

THE ARCHITECTS' JOURNAL

STACK



★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Lc one week, Lc to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 1, Grosvenor Place S.W.1.	Sloane 8606
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	Sloane 3158
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2450
ILA	Institute of Landscape Architects. 12, Gower Street W.C.1.	Museum 1783
I of Arb.	Institute of Arbitrators, 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197
IR	Institute of Refrigeration. Empire House, St. Martin's-le-Grand, E.C.1.	Monarch 7391
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128-29
IWA	Inland Waterways Association. 11, Gower Street, W.C.1.	Museum 9200
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	MARS Group (English Branch of CIAM). 34, Gordon Square, W.C.1.	Euston 2158-9
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service. St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square W.1.	Abbey 7711
MOTCP	Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 5277/8
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers. 2, Caxton Street, S.W.1.	Abbey 5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 2881/2/3
NHBR	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4041
NPL	National Physical Laboratory. Head Office, Teddington.	Molesey 1380
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211/2
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Whitehall 9936
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721/7
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Temple Bar 8274
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RJB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. 20, Piccadilly, London. W.1.	Regent 6347
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 14, Moorgate, London, E.C.2.	Central 4444
SIA	Society of Industrial Artists. Room 243, Empire House, St. Martin's-le-Grand, E.C.1.	Metropolitan 8344
SNHTPC	Scottish National Housing & Town Planning Council. Hon. sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 75, Cannon Street, E.C.4.	City 4771 (6 lines)
TGC	The Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 81, Cannon Street, E.C.4.	City 1476
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	Mayfair 8866
WEDA	Welfare Equipment Development Association. 61, St. Paul's Churchyard, E.C.4.	City 4263/4
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur.

NEWS and COMMENT

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TECHNICAL SECTION

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Questions and Answers

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PHYSICAL PLANNING

SUPPLEMENT

CURRENT BUILDINGS

HOUSING STATISTICS

Architectural Appointments
Wanted and Vacant

No. 2869]

[Vol. 111

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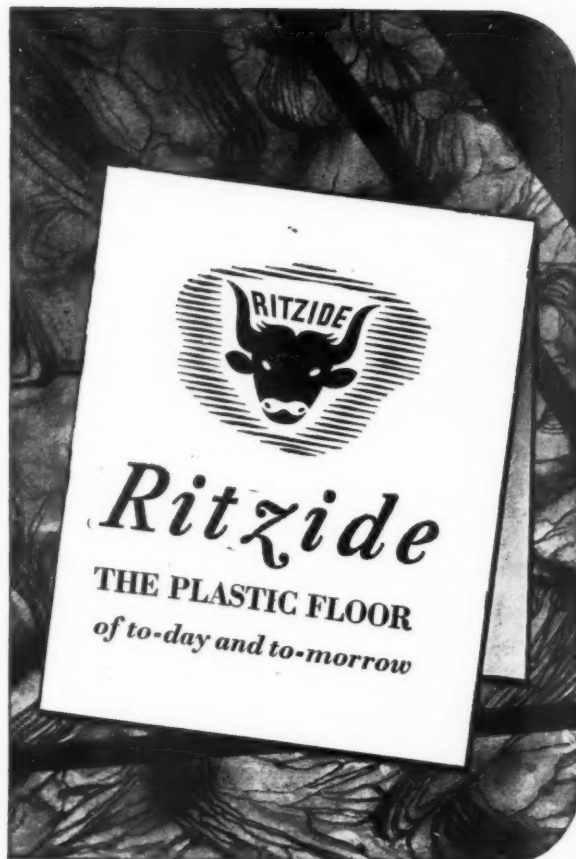
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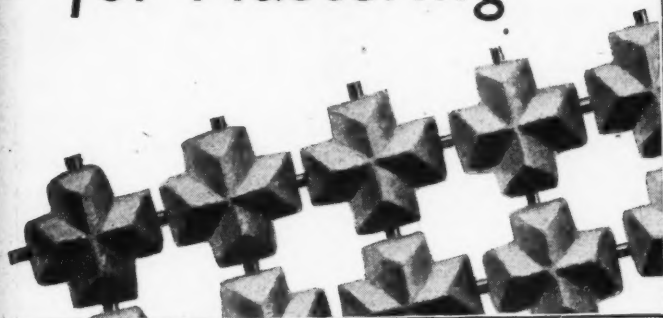
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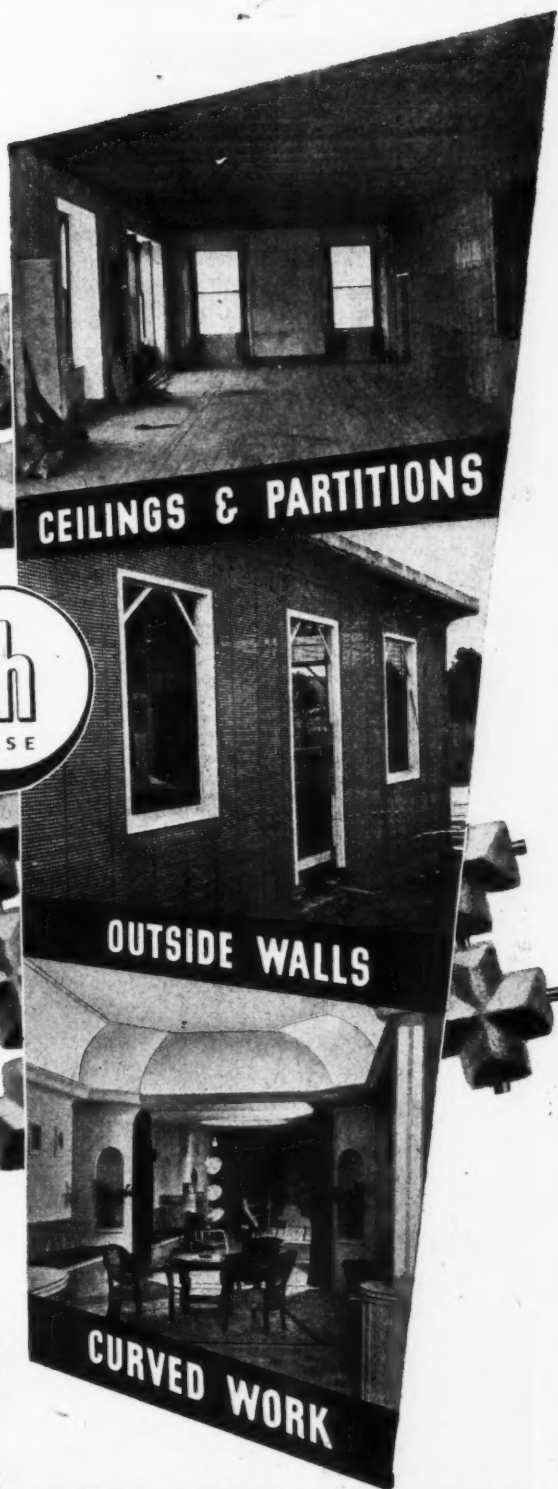
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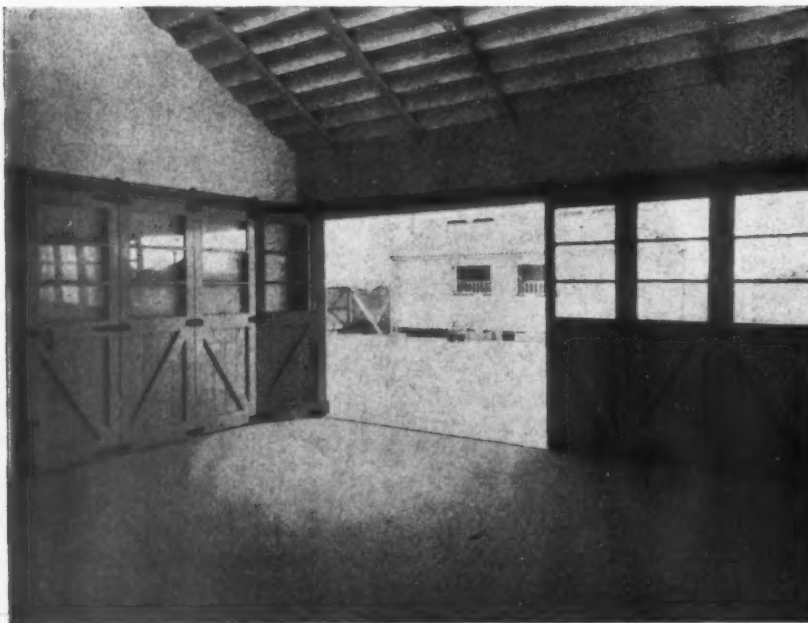
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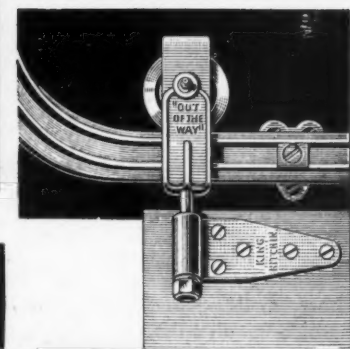
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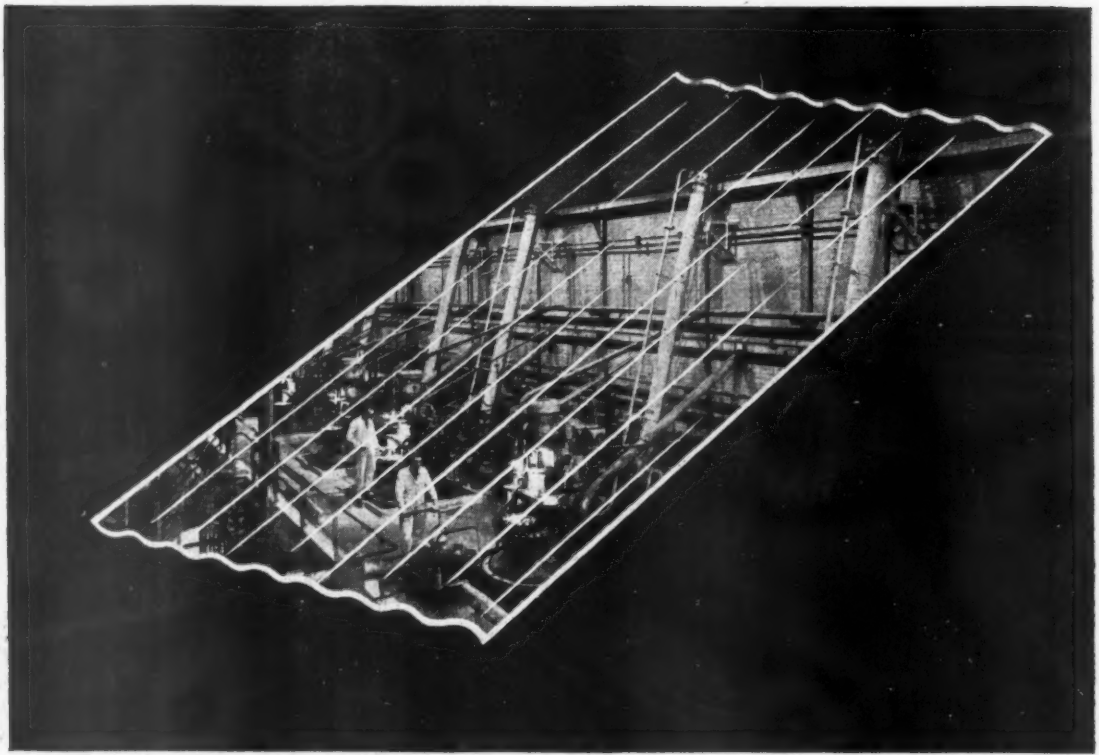


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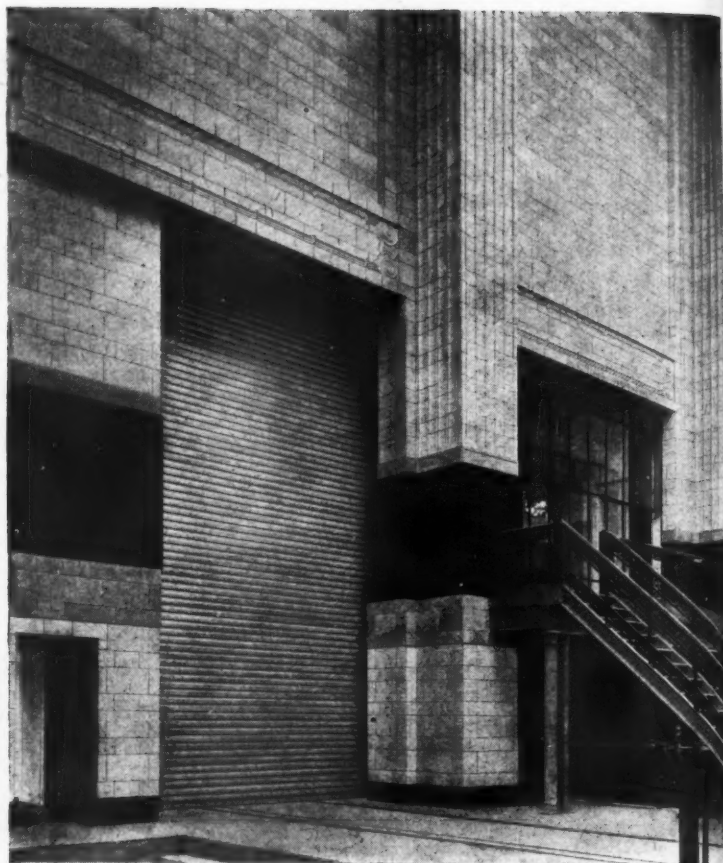
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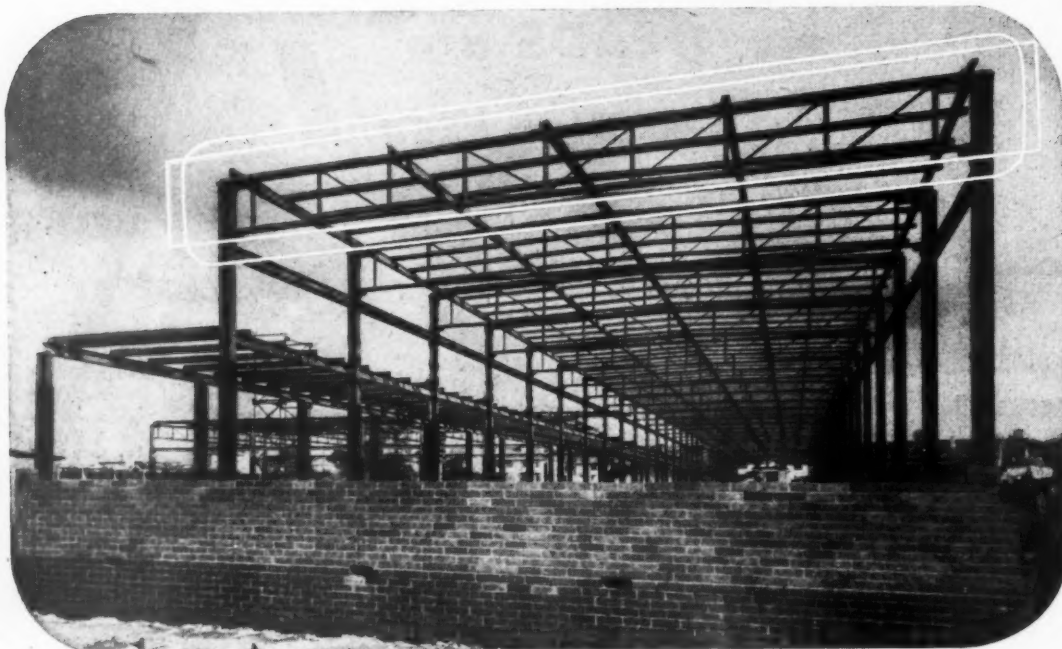
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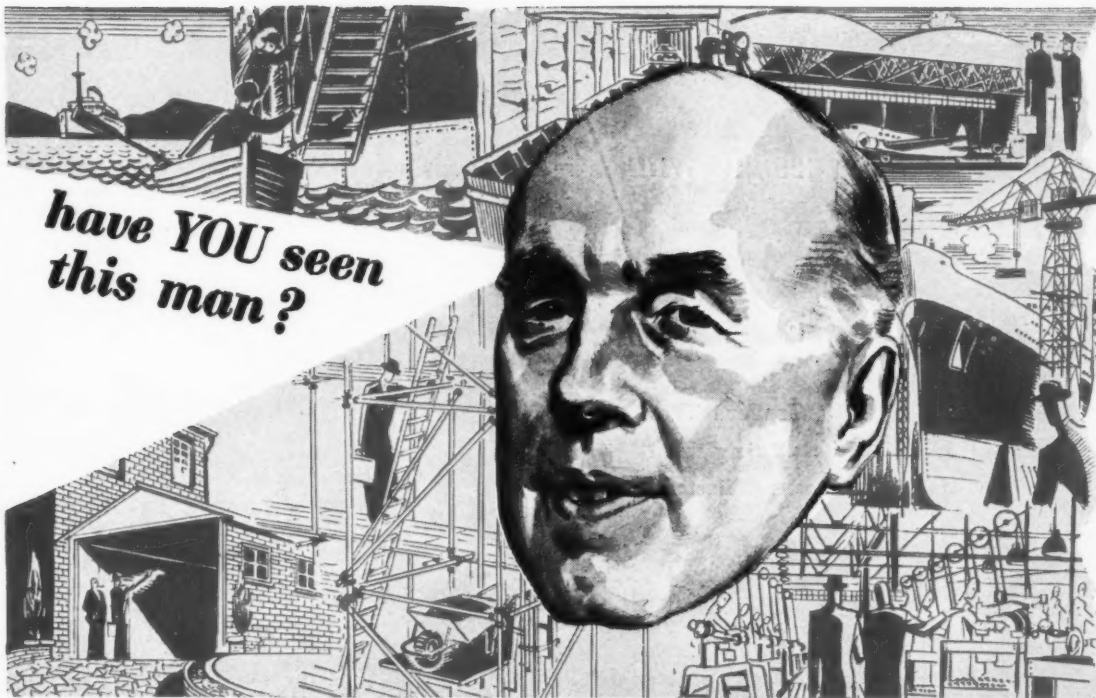
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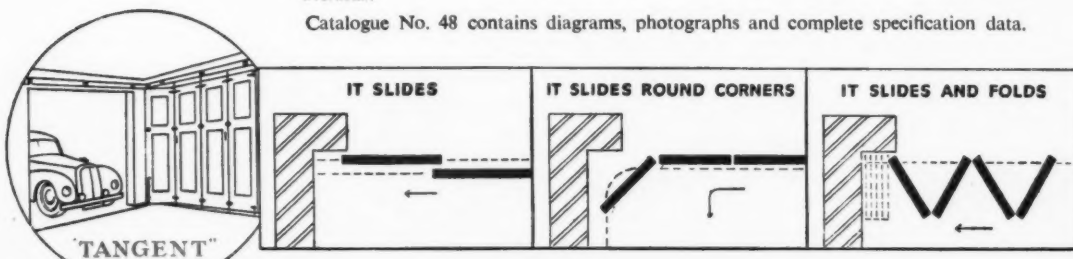
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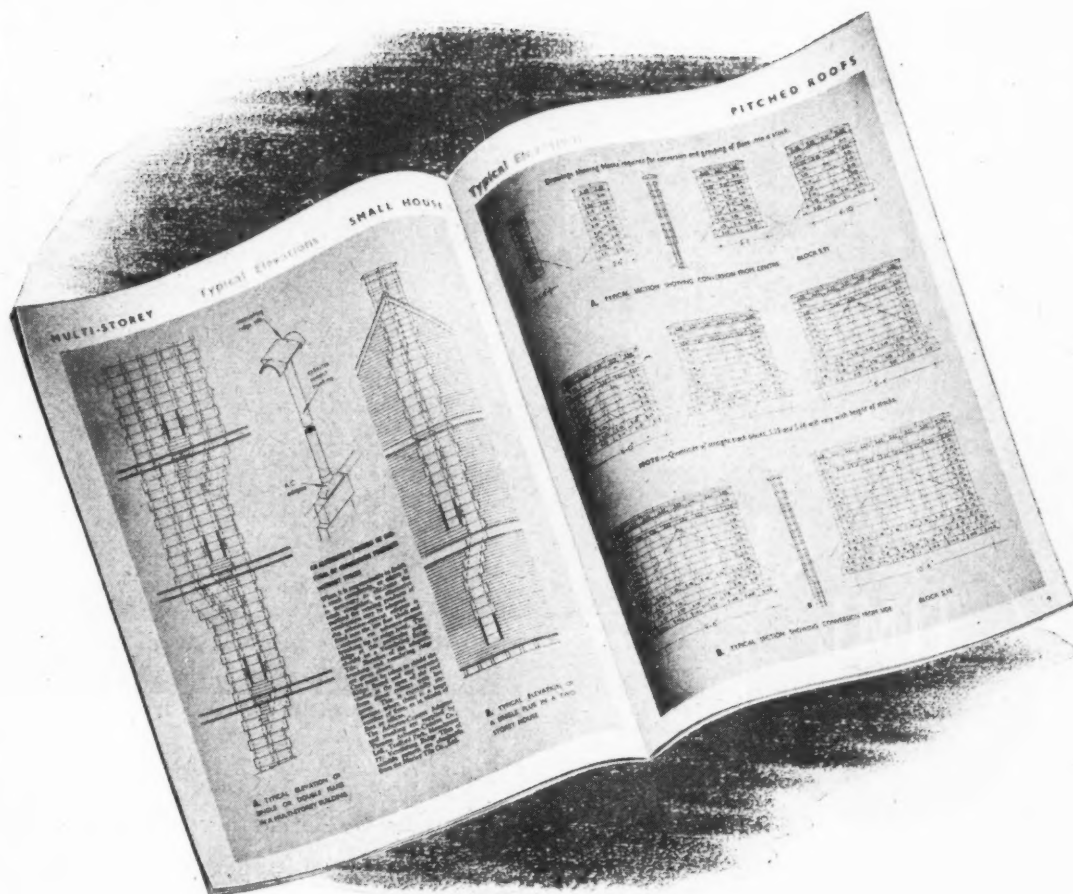
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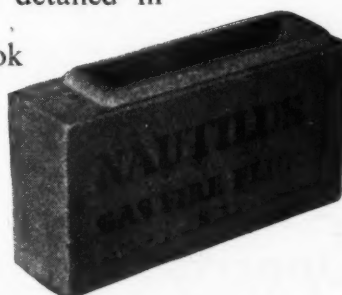
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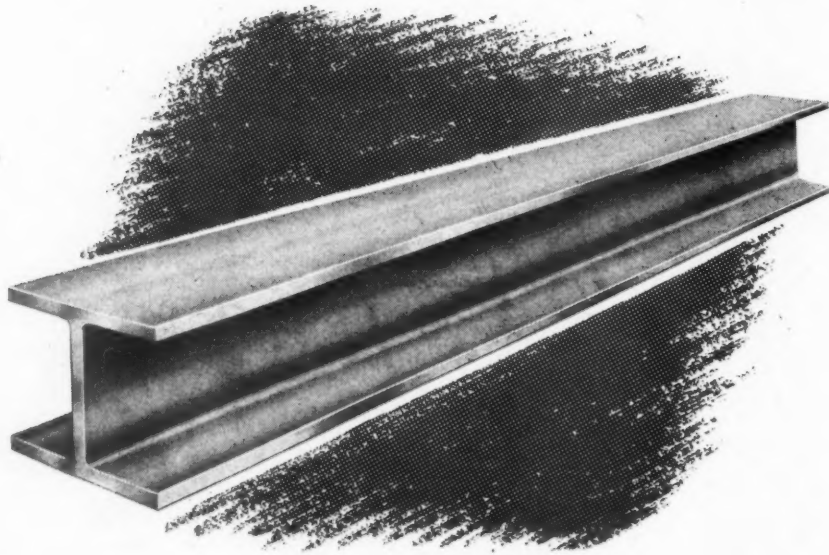
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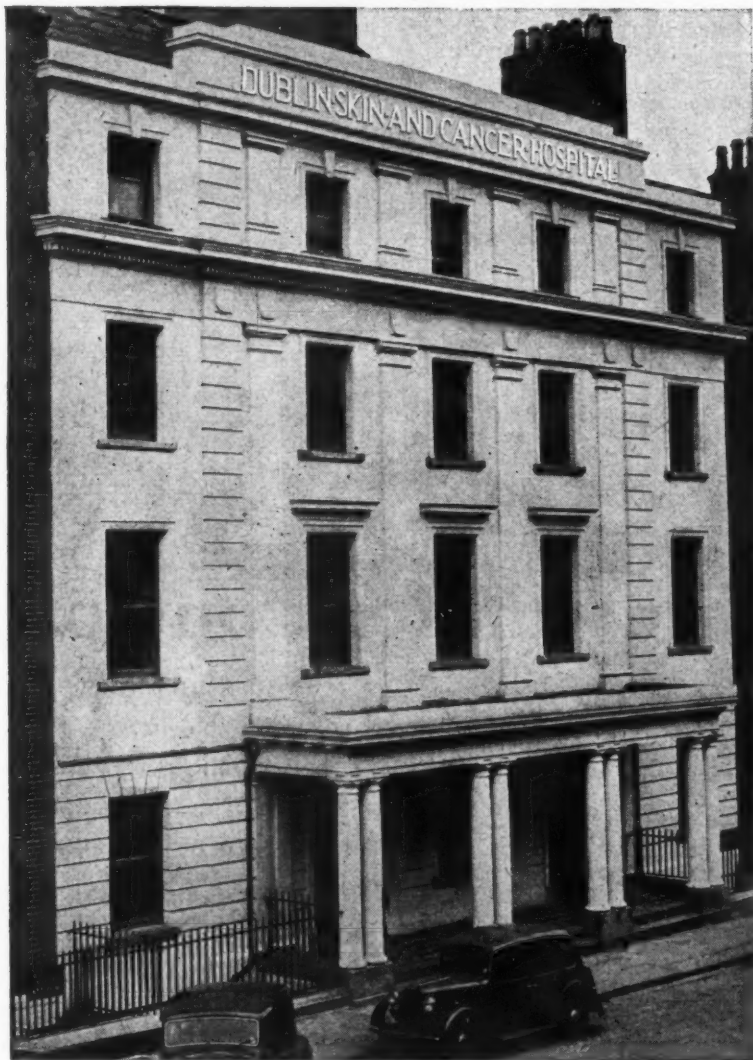
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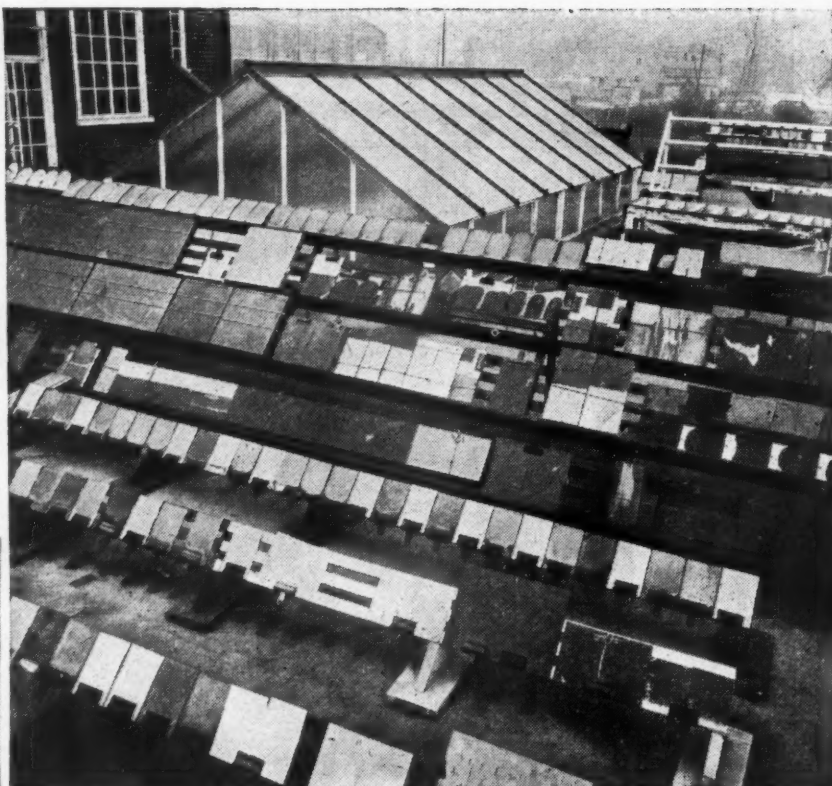


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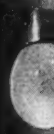
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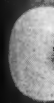
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Size: 6" dia.
Height: 7 1/2"
Power: 60 watt



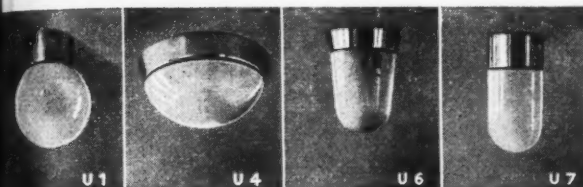
Size: 3 1/2" dia.
Height: 5 1/2" incl.
Power: 60 watt



Size: 6" dia.
Height: 8 1/2"
Section: 7
Power: 60 watt

UL

ULTRALUX



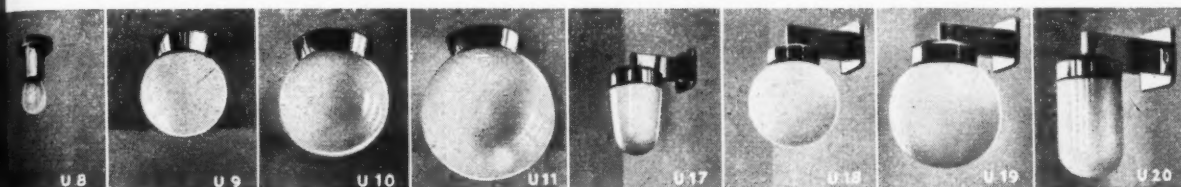
U1 Glass: 6" dia. Depth: 7 1/2" Lamp: 60 watt B.C.
 U4 Gallery: 9" dia. Depth: 4 1/2" Lamp: 60 watt B.C.
 U6 Gallery: 5 1/2" dia. Depth: 7" Lamp: 60 watt B.C.
 U7 Gallery: 3 1/2" dia. Depth: 7 1/2" Lamp: 60 watt B.C.



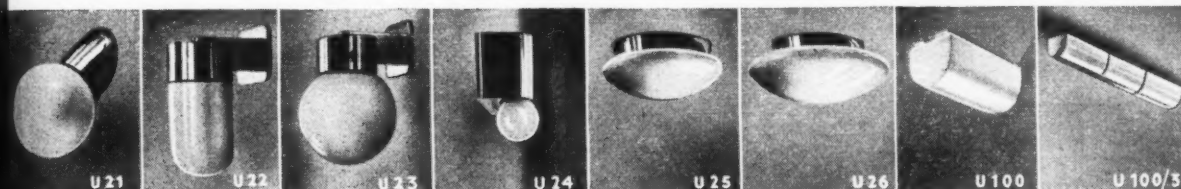
U12 Glass: 8" dia. Lamp: 60 watt B.C.
 U13 Glass: 10" dia. Lamp: 100 watt B.C.
 U14 Glass: 12" dia. Lamp: 150 watt B.C.
 U15 Glass: 14" dia. Lamp: 200 watt E.S.



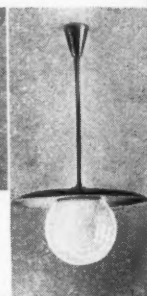
U27 Glass: 16" dia. Depth: 9 1/2" Lamp: 150 watt B.C. (with or without suspension).
 U28 Glass: 16" dia. Depth: 9 1/2" Lamp: 150 watt B.C. (with or without suspension).



U8 Glass: 3 1/2" dia. Depth: 5 1/2" including lamp. Lamp: 60 watt B.C.
 U9 Glass: 6" dia. Depth: 6 1/2" Lamp: 60 watt B.C.
 U10 Glass: 8" dia. Depth: 8 1/2" Lamp: 100 watt B.C.
 U11 Glass: 10" dia. Depth: 11" Lamp: 150 watt B.C.
 U17 Height: 9 1/2" Projection: 7 1/2" Lamp: 60 watt B.C.
 U18 Glass: 6" dia. Height: 9" Projection: 8" Lamp: 60 watt B.C.
 U19 Glass: 8" dia. Height: 11" Projection: 9" Lamp: 100 watt B.C.
 U20 Glass: 3 1/2" dia. Height: 9 1/2" Projection: 7" Lamp: 60 watt B.C.

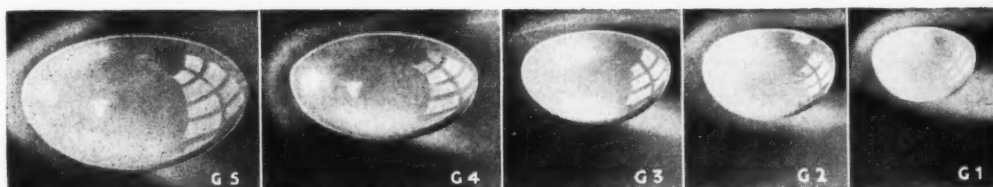


U21 Glass: 6" dia. Height: 8 1/2" Projection: 7" Lamp: 60 watt B.C.
 U22 Glass: 3 1/2" dia. Height: 9" Projection: 5 1/2" Lamp: 60 watt B.C.
 U23 Glass: 6" dia. Height: 9" Projection: 6 1/2" Lamp: 60 watt B.C.
 U24 Height: 6 1/2" including lamp. Width: 3" Projection: 3" Lamp: 60 watt B.C.
 U25 Glass: 11" dia. Depth: 5" Lamp: 60 watt B.C.
 U26 Glass: 14 1/2" dia. Depth: 6" Lamp: 100 watt B.C.
 U100 Length: 8 1/2" Width: 4 1/2" Depth: 4" Lamp: 60 watt B.C.
 U100/3 Length: 27" Other details as for U100. Lamps: Three 60 watt B.C.



U13R Glass: 10" dia. Reflector: 20" dia. Lamp: 100 watt B.C.
 U12R Glass: 8" dia. Reflector: 20" dia. Lamp: 60 watt B.C.
 U14R Glass: 12" dia. Reflector: 20" dia. Lamp: 150 watt B.C.

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G5 Glass: 16" dia. Depth: 5 1/2" Lamps: Two 100 watt B.C.
 G4 Glass: 14" dia. Depth: 5" Lamps: Two 75 watt B.C.
 G3 Glass: 12" dia. Depth: 4 1/2" Lamps: Two 60 watt B.C.
 G2 Glass: 10" dia. Depth: 4 1/2" Lamp: 60 watt B.C.
 G1 Glass: 8 1/2" dia. Depth: 4 1/2" Lamp: 40 watt B.C.

