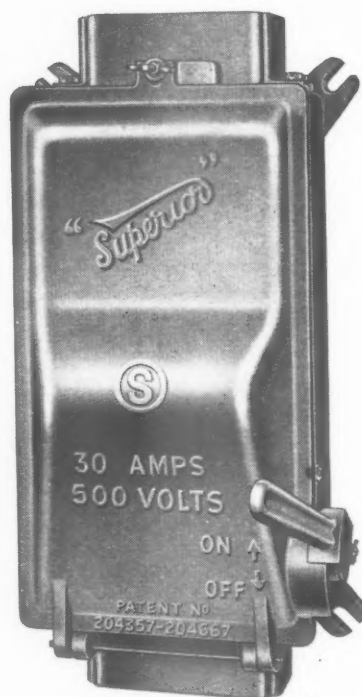
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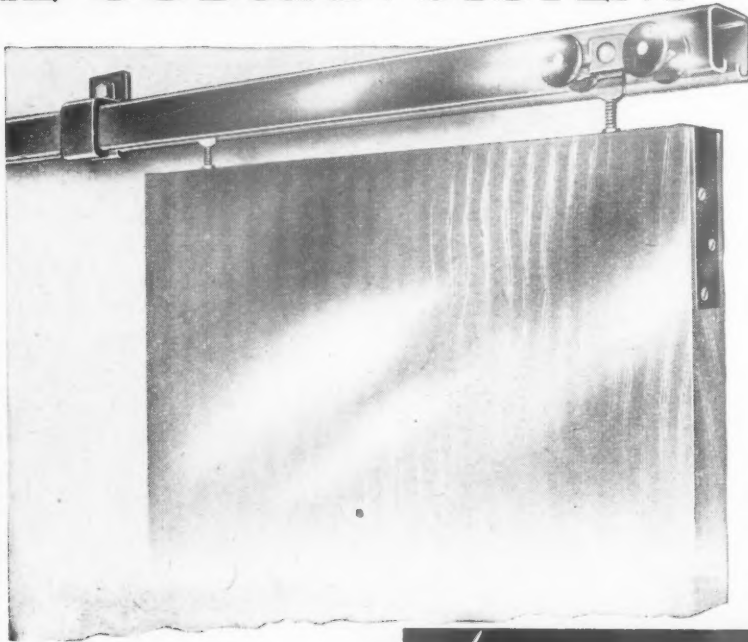
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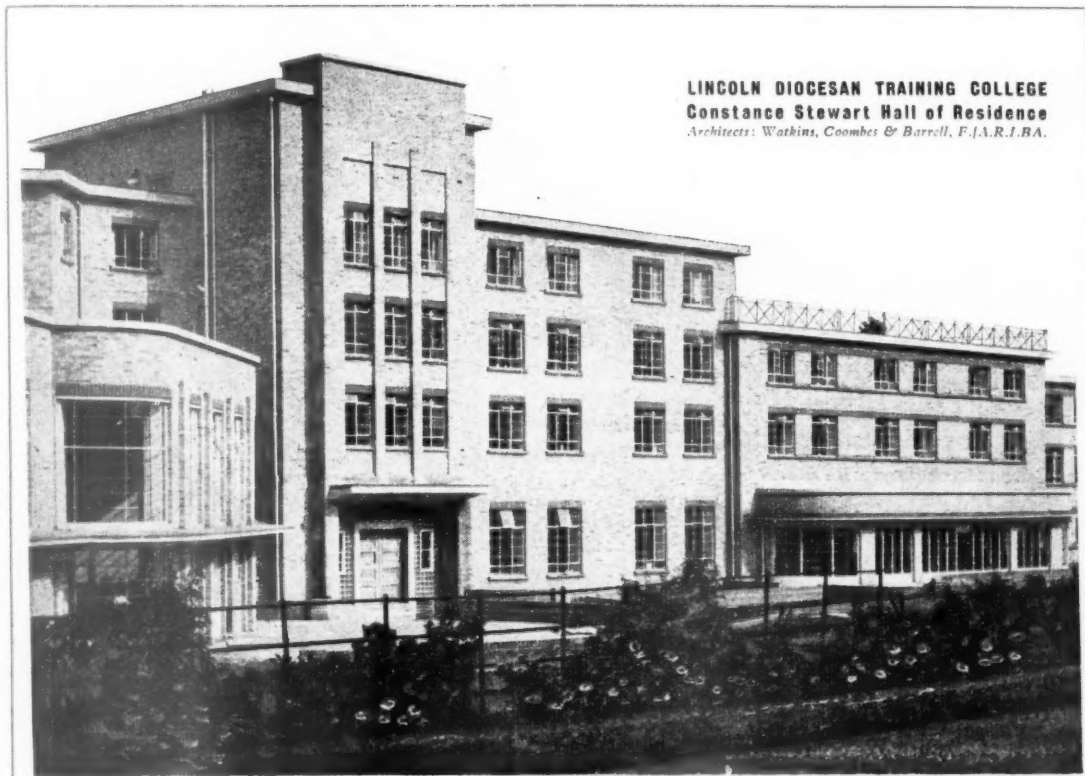
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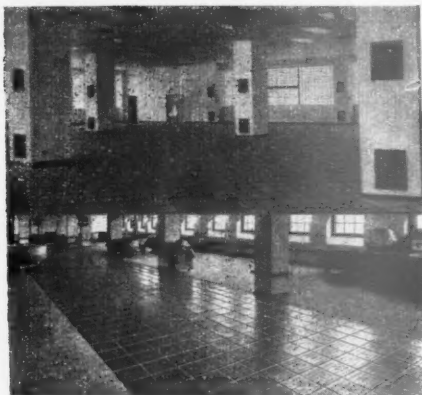
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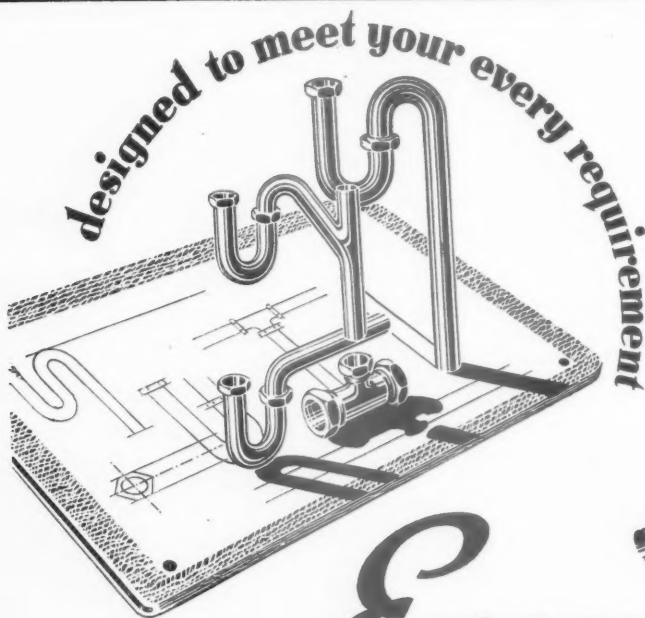
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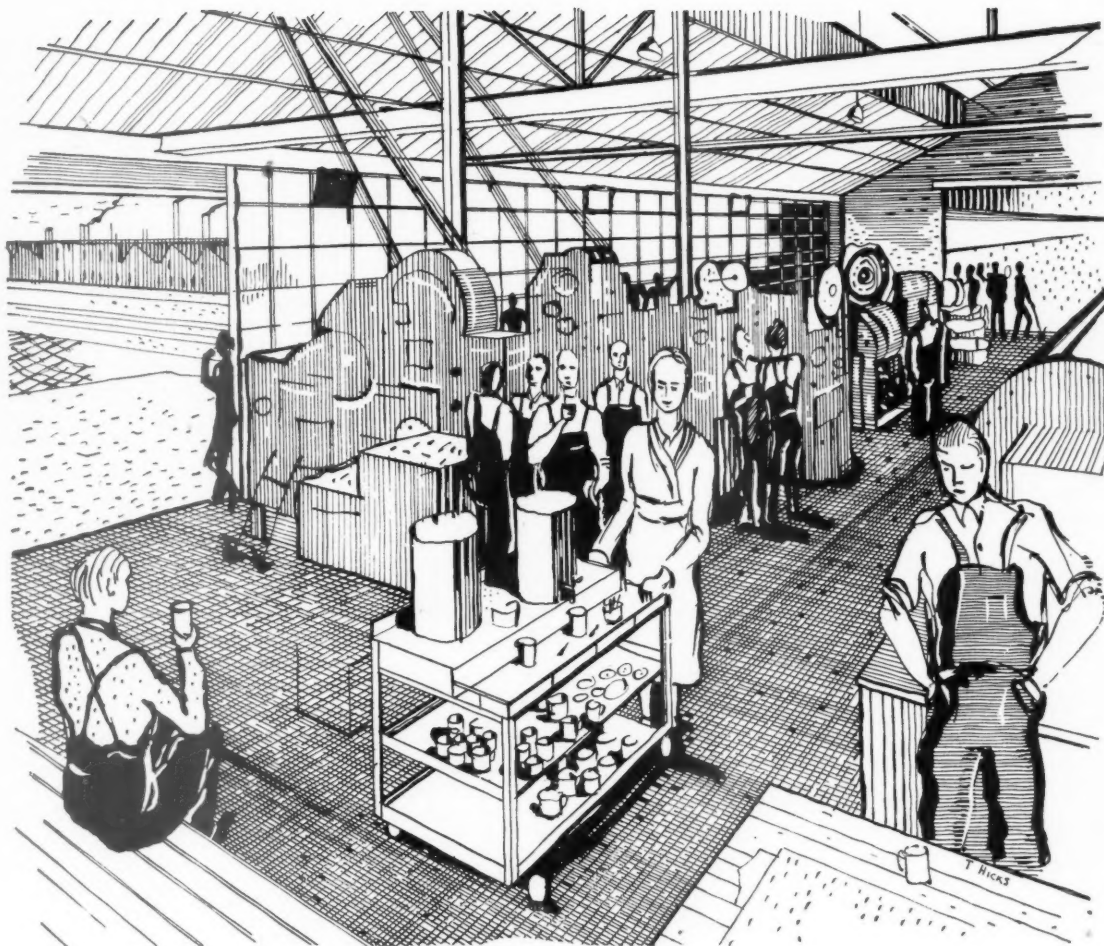
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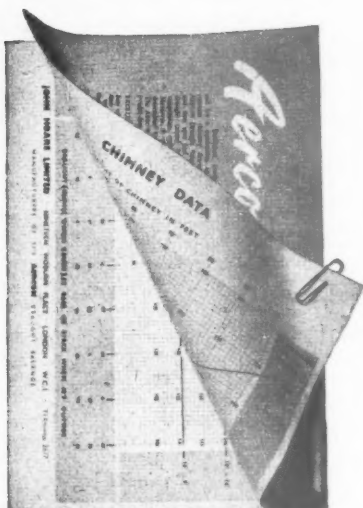


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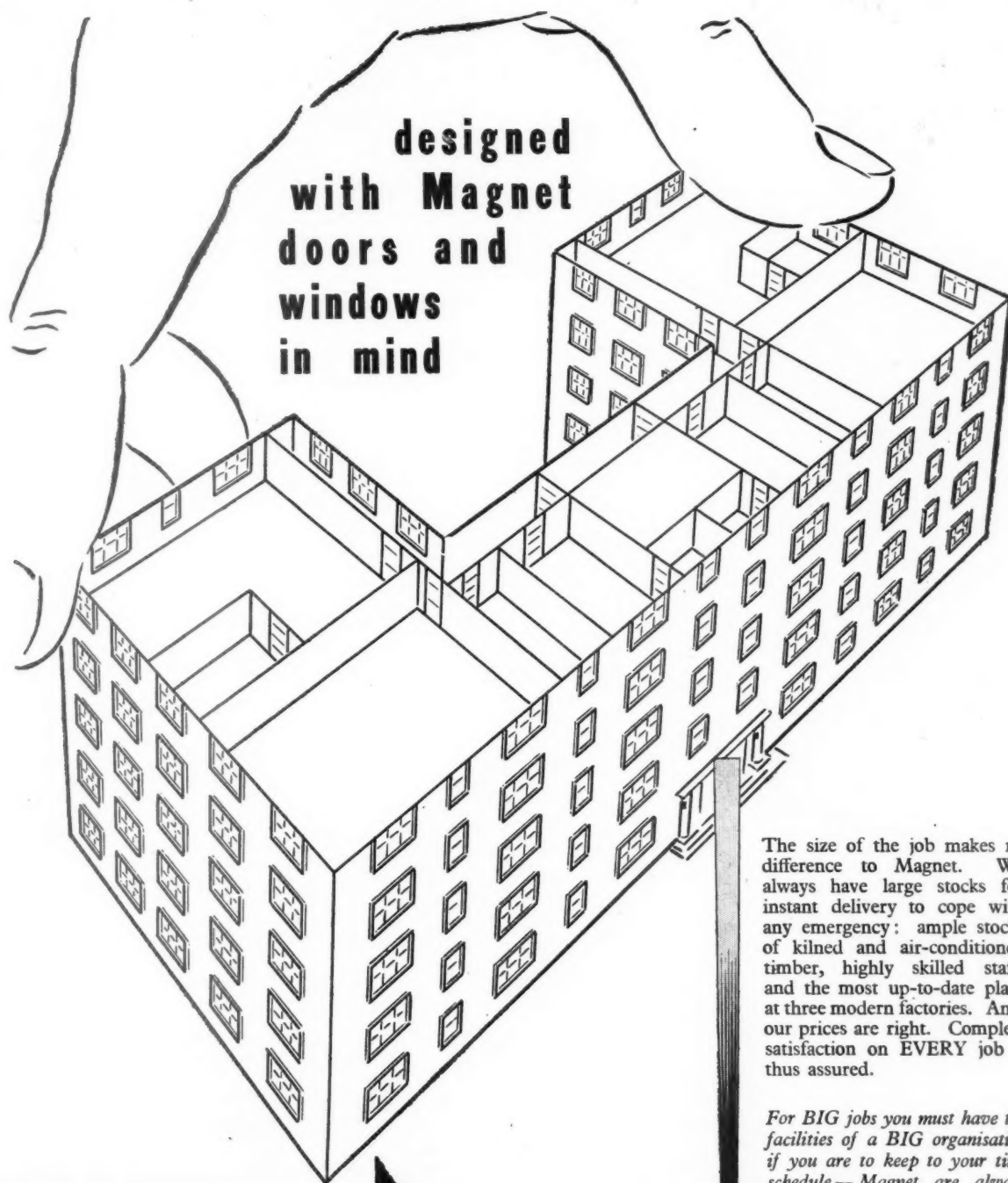


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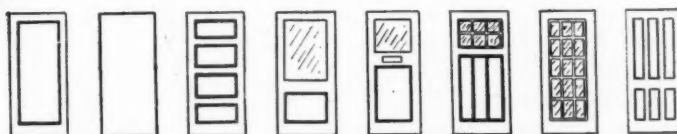
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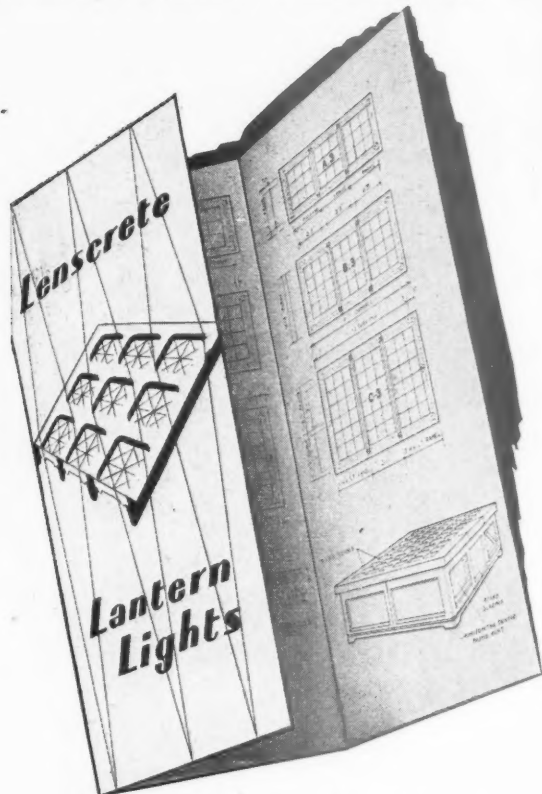
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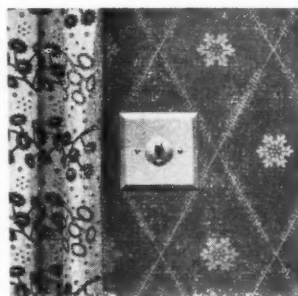
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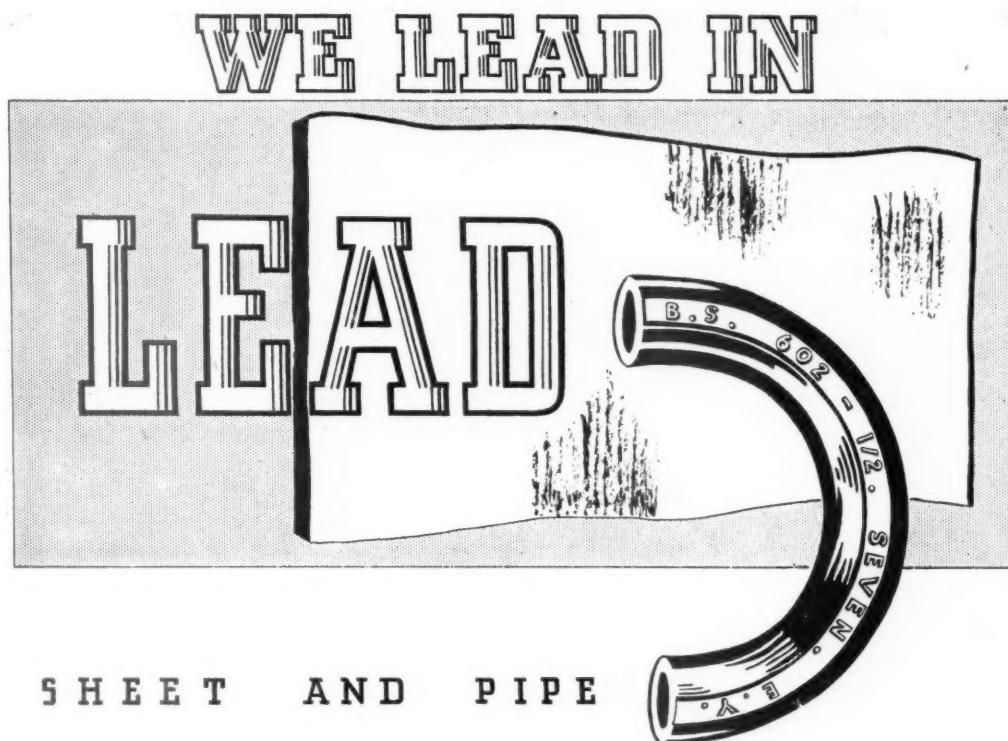
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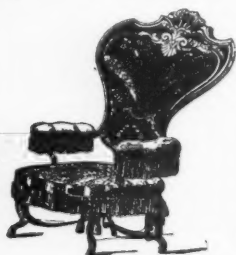
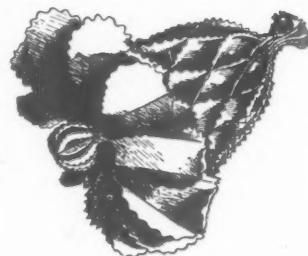
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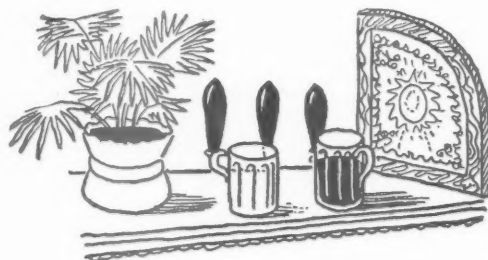


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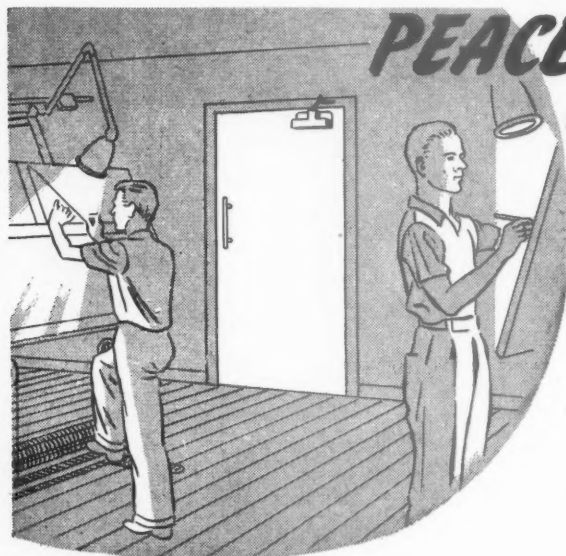
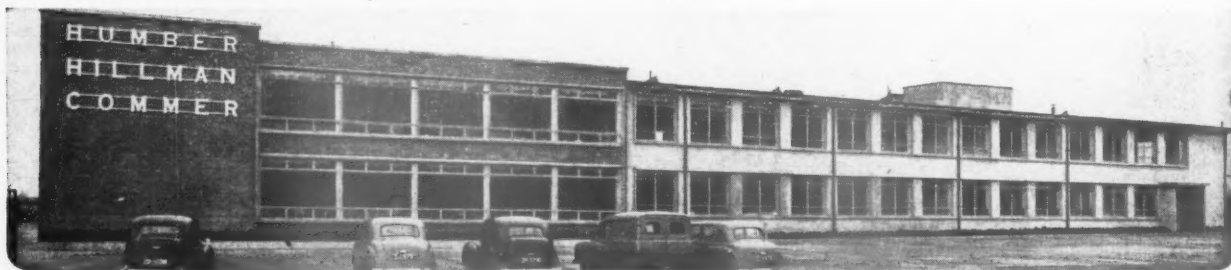
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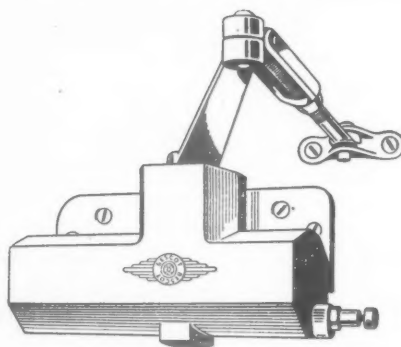
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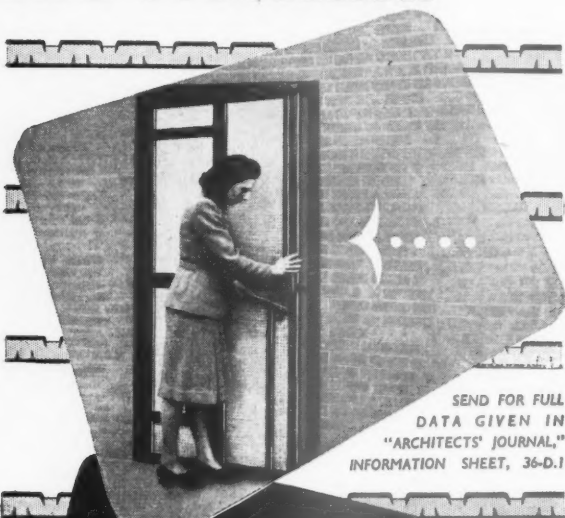
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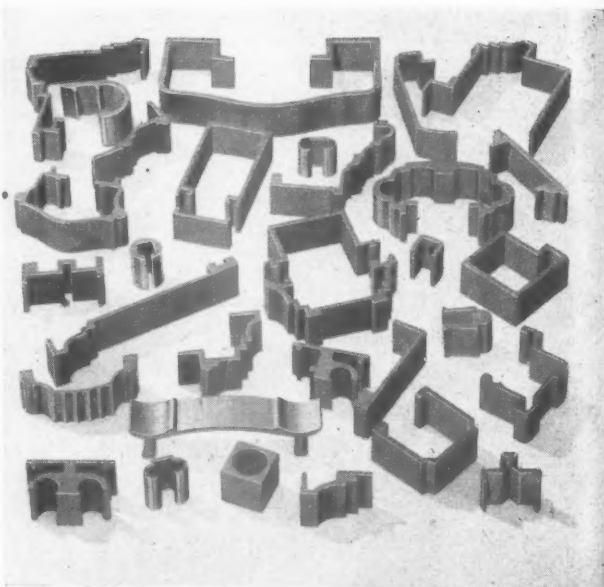
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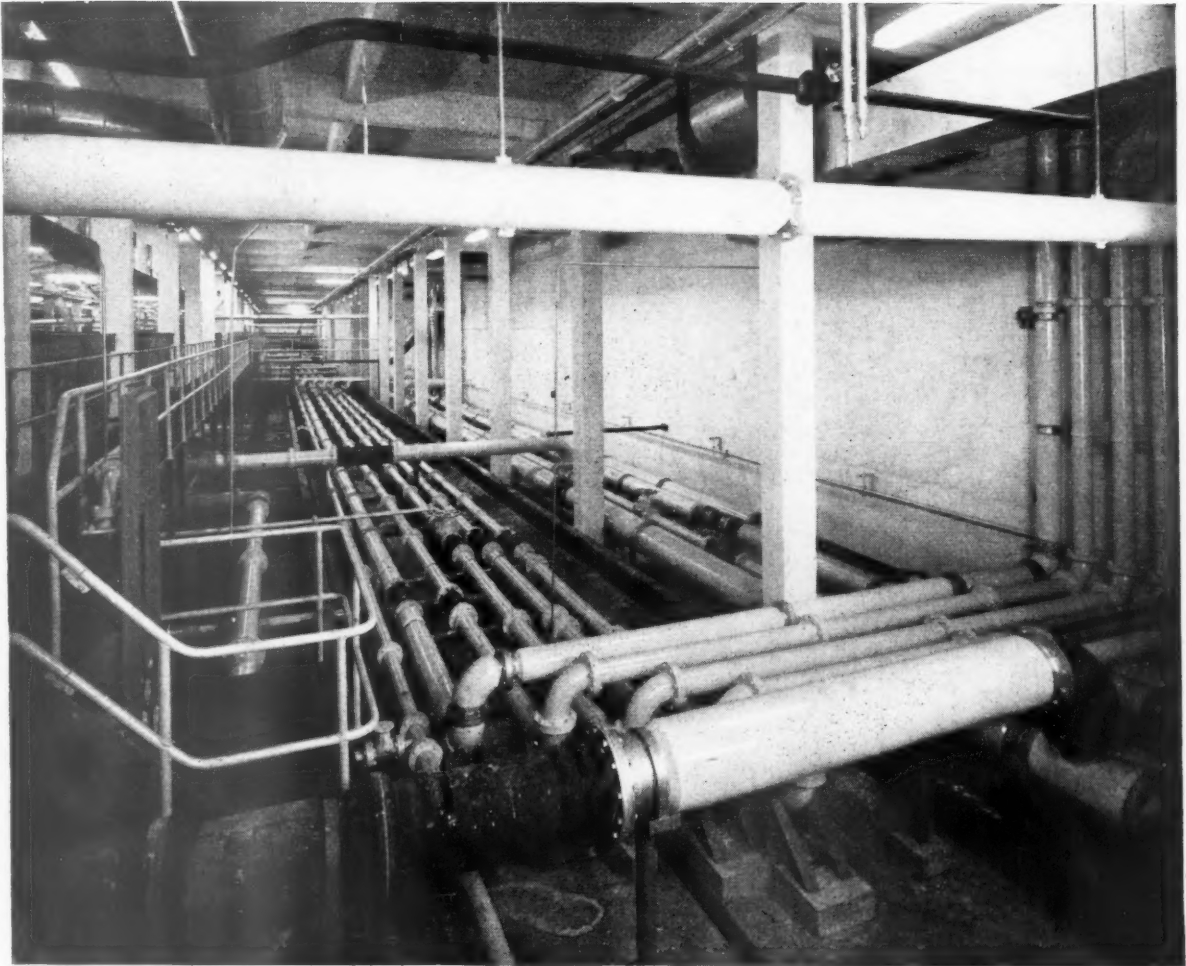
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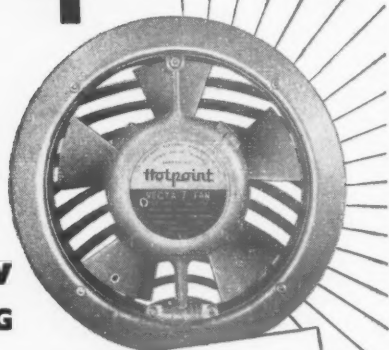
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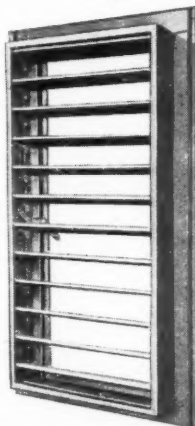
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THE ARCHITECTS' JOURNAL

No. 2961 29 NOVEMBER, 1951 VOL 114

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Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free, 1s. 3d. Special numbers are included in Subscriptions; single copies, 2s.; post free, 2s. 3d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for 25s. 0d.; carriage, 1s. extra.