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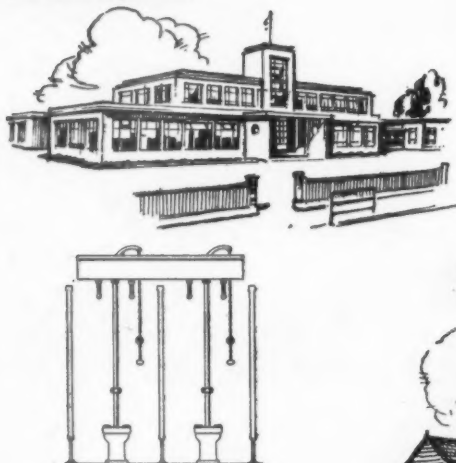
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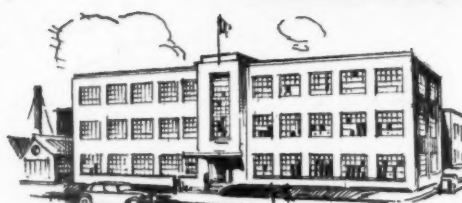
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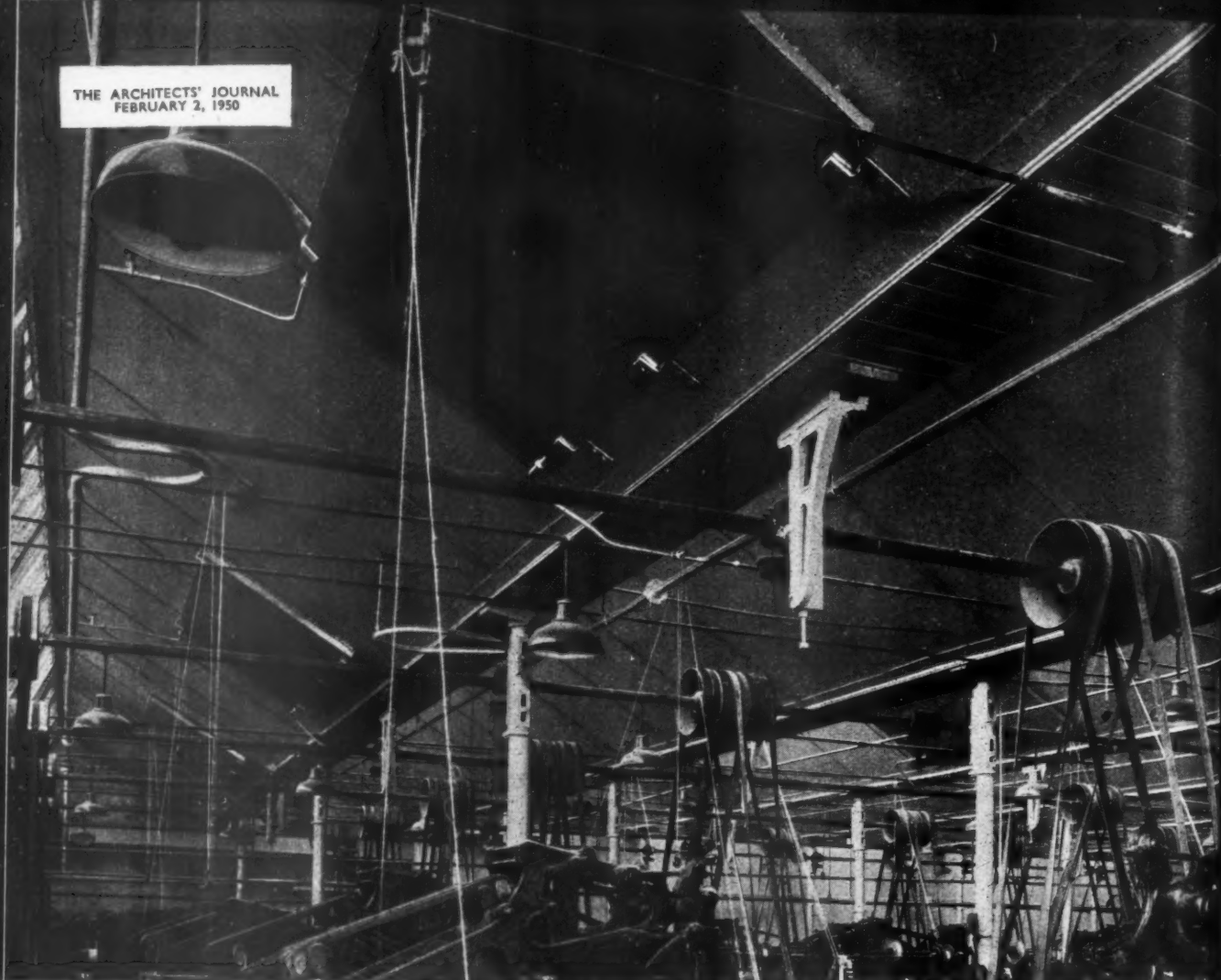
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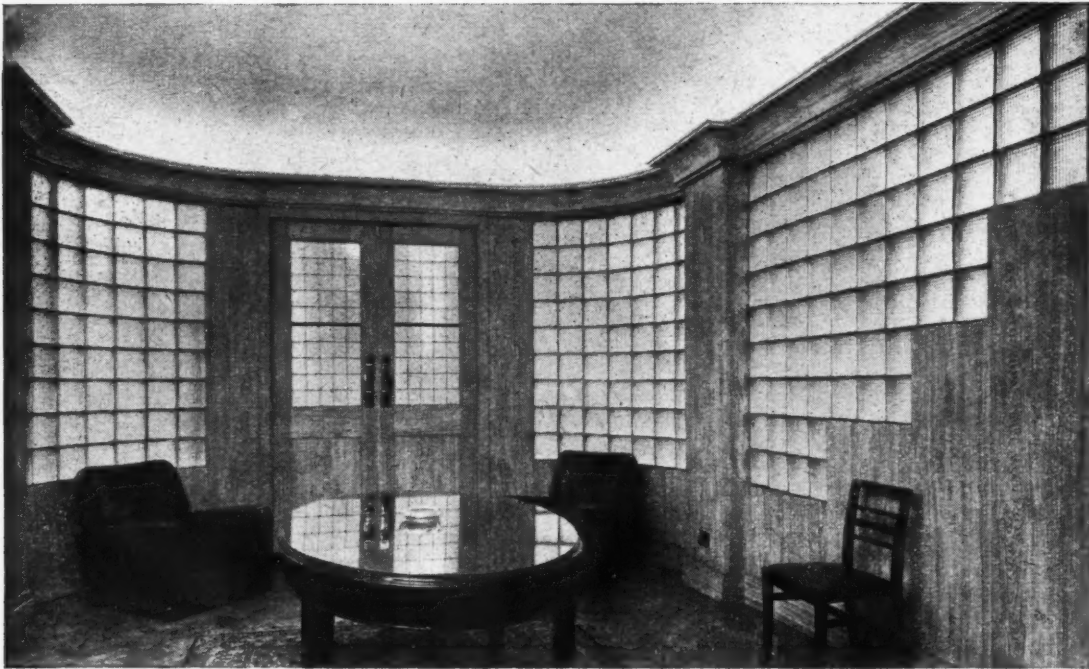
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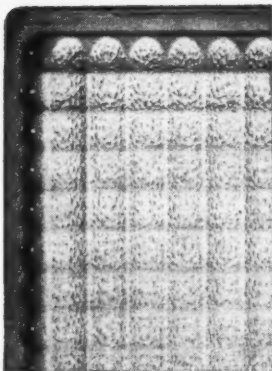
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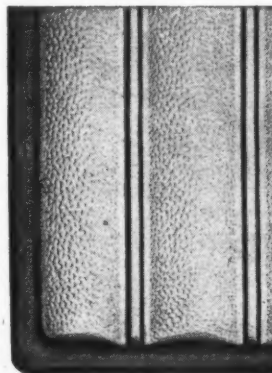


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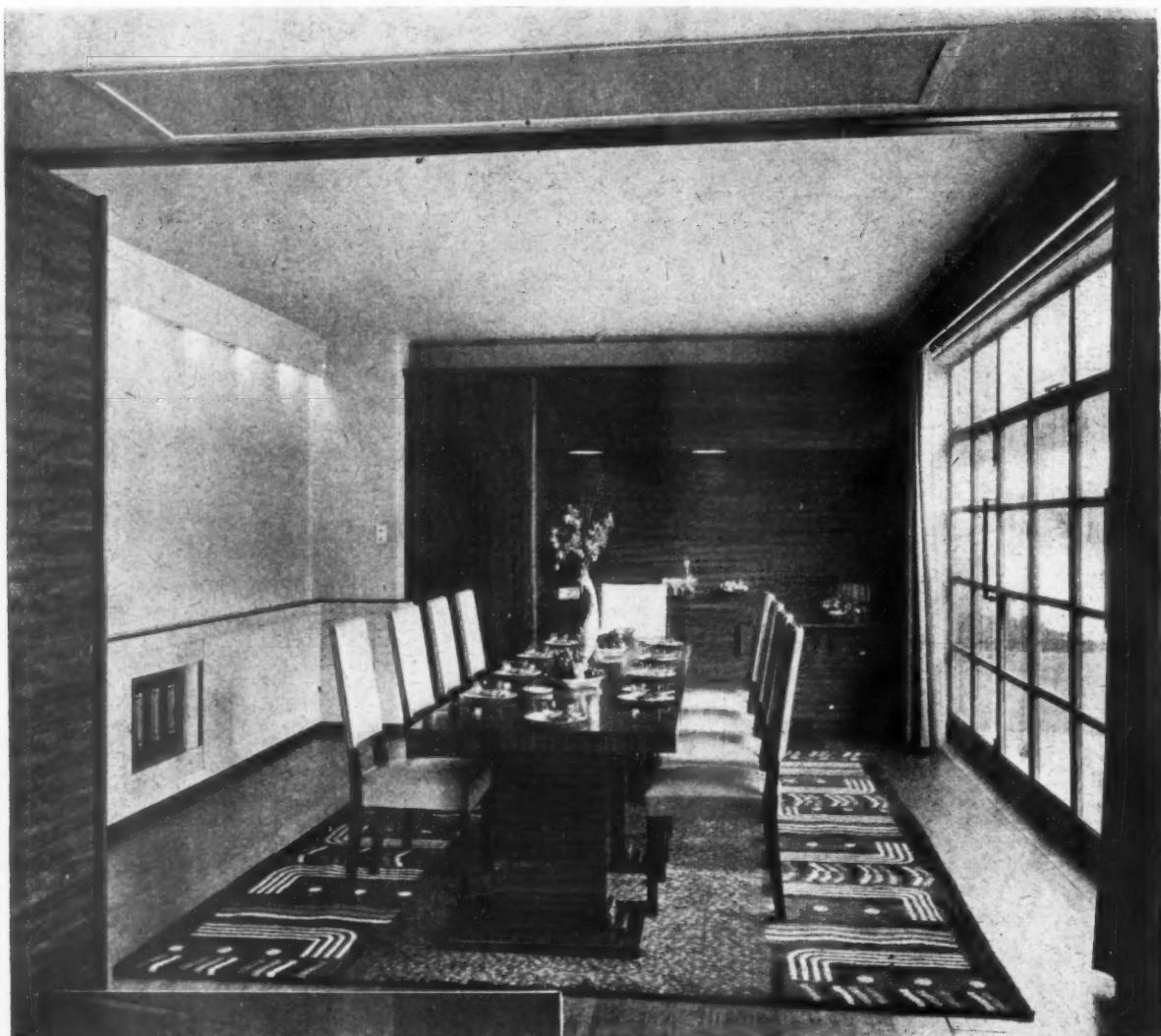
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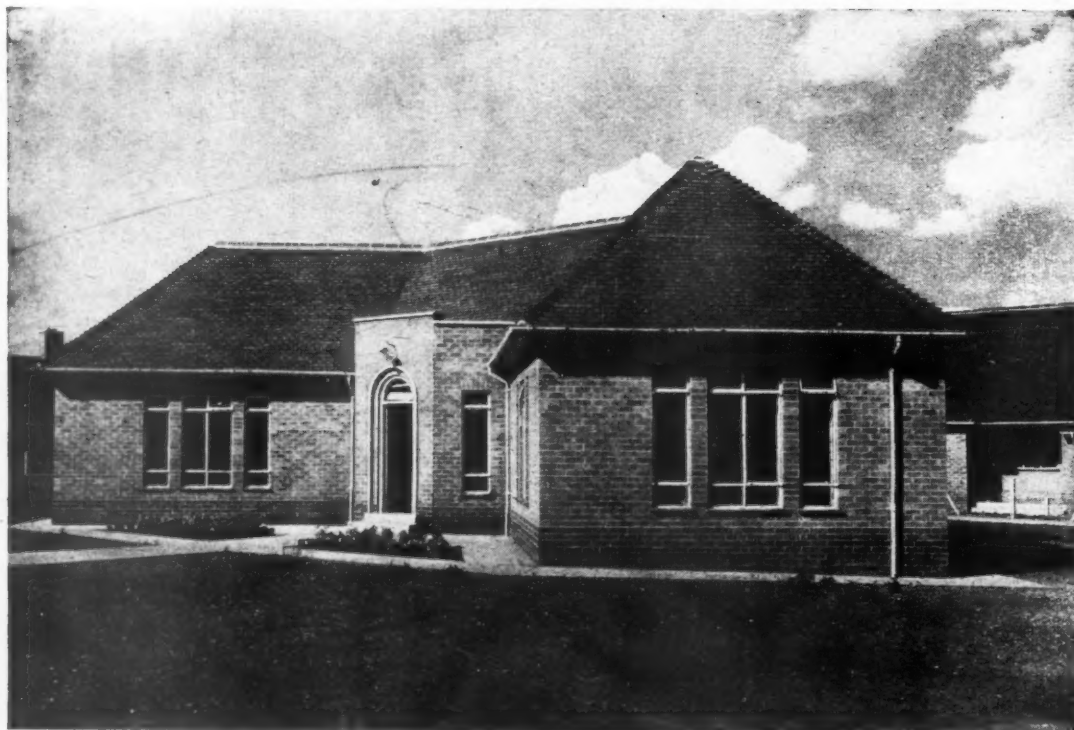
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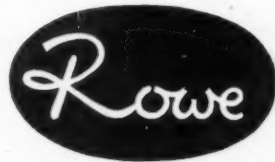
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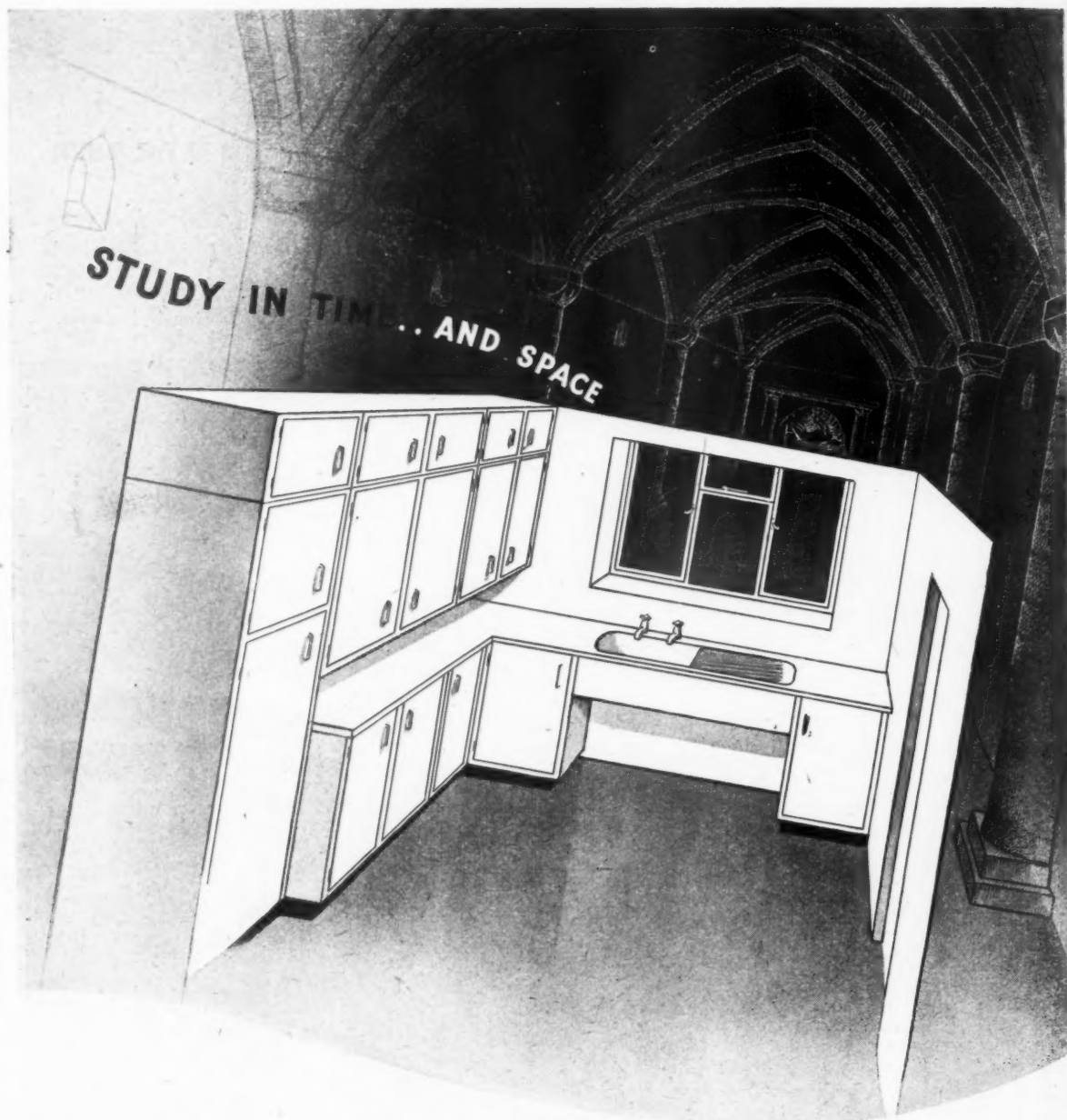
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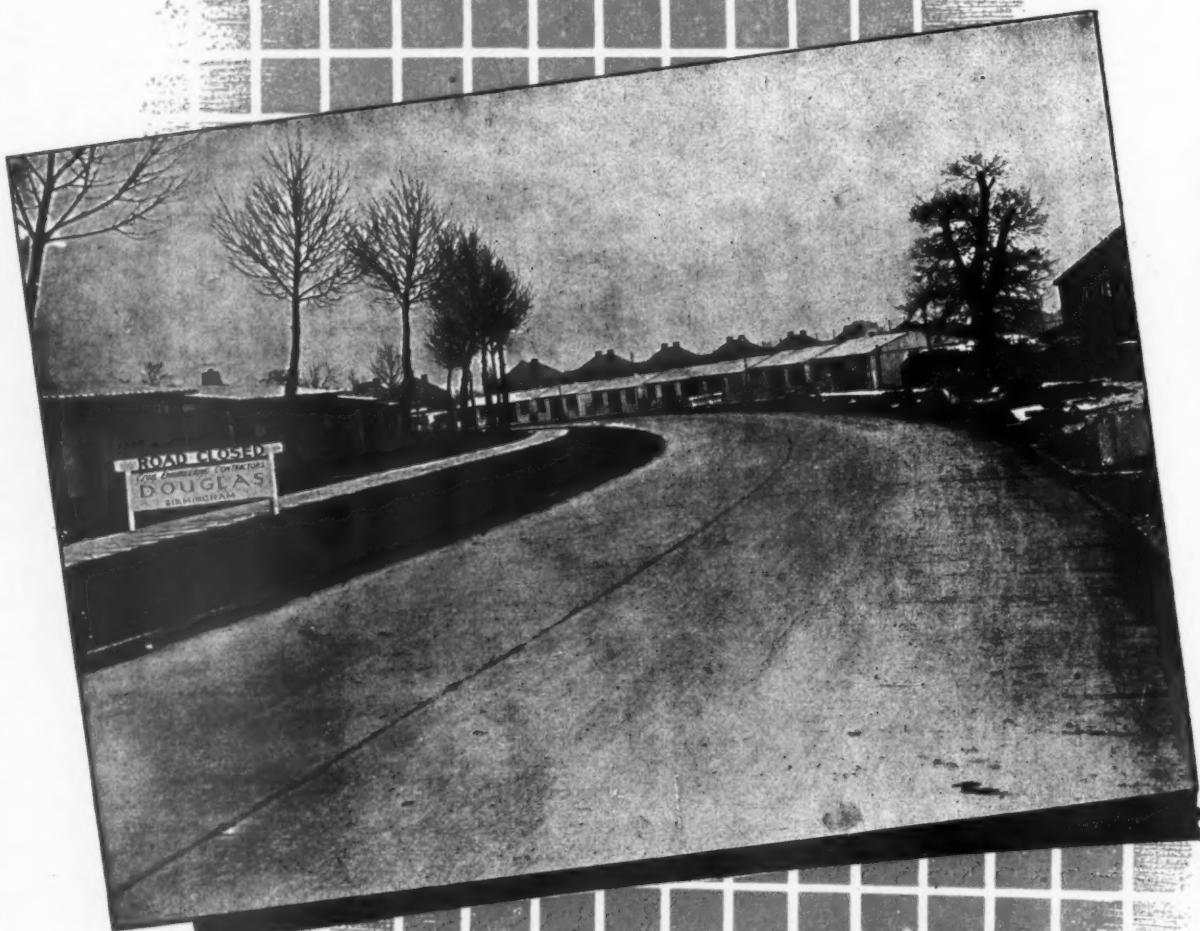
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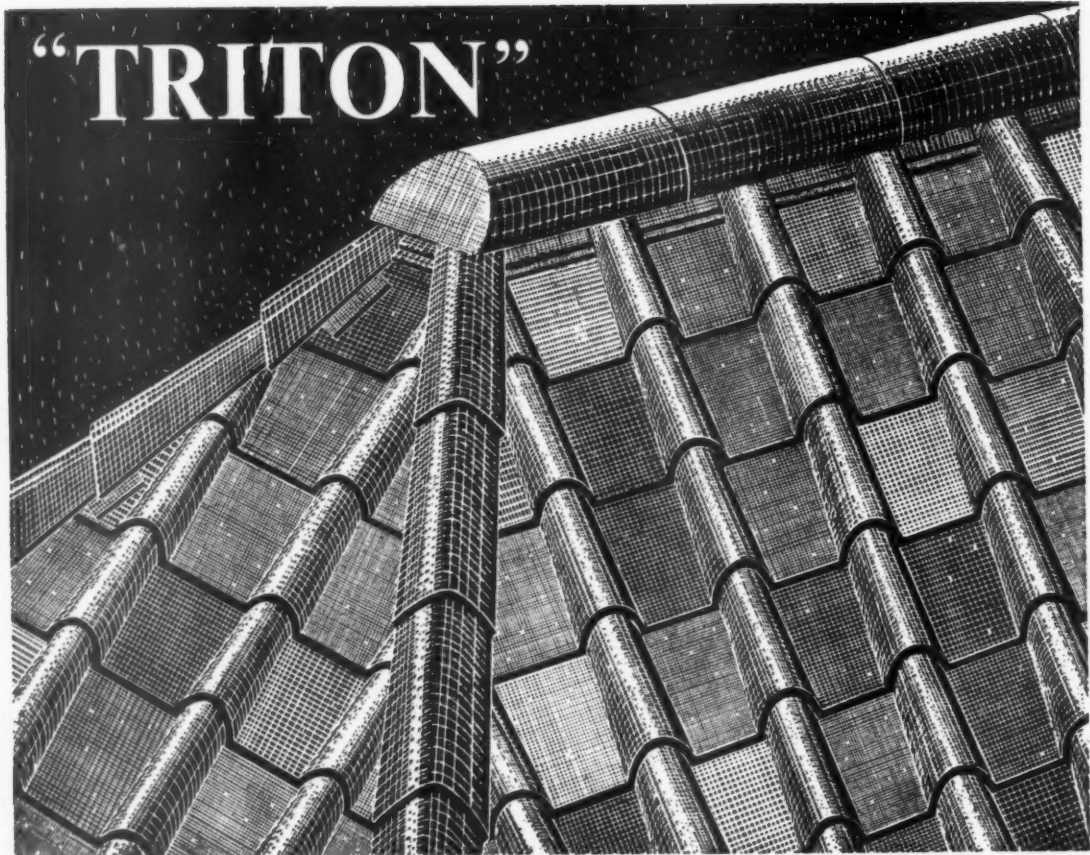
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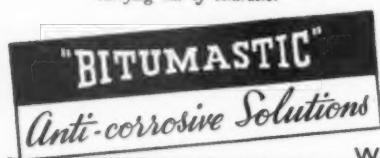
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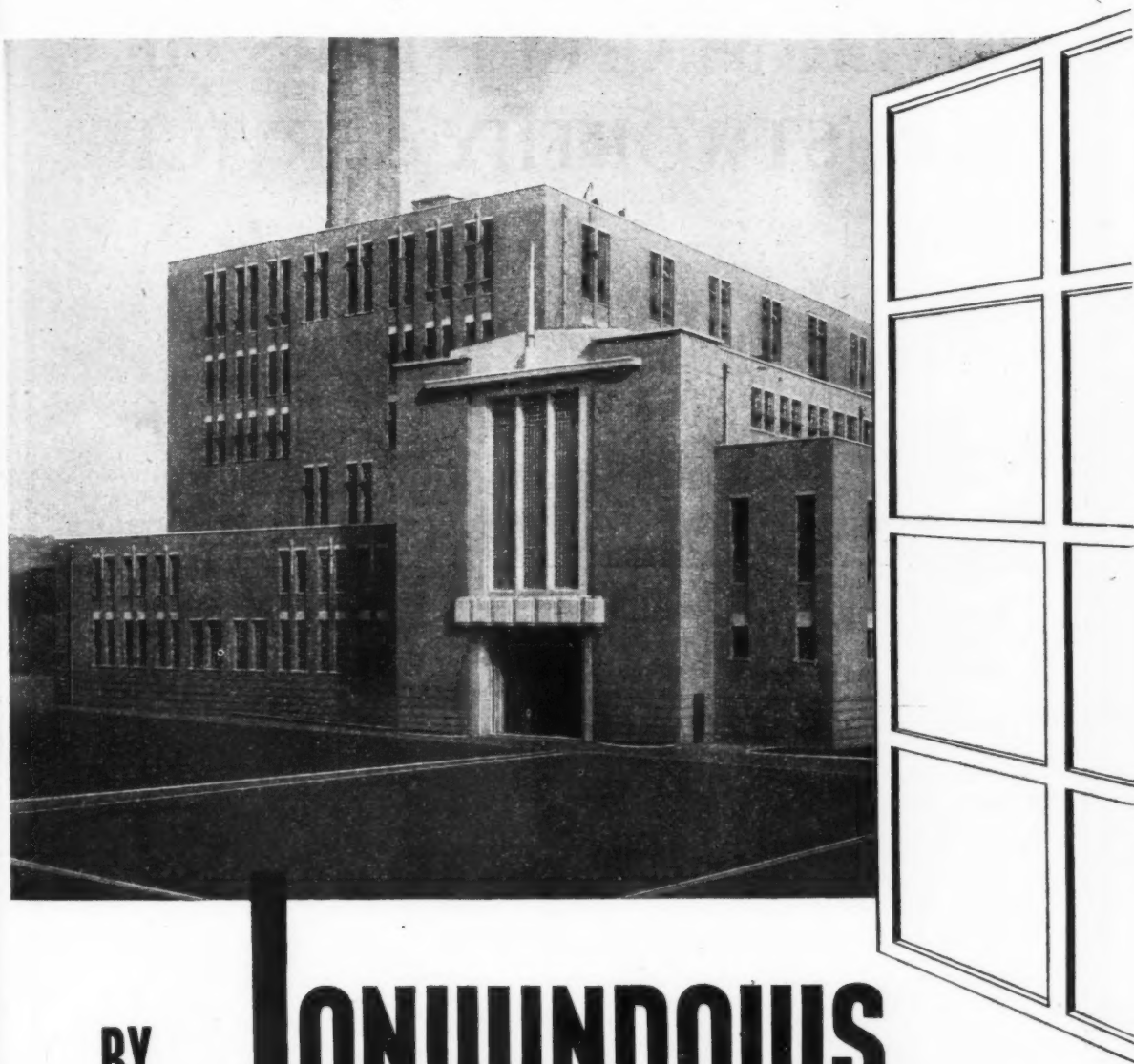
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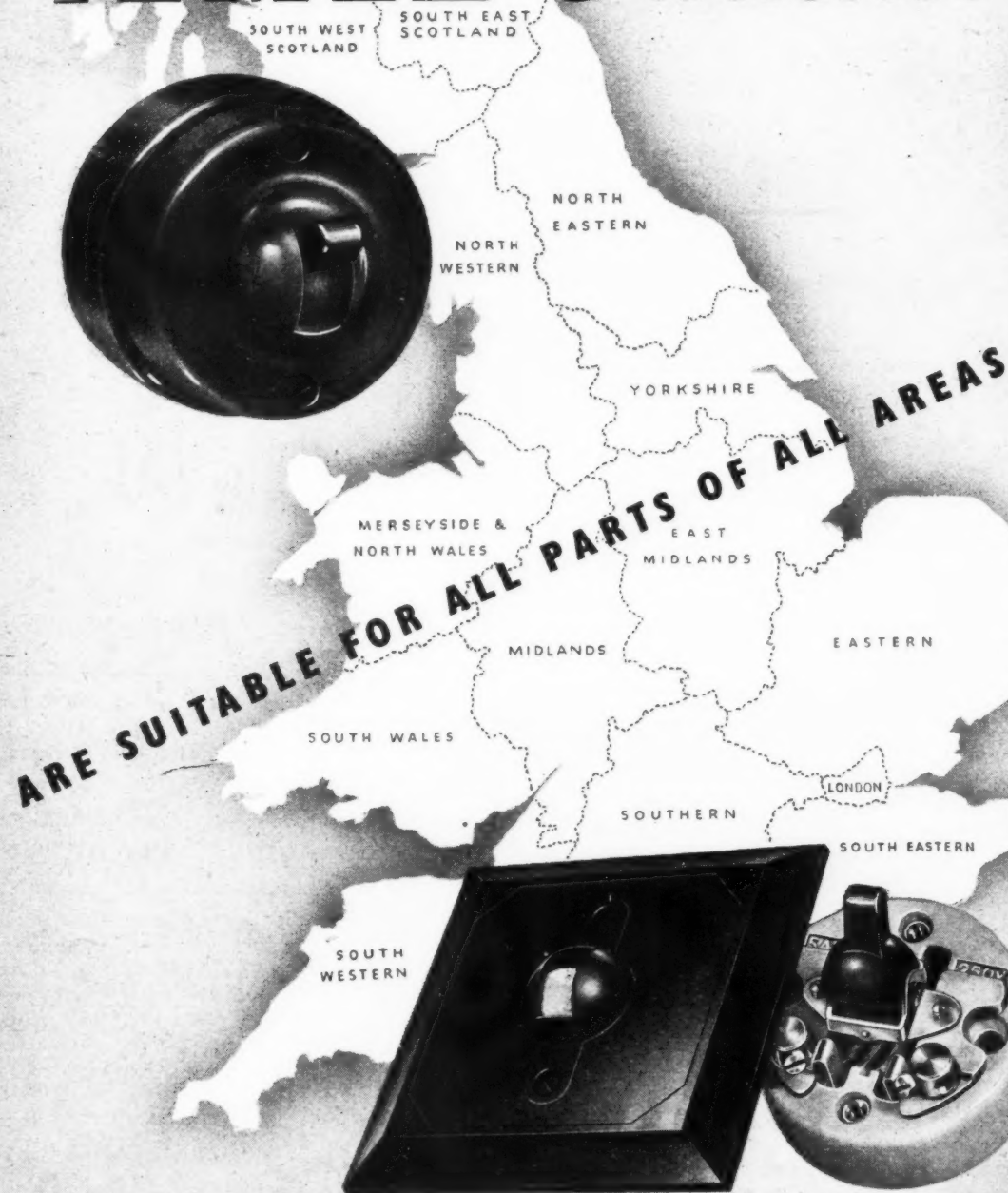
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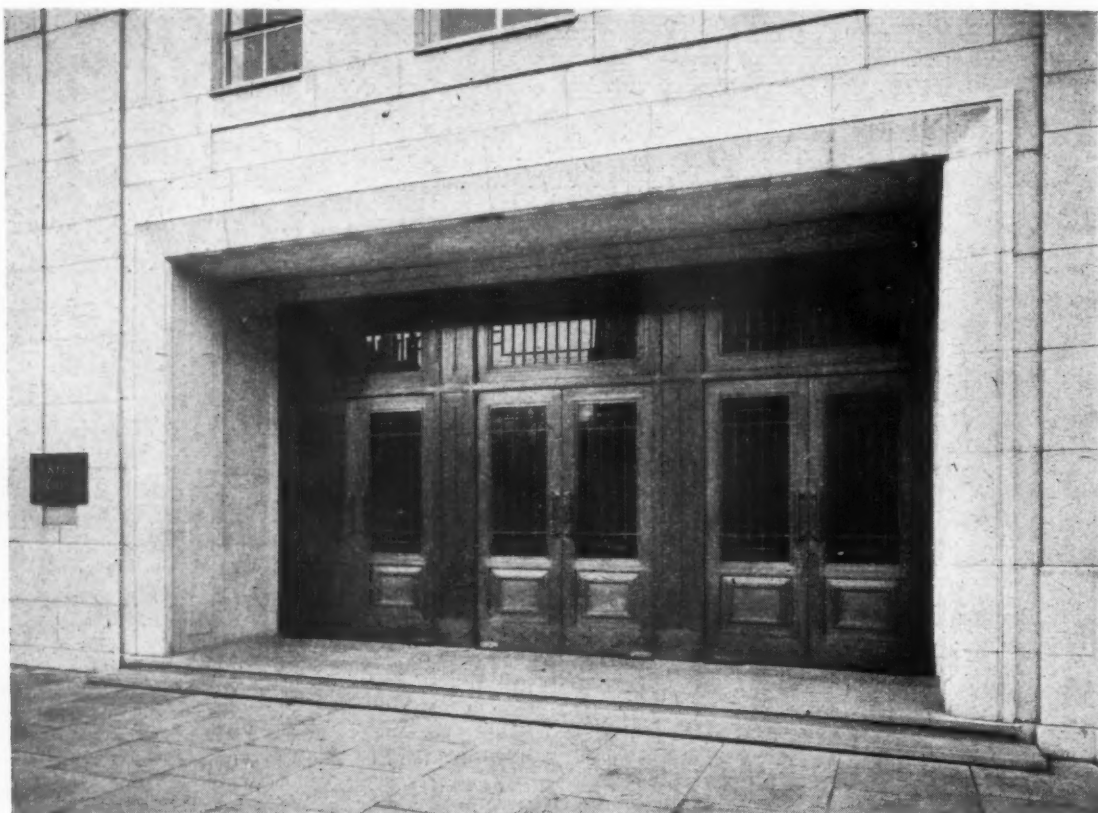
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No 2869 2 February 1950 VOL III

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CASTLES IN SPAIN

It was like old times to have Yerbury talking again in the AA dining room, and supported by another figure from the palmy days of the 'twenties, in the person of W. M. Keesey. His enthusiasm is infectious, and he painted a nostalgic picture of the pleasures of a summer in Spain with wine at a penny a glass and illustrated it with his own inimitable photographs of a stern countryside and a fantastic, exotic, and often very beautiful architecture.