SOUTH BANK DISPERSAL

You will have read, no doubt, in last week's JOURNAL the announcement about the public auction sale of South Bank miscellanea to be held on December 11-14. (Last chance to get one of those chairs—or was it a plastic water-lily you had your eyes on?) It will be interesting to see what sort of prices some sorts of things will fetch. Obviously the Festival office has high hopes of recovering as much of its deficit as possible. Obviously, too, there will be many hopeful bargain hunters who will feel aggrieved if such items as, say, two dozen bird-soiled nesting-boxes, six aluminium windows with brass handles (dam:) and one gross 9-in. plastic letters filled with stuffed insects are knocked down for more than a nominal sum. Well, we shall see, and ASTRAGAL—who

will, of course, be there on the day—will tell you what happens.

Most of the exhibits have, of course, by now been returned to their owners. The railway engines, the giant telescope and the champion goats have long since vanished, and the Army is about to start lowering the AA gun—not too fast, please—from the top of the Shot Tower.

Some of the displays, however, after a much-needed brush-up, are off to conquer new fields. Misha Black is, I believe, taking a few to Ceylon for his Colombo Plan Exhibition, opening in the Spring, and several of the "set pieces" from the Lion and Unicorn Pavilion are to join an admirable little Parliament Exhibition (recently staged in Westminster Hall by the COI) in the UK Pavilion designed by Hugh Casson and Neville Conder for the Van Riebeeck Exhibition, opening in Capetown about the same time.

This pavilion, which is illustrated on page 641, and in which the display design is being handled by F. H. K. Henrion, will, I understand, be dust-proof—a welcome experience at any rate for that poor old bewigged and robed "Justice" feature which, as I remember it at the South Bank, got grubbier and grubbier as the weeks went by. What a pity so few people will see it in its fine brilliance. I say few because, as you probably expected from present South African Government regulations, this exhibition will be for white folks only. Come to think of it, perhaps it's more important for them to see it than the others. After all, they have to administer justice, and they might as well learn to recognize it even if it's only an effigy.

A THORNHILL IN THE FLESH?

There is nothing like Art as a subject for public argument. Whether it is the latest Epstein or the proper hang of a crupper on a military memorial, it's always good for a few steady weeks of dispute. Northampton had its Graham Sutherland; Croydon has its Technical College; Leeds is already aflame with argument over the South Bank Henry Moore, which is to find its permanent home there. And now the peaceful backwater of Northaw, Herts., is disturbed by angry ripples. They spring from Northaw Place—a pleasant 17th century mansion, which has been recently taken over by the Middlesex County Council as a home for deprived children. The house has been much altered and a little spoiled, but the original staircase and its murals remain. The question, I need hardly say, is the old one of murals and morals. Some say the former must be removed in order to preserve the latter. Others, slightly, I believe, in the lead at present, hold that good, if misconceived, intentions are no excuse for vandalism.

Through the courtesy of the Middlesex County Council I went and had a look at the paintings. (I hadn't been to Northaw Place since, during a war-time week-end in the Gibberd-Chitty mansion nearby, a stray V-1 blew all the windows out.) The murals, as the photographs on pages 637 and 638 show, are of the Thornhill period but not, say the experts, by Sir John's own hand. They are applied direct to the plaster and cannot be removed to another place, and they badly need cleaning and repair—work which might cost between £200 and £300.

Once more, as in the case of Hadlow Tower—the familiar questions arise:

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First, is it worth preserving? Second, if it is, who is to pay the cost? Perhaps during the recess—advertised as a time for ministers to get to the bottom of their in-trays—somebody could dust off the Gowers Report and see if that can help.

BUILDING YOUR OWN

Here's a problem for the Minister of Housing and Local Government. Local authorities, apparently waiting for an official ruling from Mr. Macmillan, seem to be holding up temporarily on those enterprising groups who start building houses for themselves. From what I hear, quite a number of firms are really helpful when their workers want to do this sort of thing; most working class groups can find plumbers and painters and electricians, but at least one firm has organized evening classes in bricklaying and roofing, no doubt because a houseless worker is likely to move on, but all the same it seems to me an enlightened thing to do. I've heard no output figures, but I'm sure that a group of men building for themselves work just as hard as the paid craftsman. Methods of this kind can solve the problem only for a few individuals, but I hope Mr. Macmillan will continue to encourage privately enterprising families as well as private enterprise builders.

FRENCH REVOLUTION WANTED

I see that on December 4 Robert Jordan is talking on the "Third" about the L'Unité building in Marseilles. I hope he will either confirm or dispel the floating rumours that it is going to be a fire station, or a hotel or a hostel for civil servants, or that nobody wants to live in it.

*

Paying a flying visit to Marseilles a few months ago I had no time to try to find which, if any, of these rumours was true. Apparently the Marseilles municipality is always either conservative or communist. The conservatives accuse Corb. of putting up a "communist building"—in which the workers will keep the coal in the bath anyway—and the communists accuse him of putting up a "capitalist building" which will impose a way of life on the inhabitants. All this doesn't make Corb. turn a hair, but it can't have helped Jordan to discover the truth.



These are some of the murals believed to be by a contemporary of Sir John Thornhill—which flank the staircase of Northaw Place, Middlesex. On page 635, and on page 638, will be found comments on a proposal to cover them with wallpaper—to screen them from orphans now living at Northaw Place.



I hope, however, that Jordan will be able to discount M. Pilliet's tendentious article in the current issue of the TCPA Journal. This also raises the "totalitarian" hare. The TCPA should have known better and might at least have checked their sources, avoiding, for instance, that bogus press photograph captioned "A Marseilles Family Moves In." Nobody, of course, has moved in yet.

*

The drawback to Corb. as a controversial figure is, of course, that he has focused so much attention on himself that we all tend to forget the parlous state of French architecture. In my youth I got accustomed to the idea that the Ecole des Beaux Arts was dead, but at least it was lying in state—there was a certain *pompe funebre* about it; now the corpse has been putrescent so long that the flesh is shrivelling off the bones. France, to many people, will always be civilization, the country they

love best; that of course, makes it all much worse and much sadder.

*

The SADG men are busy enough, but if they can't do better, then I, for one, would welcome a return to the old fruitiness and little bits of Grand Manner—Amiens, for instance. I doubt if French art has ever sunk so low. Certainly it has never been so dreary and arid. A new city is springing up, mushroom-like, around the cathedral, and there is not one word that can be said for it. No planning and quite indescribable architecture, horribly well built. It is all much like the reconstruction work of 1919, but a few windows have got a little more horizontal and some of them have got on to the corners. The only people who, in the long run, can do anything about French architecture are, of course, the boys at the Beaux Arts. The revolution at the AA in the 'thirties was extremely healthy; let's have one on the Quay Voltaire.



Murals and Morals

At Northaw Place, a little seventeenth century mansion in the county of Hertfordshire, there is a staircase. And flanking the staircase there are some murals of the Thornhill period—not very well preserved apart from the subject matter. They show the figures of an allegorical "indian summer" so much admired and spoken of by the Popes and Drydens of their time. In postured carefree elegance the lady in the picture muses, but not, as do the new proprietors of Northaw Place, on the moral problem

of being undressed. Northaw Place is now an orphanage, and to prevent the murals being spoilt by the children and, even more important, apparently, to prevent the children's morals being spoilt by the murals, it is proposed by the local authorities that the paintings be covered with wall-paper. ASTRAGAL, on page 637, discusses this vandalistic proposal and makes a plea that this visual reminder of our Augustan age, which is immovable, may yet be preserved in spirit and in paint.

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CROYDON COLLEGE CORRECTION

When referring, two weeks ago, to Robert Atkinson's design for Croydon's proposed technical college, I suggested that the MOE could be trusted "to ensure that it does not keep its present form for very long." A well-informed colleague now tells me that MOE does not attempt æsthetic criticism of designs submitted to it. It confines itself, and, on second thoughts I believe rightly, to criticism on functional grounds only. Such criticism is sent to the client—in this case Croydon Council—who can then attempt either to answer it or to ask the architect to remedy the faults found.

*

As one can imagine, a building has to be extremely bad not to function at all—and thus give the MOE the opportunity of rejecting it. In this instance I suppose the attitude of the MOE will be: "If having heard our criticism you, the clients, want your building to be like this, then go ahead and build it—within, of course, the cost limit." In other words, if Croydon citizens don't like this design it is up to them to make enough fuss to get it rejected. The ball is in your court, Croydon.

POST SCRIPTUM HOMO TRISTIS EST

And while on the subject of balls and courts, here, I am afraid, is a final smashing blow for those of you who haven't managed to get a copy of the 1951 "Specification." The publishers say all copies are now sold. If you want the 1952 issue you are advised to put your name down now.

ANOTHER LOT OF LOTS

Here is a Stop-Press item you have probably seen in your daily paper. In addition to the South Bank auction I have already mentioned this week there is to be a sale by auction of "the concessionaires' entire varied and practically new catering equipment and furnishings" on Monday to Friday next. The auctioneers, J. Trevor and Sons, of 58, Grosvenor Street, W.1, have had more than 1,500 applications for catalogues. So if you want an "optic club goblet"—and your state of health allows you to say it quickly—be there early.

ASTRAGAL

POINTS FROM THIS ISSUE

- Another auction of South Bank equipment next weekPages 639 and 644
 Exhibition pavilion for Cape Town exhibition, designed by Hugh Casson and Neville Conder.....Pages 635 and 641
 Sketch of Canterbury's replanned main streetPage 642
 New LCC school for infants at Greenwich.....Page 643
 MOH approves cheap house.....Page 643
 Housing at Dagenham by Norman and Dawbarn.....Pages 645 to 650
 Final review of Building Exhibition at Olympia.....Pages 651 to 663

The Editors

INCENTIVES FOR ARCHITECTS

THE solution to the nation's present economic crises will also solve the problems of the building industry.

What is the essential requirements in the industry today? Firstly, increased production. With the trade unions strong enough to ensure that the threat of unemployment cannot stimulate production the best hope of getting it is by incentive schemes. These schemes should reflect two things: the quantity and quality of the work done by the operative and the success, or otherwise, of the firm for which he is working. This should not take the form of an annual bonus, which inevitably comes to be considered as an annual obligation on the part of the employer to the employee, but should be a monthly or quarterly system of payments which sensitively reflects the economic state of the firm.

This proposal for the timing of bonus payments is not a new idea and the value of it is generally recognized by management. Obviously if the employee is to be aware of the efficiency of the firm for which he works he must have, as frequently as possible, a reminder in a concrete form of the success or failure of the building team in which he is working. Obviously, too, when the firm is successful each of the two partners, operatives and management, will tend to consider the reasons for such success as being due mainly to their own efforts while failure will be attributed to the other partner. It is to prevent such friction that operative-management committees are formed.

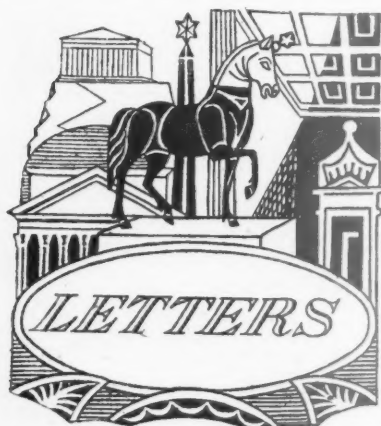
While the virtues of incentive schemes are obvious to nearly everyone, and hardly a speech is made by leading members of the building industry without making an appeal for their introduction by all firms, no one has yet suggested very forcibly that such schemes should be used by architects. A great many architectural firms offer an annual bonus—indeed, so kind-hearted are architects they frequently give a bonus whether the firm has done well or badly—thus destroying much of the incentive value of it.

It is generally admitted that the more sensitive the architect is to design the less he concerns himself with financial matters—until too late. His usual method of adjusting his practice to financial loss is by overworking himself and trying to take on more work and responsibility than he should. When this fails he resorts to the last expedient—he reduces his staff.

The architect in practice has only one incentive towards business efficiency—his reputation. Is this a sufficient incentive today? Once he has acquired a reputation, which was not such a difficult task before the war as it is today, it takes many years of inefficiency, due to the slow tempo of building, before his clients become aware of it. However much a building costs over the original estimate the architect still gets his percentage.

In certain spheres of design the "inefficiency" inherent in the designing of a building which is first and foremost a work of art is inevitable. It should not be otherwise. There remain, however, such buildings as flats, houses, factories and schools where the needs of society take precedence over the desire of the architect to work out his æsthetic purpose to the full extent of his powers.

Such a brake on his æsthetic sense, which otherwise would never be satisfied, is provided by his fees. Most architects operate, usually with their accountant's help, some form of costing system. This, however, though it may eventually goad an architect into desperate action, is not an incentive scheme in the true sense, and it does not really affect the architect's staff. Is it not time the architectural profession, as self-professed head of the building production team, considered the question of increased productivity in the building industry in terms of increased production in their own offices? And cannot this best be obtained by giving assistants a sense of collective responsibility by a scheme of profit sharing? It is to be regretted, though, that no one has yet devised a way of penalizing the architect himself, who, through inefficiency, causes a building to cost more than the contract sum. It is ironical indeed that today, with fees paid on the basis of a percentage of the total cost, he is able to make a financial profit from his mistakes.



The Impersonal Circle

SIR,—Your suggestion for an RIBA selection committee (AJ: November 1) is so reasonable that it is difficult to believe that the Institute has not considered it many years ago and, perhaps, found it unworkable. If it has not it is to be hoped that it will now do so.

M. J. F. Secrett, F.R.I.B.A.

*Robert Chalmers, B.Sc., M.I.C.E.
M.I.Mech.E.*

I. Smith-Raeburn

It seems a pity, however, that you should have sought to support your argument with the suggestion that this step would reassure the profession that "the choice of architects was not being restricted to a narrow circle nor made the occasion of rewarding good RIBA committee men." The profession should need no reassurance on this point. Surely no architect who upholds the spirit

of the code of conduct and who believes that his brethren do likewise would seriously imagine that a succession of presidents of the RIBA would be influenced by personal considerations in a matter of this kind.

I feel that by suggesting that this reassurance is necessary you may have left room for the undoubtedly mistaken inference that you yourself are not entirely assured. One correspondent (AJ: November 15) appears already to have read this meaning into your leading article. This anonymous correspondent goes on to complain that the president could not be expected to recommend him from personal knowledge, and seems to imply that a selection committee might feel at liberty to recommend architects without such full knowledge.

In my opinion, to treat a request for a recommendation as an opportunity to pass work to unknown architects would be quite as irresponsible and as nasty as to make it the occasion of rewarding good committee men. A man who asks the RIBA to nominate an architect believes that he is approaching the highest and most impartial authority and he takes it for granted that the Institute will recommend not merely architects whom it believes to be competent but rather those whom it knows to be the most competent for the type of work concerned.

It follows that if the Institute is to keep faith with the public—and it is in the real interest of the whole profession that the RIBA shall so keep faith—nominations must be drawn from among those whose capability for various kinds of work is personally known to whoever is responsible for the selection. Moreover it would do infinite harm to the whole profession if architects were to fail on commissions for which the RIBA had recommended them. Yet to recommend men who have not proved their capability, however brilliant they may be, would involve a risk of just this result.

These considerations would be before a selection committee just as they must now be before the president. Whatever may be the advantages of setting up such a committee I do not see that it could materially affect the distribution of work in the profession. The circle from which recommended architects are drawn must inevitably be restricted, and it is a great pity that we can never all be within that circle.

M. J. F. SECRETT.

Ealing.

Hospital Maintenance

SIR,—P. H. Knighton and W. H. Evans, in your issue of November 1, find some faults with my references to the National Hospital Service in a recent address to the Institution of Engineers-in-Charge. My theme therein was criticism of acts and omissions of the MOH and of Regional Hospital Boards, as a result of which several of those Boards are, I said, "attempting to meet their engineering responsibilities by the appointment of assistant engineers in their architects' departments." I said that this was "all wrong" as were also some other things with which your correspondents do not concern themselves.

They refer to a report in *The Engineer* of October 19, 1951. That report contains a full and accurate account of the part of my address in question, and no justification will be found in it for the statement that I criticized "the practice of Hospital Boards in putting an architect in charge of maintenance of hospital premises." Thus wrong impressions received from other severely condensed reports seem to have coloured your correspondents' reading of the full report and to have caused them to misconstrue it. They say that I used a strident tone in criticism of architects. I do not think that I criticized architects at all. It is true that I mentioned limitations of the architectural profession in view of which architects are not qualified to have charge

of engineering. If that is criticism of architects then I also criticized engineers, for I explicitly excluded architecture from any field of which I suggested that engineers should have charge.

Messrs. Knighton and Evans take exception to a passage in which I said: "If Regional Boards wished to combine and co-ordinate engineering and building functions in one department they would have been better advised to make the Regional Engineer the head of that department." They seem to ignore the conditional nature of this sentence and to imagine that it is opposed to their view that there is ample room in the hospital service for both Regional Architects and Regional Engineers, but this is not the case. The present position is that all fourteen Regional Hospital Boards have appointed Regional Architects, but only five of them have appointed Regional Engineers. I did not dispute the room for the architects, but I did claim that there is not only room but also need for Regional Engineers.

They also say that my discussion has not solved all the problems of professional relationships in the hospital service. That is very likely since I am not in the service and cannot know what all the problems are. But none of those problems can affect the strength of the case for engineers, not architects, to have charge of engineering. Probably that is the answer to a good many of the problems. If these two gentlemen advocated the management of engineering by architects, then indeed there would be contention between us. But from their own statements I think I can claim their support, and they may find, on reflection, that there is no real or substantial difference between us.

ROBERT CHALMERS.

London.

Astragal's Muddleheadedness

SIR,—I was distressed to be made aware, by your issue of November 15, that ASTRAGAL, like Homer, sometimes nods. Even if one overlooks the split infinitive in the first line of the second paragraph of his remarks on Mr. Henderson's presidential address to the RIBA, what is one to make of the phrase "the President's comparatively unexceptional statements," which occurs at the end of the next sentence? At first I assumed that "unexceptional" was a misprint for "unexceptionable"; but reading on I found that ASTRAGAL himself took exception to them. ASTRAGAL also pointed out that there was no precedent for such statements; so in fact they were exceptional.

While such muddleheadedness may be forgiven, injustice must not be allowed to pass

without protest. I refer to ASTRAGAL's remark that the *News Chronicle* "made sensational news" out of the presidential address, "true to tradition." The last phrase carries implications which are blatantly unfair to one of the more sober daily newspapers—one, moreover, which gives far more space to architectural matters than most. To anyone outside the architectural profession it is indeed sensational news that its lord high big-wig should use his position to run down the work of other members of it.

I. SMITH-RAEBURN.

Hampstead.



RIBA

Appointments

At the council meeting of the RIBA held on November 6, the secretary reported that the nominations of RIBA representatives to serve on the MOW building and civil engineering joint committees had been approved by the minister. The areas concerned and the nominations, which refer to the year 1952, are as follows: Northern, Lieut-Colonel A. K. Tasker; East and West Ridings of Yorkshire, Norval R. Paxton; North Midlands, C. F. W. Haseldine; Eastern, Peter Bicknell; London, R. H. Sheppard; Southern, T. L. J. Chamberlain; South Western, J. Ralph Edwards; Wales, John Bishop; Midlands, J. B. Surman; North Western, E. S. Benson; South Eastern, H.

Edgar Bunce. All representatives, with the exception of John Bishop, served in the same capacity last year. Mr. Bishop succeeds Mr. Edwin Smith.

New Hon. Associates

The council unanimously resolved to invite Nikolaus Pevsner and Lord Bilsland to accept nomination for election to the honorary associateship.

British Exhibits Abroad

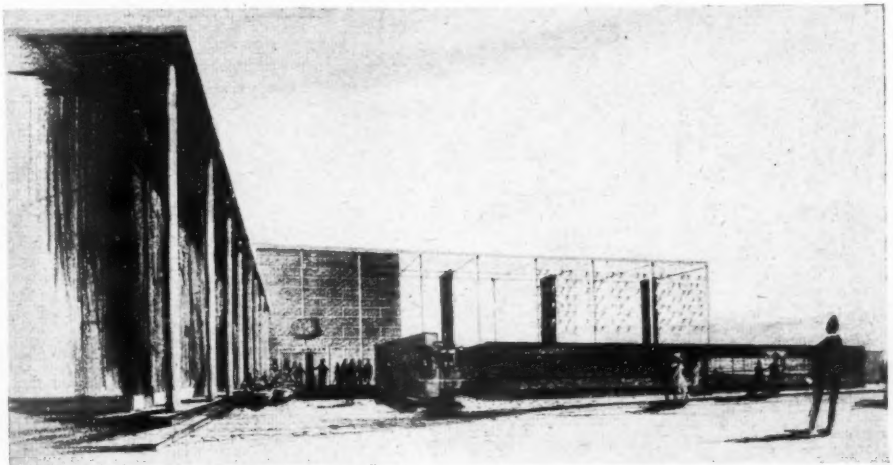
The council decided that the Institute should not in future take part in the preparation of such exhibitions as the Triennale at Milan unless adequate financial support were provided and sufficient time allowed for preparation. The council took this decision when, on the recommendation of its public relations committee, it made representations to the cultural relations department of the Foreign Office.

Competition Fees

On a recommendation of the competitions committee, the council agreed that, because of the continuing stringency in the material and financial situation, some modification of the regulations for architectural competitions should be made in both the time limit within which work must be begun and the percentage fee payable on higher cost projects when work on them did not follow.

The council accordingly approved the following revision to clause E of the regulations governing the promotion and conduct of architectural competitions:—"If, however, within the periods defined below, the author of the selected design is not instructed to proceed with the work, for reasons other than those contained in Clause 6, he shall be paid, including the premium, the following sums: (a), if no instructions are given within 2 years of the date of the award: 1½ per cent. on his estimate of cost up to £100,000; ½ per cent. on the next £300,000; ¼ per cent. on the next £600,000. (b), if no instructions are given within 5 years of the date of the award in competitions of an estimated value exceeding £1,000,000, he shall be paid as a first instalment and at the end of the second year the amounts detailed in paragraph (a). At the end of the fifth year from the date of the award he shall receive in addition: ¼ per cent. of any sum in excess of £1,000,000. Such sums shall merge into the

At the Van Riebeeck Festival Fair, to be held in Cape Town from March 14 to April 5, 1952, there will be UK Government exhibits. A perspective sketch of part of the pavilion designed by Hugh Casson and Neville Conder is on the right. The display designer is F. H. K. Henrion and the executive architect in Cape Town is Brian Mansergh. The pavilion will be on an island site of 15,000 sq. ft., and will be arranged in three sections:—parliament, church, law and commonwealth, and technical achievement. The timber structure of the pavilion is faced with hardboard and has exposed open joints.



commission when the work is subsequently executed.

"The provisions of the preceding paragraphs (a) and (b) shall also apply in the event of the promoters deciding to proceed with part of the work only; i.e., the author of the selected design shall be paid, including the premium, the difference between the scale fees on the work which is being carried out and the percentages named above on his estimate of cost and such sums shall merge into the commission when the remainder of the work is subsequently executed." A revision in similar terms to Clause 7 of the model form of conditions was also approved.

CHILDREN'S LECTURES

Hugh Casson Talks About South Bank

A group of three informal lantern lectures for boys and girls called: "Putting on a Show: How the South Bank Exhibition was Planned and Built," will be given by Hugh Casson. They will be held at the RIBA, 66 Portland Place, W.1, at 3 p.m. on December 31, 1951, and January 2 and 4, 1952. Tickets may be obtained on application to the secretary, RIBA, and the envelope should be marked "Christmas Holiday Lectures."

ABS

Appeal for Funds

At the ABS lunch held by invitation of Hugh Montgomery in the Empire Hall at the Building Exhibition, Olympia, H. S. Goodhart-Rendel said: "My job, as treasurer, is to be a licensed beggar to the Society." He went on to say how grateful he was for the financial help which was given to every Building Exhibition by Mr. Montgomery, and for the help in publicity afforded by the Press. He went on: "Everyone helps us one might say, except architects. We are getting in a slight financial jam. We have an overdraft and we have got to double our efforts to get architects to subscribe to the Benevolent Society. If details at case committee meetings could be published," the speaker went on, "I do not

think that, relying on the inherent decency of human nature, we would lack funds; but of course the privacy of the individual must be ensured." In conclusion, having, as he said, done his begging, he proposed the health of Mr. and Mrs. Montgomery. A. Graham Henderson, president of the RIBA, then called on Ernest Marples, parliamentary secretary to the MOHLG, to speak. Mr. Marples said that as a civil engineer he had discovered a certain amount about architects. He said they had always purged him of any profits he had been able to make and he had no doubt that the Benevolent Society appeal for money would meet with a response. "Architects," he said, "will be called upon to help in the housing drive of the government." Although housing was only one fifth of the building industry's task, to enable it to achieve what it set out to do it would be necessary to squeeze the other four fifths in many ways. He thought there was too much complicated design going on. There would have to be saving in every sphere. Four years ago he had recommended the abolition of the second w.c. and of the outside stores for housing, and he remarked with satisfaction: "The removal of the second w.c. is just what the Ministry of Housing is recommending now." He concluded: "In the near future I hope you will be asked to help in housing with all the ingenuity and fertility of mind which you have." Hugh Molson, parliamentary secretary to the MOW, supported Mr. Marples. He said: "It is the intention of the government to increase the number of houses for the working people of the country. To make conditions favourable for the people of the country a great deal will depend upon the building industry." He pointed out that the Minister of Works had visited the Building Exhibition three times since it opened, which suggested that the Minister was prepared to move with the times.

NFBTE

Stephen Hudson on Methods for More Houses

In his speech to the Birmingham Association of Building Trades Employers on November 19, Stephen Hudson, president of the NFBTE said: "I yield to none in my desire for good housing standards but, as I have said on previous occasions, we must cut our coat according to the cloth and make the best use of the labour and materials

available. I am sure that further pruning is possible, without sacrificing essential standards."

When he spoke at the National Housing and Planning Conference at Bournemouth on November 23, he said: "Housing should be regarded as an essential part of the defence programme. Unless there is a bigger reservoir of dwelling accommodation than at present, the difficulties, if war comes, of carrying out evacuation schemes of billeting transferred workers and of rehousing those made homeless, will be much more acute than last time." He pointed out that if more two-bedroomed houses, dwellings for the aged and newly-married couples were built, much of the accommodation at present under-occupied would be released.

No Price Limit

Mr. Hudson also said: "Another way to increase the number of houses to be built is to employ all the agencies which were producing them between the two wars. The most active of those agencies was the private house-builder. So long as accommodation is scarce new houses must go to those with the greatest need but, subject to this, the people themselves should be allowed to choose between buying new houses or becoming tenants of houses owned by the local authorities. It may be necessary at first to impose a limit on size, but I see no reason for any price limit."

HOLLAND

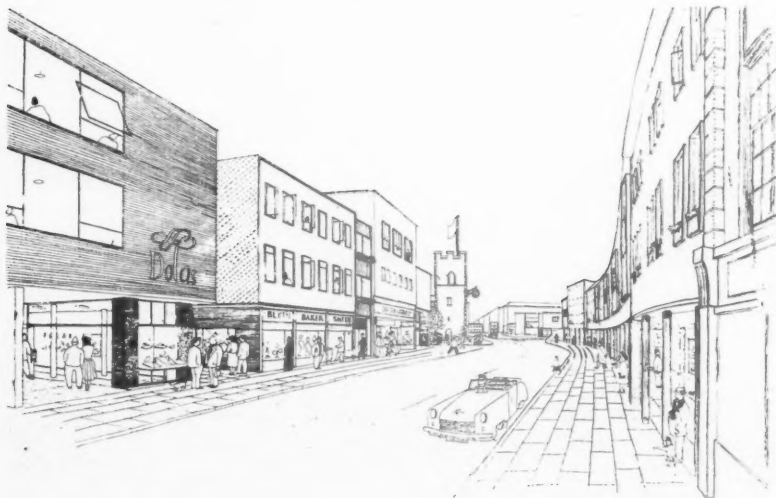
Exhibition of Modern English Architecture

An exhibition of modern English architecture was opened recently at the Dutch Building Centre in Rotterdam by Ian McCallum, an editor of *The Architectural Review*.

It was arranged by the British Council and the information department of the Foreign Office. Mr. McCallum, who was introduced by Van Ettinger, the director of the Building Centre, spoke on town planning, housing and the more important buildings completed in this country from 1945 to 1951.

CANTERBURY MAIN STREET REPLANNED

This sketch shows how St. George's Street, Canterbury, will appear in the future. Its elevation has the general approval of the RFAC and, in spite of opposition from the Canterbury Citizens' Association, has been accepted by the city council. On the right is an existing store from which extends a new colonnade. On the left are new buildings for shops and the rebuilt tower of St. George's church, to be surrounded by a paved garden. The street will contain two open spaces and the market square. The city architect in charge of the re-development is L. Hugh Wilson.



CANADA

Stadium for 12,000 built in 10 months

The full report has now been received of the construction in just under 10 months of a hockey stadium in Quebec holding 12,000 people and covering 90,000 sq. ft. Twelve concrete arches—span 240 ft., depth at apex only 4 ft.—support the curved concrete roof slab, which varies in thickness from 6 in. to 4 in. The arches are upstanding so it was possible to use travelling centring units. Concrete was supplied by a ready-mix company, 3 miles from the site, which provided 45 cu. yd. of concrete per hour.

The construction of the roof itself was completed ahead of schedule; four months after the first pile was driven the last of the roof concrete was poured.

MOS

Atomic Central Heating

Some details were given by the MOS last week of the atomic central heating plant, serving a block of 80 offices, at the Atomic Research Establishment at Harwell. It was stated that two or three more buildings at the establishment will be equipped eventually with "atomic" radiators. This would save at least 1,000 tons of coal a year. The cost of the installation amounts to £15,000, and the total saving, which includes incidental expenses, is estimated at £2,650 a year.

The hot water which flows through the pipes is obtained by placing a heat exchanger, which weighs 8 tons, in the outlet air duct of the atomic pile's air-cooling system. Hence there is a by-pass fitted with a damper which can be adjusted to vary the proportion of the air flow passing through the heat exchanger. Hot water from the exchanger is circulated in a closed circuit by a small group to a secondary water-to-water heat exchanger. This supplies hot water for space heating and domestic hot water supplies. There is no danger from radio-activity and the water can be used safely for washing. The floor area now being heated is 32,000 sq. ft. and the volume of space is 330,000 cu. ft.

ARCUK

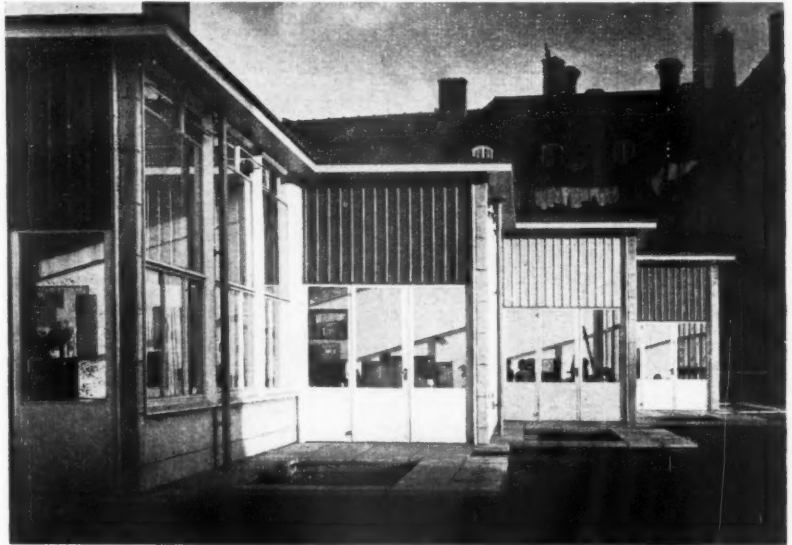
Architect Unqualified

James H. Burlow, carrying on business under the name of D. Wilson & Partners, Buchanan Buildings, 24, Holborn, E.C.1, was convicted by Alderman Sir Bracewell Smith at Guildhall on November 15, and fined £20 with five guineas costs, at the instance of the ARCUK for carrying on business under the title of "Architect," and not being registered under the Architects Registration Acts.

It was proved in evidence that the defendant was the sole proprietor of the business and the words "Architects and Surveyors" appeared both on his letter-paper and in several places on the doors leading to his premises.

Defendant's counsel, Gilbert Rountree, unsuccessfully pleaded Section 17 of the Architects Registration Act, 1931, relying on the employment by the defendant of an architectural superintendent in charge of his architectural work. The defendant stated in evidence that he had an agreement with his consultant architect, Alfred E. Nightingale, aged 75, who was resident at Herne Bay and attended at the defendant's office as and

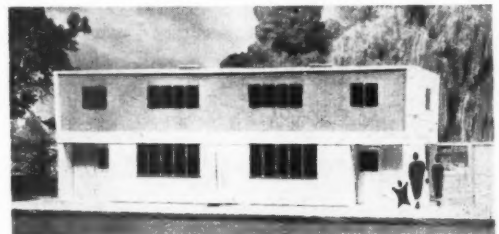
'LCC INFANTS' SCHOOL AT GREENWICH



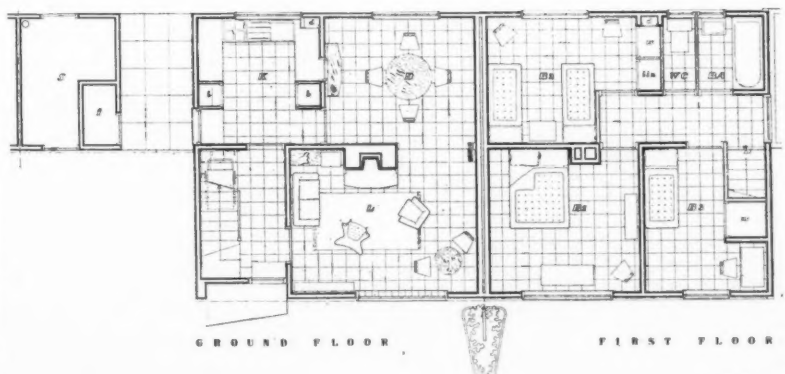
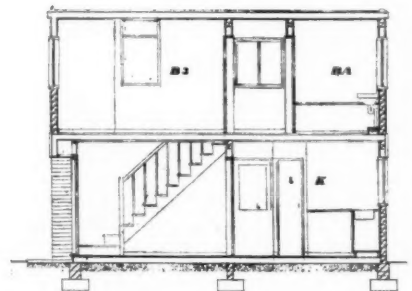
Above is shown a wing of the new school for 200 infants at Hughes Fields, Greenwich (designed by Robert H. Matthew, architect to the LCC), which was opened on November 22. The school cost over £50,000 to build. Contractors, Thomas and Edge, Ltd.

CHEAP HOUSE APPROVED BY MOH

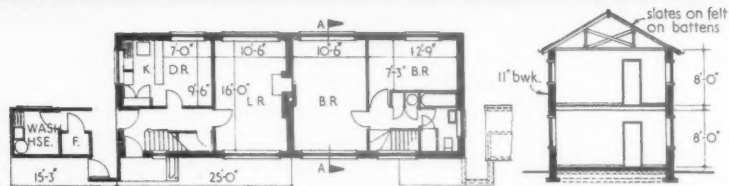
In this "Elisol" house designed for British Cork Mills Ltd. by D. R. Stewart, external walls are of 4½-in. brickwork. Thus the cost of brickwork is 30% less than if traditional



walls were used. Thermal and sound insulation and waterproofing are applied in one group of operations. After the inner face of the walls has been rendered and coated with "Elisol" bituminous adhesive, corkboard is applied and finished with a skim coat of gypsum plaster. Insulation can be varied.



HOUSING AT SCOTBY, CUMBERLAND

Ground and first floor plans and section A-A [Scale: $\frac{1}{4}$ " = 1' 0"]

The pair of houses seen in the photograph above is one of three pairs built in a residential village 4 miles from Carlisle by the Cumberland County Council for their junior staff and designed by John H. Haughan, County Architect. The accommodation is intended for a newly married or young couple with a very small family. The total superficial area is only 914 sq. ft., at a cost of £1 6s. 10d. per ft. sq. Due to the heavy rainfall, a wash-house is provided in an outbuilding with facilities for indoor drying. The walls are 11-in. cavity brickwork and the roof is covered with green Cumberland slates. Bright colours are introduced in the porches, as seen below, on the doors, soffits and sloping columns. The general contractors were Arthur S. Nixon, Ltd. For sub-contractors see the list printed on page 664.



when required, some four or five times a year.

Counsel for the prosecution, Maurice Ahern, pointed out that in order to satisfy the conditions of Section 17 the business must be owned by a firm of two or more persons and that the Section did not apply in the case of a one-man business.

AUCTION

South Bank Catering Equipment

In addition to the public auction already announced (AJ, November 22), there will be a five-day auction-sale of equipment from the restaurants on the South Bank, beginning on December 3 at 10.30 a.m. Some furniture and textiles will be included. The lots may be viewed today and tomorrow. Catalogues are available from the auctioneers, J. Trevor & Sons, 58, Grosvenor Street, W.1.

The viewing days for the auction, which begins at 10.30 a.m. on December 11 to 14, will be December 7, 8 and 10. The sale will be completed on December 18.

MOW

Building Films

During the run of the Building Exhibition, Olympia, MOW technical films were shown regularly in the Exhibition Cinema.

One film, "Portable Powered Tools," was the first of a series of technical films produced by the Ministry's film unit. It was made in co-operation with the building industry, and shows varieties of portable tools in operation. The tools shown are all now available to the industry, and the film illustrates how they can save time and cost. Among the tools which builders and craftsmen could see demonstrated in this eleven-minute film were: electric plane, screwdriver, houser, router, chisel mortiser, disc sanders, compression tools, a new rivet gun, and a portable pipe sawing and thread milling machine. The other MOW films shown at Olympia were: "The Task Before The Building Industry," "Care and Maintenance of Plant," and "Watch Your Step" (safety precautions and the avoidance of accidents).

DIARY

The Rebuilding of London 1666-1951. K. Marr-Johnson and T. F. Reddaway. At ICE, Great George Street, S.W.1. (Sponsor, RICS.) 5.30 p.m. DEC. 3

The Development of Hot Rolled Gravel Asphalt for Trunk and other Roads in East Anglia. D. J. Swift. At ICE, Great George Street, S.W.1. 5.30 p.m. DEC. 4

Some Landscape Aspects of the Development Plan. A lecture by James W. R. Adams. (Sponsor, TPI.) At Caxton Hall, Caxton Street, S.W.1. At 6 p.m. DEC. 6

Schinkel. Nikolaus Pevsner. At RIBA, 66, Portland Place, W.1. 6 p.m. DEC. 11

Speed the Job: Who's to Blame for the Muddle. Whitfield Lewis, D. E. Woodbine Parish, D. H. Green, G. R. Millhouse and J. Ryan. At Dennison House, Vauxhall Bridge Road, S.W.1. (Sponsor, ABT.) 7.15 p.m. DEC. 12

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HOUSING

at DAGENHAM, ESSEX

des'gnd by NORMAN and DAWBARN

assistant architects, ETHEL RICHMOND and ERIC ERBER

The Heath Park Estate, which is being built for the borough of Dagenham, near the site for the town's proposed civic centre, will cover more than 39 acres. It adjoins an LCC scheme now under construction. There will be accommodation for 2,397 people in the estate's 597 dwellings. (Densities : approximately 14.7 dwellings and 61 people per acre.) The central part of the estate (illustrated here), for which the architects received an FOB award, is 17.37 acres, and there are 16 dwellings and 69 people per acre.

The east facade of the five-storey block.

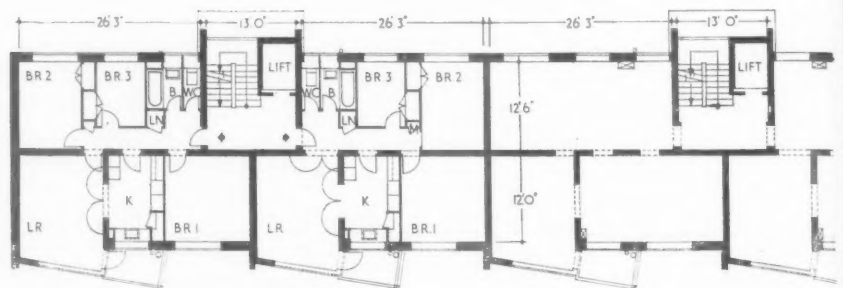




Balconies at the south-west corner of the five-storey block.

HOUSING

at DAGENHAM, ESSEX
designed by NORMAN and DAWRARN



Part plan of typical floor in five-storey block [Scale: $\frac{1}{4}$ " = 1'0"]



Site plan of central area now completed

SITE.—Roads and sewers on the flat, treeless site were provided by the borough council before the start of each building contract. Front gardens, which have no fences, are maintained by the local parks department. Children's playgrounds will be provided later.

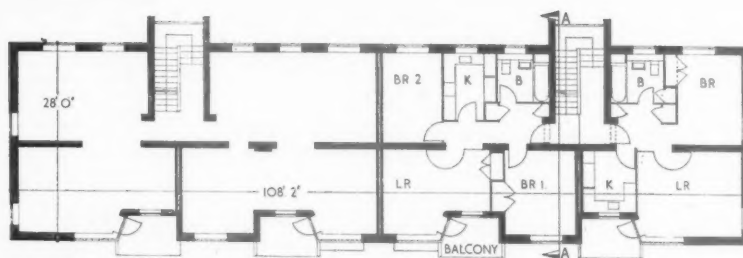
PLAN.—The estate consists of three- and five-storey flats; semi-detached and terraced houses, and bungalows for old people. Six flats on the ground floor of one of the three-storey blocks are for disabled people and their families. These flats have wide corridors and rounded reveals, so that



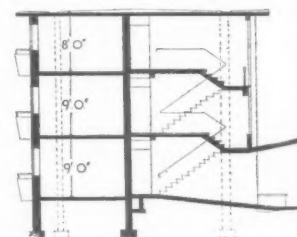
*Looking north-east
at the west facade
of five-storey block.*

wheel chairs can be moved through them easily. And there is direct access from living rooms into the common garden. All houses and flats have external stores. Houses with five or more beds have a second w.c., either inside or outside. Most houses are linked by outhouses as shown on site plan.

CONSTRUCTION.—Flats. Outer walls are of load-bearing brickwork, $13\frac{1}{2}$ in. thick; cavity party walls are 11 in.; and spine walls are 9 in. ($13\frac{1}{2}$ in. on ground floor and first floor of five-storey block). Ground floors are of reinforced concrete slabs. All other floors, as well as the flat roofs, are of patent



Typical floor plan of three-storey block [Scale: $\frac{1}{4}$ " = 1' 0"]



Section A-A

HOUSING

at DAGENHAM ESSEX

designed by NORMAN and DAWBARN

Above, typical entrance and staircase window in east facade of three-storey block. Right, west facade of three-storey block on left and five-storey block beyond.



hollow pot RC construction. *Houses.* These have concrete foundations, reinforced where necessary, and footings of sand lime bricks with open cavities. Outer walls are of 11-in. cavity brickwork with solid 9-in. party walls; ground floor structural partitions are of 4½-in. brickwork, and other partitions are 2-in. hollow or solid breeze blocks. Ground floor concrete slabs are reinforced where ground conditions made this necessary. First floors are of traditional timber construction. Roofs have TDA type timber trusses, at 30 deg. pitch, with metal joint-connectors.

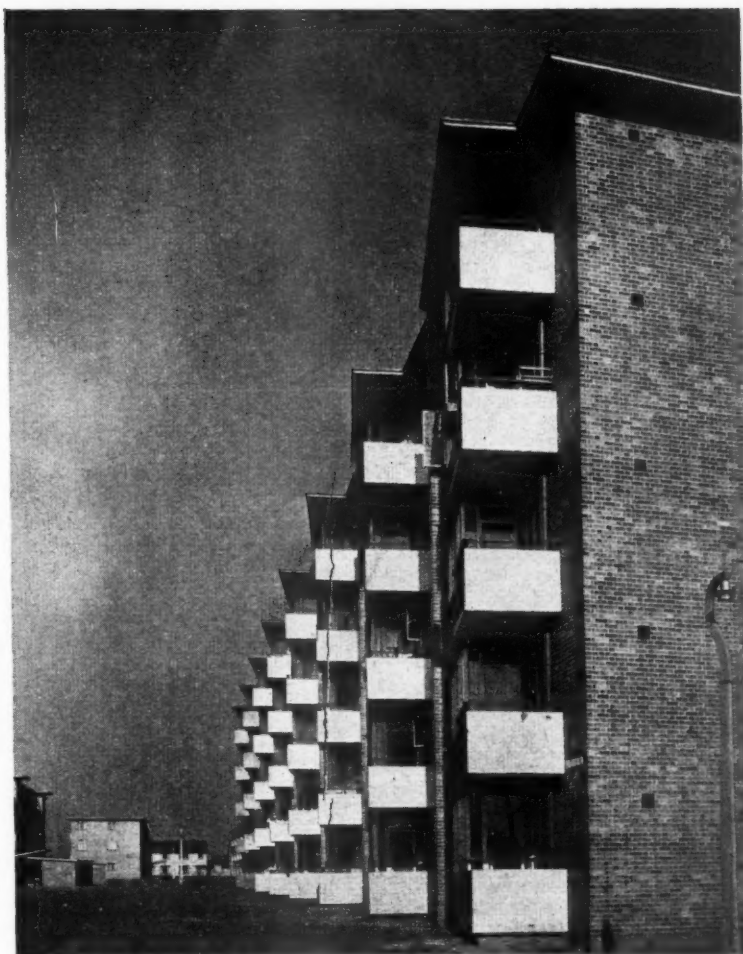
FINISHES.—Flats. Three-storey blocks have outer walls faced with mild stock facing bricks. The outer walls of the five-storey block have Leicesters multi-rustic facings. Floors are finished with asphalt tiles on cement screed, 1½ in. overall. Roofs are covered with foamed slag cement-insulation laid to falls, covered with three layers of felt laid in hot bitumen, with grit finish. Walls and ceilings are plastered and distempered. Staircases are of reinforced concrete with granolithic screed finish. In the three-storey flats handrails and standards are in MS tubes, with steel mesh panels; in the five-storey blocks handrails are of polished hardwood, with iron core rail and rod balustrades. Staircase walls are of cement-glaze, coloured light green, grey, cream or coral. Corrugated steel asbestos balcony fronts on

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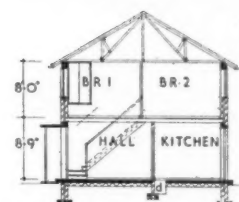
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three-storey blocks are painted with a plastic paint for weather proofing and coloured blue or teal. *Houses.* Roofs are covered with concrete or clay interlocking tiles. Ceilings are of plasterboard, plastered, with additional insulation to first floor ceilings of bitumen-boarded fibreglass blankets. Staircases have closed strings and square balusters (2 ft. 7 in. minimum width between strings and 10-in. treads). Some ground floor windows have precast concrete surrounds; elsewhere there are double-tile cills. External rendering is white, dark brown, celadon green or terra-cotta. Front doors are blue, canary yellow, terra-cotta, eau-de-nil, or gun-metal grey.

SERVICES.—The layout was designed with a view to including a district heating scheme for the space heating and hot water supply to the estate and to the adjacent LCC scheme and the county primary school. Heating ducts run approximately through the centre of buildings under ground floors. There are no open fires or flues, but electric power points have been provided. A communal laundry, which has been equipped for the use of tenants in flats, is the first instalment of the social centre to be built. Bills of quantities were prepared for dwellings equipped for either district heating or traditional heating and on the early contracts the comparative costs were:—(a) Contracts 1 and 2, £1,377 per house with



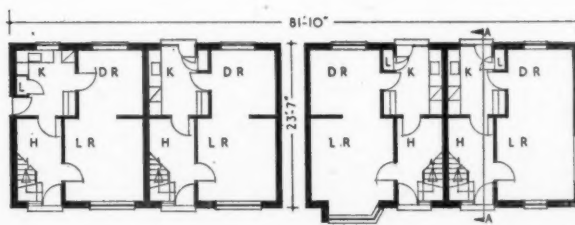
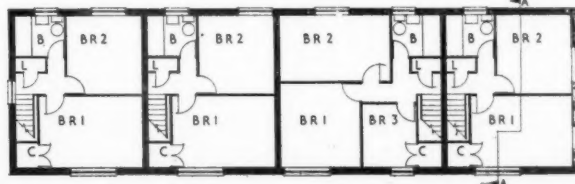
Above, looking north at five-storey block with three-storey blocks on the left. Below, types H/H and H/J terrace houses on the right.



Section B-B



First and ground floor plans, house types H/HJK and L [Scale: $\frac{1}{4}$ " = 1' 0"]



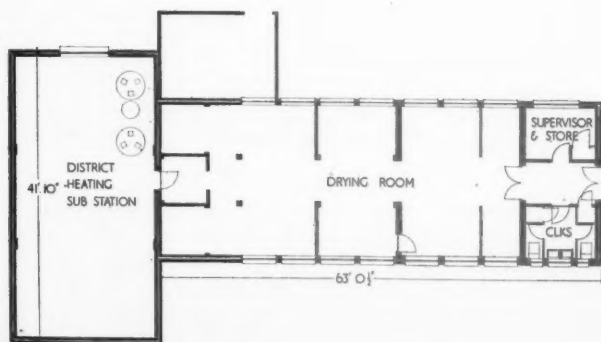


Above, house types H/A, H/C and semi-detached types H/B on the right. Below, right, cubicles in the communal laundry for flat tenants.

HOUSING

at DAGENHAM, ESSEX

designed by NORMAN and DAWBARN



Plan of laundry and sub-station

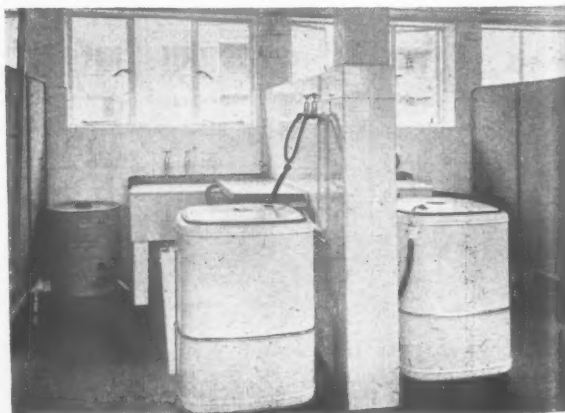
[Scale: $\frac{1}{4}$ " = 1' 0"]

district heating and £1,415 per house with traditional heating. (b) Contract 3, £1,611 and £1,578, respectively, per flat. The higher price per flat is due to the cost of the boiler house being included in this contract. The above costs exclude specialists' work in connection with heating installations, which comes under the heating contract but includes heating ducts in houses and flats. The first contract was let in July, 1949, and the last of the eleven contracts should be completed by the end of 1952.

The general contractors were the Borough of Dagenham, Engineer and Surveyors' Department (Direct Labour Organisation), S. R. Bryett, Thomas Bates & Son, Ltd., and C. S. Wiggins & Sons. For sub-contractors see page 664.