Yerbury's enthusiasm is only equalled by his modesty, and he would be the last to claim that what he gave was a serious survey of contemporary Spanish architecture. He kept off social conditions and political matters and found little to criticize. He spoke simply as a perambulating photographer with an eye for character in buildings and as such was easy to listen to. Inspired by his enthusiasm, others no doubt will follow in his

footsteps next summer, and if they return with a more critical account of what they saw I am sure Yerbury will be the first to agree that there may be another side to the picture. It would be unlike Yerbury to bring back a gloomy picture from anywhere.

*

There is one point on which I must correct him. He said—and his photographs bore this out—that there is little in the way of a modern movement in Spanish architecture, but he also said that J. L. Sert, the leader of a modern group of architects called GATEPAC who flourished in Barcelona before the civil war, was back there now. Sert (vice-president of CIAM) did return for a prolonged visit to Barcelona after the war, but in fact he lives in the United States and practises partly in New York and partly in South America.

THE GOLD MEDAL

The award of the Royal Gold Medal to Eliel Saarinen seems to have met with general satisfaction. He is a man of real distinction with a career full of achievement behind him. In addition, his very personal—sometimes rather mannered—style of architecture puts him somewhat apart from current movements, so the award will not be looked on as a victory for the modern over the traditional or vice versa.

*

In recent years the RIBA have made a practice of nominating foreign architects for the medal every third year, but the choice of Saarinen is a departure from this custom, since it was given to Auguste Perret the year before last. But it is, I think, a wise departure. There is no outstanding candidate among English architects and it is essential, if the medal is to retain the prestige it has always had, that it should be awarded strictly on merit. We are passing through a period in England when our architectural effort is a group effort—a healthy development from the long-term point of view, but one which means that we lack outstanding individuals. It may be therefore that on merit, so individual an affair as the Royal Gold Medal is destined to go abroad for some

years to come. My view is that this should be allowed to happen, rather than that considerations of patriotism should impel the RIBA to seek out an Englishman two years in three. They may be tempted to do so especially next year, which will be festival year, but I would like to see merit come first even in 1951.

ASTRAGAL'S ELECTION INTERVENTION

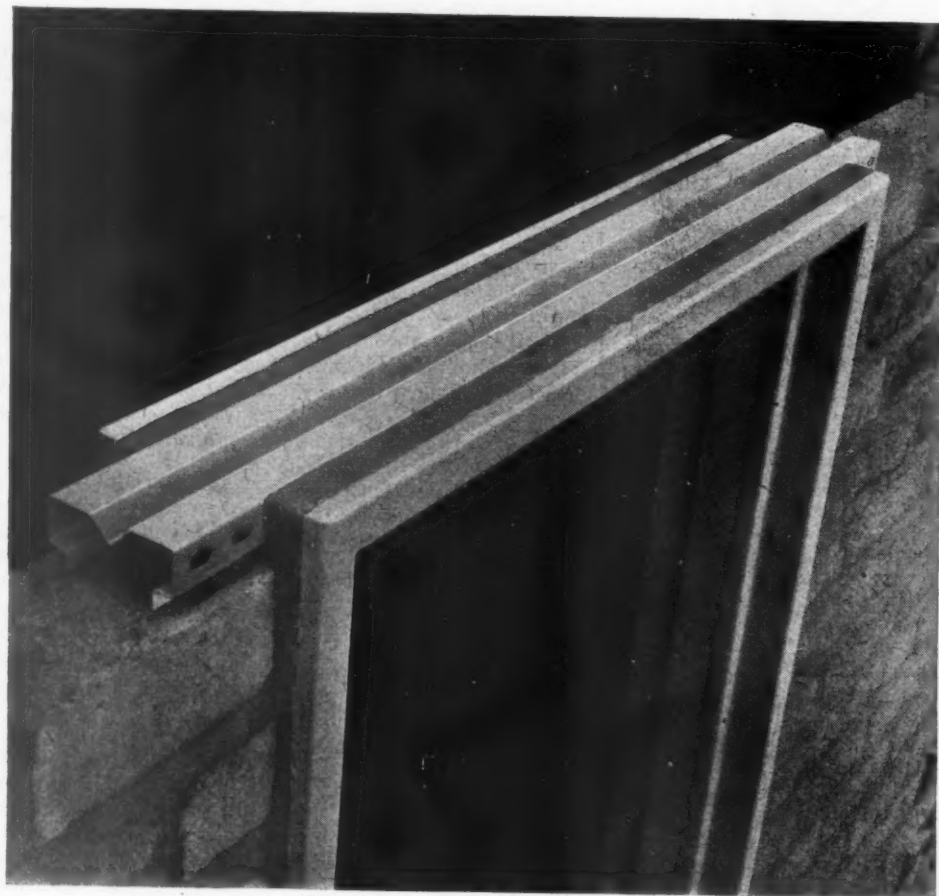
In these days of manifestos and generalizations broad enough to include all the hopes of the floating vote, questions about a particular control are likely to be considered bad taste, and even calculated, as the saying now goes, to promote the return of a particular candidate in all the constituencies in which the propaganda circulates.

*

Astragal suggests that members of the building industry should be brave, and run the fearful risk of unseating candidates all over the place, and should pitch in about relaxation of building controls whenever they get near a candidate. By what stages and over what period does he think these controls can be relaxed?

*

And don't be put off by the obvious. We all know that the control enables houses, schools and power stations to have priority, that it assists the control of capital investment and does a little bit towards ensuring that new factories are put in the right places. We all know, also, that control stifles keen competition, discourages the setting up of new firms and employs 10,000-15,000 controllers. But architects are concerned with much graver ill-effects even than these. The effect of the war, and of building controls after it, is that virtually no architect or foreman builder or other foreman craftsman who is now under 40 years old, has ever been responsible for the building of a church, bank, office building, shop or cinema, hotel, eight-roomed house or block of middle-class flats. In fact, in view of Munich and all that, the age limit is probably more like 45 than 40. This means that in another few years normal peacetime standard in design and craftsmanship will be almost unknown to a whole generation of the industry.



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The solution, while the housing shortage continues, cannot be to sweep away controls. But a few non-austerity buildings should be allowed in each licensing area—one church, one hotel, etc.—the number being increased as things get better. Gentlemen, write to your prospective MP's (mentioning that vague generalizations are unsatisfying). You will certainly get an answer.

THE CAMERA'S EYE

My illustration this week looks like a holiday snap but isn't. The characters portrayed were having anything but a holiday. They are part of the team of writers, artists and photographers whom the *Review* sent on an expedition to the south coast last summer and whose work there resulted in the January number, devoted to "the functional tradition."

I believe some of their photographs appear in this issue of the *JOURNAL* too. They took some beautiful photographs, as readers of the *Review* will have seen, but with a much deeper purpose than merely the production of nice pictures. They showed how the camera can be used to bring out the character of places and buildings and to sharpen people's appreciation of qualities they might not otherwise observe.

The particular qualities this number of the *Review* was concerned with are those inherent in the "functional tradition," which means in structures of whatever period and situation that arise directly from the needs they fulfil. People have long been aware that a tradition of this kind, stretching far back into history, existed side by side with the historic styles, but it has needed modern eyes—made aware by modern architecture of the charms of a more self-conscious functionalism—to appreciate the significance of the piers and bridges and sea-walls and warehouses in which it is most evident.

The special contribution of the *Review* is to take a step forward from appreciation to application. The "fitness for purpose" school of contemporary good taste has done valuable work in clearing away dead wood, but the result easily goes flat and becomes weak and insipid. One way—as Gordon Cullen showed in the *Review*—of introducing more character and vigour in our new towns and our old, without going back on the principles modern architecture stands for, is to build



These men, photographed on the stones of a breakwater at Lyme Regis, are not sheltering from aerial attack, but are themselves preparing for an assault, by camera, on the breakwater itself. See Astragal's comment.

on this solid, mature functional tradition, making use of the richness of form and texture it has evolved over centuries. I would not be surprised if one day this issue of the *Review* came to be regarded as a landmark.

CIAM COUNCIL

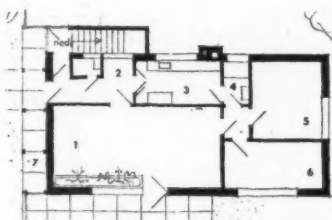
Owing to the illness of Dr. Giedion, secretary-general of CIAM, at his home at Zurich, the meeting of the CIAM Council, of which I wrote recently, has had to be postponed. It is likely to take place in Paris instead, but not until April, because Le Corbusier, who is an essential

member of the Council, is just off to South America and will not be back until then.

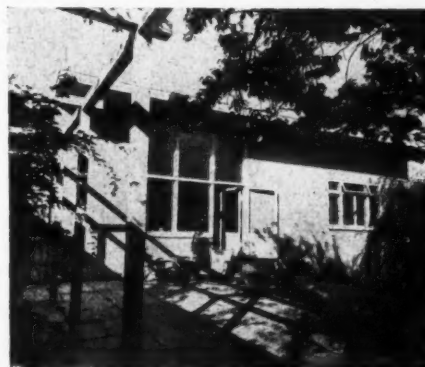
Unfortunately, by that time, Dr. Giedion who has been the backbone of CIAM for so many years, will not be able to be in charge of this meeting because he will have already taken up his lecturing appointment at MIT in America.

BACK TO DENMARK

I recently showed on this page the plans of a small Danish house which is one of



House in Gentofte, Denmark, by Houmoller Klemmensen. Key to plan: 1, living room. 2, hall. 3, Kitchen. 4, Bathroom. 5, Bedroom. 6, Nursery. 7, Pergola. Basement (not shown) contains larder, boiler room, refuse room and chute from kitchen, fuel store, weaving room and lumber room. Approximate cost: £1,650. See Astragal's note on this page.





Twentieth Century Parthenon

The *Architectural Review*, in its special number for January, 1950, looks forward into the next 50 years with a strong belief in modern architecture and its power to re-create human environment. The next fifty years in the architectural field will probably be remembered best for its impulse to build new towns, its rediscovery of urbanism and the art of landscape, or, as landscape is identified with urbanism in this case, townscape. In order to study townscape the *Review* undertook some field-work among some of the more visually promising English towns. It

soon became apparent that good architecture is not the most important factor in the making of a good town. Good townscapes depend on a number of imponderable relationships of shape, siting and detail, not only of good architecture, but of railings, lettering, symbols and texture. The story opens with a photo-analysis of a break-water known as the Cobb at Lyme Regis (shown above) "so remarkably virile and expressive as to deserve the title of the Parthenon of the functional movement of the twentieth century." (See also page 153.)

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twenty-one others published in a book of Danish housing.* I have since been accused, by a disbelieving colleague, of loading the dice in my favour by choosing an exceptionally odd example of Danish planning. (As an instance, you may remember, the larder led into the bathroom which, in turn, led into the fuel store.) The house, said my critic, is an obvious example of the sharawadgi new-empiricist flogging a few cubic feet of timber, brick and tiles into arty-crafty forms at the expense of the plan.

To refute this criticism I illustrate another house from the book, a rather more straightforward affair. Here again, and quite unnecessarily, the planning is odd by English standards. The bathroom is reached via the kitchen or via a probably unlit lobby off the living room. Do you remember the carping criticisms from smart alics when this kind of planning was attempted in the prefabs?

But, I can hear my maddened colleague saying, that sort of planning is acceptable to the Danes whose way of life is very different from ours. It is no use criticising by English standards. To which my reply is: What are our standards? The average family is committed to living in a brick shell, too cold in winter and too hot in summer (when we have one). Impossible to clean easily; incomplete in that it has to be carpeted, linoleumed, and furnished at a total expenditure which is at least a quarter the cost of the shell, before it can even be inhabited. It is not surprising that the worn, weary, struggling English housewife is the cause for comment by foreign tourists to the neglect of our wonderful police force.

It is a great tragedy that now, when experiments should be boldly made to discover a house-type which is really adapted to contemporary conditions (ah me, does that echo a far off cry from the wilderness of the last half-century: a machine for living in?) that all local authorities confine themselves merely to reproducing scaled-down versions of the pre-war middle class villa. I pin my hopes—it is amazing that I've still got any—on the LCC housing architect-to-be. Here is a golden opportunity only a congenital bumbler could miss.

As for Danish housing, to return to my original point, the forthcoming exhibition of Danish architecture at the RIBA should provide plenty of ammunition for future argument.

ASTRAGAL

* 21 Dansko Enfamiliehuse, Branner og Korch, Copenhagen.

THE HOUSING ACT, 1949

A NUMBER of questions on the 1949 Housing Act are posed and answered on page 169 of this week's JOURNAL.

This Act has two claims to distinction. The first is historic; the Act establishes for the first time that the responsibility of a housing authority is to provide houses for all classes of society, not simply for the working class. It does that both by amending the Housing Act, 1936, so that references to the working classes in particular are deleted and by stating positively that account is to be taken of the housing conditions and housing needs "of all members of the community." Its other claim to distinction rests on the fact that it tackles the problems of improvement and conversions of properties, particularly town properties, in the only way in which they can be tackled, that is, by providing the machinery and the money needed to enable local authorities and private owners to make a workmanlike job of converting the outworn and the outsize property into dwellings appropriate to our day and its conditions of existence.

The Act is divided into five parts, of which the first three are the more important. Part I contains the amendments to, and extensions of, the 1936 Housing Act. Section 1 deals with the removal of the "working class" criterion of housing needs. Section 2 enables the house owner to save a house under a demolition order by making it fit again for human habitation, while Section 3 gives the local authority the chance to save buildings of historic interest from falling into complete decay by authorising their use for particular non-housing purposes. Sections 4 and 5 are important to the house owner whose property needs repair but who cannot find all the money needed. A local authority is given power to advance money on mortgage up to 90 per cent. of what the house will be worth when the repairs are completed. Equally, it has now power to guarantee advances made by building societies for the same purposes.

Another important section is Section 11. Under the Housing Act, 1936, a county court may vary the terms of a lease to allow a building to be used for more than one dwelling even though there is a covenant in the lease against that, but it can only do so if satisfied that the neighbourhood has changed sufficiently to make it unlikely that the building will be let as a single whole—not an easy thing to prove in a court of law. Under Section 11 the court has the same power if planning permission is given for such an alteration under the Planning Act of 1947. This should make an important practical difference.

Part II of the Act provides that grants from the Exchequer may be made to local authorities for the purpose of improving houses. Under Section 15 the Exchequer will pay three quarters of the annual loss incurred by a local authority over an approved scheme, and the main requirement for approval

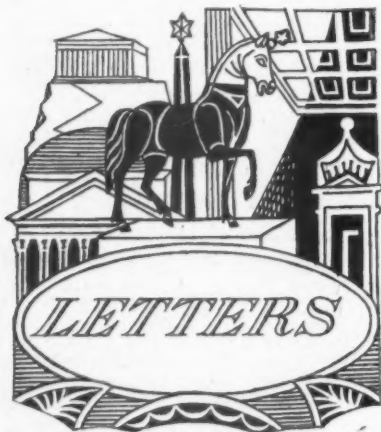
* See list of Editors on page 143.

of such schemes is that they should produce housing units capable of being reasonable dwellings for at least another thirty years. Section 19 makes similar contributions available to the development corporations in new towns. From the point of view of the individual house owner, and the architect in private practice, Section 20 is of even greater importance. This provides the conditions under which improvement grants may be made to the owners of private property.

The conditions under which the grants may be made are :

- (a) the grant is intended to cover both the conversion of property and its improvement.
- (b) the effect of the work done must be to produce a housing unit capable of lasting at least 30 years.
- (c) the applicant must be either the freeholder or a leaseholder with a term of not less than 30 years left unexpired.

The grant can not be for less than £100 or more than £600 per house and is dependent on the local authority approving all plans and projects. Once granted, the fact that a grant has been made imposes certain conditions on the property. Rents will in future be controlled, and a tenant of the property may not ask for a premium on assigning his tenancy. On the other hand, an owner may free his property from these restrictions by repaying the proper proportion of the original grant. An interesting point is that Section 26 of the Act makes similar grants available for parsonages and almshouses, and Section 31 enables local authorities to make similar arrangements with housing associations and development corporations. The Act generally is permissive. It does not require a local authority to take action under it. But it does provide a most useful means for a local authority with imagination and a property owner with public spirit to work together to their mutual advantage.



A Fair Restriction

SIR,—H. F. Brand paraphrases an advertisement for a junior position in a municipal architect's office and terms what is apparently the Intermediate Examination of the RIBA as "stage one of the admission test to the departmental chief's trade union." He is obviously very ill-informed on the subject about which he writes, and I will not pursue the glaring misconception expressed in those last four words, except to say that

the only trade union open to departmental chief officers is the National Association of Local Government Officers. A more accurate paraphrase of the "restriction" is that the applicant must have passed stage two of the test for admission to the statutory Register of Architects.

The town to which your correspondent refers is, like most local government authorities in England and Wales, applying the recent decisions of the National Joint Council for local authorities' administrative,

professional, technical and clerical services, which is the standing body charged as provided by its constitution with the supervision, from a national point of view, of all questions affecting officers of employing authorities other than clerks of authorities, certain chief officers, namely accountants and treasurers, engineers and surveyors, chief education officers and architects, and all officers with a salary exceeding £1,000 per annum.

The National Joint Council are considering all the professions engaged in the local government service and are determining the professional qualifications which are appropriate to the duties and responsibilities of positions graded in the administrative, professional and technical division of the national salary scales. In the case of architects, they have decided that the minimum grade for a registered architect is APT, V, which is £520, rising by annual increments of £15 to £570 per annum.

They have furthermore decided that the appropriate qualifications for positions graded APT, II, III and IV are related to the passing of the Intermediate Examination of the RIBA (the only "qualification of a professional Institute" applicable to potential architects), the manner in which this qualification is obtained and the length of subsequent practical experience.

The explanation to be given your correspondent's hypothetical ratepayer who wants his son to be a municipal architect is that, in the first place, nobody can become an "architect" until they have passed the qualifying examination and have been placed on the Statutory Register by the Architects' Registration Council. The approved qualifying examinations are the final examination for Associateship of the RIBA and the Degree or Diploma examinations of recognized Schools of Architecture. The candidate's progress towards this conclusion can only be defined by reference to the passing of the RIBA Intermediate Examination.

If the job advertised requires a certain standard of qualification, then it is obvious that those below that standard are ineligible. How can this be regarded as an "unfair restriction"?

LEONARD C. HOWITT.

City Architect, Manchester.

Criticism Wanted

SIR,—Your leader criticizing the quality of local authority work is commendable, but too weak to be of much value.

A dozen words of forthright criticism of each building you illustrate would be of far more practical use, besides proving that you have the courage of your convictions.

In the words of your leader, "A new approach must be made quickly," are you sure that your policy of gentlemanly restraint and complete impartiality is a help in finding a new approach?

ERIC RIBET.

Edinburgh.

American Initiative

SIR,—At the last committee meeting of the South Eastern Society of Architects a letter was read from one of our members who had just sailed for a visit to New Zealand. The story contained therein was considered so good that I have been asked to send you the extract. The member concerned is Robert N. Vanes, of Thames Ditton, Surrey.

The following is literally true and has a lesson:—

"A relative of my wife with a considerable family resides in USA. On a Saturday morning in August their house was burned down. The same evening bulldozers were

Leonard C. Howitt, F.R.I.B.A.

Eric Ribet

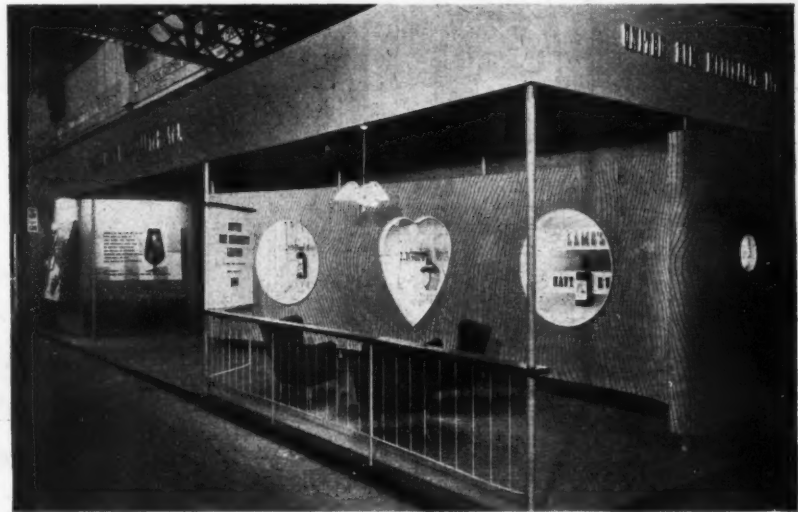
William H. Cutmore, A.R.I.B.A.

T. A. King, A.M.I.C.E.

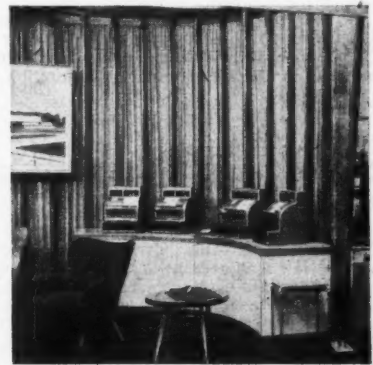
R. A. Lambourn, A.R.I.B.A.

John Ollis.

EXHIBITION STANDS AT OLYMPIA



Three of the stands at the Hotel, Restaurant and Catering Exhibition, which opened at Olympia on January 25. Above, the United Rum Merchants Ltd. stand, designed by J. Foxell of Sir William Crawford and Partners. Below: left, the Waverite (unit of Bakelite Ltd.) stand designed by Ralph Gillett; right, the National Cash Register Co., Ltd. stand, designed by John Carter.



ROYAL VISIT TO CRAWLEY NEW TOWN



The first housing site in the West Green area of Crawley New Town, which was inspected by HRH Princess Elizabeth on January 25, when she named the main carriageway of the Crawley industrial area, Manor Royal.

at work on the site and by the following Saturday the family occupied the new house. The local newspaper recorded the fact that the authorities dispensed with all red tape and light-heartedly applauded this initiative!" One can only hope that this sort of thing may one day be possible in this country.

WILLIAM H. CUTMORE.
Hon. Sec. South Eastern
Society of Architects.

Ewell.

Architectural Assistants

SIR.—A glance at the "public appointments" section of this or other technical journals will also bear testimony to the fact that the city or borough architect requires "engineering assistance" in carrying out his duties when these involve engineering. And what modern building project of any size does not?

By his own token, therefore, your correspondent "Plebeian" will also deprecate the vesting of responsibility for the structural design of a local authority's buildings in officials unqualified in engineering. Or are the "quacks and charlatans" of one denomination?

T. A. KING.

London.

Architects Registration Act

SIR.—I wish to raise an interesting question which the ARCUK may be able to answer.

Recently it came to my notice that applicants for building licences seeking to build a house, but *not* wishing to employ an architect, often sign their own name in the space provided for the architect.

Is this an offence under the Architects Registration Act?

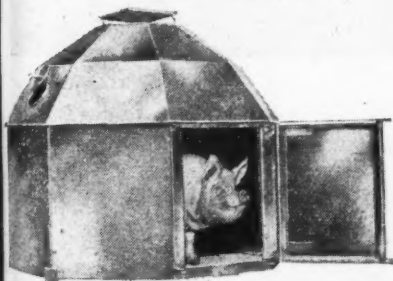
R. A. LAMBOURN.

Surrey.

Fashion Versus Function

SIR.—This Pigloo (recently advertised in *The Times*) and your American dog-shack (illustrated in *ASTRAGAL'S* columns on Jan. 5) nicely epitomise the two opposed trends of modern architecture.

In the case of the dog-shack, forms follow fashion regardless of their purpose. The proportions of the door bear no relation to the dogsbody. The sill-height is ill-considered and the damp is already creeping up the random flagstone-chip wall.



The Pigloo, on the other hand, is clearly the result of careful analysis of the biological needs of pigs and in its construction the most advanced factory techniques have been employed—a truly neo-technique design, as I think Lewis Mumford would agree.

If only human beings would adopt the same fresh approach to their own housing problems as well as to those of pigs!

JOHN OLLIS.

London.



PETERLEE

Architect becomes Consultant

Mr. B. Lubetkin, architect-planner for Peterlee New Town, will cease to be employed on a full-time basis from the end of March; he will become a consultant and will employ such persons as he thinks necessary. In making this announcement the MOTCP point out that the reorganization, which "is in no way an expression of dissatisfaction with the master plan or the work done on it," has arisen as a result of the plan being presented to the Development Corporation.

COMPETITION

York Festival Awards

The following awards have been made in the Festival Architectural Competition for a block of flats to be erected in Paragon Street, York, in connection with the York Festival of 1951:—

First Premium (£250), Toplis & Meadows, 19, Stanley Crescent, W.11. Second Premium (£150), Herbert Thearle, 66, Rodney Street, Liverpool. Third Premium (£75), Denis Broodbank, 59, Castletown Road, W.14. Honourable Mention, Gild Architects (Philip Titherley, Harry Ward and Philip Brown), 19, Hamilton Square, Birkenhead.

All the designs submitted in the competition are on exhibition at the City of York Art Gallery until February 10.

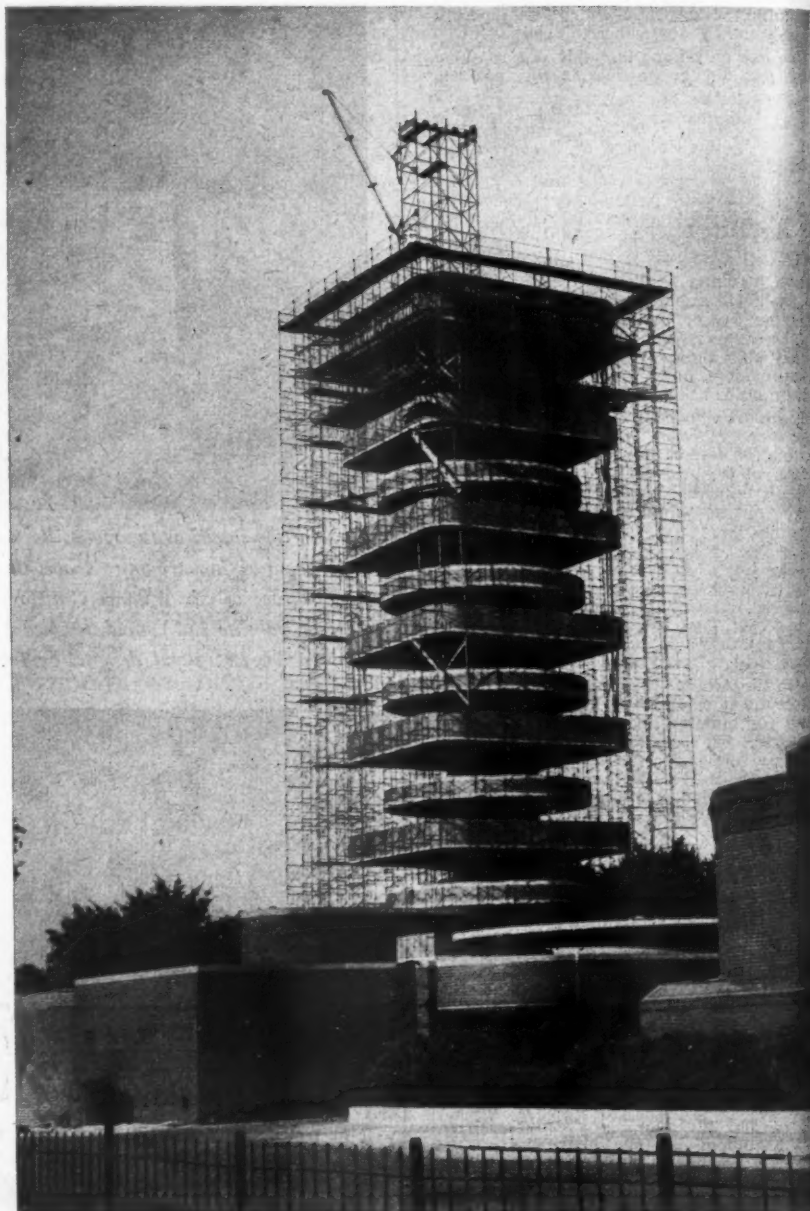
SCOTLAND

New Town in Renfrewshire

A new town at Houston, Renfrewshire, of about 40,000 population, is proposed—to satisfy the combined housing requirements of Greenock, Port Glasgow, Renfrew, and the established and expanding industries of the area—in a memorandum circulated by the Secretary of State for Scotland.

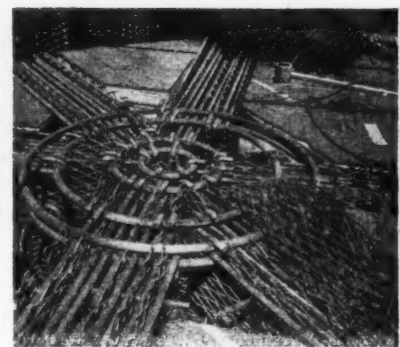
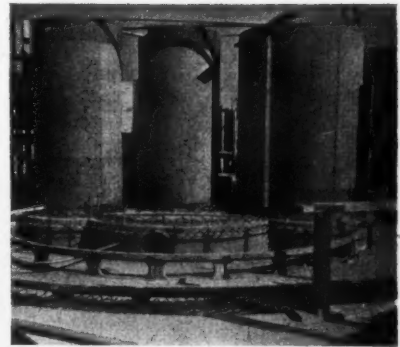
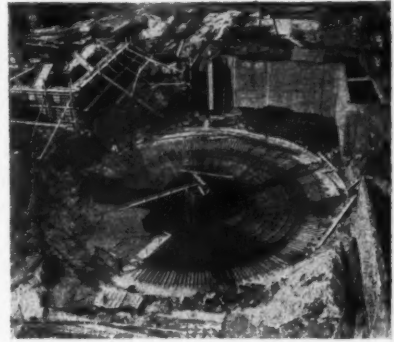
Greenock, says the memorandum, has practically exhausted the housing sites available within the burgh; Renfrew has only enough land for about a quarter of its estimated needs, so that a very large number of people will have to find homes outside the present burghs. While Port Glasgow's problem is of lesser urgency, its ultimate requirements should, in the Secretary of State's view, be planned now as

RESEARCH TOWER AT WISCONSIN DE S



A 15-storey research tower, shown above in course of erection, will be the principal feature of a new laboratory designed by Frank Lloyd Wright for S. C. Johnson & Son, Inc., at Racine, Wisconsin. This extension to the company's administrative building, which was the work of the same architect, makes good use of the area allocated for expansion by providing 98,731 sq. ft. of floor space, compared with 90,520 sq. ft. in the adjacent building. The tower will be 156 ft. high (thus simplifying the problem of dispersing laboratory fumes), and 40 ft. square, with alternate circular floors of 38 ft. in diameter. The exterior glass wall will be of tubular glass, while the interior wall

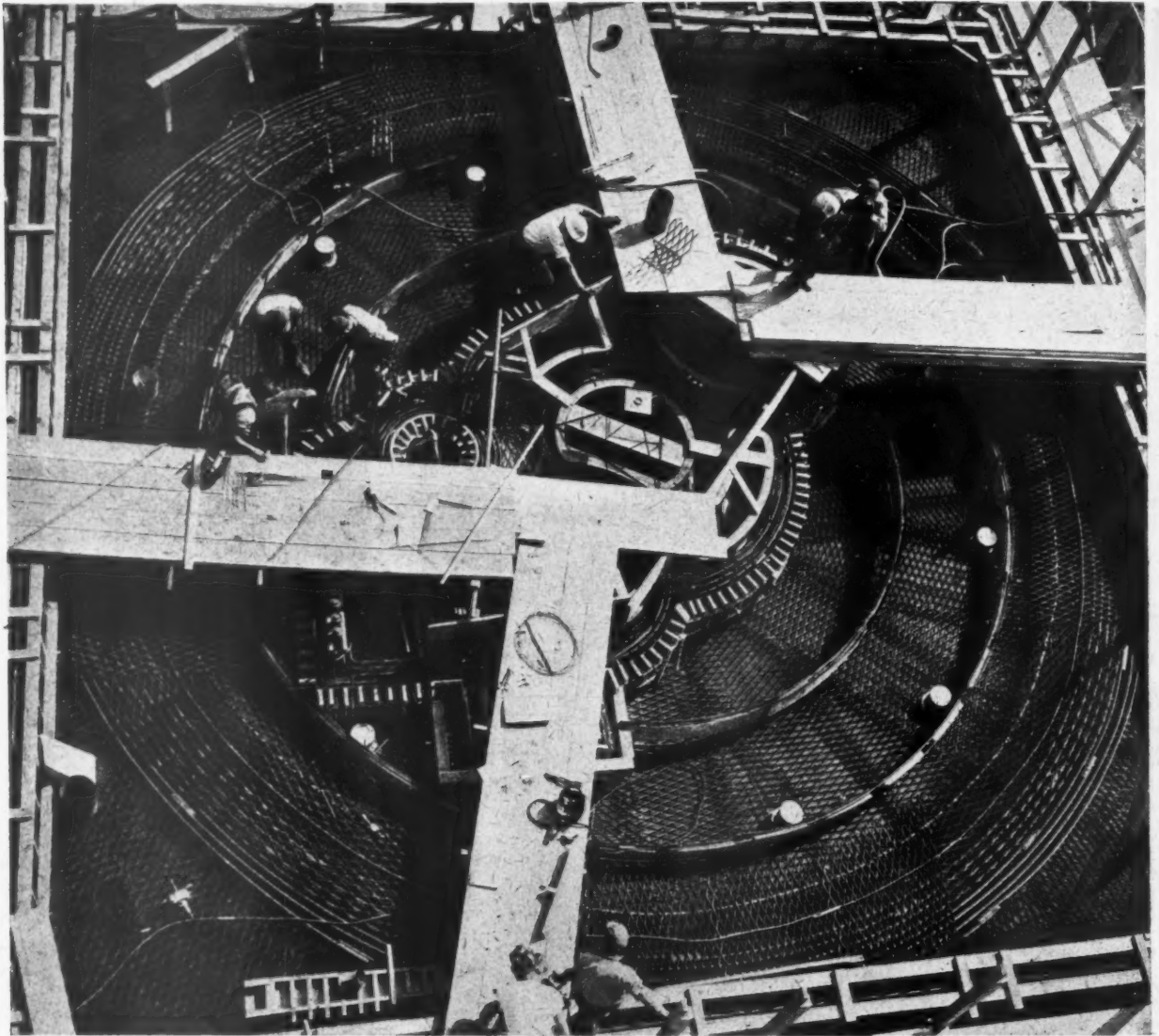
DESIGNED BY FRANK LLOYD WRIGHT



will be of plate glass. Surrounding the laboratory tower will be two- and three-storey buildings housing the technical service department, pilot plant, advertising and photographic departments, library, lecture rooms and a model home for a product demonstration centre. Right, from top to bottom: the site concrete which, with the main stem, supports the dead load of over 7,000 tons; shuttering for central shafts; detail of reinforcement; another view of the new buildings. The general view above is reproduced by permission of the Milwaukee Journal. (Continued overleaf.)



RESEARCH TOWER BY FRANK LLOYD WRIGHT (CONTINUED)



Above, work in progress on the foundations of the tower. A supporting stem sinks 30 ft. underground. It is solid for about 20 ft., and then becomes a hollow cellular shaft in which are five separate shafts: a plenum chamber and two exhaust tubes for the air conditioning, an elevator shaft and a staircase shaft.

part of the larger picture. Congestion in these towns is contrasted with the shortage of housing around the large industrial developments of East Renfrewshire which depend largely upon labour drawn from considerable distances.

The problems of Port Glasgow are similar to Greenock's, though on a smaller scale. It is estimated that after all housing sites of the burgh have been fully built up the town will still be short of accommodation for a population of about 1,200.

The shortage of building sites in Renfrew is acute and only 500 of the town's requirements of 2,300 houses may be built

within the present burgh boundaries. This figure takes no account of the needs of large numbers of workers, who at present travel daily to work in or near Renfrew.

The memorandum summarized the numbers for whom housing accommodation cannot be provided within existing burgh boundaries as: Greenock 29,000, Port Glasgow 1,200, Renfrew 10,000 (the last figure including a proportion for workers travelling daily to work). On these figures is based the new town population of 40,000.

The site requirements of the new town—about 2,000 buildable acres within reasonable travelling distance of the main

Renfrewshire industrial centres, which lends itself to economical servicing and reduces the interference with agriculture to the minimum—narrows the choice to the Houston or Bishopton areas.

There is no other buildable site of the necessary size east of Greenock. East of Bishopton and Houston the land is either of the highest farming quality or is so low-lying that drainage would be difficult. The conclusion that the only suitable areas for the site of the new town are Bishopton or Houston agrees with the recommendation of the Clyde Valley Regional Planning Advisory Committee.

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Although the quality of the land at Houston is not high, it is generally well farmed, says the memorandum, and its development means the loss of 136,000 gallons of annual milk production. The loss would, however, be spread over many years of development.

RIBA

Distinction in Town Planning

The Council of the RIBA have conferred the RIBA Distinction in Town Planning upon Mr. Graham R. Dawbarn. As Godwin and Wimperis Bursar, 1931, Mr. Dawbarn submitted a report on American airports. He has acted as adviser to four Governments, two Indian States, the States of Jersey and Guernsey, and numerous municipalities, including the City of London, with regard to aerodrome construction, including landing grounds, buildings, layouts, zoning, etc.

His executed work includes landing ground works at Birmingham, Cheltenham, Derby, Guernsey, Heston, Jersey, Langley, Loughborough, and Perth.

PEP

Council House Economics

Striking differences in the cost of building and maintaining council houses and the consequent rents charged are disclosed by a survey of conditions in 162 boroughs and urban districts in England and Wales.

The survey was carried out last year by PEP (Political and Economic Planning) in conjunction with the Institute of Municipal Treasurers and Accountants. The findings of the survey, for the purpose of which the three-bedroom non-parlour house was chosen as being typical of a major part of building before and after the war, are contained in a pamphlet, "Economics of the Council House," issued last week by PEP. This shows that only 12 per cent. of authorities in the survey had not increased pre-war rents, and about one-quarter of these reported that increases were being considered. More than two-thirds of those who had not made increases were in the northern regional group.

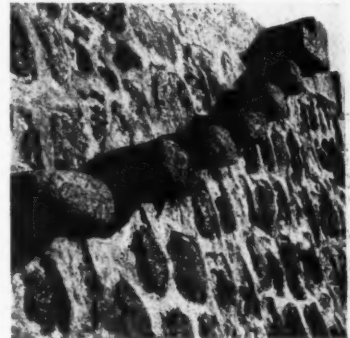
Most increases in weekly net rents were 2s. 6d. or less, 24 per cent. were between 2s. 6d. to 5s., and 15 per cent. were over 5s. But these averages, it is stated, mask very wide ranges in the increases made by one authority and do not indicate the full amount which some tenants have had to meet.

As rates have gone up in 95 per cent. of the authorities, gross rents show greater increases. Only one authority has made no increase. One-third have increased by 2s. 6d. or less a week, nearly half between 2s. 6d. and 5s., and the remainder over 5s.

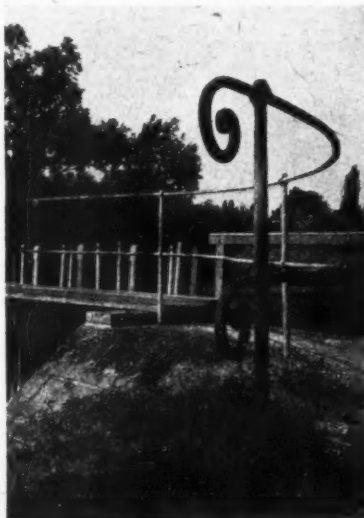
The national post-war gross rent average of 21s. concealed a large number of much higher rents. Nearly half the rents charged are 20s. or less, 47 per cent. being between 15s. 1d. and 20s., but one-sixth are over 25s. The difference between north and south is particularly conspicuous in rents of post-war houses. As many as 92 per cent. of northern and 87 per cent. of midland as against 36 per cent. of south-western and only 16 per cent. of south-eastern authorities charge 22s. 6d. a week or less.

The averages of erection costs also showed wide variations. The MOH northern region averaged £1,258 as against the home counties' £1,462, and the range of costs spread from £1,136 to £1,630.

THE FUNCTIONAL TRADITION



A study of the functional tradition in the January number of the Architectural Review deals with landscape elements. The landing stage at Weymouth, top right, is shown as an ideal prototype for mass production, while the ostentatious iron and brick work of the public lavatory, top left, makes it ridiculous instead of merely convenient. The effects of texture, as in the elaborately cemented sea wall, above right, are pleasing to people surrounded by the monotony of machine-produced regularity. An example of pure functionalism, combining simple patterns and textures, is shown above left. The unsuitable addition of white foliated balustrading to the plain handrail, below right, compares unfavourably with the straightforward lines of the metal pipes and stanchions on the bridge, below left.



EJMA

New Recruiting Drive

The English Joinery Manufacturers' Association, which is convinced that a truly representative body is essential to speak for and protect the interests of the joinery trade, has begun an extensive recruiting drive. The terms of membership have been revised, and allow firms which have manufactured joinery for two years to apply for membership. The firms must agree to open their factories or workshops to inspection by the Association, and must pay the rates of wages and observe conditions applicable to the trade. They must not be engaged in competitive activities, nor must they be controlled by a firm competing against the joinery trade. These terms are calculated to preserve the high traditions of the Association, whilst making membership open to reputable firms who could not fulfil the previous and more stringent conditions.

COMPETITION

Buildings for Nairobi

The Municipal Council of Nairobi, Kenya, invites architects resident in the United Kingdom and all British Dominions, Colonies and Dependencies to submit designs in competition for new city halls and offices which it proposes to erect in Nairobi.

The assessor is Professor L. W. Thornton White, Cape Town. The amount proposed to be expended is £195,000, and premiums of £550, £450, and £250 are offered. The conditions will be ready for despatch by air mail on February 20. They may be obtained on application, preferably by air mail, to the town clerk, PO Box 651, Town Hall, Nairobi, Kenya, enclosing a deposit of two guineas. The last day for the receipt of questions is April 20 and the last day for posting designs from any country is August 31, 1950.

LMBA

Retiring President's Address

The LMBA's achievements during the past year were reviewed by Mr. Nigel Hannen, the retiring president, at the association's annual general meeting at the Park Lane Hotel, London, on January 19. There had been a rapidly changing view about apprenticeship and incentives, he said. On apprenticeship the LMBA have viewed and reviewed its policy, and had put forward suggestions to make apprenticeship more attractive to boys and employers alike. Two questions had been asked: Could the period of apprenticeship be shortened? Was it right to deliver an ultimatum to a boy of fifteen, saying to him—now a craftsman or never? Whatever the answers, craftsmen must be trained, and craftsmen must be trained thoroughly if building was to remain a craft industry.

But craftsmen, when trained, should have the chance of rising in the industry of their choice. Foremen should be trained, as should experts in the higher branches of the industry. To some extent this had always been done, but with no definite scheme.

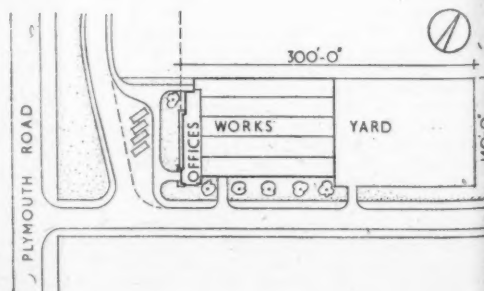
On the question of incentives, the speaker said that although a year ago they were regarded by both operatives and a considerable section of the employers in the building industry with a certain measure of

FACTORY FOR CONSTRUCTION

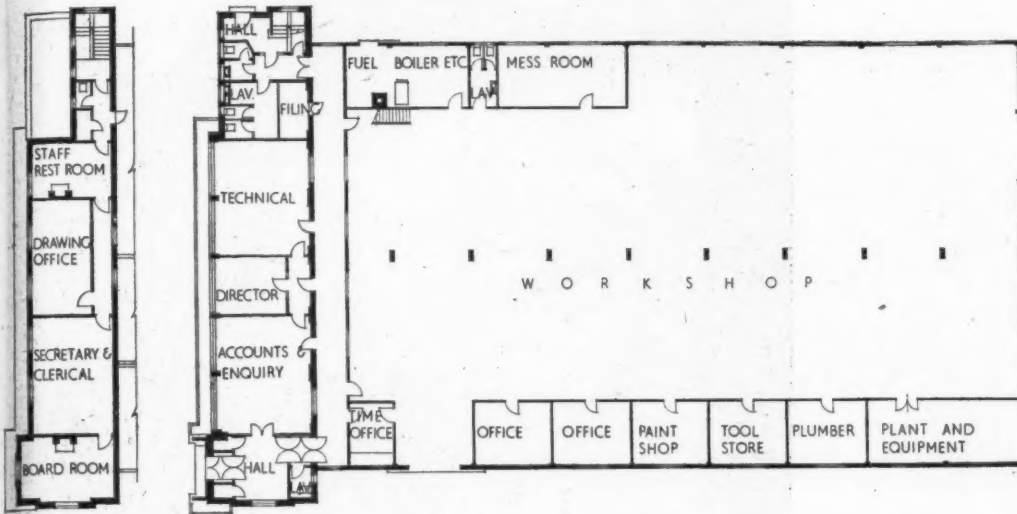


The scheme illustrated was designed to provide workshop and office accommodation for Messrs. Airey Construction Co., Ltd., in Plymouth Road, Blackpool. The workshop area is set out in units at 15-ft. centres to allow for suitable subdivision as and when required. The site is level and lies in a small area on the outskirts of Blackpool, zoned for light industrial undertakings. The office block is at the west end of the rectangular workshop area with the office and workshop entrances on the south to provide easy access from Plymouth Road. The workshop is portal steel framed with 9-in. brick panel walls.

SITE PLAN



COMPANY AT BLACKPOOL



FIRST AND GROUND FLOOR PLANS

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

on the south side, and cloaking of corrugated asbestos cement sheeting. The offices are constructed of 11-in. cavity brickwork, with reinforced concrete floors suspended on tee beams spanning between brick piers at 11-ft. centres. The workshop floor is of continuous reinforced concrete.

Door and window surrounds are of artificial stone; glass bricks surround the window above the main entrance. The office floors are pitch mastic, chocolate in colour. The architects were, Fairbrother, Hall and Hedges.

The general contractors were Messrs. Airy Construction Co., Ltd. For list of sub-contractors see page 172.



suspicion and as experimental, today both sides recognized that they had come to stay. Where they had been worked, incentives had both speeded up production and reduced costs, to the advantage of the employers, the operatives, and the general public. That way lay the road to the progressive reduction in the cost of building.

At this meeting Mr. Richard Costain was elected president in succession to Mr. Hannen. Mr. Dudley Cox was elected vice-president, and Mr. W. H. Gough-Cooper and Mr. D. E. Woodbine Parish junior vice-presidents. Mr. E. W. Garrett, president in 1946, was re-elected honorary treasurer.

LGMPC

Economy of Man - Power

Recommendations for changes in the relation between Government departments and local authorities are contained in the first report of the Local Government Man-Power Committee, which was published last week (Stationery Office, 6d.).

The committee was set up a year ago by the Chancellor of the Exchequer to review and co-ordinate arrangements for ensuring economy in the use of man-power by local authorities and by Government departments concerned with local government in England and Wales. The committee, which is composed of representatives of Government departments and local authorities, is under the chairmanship of Mr. P. D. Proctor, of the Treasury.

The revised arrangements recommended in the report are said to represent a considerable simplification or loosening of departmental control.

Some of the biggest changes are expected in housing arrangements. The report states that the approval by the Ministry of Health of individual building sites chosen by local authorities will no longer be required. The Ministry will issue a memorandum of guidance explaining the object of the questions in the form that authorities now have to fill in, and they need supply only a certificate from a competent person that the memorandum has been followed. Local authorities may assume when the Ministry tells them of the number of houses which they may build in a year, that this rate of building may be repeated for at least three years. Sketch layout plans submitted to the Ministry will be assumed to have been passed without comment if nothing is heard within 14 days. Submission of plans for houses will be dispensed with provided that the authority submits a tender and a certificate that the plans are drawn up by a qualified architect in accordance with the appropriate standards.

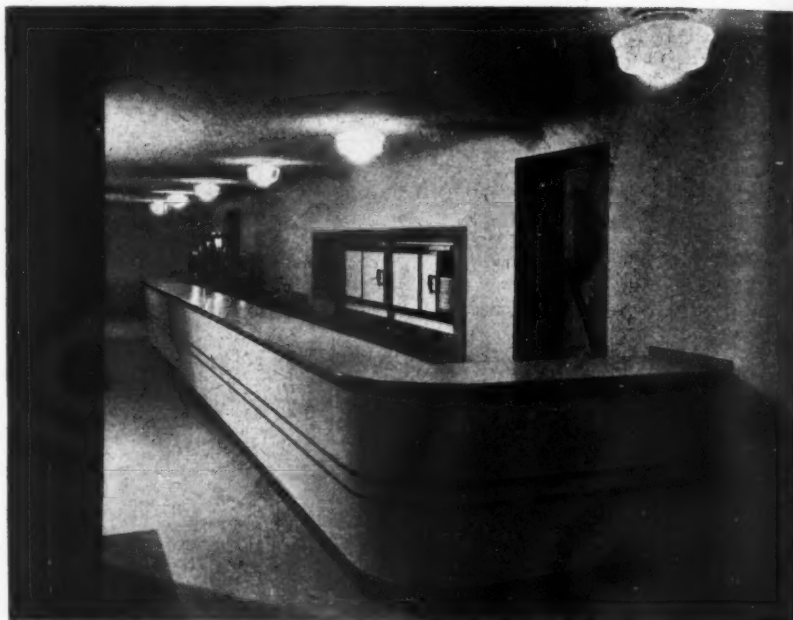
Local authorities, the report states, will have almost complete freedom in the running expenditure of local health services, and detailed examination by the Ministry of all capital projects in the health services, except plans for building health centres, will no longer be required.

AA

Staff Member Retires

To facilitate the reorganization of the curriculum in the AA School, Mr. E. R. Jarrett has, pending his retirement in July, accepted leave of absence until the end of the present session. The AA is deeply conscious of the immense services rendered by Mr. Jarrett as member of the School Staff for over a quarter of a century and as editor of the AA Journal.

RESTAURANT FOR THE SOUTH EASTERN GAS BOARD



Two views of the new staff restaurant at the South Eastern Gas Board's Headquarters at Katherine Street, Croydon. Formed within the existing basement, it is equipped to serve 500 meals a day. Conditioned air is introduced into the dining room through diffusers in the ceiling and extracted through grilles in the doors via the kitchen. Condensation troubles have been overcome partly by the use of vermiculite plaster ceilings. The architect was Walter Watson, the architect for the Board.



DIARY

Planning and Agriculture. Professor L. Dudley Stamp. At Livingstone Hall, Broadway, Westminster, S.W.1. (Sponsor, TPI.) 6 p.m. FEB. 2
Lamination. G. M. Scales. City of London College, Electra House, Moorgate, E.C.2. (Sponsor, TDA Ltd.) 7 p.m. FEB. 6
Softwood Trade. P. L. Money. At City of London College, Electra House, Moorgate, E.C.2. (Sponsor, TDA Ltd.) 7 p.m. FEB. 6

Practical Planning Under the Town and Country Planning Act, 1947. B. J. Collins

and J. P. Rhys. At 12, Great George Street, S.W.1. (Sponsor, RJCS.) 5.30 p.m. FEB. 6

Timber as a Material. R. P. Woods. At Technical College, Cambridge. (Sponsor, TDA Ltd.) 7.30 p.m. FEB. 6

The Newest Timbers and Their Uses. B. A. Jay. At Town Hall, Fishergate, Preston. (Sponsor, TDA Ltd.) 7 p.m. FEB. 7

Timbers of Commerce. J. B. Smith. Technical College, Swindon. (Sponsor, TDA Ltd.) 7 p.m. FEB. 8

Selection and Grading of Timber in relation to Timber as an Engineering Material. F. D. Silvester. At Medway Technical College, Chatham. (Sponsor, TDA Ltd.) 7 p.m. FEB. 6

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ROUND THE TABLE : A CONTRIBUTION FROM HOLLAND

Traditional Building or Mass Production

Yerbury : I hope that this will be the forerunner of many similar discussions in this and other countries. Exchange of ideas always contributes to good understanding. I may be wrong, but I suppose building problems in Holland are generally much the same as in other European countries, and are therefore of interest to us all. To take the subject for discussion today—"Is architecture becoming a matter of industrial design and industrial production?"—this is a problem, upon which what you have to say throws light that we also can perceive. You are standardizing housing construction methods to some extent, and the function of the architect is undergoing a measure of change. It may be that his skill will no more be applied in such a broad general way. He may tend to become an engineer or designer rather than an architect in the old sense of the word.

Prof. Zwiers, what is your opinion on this point as regards Dutch housing?

Zwiers : We must begin by defining the words "architect" and "designer." Can we, for instance, consider the producer of a prefabrication system an "architect"? I am inclined to say "no," but I would rather start the ball rolling by stating what I think the architect should be in the future, and as one involved deeply in architectural education I am on surer ground there. We have thousands of architects in Holland, and with our present methods of education we are creating thousands more. This is, in my opinion, quite wrong. In view of present trends towards fewer and larger projects, I feel the need is for a small number of highly trained architects at a very high level, supervising large groups of specialist assistants. In scientific research we have small numbers of scientists proper and large numbers of laboratory assistants.

Even today on very large buildings the architect finds himself in the position of the captain of a large team of specialists. If this principle does not follow in housing, he will find himself doing the work proper to the contractor and perhaps even the decorator.

Yerbury : Here is a real problem. In Britain we have built large numbers of temporary houses in aluminium on the industrial principle of an intensive development effort in the first series, and no further alteration in design afterwards.

Zwiers : Do you mean that once a solution has been found, the production line adheres to it without any chance of further change—that any mistakes are made permanent?

Yerbury : Of course, you are at liberty to change it, but it reflects unfavourably on cost. The man who designs such houses is in the position of an industrial designer.



For some time now, the ARCHITECTS' JOURNAL has been publishing the views of architects and others on various aspects of architecture, in the form of informal discussion round the lunch table. This discussion marks a new departure in the series in more ways than one, but continuity has been preserved in the genial personality of the Chairman, F. R. Yerbury. He has taken to his heels (or wings) across to the continent, and has found a new lunch table in the Bouwcentrum in Rotterdam, where the staff have gathered together a company of eminent representatives of every aspect of Dutch building. New ground has been broken by the inclusion of members of other professions than those concerned with building design. They are seen above. Those seated round the table, reading from left to right, are : F. R. Yerbury ; Prof. ir H. T. Zwiers, Architect ; ir S. J. van Embden, Architect ; G. de Koning, Industrialist ; ir H. van Kuyck, Architect ; ir W. van Tyen, Architect ; ir J. van Ettinger, Engineer ; Jhr ir J. de Ranitz, Architect ; drs J. A. Verhorst, Economist.

van Embden : You are bound to change the design once there is a return to normal times. Perhaps there will be a change every five years or so; manufacturers will try to outdo each other's designs. In Holland housing has never been the special field of the architect, at least not until post-war days. Now the authorities have taken over, and are demanding architects for every building. We may therefore consider the architect as entering the housing field at the very moment that new methods are gaining way, and there is really no "new" situation for him in this respect. In any case, working for industry is better than drawing pretty pictures for contractors.

van Ettinger : European countries are poor. Housing is badly needed; costs are high; rents are low. My view of the future of the architect is that if he can contribute to the solution of this economic problem he will have his place in the field of housing, and if he cannot he'll have to get out. I'm sure, from my knowledge of architects, that they will see this point and will succeed in helping to solve the deadlock by co-operating with industry in standardization.

van Embden : But houses were standardized throughout the nineteenth century. There was no problem

then. The architect knew very well what he was going to put behind every elevation.

van Tyen : Now we'll have to define the word "standardized." Mr. van Embden is right, of course, but only so far as layout and accommodation standards are concerned, and perhaps the general concepts of the construction methods. But there was infinite variety in detail, for instance in window design. We have two degrees of standardization here, comparable to the concepts "utility" and "ready-made" as applied to clothing. "Utility" houses have been produced for the present need—all exactly the same. But, just as in clothing, the moment the need is removed the "utility" principle is dropped like a hot brick in favour of the "ready-made" principle—a certain restricted choice designed to suit everyone.

I think the population have good reason for dropping it, and as the building industry has not yet produced a satisfactory "ready-made" system, when they do drop it they usually fall back on traditional methods. They either go to the architect for a special design, or to the speculative builder, both of whom know and consider what people want.

I see the architect's duty as one of evolving this "ready-made" system, by which a certain variety of houses may be constructed. People won't wear utility and if industry has to be called in, it must be "ready-made" with three lengths of sleeve and a choice of linings.

de Ranitz : Whatever form the industrial production of housing may take, it is bound to bring with it one great change for the architect. By tradition he has always been the adviser of the principal. Is he now to become the adviser of the producer? Will this lead to better consideration of the eventual user's wishes? My opinion is that a proper house could only be designed for industrial production by having two architects concerned, one whose responsibilities lie with the principal and the other more able to appreciate and weave in the considerations of economy and factory processes. But this is diametrically opposed to Prof. Zwiers' captain of his team, and I feel strongly sceptical as to how such a person is to be trained for such a many-sided position as he visualizes. He'd need ten years special training, an all-seeing eye and the wisdom of Solomon, and he sounds to me an impossible figure.

Verhorst : Well I am not an architect, and I am probably going to tread on someone's toes now. The more I hear about this possible position of "Lord High Co-ordinator," the less I can understand why you don't call him a co-ordinator instead of an architect.

Of course there is a function in building concerned with the first conception of what we may call the design, but there are other factors imposing insurmountable conditions on short term solutions. To hark back to Mr. van Ettinger's words, the dominant condition for the immediate future—and I cannot agree that one can see further, is being imposed by economics. The problem whether we can build a house economically threatens to become synonymous with the problem whether we can build a house at all, in the needy circumstances prevailing at present. This being so, we are forced to adopt the one method showing any glimmer of light as regards economic considerations—utility. The pure architect will have to possess the richness of his conceptions in patience—for the present it must be industrial design.

van Tyen : Catherine Bauer warned us at the Hastings Conference not to put our trust in prefabs. Economically speaking, any good traditional builder can see prefabrication off in less than no time. Prefabrication only has a chance as a Governmentally provided social service in time of need.

Yerbury : Complete prefabrication has indeed worked out dearer up till now, but why not apply a measure of standardization or partial prefabrication?

Verhorst : Anything that lowers costs must be the designer's first task in housing today.

Zwiers : You are appealing for a broad view of housing within the framework of our present economy. I most heartily agree, and for precisely this reason I say that it is unimportant that prefabs cost a little more provided they improve economy elsewhere such as by freeing operatives for other production and by raising the productivity of labour within building itself. Tradesmen are running away from building at the moment. Our Catholic Trade Union is now 3,000 operatives down. To answer Verhorst's previous point, the architect as I visualize him is not purely a co-ordinator or purely a designer. The combination of the two seems to me to suggest a possible definition of the word "architect" though if we apply it we'll find that there are not very many of them.

van Kuyck : And now Prof. Zwiers, please give us a definition of a "designer."

Zwiers : Verhorst has already given us one.

Verhorst : I don't disagree with you in your definition Prof. Zwiers. I only throw the gravest doubts on the possibility of obtaining a man qualified—in addition to technicalities—to give high-level decisions on all aspects including the economical and commercial. The architects will perhaps forgive me, but I cannot see an architect embracing all these qualifications. No, he should remain the adviser of the producer or contractor as the case may be, and leave the co-ordinating alone.

van Kuyck : So an industrial designer is simply a man who designs. What on earth then is the significance of the word "industrial"? Yerbury, will you give a definition?

Yerbury : I'll try. He is a man who designs for industrial production. That is to say he must understand design, and must study production processes to achieve a design capable of efficient and economic production within industry. In England most of our best industrial designers seem to be architects. Now, is the designer of the house of the future more an architect or an industrial designer?

Zwiers : Yes, that's it. The architect designs individual houses for special purposes and circumstances; the industrial designer designs houses for industrial mass-production. He is the producer's assistant.

van Kuyck : It is one of the charms of discussions like this that they are generally confused—and this one is. I'm having a hell of a job trying to follow,

but I've got enough now to clarify my position. In general I agree with Prof. Zwiers. When Mr. Tyen treats of practical problems I'm with him, but I disagree with his principle arguments against prefabrication. I fail to see why a house should not follow the general course of all other industrial products. Building has fallen behind because of the sentimental idea that every man must have his own house different to all others. Everyone agrees that cars, bicycles and so on should be made utility fashion; "But," they say, "in our houses we relax, we dream, we live, and we want something for it quite different from our neighbour's house, and quite different from industrial mass-products." Yet when you look at what they have chosen to live and relax in, you can't find a single one who lives in his own individual house or who has realized his dream.

The entire argument is sentimental, and I have not the slightest doubt that we will all in time get quite used to the idea of the industrially produced house, just as we have come to accept all those other mass produced articles. Prof. Zwiers and Mr. Yerbury together have explained to us that the industrial designer as applied to housing should be an architect who understands production-technique. Now the general failure, up to now, of prefabrication has lain in the failure of those concerned with design to get to know production methods. Of course their hands were tied as well by traditional conditions laid upon them. It will take quite a time to achieve general realization of this; it took 30 years in the case of the automobile. Imagine the change that had to take place in the user's mind before he discarded his adapted wooden carriage with engine, and was prepared to accept a metal box on wheels.

There is no doubt that for prefabrication to succeed, we must produce in series of 10,000 including every item of mechanical equipment. These elements will have to be interchangeable in a number of designs, just as in other industries. When the production of elements is got down to its smallest industrial dimension, there is no reason why the cost of housing the people should not go down to something of the order of one third.

The house will then have a degree of uniformity which people will grow to accept. The great draw-back is that town planning is not yet attuned to this state of affairs. Once a house is beginning to flow from the production line, the aesthetic and functional aspects of design are thrown back on to town-planners, and it may be that, so far as housing is concerned, the future town-planner's task may be more akin to our present day idea of an architect's work than that of the future industrial designer. We all think too much of the house as being built of some stone or ceramic material. The moment we are really able to accept other materials, prefabrication will stride ahead.

de Ranitz : I'm coming to the conclusion that standardization and modulation will go a long way towards these ends. Columns and beams don't seem too bad, but the stumbling block is panels. I've not yet seen one possessing good insulating properties and capable of being handled by one man.

van Kuyck : That's because building is not paying out enough on research. In America an aircraft design costs \$1,000,000 before the prototype is ready. A little is being done in England in the building research line, but we're not prepared to pay for research here.

de Ranitz : Our countries are too small.

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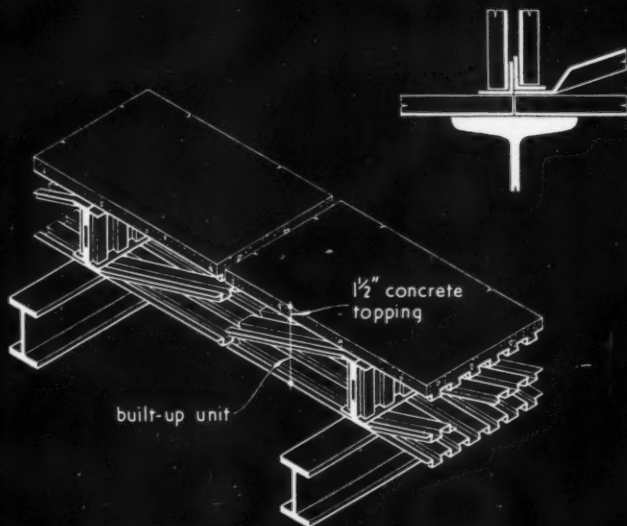
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FLOORS COMPOSITE

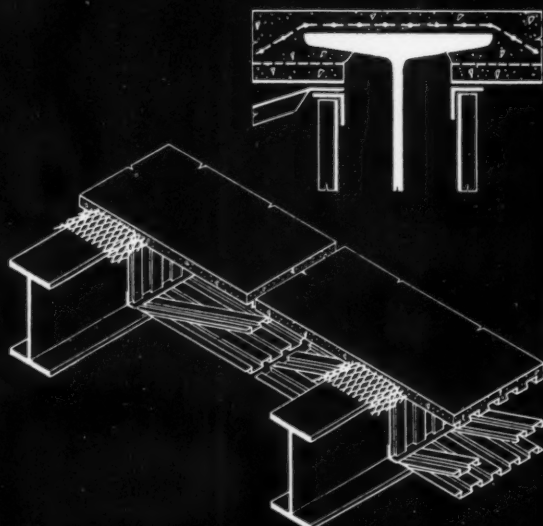
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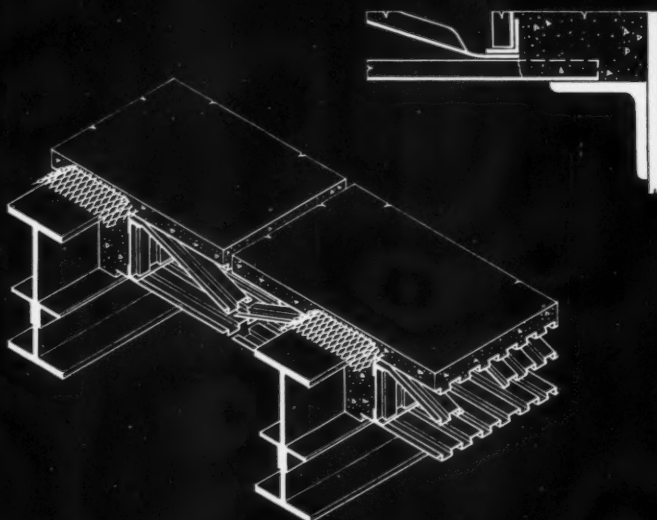
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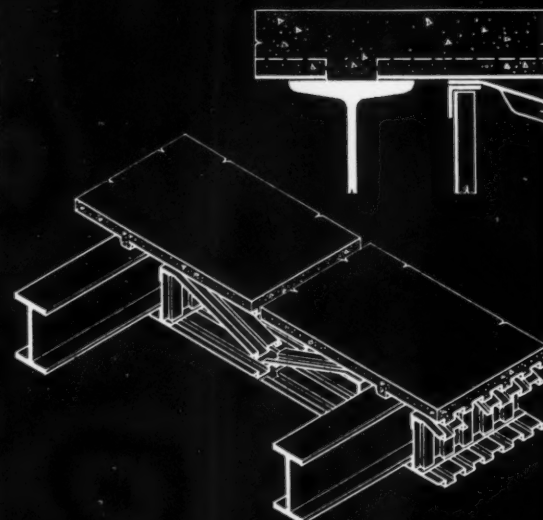
UNITS BEARING ON TOP OF JOISTS.



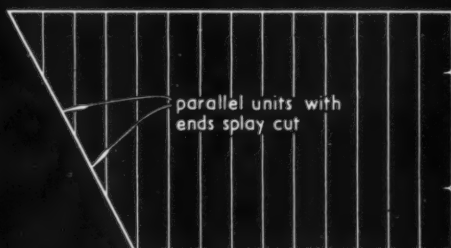
UNITS BEARING ON LOWER FLANGES OF JOISTS.



UNITS BEARING ON SHELF ANGLES FIXED TO JOISTS.



UNITS ENCASING JOISTS TO FORM FLUSH CEILING.



PLANS SHOWING ALTERNATIVE METHODS OF DEALING WITH IRREGULAR SHAPES.

20.Z13 LEWIS DOVETAILED STEEL SHEETING : BUILT-UP UNITS 1 : FLOORS

This Sheet is the second of a group dealing with the applications of dovetailed steel sheeting, and built-up units and describes the application of built-up units to floor construction.

Each unit is built up of two dovetailed steel sheets, 2 ft. wide, spaced apart in accordance with the load to be carried and connected by bracings also of sheet metal. The whole then acts as a steel truss, of which the top and bottom members are the dovetailed steel sheets. These sheet metal trusses or units are placed side by side with the flanges of the sheets touching one another, and connected together with a seamed or clipped joint. The top of the units may be screeded to form the finished floor surface, or a boarded floor may be nailed to battens fitted in the dovetail grooves. On the underside plaster can be applied direct to the steel sheeting, which by virtue of its dovetail section forms a positive key. Ceiling board can be nailed to timber wedges inserted in the grooves or a suspended ceiling can be secured by screw clips and hangers.

Materials

Sheeting : Black or galvanised sheet in 12 to 26 gauge

Safe Load-Span Table

The following table gives the safe distributed loads for floors made with different gauges of steel and depths of units built up from sheets $\frac{5}{8}$ in. deep with $2\frac{1}{8}$ in. pitch corrugations. The thickness of concrete over the tops of the flutes is $1\frac{1}{2}$ in. in all cases.