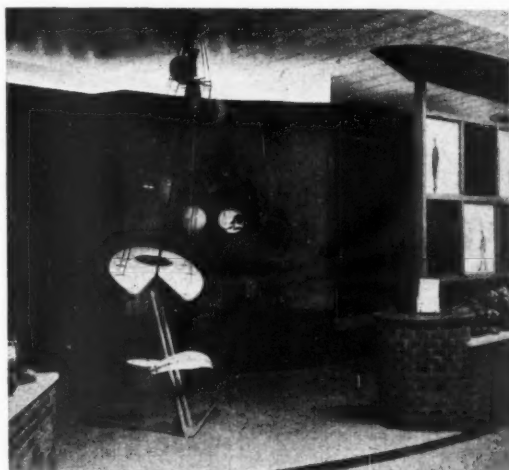
First and ground floor plans, house types H/ABC

[Scale: $\frac{1}{4}$ " = 1' 0"]



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For the builder, this year's Building Exhibition at Olympia, which closed yesterday, has been staged—for the first time for some years—in an atmosphere of optimism instead of anxiety. And, although the architect may have felt slightly less confident about the future—especially when reminded of some pre-war private enterprise work by photographs in the NFBTE stand (on the right) designed by Kenneth Lindy—he must have shared the general hope for improvements in the running of the building industry under the new government. Perhaps, too, he was reminded of the greater recognition of his existence today by the increased number of architect-designed stands at Olympia, and by the NFBTE's stable (shown in the photograph), which symbolised a balanced industry—with the architect and builder making equal weight. In this last review of the Exhibition we have tried to provide a similar balance. Space has been given both to exhibits of building plant and materials and to some of the better designed stands and their architects.



BUILDING EXHIBITION, 1951

FINAL REPORT FROM OLYMPIA

FLOORINGS

The **Limmer & Trinidad Lake Asphalt Co. Ltd.** reminded visitors to Olympia that, together with its associated companies, it can supply and lay a range of floorings extending from thermoplastic tiles and high quality (4.5 mm.) linoleum for the home to "Colourphalt" jointless flooring for low-cost housing and heavy duty floorings, such as "Lithocrete," "Acetas" (acid-resisting), and "Oilphalt" (oil-resisting), for factories.

Also on show were the firm's compressed rock asphalt tiles and asphalt paving blocks—both also for industrial purposes.

STONE CLEANING—A WARNING

A warning of the danger of using strong chemicals, such as caustic soda, when cleaning stonework, was given by **Reparations-Dreyfus Ltd.** An exhibit on their stand showed the effect such chemicals can have, but other exhibits showed how well stone can be cleaned by the "steam-brush" process.

Reparations-Dreyfus are also experts at stone repairs, for which they use a material of their own—"Plastic Reconstructed Stone." This can also be used for the manufacture of wall-lining slabs.

AN AUTOMATIC DOMESTIC BOILER

Trianco Ltd., famous for its block-making machinery, has entered the field of heating appliances. Like its

block-making machines, its boiler is fully-automatic—coal is fed by gravity from a hopper, while an electrically-driven fan (controlled by a thermostat) supplies air at a low pressure into the fire box, when required. Ratings are 40,000, 60,000 (the domestic sizes), 105,000 and 160,000 B.Th.U./hr., and the boiler is enclosed in a neat, stove-enamelled case.

PUTTY AND MASTIC

These are materials the importance of which it is all too easy to overlook, yet **Adshead Ratcliffe & Co. Ltd.** manufactures no less than 14 different varieties, each for a different purpose. It is worthwhile getting acquainted with these materials and learning to specify the right one for the job. For example, ordinary putty is no good for metal windows—it never sets. And did you know that you should seal the backing before you fix Vitrolite?

"A WALL OF LIGHT"

When large areas of glass are used, one of the most important problems to be solved is that of controlling opening lights. The principal feature on the stand of **Henry Hope & Sons Ltd.** was a 34-ft. by 20-ft. panel of patent glazing, and included in it were three methods of control: first, hand-operated telescopic struts; secondly, hand-operated twin-screw gear; and, thirdly, electrical control.

Hope's also showed a bronze ship's window and four of their school windows—the "Hertford," "A" and "B" types, the "Redriff" and the "Berners"—all with steel cladding, cills and blind boxes.

COLOURED STAIRTREADS

Ferodo Ltd. has added two new shades to its colour range of the "Ferodo" composition strips. Both single and double channel types of treads are now available fitted with strips in azure blue and green, as well as in the original colours—red, white and grey.

NON-STANDARD JOINERY

If you must use non-standard sizes or if you want something special for that special client, try **Bryce White & Co. Ltd.** They are always pleased to submit quotations to architects or builders for special designs or non-standard sizes, whether for mouldings, doors, or any other joinery work.

And while on the subject of "specials," don't forget that **Tretol Ltd.** has a wide range of specialised paints, of which the most recently introduced is the "Tretol" HR black enamel. This is a bituminous enamel capable of withstanding temperatures up to 400° F. dry heat. It is resistant to mild acid and alkali fumes, touch-dry within 15 minutes and has a brilliant glossy finish.

On the Tretol stand was a convincing

demonstration of the waterproofing qualities of "Tretol" liquid cement waterproofer. A waterproofed section of brick walling and a non-waterproofed section were shown, side by side, each subjected to continuous water pressure. On the opening day of the exhibition water had already found its way through the un-treated wall, but the treated one was perfectly dry.

Lewis Berger (Great Britain) Ltd. and **Blundell, Spence & Co. Ltd.** also exhibited their wide ranges of paints, stains, etc., and, while on the subject of finishes, **Jenson & Nicholson Ltd.** (manufactures of "Robbialac" paints) reminded visitors to the exhibition that, with the exception of "Brown U," all grades of "Cuprinol" wood preservative can be painted or varnished over and will not stain plaster or creep through flooring.

FINISHING "PUDLO"

"Pudlo" cement waterproofing powder is too well known to need describing, but two tips picked up on the stand of **Kerner-Greenwood & Co. Ltd.** (the manufacturers and sole proprietors of "Pudlo") are worth repeating. To avoid condensation, "score lightly the surface of the waterproofed cement and skim to a thickness of $\frac{1}{8}$ in. with gauged setting stuff mixed as follows:

3 parts of lime putty run from Buxton or other fat, chalk lime.

6 parts washed sand.

1 part of Plaster of Paris. (This to be added at the time of using.)

"The skimming coat to be left from the float and not trowelled to a polished surface."

To decorate, "oil paint should not be applied to lime plastering until the alkali has become inert, which usually takes at least twelve months. Use a reliable water paint or distemper."

The quotations are from a handbook obtainable from Kerner Greenwood.

A MECHANICAL SQUEEGEE

"Z" reservists awaiting the "call" will be pleased to know that **R. G. Dixon & Co. Ltd.** now make a mechanical squeegee. This they showed at Olympia, together with a combined scrubbing and polishing machine and a selection of their equipment used at the Royal Festival Hall.

SLIDING AND FOLDING DOORS

Esavian Ltd., it will be remembered, supplied the doors for the Brabazon's hangar at Filton ("the world's largest door"). This firm also supplied and installed the doors for the "Comet" production shop at Hatfield. Now it has been selected to manufacture and install a series of large sliding and folding doors for hangars at London Airport.

Of course, Esavian Ltd. does not only make giant doors, and on its stand at the Building Exhibition it showed a sliding and folding installation suitable for a board room, which folds out of

sight into a cupboard fitment, and a sliding and folding window suitable for domestic or hospital use.

SANITARY APPLIANCES

For over a century, **W. N. Froy & Sons Ltd.** has specialised in the supply of sanitary appliances of all types, from luxurious equipment for hotels to the most utilitarian appliances for industry. On a large stand at Olympia the firm exhibited "all that is latest and best" in sanitary appliances for schools, factories and hospitals, including miniature equipment for young children, circular ablution troughs, heavy fireclay lavatory ranges of great durability, surgeons' lavatories and apparatus for the cleansing and sterilisation of bed-pans, etc.

TIMBER CONNECTORS

"The only tool required is a hammer" if you use "MAF Trip-L-Grip" framing anchors. These versatile timber connectors, which were shown on the stand of **MacAndrews & Forbes Ltd.**, can be used for all secondary connections in structural woodwork. They eliminate toe-nailing and its uncertainties and notching, and are made in three basic styles, each available left- and right-handed.

A GERMAN TOWER CRANE

Tower cranes have been much in the news lately. A large one is being used by **Wates** on a housing site in Camberwell, some smaller ones, suitable for use on terrace or semi-detached houses, are being tested by the Operational Research Unit of DSIR, and now the "Liebherr" tower crane of German origin has been shown to thousands of builders at the Building Exhibition. It was exhibited by **Thos. C. Wild (Machinery) Ltd.** who import three models. The first has a full height of 78 ft., or 46 ft. 9 in. if the jib is used to reach 42 ft. 6 in. over obstacles. The second and third models have full heights of 105 ft. and 137 ft. 9 in. respectively. The second can reach 52 ft. at a height of 65 ft. and the third reaches 72 ft. at a height of 75 ft. 3 in. The cranes are all fully mobile on an easily-fixed track and can deposit materials wherever required with great accuracy.

A NEW LOADING SHOVEL

Another recent development in materials' handling is the "Weatherill" hydraulic loading shovel. Made by **F. E. Weatherill Ltd.** in three sizes ($\frac{3}{4}$, 1 and $1\frac{1}{2}$ cu. yd.), the scoop clears the front wheels, thus ensuring a full scoop each time.

Several manufacturers of builder's plant complain of the steel shortage and the shortage of rubber tyres. This should not worry **R. A. Lister & Co. Ltd.**, who exhibited a recent development—a portable telescopic tower ladder made entirely of timber. This has four sections, extended by means of an

hydraulic jack, operated by hand or by power pump. The maximum height from ground to platform is 24 ft. 6 in. The overall height, with tower closed, is 11 ft. 3 in.

ELECTRICITY ON THE BUILDING SITE

An aspect of continental building practice we would do well to copy is the wider use of electricity on the site. (A lecture on this subject was given recently at the Central Metropolitan Group of the London Industrial Committee.)

It was encouraging to learn, therefore, that the **British Hoist & Crane Co. Ltd.** can supply most of its equipment, including the "Ant Queen" 10-cwt. mobile extension hoist, either for petrol engine or electric operation.

Similar to the "Ant Queen," but even smaller, is the "Ace Midget" winch and scaffold jib, which is manufactured by **A.C.E. Machinery Ltd.** This can be attached easily to scaffolding and deals comfortably with loads up to 5 cwt.

A PORTABLE PATH

Mention must be made of other building site equipment.

First, "Rungway"—a 12-in. wide form of duckboarding which can be rolled up. It is made up in 100-ft. lengths and special bridges are available for taking it across trenches, ditches, etc. "Rungway," which was shown on the stand of **W. C. Youngman Ltd.**, can be obtained from its contractors' plant division.

Secondly, scaffolding ("No Bolt") fittings which require no nuts or bolts but use wedges instead, are now manufactured in England, by **British Building & Engineering Appliances Ltd.** and exported to a number of countries. The advantages of these fittings are that they are rapid to erect, even more rapid to dismantle and there are, of course, no nuts and bolts to maintain.

Thirdly, a new dumper, by the **Thwaites Agricultural Engineering Co. Ltd.**, has a capacity of 10 cu. ft. flush, 8 cu. ft. of wet concrete or 10 cwt. It has no gear box, has a top speed of $8\frac{1}{2}$ mph, and uses only 2 pt. of petrol per hour. Its advantages are that its turning circle is only 6 ft., it has a very low loading height (2 ft. 6 in.) and its seat is accessible from either side. The present price is £305 (less than the new baby Austin).

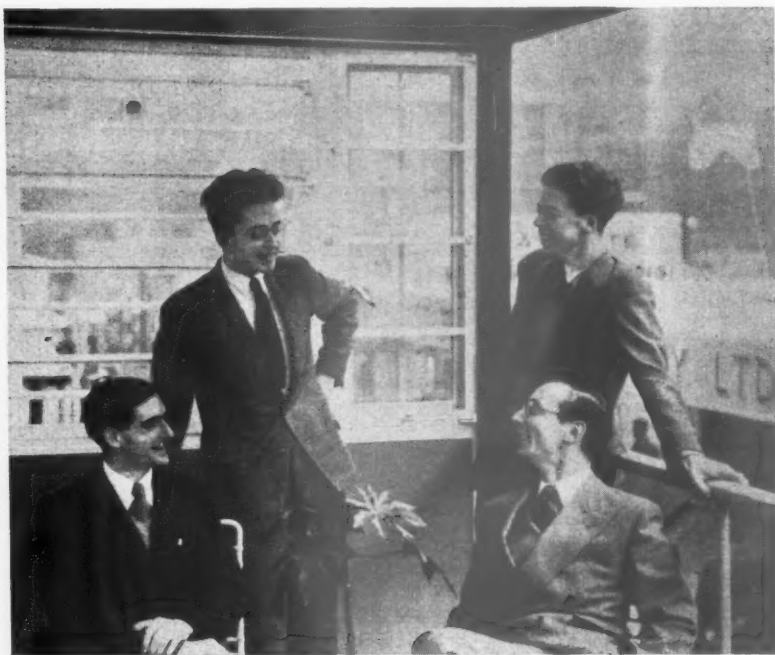
"IN THE CAUSE OF BETTER CONCRETE"

Fourthly, the "Wigmore" consistometer, which is described by the manufacturers, **Acrow (Engineers) Ltd.**, as a machine "for determining the 'workability' of concrete accurately and rapidly." If it does this, in fact, it will help us to control the quality of concrete. The importance of this was stressed at this summer's Building Research Congress.

MORE STANDS AT THE BUILDING EXHIBITION OLYMPIA, 1951



Above, part of Crittall's stand, for the design of which a competition was held at the AA School of Architecture. The competition was won by a group of students who call themselves "Group E." Right, top, part of the Waverite stand, designed by Richard Levin, which took the form of a modern kitchen. Centre, looking into the London Brick Company's stand, designed by John R. Harris. Bottom, Eastwoods's stand, designed by J. C. Stillman and John Eastwick-Field—a view through the giant sewage pipe into the interior of the stand, with the firm's "family tree" in the background.



Crittall's stand was the subject of a competition at the AA School. Above are the winners. Left to right: Peter Matthews, Michael Cain, Bob Maguire and Michael Brawne. Left: M. A. Laird, a salesman from the Cement Marketing Company, offers a light to the Minister of Works, David Eccles. In the centre of the photograph is J. W. Whalley, technical advisor to the company. (For photo. of stand see working detail in JOURNAL for November 22 and page 657 of this issue.) Left, bottom: Douglas Stephen and his wife and partner, Margaret Dent, were commissioned to design the Expanded Metal Company's stand as a result of work they did on the South Bank. This is their second stand at a Building Exhibition.

DOUBLE-HUNG SASHES

An unusual double-hung sash, exhibited by **Sharp Bros. & Knight Ltd.**, is called the "SBK Minicost" window. It is gravity operated; hence no boxes are required for weights, the sash cords being recessed into the linings or mullions. The sashes can be pivoted inwards around their bottom rails to facilitate cleaning the outside of the glass.

Not so revolutionary as the "SBK" window (which eliminates both springs and weights) but, nevertheless, a very neat job is the window exhibited by the **Unique Balance Co. Ltd.** This incorporates the "Unique" spring balances and also hinges inwards for cleaning.

COPPER AND ZINC ROOFING

In spite of the shortage of copper and zinc, two firms featured copper and zinc roofing. **Holloway Metal Roofs Ltd.**, who roofed the Royal Festival Hall with 20 ton of copper, obtained permission to exhibit a $\frac{1}{4}$ -in. scale model of the concert hall, which was built in a month by the Modelling Section of the LCC Architect's Department and is insured for £500. The firm fitted a real copper roof—weight 4 oz.—to the model.

Besides copper and zinc roofing, **G. A. Harvey & Co. (London) Ltd.** displayed its "Harco" ornamental metalwork. This is suitable for grilles, radiator covers, lift shaft enclosures, and so on. Harvey also showed mild-steel rainwater goods (manufactured by BSS 1091: 1946 and galvanised in the firm's own works); galvanised tanks, cisterns and indirect cylinders; sheet metal ventilators; wirework; perforated metals and gilled tubes.

LIGHT-WEIGHT BLOCKS

Structural and Mechanical Development Engineers Ltd. (parent company: **Almin Ltd.**) used its stand mainly for a display of "Alcrete," its cellular concrete block. This block is obtainable in various densities, depending on whether load-bearing or insulating properties are the principal requirements. It is easily cut and can be finished internally with only a skim coat of plaster.

"Thermalite" is a relatively new material, produced by **Thermalite Ltd.** Blocks (load-bearing) are obtainable in thicknesses of 3, 4 and 6 in. and thermal insulation value is very high. Two 3-in. skins of "Thermalite" blocks with a 2-in. cavity is equivalent to 40 in. of brickwork ($U = 0.15$ B.Th.U.). The cost is comparable to that of concrete blocks, although "Thermalite" should not be referred to as a light-weight concrete. It is a cellular material produced under conditions of high-pressure steam (something like sand-lime bricks), so that the ingredients undergo chemical changes.

John Laing & Son Ltd. (Thermalite's



Above, the stand at the Building Exhibition designed by Hugh Casson for Metal Sections, Ltd. Incorporated in the design were the firm's open-web, nailable joists, "Nail-steel" joists and studs, and "Difulite" ceiling. Right, the stand of Wm. Mallinson & Sons Ltd., on which was shown a comprehensive range of materials handled by the Mallinson group of companies, including samples of selected hardwoods, veneers, metal-faced plywood and an exhibit of lightweight aircraft construction using end-grain Balsa wood.





Noel Moffitt received a lot of good advice on colour and finesse from his Parisian wife when designing the Twisteel stand. (See page 623 of the JOURNAL for November 22.)



A. S. Buckley, who does the David Whitehead advertisements in the Architectural Review, designed the Fibreglass stand. (See page 625 of the JOURNAL for November 22.)



A. Snoxell (left), designer of the Electrical Development Association's stand, and N. F. Phillips, the firm's exhibition organizer.

parent company) recently invited members of the Press to visit its plant depot at Elstree and its laboratory section at Mill Hill. (This is the laboratory at which "Thermalite" was developed and tested.) The laboratory is now working on prestressed concrete joists. A 5-ton stress is applied and steam curing takes place whilst the joists are still in their moulds.

REINFORCED PLASTER PANELS

Bellrock Gypsum Industries Ltd. exhibited what at least one JOURNAL editor considers to be among the most significant developments which have taken place in the field of building materials since the war. This is the "Bellrock" panel—a pre-formed wall unit, with a perfect plaster finish both sides. Sizes obtainable from stock: 8 to 10 ft. high, 2 ft. wide, 3 and 4 in. thick. The panels consist of two $\frac{1}{2}$ -in. layers of reinforced gypsum plaster, bonded to a continuous reinforced plaster "honeycomb" core. This core is set back from the edges of the outer skins, so that joints of liquid plaster can be poured into the resulting box between two adjacent panels. If load-bearing walls or partitions are required, these vertical joints can be linked together by an *in situ* beam poured into a similar recess at the top of the panels. The panels have good fire-resistance and thermal insulation value and can be cut with an ordinary hand saw.

ANOTHER PARTITION PANEL

A less revolutionary panel was shown by **C. F. Anderson & Son Ltd.** Known as the "K" panel, it consists of a "K" slab of cellulose fibre sandwiched between two 8-ft. by 4-ft. sheets of Swedish hardboard. At 5s. 6d. per sq. ft., it is not the cheapest of materials, but its insulation value is high. The decorative possibilities of hardboard are often ignored. It is usual to cover it with some sort of paint. On the Anderson stand were some samples of hardboard treated with cellulose lacquer and with shellac. These finishes are most attractive. But if you must use paint, specify a suitable primer; if you do not, you cannot blame the painter if his hard gloss is not.

Bitumen laminated insulation board (known as "B.P." after the Canadian firm which makes it) is not new, but it is back on the market here for the first time for several years. Marketed by **Gliksten Building Materials**, it consists of 5 layers of $\frac{1}{8}$ -in. fibre separated by 4 layers of bitumen. Its total thickness is $\frac{7}{8}$ -in., and it is damp-resistant, vermin-resistant and dry-rot proof. It also has insulating properties. An interesting leaflet about it can be obtained from the firm.

"SHELL BEAM UNITS"

The "Shell Beam Unit" is the name of a new product by **William Logan**

and Sons Ltd. It consists of a structural unit, suitable for floors, roofs, and even walls, 2 ft. in width, about 6 in. deep, and up to 12 ft. long. It is made of concrete and insulation board on a light timber frame. The framing is largely non-structural, but prevents the concrete shell from damage in transit and provides a ground for fixing. The shell is composed as follows: $\frac{1}{4}$ -in. concrete, $\frac{1}{2}$ -in. insulation board, $\frac{1}{2}$ -in. concrete reinforced with expanded metal. About 1 lb. of steel is used as reinforcement per unit. The resulting unit weighs under 200 lb. and can be handled easily by two men. It has, with the 3-layer top, the air space within and the $\frac{1}{2}$ -in. insulating board bottom, a thermal transmittance of 0.19 B.Th.U.

The manufacturers of the beams do not appear to have considered adequately their application. For instance, they appear to suggest fixing battens directly to the concrete shell (perhaps with a bolt gun?), but provide no grounds for fixing by normal methods.

The beams are not, of course, waterproof, and, for roofs and walls, would require some form of external finish. The beams cost from 3s. to 6s. per sq. ft.; delivery is one month from the time of ordering.

PLUMBING RESEARCH

There appeared to be only one exhibitor who featured research as part of his service (apart, of course, from those whose job it is to undertake it). This was **Econa Modern Products Ltd.**, who, in addition to showing the usual large variety of copper pipes, traps and bends, were demonstrating, with glass tubes (below), the action of waste water in pipe runs at different



angles of fall. So far, their research seems to indicate that the breaking of seals in traps is due primarily to the angle of the waste pipe and, therefore, the rate of flow of the waste water. Given the correct angle a seal need never be broken. If this proves to be correct, the industry may be in for some much simplified plumbing. Another exhibit by Econa was of what is virtually a "half-pipe system." It has been used in Northampton and consists of two houses sharing a single down-pipe waste. Two baths, two w.c.'s, two wash basins, and two sinks discharge into one pipe—with no anti-siphonage devices—and Econa claim that no seals are ever broken, even

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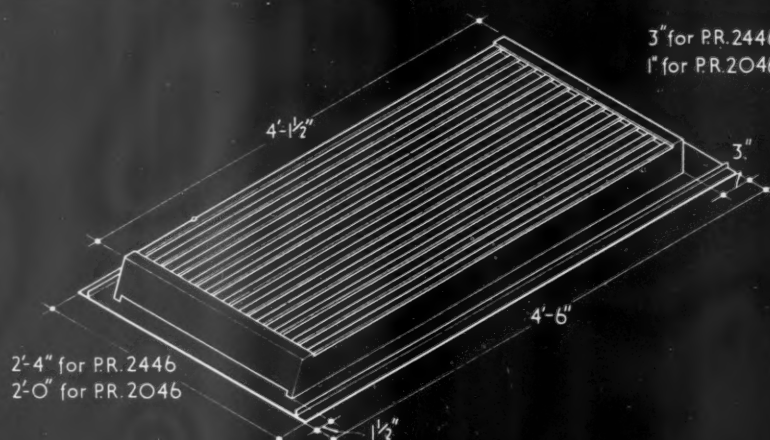
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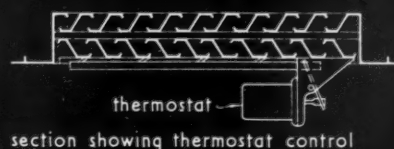
The Architects' Journal Library of Information Sheets 339. Editor: Cotterell Butler, A.R.I.B.A.



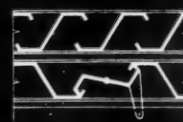
ISOMETRIC VIEW OF VENTILATOR.

3" for P.R. 2446
1" for P.R. 2046

section showing manual control

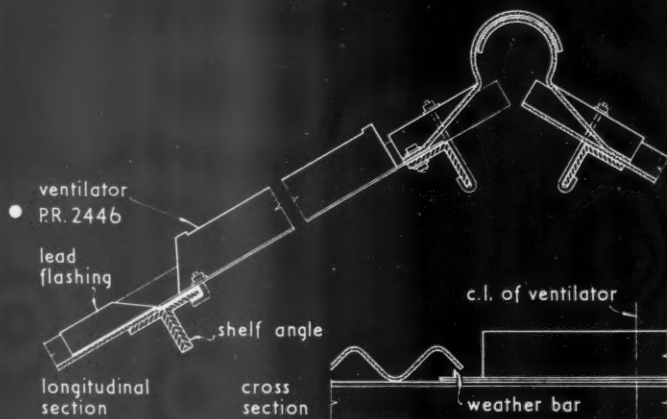


section showing thermostat control



section showing louvers closed

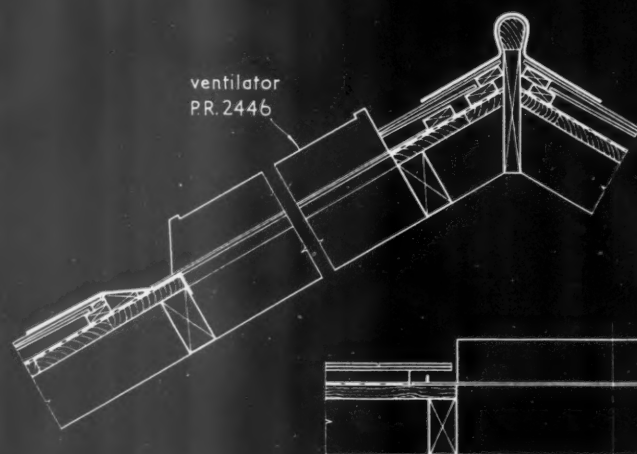
CROSS SECTIONS THRO' VENTILATOR.



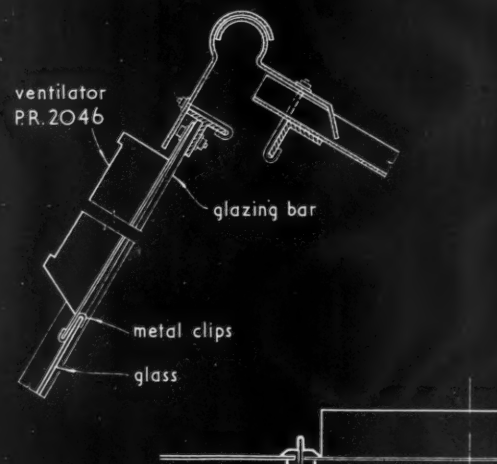
FIXING AT RIDGE IN BIGSIX ROOFING.



FIXING CLEAR OF RIDGE IN BIGSIX ROOFING.



FIXING IN SLATED ROOF.



FIXING IN NORTHLIGHT ROOF GLAZING.