Gauge	Overall depth (in.)	Dead-weight (lb./sq. ft.)	Safe distributed loads (lb./sq. ft.)														
			Spans (ft.)														
			10	12	14	16	18	20	22	24	26	28	30	32	34	36	40
26	6½	24	194	127	87	—	—	—	—	—	—	—	—	—	—	—	—
	7½	24	243	161	112	80	—	—	—	—	—	—	—	—	—	—	—
	8½	24	279	187	131	95	69	—	—	—	—	—	—	—	—	—	—
	9½	24	314	211	148	108	80	60	—	—	—	—	—	—	—	—	—
	11½	24	404	274	195	143	108	83	64	—	—	—	—	—	—	—	—
	13½	24	—	329	235	174	133	103	81	—	—	—	—	—	—	—	—
	15½	24	—	393	282	210	161	126	100	80	—	—	—	—	—	—	—
	18½	24	—	—	339	254	196	154	121	99	81	66	—	—	—	—	—
	6½	25	250	166	115	82	60	—	—	—	—	—	—	—	—	—	—
	7½	25	300	200	141	102	75	56	—	—	—	—	—	—	—	—	—
24	8½	25	356	239	169	122	92	70	—	—	—	—	—	—	—	—	—
	9½	25	408	276	196	142	108	83	64	—	—	—	—	—	—	—	—
	11½	25	—	346	248	184	140	108	85	68	—	—	—	—	—	—	—
	13½	25	—	422	303	226	173	136	108	86	70	—	—	—	—	—	—
	15½	25	—	—	356	267	205	162	129	105	85	70	—	—	—	—	—
	18½	25	—	—	—	329	254	202	162	130	110	91	75	63	—	—	—
	6½	26	305	204	143	99	76	56	—	—	—	—	—	—	—	—	—
	7½	26	370	249	182	128	96	72	55	—	—	—	—	—	—	—	—
	8½	26	435	300	209	154	116	89	69	—	—	—	—	—	—	—	—
	9½	26	—	338	242	179	136	105	83	65	—	—	—	—	—	—	—
22	11½	26	—	429	307	230	176	137	109	86	71	—	—	—	—	—	—
	13½	26	—	—	374	280	216	170	136	110	90	74	61	—	—	—	—
	15½	26	—	—	442	331	256	202	162	133	109	90	75	63	—	—	—
	18½	26	—	—	—	407	316	251	211	166	138	114	97	82	69	—	—
	6½	33	376	251	176	126	93	69	—	—	—	—	—	—	—	—	—
	7½	33	456	307	216	161	118	89	68	52	—	—	—	—	—	—	—
	8½	33	—	364	259	190	143	110	85	66	51	—	—	—	—	—	—
	9½	33	—	417	298	220	167	129	101	79	61	49	—	—	—	—	—
	11½	33	—	—	380	282	217	169	134	107	86	70	57	—	—	—	—
	13½	33	—	—	456	340	262	206	165	133	108	89	72	60	—	—	—
18	15½	33	—	—	—	402	311	246	197	160	131	110	90	75	63	—	—
	18½	33	—	—	—	—	388	308	249	204	169	141	117	100	85	72	61
	9	34	—	—	—	253	193	150	118	93	74	59	—	—	—	—	—
	10½	34	—	—	—	311	239	187	148	119	96	77	64	—	—	—	—
	12½	34	—	—	—	389	300	237	190	154	126	105	86	72	59	—	—
	14½	34	—	—	—	—	362	286	232	189	155	129	108	91	77	65	—
	16½	34	—	—	—	—	—	336	272	223	185	155	130	111	93	80	68
	18½	34	—	—	—	—	—	386	313	257	214	179	152	130	111	95	81
																	71
																	61

Compiled from information supplied by :
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DESIGN DATA | PLANNING SIZES | STAIRCASES

4.A.20

The Architects' Journal Library of Information Sheets 246. Editor: Cotterell Butler, A.R.I.B.A.

This Sheet sets out generally acceptable riser and tread values for staircases covering floor heights from 8 ft. 0 in. to 15 ft. 0 in. The riser values given vary from $6\frac{1}{4}$ in. to $7\frac{1}{4}$ in. inclusive. The tread values have been calculated from the factor, tread + riser = $17\frac{1}{2}$ in. To meet these possibly ideal requirements treads will vary from $10\frac{1}{4}$ in. to $11\frac{1}{4}$ in. and risers from $6\frac{1}{4}$ in. to $7\frac{1}{4}$ in. The tables below, therefore, cover this range.

Other guides for the relative sizes of treads and risers are : tread + twice riser = 23 in. to 24 in.; tread \times riser = 66 in.

Handrails to staircases should be 2 ft. 9 in. measured vertically from the nosing end and 2 ft. 9 in. to 3 ft. at landings. Head clearance should be 7 ft. 0 in. measured vertically from the nosing or 6 ft. 0 in. measured at right angles to the line of the nosings.

Height flr. to flr. (ft. and in.)	No. of risers	Height of risers (in.)	Treads (No. of risers minus 1) (in.)	Height flr. to flr. (ft. and in.)	No. of risers	Height of risers (in.)	Treads (No. of risers minus 1) (in.)
8 0	14	$6\frac{5}{8}$	$10\frac{9}{14}$	10 1	18	$6\frac{13}{18}$	$10\frac{7}{9}$
8 0	15	$6\frac{2}{5}$	$11\frac{1}{10}$	10 1	19	$6\frac{7}{10}$	$11\frac{5}{19}$
8 1	14	$6\frac{13}{14}$	$10\frac{1}{7}$	10 2	17	$7\frac{2}{17}$	$10\frac{11}{17}$
8 1	15	$6\frac{7}{15}$	$11\frac{1}{10}$	10 2	18	$6\frac{7}{9}$	$10\frac{13}{18}$
8 2	14	7	$10\frac{1}{2}$	10 2	19	$6\frac{8}{19}$	$11\frac{2}{19}$
8 2	15	$6\frac{8}{15}$	$10\frac{29}{30}$	10 3	17	$7\frac{1}{17}$	$10\frac{9}{17}$
8 3	14	$7\frac{1}{14}$	$10\frac{3}{7}$	10 3	18	$6\frac{5}{6}$	$10\frac{2}{3}$
8 3	15	$6\frac{3}{5}$	$10\frac{9}{10}$	10 3	19	$6\frac{9}{19}$	$11\frac{1}{19}$
8 4	14	$7\frac{1}{7}$	$10\frac{2}{14}$	10 4	18	$6\frac{8}{9}$	$10\frac{11}{18}$
8 4	15	$6\frac{2}{3}$	$10\frac{5}{6}$	10 4	19	$6\frac{10}{19}$	$10\frac{27}{19}$
8 4	16	$6\frac{1}{4}$	$11\frac{1}{4}$	10 5	18	$6\frac{17}{18}$	$10\frac{6}{9}$
8 5	14	$7\frac{3}{14}$	$10\frac{2}{7}$	10 5	19	$6\frac{11}{19}$	$10\frac{2}{19}$
8 5	15	$6\frac{11}{15}$	$10\frac{23}{30}$	10 5	20	$6\frac{1}{4}$	$11\frac{1}{4}$
8 5	16	$6\frac{5}{16}$	$11\frac{3}{16}$	10 6	18	7	$10\frac{1}{2}$
8 6	15	$6\frac{4}{5}$	$10\frac{7}{10}$	10 6	19	$6\frac{12}{19}$	$10\frac{23}{19}$
8 6	16	$6\frac{3}{8}$	$11\frac{1}{8}$	10 6	20	$6\frac{5}{10}$	$11\frac{1}{5}$
8 7	15	$6\frac{13}{15}$	$10\frac{19}{30}$	10 7	18	$7\frac{1}{18}$	$10\frac{4}{9}$
8 7	16	$6\frac{7}{16}$	$11\frac{1}{16}$	10 7	19	$6\frac{13}{19}$	$10\frac{31}{19}$
8 8	15	$6\frac{14}{15}$	$10\frac{17}{30}$	10 7	20	$6\frac{7}{20}$	$11\frac{3}{20}$
8 8	16	$6\frac{1}{2}$	11	10 8	18	$7\frac{1}{18}$	$10\frac{7}{9}$
8 9	15	7	$10\frac{1}{2}$	10 8	19	$6\frac{14}{19}$	$10\frac{29}{19}$
8 9	16	$6\frac{9}{16}$	$10\frac{15}{16}$	10 8	20	$6\frac{2}{5}$	$11\frac{1}{10}$
8 10	15	$7\frac{1}{15}$	$10\frac{13}{30}$	10 9	18	$7\frac{1}{18}$	$10\frac{1}{9}$
8 10	16	$6\frac{5}{8}$	$10\frac{7}{8}$	10 9	19	$6\frac{13}{19}$	$10\frac{27}{19}$
8 11	15	$7\frac{2}{15}$	$10\frac{11}{30}$	10 9	20	$6\frac{9}{20}$	$11\frac{1}{20}$
8 11	16	$6\frac{11}{16}$	$10\frac{5}{8}$	10 10	18	$7\frac{2}{18}$	$10\frac{5}{9}$
8 11	17	$6\frac{3}{17}$	$11\frac{1}{17}$	10 10	19	$6\frac{14}{19}$	$10\frac{23}{19}$
9 0	15	$7\frac{1}{5}$	$10\frac{3}{5}$	10 10	20	$6\frac{1}{2}$	11
9 0	16	$6\frac{3}{4}$	$10\frac{3}{4}$	10 11	19	$6\frac{15}{19}$	$10\frac{25}{19}$
9 0	17	$6\frac{8}{17}$	$11\frac{9}{17}$	10 11	20	$6\frac{11}{20}$	$10\frac{19}{20}$
9 1	15	$7\frac{4}{15}$	$10\frac{7}{15}$	11 0	19	$6\frac{18}{19}$	$10\frac{31}{19}$
9 1	16	$6\frac{13}{16}$	$10\frac{1}{16}$	11 0	20	$6\frac{9}{20}$	$10\frac{9}{20}$
9 1	17	$6\frac{7}{17}$	$11\frac{3}{17}$	11 0	21	$6\frac{8}{21}$	$11\frac{1}{21}$
9 2	16	$6\frac{7}{8}$	$10\frac{5}{8}$	11 1	19	7	$10\frac{1}{2}$
9 2	17	$6\frac{8}{17}$	$11\frac{9}{17}$	11 1	20	$6\frac{13}{20}$	$10\frac{17}{20}$
9 3	16	$6\frac{15}{16}$	$10\frac{1}{16}$	11 1	21	$6\frac{3}{21}$	$11\frac{1}{21}$
9 3	17	$6\frac{9}{17}$	$10\frac{8}{17}$	11 2	19	$7\frac{1}{19}$	$10\frac{17}{19}$
9 4	16	7	$10\frac{1}{2}$	11 2	20	$6\frac{7}{20}$	$10\frac{4}{5}$
9 4	17	$6\frac{10}{17}$	$10\frac{7}{17}$	11 2	21	$6\frac{8}{21}$	$11\frac{2}{21}$
9 5	16	$7\frac{1}{16}$	$10\frac{5}{16}$	11 3	19	$7\frac{2}{19}$	$10\frac{13}{19}$
9 5	17	$6\frac{11}{17}$	$10\frac{6}{17}$	11 3	20	$6\frac{9}{20}$	$10\frac{3}{4}$
9 5	18	$6\frac{12}{18}$	$11\frac{2}{9}$	11 3	21	$6\frac{8}{21}$	$11\frac{1}{21}$
9 6	16	$7\frac{2}{16}$	$10\frac{3}{8}$	11 4	19	$7\frac{3}{19}$	$10\frac{13}{19}$
9 6	17	$6\frac{12}{17}$	$10\frac{5}{17}$	11 4	20	$6\frac{4}{5}$	$10\frac{7}{10}$
9 6	18	$6\frac{1}{2}$	$11\frac{1}{6}$	11 4	21	$6\frac{10}{21}$	$11\frac{1}{21}$
9 7	16	$7\frac{3}{16}$	$10\frac{3}{16}$	11 5	19	$7\frac{4}{19}$	$10\frac{11}{19}$
9 7	17	$6\frac{13}{17}$	$10\frac{6}{17}$	11 5	20	$6\frac{12}{20}$	$10\frac{13}{20}$
9 7	18	$6\frac{7}{18}$	$11\frac{1}{9}$	11 5	21	$6\frac{11}{21}$	$10\frac{41}{21}$
9 8	16	$7\frac{4}{16}$	$10\frac{3}{8}$	11 6	20	$6\frac{9}{10}$	$10\frac{3}{5}$
9 8	17	$6\frac{14}{17}$	$10\frac{23}{17}$	11 6	21	$6\frac{7}{21}$	$10\frac{13}{21}$
9 8	18	$6\frac{4}{9}$	$11\frac{1}{18}$	11 6	22	$6\frac{11}{22}$	$11\frac{5}{22}$
9 9	17	$6\frac{15}{17}$	$10\frac{21}{17}$	11 7	20	$6\frac{10}{20}$	$10\frac{11}{20}$
9 9	18	$6\frac{1}{2}$	11	11 7	21	$6\frac{13}{21}$	$10\frac{27}{21}$
9 10	17	$6\frac{16}{17}$	$10\frac{19}{17}$	11 7	22	$6\frac{7}{22}$	$11\frac{2}{22}$
9 10	18	$6\frac{5}{9}$	$10\frac{17}{18}$	11 8	20	7	$10\frac{1}{2}$
9 11	17	7	$10\frac{1}{2}$	11 8	21	$6\frac{2}{3}$	$10\frac{2}{6}$
9 11	18	$6\frac{11}{18}$	$10\frac{8}{9}$	11 8	22	$6\frac{11}{22}$	$11\frac{3}{22}$
9 11	19	$6\frac{5}{19}$	$11\frac{14}{19}$	11 9	20	$7\frac{1}{20}$	$10\frac{8}{20}$
10 0	17	$7\frac{1}{17}$	$10\frac{15}{17}$	11 9	21	$6\frac{5}{7}$	$10\frac{11}{14}$
10 0	18	$6\frac{2}{3}$	$10\frac{5}{6}$	11 9	22	$6\frac{9}{22}$	$11\frac{1}{11}$
10 0	19	$6\frac{6}{19}$	$11\frac{7}{19}$	11 10	20	$7\frac{1}{20}$	$10\frac{5}{10}$
10 1	17	$7\frac{2}{17}$	$10\frac{13}{17}$	11 10	21	$6\frac{18}{21}$	$10\frac{31}{21}$

4.A20 STAIRCASES : RISER AND TREAD VALUES FOR VARIOUS FLOOR TO FLOOR HEIGHTS

Height flr. to flr. (ft. and in.)	No. of risers	Height of risers (in.)	Treads (No. of risers minus 1) (in.)	Height flr. to flr. (ft. and in.)	No. of risers	Height of risers (in.)	Treads (No. of risers minus 1) (in.)
11 10	22	6 ⁵ / ₁₁	11 ¹ / ₂₂	13 7	23	7 ² / ₂₃	10 ¹⁹ / ₂₄
11 11	20	7 ² / ₂₀	10 ⁷ / ₂₀	13 7	24	6 ¹⁹ / ₂₄	10 ¹⁷ / ₂₄
11 11	21	6 ¹⁷ / ₂₁	10 ²⁹ / ₂₂	13 7	25	6 ¹³ / ₂₅	10 ¹⁹ / ₂₆
11 11	22	6 ¹ / ₂₂	11	13 7	26	6 ⁷ / ₂₆	11 ³ / ₂₆
12 0	20	7 ¹ / ₂₀	10 ⁹ / ₁₀	13 8	23	7 ² / ₂₃	10 ¹⁷ / ₂₄
12 0	21	6 ⁸ / ₂₁	10 ⁹ / ₁₄	13 8	24	6 ⁵ / ₂₄	10 ¹⁷ / ₂₄
12 0	22	6 ⁸ / ₂₂	10 ²¹ / ₂₂	13 8	25	6 ¹⁴ / ₂₅	10 ²³ / ₂₆
12 0	23	6 ⁸ / ₂₃	11 ¹¹ / ₂₄	13 8	26	6 ⁴ / ₂₆	11 ⁵ / ₂₆
12 1	20	7 ¹ / ₂₀	10 ¹ / ₂₀	13 9	23	7 ¹ / ₂₃	10 ¹⁵ / ₂₄
12 1	21	6 ¹⁹ / ₂₁	10 ²⁵ / ₂₂	13 9	24	6 ⁷ / ₂₄	10 ⁵ / ₂₄
12 1	22	6 ¹³ / ₂₂	10 ¹⁹ / ₂₂	13 9	25	6 ⁵ / ₂₅	10 ⁵ / ₂₄
12 1	23	6 ⁷ / ₂₃	11 ⁹ / ₂₄	13 9	26	6 ⁹ / ₂₆	11 ² / ₂₆
12 2	21	6 ²⁰ / ₂₁	10 ²³ / ₂₂	13 10	23	7 ⁵ / ₂₃	10 ¹³ / ₂₄
12 2	22	6 ⁷ / ₂₂	10 ¹⁹ / ₂₂	13 10	24	6 ¹¹ / ₂₄	10 ⁷ / ₂₄
12 2	23	6 ⁸ / ₂₃	11 ⁷ / ₂₂	13 10	25	6 ¹⁶ / ₂₅	10 ¹⁵ / ₂₆
12 3	21	7	10 ¹ / ₂₁	13 10	26	6 ⁵ / ₂₆	11 ³ / ₂₆
12 3	22	6 ¹³ / ₂₂	10 ⁹ / ₂₂	13 11	24	6 ²¹ / ₂₄	10 ¹³ / ₂₄
12 3	23	6 ⁹ / ₂₃	11 ⁵ / ₂₂	13 11	25	6 ¹⁷ / ₂₅	10 ¹³ / ₂₄
12 4	21	7 ¹ / ₂₁	10 ¹⁹ / ₂₂	13 11	26	6 ¹⁷ / ₂₆	10 ¹³ / ₂₄
12 4	22	6 ⁸ / ₂₂	10 ¹⁷ / ₂₂	14 0	24	7	10 ¹ / ₂₄
12 4	23	6 ¹⁰ / ₂₃	11 ³ / ₂₂	14 0	25	6 ¹⁸ / ₂₅	10 ¹⁹ / ₂₆
12 5	21	7 ² / ₂₁	10 ¹⁷ / ₂₂	14 0	26	6 ⁶ / ₂₆	11 ¹ / ₂₆
12 5	22	6 ¹⁷ / ₂₂	10 ⁹ / ₂₂	14 1	24	7 ¹ / ₂₄	10 ¹¹ / ₂₄
12 5	23	6 ¹¹ / ₂₃	11 ¹ / ₂₂	14 1	25	6 ¹⁹ / ₂₅	10 ¹⁷ / ₂₆
12 6	21	7 ¹ / ₂₁	10 ⁵ / ₂₁	14 1	26	6 ¹ / ₂₆	11
12 6	22	6 ⁹ / ₂₂	10 ¹⁵ / ₂₂	14 1	27	6 ⁷ / ₂₇	11 ¹³ / ₂₈
12 6	23	6 ¹³ / ₂₃	10 ⁴⁵ / ₂₄	14 2	24	7 ¹ / ₂₄	10 ⁵ / ₂₄
12 6	24	6 ¹ / ₂₄	11 ¹ / ₂₄	14 2	25	6 ⁶ / ₂₅	10 ⁷ / ₂₆
12 7	21	7 ¹ / ₂₁	10 ¹³ / ₂₂	14 2	26	6 ⁷ / ₂₆	10 ¹⁵ / ₂₆
12 7	22	6 ¹⁹ / ₂₂	10 ⁷ / ₂₂	14 2	27	6 ⁸ / ₂₇	11 ¹¹ / ₂₈
12 7	23	6 ¹³ / ₂₃	10 ⁴³ / ₂₄	14 3	24	7 ¹ / ₂₄	10 ⁷ / ₂₄
12 7	24	6 ⁷ / ₂₄	11 ⁵ / ₂₄	14 3	25	6 ²¹ / ₂₅	10 ¹³ / ₂₆
12 8	21	7 ⁵ / ₂₁	10 ¹³ / ₂₂	14 3	26	6 ¹⁵ / ₂₆	10 ¹³ / ₂₆
12 8	22	6 ¹⁰ / ₂₂	10 ¹³ / ₂₂	14 3	27	6 ¹ / ₂₇	11 ¹ / ₂₇
12 8	23	6 ¹⁴ / ₂₃	10 ⁴¹ / ₂₄	14 4	24	7 ¹ / ₂₄	10 ⁷ / ₂₄
12 8	24	6 ¹ / ₂₄	11 ¹ / ₂₄	14 4	25	6 ²² / ₂₅	10 ¹³ / ₂₆
12 9	22	6 ²¹ / ₂₂	10 ⁶ / ₂₂	14 4	26	6 ⁸ / ₂₆	10 ²³ / ₂₆
12 9	23	6 ¹⁴ / ₂₃	10 ³⁹ / ₂₄	14 4	27	6 ¹⁰ / ₂₇	11 ⁷ / ₂₇
12 9	24	6 ⁸ / ₂₄	11 ¹ / ₂₄	14 5	24	7 ⁵ / ₂₄	10 ⁷ / ₂₄
12 10	22	7	10 ¹ / ₂₂	14 5	25	6 ²³ / ₂₅	10 ¹⁹ / ₂₆
12 10	23	6 ¹⁶ / ₂₃	10 ³⁷ / ₂₄	14 5	26	6 ¹⁷ / ₂₆	10 ¹¹ / ₂₆
12 10	24	6 ⁵ / ₂₄	11 ¹ / ₂₄	14 5	27	6 ¹¹ / ₂₇	11 ⁵ / ₂₇
12 11	22	7 ¹ / ₂₂	10 ⁹ / ₂₂	14 6	24	7 ¹ / ₂₄	10 ⁷ / ₂₄
12 11	23	6 ¹⁷ / ₂₃	10 ²⁵ / ₂₄	14 6	25	6 ²⁴ / ₂₅	10 ² / ₂₅
12 11	24	6 ¹¹ / ₂₄	11 ¹ / ₂₄	14 6	26	6 ⁹ / ₂₆	10 ¹⁹ / ₂₆
13 0	22	7 ¹ / ₂₂	10 ⁹ / ₂₂	14 6	27	6 ¹ / ₂₇	11 ¹ / ₂₇
13 0	23	6 ¹⁸ / ₂₃	10 ¹⁹ / ₂₄	14 7	25	7	10 ¹ / ₂₅
13 0	24	6 ¹ / ₂₄	11	14 7	26	6 ¹⁹ / ₂₆	10 ¹⁹ / ₂₆
13 1	22	7 ² / ₂₂	10 ⁹ / ₂₂	14 7	27	6 ¹³ / ₂₇	11 ¹ / ₂₇
13 1	23	6 ¹⁹ / ₂₃	10 ³¹ / ₂₄	14 7	28	6 ¹ / ₂₈	11 ¹ / ₂₈
13 1	24	6 ¹³ / ₂₄	10 ²³ / ₂₄	14 8	25	7 ¹ / ₂₅	10 ¹⁹ / ₂₆
13 1	25	6 ⁷ / ₂₅	11 ¹¹ / ₂₄	14 8	26	6 ¹⁰ / ₂₆	10 ¹⁹ / ₂₆
13 2	22	7 ² / ₂₂	10 ⁷ / ₂₂	14 8	27	6 ¹⁴ / ₂₇	10 ²³ / ₂₈
13 2	23	6 ²⁰ / ₂₃	10 ²⁹ / ₂₄	14 8	28	6 ² / ₂₈	11 ³ / ₂₈
13 2	24	6 ⁷ / ₂₄	10 ¹¹ / ₂₄	14 9	25	7 ⁸ / ₂₅	10 ²¹ / ₂₆
13 2	25	6 ⁸ / ₂₅	11 ⁵ / ₂₅	14 9	26	6 ²¹ / ₂₆	10 ¹³ / ₂₆
13 3	22	7 ⁵ / ₂₂	10 ⁹ / ₂₂	14 9	27	6 ⁵ / ₂₇	10 ¹⁷ / ₂₈
13 3	23	6 ²¹ / ₂₃	10 ²⁷ / ₂₄	14 9	28	6 ⁹ / ₂₈	11 ⁵ / ₂₈
13 3	24	6 ⁸ / ₂₄	10 ⁷ / ₂₄	14 10	25	7 ¹ / ₂₅	10 ¹⁹ / ₂₆
13 3	25	6 ² / ₂₅	11 ⁷ / ₂₅	14 10	26	6 ¹¹ / ₂₆	10 ¹⁷ / ₂₆
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13 4	25	6 ⁸ / ₂₅	11 ¹ / ₂₅	14 11	25	7 ¹ / ₂₅	10 ¹⁷ / ₂₆
13 5	23	7	10 ¹ / ₂₃	14 11	26	6 ²³ / ₂₆	10 ¹⁹ / ₂₆
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13 6	24	6 ⁸ / ₂₄	10 ⁷ / ₂₄	15 0	26	6 ¹² / ₂₆	10 ¹ / ₂₆
13 6	25	6 ¹² / ₂₅	11 ¹ / ₂₅	15 0	27	6 ² / ₂₇	10 ¹⁵ / ₂₆
				15 0	28	6 ⁷ / ₂₈	11 ¹ / ₂₈

van Kuyck : Oh no! Belgium has only 9,000,000 inhabitants, but there's enough research in other industries.

We have 26,000 contractors whose workmen are equipped with an average of a wheelbarrow, a hammer, and a spade.

van Tyen : I quite understand the points of view just expressed, but the fact is that we don't build houses as we build cars, and there are reasons for it. We can see directly that in Holland or France tradition and custom would tend against it, but we see also that the USA—land of enormous research development—doesn't do it either. The production of liberty ships stopped at the end of the war because they didn't comply with normal demands. It's the same with all this type of thing, and, I repeat, there are reasons for it. I've followed prefabrication developments very carefully and I've been pleasantly surprised by what has been done, particularly in Holland and England, in this field. We've done a lot towards replacing bricks and we'll get a lot further when we can replace plaster, but I'm quite sure that as soon as abnormal times are past, we'll go back to trying to evolve something on the ready-made principle.

The essential reason for all this lies in the fact that there is so much more material necessary for a house than for a car.

Zwiers : Not a bit of it. There may be more volume if you build as you do now, but a generator far surpasses it in the number of parts and number of different materials.

van Tyen : Traditional building will become so modernized that you'll hardly be able to recognize it.

Zwiers : Yes, by the application of industrialization. I cannot agree with Mr. van Kuyck that costs can be brought back to a third, but I don't see lower cost as the real advantage! In my opinion the advantage will lie in the fact that fewer operatives will be needed, more being freed for other work at higher wages. In that sense of course, building costs will be lower.

van Kuyck : My father had a bicycle that cost 30 per cent. of a man's yearly wages. A bicycle today costs at most 10 per cent. The same thing will happen in housing. It has certainly happened with my mass-produced American shirt.

van Ettinger : Yes, but how are you going to fix the cost of a house; if you add in all the costs to society, State and local authority you may find it twice as high as you expected?

van Kuyck : I once made a careful analysis of the cost of a house I put up. I discovered that when every vestige of labour cost was boiled out of it, right down to the labour in digging sand out of the pit, the value of the basic materials was only 7 per cent., energy and coal amounted to 4 per cent., the remaining 89 per cent. being labour in one form or another. It's quite clear that labour is the only item that will yield large cuts in cost, and industrialization is the only way of producing them.

Yerbury : Good, now we're back on the track again. Can the architect achieve this with housing, or would he be placing himself in the position of a mere servant of the industrial producer if he tried?

van Kuyck : The dwelling has never played a great part in the work of the architect. He has always expressed his highest abilities in some form of public social monument. Housing the population has only recently come within his purview and if he is to remain as Zwiers defines him, then he will have to look upon housing in general as a public social monument. Perhaps that's it—he remains an architect so long as he retains his social consciousness of the problem in hand.

van Embden : That sounds logical—but on the other hand, in former days the poor man's clothes were made by a humble tailor and the king's by an artist, yet to-day the tailor is engaged as an industrial designer, and it works. Perhaps the same thing may happen to the architect with equal success.

Zwiers : No. We don't want as many architects as that.

van Tyen : Twelve, or at the most two dozen, would be quite enough if they really knew their job. The figures mentioned by van Kuyck are most interesting, but I don't think they lead us anywhere. The building trade is fundamentally different to every other—and the same applies in every country. Prefab building will never permanently succeed because it will slip back the moment the emergency is over.

van Kuyck : It has not succeeded up till now because no one has reduced it to its lowest industrial dimension. Making bottles in a factory with one man is very dear. Increase the number of men and it becomes cheaper. Increase the number of men too much and it gets dearer again. There is a minimum "industrial dimension" at which the bottle is cheapest. And the same applies to houses, but no one works at it and no one has ever tried to find it. When they do, housing will cost a third of what it does now.

Yerbury : I believe they have produced prefabs in Sweden cheaper than traditional building.

de Ranitz : Cost is not everything. I saw a wall-panel in the USA that was good and cheap, but the electricians refused to work on it.

van Kuyck : Then we'll have to educate the tradesmen as well as the public. They've got used to industrially produced cars largely as a result of publicity.

van Tyen : All these arguments are impressive but they apply to a combination of modernization and prefabrication which can only apply to the type of social system developed by high standards of living. Modernization of traditional building is the only process that has a chance in the lower standard of living that we in Europe must adopt in the near future.

van Kuyck : That's the great mistake. We've held the standard too low and we're still doing it. We must think in terms of high industrial production to produce higher standards of living cheaper.

Zwiers : Yes, sustained production must form the industrial perspective if we are to get our destroyed towns and cities rebuilt.

van Tyen : I still disagree with you on the grounds that houses have to last much longer than, for instance, cars.

van Kuyck : Not necessarily. There is no sense in building a structural carcass to last for a hundred years, when the industrially manufactured equipment has no chance of reaching more than a fraction of that age. It will be cheaper as well.

Yerbury : We've found to our cost that a house built for ten years does not necessarily cost one tenth as much as a house built to last for a hundred.

Verhorst : I've been listening for quite a time now, and I feel sure that the main point has not been sufficiently brought out. I feel I must state categorically that this is a question of whether the methods you adopt are going to provide houses at less cost. Prof. Zwiers said some time ago that he would vote for the adoption of industrial production even if it did not produce at less cost, provided that it used less labour. May I as an economist emphasize that this will *not* provide the solution. It is not even a question of producing a better article for the same price; it must be the same article for a lower price.

Zwiers : I'd like to know where the labour is to come from.

de Ranitz : I agree as long as price is taken as meaning man-hours of labour.

Verhorst : No; I really mean money. The houses must cost less money. The whole thing is bound up with the dollar problem and the amount of finance available; it has nothing to do with labour. There may arise a subsequent or concurrent labour problem which you will have to solve with technical expedients, but be that as it may you cannot be considered as having been successful unless the resulting house costs less money. This is an over-riding consideration and it is decisive.

de Ranitz : But what about the fact that labour prefers the factory. We need to increase labour or labour productivity which both mean offering higher wages that we could not pay under your conditions.

Verhorst : Such indeed are your problems I admit, but however you solve them you'll have to produce cheaper houses.

van Ettinger : I agree entirely, and it is of course necessary, as it has been in other industries, to get society accustomed to the idea that heavy costs in research must be accepted for a time to provide cheaper accommodation later. As van Kuyck says, we must mobilize public opinion.

van Kuyck : As the last word, I would like to make a plea for some real attempt to get terminology and definition properly laid down in different languages, so that we can have rules by which to measure the properties and qualities of buildings and express them in ways we all understand.



*The main entrance, with a cantilevered canopy.
Beyond, balconies to the students' common rooms.*

HOSTEL AT WYE COLLEGE, KENT

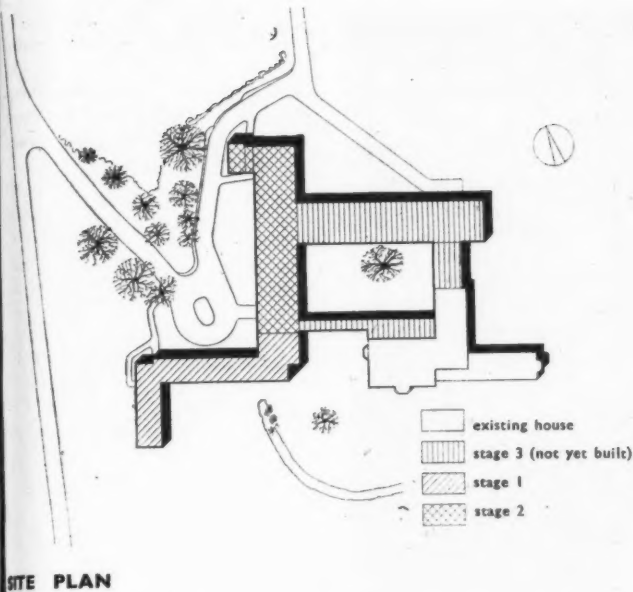
DESIGNED BY RICHARD SHEPPARD AND J. SHUFFLEBOTHAM

GENERAL.—Swanley Hall, Kent, has been built as a hostel for women students of Wye College. Wye is a College of the University of London and offers degree courses in science and particularly in agriculture and horticulture. The main buildings of the College are in the centre of the village but have long since been too small for the number of students. Three years ago it was decided to build a residence for women students, leaving the residential part of the exist-

ing College exclusively for men. Withersdane Hall, a country house of no particular architectural merit, with its mature trees, gardens and lawns, was acquired because it stood conveniently close to the College.

A building programme and schedule of accommodation was then agreed with the governors of the College. They required accommodation for about one hundred women students with teaching staff. The following rooms were

also required: library, reading rooms, quiet room, music room, several small common rooms, domestic staff rooms as well as a small assembly hall, which the College has always lacked, for dances and other functions. Most of the common rooms have been placed in the original building but small ones have been arranged on each floor of the new building to enable them to be used by students in connection with their study-bed-rooms.



SITE PLAN

A careful study was made of the various types of accommodation provided in halls of residence. The tradition of a separate study and bedroom with staircase access, found in the older Universities, was too expensive in services, building cost and upkeep to be attempted. After some consideration several types of bed-sitting room were designed with the

following objects :—

1. To provide each student with a private room suitable for study.
2. A room where one or two students could talk privately.
3. Adequate built-in equipment for use as a bedroom for 30 weeks in the year.
4. To avoid the appearance of a bedroom, washbasins were not

placed in these rooms, but were grouped in the bathrooms.

A further point which has been considered is that the study bedrooms themselves usually become very small and warren-like. By varying the type of room as well as the position of the built-in furniture, which is standardized, and by providing occasional balconies with glazed doors, a wide range of differences in the study-bedrooms has been achieved.

It was originally intended that all study-bedrooms should be on only one side of the corridor but the necessity for lowering cost of a building of this type forced the architects to change this scheme after the first stage was completed. Another difficulty was that the College had no experience in the arrangement of a building of this type. There have been many changes of policy by the governors since original plans were prepared. The final solution was forced on the architects by developments in the administration. In the third stage of the building, for instance, there was originally a small dining room on the ground floor with two floors of study-bedrooms placed above and a corridor on the north side. When it was insisted that this dining room should be turned into an assembly hall it was still neces-

Stage one : the west study-bedroom wing from the south.

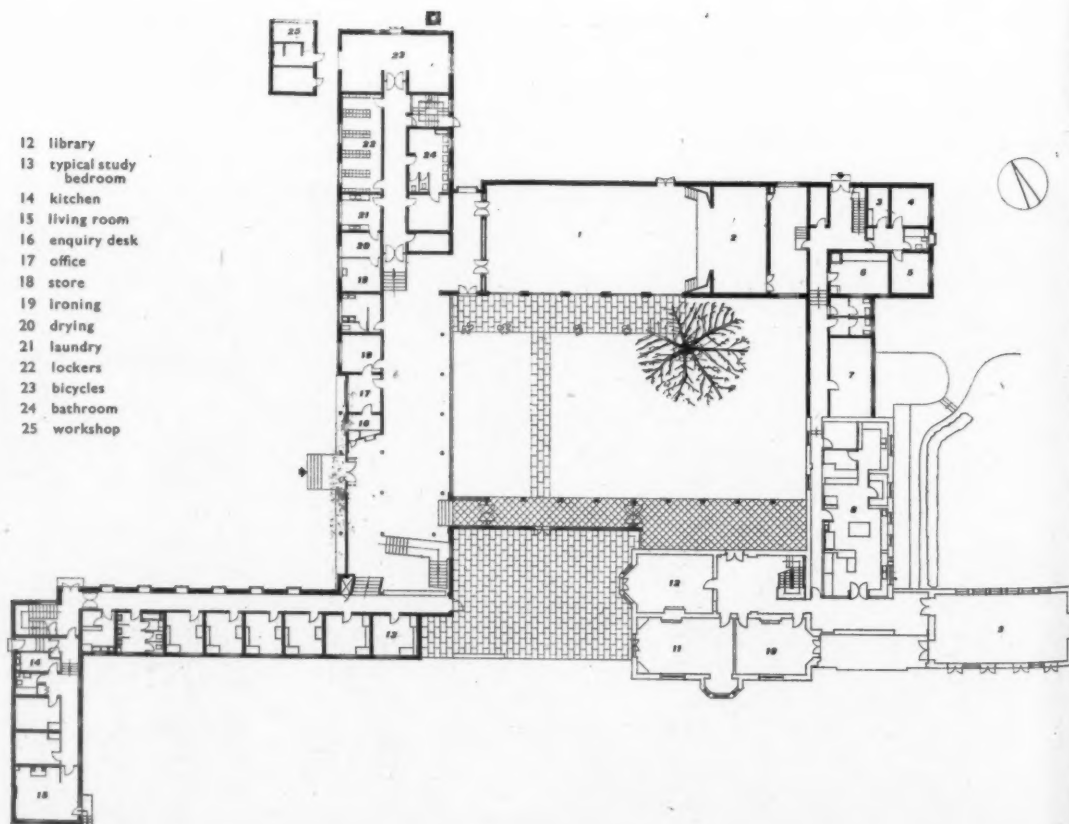




The entrance hall and main staircase, looking through to what will be the entrance to the assembly hall, (beyond the window and on the right), when the third stage of building has been completed.

KEY :

- | | |
|---------------------------|--------------------------|
| 1 recreation room | 12 library |
| 2 stage | 13 typical study bedroom |
| 3 caretaker's kitchen | 14 kitchen |
| 4 caretaker's bedroom | 15 living room |
| 5 caretaker's living room | 16 enquiry desk |
| 6 laundry | 17 office |
| 7 staff common room | 18 store |
| 8 kitchen | 19 ironing |
| 9 dining room | 20 drying |
| 10 silence room | 21 laundry |
| 11 small common room | 22 lockers |
| | 23 bicycles |
| | 24 bathroom |
| | 25 workshop |

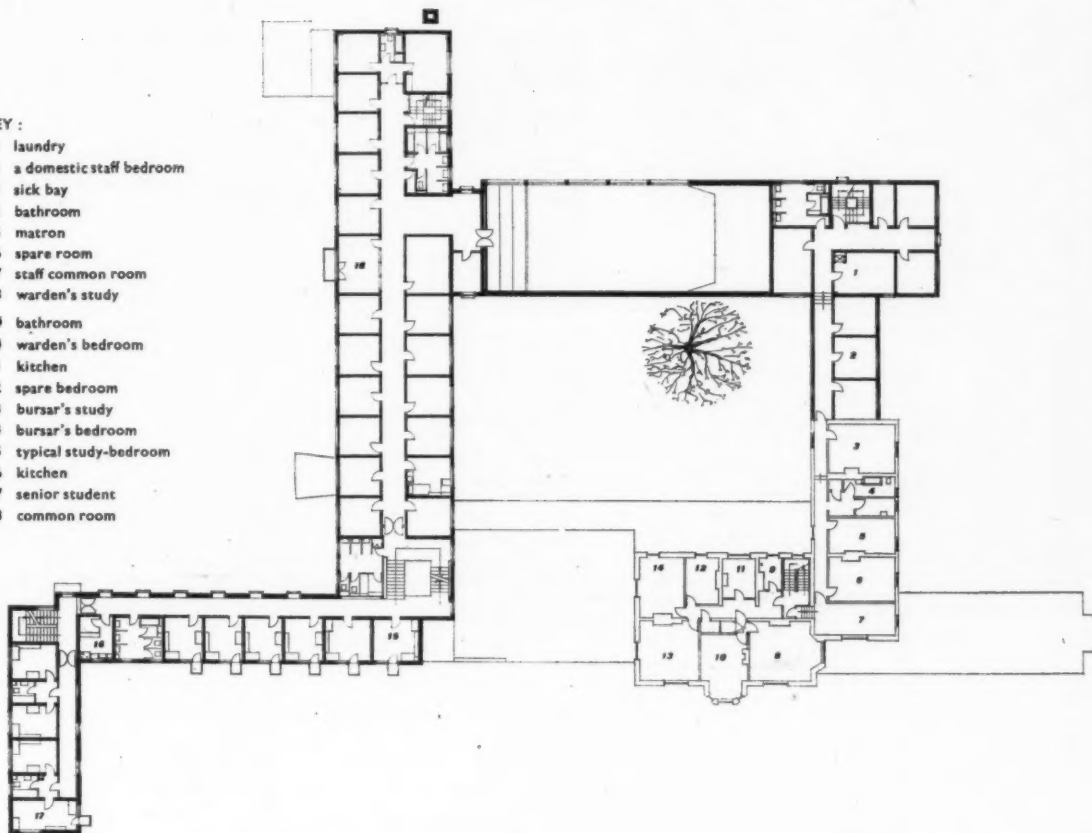


GROUND FLOOR

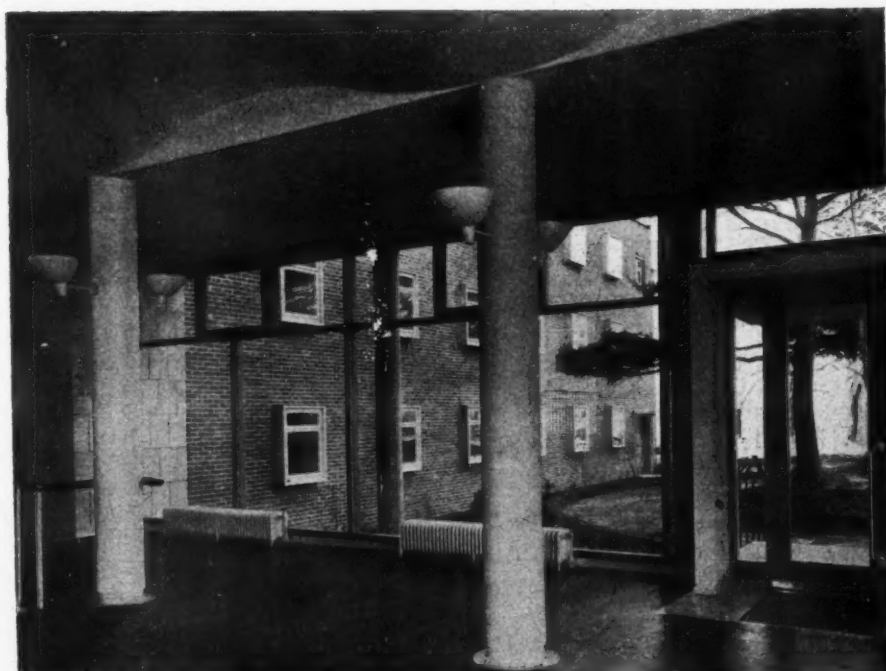
[Scale : $\frac{1}{8}$ " = 1'0"]

KEY :

- 1 laundry
- 2 a domestic staff bedroom
- 3 sick bay
- 4 bathroom
- 5 matron
- 6 spare room
- 7 staff common room
- 8 warden's study
- 9 bathroom
- 10 warden's bedroom
- 11 kitchen
- 12 spare bedroom
- 13 bursar's study
- 14 bursar's bedroom
- 15 typical study-bedroom
- 16 kitchen
- 17 senior student
- 18 common room



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

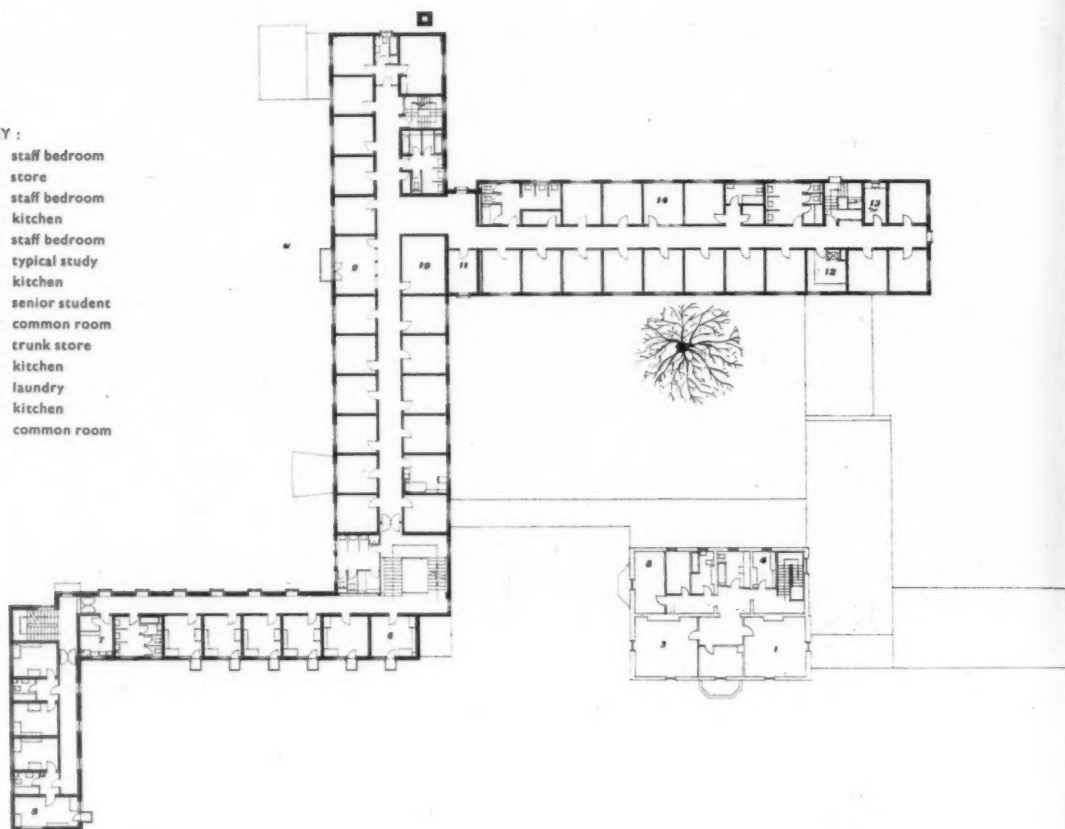


The entrance hall, looking through to the back of the west study-bedroom wing.

BY R. SHEPPARD AND J. SHUFFLEBOTHAM

KEY :

- 1 staff bedroom
- 2 store
- 3 staff bedroom
- 4 kitchen
- 5 staff bedroom
- 6 typical study
- 7 kitchen
- 8 senior student
- 9 common room
- 10 trunk store
- 11 kitchen
- 12 laundry
- 13 kitchen
- 14 common room



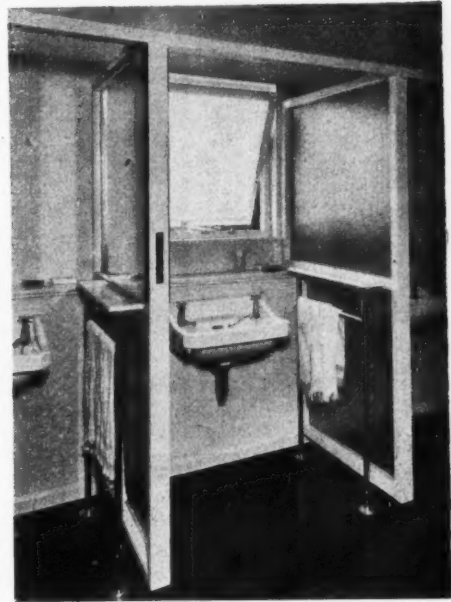
SECOND FLOOR [Scale : 1/4" = 1'0"]



The foyer to the assembly hall.



A single study-bedroom.



Lavatory basins in one of the larger bath-rooms.

sary to accommodate these study-bedrooms over it and accordingly a central corridor was built which meant that some of the rooms faced north.

It was not possible to obtain a licence for the whole of the work in one stage and as the number of women students was growing larger it was arranged that about 30 study-bedrooms should be completed each year in time for the new academic year.

SITE.—The design of a hall of residence of this sort provides a difficult problem. In a town, a hall of residence with 100 to 110 study-bedrooms can be made to harmonize with the urban scene. In the country, however, a building of this size with identical fenestration in one large block would tend to be inhuman and monotonous. It seemed essential to keep an informal and domestic scale in this building and for this reason it was

designed on three storeys, and advantage was taken of the falling ground to vary the roof heights by designing some 2-storey buildings as a contrast to the 3-storey buildings.

CONSTRUCTION.—The cross walls are load bearing 9-in. brick walls and 6-in. concrete blocks supporting hollow tile floor slabs. The concrete blocks are carried into the roof to support the precast concrete purlins of the pitched roofs. For lightness and sound insulation corridor walls are constructed in 6-in. foamed slag blocks. The external walls are 11-in. cavity, 4½-in. brick and 4½-in. foamed slag. The roof is constructed of precast concrete purlins at 2-ft. centres supporting foamed slag insulation. The foamed slag blocks are screeded to receive the copper roof. The corridors have a floating screed on glass silk insulation.

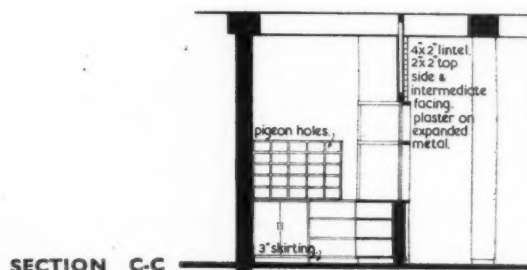
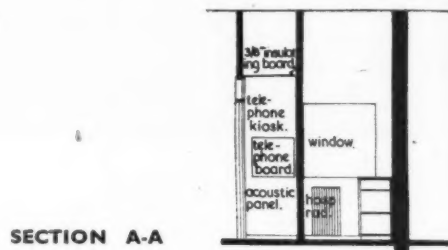
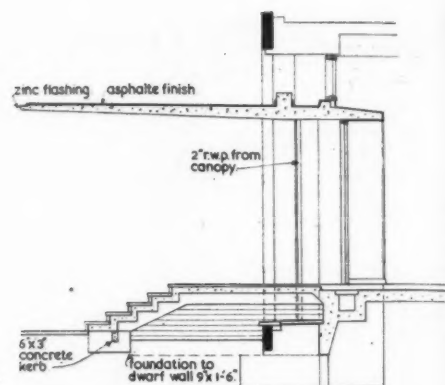
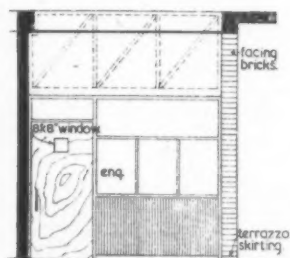
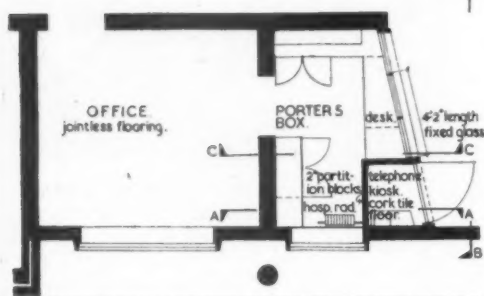
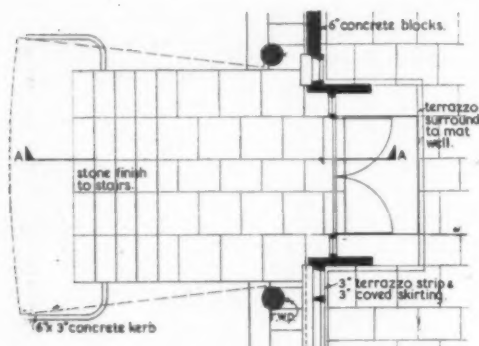
The main entrance to the north-west study-bedroom wing, built as part of stage 2 (see site plan).



PLAN.—There are three types of bed-sitting room provided :—

1. Rooms 120 sq. ft. in area.
2. Larger rooms, having more space for book-shelves and cupboards, for advanced students.
3. Two rooms, with a bathroom between them, arranged to open off a common lobby; this permitting their use as a self-contained flat by a member of the teaching staff or by two students. Each study bedroom has the following equipment :—

Wardrobe, including both hanging



space and chest of drawers as well as space for shoes and other clothing.

Desk, which is also to be used as a dressing table, with built-in cupboard and drawer under.

Bookshelves.

The remainder of the furniture is loose and supplied by the College. On each floor there are a number of small common rooms, provided for use as discussion rooms for committees and general social purposes.

A number of small kitchens are also provided on each floor so that students can prepare hot drinks and light meals whenever they want them. Food is not kept in the study-bedrooms; each

student has a food locker in the kitchen.

The main entrance hall has been designed so that it will also form a small foyer to the assembly hall and can be used for general college functions without interfering with the use of the rest of the hall of residence.

FINISHES.—The external walls are Buckinghamshire grey-brown multi-coloured sand faced bricks with a light thumbled joint. The entrance front is faced with reconstructed Clipsham stone. Boxed out window frames are precast concrete and the window frames are timber, painted white. The brickwork to the workshop is in

Flemish bond, with projecting headers giving an overall texture. The rain water pipes, gutters and roofing are copper.

Entrance Lounge Hall.—The brick wall is faced with Charngrove pale lemon rustic bricks with slightly recessed white joints. The plaster on walls, ceiling and columns has been left with the natural wood float rough finish. The floor is of a cork colour with grey terrazzo skirtings and staircases. The windows, doors and staircase handrail are in mahogany, wax polished. The lighting fittings designed by the architects are constructed in aluminium and finished in off-white. The enquiry desk has a white

frame with a mahogany strip under the window and a mahogany faced door.

Study Bedrooms.—Cork floors and skirtings. The desks have plastic tops with a hardwood edge. The desks, doors, bookshelves, etc., are painted in off-white. The walls are finished in various shades; blue, pink and lemon flat paint. They are heated with flush type, low temperature radiators under the windows.

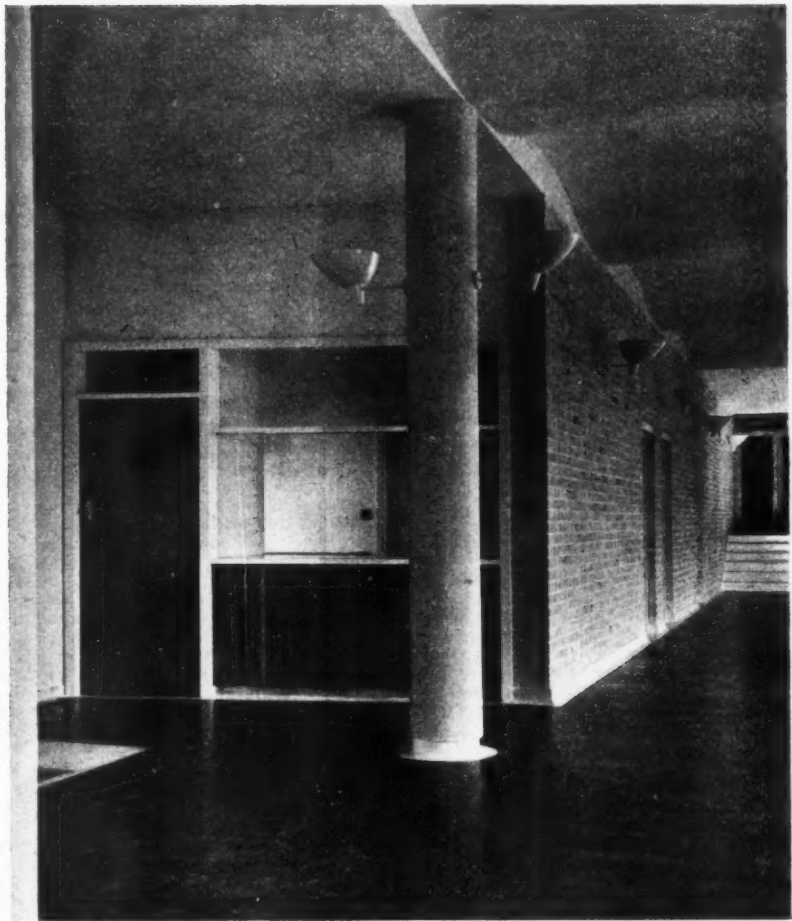
Corridors.—The corridors have brown lino floors. The walls are finished with yellow-green and the doors and skirtings are in off-white. The double-swing main doors are in mahogany, wax polished.

Lavatories.—Joinery is painted in off-white and the walls are finished in pale blue flat paint. Floor tiles are black.

The general contractors were Messrs. G. E. Wallis and Sons, Ltd. For list of sub-contractors see page 172.

Right, the enquiry desk in the main entrance hall.

Below, the main staircase and the entrance hall which has been designed to serve also as foyer to the assembly hall, which will be built as part of stage three of the building.



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TECHNICAL SECTION

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order. Headings below.

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10.67 design: building types HOUSING MANUAL

Housing Manual. Ministry of Health. (HMSO, 1949. 3s. 6d.)

New issue. Many additional type plans and much emphasis on layout and good design. Comparatively little advice and information on technical points—these occur in a separate publication, "Technical Appendices," but there is a chapter on heat installation and one on other services.

Except on planning and layout this edition does not add very much to the earlier one. The chapter on "The Heat Services" discusses the problem in a general way and is remarkable mainly for its negligible reference to heat insulation. Presumably the technical appendices will tackle this subject properly but it is unfortunate that such a vital point should be almost passed over in the manual itself. It is also rather surprising to find the heat insulated cooker so highly praised—unless the remarks on this are meant to apply to the very expensive types which are beyond the possible price for low cost housing. It is also curious to find the storage cylinder for small houses specified as not more than 30 gallons. Surely a minimum size limit is at least as necessary.

In the chapter on Services one-pipe drainage is stated to require full trap ventilation "unless it can be shown by tests that this is not necessary." Who is to do the tests? Surely here the Ministry should take the initiative and give some direct advice one way or the other.

19.83 construction: details WALLS AND FACINGS

Walls and Wall Facings. Denzil Nield. (E. and F. Spon, Ltd., 1949. 18s.)

A careful consideration of the theory of walls and their functions, followed by the

application of the principles in practice. An interesting book of great value to students. 270 pp. illustrated.

This book is well written by an author who is not only obviously interested in his subject but is also up to date with the latest technical information. In treatment it clearly owes much to the example of "Principles of Modern Building," but it is less detailed on the scientific side and therefore, perhaps, easier for students.

Part I takes the functions of a wall and discusses them clearly. Part II deals with materials and methods of construction both traditional and new, and there is a useful bibliography with authors' comments.

While one might quibble on a number of small matters of detail, it would be ungenerous to do so when the author has been so successful in his major task. Two points only may be made with a view to the next edition, which is sure to be called for: there are more small mistakes than should occur with careful proof reading, and the illustrations, though commendably clear, are not as numerous as they should be.

19.84 construction: details DAMP-PROOFING

Damp-Proof Courses in Parapet Walls. (Building Research Digest No. 11, 1949.)

Extremely clear diagrams of the right and wrong ways of damp proofing parapets. It is useful to have the bad details shown, as it emphasizes the essential points.

20.166 construction: complete structures AIRCRAFT SHEDS

The Construction of 240-ft. Clear Span Sheds for Aircraft Production. J. G. Faber (The Structural Engineer, Nov., 1949, pp. 455-483.)

Three sheds at Blackpool of 240 ft. span each, 30 ft. clear headroom. Roof trusses high tensile steel.

The same span (240 ft.) and spacing of trusses (30 ft. 7 in.) was used for three different buildings, sited in line, so as to facilitate future extension after demolishing existing buildings. At the third points of the span longitudinal girders were provided as a precaution against progressive collapse through air attack. Double roof sheeting was used, the outer sheet 22 gauge corrugated, the inner steel lining 26 gauge flat, with tar-impregnated felt sandwiched between for insulation. Most of the steelwork is fabricated from high tensile steel to BS 548, with 12 tons/sq. in. permissible stress, while ordinary mild steel to BS 15 is used for purlins, side rails, etc. An upward camber of $3\frac{1}{4}$ in. was provided for the trusses to balance the maximum deflection as determined by Williot-Mohr diagrams for full load.

As the slipstream from aircraft running in the shed might tear off the sheeting, tests were made with a Wellington bomber, the propeller running at various speeds. The maximum force on the sheeting was found to be 26 lb./sq. ft. To avoid accidents from falling glass during air raids, $\frac{1}{4}$ -in. rough cast

glass was used with galvanized wire netting underneath. Over 2,000 Wellington bombers were assembled, tested and adjusted in these sheds.

22.40 sound insulation and acoustics PARTY WALL INSULATION

Cavity Party Wall Construction for Sound Insulation. (MOW Advisory Leaflet, No. 4, 1949.)

Fourth of series of leaflets gives essential facts on sound insulating party walls for houses, including construction diagrams.

24.128 lighting DAYLIGHT COMPUTATIONS

Designing for Daylight with Clerestory Windows. B. F. Greene (Architectural Record [USA], Sept., 1949. p.142.)

Sky factor curves for variety of clerestory window combinations. Interesting.

In Post-War Building Study No. 12, on Lighting, quite a number of diagrams were shown illustrating the distribution of the sky factors from various window arrangements. This author has done some similar exercises on his own, and gives the results in this article. British readers will find it more convenient to consult the PWB Study.

This feature answers any question connected with building confidentially and free of charge. Questions to the Technical Editor, The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1.

QUESTIONS AND ANSWERS

3012 RESPONSIBILITY FOR REPAIR OF PAVEMENT LIGHTS

Q On several occasions we have been asked whether the repair of pavement lights over a shop basement is the landlord's or the tenant's responsibility, and we have found no direct ruling on this point. Our own opinion is that unless it is specifically mentioned in the lease as a tenant's responsibility, it is the duty of the landlord to keep these in repair, but we would be glad of your views on this point.

A Clearly it is the responsibility of the landlord, so far as the public is concerned, to keep the pavement lights in good repair. Granted that, can the landlord pass on the cost of that responsibility to his tenant? He certainly can if he provides for it specifically in the lease or tenancy agreement. But suppose the lease has no more than a normal repairing covenant by the lessee. I think the answer must depend on the form of words used in each case. Our view is that if the tenant was not liable for more than internal repairs he would not be liable for repairs to the pavement lights. If his liability under the lease was to repair the whole of the demised premises and the demise included the whole building as well as the basement, he would be liable for the pavement lights as well, on the grounds that they are an integral part of the whole building.

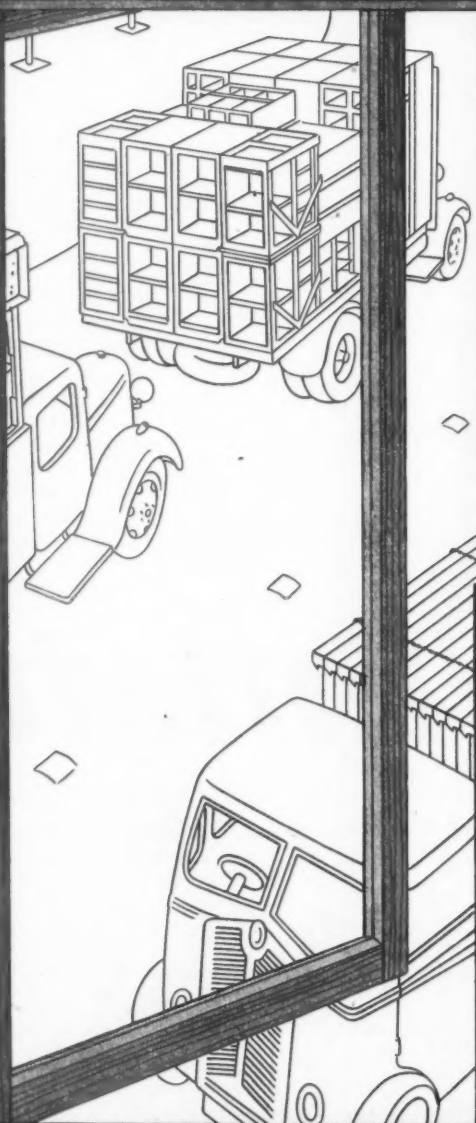
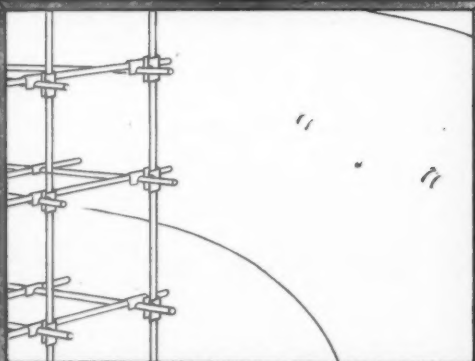
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J O I N E R Y

THE HOUSING ACT

This feature consists of hypothetical questions posed and answered by our legal editor, on the subject of improvements to property and how these are affected by the 1949 Housing Act. In a leader on page 147 the writer discusses general issues relating to the Act.

CONVERSION OF HOUSE INTO OFFICES

Q Clients of mine are the owners of a war-damaged house which is still unrepaired, mainly because the cost of modernising it for letting as flats—the only practicable way in which it could be inhabited now—would rule out any chance of obtaining a reasonable return on their money. The house is of considerable historic interest locally, although I don't know if it is listed as such. If it were converted into offices, and it could be, the rents obtainable would make it a better proposition. Does the Housing Act 1949 help at all?

A It may. Section 3 is the relevant Section of the Act. That gives a local authority power to allow a building which would otherwise be the subject of a closing order to be used for some other purpose as approved by the authority. But one of the following conditions must be satisfied:

(a) there must be a preservation order under Section 29 of the 1947 Planning Act or

(b) the house must be on the list of properties of historic or architectural interest made by the Minister under Section 30 of that Act, or

(c) The Minister (of Health) must be given specific notice to the local authority stating that the house is of sufficient historic or architectural interest to save it from being demolished until it is settled whether it should be included on one of the other two lists. The first step would seem to be to talk to the architect or engineer of the local authority and enlist his interest. If the building as such is of sufficient local value, it is quite possible under the 1949 Act to convert it to another use and so prolong its useful life.

CONVERSION OF HOTEL INTO FLATS

Q My clients are executors and they still hold the lease of an old-fashioned house in a residential square in the town, formerly requisitioned. Before the war it was a private hotel, but it closed down in 1940, and the subsequent requisitioning was a godsend while it lasted. Hotels are out of the question now, what with the new wage regulations, and the only future for the building, as I see it, is to convert it into flats. But under the lease the property is not to be divided up and the freeholder is an old lady who will neither sell her interest nor consent to vary the lease. Can anything be done? It seems a pity that the building should go to waste.

A Section 11 of the 1949 Act may be some help. If planning permission for the change you outline can be obtained, the county court has power to make an order varying the terms of the lease to allow the property to be used for more than one dwelling. I would suggest that action be taken on these lines—first get the necessary planning permission. Then get the development charge assessed—it is advisable to do that before the application to the court, as the uncertainty of the result should help to keep the development charge low. Finally, the application to the court. Once that is made, the freeholder may very well agree, when she has legal advice.

A MORTGAGE TO IMPROVE PROPERTY

Q My client is buying some property on the outskirts of this town, and proposes to improve it. The property is just outside the borough, in a rural district area. He wants to raise a mortgage on the property to help with the cost of the work but the local rural district council are known to be dead against loans to outsiders (as they call them) for improving the property occupied by people who work in the town. Must the mortgage application go to the authority in whose area the building stands? My client feels that he stands a much better chance of sympathetic consideration if the application could come before our borough council.

A Your client can apply to the borough council instead of to the rural district council, and the borough council can make the loan. Under Section 4 of the 1949 Act any local authority can make loans on property within or without its own area.

GRANTS TOWARDS COST OF IMPROVEMENTS

Q My client, a widow, owns a house which needs a good deal of repair—more, in fact, than she can afford to pay out of her own pocket. The house is rent-controlled, and the net return on it is ridiculously low. I have heard that the 1949 Act provides for grants towards the cost of improvements to dwelling-houses, but what is the advantage of that to her if the rent still remains pegged at its present figure?

A The rent of the house can be increased. Section 23 of the Act deals with that. It provides (sub-section 1) that the rent of a house already let can be increased by an amount equal to 6 per cent. on that part of the cost of improvements, etc., which falls to be borne by the owner himself (the local authority's grant towards improvements will rarely exceed 50 per cent. of the total cost). A 6 per cent. increase, even if it means that your client has to borrow the money she lays out on the property, will still leave her financially better off from an income point of view, and she has the advantage of some appreciation to the capital value of the property.

Q My client is the owner of a row of terrace houses, ten in all, built in 1895. I have been working on plans for their modernization, and I had hoped that the 1949 Housing Act would help my client in the cost of the work needed. But I am told that the maximum that may be advanced by a local council for improvements to this class of property is £600, which will go nowhere at all to meet the full bill. Is this correct?

A No. The £600 limit is the limit of the amount which may be provided by the local authority for each dwelling—in other words, with ten houses the maximum grant is £6,000, not £600. Not, of course, that many local authorities will agree that ten terrace houses are worth spending £6,000 on.

Q I am told that an "improvement grant" can be made towards the cost of converting an existing building into one or more dwellings, but that any new dwellings so created come under restrictions as to rent, etc. I am not quite clear whether these are Rent Act restrictions or another kind of restriction. Can you explain?

A Any new dwelling so created will probably become subject to two sets of restrictions, but the difference between them is this: If the new dwelling is literally new, the authority making the improvement grant is compelled to fix the future rent of the dwelling as part of the transaction under which the grant is made. If that rent is exceeded, the conditions of the improvement grant are broken and the authority can recover an appropriate part of the grant made. But once the letting is made the rent fixed becomes, under the Rent Acts, the standard rent of the letting, as it is the rent first paid since September, 1939. The rent limit fixed by the local authority holds good, under the 1949 Act, for 20 years. It can be removed earlier if the owner repays to the authority the correct proportion of the original grant. But the Rent Act maximum will remain in force for as long as the Rent Acts in their present form do—and those Acts have now been in force, in one form or another, for 35 years.