30.D11 COLT P.R.2446 AND P.R.2046 EXTRACT VENTILATORS

This Sheet, the second of a series dealing with Colt ventilators, describes the Colt P.R.2446 and P.R.2046 extract ventilators. The ventilators can be fixed in any type of roofing, including glazing, and the drawings on the face of the Sheet give a general view and cross sections of the ventilators, together with details of typical fixings.

General

The ventilators are designed to conserve heat in addition to providing ventilation. Even temperatures are readily maintained by means of thermostatic or manual control. A number of ventilators, each fitted with a self-contained non-electric thermostat and operating independently, will level out unbalanced pressures in the roof space, allowing pockets of foul air to escape while conserving heat in adjacent areas. The thermostat causes the ventilator vanes to close when the temperature falls below a predetermined limit, thereby effecting a saving of fuel in the heating system of the building at night or during week-ends.

Sizes

The sizes of both ventilators are given on the face of the Sheet.

Material

The material used is anti-corrosive hardened aluminium.

Controls

The ventilators are available with either fixed or controllable vanes. The controllable model can be operated either manually or by means of a thermostat, and comprises a double row of vanes of which each alternate lower vane revolves about its axis so that extraction can be discontinued when necessary.

Manual control: Each alternate lower vane is connected to a control bar which is held in the open position by an anti-corrosive double spring. A light pull on the bar, normally operated by a cord or chain, is all that is necessary to close the vanes. These ventilators arranged in batteries can be operated by remote control using hand or motorised gearing.

Thermostatic control: When the temperature in the roof space rises beyond a predetermined limit, the non-electric thermostat causes the control vanes to open; the reverse action takes place as the temperature falls. A constant roof temperature is therefore maintained, which automatically controls the "breathing zone" temperature without the necessity

for low-level thermostats which, unlike high-level thermostats, are subject to draught and rapid changes of temperature through the opening and closing of doors and windows.

Air Inlets

For the ventilators to work efficiently adequate fresh air inlets are essential and the total free area of inlets should be approximately double that of the extracts.

Fixing

Owing to their light weight the ventilators can be fixed in any part of the roof without additional roof reinforcement. Typical fixing details are shown on the face of this Sheet.

Applications

These ventilators are normally recommended where sedentary occupations are carried on and where a heating installation is provided.

Fixing Service

A service is provided for fixing Colt ventilators in any part of the country.

Further Information

The manufacturers maintain a technical department and testing laboratory together with an outside technical staff, resident in all the main centres throughout the country, who are available to answer questions and advise on technical problems and carry out site surveys.

The manufacturers also supply a comprehensive manual giving full technical details and containing nomograms from which the requisite number of ventilators can be calculated for any particular problem.

Compiled from information supplied by

Colt Ventilation Limited.

Address: Surbiton, Surrey.

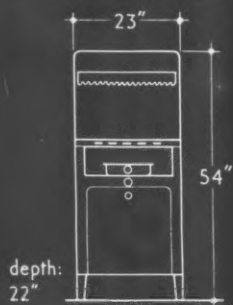
Telephone: Elmbridge 6511-5.

Telegrams: Coltile, Phone, London.

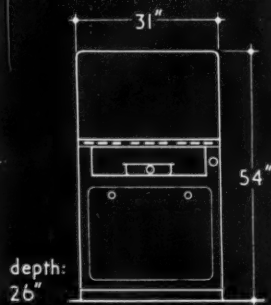
COOKING GAS

31.C3

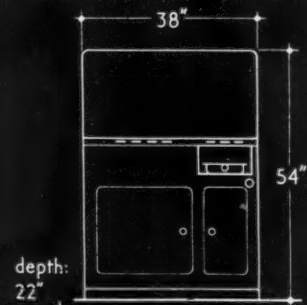
The Architects' Journal Library of Information Sheets 340. Editor: Cotterell Butler, A.R.I.B.A.



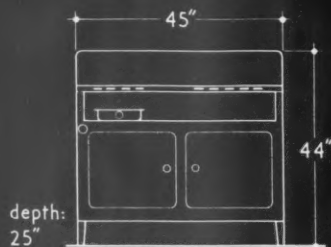
common domestic type:
4 boiling burners, grill
and oven



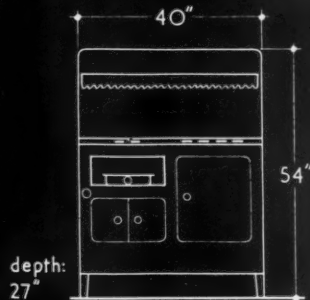
large family type: 6 boiling
burners (or 5 boiling burners
and grill) and oven



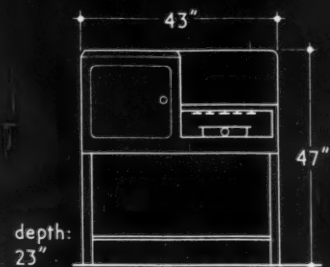
1 1/2 size type: 4 boiling
burners, grill, oven and
hot closet



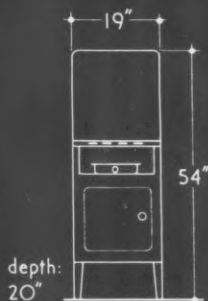
double oven type: 6 boiling
burners, grill and 2 ovens



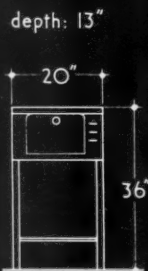
range type: 4 boiling burners,
grill, oven and hot closet



raised oven type: 4 boiling
burners, grill and oven



small type: 2 boiling
burners, grill and
oven



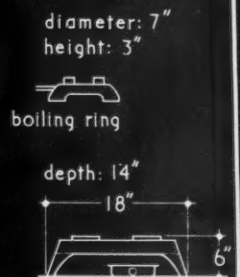
breakfast cooker:
1 boiling burner, grill
and small oven



combined breakfast
cooker and fire: 1
boiling burner and
small oven

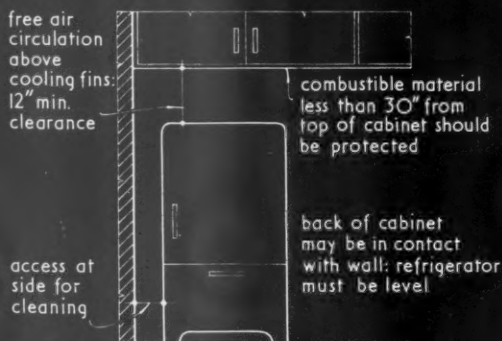


miniature type (wall
mounted or on stand):
1 boiling burner, grill
and oven

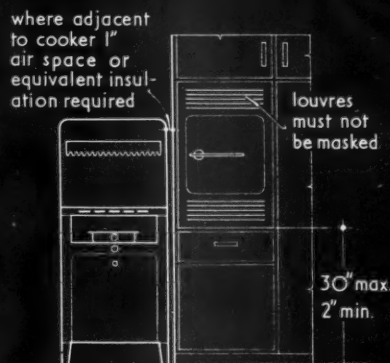


independent hot-plate:
2 boiling burners (or
1 boiling burner and
grill)

COOKING APPLIANCES.



free-standing type
REFRIGERATORS.



inset type

cap- acity (cu.ft)	approximate external dimensions			approx weight (lb)
	height (in.)	width (in.)	depth (in.)	
1.5	25-36	22	22	60-140
3.0	46-48	24-27	25	220
4.5	52	26-28	26-28	300-380
7.0	60	31	28 1/2	400
10.0	61	45	28	500

• may be inset or free-standing: all other models are free-standing

TYPICAL DOMESTIC GAS COOKING APPLIANCES AND REFRIGERATORS.

Compiled from information supplied by The Gas Council.

31.C3 DOMESTIC GAS COOKING APPLIANCES AND REFRIGERATORS

This Sheet summarises the common types of domestic gas cooking appliance and refrigerator.

Architects' Drawings

Drawings should show the space available for the appliance and the position and size of gas point.

Gas Cookers

Selection : The size of cooker required for any particular installation is governed by the principle that a family of up to six persons can be served adequately by a cooker with four boiling burners, grill, and an oven measuring approximately 16 in. high by 15½ in. wide by 14 in. deep.

Location : The cooker should be fitted in a well-lighted position away from draughts and close to a sink and work table.

Installation : With free-standing appliances a space of 4 in. minimum should be provided at the sides of the cooker. If the oven flue is at the back of the cooker a similar space should be allowed there.

Where built-in cookers are installed the oven must be vented at hot-plate level and adjacent fittings should be surfaced with material that is not affected by temperatures up to 300° F. Any joints between the cooker and a fitting should be such that food and liquids cannot spill through.

Ventilation : Flues are not necessary for cooking appliances in small dwellings. The ventilation of kitchens should conform to the requirements of B.S. Code of Practice CP 3 Chapter 1 (C) : 1945 Ventilation. Steam may be removed by an extraction fan fitted in an outside wall. Alternatively, the cooker may be fitted into a ventilated recess or a canopy vented to the outside air may be fixed above it. Where a canopy is used, it should be fixed in such a position that the distance from the lower edge to the floor is 6 ft. 3 in. minimum : the canopy should extend 6 to 12 in. beyond the cooker on all sides.

Refrigerators

General : Two types of refrigerator are available: free-standing and inset. Both types operate on the absorption principle, using ammonia as the refrigerant. They are silent in operation and air cooled and, in most cases, the cabinet temperature is thermostatically controlled.

Selection : A guide to the size of refrigerator required for any particular installation is given in the following table. The letters A and B in the table represent two grades of service :—

A—This provides sufficient capacity for the storage of the more perishable foods, e.g. milk, butter, fresh meat and fish.

B—This provides more generous accommodation, so that, in addition to the above, vegetables, fruit,

cooked meats, and beverages, for example, may be stored.

Capacity (cu. ft.)	Number of persons in household	
	A	B
1.5*	3 to 4	1 to 2
3.0	5 to 7	3 to 4
4.5	8 to 11	5 to 6
7.0 } 10.0 }	For very large households or for greater storage.	

* May be inset or free-standing : all other models are free-standing.

Location : The refrigerator should be fitted in as cool a position as possible and not exposed to excessive sunlight or other radiant heat. The position should be free from draughts and well lit. The refrigerator should not be fitted in a larder nor immediately below a cupboard in which food is stored.

Installation

An inset type of refrigerator is designed to slide on runners into a recess specially made to house it. With both inset and free-standing refrigerators a control cock should be fitted in the gas supply close to the appliance ; flues are not required.

British Standards

B.S. 1250: (Part 1) 1945 (Part 2) 1946 Domestic gas appliances for immediate post-war housing.

B.S. 1195 : 1948 Kitchen fittings and equipment.

Further Information

More detailed information will be found in British Standard Codes of Practice :

CP 331.103 (1947) Gas installation pipes, CP 332.401 (1947) Gas cooking installations, single family dwellings, CP 332.501 (1947) Gas operated refrigerators and CP 3 Chapter 1 (C) : 1945 Ventilation.

This Series of Sheets deals with the provision of service and installation pipes, meters, flues and all other considerations involving the installation of gas equipment concerning the architect.

Compiled from information supplied by :

The Gas Council.

Address : Gas Industry House, 1, Grosvenor Place,
London, S.W.1.

Telephone : Sloane 4554.

Telegrams : Gascil, Knights, London.

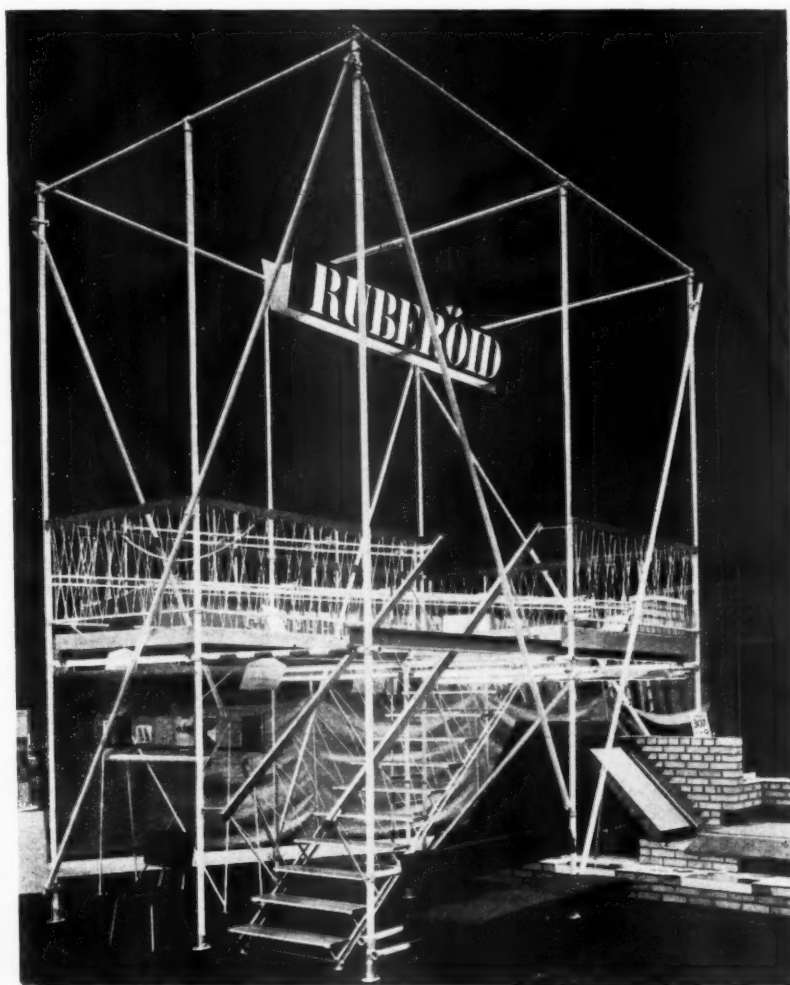
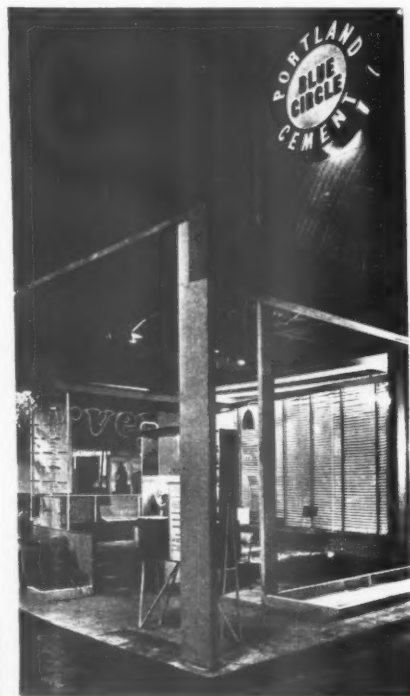
Copyright Reserved. The Architects' Journal Library of Information Sheets. Editor: Cotterell Butler, A.R.I.B.A.



Above, two drawings exhibited on the TDA stand. They were executed by J. R. M. Poole, the association's chief architect, to portray the uses to which stressed plywood could be put. The top drawing is of a school; the other of a factory with a stressed skin plywood roof. The TDA is carrying out a constructional research programme on stressed plywood, including the erection of experimental buildings, and, when this is completed, will issue design sheets for the guidance of architects who wish to use this technique.



Above, Williams & Williams's stand, designed by Arcon (consulting engineer: Samuely). Below, the Ruberoid stand, designed by Eric Brown and Peter Chamberlin. Bottom left, the Cement Marketing Company's stand, by Kenneth Bayes and John Diamond, of the Design Research Unit.





Above, left: E. Rosenberg (right) and F. R. S. Yorke (centre). Mr. Yorke, who designed Carter's stand, encouraged the firm to produce the hand-printed tiles, designed by Peggy Angus, that were on display. The tile pattern seen here can be found in Mr. Yorke's school, at Poplar. Above, right: Rodney Thomas (right), partner and principal of Arcon's Seymour Walk office, and Roger Balkwill (centre) from the same office. Arcon was responsible for the Williams and Williams stand, illustrated on page 657. Below, left: J. R. M. Poole, chief architect of the Timber Development Association. Mr. Poole's design for the TDA stand (see JOURNAL for November 15, page 601) incorporated a stressed plywood roof—a form of roof that can replace shell concrete construction. (See page 657.) Bottom, left: H. G. Ridge, technical officer of the Zinc Development Association. The stand (shown in a sketch on page 595, November 15) was designed by Stefan Buzas—a James Cubitt partner. Below, right: scaffolding (usually by some other name) was used a lot by designers, but Eric Brown (on the stand) specified the undisguised article for the Ruberoid stand (page 657), which he designed with Peter Chamberlin. Bottom, right: John and Gillian Harris. Mr. Harris designed the London Brick Company's stand. (See page 653.) This is his first stand for a Building Exhibition.



when two or more fittings discharge simultaneously.

It is refreshing to hear of a firm which seems prepared to go to considerable trouble to experiment in this field, and which will construct, off the site, various combinations and arrangements of sanitary fittings to test whether or not their theories are correct.

PRECAST GUTTERS

It is not widely known that the "Finlock" (Finlock Gutters Ltd.) combined lintol and gutter of precast concrete was originally designed by architect J. L. Womersley, winner of the *The Builder* low-cost house competition. The success it has since achieved can be measured by the fact that 200 local councils now specify it.

Maximum span used so far is 12 ft., but this depends only on the amount of reinforcement used. The firm regrets it is unable at present to cope with special requirements, but hopes to do so eventually.

LIMESTONE RENDERING

"Stonite" external rendering was used extensively on the South Bank. At Olympia a wide range of attractive colours and textures was shown by the manufacturers, Callow & Keppich Ltd.

"Stonite," supplied ready mixed, consists of a mixture of limestone and lime—no cement, which is why it does not crack. It can be applied with the "Tyrol" hand machine (Tyrol Sales Ltd.—price only £9) or with a spray gun. Special colours can be obtained if you order at least 1 cwt.

"Scruffito," an old Italian decorative technique, has been developed by Callow & Keppich. It consists of two layers of mortar—two different colours, but usually just black and white. The top one is scraped away whilst still wet to reveal the underneath layer where desired. Apparently, banks, in particular, like to have their names displayed in this way, for the technique has never died out on the continent, although it is new to England.

STEEL RADIATORS

The flexibility of steel radiators was demonstrated by three firms: Gulf Radiators Ltd., Hurseal Ltd., and Steel Radiators Ltd. This last firm showed also a mobile steel radiator heated by paraffin oil. This might be useful in these days of power cuts and rationing of solid fuel. The price is only £9 10s. and it runs for 60 hours on one gallon of oil.

FLUSHING VALVES

The prejudice which exists on the part of water boards against flush valves for w.c.'s instead of overhead cisterns, on grounds of water wastage, seems to be slowly disappearing.

Victory Valves, Ltd., can quote a large number of places where the flush valve can be used. This simple and attractive

Floor Finishes

...for under floor heating



*The Domestic Science
Kitchen at Longcroft School.*

The selection of a floor covering suitable for use over radiant heating installations need present no difficulty to the architect using modern invisible panel warming. Semastic Decorative Tiles meet all the requirements. With an average K figure of 3.5 Semastic Decorative Tiles may be described as a floor covering of medium thermal conductivity. Hence radiation is neither impeded nor does the floor feel unduly cold during non-operational periods of the heating system. The photograph illustrates a portion of a large-scale installation recently carried out for the County Architect of the East Riding of Yorkshire, Mr. K. F. Giraud, A.R.I.B.A. In addition to being completely suitable for use over radiant heating installations, Semastic Decorative Tiles possess all the properties architects demand of floor

surfacing—great durability in service, decorative appeal, initial economy and ease and inexpensiveness of upkeep. Descriptive literature, samples and estimates are available upon request from any of the Approved Contractors undertaking Semastic Decorative Tile installation as listed below.

SEMASTIC

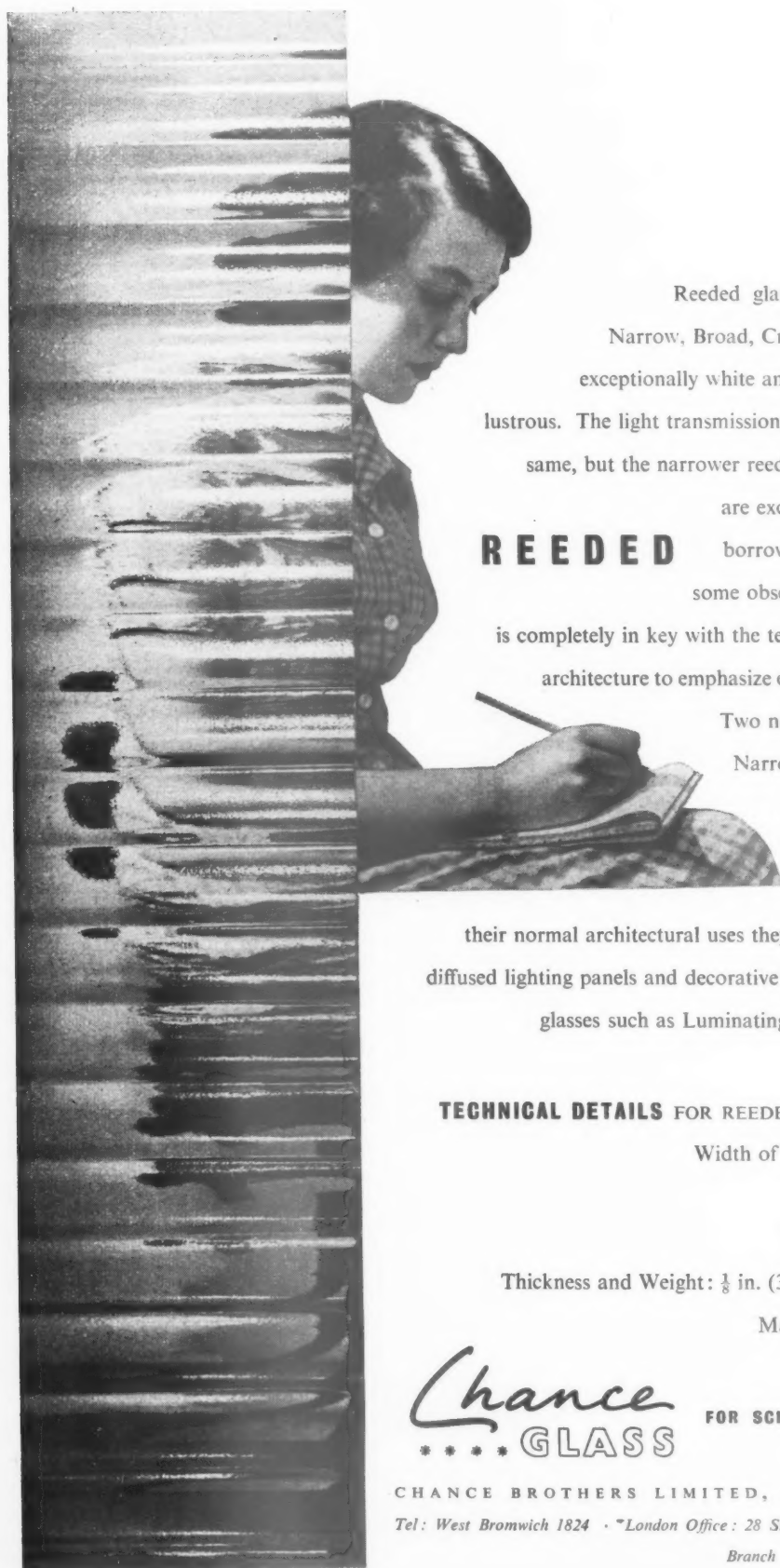
Decorative Tiles

a product of a Dunlop Company

Countrywide installation is provided by the following floor laying specialists who represent the highest standard of experience and workmanship available in the country.

- ALBA FLOORING CO. LTD. • J. A. HEWETSON & CO. LTD. • HOLLIS BROS. LTD. • HORSLEY SMITH & CO. (HAYES) LTD.
- PILKINGTON'S ASPHALTE CO. LTD. • THE PENMAENMAWR & TRINIDAD LAKE ASPHALT CO. LTD.
- THE LIMMER & TRINIDAD LAKE ASPHALT CO. LTD. • SEMTEX LTD. • THE WESTERN TRINIDAD LAKE ASPHALT CO. LTD.

ISE/S17A



Reeded glass is available in four patterns, Narrow, Broad, Cross and Major. The glass itself is exceptionally white and clear and its surface bright and lustrous. The light transmissions of all the patterns are about the same, but the narrower reeds give greater obscuration. They

REEDED

are excellent glasses for partitioning, for borrowed lights and for windows where some obscuration is required. The reeding is completely in key with the tendency of so much contemporary architecture to emphasize either vertical or horizontal motifs.

Two new developments of Reeded glass, Narrow and Broad Reedlyte, offer greater obscuration and are more suitable where a high degree of privacy is necessary. Besides their normal architectural uses they are employed in lighting fittings, diffused lighting panels and decorative lighting schemes. Special lighting glasses such as Luminating (which has a very narrow reeded pattern) are also available.

TECHNICAL DETAILS FOR REEDED GLASSES

Width of Reeds: Narrow- $\frac{1}{2}$ in., Broad- $\frac{3}{8}$ in.,

Cross $\frac{1}{2}$ in., and Major-1 $\frac{3}{4}$ in.

Light Transmission: 85 per cent.

Thickness and Weight: $\frac{1}{8}$ in. (36 oz./sq. ft.), $\frac{3}{16}$ in. (44 oz./sq. ft.).

Maximum size of Sheet: 100 x 42 in.

Chance
GLASS

FOR SCIENCE, INDUSTRY AND THE HOME

CHANCE BROTHERS LIMITED, Glass Works, Smethwick 40, Birmingham.

Tel: West Bromwich 1824 • London Office: 28 St. James's Sq., S.W.1. Tel: Whitehall 6002

Branch Works at Glasgow, St. Helens and Malvern

device costs nearly twice as much as the cheapest form of cistern—£6 3s. 9d. complete—but the manufacturers claim that the maintenance costs are very much lower. It is silent, and, of course, there is no waiting period while the cistern refills. After it has discharged two gallons of water, it can be flushed again immediately. For this reason the water boards object to it. They say it may allow water to be wasted. On the other hand, it makes possible a quicker use of w.c.'s, and a case could be made for reducing the number of w.c.'s in schools and factories where flushing valves are used. Another flushing valve which could be seen at the exhibition is a product of **Lloyd, Doig & Co., Ltd.**

EMULSION PAINTS

Silexine Paints Ltd. showed their improved emulsion paint which dries in one hour and acts as primer, undercoat and finishing coat. It is made in British standard colours, but the firm will also make up colours to customers' requirements.

Also showing emulsion paints were **Duresco Products Ltd., Charles Turner & Son Ltd., and Vulcan Products Ltd.** Turner's emulsion paint, "Charterplast," requires no primer or undercoat, dries quickly (one coat can follow another after one hour), and can be washed after twenty-four hours. Duresco's paint is known as "DEC" (Duresco Emulsion Coating). Vulcan's paint was described on page 601 of the JOURNAL for November 15.

A NEW ROOFING MATERIAL

With copper, lead and zinc in short supply, or unobtainable, architects are looking for substitutes. **Cellactite and British Uralite Ltd.** showed on its stand a new sheet roofing material called "Nuralite." It is made of asbestos fibre and bitumen, and is sold in 8-ft. by 3-ft. sheets, at 19s. 7d. each. While this material compares favourably in cost with zinc—approximately half the cost when laid—the manufacturers claim that it has a similar life to zinc. Each sheet weighs about 12 lb. and should be fully supported under all surfaces in the same way as lead or zinc. It can be cut with tinsmiths' shears and can be bent after being softened by a blow lamp. All the flashings, beaded drips and ridging and gutting which are usually made with metal sheeting can be made with "Nuralite." As this material is built up of laminations, a form of welded joint can be made if one edge is slit and a second piece of sheeting is inserted. The joint is made firm by pressure, under heat from a blow lamp, and the use of a special fibrous welding plastic supplied for the purpose. The material, which is a mottled black in colour, is not particularly attractive, but the manufacturers claim that it weathers to a light grey.

PLUG-DRIVING GUNS

F. H. Bournier & Co. (Engrs.) Ltd., manufacturers of the deservedly popular "Supatap," decided to take a stand this year to demonstrate their "Supa-Dynamic Rapid Plug-Firing Gun." Whilst it is not claimed that this gun is unique, the firm believes that it is the only one manufactured in this country and the fastest tool of its kind in the world. It is self-ejecting and can set four plugs per minute into steel, wood, brick or concrete. Another advantage of Bournier's gun is that the barrel is eccentric in the flash eliminator. This makes it easier to get the gun into corners. The cost of the gun, complete with case and kit of cartridges, plugs, studs, etc., will be between £35 and £40. The cost of a charge and a plug is approximately 5d.

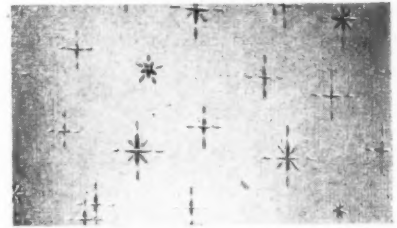
Adam and Harvey Ltd. exhibited two types of bolt-driving gun under the name of "Rapid Hammer." One is for firing bolts of 6-mm. diameter and weighs 3½ lb.; the other fires bolts of 10 mm. diameter and weighs 8 lb. The heavy gun can be fitted with an alternative barrel in order to fire the smaller bolts. The cost of the gun, complete with ram-rod, flash eliminator and cleaning kit, is £44 18s. To this must be added the cost of bolts and cartridges. This, depending on the size of the bolts and the strength of the material into which they have to be driven, varies from 6½d. to 8½d. a shot. Delivery is from stock, whereas there is a twelve-week delay in the delivery of Bournier's "Supa-Dynamic" gun. The barrel and the flash eliminator are concentric, and not eccentric, as in the case of the "Supa-Dynamic," so for working close to corners (i.e., within ½ in. of them) and angles, the flash eliminator has to be removed. The result is that the gun makes slightly more noise and there is a danger of flying splinters when it is used on brick and in the case of concrete.

As far as the architect is concerned, there is not a great deal to bear in mind when designing a building which will be constructed with the aid of bolt-gears. When he has seen a gun in action he will realize that, in the hands of a competent workman, it is an excellent economical "fixer." In the hands of the dull-witted, it could play "old Harry" with the finishes.

PROTOTYPE GLASSES

The six prototype figured glasses exhibited by **Chance Brothers Ltd.**, which were mentioned in our first Building Exhibition issue (November 15, page 599), were ready just in time. They are all shown on the right, and the firm's idea is to test the public's and, particularly, architects' reactions before deciding whether or not to put any of these patterns into production.

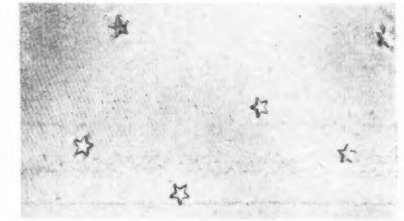
The addresses of all the firms mentioned in this review can be found in the Building Exhibition supplement which appeared in the Journal for November 15.



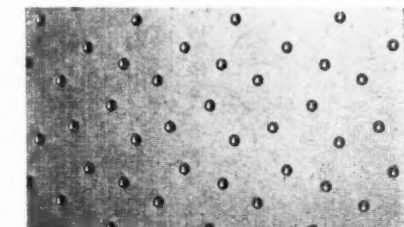
Chance Brothers' prototype figured glasses "with a pattern of star and star cloud shapes." Designer: J. Beresford-Evans. (AR86.)



"with a pattern of sailing ships in full sail." Designer: J. Beresford-Evans. (SA 18.)



"with 5-pointed stars arranged irregularly." Designer: Sadie Speight. (SR 43.)



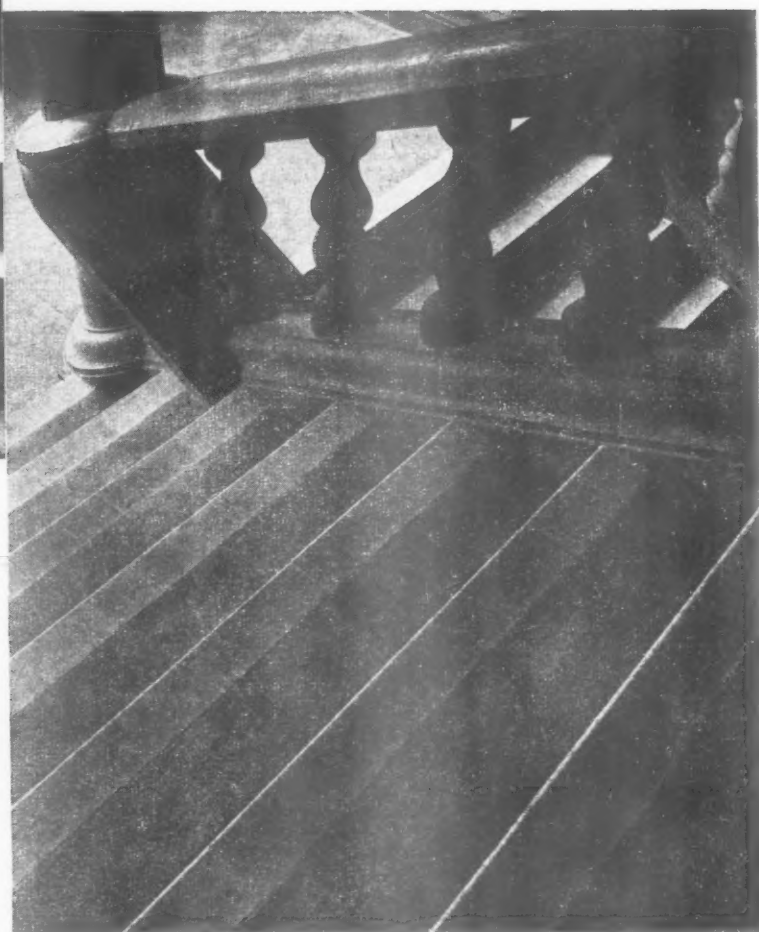
"with small half-spheres." Designer: Sadie Speight. (PE 72.)



"with a scattering of clover leaves." Designers: Fulton Ltd., Glasgow. (CR 11.)



"with an all-over textured leaf pattern." Designer: L. J. Harwood. (LF 54.)



ALTRO NON-SLIP PRESTILE

Monumental Mason : S. T. Reeves, Englefield Green

for maintenance of stone and concrete stairs



**Eliminates wear and
danger of slipping.
Full range of colours.**

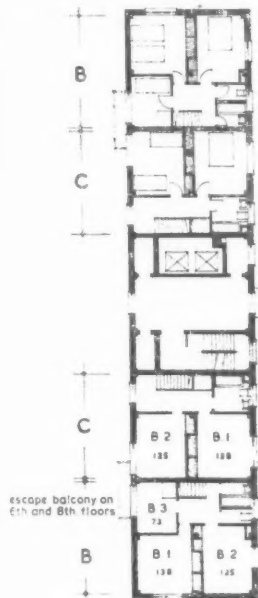
After 70 years the natural stone stairs at the Royal Holloway College, Egham, had become so worn that they were dangerous. To make them safe the existing treads were cut away and 9" x 4" x $\frac{3}{4}$ " round nosed Altro Prestile bedded in. The back of the treads and landings were made good with grano in which Altro (aluminium oxide) grain was incorporated to increase the resistance to abrasion and to make them non-slip. For further particulars write to me for Bulletin No. 1.

Cecil Kahn

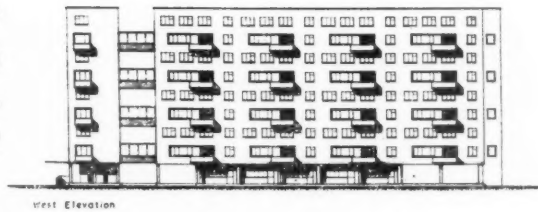


THE ADAMITE COMPANY LTD., Manfield House, Strand, W.C.2. Tem. Bar 6233/6

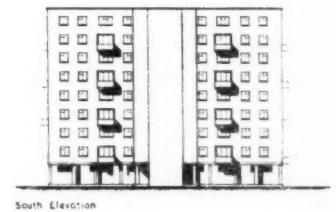
MINISTRY OF HOUSING AND LOCAL GOVERN- MENT EXHIBIT



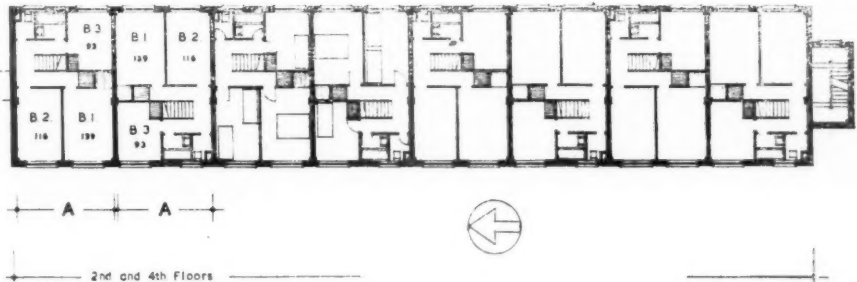
2nd, 4th, 6th and 8th FLOORS

1 0 5 10 20 feet
SCALE

West Elevation



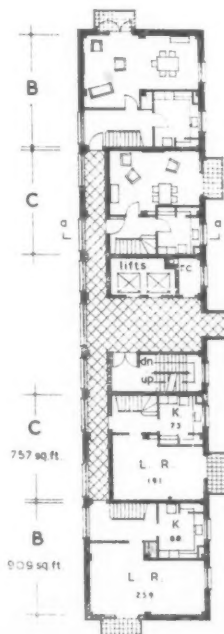
South Elevation



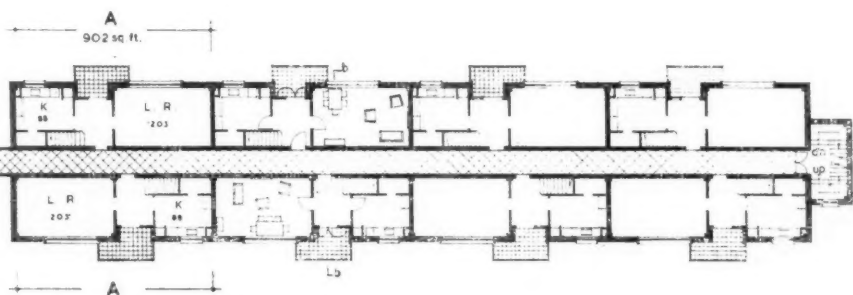
2nd and 4th Floors

Last April local authorities were advised, by a MOLGP circular, of ways in which house-building costs could be reduced without lowering the essential standards of room space which were recommended in the Housing Manual, 1949. On the MOHLG stand a number of plans and models, prepared by the Ministry to show how these savings can be made, were displayed. Some of these are reproduced on this page and on

pages 661 and 663. The plans on this page are of a nine-storey block of 53 dwellings, including 32 "cross-over" maisonettes. These provide an economical solution to the problem of designing maisonettes in tall blocks, as they enable the number of staircases and lifts to be reduced (in this case only 2 lifts and 2 staircases are required). External access balconies are unnecessary and cross ventilation is provided in each dwelling.



1st, 3rd, 5th and 7th Floors.



Also on show on the MOHLG stand were models, plans and photographs illustrating the report of the Central Housing Advisory Committee on housing for special purposes. The report dealt with the housing needs of old people, single workers, students, apprentices, disabled persons, district nurses and midwives, and on the stand were models of a hostel for 28 people and a typical bed-sitting room, photographs of 2 completed hostels, and plans of a disabled person's bungalow and a house for a district nurse.

1 0 5 10 20 feet
SCALE

STORY-DESIGNED FURNITURE AND FURNISHINGS FOR SPECIAL REQUIREMENTS

THE UNIVERSITY COLLEGE OF LEICESTER



The illustration here shown is of the high table end of the Leicester University College Dining Hall seating 300 students. The Furniture and Furnishings for this Dining Hall were designed and made by Story's in collaboration with the Architect, T. Shirley Worthington, F.R.I.B.A., of Thomas Worthington & Sons.

Chairs for the high table are covered in natural Tan Leather; tables and benches are of brown oak with underframes of natural English oak.

The complete furnishings and interior equipment for the Bedrooms and Common Rooms, etc., in the Beaumont Men's Halls of Residence were also executed by Story's.

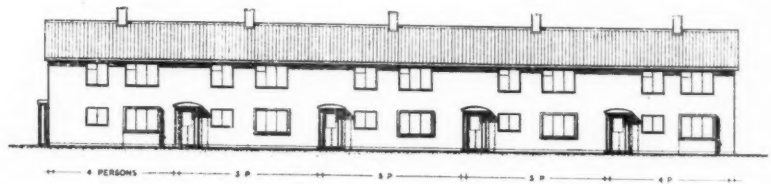
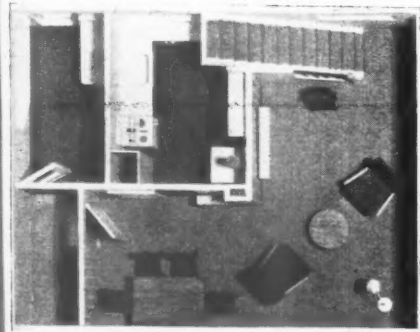
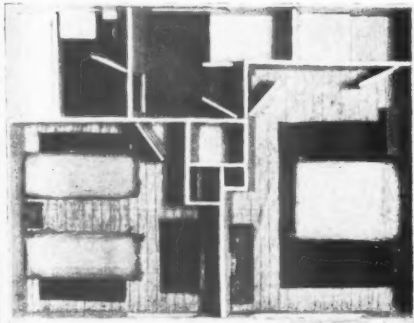
Story's Contracts Department are pleased at all times to quote from Architects' details or quote and submit designs to suit special requirements.



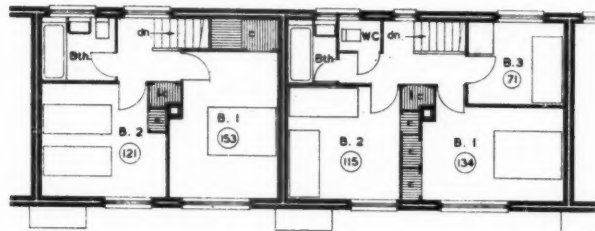
STORY'S OF KENSINGTON

Story & Co. Ltd. (Contemporary Showrooms & Contracts Dept.), 7, Kensington High Street, London, W.8
Traditional and Main Showrooms: 49, Kensington High Street, W.8

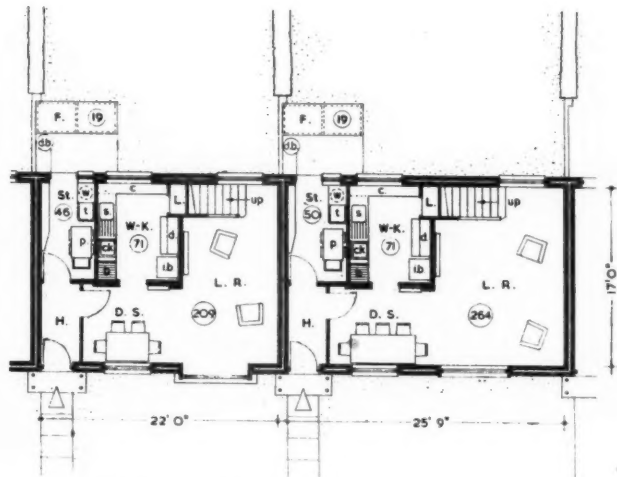
MOHLG EXHIBIT (continued)



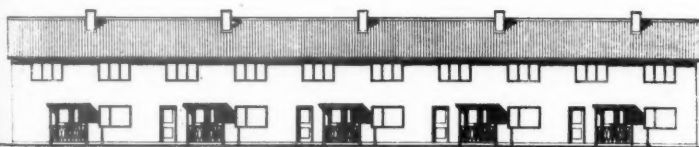
ELEVATION TO THE ROAD



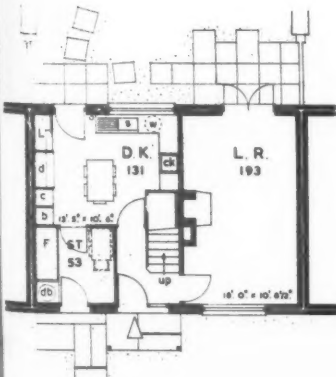
FIRST FLOOR



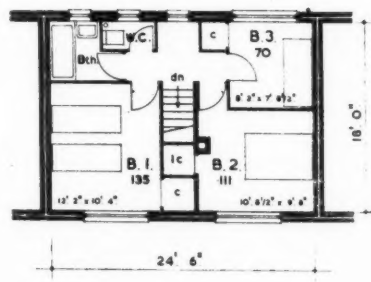
4 PERSONS - GROUND FLOOR - 5 PERSONS



ELEVATION TO THE ROAD

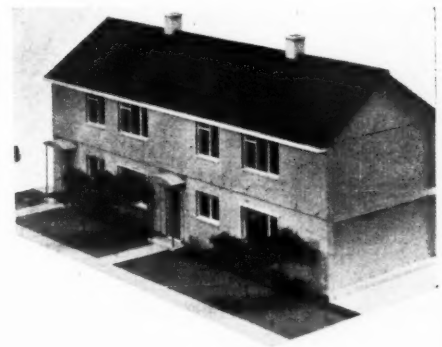


GROUND FLOOR



FIRST FLOOR

Above, plans and models of terrace housing 'under construction' at Coventry. Two-bedroom houses alternate with three-bedroom ones, and whole-house heating is provided by independent boilers. Left, plans of experimental house with area of only 882 sq. ft., but with ground floor living space only 14 sq. ft. less than normal. Below, model showing external treatment.



TUCKER'S 'Armourply'

**DOORS • COUNTERS
AND TABLE TOPS
CUBICLE UNITS
REFRIGERATORS**

*Metal
Faced
Plywood*

**INSULATING PANELS
ESCALATOR PANELS
ROOF PANELS
VEHICLE BODIES**

Combines light weight with strength in a wide range of decorative and utility surfaces

Manufactured by

WILLIAM MALLINSON & SONS LTD

130-150 HACKNEY ROAD, LONDON, E.2

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PLAN WITH ESAVIAN DATASHEETS

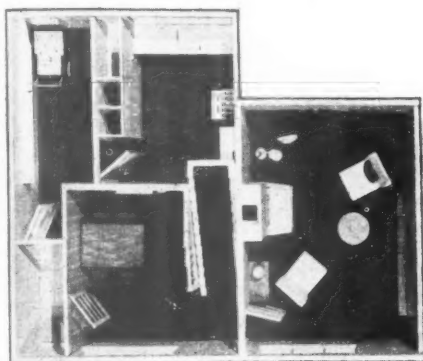
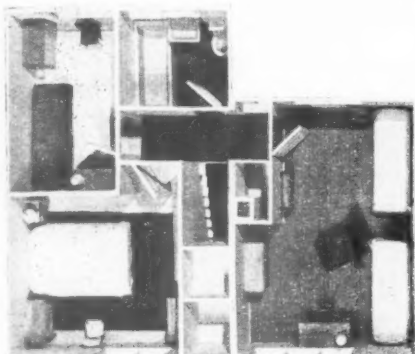
Specially prepared for Architects, this new folder contains eleven Datasheets shewing various applications of Esavian sliding and folding doors, etc. Each type is illustrated by a detail drawing, specification and photograph. If you have not yet received your folder—or require extra copies—please write to

ESAVIAN
LIMITED

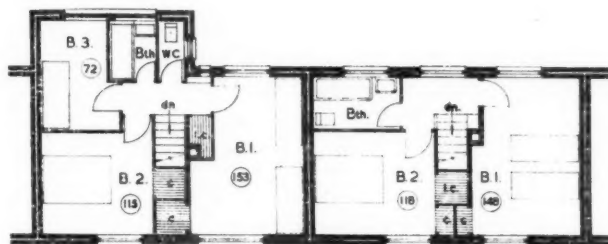
THE **ESAVIAN** PRINCIPLE
FOR DOORS, WINDOWS, PARTITIONS & FOLDING SCREENS

ESAVIAN HOUSE, 181, HIGH HOLBORN, W.C.1. TEL: HOLborn 9116. 101 WELLINGTON STREET, GLASGOW, C.2. TEL: CENTral 2369

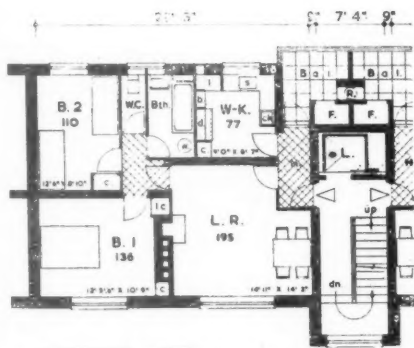
MINISTRY OF HOUSING AND LOCAL GOVERN- MENT EXHIBIT (continued)



ELEVATION TO THE ROAD.

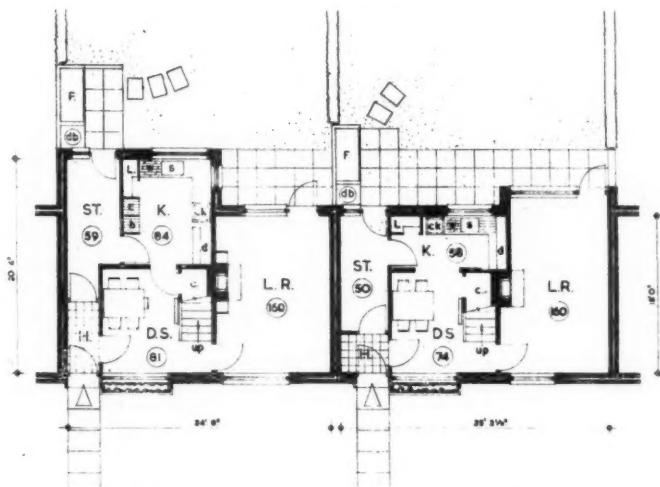


FIRST FLOOR



4 PERSONS - 688 sq. ft. including Fuel

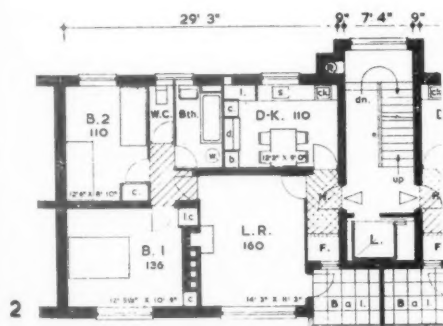
W-K. FLATS



5 PERSONS

GROUND FLOOR

4 PERSONS



4 PERSONS 684 sq. ft. including Fuel

Above, plans and photographs of models of terrace housing under construction at Coventry. Two-bedroom houses (gross area 784 sq. ft.) alternate with three-bedroom houses (area 897 sq. ft.), and background heating and hot water supply are to be provided by improved types of open fire or stove (minimum rating 21,000 BThU/hr.). The sectional models are of the three-bedroom house. Left, part plans of five-storey blocks of flats, designed so as to avoid the inclusion of unnecessary passages and halls.

Readers requiring up-to-date information on building products and services may complete and post this form to *The Architects' Journal*, 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "*The Architects' Journal*." (BLOCK LETTERS, and list in alphabetical order of manufacturers names please).

Please ask manufacturers to send further particulars to:—

NAME

PROFESSION or TRADE

ADDRESS

A.J. 29.11.51

Announcements

Mr. Leo O. L. Hannen & Mr. J. H. Markham are taking into partnership—from December 1—Mr. E. Roy Moore, A.R.I.B.A., and Mr. P. Russell Diplock, B.A., A.R.I.B.A., DIP.C.D. Mr. Moore will be responsible for the Liverpool Office, at 26, Rodney Street, Liverpool, 1, and Mr. Diplock will be responsible for the Montreal Office. The name of the firm will be Hannen, Markham, Moore & Diplock.

Major W. R. Bingham, M.B.E., has recently been appointed architect and surveyor to the West Riding of Yorkshire Territorial and Auxiliary Forces Association, and would be pleased to receive trade catalogues at 20, St. George's Place, York.

Buildings Illustrated

Staff houses (three pairs) at Scotby, Cumberland, for the Cumberland County Council. (Page 644.) Architect: John H. Haughan, F.R.I.B.A., County Architect. General Contractor: Arthur S. Nixon Ltd. Sub-contractors: Sandysyke bricks, Kirkhouse Brick & Tile Co.; slates, Westmorland Green Slate Co.; roofing felt, Blackwell Ltd.; patent flooring, Marley Tile Co.; electric wiring, J. W. Cullen; plumbing, David Thomson & Sons Ltd.; sanitary fittings, Shanks & Co. Ltd.; door furniture, F. Ramsay & Co. Ltd.; casements, Henry Hope & Son Ltd.; plaster, tiling, Martin Bros. Ltd.; joinery, Harold Bolton Ltd.; shrubs and trees, Clark Bros. & Co. Ltd.