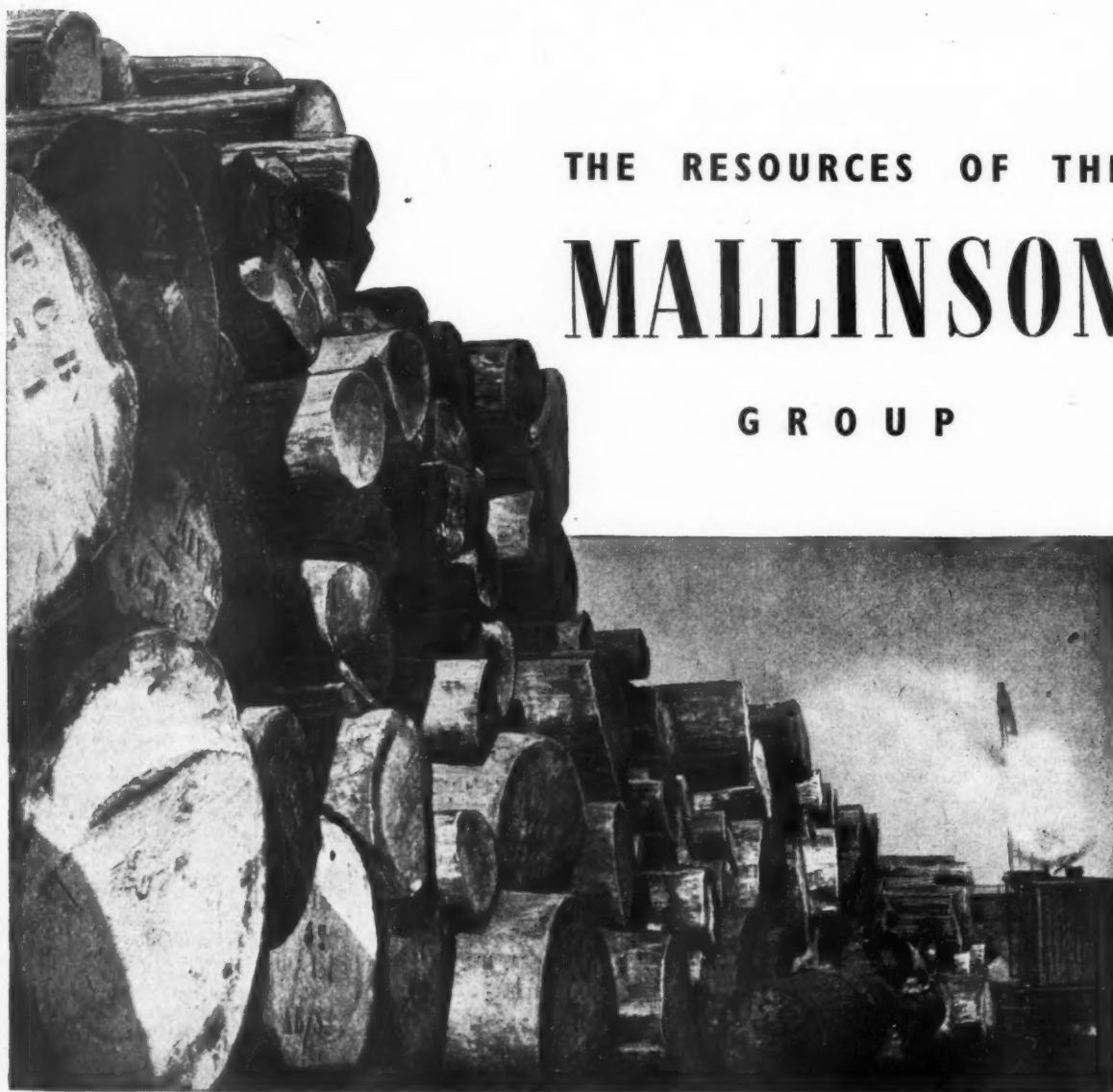
Q My client recently bought the residue of a 99-year lease of a small town property with a view to doing it up and living in it. There are 32 years left unexpired of the original term. If he could get an improvement grant I could do a first-class job on modernizing and improving the property. Is he in a position to claim such a grant?

A Yes, just. If his interest in the lease has not less than 30 years unexpired at the date on which he makes his application for a grant, he is in time.

ADVANTAGES OF HOUSING ASSOCIATIONS

Q I am consulting architect to an old family estate in the town. The property now comprising the estate is in poor condition—not quite slum property yet but likely to become that in 10 or 20 years if a large-scale capital improvement plan is not put into operation. The family that owns it is quite without the capital means to take the job in hand properly—two recent deaths have left the estate with a large mortgage for death duties. They are reluctant to sell on the open market—they still feel some sense of responsibility for their tenants—yet, frankly, they will never be able to do the job properly themselves, and maintain the property as it should be maintained. Does last year's Housing Act contain anything which might suggest a solution to this kind of problem?

A Has the family thought of the possibility of organising a housing association to which they could transfer the estate? A housing association has material advantages. As a body primarily concerned with the property it owns and not a profit-making body, it can not only borrow loan capital at a low rate of interest. It can also obtain that capital from quarters which would not finance a normal trading company—no doubt the family influence in the town would help there. Further, under Section 31 of the Housing Act, 1949, it qualifies for an improvement grant from the local authority, and the local authority itself can obtain a grant of up to three quarters of the sum it pays out from the Treasury. There is a great deal to be said for the argument that the housing association is the logical successor to the benevolent single landowner of town property of this kind.



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THE INDUSTRY

By Brian Grant

LINTELS FOR STEEL DOOR FRAMES

Door frames in pressed steel have been referred to from time to time in these notes and are, of course, produced by a number of different firms. Hopes, however, have recently introduced a supplementary steel lintel known as Boxform. The ordinary pressed steel door frame will easily support any normal load of breeze, hollow block or 4½-in. brickwork without any lintel whatever, and the Boxform lintel is put forward for use where there are overloads, such as floor joists, bearing on the brickwork over the frame. These lintels are of considerable strength, will safely carry a central point load of 750 lb. and are designed to fit easily into the head of Hope's profile C door frame. They project 4½ in. on each side of the frame, and are slotted and grooved to provide a key for mortar or plaster. After the steel door frame has been built in up to lintel height, the Boxform lintel is simply placed across the head of the frame, as shown in the sketch, and the channel of the frame on either side of the lintel is filled in with mortar or cement compo. (Henry Hope & Sons Ltd., Smethwick, Birmingham.)

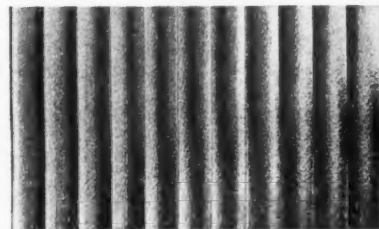
OBSCURED GLASS

Many architects will be familiar with the Reeded glass which Chance's introduced, if memory serves me, in the early 1930's. This was a simple design, with parallel flutings which gave a reasonable degree of obscuration, while a further version, known as Crossreeded, was made, with the second flutes crossing the first at right angles but on the other side of the sheet, so that the glass was still easy to clean with a cloth. Two new versions have now been produced, known as broad and narrow Reedyte, which combine the distinctive style and quality of Reeded glass with greater obscuring power; this has been achieved by stippling the surface on which the reeds appear. Consequently these two new glasses are well suited for use where privacy is the main consideration—for instance, in executive offices—and also in fluorescent lighting schemes, where they can be used either flat or bent in fittings. Easily cut and cleaned, broad and narrow Reedyte are available in the same sizes and thicknesses as the Reeded glasses and at the same price. (Chance Brothers Ltd., 28, St. James's Square, London, W.1.)

ARTIFICIAL DAYLIGHT

For many industrial processes, such as paint manufacture, dyeing and colour printing, the matching of colours must be done with a considerable degree of precision. Some standard illuminant is therefore essential, and daylight is normally accepted as a suitable standard, although, of course, it is variable in both quantity and quality with sunlight, clouds, and the general state of the atmosphere; hence the north skylight, which gives the most constant and reproducible conditions with a changing sky.

So far as artificial illumination is concerned, the ordinary tungsten filament lamp is deficient at the blue end of the spectrum, but this deficiency can be corrected by blending the light from a tungsten lamp

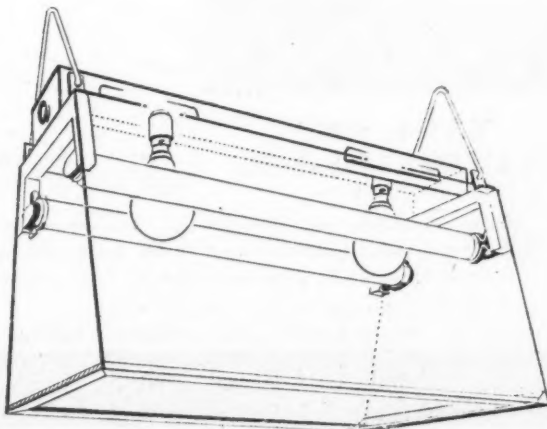
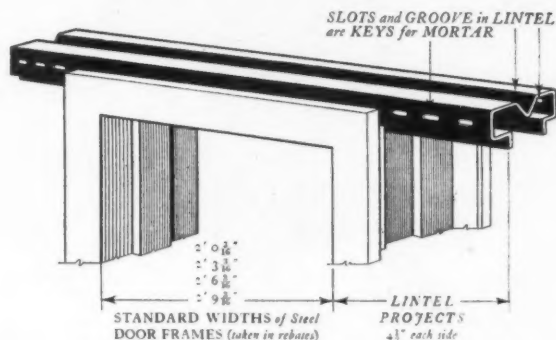


An example of Broad Reedyte, a new building glass by Chance Brothers, Ltd. To obtain greater obscuring power, the reeded surface has been stippled.

with that from a special "blue" fluorescent lamp; the light from these lamps, being blended and diffused, will give a spectral quality almost identical with that of natural daylight.

A unit made up on these lines has recently been introduced by Siemens and is shown in part section below. It has a diffusing screen measuring 24 in. by 10 in., and gives a large area of low brightness comparable with a window illuminated by natural daylight. With a total consumption of about 220 watts, the lamps produce approximately 3,000 lumens of light which, after allowing for the absorption of the diffusing panel, gives an illumination intensity of from 20 to 50 lumens per square foot. A separate switch for the blue fluorescent lamps makes it possible to examine samples by the light of the tungsten lamps alone.

Care has been taken to make the unit as dust-proof as possible, but it is impossible to prevent it "breathing" with temperature changes, and the reflector surfaces should therefore be regularly cleaned. Filament lamp life is about 1,000 hours, and although the fluorescent lamps last a good deal longer, it is probably most convenient to renew all lamps every thousand hours. The price of the fitting with a separate control box or with controls built in, is £23 19s. 6d., plus purchase tax on the lamps only. (Siemens Electric Lamps & Supplies Ltd., 38/39, Upper Thames Street, London, E.C.4.)



Left, top, a Boxform lintel; right, a Siemens unit for blending light from a tungsten lamp with that from special "blue" fluorescent lamp.

INFORMATION CENTRE INDEX, 1949

An alphabetical index covering items published during the twelve months ended December 31, 1949, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, not later than February 27, 1950.

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Buildings Illustrated

Factory for Construction Company at Messrs. Fairbrother, Hall and Hedges. Blackpool. (Pages 154-155). Architects: General contractors: Airey Construction Co. Ltd. Sub-contractors: Asphalt, Limmer and Trinidad Lake Asphalt Co. Ltd.; bricks, Accrington Brick and Tile Co. Ltd.; artificial stone, Fleetwood Granite Co. Ltd.; structural steel and sliding steel doors, Fleming Bros.; special roofing, Turners Asbestos Cement Co. Ltd.; patent glazing, Glaslok Patent Roof Glazing Co. Ltd.; electric wiring, electric light fittings, electric heating, Nelson Bros.; sanitary fittings, Shanks and Co. Ltd.; casements, Crittall Metal Windows Co. Ltd.; plaster, E. Smith and Sons; tiling, W. Bailey; office fittings, Sankey-Sheldon.

Hostel at Wye College, Kent. (Pages 160-167). Architects, R. Sheppard and J. Shufliebotham, F/ARIBA. Stage 1. General contractors, G. E. Wallis & Sons; sub-contractors, heating and plumbing, William Freer Ltd.; electrical installation, Phoenix (Electrical Contractors) Ltd.; copper roof, Ewart & Son Ltd.; suspended ceilings, Bracketing, Centering & Lathing Ltd.; asphalt, Val de Travers Asphalt Paving Co. Ltd.; reinforced concrete, Broadmead Products Ltd.; bricks, A. H. Herbert & Co.; tiling, Carter (Brockley) Ltd.; paint, Screeton Paintmaker; balustrading and handrails, Adrian Stokes Ltd.; cork flooring, Armstrong Cork Co.; Fleximer flooring, Semtex Ltd.; wood block flooring, terrazzo, Art Pavements & Decorations Ltd.; lighting, Troughton & Young (Lighting) Ltd.; iron-

mongery, N. F. Ramsay & Co.; expanded metal, Hy-Rib Sales; water softener, Permutit Co.; desk tops, Permatops Ltd. Stage 2. General contractors, G. E. Wallis & Sons. Sub-contractors, heating and plumbing, William Freer Ltd.; electrical installation, G. E. Wallis & Son (Electrical) Ltd.; copper roof and downpipes, Ewart & Son; suspended ceilings, Bracketing, Centering & Lathing Ltd.; reinforced concrete, artificial stonework, Broadmead Products Ltd.; bricks, A. H. Herbert & Co.; tiling, Carter (Brockley) Ltd.; paint, Screeton Paintmaker; balustrading and handrails, Adrian Stokes Ltd.; cork flooring, Armstrong Cork Co.; terrazzo, Art Pavements & Decorations Ltd.; Accotile, Vigar Bros. Ltd.; linoleum, Lennys; lighting, Troughton & Young (Lighting) Ltd.; special lighting fittings, Best & Lloyd Ltd.; ironmongery, N. F. Ramsay & Co.; desk tops, Permatops Ltd.; boilers, Ideal Boilers Ltd.; cloakroom fittings and flower boxes, Potter Rax Ltd.; cycle racks, Alfred A. Odoni & Co.; Paropa roofing, Frazzi Ltd.

Corrections

The architect for the shops built for the Portsea Island Society, illustrated in the article "Analysis of Self-Service Shops," published on January 12, was H. G. Wilding, who is also the firm's manager.

The following corrections apply to articles on "Where to Go in 1950" published in our issue for January 12:—On page 103; for "Bourgos" read "Burgos," for "Talado" read "Toledo," for "Rhonda" read "Ronda." On page 107; it was wrongly suggested that the "Corcovado" was part of the Sugar Loaf mountain; it is, in fact, a separate peak.

The form printed below is to assist readers requiring up-to-date information on building products and services. Complete and post it to *The Architects' Journal* 9, 11 and 13, Queen Anne's Gate, S.W.1, and the advertisers listed will be asked to supply information direct.

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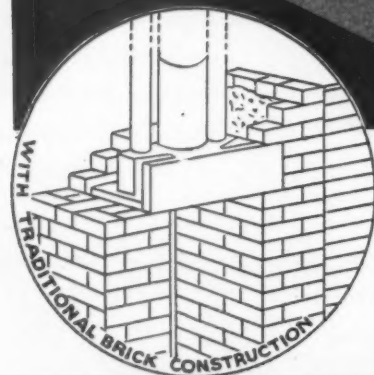
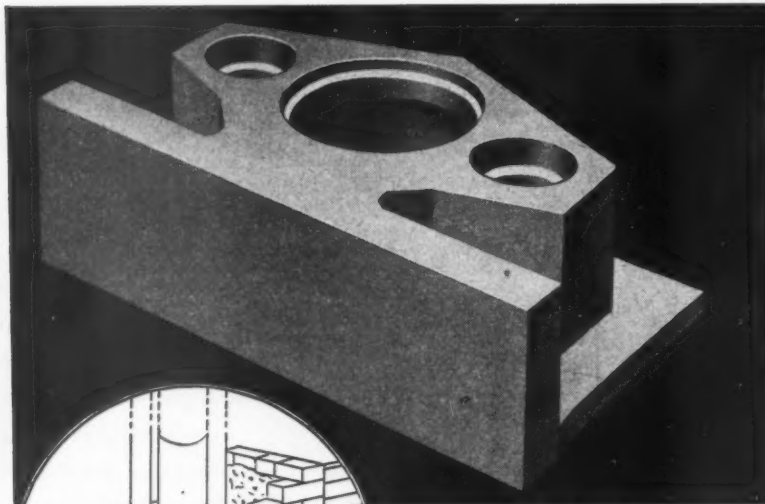
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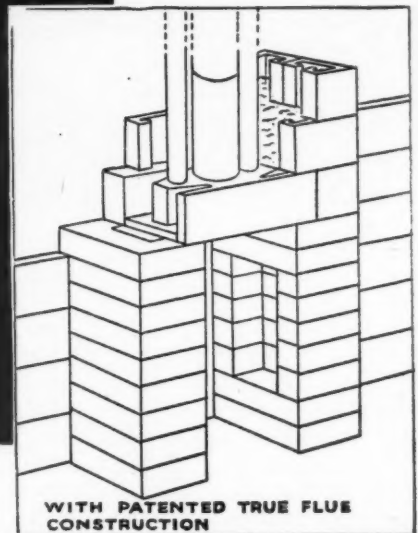
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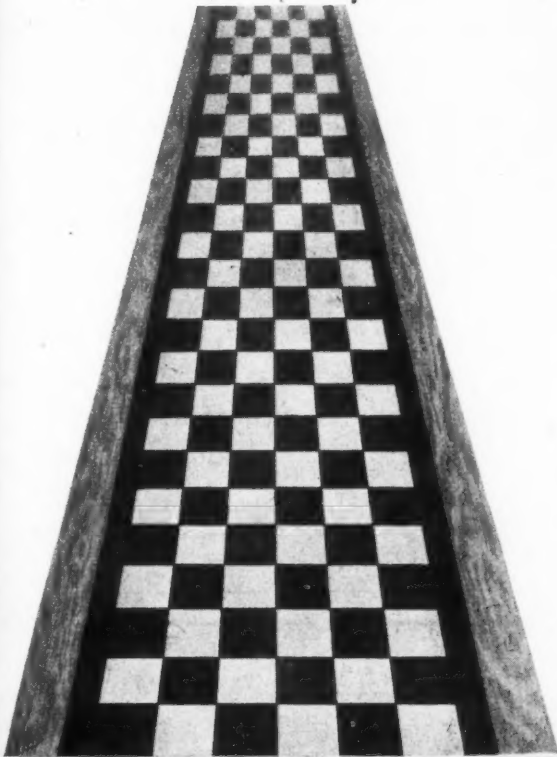


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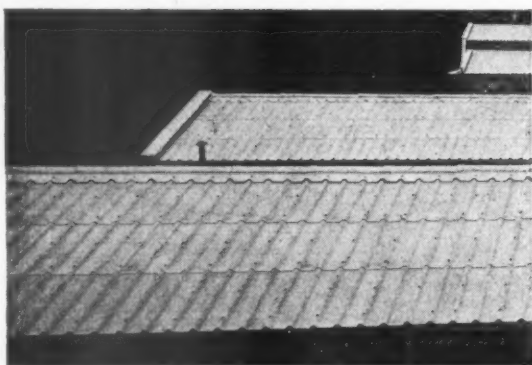
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J. Shufflebotham, A.R.I.B.A.

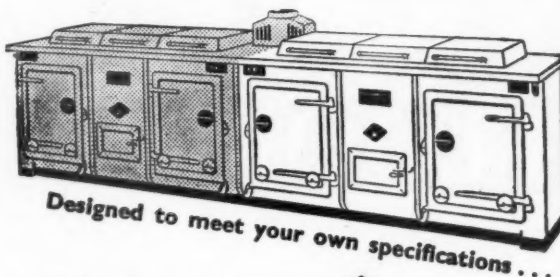
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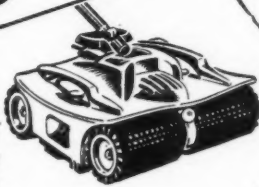
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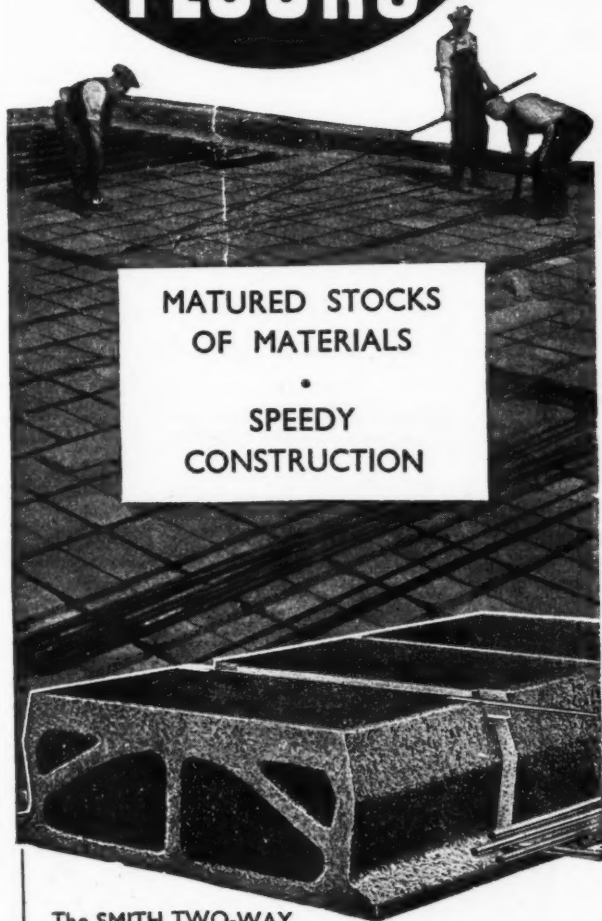
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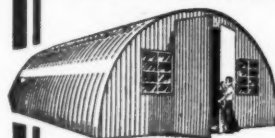
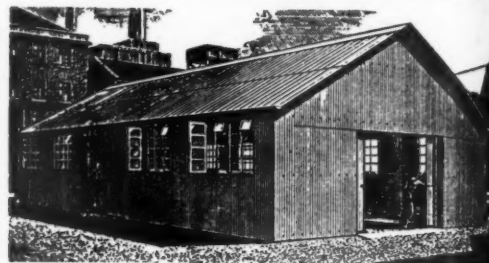
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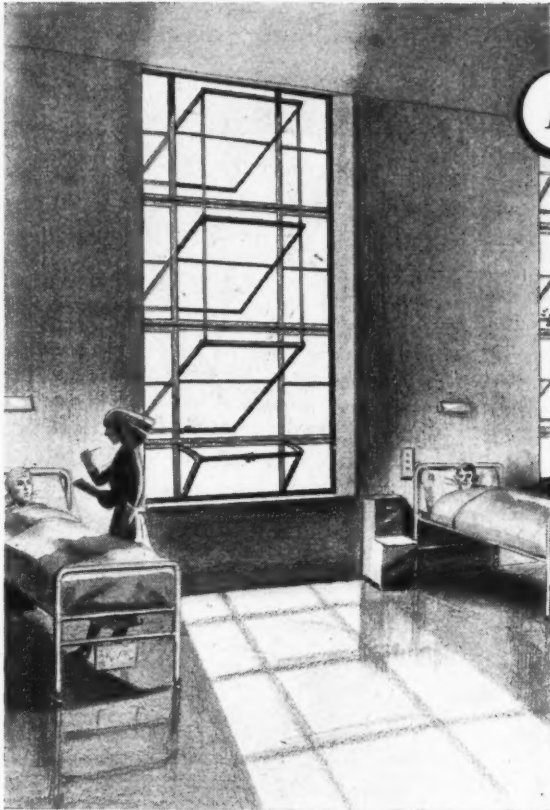
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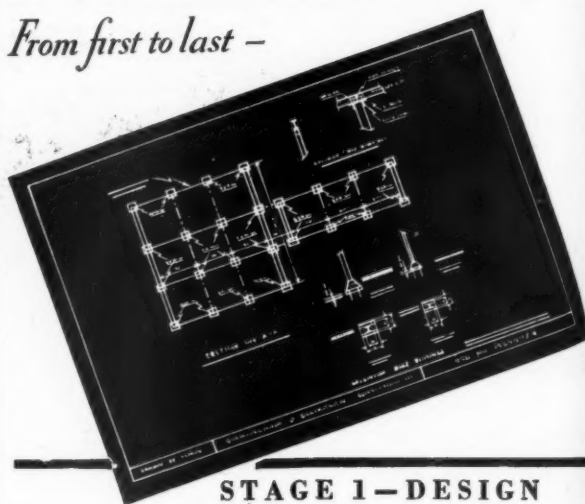
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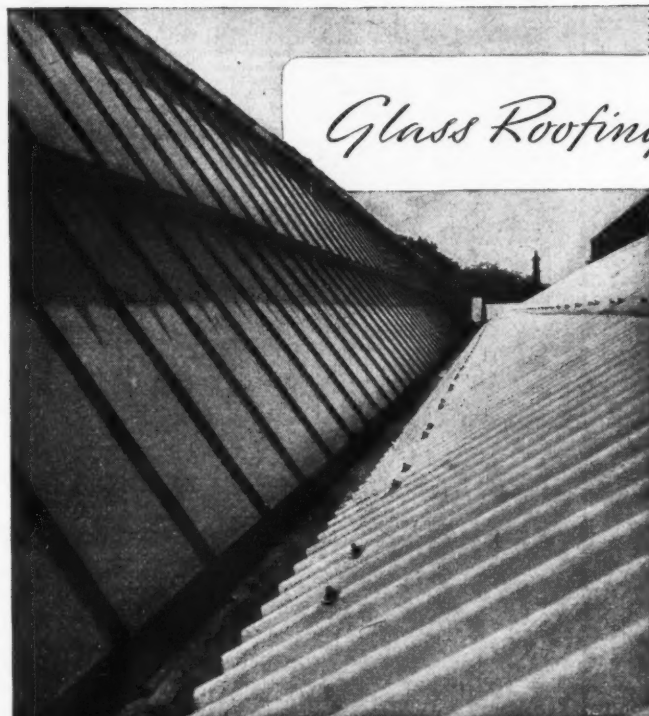
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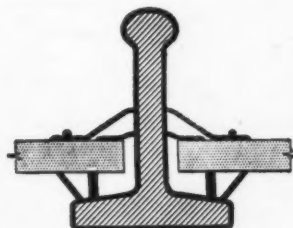
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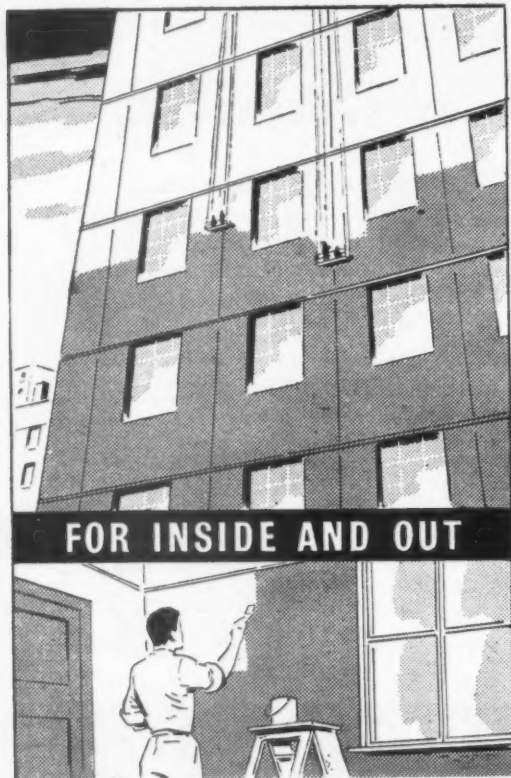
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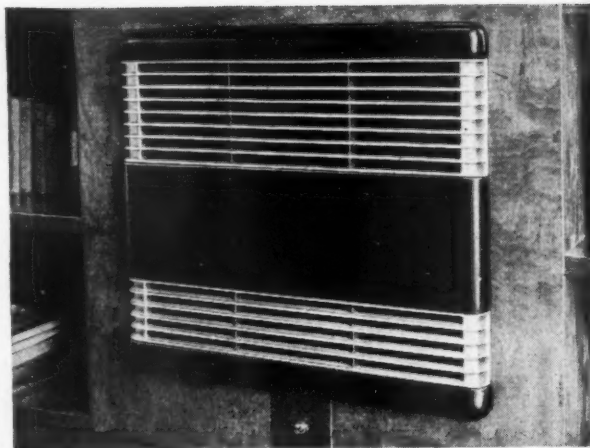
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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1. and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

Available only to applicants excepted from the Control of Engagement Order, 1947.

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THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: EMPLOYMENT REGISTER, WREN PARK, WHITLEY, W. Tel.: Uplands 0935. 991

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS, with recognized training and fair experience. Successful candidates will be employed in London and elsewhere on a wide variety of Public Buildings, including Atomic Energy and other Research Establishments, Telephone Exchanges, and Housing. Similar vacancies also exist for ASSISTANTS, with specialized knowledge and experience in stonemasonry, particularly in detailing and jointing of ashlar and carved stonework.

Salary: Architectural Assistants, £300-£525 per annum; Leading Architectural Assistants, £500-£625, plus overtime. Starting pay will be assessed according to age, qualifications and experience. These rates are for London; a deduction is made in the Provinces.

Although these are not established posts, some of them have long-term possibilities, and competitions are held periodically to fill established vacancies.

Apply in writing, stating age, nationality, full details of experience, and locality preferred, to Chief Architect, W.C.10/T, Ministry of Works, 4bell House, London, S.W.1. 2055

LONDON COUNTY COUNCIL.

Applications are invited for unestablished positions of (i) ARCHITECT, Grade III (salaries up to £700 a year) and (ii) ARCHITECTURAL ASSISTANTS (salaries up to £580 a year), in the Housing and Valuation Department. Commencing salaries in either grade will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to undertake the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats), and will be employed in the Housing Architect's Division. Preference will be given to candidates holding a recognized professional qualification.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required, and quote Ref. G.R.3). Canvassing disqualifies. (2269) 1046

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT—PLANNING STAFF.

Applications are invited for positions of PLANNING OFFICER, Grade I (£840-£960), Grade II (£700-£840), and Grade III (£550-£700), and TECHNICAL ASSISTANT (up to £580). The positions are supernumerary. Candidates for Grade I positions should have architectural and town planning qualifications, and will be engaged on Reconstruction Areas and Detailed Planning. Candidates for Grade II and III positions should have architectural or surveying qualifications with town planning qualification in addition, and will be engaged on Development Plan. Development Applications and Detailed Planning. Technical Assistants are required for work on Development Applications and Detailed Planning.

Particulars and application forms from the Architect (AR/P/P), The County Hall, Westminster Bridge, S.E.1, enclosing stamped addressed foolscap envelope. Canvassing disqualifies. (11) 3154

SALOP COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment of ASSISTANT ARCHITECTS, on A.P.T., Grades III-IV (£450 to £525 p.a.).

The appointments will be subject for their termination to one month's notice in writing on either side: to the terms of the National Joint Council's Scheme of Conditions of Service, and to the provisions of the Local Government Superannuation Act, 1937. The successful applicants will be required to pass a medical examination. Application forms may be obtained from the County Architect, A. G. Chant, F.R.I.B.A., Column House, London Road, Shrewsbury, to whom they must be returned, accompanied by copies of not more than three recent testimonials, not later than Tuesday, 14th February, 1950.

G. C. GODBER.

Clerk of the Council.

Shrewsbury,
January, 1950.

3236

BOROUGH OF SOUTHALL.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment on the permanent staff of the Corporation. Salary in accordance with Grade A.P.T., IV, of the National Scheme (£480-£525), plus appropriate London weighting.

Candidates should have had previous Local Government experience. The appointment is subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination. Applications, on forms to be obtained from the Borough Engineer, Town Hall, Southall, must be returned to him not later than 13th February, 1950.

J. S. SYRETT.

Town Clerk.

Town Clerk's Offices, Southall, Middlesex. 3274

CORPORATION OF LONDON.
APPOINTMENT OF ARCHITECTURAL AND SURVEYING ASSISTANTS.

Applications are invited for the appointment of Architectural and Surveying Assistants in the City Surveyor's office. Salaries will be within the range Higher Grade I, £400-£25-£625. Commencing salaries will be arranged according to qualifications and experience.

Applicants should not be under the age of 25 years and should be Associate Members of the Royal Institute of British Architects or the Royal Institution of Chartered Surveyors (Building Sub-section). Applicants without these qualifications and who have passed the Intermediate Examinations of the R.I.B.A. or R.I.C.S. (Building Sub-section) will be considered. The appointments will be for good draughtsmanship and a sound knowledge of building construction, specification writing, contract management, and general administrative ability.

The appointments are on a temporary basis, but candidates will be considered for transfer to the permanent staff as and when vacancies occur. Temporary service counts for superannuation, and candidates will be required to pass a medical examination.

Applications, giving full personal details, particulars of qualifications, experience, age, past and present appointments, and the names of two persons to whom reference may be made, should be forwarded to George Holliday, F.R.I.C.S., City Surveyor, Corporation of London, 55-61, Moorgate, E.C.2. 3252

NORTH THAMES GAS BOARD.

ARCHITECTURAL ASSISTANTS required, preferably experienced in the design, alteration and maintenance of Industrial buildings, and capable of preparing surveys, working drawings, details and specifications. Salary range £480-£650 per annum, according to age and qualifications. The appointment is of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications, stating age and full particulars of training and experience, should be sent to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 9646. 3196

GLOUCESTERSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF HEATING, VENTILATING AND ELECTRICAL ENGINEER.

Applications are invited for the appointment of a Heating, Ventilating and Electrical Engineer, in the County Architect's Department, at a salary on A.P. and T., Grade VII, £635-£710 per annum.

The appointment will be subject to the Local Government Superannuation Act, 1937, and the candidate, before appointment, will be required to pass a medical examination.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be sent to S. E. Urwin, Esq., F.R.I.B.A., County Architect, Shire Hall, Gloucester, not later than Tuesday, 31st January, 1950, endorsed "Appointment of Heating, Ventilating and Electrical Engineer."

GUY H. DAVIS.

Clerk of the County Council.

13th January, 1950. 3241

ISLE OF MAN LOCAL GOVERNMENT BOARD.
ARCHITECT AND PLANNING OFFICER.

Applications are invited for the post of Architect and Planning Officer to the Isle of Man Local Government Board. Commencing salary £750 per annum.

Applicants must be Fellows or Associates of the Royal Institute of British Architects, and must either hold a diploma recognised by the Town Planning Institute or have had experience in Town and Country Planning.

The post is pensionable on a contributory basis under the Isle of Man Superannuation (Officers of Boards) Scheme, 1934.

Applications, stating age, qualifications, experience and particulars of previous appointments held, and accompanied by copies of not more than three recent testimonials, should be enclosed in an envelope endorsed "Architect and Planning Officer," and forwarded to the undersigned so as to reach him not later than 5 p.m. on Wednesday, the 22nd day of February, 1950.

This 18th day of January, 1950.

W. H. KARRAN.

Secretary.

6, Mount Havelock, Douglas, Isle of Man. 3263

lv

CAMBRIDGESHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments:—

(a) ONE PLANNING ASSISTANT. Grade A.P.T., VI (salary £595-£660 p.a.).

(b) THREE PLANNING ASSISTANTS. Grade A.P.T., V (salary £520-£570 p.a.).

Candidates for appointment (a) will be engaged in the survey and research section of the County Planning Department, and must have had experience in the study of government statistics relating to planning and census returns and possesses a broad working knowledge of planning techniques.

Candidates for appointments (b) will be required to work on engineering, surveying and architectural problems arising in the Department. Candidates should have a broad general knowledge of modern planning techniques, with particular experience in one of the subjects mentioned. They should indicate their preference in the application.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the Council's conditions of service, and a medical examination.