Houses and Flats, Heath Park Estate, Dagenham, Essex, for the Borough of Dagenham. Borough Engineer and Surveyor. A. E. Strickland, M.I.M.U.E.,

F.R.S.A.I.L., F.I.S.E. (Pages 645-650.) Architects: Norman & Dawbarn. Assistant Architects: Ethel Richmond, A.R.I.B.A., Eric Erber, Consulting Engineers for District Heating; Donald Smith, Seymour & Rooley. Quantity Surveyors: Wm. C. Inman & Partners; General Contractors: The Borough of Dagenham, Engineer & Surveyor's Department (Direct Labour Organization), S. R. Bryett, Thomas Bates & Son Ltd., C. S. Wiggins & Sons; Sub-Contractors: mild stock bricks, "Pragos" 2nd stocks, Cement Marketing Co.; Leicester Multi-Rustic bricks, Henry J. Greenham Ltd.; dark brown facing flints, Uxbridge Flint Brick Co.; metal windows, Crittall Manufacturing Co.; metal door frames, Crittall Manufacturing Co., John Thompson (Beacon Windows) Ltd., Morris Singer Co.; sanitary fittings, Wiggins-Sankey Ltd.; John Bolding & Sons Ltd.; standard doors, Jayanbee Joinery Ltd., Thomas Bates & Son Ltd., Evos Ltd.; standard kitchen fittings, Jayanbee Joinery Ltd., Thomas Bates & Son Ltd., Kandya Ltd.; roof tiling, J. H. Sankey & Sons Ltd., Wiggins-Sankey Ltd.; ironmongery, Lockerbie & Wilkinson (Birmingham) Ltd., Nettlefold & Moser, Froy & Sons Ltd.; acotile flooring, The Neuchatel Asphalte Co.; electrical installation, Evans & Shea Ltd., Eastern Electricity Board; fencing, A. J. Binns Ltd.; gas installation, North Thames Gas Board, specialists reinforced concrete work, Caxton Floors Ltd., Helical Bar & Eng. Co.; lift installation, J. & E. Hall Ltd.; felt roofing, Anderson & Son Ltd.; cement glaze, Modern Surfaces Ltd.; ironwork, Universal Metal Furring & Lathing Co., Light Steelwork Ltd.; balcony sheeting, Durasteel Ltd.; "Lambda" concrete frames, R. E. Eagan Ltd.; lettering and name panels, The Lettering Centre; dry hydrant mains, Mather & Platt, Ltd.; quarry floor tiling, Broad & Co.; roof tiling, W. Heath; terrazzo work, Art Pavements & Decorations Ltd.

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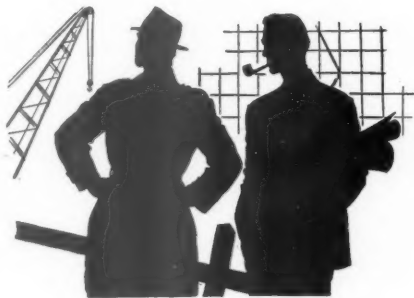
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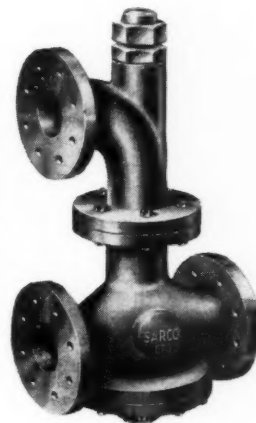
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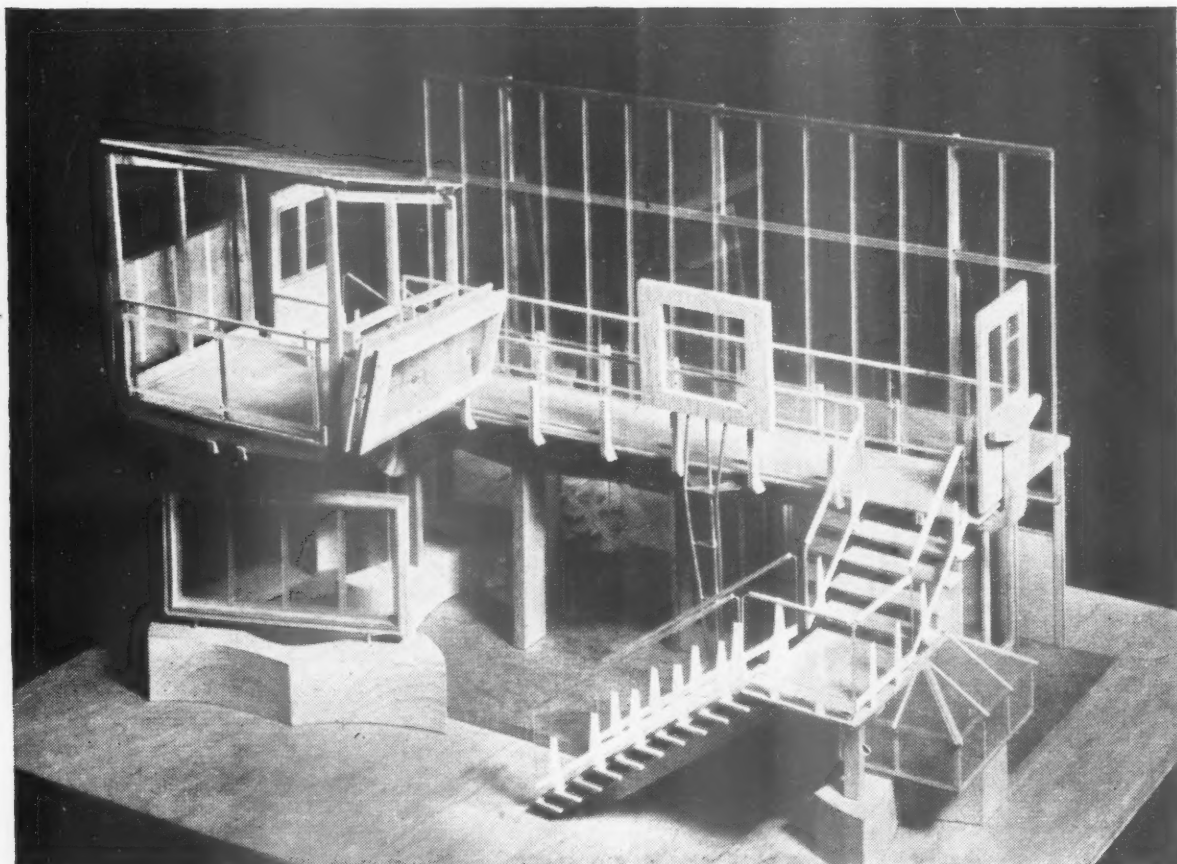
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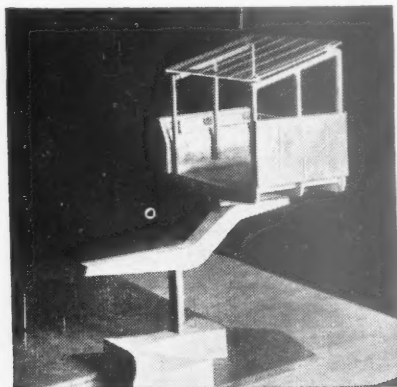


AR 11451



WILLIAMS & WILLIAMS AT THE BUILDING EXHIBITION 1951

The Williams & Williams stand is one of the most noteworthy design features of this year's Building Exhibition. Its use of two simple cantilevers to carry the upper floor is dramatic in solving one perennial problem of exhibition stand design, the difficulty of keeping the stand open and clear for exhibits. Another striking feature is the use of wood for the structure as a foil to the metal products of Williams & Williams.



The stand is fundamentally simple. It consists of three basic elements:

- 1 A thirty foot single laminated timber cantilever which supports the main gangway on the upper floor. (Photograph on upper right.)
- 2 A shorter cross cantilever supporting the office (photograph on left).
- 3 A wall of glass of double glazed Aluminex Patent Glazing (photograph on lower right).

The main cantilever is mounted on a pillar and braced at one end by a tension cable. It carries the gangway which is both the upper floor and the access to the office, which projects upwards and outwards on its own cantilever, reached by a

staircase from the gangway. Thus the only obstructions on the ground floor are the two cantilever supports and the staircases leading to the upper floor. This accentuates the 'open' feeling of the stand.

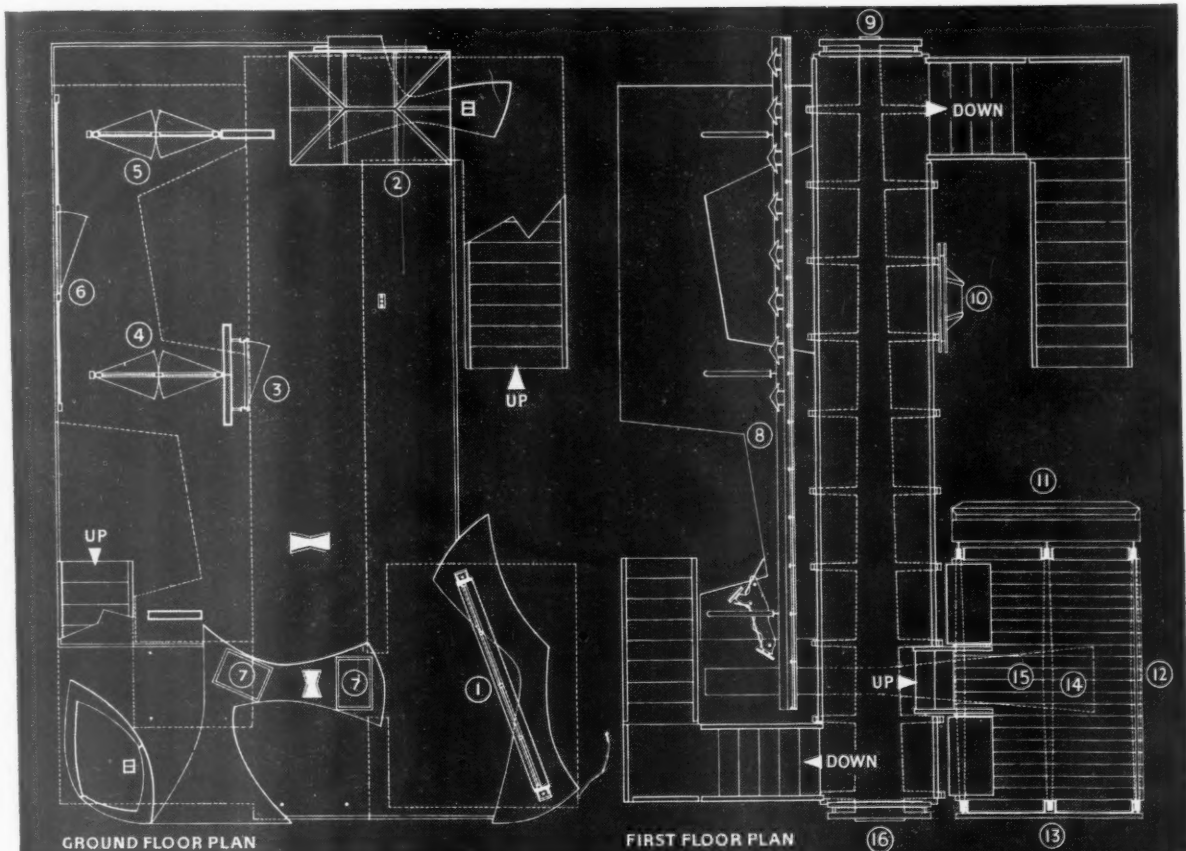
The Aluminex wall forms an effective screen to the back of the stand.

Teleflex Midget Window Gearing

This midget gearing, a new development of the famous Teleflex gear, is specially designed for light small installations. Although primarily intended for single opening lights, two or more lights can be operated from a single point. On the stand the Midget gearing uses a hand lever on the ground floor to operate a small domestic type window on the upper floor. Gearing of this type operated the Metal Window Association exhibit at the South Bank where it was calculated that it stood up to 1,100 years of normal wear.

Exhibits on the Ground Floor

Products of the Roften Division of Williams & Williams are the main features of the ground floor. Double action swing doors, as used in the Transport Pavilion on the



KEY TO LIST OF EXHIBITS

- | | | |
|----------------------------|--|---|
| 1. Sliding folding window | 8. Vertical Aluminex screen | 13. Vertical Aluminex with solid panels |
| 2. Lantern light | 9. Casement window in wood surround | 14. Aluminex roof glazing |
| 3. 'Hong Kong' door | 10. Casement window controlled by hand operated teleflex | 15. Office |
| 4. 'Festival' swing doors | 11. Stained glass | 16. Casement window — fly-screened type |
| 5. 'Hertford' swing doors | 12. 'Pimlico' balcony | |
| 6. Office screen partition | | |
| 7. Photo - transparencies | | |

South Bank, are admirably set off by plain internal office doors set in a pressed steel door frame. Double action aluminium swing doors, as used in the Hertfordshire schools, are shown as well as steel four leaf sliding and folding school type windows. Another interesting exhibit is an Aluminex Lantern Light glazed with $\frac{1}{8}$ " polished plate glass to provide an interesting display of models of past Building Exhibition stands used by Williams & Williams, which have had such an impact on contemporary architectural thought. On this floor are illuminated photo murals of the Pimlico Tower and the Transport Pavilion; both of which bear evidence of the versatility of the Williams & Williams organization.

The First Floor

The first floor is reached by staircases produced in Williams & Williams factories. There are four main exhibits:—

- 1 Standard steel domestic type window with leaded lights fitted to a standard wooden frame.
- 2 Standard steel domestic type window with a top hung opening vent operated by

gear from the ground floor, housed in a standard steel sub frame surround.

3 Standard steel domestic type window fitted with both copper gauze and nylon fly screens and controlled by means of 'Roto' through screen operators fixed at cill.

4 Aluminex vertical wall glazing incorporating top continuous hung opening lights, one operated electrically and one manually from the ground floor.

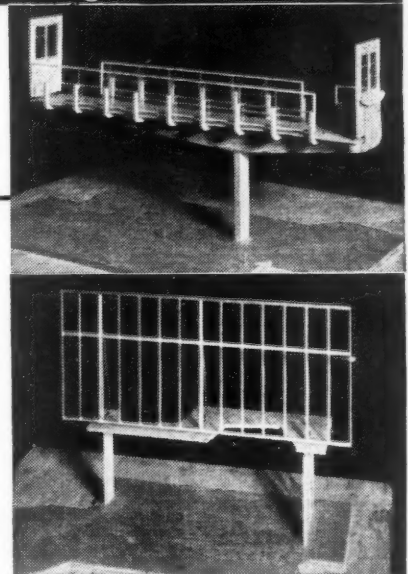
On this floor also there is the stained glass window designed by Kenneth New of the Royal College of Art, and executed by Williams & Williams.

ROW 'D' STAND No. 83

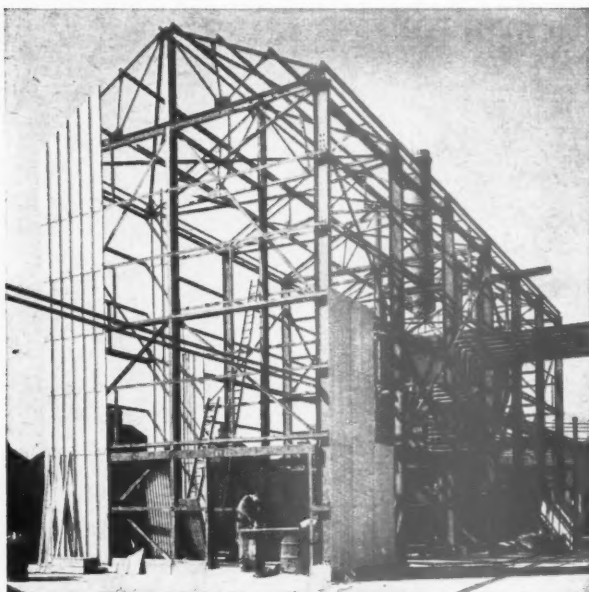
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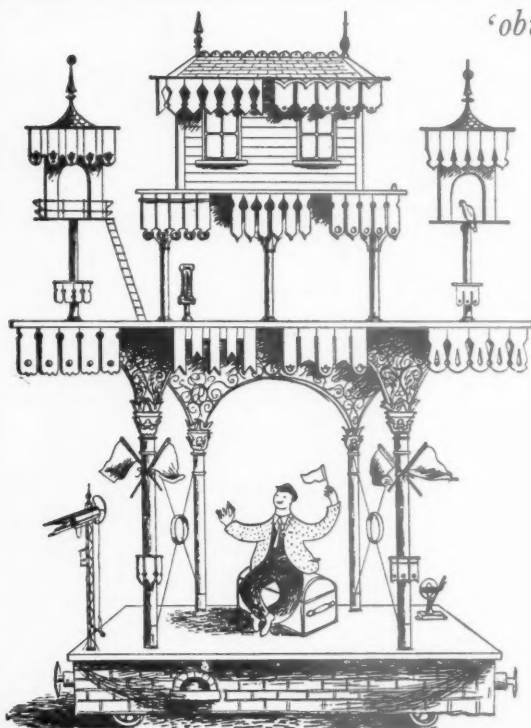
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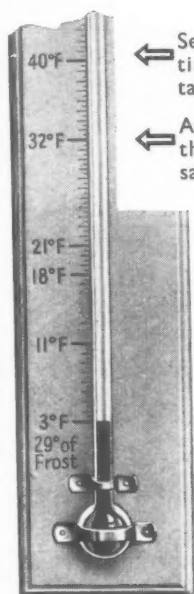
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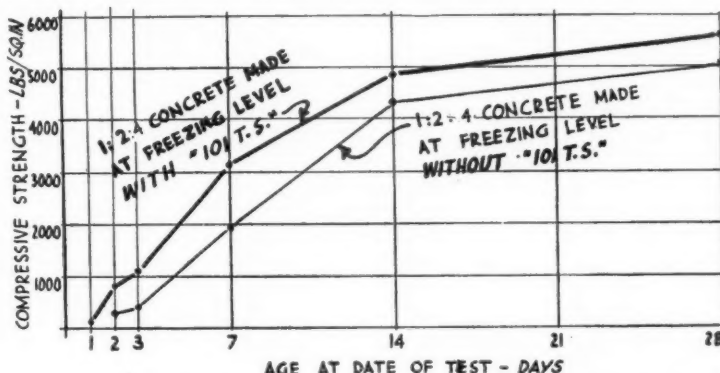
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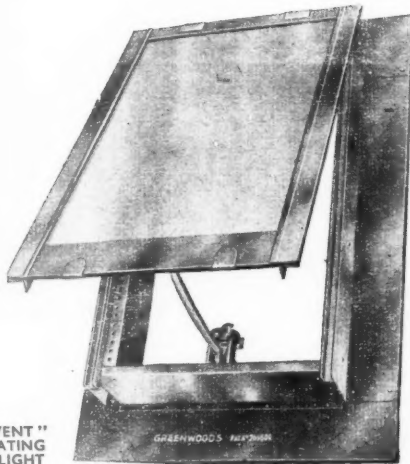
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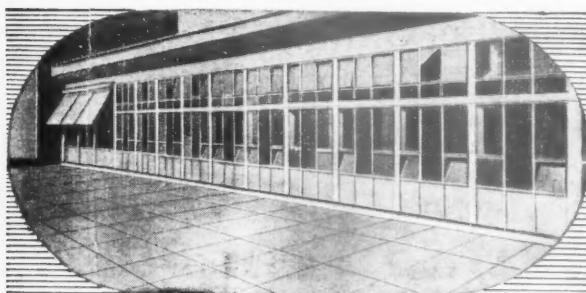
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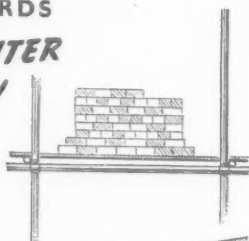


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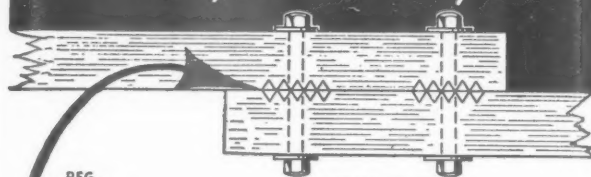


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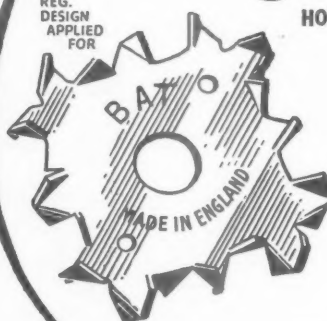
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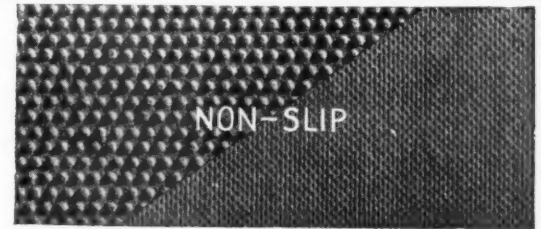
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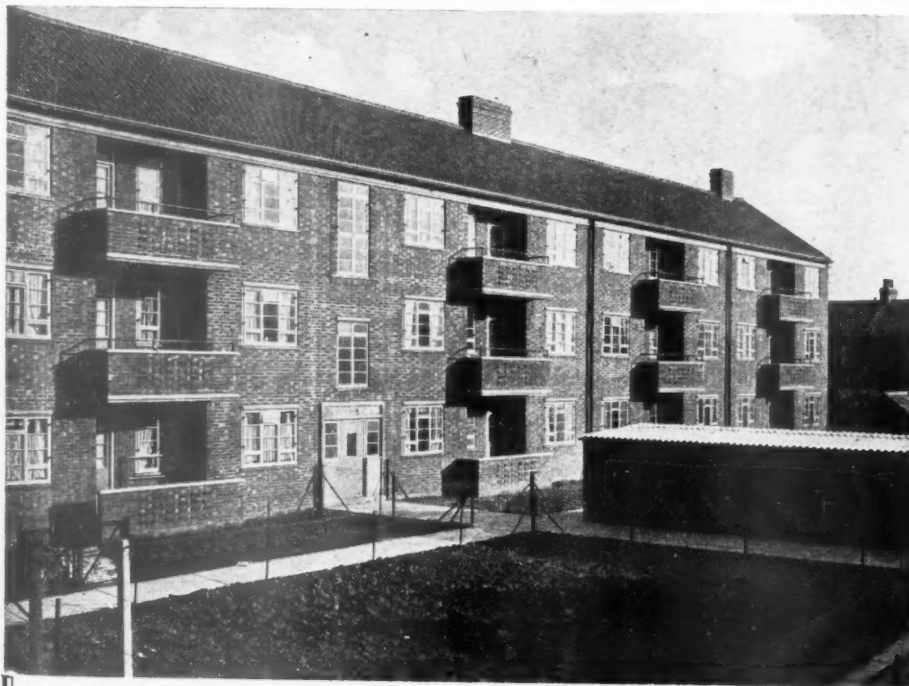


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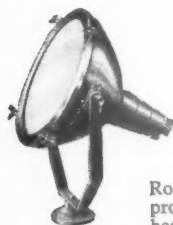
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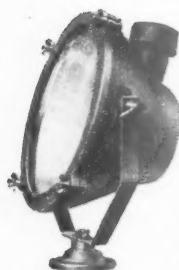
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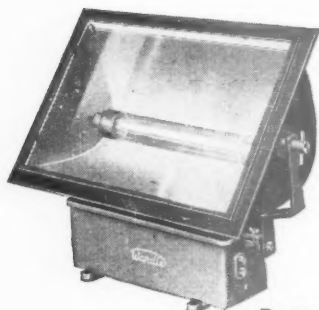
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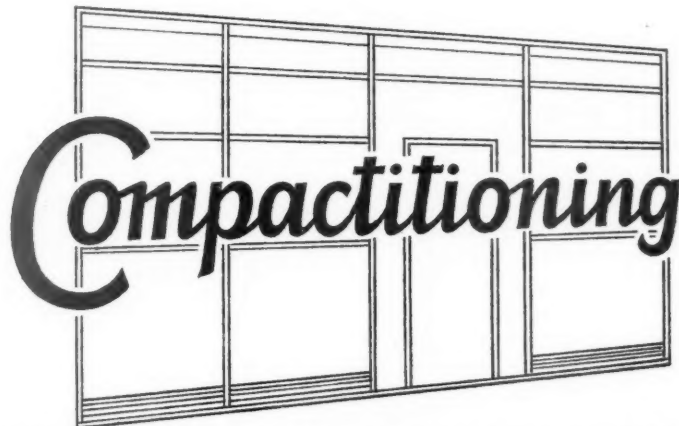
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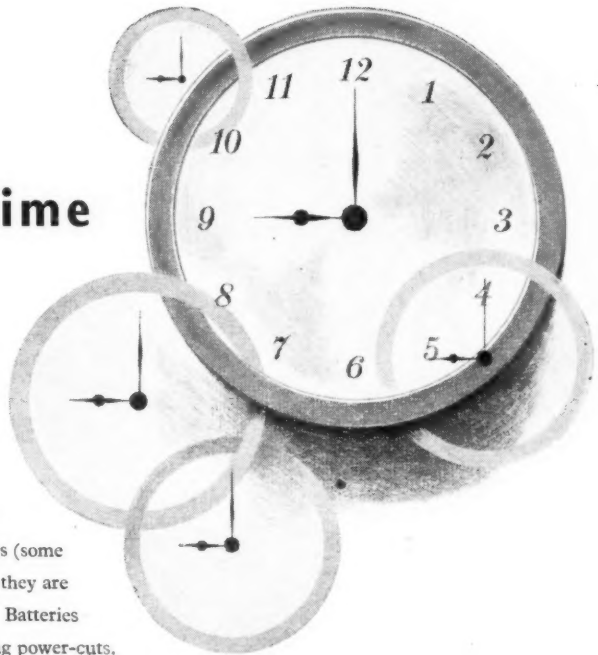
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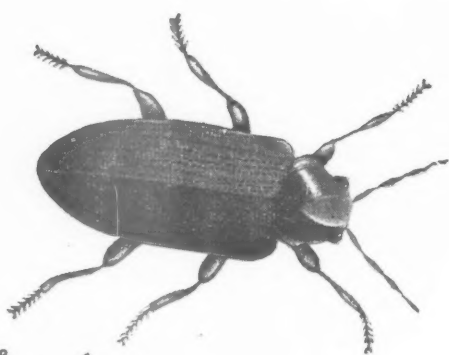
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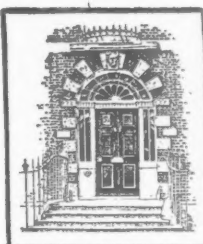
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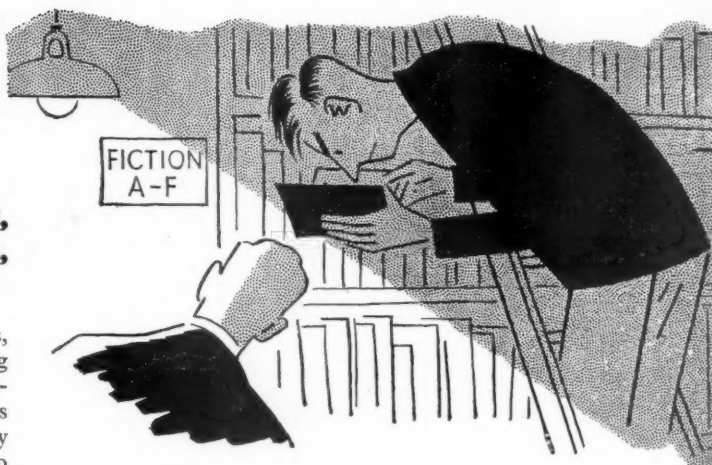
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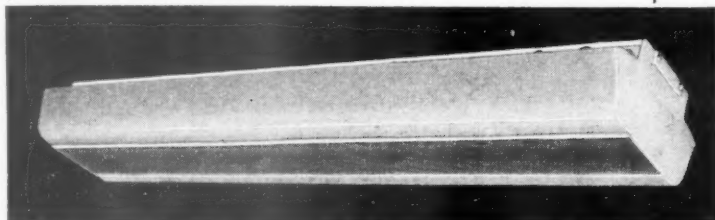
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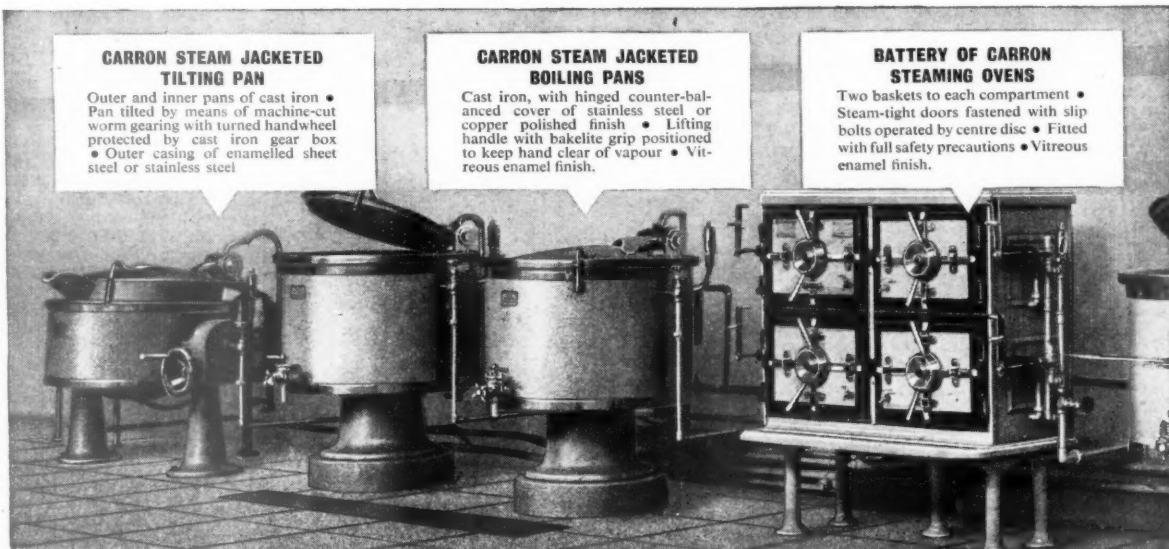
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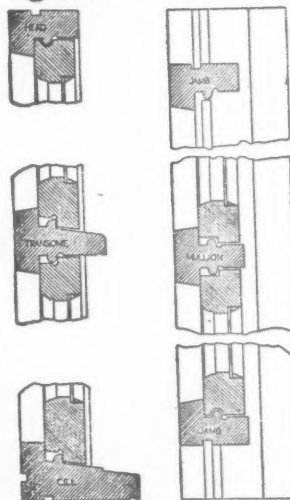
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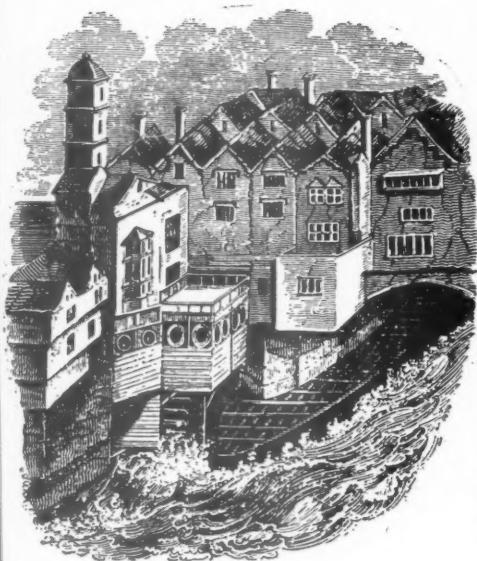
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Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

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Starting salary, depending on age and qualifications, will be within the range £650-£800 per annum. The appointment is of a permanent nature and pension arrangements will be discussed with short list candidates.

Applications, stating age, qualifications and particulars of previous appointments held, must be submitted to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 95. 4690

HOLLAND COUNTY COUNCIL.
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Candidates should have had good general experience in Ordnance Survey revision work, and should preferably have had other experience in a planning office. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, stating age, education, qualifications and experience, accompanied by one recent testimonial and the names of two persons to whom reference can be made, should be sent to the undersigned, to arrive not later than 14 days after the publication of this notice.

Canvassing will disqualify.
H. C. MARRIS,
Clerk of the County Council.

County Hall, Boston, Lincs.
November, 1951. 4969

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Applicants should have received a recognised architectural training and should be experienced in the design and construction of industrial and commercial type buildings.

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A. STEPHENS,
Secretary.

22nd November, 1951. 4992

STAFFORDSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

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Experienced and capable **ARCHITECTURAL ASSISTANTS** are invited to apply for the above, stating salary required and giving full details of experience, qualifications, age, and present salary and position, etc. Applications, together with copies of three recent testimonials, should be forwarded as soon as possible to C. M. Coombs, F.R.I.B.A., County Architect, Martin Street, Stafford.

T. H. EVANS,
Clerk of the County Council.
County Buildings, Stafford.
15th November, 1951. 4973

MIDDLESEX COUNTY COUNCIL.

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C. W. RADCLIFFE,
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Middlesex Guildhall, Westminster, S.W.1. 4978

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Applications, stating age, qualifications, experience, and names and addresses of not more than three referees, should be received by me not later than the 6th December, 1951.

J. GIBBON,
Secretary of the Board. 4977

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Further particulars, conditions of appointment and forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Barrow-in-Furness, to whom completed applications must be returned not later than Monday, 17th December, 1951.

LAWRENCE ALLEN,
Town Clerk. 4981

TOWN HALL, BARROW-IN-FURNESS.

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Applications are invited for the appointment of **CHIEF ARCHITECTURAL ASSISTANT** in the Engineer and Surveyor's Department, at a salary in accordance with qualifications and experience up to Grade VII, A.P.T. Division, of the National Scale of Salaries (£685-£760).

Candidates should be Registered Architects, and must hold a recognised professional qualification, with experience in general housing work. Thorough knowledge of design and construction is essential, with particular reference to design of houses, flats, and other dwellings and lay-out of estates.

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The appointment, which will be subject to one month's notice on either side, is subject to the Local Government Superannuation Acts, and the National Scheme of Conditions of Service, and the successful applicant will be required to pass a medical examination.

Applications, stating age, details of qualifications and experience, with two testimonials, should be delivered to me in a sealed envelope, endorsed "Appointment of Architectural Assistant," not later than Saturday, 8th December, 1951.

S. P. YOUNG,
L.R.I.B.A.,
Engineer, Surveyor and Architect.

Park House, 20, Park Place, Cardiff. 4980

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The appointment is subject to the provisions of the Local Government Act, 1937, and the selected candidate will be required to pass a medical examination.

Applications, giving age, details of qualifications and experience, together with copies of three recent testimonials, should be received by the undersigned not later than Monday, 10th December, 1951.

M. E. HABERSHON,
Borough Engineer and Surveyor.
Council House, Walsall.
21st November, 1951. 4987

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SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above position at a salary in accordance with A.P.T. Grade V (£570 rising to £620 per annum) of the A.P.T. Division of the National Scheme of Conditions of Service.

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Applications, stating age, qualifications, experience, and the names and addresses of two referees, to be sent to the undersigned not later than the 10th December, 1951.

J. W. BLOMELEY,
Town Clerk. 4986

Town Hall, Rawtenstall, Rossendale, Lancs.

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Form of application with full details of appointment can be obtained from the undersigned by whom applications in envelopes endorsed "Architectural Assistant Grade I" must be received not later than 8th December, 1951.

P. L. COX,
Clerk of the Council. 5009

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(b) **ASSISTANT ARCHITECT**, Grade III (£500-£545 p.a.).

(c) **QUANTITY SURVEYOR**, Grade VI (£645-£710 p.a.).

(d) **ASSISTANT QUANTITY SURVEYOR**, Grade IV (£570-£620 p.a.).

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Applications, on forms obtainable from Mr. L. Berger, District Archt., A.R.I.B.A., Borough Architect, Civic Centre, Southampton, should be returned not later than 12th December, 1951. 4995

CIVIL SERVICE.
QUANTITY SURVEYORS AND ASSISTANT QUANTITY SURVEYORS are required throughout the United Kingdom by the Ministry of Works, Admiralty, War Department, Air Ministry, Ministry of Supply and occasionally overseas by the Admiralty, Air Ministry and War Department. Although these are not established posts some of them have long-term possibilities, and competitions are held periodically to fill established vacancies.

Salaries for these professional posts in London for officers over 25 years of age range from £600 to £900 per annum in lower grades and from £900 to £1,200 per annum in the higher grades. They are slightly lower in the provinces. Salary on entry will be in accordance with age, qualifications and experience.

Vacancies also exist for **QUANTITY SURVEYING ASSISTANTS** and others having some experience in a quantity surveyor's office, at salaries ranging from £300 per annum upwards. Applicants should write, quoting ref. J.Q.S. to Room 403, Ministry of Labour and National Service, Technical and Scientific Register, Almack House, 26, King Street, London, S.W.1. 4994

PENGE URBAN DISTRICT COUNCIL.
ENGINEER & SURVEYOR'S DEPARTMENT.
SENIOR TECHNICAL ASSISTANT.

Applications are invited for the appointment of a Senior Technical Assistant at a salary in accordance with A.P.T., Grades III and IV (£500-£575) plus appropriate London "Weighting," the commencing salary to be fixed at a point commensurate with experience, and on which the applicants may offer their own observations. Experience in housing works including maintenance and preparation of surveys and estimates in connection therewith is essential.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the National Joint Council Conditions of Service, and will be terminable by one month's notice on either side. Applicants must possess the Intermediate Examination of one or other of the recognised professional institutions, and if not in possession of the Final qualifying examination should be preparing for same.

Applications endorsed "Senior Technical Assistant" containing fullest particulars together with the names of two referees must be delivered to the undersigned not later than Saturday, 15th December, 1951.

BERNARD FIELDING,
Clerk to the Council.

Town Hall,
Anerley Road, S.E.20.
21st November, 1951. 5002

FIFE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
CUPAR.

Applications are invited for the post of **ARCHITECTURAL DRAUGHTSMAN**. Salary £405 rising by annual increments of £20 to a maximum of £505 per annum. Candidates must have experience in an architectural drawing office and be quick and accurate draughtsmen. Age under 45. Medical test under Superannuation Scheme. Applications stating age, experience and qualifications to be lodged with the undersigned not later than 13th December, 1951.

J. M. MITCHELL,
County Clerk.

County Buildings, Cupar.
21st November, 1951. 5001

CITY AND COUNTY OF CANTERBURY.
CITY ARCHITECTURAL AND PLANNING DEPARTMENT.

APPOINTMENT OF CHIEF TOWN PLANNING ASSISTANT.

Applications are invited from qualified Architect-Planners for the above appointment, at a salary in accordance with A.P.T., Grade VII (£685-£760).

Candidates must be Associate Members of the R.I.B.A. and the T.P.I. with some experience of three dimensional design and planning administration. An interest in contemporary design is essential. The successful candidate will be required to pass a medical examination.

Housing accommodation will be provided if necessary. Applications, stating age, qualifications and experience, together with the names and addresses of three referees, should be sent to the City Architect and Planning Officer, L. Hugh Wilson, A.R.I.B.A., A.M.T.P.I., Municipal Buildings, Dane John, Canterbury, not later than Saturday, 22nd December, 1951.

Canvassing will disqualify.

J. BOYLE,
Town Clerk.

Municipal Buildings, Dane John,
Canterbury. 5003

BOROUGH OF EALING.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF DRAUGHTSMAN.

Applications are invited for the permanent appointment of a Draughtsman, at a salary in accordance with Grade IV of the National Scheme of Conditions of Service for the Miscellaneous Classes of Officers, commencing at £400 per annum, rising by annual increments to a maximum of £470 per annum, plus London weighting. The successful applicant will be engaged on work in connection with a survey of sewers.

The Council are unable to provide housing accommodation for the successful candidate. Forms of application, together with conditions of appointment, may be obtained from the Borough Engineer and Surveyor, Town Hall, Ealing, W.5. and must be returned to me not later than the 17th December, 1951.

E. J. COPE-BROWN,
Town Clerk.

Town Hall, Ealing, W.5. 5004

NEW ZEALAND MINISTRY OF WORKS.
LAND PLANNING DRAUGHTSMEN.

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Application forms, conditions of service, etc., may be obtained from.

THE HIGH COMMISSIONER FOR NEW ZEALAND.

415, Strand, London, W.C.2,
mentioning this paper and quoting reference number A.3/74/59.

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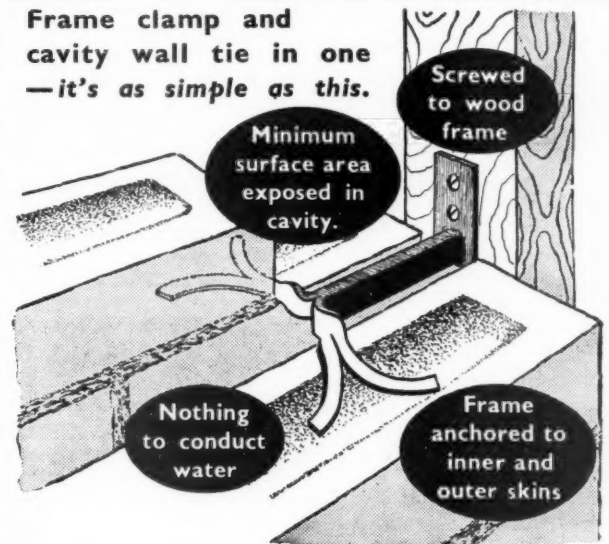
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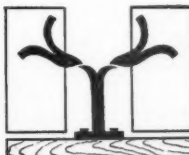
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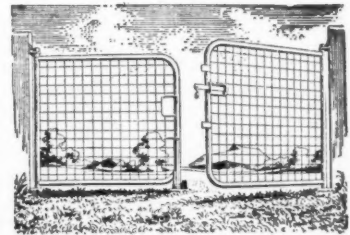
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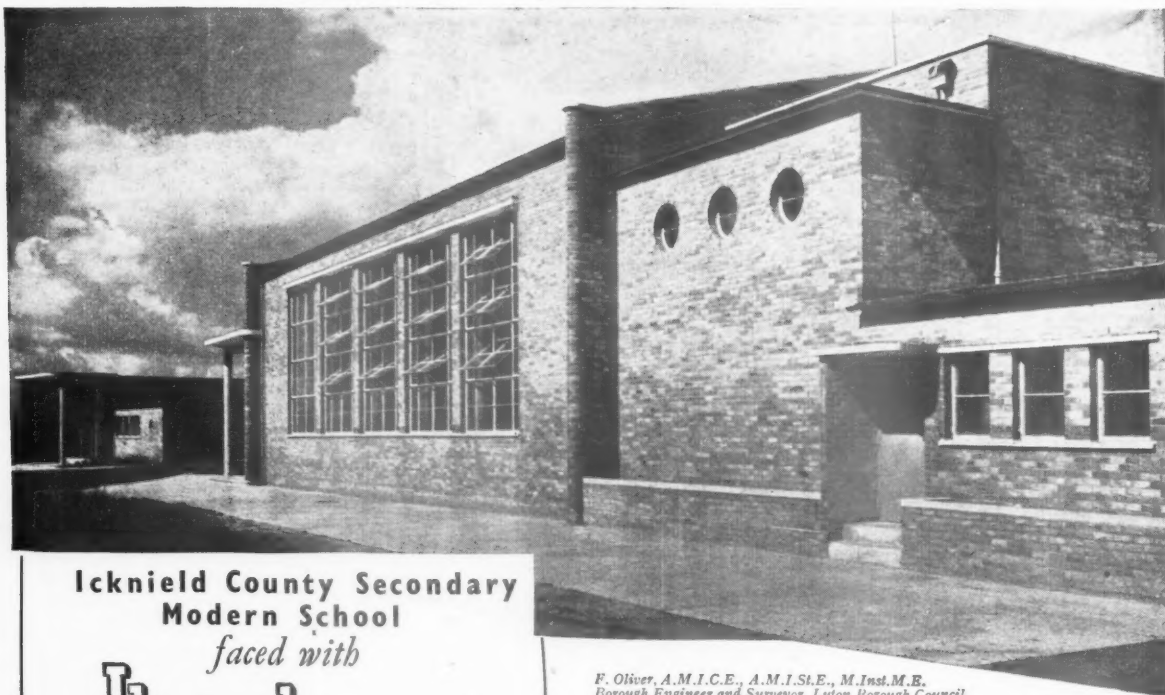
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Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Adamite Co., Ltd., The	xlvi	Hall, John & Sons (Bristol & London), Ltd.	lviii	Poles, Ltd.	xxxiii
Aldas Electric, Ltd.	viii	Hall, Robt. H. & Co. (Kent), Ltd.	lviii	Power Utilities, Ltd.	xxvi
Allied Guilds.	xvii	Harper, John & Co., Ltd.	vii	Prodorite, Ltd.	xxii
Anderson Construction Co., Ltd.	lv	Harvey, G. A., & Co. (London), Ltd.	—	Radiation Group Sales, Ltd.	—
Anglo-Scottish Construction Co., Ltd.	lxvii	Hills (West Bromwich), Ltd.	—	Rely-a-Bell Burglar & Fire Alarm Co., Ltd.	—
Architectural Press, Ltd., The xxxii, liv, lx, lxii, lxiv, lxv, lxviii	—	Holloway Brothers (London), Ltd.	—	Rentokil, Ltd.	lxii
Armstrong Cork Co., Ltd.	xv, lv	Holman, Michell & Co., Ltd.	—	Reynolds, H. L., Ltd.	lviii
Asstlin, James, & Sons (Dewsbury), Ltd.	xvi	Holoplast, Ltd.	—	Rippers, Ltd.	—
Automatic Pressings, Ltd.	lviii	Hope, Henry, & Sons, Ltd.	—	Rowson, Drew & Clydesdale, Ltd.	—
Avgee, Ltd.	xx	Hopkinson, J. N., Ltd.	—	Ruberoid Co., Ltd., The	—
Bath Cabinet Makers & Artcraft, Ltd.	—	Hotpoint Electric Appliance Co., Ltd. The xxxviii	—	Sadd, John, & Sons, Ltd.	—
Baume & Co., Ltd.	lx	Ibstock Brick & Tile Co., Ltd.	lxx	Salter, T. E., Ltd.	—
Bigwood, Joshua, & Son, Ltd.	xxx	Insulite Products Corporation, Ltd.	lxii	Sanders, Wm., & Co. (Wednesbury), Ltd.	xviii
Boulton & Paul, Ltd.	lxix	Jenson & Nicholson, Ltd.	—	Sarco Thermostats, Ltd.	li
British Cork Mills Ltd.	lx	Johnston Brothers (Contractors), Ltd.	—	S.B. & N., Ltd.	xxxiv
British Plaster Board, Ltd., The	xxxix	Kenyon, Wm., & Sons, Ltd.	—	Scaffolding (Great Britain), Ltd.	—
British Trolley Track Co., Ltd.	—	King, J. A., & Co., Ltd.	—	Sealanco (St. Helens), Ltd.	—
Carron Company	lxiii	Kwikform, Ltd.	—	Sealcrete Products, Ltd.	ix
Cavitts Ltd.	lxvii	Lacrinoid Products, Ltd.	—	Semtex, Ltd.	xiv
Chance Brothers, Ltd.	lxvi	Laing, John, & Son, Ltd.	—	Shanks, E. O., & Sons, Ltd.	lxiv
College of Estate Management	lxviii	Lead Industries, Development Council	—	Simplex Electric Co., Ltd.	—
Colt, W. H. (London), Ltd.	xli	Front cover	—	Smith & Pearson, Ltd.	xxxiv
Compaction, Ltd.	—	Lenscrete, Ltd.	xxviii	Smith & Rodger, Ltd.	lxiv
Compression Joints, Ltd.	—	Limmer & Trinidad Lake Asphalt Co., Ltd.	—	Smith's Fireproof Floors, Ltd.	—
Concrete, Ltd.	—	Linoleum Manufacturers' Association ...	—	Standard Patent Glazing Co., Ltd., The	—
Cox, Peter & Partners, Ltd.	lxix	London Brick Co., Ltd.	—	Story & Co., Ltd.	xlvi
Crosgon & Co., Ltd.	liv	McCarthy, M., & Sons, Ltd.	—	Stott, James, & Co. (Engineers), Ltd.	—
Dignus, Ltd.	v	McKechie Brothers, Ltd.	—	Stramit Boards, Ltd.	—
Docker Brothers	xl	Magnet Timber, Ltd.	—	Sulzer Brothers (London), Ltd.	xxxvii
Dunlop Rubber Co., Ltd.	—	Mallinson, W., & Sons, Ltd.	—	Tarmac, Ltd.	lix
Durasteel, Ltd.	xxxvi, lxix	Marley Tile Co., Ltd., The	—	Tentest Fibre Board Co., Ltd.	—
Econa Modern Products, Ltd.	xxii	Marryat & Scott, Ltd.	—	Thermacoust, Ltd.	—
Elgood, E. J., Ltd.	lxiv	Martyn, Bruce, Ltd.	—	Thermotank, Ltd.	—
Ellison, George, Ltd.	—	Medway Buildings & Supplies, Ltd.	—	Thompson, John (Beacon Windows), Ltd.	xxviii
Ellis School of Architecture, The	lxix	Merchant Trading Co., Ltd.	—	Thornton, A. G., Ltd.	—
E-savin, Ltd.	lxix	Metropolitan-Vickers Electrical Co., Ltd.	—	T.I. Aluminium, Ltd.	—
Evode, Ltd.	lv	Micramatic, Ltd.	—	T.M.C. Harwell (Sales), Ltd.	xlii
Ferodo, Ltd.	—	Mills Scaffold Co., Ltd.	—	Tretol, Ltd.	—
Fibre-glass, Ltd.	—	M.K. Electric, Ltd.	—	Turner, Chas., & Son, Ltd.	—
Findlay, Alex., & Co., Ltd.	lvi	National Federation of Clay Industries, The	—	Twistell Reinforcement, Ltd.	—
Finlock Gutters, Ltd.	lix	Negus, W. & N., Ltd.	—	United Kingdom Provident Institution	—
Fothergill & Harvey, Ltd.	xi	Neuchatel Asphalt Co., Ltd., The	—	Val de Travers Asphalt Paving Co., Ltd.	—
Fraser, A. (Brick & Tile Manufacturers), Ltd.	lxix	New Era Publishing Co., Ltd.	—	Venetian Vogue, Ltd.	liv
Furse, W. J., & Co., Ltd.	lxix	North British Rubber Co., Ltd.	—	Vigers Brothers, Ltd.	—
Gas Council, The	xxiii	Orlit, Ltd.	—	Ward, Thomas W., Ltd.	—
Gibson, Arthur L., & Co., Ltd.	—	Ozolid Co., Ltd.	—	Wardle Engineering Co., Ltd.	lx
Gillett & Johnston, Ltd.	xxxviii	Paul, W. H., Ltd.	—	Warerite, Ltd.	—
Greenwood's & Airvac Ventilating Co., Ltd.	li, lvii	Philips Electrical, Ltd.	—	Wellington Tube Works, Ltd.	—
Gyproe Products, Ltd.	—	Phoenix Rubber Co., Ltd.	—	West, A., & Partners, Ltd.	xxvi
		Pilkington Bros., Ltd.	—	Wheatly & Co., Ltd.	—
				Williams & Williams, Ltd.	lii, liii

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational, Legal Notices, Miscellaneous Property, Land and Sales, see lxx, lxxi, lxxii, lxxiii, lxxiv.



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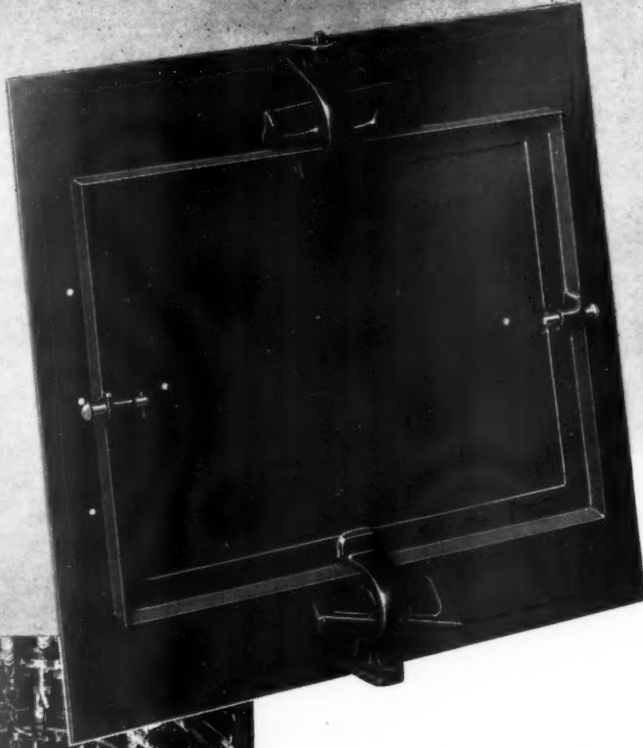
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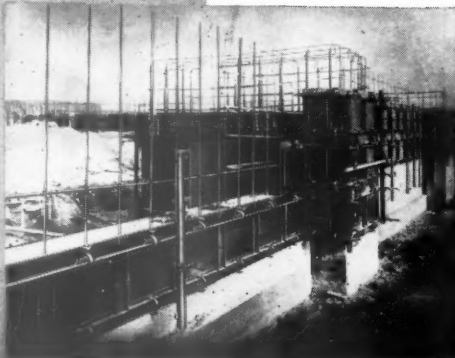
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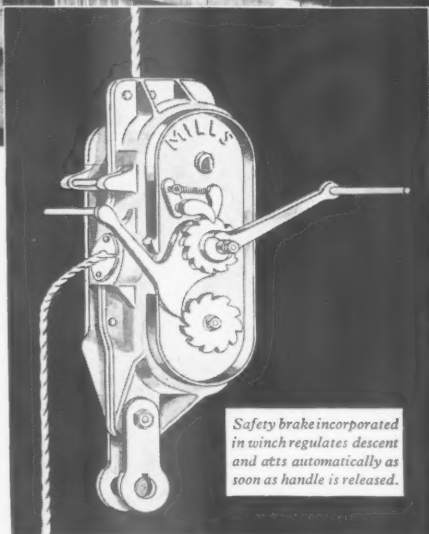


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