Applications, stating age, past and present appointments (with dates), qualifications, present salary, and the names of two referees, should be sent to the undersigned not later than 14th February, 1950.

CHARLES PHYTHIAN.

Clerk of the County Council.

Shire Hall, Castle Hill, Cambridge. 3268

CITY OF WAKEFIELD.

CITY ENGINEER'S DEPARTMENT.
APPOINTMENT OF PRINCIPAL ARCHITECTURAL ASSISTANTS (GRADE VII).

Applications are invited for the following appointments:—

(a) PRINCIPAL ARCHITECTURAL ASSISTANT (Education).

(b) PRINCIPAL ARCHITECTURAL ASSISTANT (Housing and General).

These appointments are on Grade VII (£635-£710), and the commencing salary will be decided according to the qualifications and experience of the successful applicants.

The appointments will be subject to the Local Government Superannuation Act and to the passing of a medical examination.

Candidates should state in writing whether to their knowledge they are related to any member or senior official of the Corporation. Canvassing will be a disqualification.

Applications, endorsed "Principal Architectural Assistant," stating age, qualifications, present and previous appointments, and details of experience, together with copies of two testimonials or names of two referees, should be sent to me not later than, Wednesday, 8th February, 1950.

The Council will provide houses for the successful candidates if required.

W. S. DES FORGES.

Town Clerk.

Town Hall, Wakefield. 3242

COUNTY BOROUGH OF HUDDERSFIELD.
APPOINTMENT OF BOROUGH ARCHITECT AND PLANNING OFFICER.

Applications are invited for the appointment of Borough Architect and Planning Officer, at the salary of £1,235 per annum, rising by two annual increments of £100 to £1,435 per annum. Particulars of the duties and conditions of the appointment may be obtained from the undersigned. The duties will include the preparation and carrying out of housing schemes and the construction and maintenance of Corporation buildings, and also the preparation of the Development Plan under the Town and Country Planning Act, 1947.

Applications, endorsed "Borough Architect," must reach the undersigned not later than the 13th February, 1950.

HARRY BANN.

Town Clerk.

Town Hall, Huddersfield. 3350

COUNTY BOROUGH OF DARLINGTON.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following permanent appointments:—

(a) TWO ASSISTANT ARCHITECTS. Salary Grade Va (£550-£610).

(b) ONE ASSISTANT ARCHITECT. Salary Grade IV-V (£480-£570), according to qualifications.

Candidates who have had previous experience on Education and Housing work and are members of the R.I.B.A. will receive preference.

Applications specifying the appointment (a) or (b), together with age, qualifications, present appointment with salary, previous experience with dates, and the names and addresses of three referees, to be sent to E. A. Tornbohm, A.R.I.B.A., A.M.T.P.I., Borough Architect, Central Buildings, Darlington, not later than Monday, 13th February, 1950. 3318

QUANTITY SURVEYORS required by British Railways (L.M.R.) in London, for Architectural Building Works; sound working knowledge, preferably trained in professional office. Capable of dealing with Site Measurements, Interim Valuations, Approximate Estimates and "Taking Off" under supervision in accordance with S.M.M. Salary £510, rising to £575.

SENIOR QUANTITY SURVEYOR also required.

Salary £600, rising to £630.

Apply, stating age, qualifications and experience, to Box 3216.

NORTHERN IRELAND HOUSING TRUST.
Applications are invited for the following posts:—
(a) SENIOR ARCHITECT. Salary scale £950 × £30—£1,100.
(b) SENIOR ENGINEER. Salary scale £950 × £30—£1,100.

Applicants must have first-class general and administrative experience and must be fully qualified.
Preference will be given to ex-Service candidates.

Particulars regarding these appointments and forms of application (which must be completed and returned not later than Monday, 27th February, 1950) may be obtained from The General Manager, Northern Ireland Housing Trust, 5, Donegall Square South, Belfast. 3223

CUMBERLAND COUNTY COUNCIL.
Applications are invited for the following appointments on the permanent establishment of the Architect's Department:—

(a) SENIOR ASSISTANT ARCHITECTS. Grade VIII, A.P.T. Division (£685-£760 p.a.).
(b) JUNIOR ARCHITECTURAL ASSISTANTS. Grade III, A.P.T. Division (£450-£495 p.a.).

Applicants for post (a) are required to be Associate Members of the R.I.B.A. and capable of a high standard of design. Preference will be given to those candidates who have had experience in the control of staff.

Applicants for post (b) should have passed, or be preparing to take the R.I.B.A. Intermediate Examination.

The appointments will be terminable by one month's notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Applications, on forms obtainable from John H. Haugan, F.R.I.B.A., County Architect, 15, Portland Square, Carlisle, should be delivered to him not later than Monday, 13th February, 1950, together with copies of not more than three recent testimonials.

G. N. C. SWIFT,
Clerk of the County Council.
20th January, 1950. 3255

BOROUGH OF LUTON.
BOROUGH ENGINEER'S DEPARTMENT.
TECHNICAL STAFF.

Applications are invited for the following appointments:—
(a) SENIOR ARCHITECTURAL ASSISTANT (A.P.T., Grade VII, £630 × £25—£710 per annum). Housing accommodation will be made available to the successful candidate, if required.

Applicants should be A.R.I.B.A. and have extensive Municipal experience, especially in housing and school works.

(b) ARCHITECTURAL ASSISTANTS, in salary grades ranging from A.P.T. I (£390-£435), and A.P.T. IV (£490-£525) according to qualifications and experience. Applicants must have made some progress in obtaining architectural qualifications, and have had Municipal experience, with particular reference to housing and school works.

The appointments will be subject to the Local Government Superannuation Act, 1937, to the National Scheme of Conditions of Service, and to the successful candidates passing a medical examination.

Applications, appropriately endorsed, giving details of age, qualifications, experience, present appointment and salary, and accompanied by the names of three persons to whom reference may be made, should be sent to The Borough Engineer, Town Hall, Luton, not later than first post on Saturday, 18th February, 1950. Canvassing will be disqualifying. Applicants must disclose whether they are related to any member or senior officer of the Council.

W. H. ROBINSON,
Town Clerk.
Town Hall, Luton.
21st January, 1950. 3253

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointments of ASSISTANT ARCHITECTS between the Grades of VI, VII and VIII, with salaries ranging from £595-£760, plus London allowance of £30 per annum. Selection of candidates for individual grades will be in accordance with experience.

Applicants must be Members of the Royal Institute of British Architects, and have had a good training and an adequate experience in the design and construction of modern buildings. They should give full details of present and previous appointments and the salary attaching thereto.

The appointments will be subject to the provisions of the Local Government Act, 1937, and the successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 11th February, 1950.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

The Council will be unable to provide any housing accommodation, and the successful applicants will be required to make their own arrangements in this direction.

DUDLEY AUKLAND,
Clerk of the Council.
County Hall, Kingston-upon-Thames. 3280

COUNTY BOROUGH OF OLDHAM.
APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointments of GENERAL and JUNIOR ARCHITECTURAL ASSISTANTS in my Department at salaries in accordance with Grades A.P.T., V, IV, III and II of the National Scales.

Candidates should state the Grade of the appointment for which they are making application, and should possess the appropriate qualification laid down by the National Joint Council for the Grading—Special Classes—Architectural Assistants.

Provision is made in the Establishment for promotion between the various grades on obtaining the necessary qualification, subject to satisfactory service.

The appointments will be subject to the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination. Housing accommodation will be provided, if necessary.

Applications, stating age and previous appointments, in addition to qualifications and experience, and copies of two recent testimonials, must reach the undersigned not later than Monday, 20th February, 1950, in envelopes endorsed "Architectural Assistant." Grade V, IV, III or II, as the case may be.

A. L. HOBSON,
Borough Engineer and Surveyor.
Municipal Buildings,
75, Union Street, Oldham.
23rd January, 1950. 3293

WELSH REGIONAL HOSPITAL BOARD.
Applications are invited for the following permanent posts on the Board's Headquarters Staff:—

(a) ARCHITECT'S DIVISION: Salary A.P.T., Grade VIII (£685-£760).

(b) ASSISTANT ARCHITECT. Salary A.P.T., Grade V (£520-£570).

(c) ARCHITECTURAL ASSISTANT. Salary A.P.T., Grade III (£480-£495).

Applicants for posts (a) and (b) must be registered architects and have passed the Final Examination of the R.I.B.A. They should have had wide experience in planning and construction, and in the preparation of working drawings for important hospital buildings. Applicants for post (c) must have passed the Intermediate Examination of the R.I.B.A.

The appointments are subject to the provisions of the National Health Service (Superannuation) Regulations, 1947 and 1948.

Applications, stating age, qualifications and experience, together with the names of two referees, should be addressed to the Secretary, Temple of Peace and Health, Cathays Park, Cardiff, so as to reach him not later than 18th February, 1950, at 3260

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Applications are invited for positions of ARCHITECT, Grade III (£550-£700) and TECHNICAL ASSISTANTS (up to £580), for work on new schools and other buildings. The positions are superannuable. Candidates for Grade III positions should possess professional qualifications.

Application forms from the Architect (A.R./S), The County Hall, Westminster Bridge, S.E.1, enclosing stamped addressed foolscap envelope. Canvassing disqualifies. (13) 3155

CITY OF MANCHESTER.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

PERMANENT STAFF:
(a) ASSISTANT ARCHITECT. A.P.T., Grade VI. Salary £595 to £660 per annum.

(b) ASSISTANT ARCHITECTS. A.P.T., Grade V. Salary £520 to £570 per annum.

Candidates for appointments (a) and (b) should be Registered Architects, preferably Associates of the Royal Institute of British Architects and/or hold a Degree or Diploma of a recognised School of Architecture.

TEMPORARY STAFF:
(c) ARCHITECTURAL ASSISTANTS. A.P.T., Grade IV. Salary £480-£525 per annum.

Candidates must have passed the Royal Institute of British Architects' Intermediate Examination and have subsequently worked in an Architectural office for a period of two years.

(d) CLERKS OF WORKS. A.P.T., Grade III. Salary £450 to £495 per annum.

Candidates must have had experience in the supervision of the erection and maintenance of all classes of buildings.

Successful candidates for the permanent appointments will be required to pass a medical examination before the appointments are confirmed, to contribute to the Corporation's Superannuation Fund, and to execute the Corporation's Deed of Service.

Applications on the official form, which can be obtained from the City Architect's Department, must be returned, together with not more than three recent testimonials, to Leonard C. Howitt, B.Arch., Dip.T.F., D.P.A., F.R.I.B.A., M.T.P.I., City Architect, Town Hall, Manchester, 2, by 18th February, 1950, endorsed for the appropriate appointment.

All these appointments are subject to the Standing Orders of the Council and the National Joint Council's Scheme of Service Conditions. Canvassing in any form is prohibited, and relationship to any member of the Council or senior official must be disclosed to me in writing.

PHILIP B. DINGLE,
Town Clerk.
Town Hall, Manchester, 2.
February, 1950. 3320

STAFFORDSHIRE COUNTY COUNCIL.
EDUCATION COMMITTEE.

Applications are invited for the following appointments on the permanent establishment of the Architect's Department:—
(a) ASSISTANT ARCHITECTS (TWO). Grade VIII, A.P.T. Division (£685 × £25—£760 per annum).

(b) ASSISTANT ARCHITECTS. Grade VI, A.P.T. Division (£595 × £20 (2) × £25—£660 per annum).

(c) ASSISTANT ARCHITECTS. Grade V, A.P.T. Division (£520 × £15 (2) × £20—£570 per annum).

(d) JUNIOR ASSISTANTS. Grades II to IV, A.P.T. Division (£490-£525 per annum, according to qualifications and experience).

(e) JUNIOR ASSISTANTS. Grade I, A.P.T. Division (£390 × £15—£435 per annum).

Applicants for posts (a) and (b) are required to be Associate Members of the R.I.B.A.

Applicants for (c) are required to be Registered Architects. Preference will be given to candidates having a sound knowledge of and experience in the construction and design of all types of school buildings.

Applicants for (d) must have passed the Intermediate Examination of the R.I.B.A. and have had some experience.

The appointments will be subject to the provisions of the Local Government and Other Officers' Superannuation Act, 1937, and successful candidates will be required to undergo a medical examination. The appointments will also be subject to the Scheme and Conditions of Service of the National Joint Council for Local Authorities' Administrative, Technical and Clerical Services.

Canvassing, either directly or indirectly, will operate as a disqualification, and candidates must disclose in their applications whether to their knowledge they are related to any member or senior officer of this Council.

A lodging allowance of 25s. per week, and return railway fare home every two months, will be paid for a maximum period of six months, where the successful candidate is married and has to continue to maintain his home outside the geographical county while seeking housing accommodation.

Forms of application can be obtained from A. C. H. Stillman, F.R.I.B.A., Architect and Surveyor to the Staffs. Education Committee, County Education Offices, Stafford.

Completed application forms are required to be received not later than the first post on 20th February, 1950.

T. H. EVANS,
Clerk of the County Council.
3313

BOROUGH OF TWICKENHAM.
ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, on Grade A.P.T., IV-V (£510-£600).

It is desirable that applicants should have passed the Intermediate Examination of the R.I.B.A., and experience with a Local Authority will be an advantage but not essential.

Applications, endorsed Architectural Assistant, stating age, qualifications, present and previous appointments, and giving details of experience, should be accompanied by copies of two testimonials, and delivered to Mr. A. S. Knolles, B.Sc., M.I.C.E., York House, Twickenham, Middlesex, not later than 15th February, 1950.

The successful applicant will be required to pass a medical examination, and the appointment will be subject to the Local Government Superannuation Act, 1937, and to one month's notice on either side.

Canvassing will disqualify. An applicant who is related to a member of the Corporation or to a senior officer of the Authority must disclose the fact in his application.

W. H. JONES,
Town Clerk.
Municipal Offices, Twickenham.
23rd January, 1950. 3312

COUNTY BOROUGH OF EAST HAM.
BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the undermentioned appointments:—

SENIOR ARCHITECTURAL ASSISTANT (Grade A.P.T., VI). Salary £595 to £660 per annum.

ARCHITECTURAL ASSISTANT (Grade A.P.T., V). Salary £520 to £570 per annum.

ARCHITECTURAL ASSISTANT (Grade A.P.T., I). Salary £390 to £435 per annum.

TEMPORARY ESTIMATOR (Grade A.P.T., V) (with knowledge of building quantities, pricing, analysis, and war damage schedules). Salary £520 to £570 per annum.

The appropriate London weighting is paid in addition to the above salaries, and salaries in excess of the minima of the grades may be paid according to the qualifications and experience of successful candidates.

The Council will be prepared to consider applications for a subsistence allowance in appropriate cases from persons appointed should they be unable to obtain suitable housing accommodation.

Full particulars of the duties, terms and conditions of appointment and form of application (which must be returned by Monday, 13th February, 1950) may be obtained from the undersigned.

Canvassing in any form will disqualify.

H. A. EDWARDS,
Town Clerk.
Town Hall, East Ham, E.6. 3308

COUNTY OF LINCOLN—PARTS OF
LINDSEY.COUNTY ARCHITECT'S DEPARTMENT.
QUANTITY SURVEYORS.

Applications are invited for the following vacancies:—

SENIOR ASSISTANT. Grade A.P.T., VII. Commencing salary £635 per annum, rising subject to satisfactory service to £713 per annum.**JUNIOR ASSISTANT.** Grade A.P.T., VI. Commencing salary £590 per annum, rising subject to satisfactory service to £635 per annum.

Preference will be given to applicants for the senior post who are qualified, and they should have had good experience in taking off and abstracting. Applicants for the junior post should have had some experience in abstracting and billing.

A subsistence allowance will be paid to married men finding it necessary to obtain lodgings in Lincoln whilst maintaining their homes outside Lincoln, of 25s. per week for six months, plus third-class railway fare to their home each two months.

Applications, stating age, qualifications, experience, and giving the name of two referees, should be sent to the undersigned not later than Wednesday, 15th February, 1950.

A. RONALD CLARK, A.R.I.B.A.,

County Architect.

County Offices, Lincoln.

3344

CITY ENGINEER'S DEPARTMENT,
NOTTINGHAM.**PLANNING ASSISTANT, GRADE A.P.T., VI.** Applications are invited for the post of Planning Assistant, at a commencing salary of £615 per annum, and rising by annual increments of £20 and £25 to £660.

Applicants should be Associate Members of the Town Planning Institute, with experience of Development Plan work, and the person appointed would be engaged on the city's Development Plan. The appointment is subject to the Local Government Superannuation Act, 1937, and successful candidates will be required to pass a medical examination.

Forms of application are to be obtained from E. M. Finch, Esq., O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, Nottingham, and should be returned to him not later than Thursday, 23rd February, 1950.

J. E. RICHARDS,

Town Clerk.

Guildhall, Nottingham.

3341

EBBW VALE URBAN DISTRICT COUNCIL.
ARCHITECT'S DEPARTMENT.

Applications are invited for the undermentioned appointment on the permanent staff of the Architect's Department:—

ARCHITECTURAL ASSISTANT (Grade A.P.T., V). Salary £520-£570 per annum.

Applicants should be Members of the Royal Institution of British Architects or the Royal Institution of Chartered Surveyors (Building Sub-Division), and should have had good general architectural experience, not necessarily in Local Government offices. In addition a working knowledge of quantities would be an advantage.

The Architect's Department has a full programme of work covering Housing Estates (Houses, Flats and Shops), Slum Clearance and Reconstruction Schemes, New Civic Centre, Layout of new parks and open spaces, and general Municipal building work.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the National Conditions of Service. The successful applicant will be required to pass a medical examination, and the appointment will be subject to one month's notice on either side.

Applications, stating age, qualifications and experience, together with the names of two referees to whom reference may be made, should be delivered to the undersigned not later than Saturday, the 25th day of February, 1950, and endorsed on the envelope "Architectural Assistant."

Canvassing, directly or indirectly, will disqualify.

R. E. HERBERT,

Clerk of the Council.

District Council Offices, The Walk

Ebbw Vale, Mon.

3339

26th January, 1950.

GOVERNMENT OF NORTHERN IRELAND.

MINISTRY OF HEALTH AND LOCAL
GOVERNMENT.

ASSISTANT ARCHITECT (PLANNING).

Applications are invited for the above unestablished post. The appointment will, so far as can be foreseen, last for several years.

Remuneration: The successful candidate will be remunerated according to qualifications and experience within the salary range, £700-£900 per annum.

Qualifications: Candidates must be Registered Architects and have passed the Final Examination of the Royal Institute of British Architects. They should also possess a recognised qualification in town planning or have good experience in town planning work.

Preference will be given to candidates who served with H.M. Forces during wartime, providing the Ministry is satisfied that such candidates can, or within a reasonable time will be able to, discharge the duties efficiently.

Applications, giving date of birth, full particulars of qualifications and experience, with copies of two recent testimonials, should be sent immediately to the Director of Establishments, Ministry of Finance, Stormont, Belfast.

3337

SURREY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, Grade VI, at a commencing salary of £595 per annum, rising by annual increments of £20/£25 to a maximum of £660 per annum, plus London allowance of up to £30 per annum, according to age.

Preference will be given to applicants who are Members of the Royal Institution of Chartered Surveyors (Quantities Sub-Division) and who have an adequate experience in the preparation of Bills of Quantities, site measuring, and in settlement of final accounts.

Full details of past and present appointments should be given.

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

Applications, stating age, qualifications, full details of experience, and accompanied by copies of three recent testimonials, should be addressed to the County Architect, Surrey County Council, County Hall, Kingston-on-Thames, to reach him not later than the 17th February, 1950.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

The Council will be unable to provide any housing accommodation, and the successful applicant will be required to make his own arrangements in this direction.

DUDLEY AUKLAND,

Clerk of the Council.

County Hall, Kingston-on-Thames.

3349

IMPERIAL WAR GRAVES COMMISSION.

invite applications from suitably qualified candidates to fill vacancies in their London office in the following grades:—

ASSISTANT ARCHITECT. Candidates should have received recognised training and be Associates of the R.I.B.A. or have an equivalent qualification. They should have had employment with recognised Architects in design and construction of buildings of architectural merit. Salary scale £475-£525-£750 per annum (point of entry according to age and experience), plus extra duty allowance of 3 per cent. of salary for 45½ hour week.**SENIOR ARCHITECTURAL ASSISTANTS.** Candidates should be up to Final R.I.B.A. standard, skilled draughtsmen, with considerable experience in architect's office, and able to prepare working drawings from sketch designs. Salary scale £625-£625-£750 per annum, plus extra duty allowance of 3 per cent. of salary for 45½ hour week.**LEADING ARCHITECTURAL ASSISTANTS.** Candidates should have several years' experience in an Architect's office, preferably have reached at least intermediate R.I.B.A. or equivalent standard, and be capable of supervising the work of a small team of draughtsmen. Salary scale £500-£20-£625 per annum (point of entry according to age and experience), plus extra duty allowance of 3 per cent. of salary for 45½ hour week.**ARCHITECTURAL ASSISTANTS.** Candidates should be skilled draughtsmen, capable of preparing 1 in. scale working drawings and full size details from the Architect's designs. Salary scale £300-£20-£525 per annum (point of entry according to age and experience) plus ½ hours' overtime pay for 45½ hour week.

Applications to be addressed to Appointments Officer, Imperial War Graves Commission, Woodburn House, Woodburn Green, High Wycombe, Bucks.

3334

IMPERIAL WAR GRAVES COMMISSION.

There are vacancies in the Quantity Surveying Branch in London for QUANTITY SURVEYORS, with good training and experience as follows:—

(a) One post. Salary £750-£1,000 per annum, plus extra duty allowance of 3 per cent. of salary for 45½ hour week. Applicants must be over 35 years of age and have had pre-war experience in taking off quantities without supervision for buildings of a high architectural standard. Must also be capable of taking complete charge of contracts from their commencement to completion and supervising staff.

(b) Two posts. Salary £475-£750 per annum, plus extra duty allowance of 3 per cent. of salary for 45½ hour week. Applicants must have had experience in taking off on good permanent buildings. Pre-war experience an advantage.

(c) Two posts. Salary £330-£450 or £400-£525 per annum. Applicants should be capable of squaring dimensions and abstracting and billing with the minimum of supervision. In the higher scale applicants should have passed the Intermediate Examination of the R.I.C.S. (Quantities) or other similar recognised examination.

Applicants for post (a) should be Fellows or Associates of Royal Institution of Chartered Surveyors, Quantities sub-division. Applicants for post (b) should be Associates in the same sub-division or have passed a recognised final examination, with Quantities as typical subject. In both posts a knowledge of stonework an advantage.

Salary pay will be assessed according to age, qualifications and experience. Although the above are not established posts, the duration will not be less than five years.

Applications should be addressed to Appointments Officer, Imperial War Graves Commission, Woodburn House, Woodburn Green, High Wycombe, Bucks.

3333

BOROUGH OF NEWCASTLE-UNDER-LYME.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.

Applications are invited for the following whole-time appointments on the staff of the Borough Engineer and Surveyor:—

(a) **SENIOR ARCHITECTURAL ASSISTANT.** A.P. and T. Division, Grade VI, £595-£660 per annum.(b) **TWO ARCHITECTURAL ASSISTANTS.** A.P. and T. Division, Grade V-Va, £520-£610 per annum.(c) **JUNIOR ARCHITECTURAL ASSISTANT.** A.P. and T. Division, Grade II-III, £420-£496 per annum.

Candidates should fulfil the following conditions:—

Post (a) applicants must be Registered Architects and have a sound knowledge of, and experience in, the design and construction of schools. Preference will be given to Associate Members of the R.I.B.A.

Post (b) applicants should be Registered Architects, thoroughly experienced in the preparation of working drawings and details, preferably for new schools.

Post (c) applicants should have had sound architectural training and be good draughtsmen. In the case of appointments (a) and (b), housing accommodation on a service tenancy will be available for the successful candidates, if required, and full particulars may be obtained from the Borough Surveyor, Lancaster Building, High Street, Newcastle, Staffs. All the appointments are terminable by one month's notice on either side and are subject to the National Scheme of Conditions of Service and to the provisions of the Local Government Superannuation Acts. The successful applicants will be required to pass a medical examination by the Council's Medical Officer of Health.

Applicants must disclose whether, to their knowledge, they are related to any member of, or the holder of any senior office under, the Council. Canvassing in any form will be a disqualification.

Applications, on forms to be obtained from the Borough Engineer and Surveyor, Lancaster Building, High Street, Newcastle, Staffs, should be forwarded to him not later than Friday, 10th February, 1950.

C. J. MORTON,

Town Clerk.

Town Clerk's Office,

District Bank House, Newcastle, Staffs.

3322

CITY AND COUNTY OF KINGSTON-UPON-
HULL.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for an appointment as ASSISTANT ARCHITECT, Grade VII, A.P. and T. Division (£635-£710), in the Schools Section of the Department, in which an interesting and varied programme of construction is in hand. The appointment will be subject to one month's notice on either side and to the National Scheme of Conditions of Service.

Application forms, obtainable from the undersigned, should be returned complete on or before 20th February, 1950.

ANDREW RANKINE, A.R.I.B.A.,

City Architect.

Guildhall, Kingston-upon-Hull.

24th January, 1950.

3316

CITY OF LEEDS.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) **ASSISTANT ARCHITECTS.** Consolidated salary scale £595-£660 p.a.(b) **ASSISTANT ARCHITECT.** Consolidated salary scale £520-£570 p.a.

Candidates must be Registered Architects and should have had a thorough training and experience in architectural design and construction. Special consideration will be given to candidates who have had experience in one or more of the following:—

- (1) Schools.
- (2) Multi-Storey Flats.
- (3) Sports Centres or Stadiums.

(c) **ASSISTANT ARCHITECTS.** £480-£525 p.a.(d) **ASSISTANT ARCHITECTS.** £450-£525 p.a.(e) **ASSISTANT ARCHITECTS.** £450-£496 p.a.(f) **JUNIOR ASSISTANT ARCHITECTS.** Commencing salary according to age, maximum £385 p.a.(g) **ASSISTANT QUANTITY SURVEYOR.** £535-£710 p.a.

Candidates must be qualified to prepare Bills of Quantities and finalise accounts for all classes of building works.

(h) **BUILDER'S CLERK.** £375-£420.

In each case the payment of salary increments will be subject to satisfactory service, and will be granted normally with effect from the 1st April following the completion of six months' service.

The appointments are subject to the Local Government Superannuation Act, 1937, and successful applicants will be required to pass a medical examination.

Applications, on forms to be obtained from the undersigned, accompanied by copies of not more than three recent testimonials (not returnable), must be received by me in the envelope supplied therefor, not later than 10 a.m. on the 15th February, 1950.

Canvassing in any form, either directly or indirectly, will be a disqualification.

R. A. H. LIVETT, O.B.E., A.R.I.B.A.,

City Architect.

Priestley House, Quarry Hill, Leeds, 9.

3286

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) SENIOR ASSISTANT ARCHITECTS. Salary £595 per annum, rising to £660 per annum (A.P.T., Grade VI).

(b) SENIOR ASSISTANT ARCHITECTS. Salary £520 per annum, rising to £570 per annum (A.P.T., Grade V).

(c) ASSISTANT ARCHITECTS. Salary £480 per annum, rising to £525 per annum (A.P.T., Grade IV).

Applicants for appointments (a) and (b) should be Associates of the Royal Institute of British Architects, and must have had experience on Housing, General Architectural work and/or Educational buildings.

Applicants for appointment (c) should have passed the Intermediate Examination of the Royal Institute of British Architects.

The appointments will be subject to the National Conditions of Service as adopted by the City Council; to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side. The successful candidates will be required to pass a medical examination.

Applications, stating age, particulars of training, qualifications, experience, present and previous appointments, together with copies of two recent testimonials and the names and addresses of two persons to whom reference may be made, should be addressed to the City Architect, 18, Cloth Market, Newcastle-upon-Tyne, 1.

JOHN ATKINSON,

Town Clerk.

Town Hall, Newcastle-upon-Tyne, 1.
23rd January, 1950. 3288

WEST SUSSEX COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments, at salaries in accordance with the National Scale of Salaries (Bonus Consolidated):—

(a) ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade V (£520-£570).

(b) ASSISTANT ARCHITECT. A.P.T., Grade II (£420-£465).

Applicants for (a) should possess approved qualifications and experience in taking off and working up Bills of Quantities and measurement of works.

Applicants for (b) should be capable of assisting in the preparation of schemes for Architectural work, including surveys of sites and existing buildings, and the preparation of working and detail drawings.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom detailed applications must be submitted not later than the 16th February, 1950.

T. C. HAYWARD,

Clerk of the County Council.

County Hall, Chichester.
18th January, 1950. 3291

**BOROUGH OF HORNSEY.
ENGINEER AND SURVEYOR'S
DEPARTMENT.**

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the following temporary appointment:—

Architectural Assistant, Grade VI (A.P.T. Division of the National Scale), at a salary of £595-£660 per annum, plus London weighting allowance of £30 per annum. Commencing salary according to experience.

Candidates should preferably be Associate Members of the Royal Institute of British Architects.

Applications, stating age, present and previous appointments, technical training, qualifications, experience, etc., together with the names of three referees, must be delivered to Mr. J. H. Melville Richards, A.M.I.C.E., M.I.Mun.E., Borough Engineer and Surveyor, Hornsey Town Hall, N.8, not later than the 13th February, 1950.

Canvassing, either directly or indirectly, will disqualify.

H. BEDALE,

Town Clerk.

Town Hall, Crouch End Broadway, N.8.
24th January, 1950. 3301

SOUTHERN ELECTRICITY BOARD.

NO. 1 (SOUTHALL) SUB-AREA.

CIVIL ENGINEERING DRAUGHTSMAN.

Applications are invited for the position of Civil Engineering Draughtsman, at Sub-Area Engineering Headquarters, Waterloo Road, Uxbridge, Middlesex.

Applicants should have a sound knowledge of building construction, and experience in the design of reinforced concrete structures and steel frame buildings.

Salary within the range of £475 to £525 per annum, which is provisional and subject to adjustment by the appropriate negotiating machinery. The successful applicant will be required to join the B.E.A. and Area Boards' Superannuation Scheme, if eligible.

Applications should be made to the Sub-Area Secretary, No. 1 (Southall) Sub-Area, Southern Electricity Board, 2-6, Windmill Lane, Southall, Middlesex, on forms obtainable from him, and should be returned to him not later than 14 days after the date of the appearance of this advertisement.

E. C. T. Oldcorn,

Sub-Area Manager.

2-6, Windmill Lane, Southall, Middlesex. 3311

NATIONAL COAL BOARD—EAST MIDLANDS DIVISION.

Applications are invited for the following permanent and superannuated post in the Divisional Architect's Department in Nottingham:—

CLERK OF WORKS (Grade I). Salary £500×£25 to £650 per annum.

Applicants should be Clerk of Works, preferably with experience of Pithead Baths and other types of Industrial and Welfare Buildings.

They should be experienced in the supervision of steel and reinforced concrete structures, and have a sound knowledge of sewage disposal plants and the heating, ventilating and electrical plants and services connected with Industrial and Welfare buildings.

Applications, stating age, education, qualifications, experience, present appointment and salary, should be submitted not later than Saturday, 11th February, to the Secretary, National Coal Board, East Midlands Division, Sherwood Lodge, Arnold, Notts.

Original testimonials should not be sent. 3292

CITY OF MANCHESTER.

HOUSING COMMITTEE.

Applications are invited from persons having the requisite qualifications and experience for the following appointments on the National Joint Council Scale:—

ASSISTANT ARCHITECTS. Grade VI (£595-£660 per annum).

ASSISTANT ARCHITECTS. Grade V (£520-£570 per annum).

TEMPORARY CLERKS OF WORKS. (£450-£495 per annum).

The commencing stage within the grade will be fixed according to qualifications and experience. The appointments are subject to the National Scheme of Service Conditions and the Standing Orders of the Council.

The successful candidates will be required to contribute to the Corporation's Superannuation Fund, and if under the age of 30 years, to the Manchester Municipal Officers' Widows' and Orphans' Pension Fund.

Applications, stating age and qualifications and experience, together with copies of two testimonials, must be submitted to Mr. A. Mackenzie, L.R.I.B.A., Director of Housing, Town Hall, Manchester, 2, endorsed as to the position applied for, not later than 11th February, 1950.

Canvassing in any form is prohibited, and relationship to any member of the Council or Senior Officer must be disclosed to me in writing.

PHILIP B. DINGLE,

Town Clerk.

January, 1950. 3303

LEEDS REGIONAL HOSPITAL BOARD.

Applications are invited for the appointment of a SENIOR SURVEYOR. Candidates must be qualified Quantity Surveyors, possessing considerable experience, and be capable of preparing estimates, bills of quantities, and checking final accounts. Salary scale £685-£760 per annum. The appointment will be subject to the passing of a medical examination and the provisions of the National Health Service (Superannuation) Regulations, 1947/49.

Applications, stating age, qualifications and details of experience, together with the names of three referees, should be forwarded to the Secretary to the Board, 29/31, Eastgate, Leeds, 2, not later than Thursday, 9th February, 1950. Canvassing in any form, either directly or indirectly, will disqualify. 3289

HEREFORDSHIRE COUNTY COUNCIL.

Applications are invited from Corporate Members of the Town Planning Institute for the post of ASSISTANT COUNTY PLANNING OFFICER in the County Planning Department. A.P.T., Grade VIII. Salary £585-£760 per annum. The person appointed will be responsible to the County Planning Officer for the work of the Development Plan Division, and experience in the preparation of County Development Plans is essential.

The successful applicant will be required to provide and maintain a motor car, for which travelling and subsistence allowance will be paid in accordance with the Council's Scale.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1947, and to the passing of a medical examination.

Applications, stating age, qualifications, present position and previous appointments held, together with the names of two referees, should be forwarded to the undersigned not later than 14 days of the appearance of this notice.

A. R. DUNCAN,

County Planning Officer.

Portfield House, Hereford.

3302

COUNTY BOROUGH OF SOUTH SHIELDS.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for permanent appointments as Architectural Assistants in the Borough Engineer's Department.

The appointments will be superannuated, and salary will be paid up to A.P.T., Grade V, according to qualifications and experience, in accordance with the N.J.C. grading decisions.

Applications, on forms to be obtained from the Borough Engineer, Town Hall, South Shields, should be returned not later than noon on Thursday, the 16th February, 1950.

HAROLD AYREY,

Town Clerk.

Town Hall, South Shields.

3327

Tenders for Contracts

THE HOUSING COMMISSION OF NEW SOUTH WALES, SYDNEY, AUSTRALIA.

Tenders are invited for the supply, erection and completion on sites to be allocated in New South Wales, Australia, of 2,000 single storey prefabricated or precast houses to be erected as set out hereunder:—

1,000 houses within a radius of 100 miles of Sydney, New South Wales, Australia, to be erected in groups of not less than 20 houses.
1,000 houses within a radius of 100 miles of Newcastle, New South Wales, Australia, to be erected in groups of not less than 20 houses.
Plans, specification of conditions and tender forms are available on application to the Agent-General for New South Wales, 56-57, Strand, London, W.C.2, at a price of 10s. 6d. per set.

Tenders to be lodged with the Secretary, Housing Commission, R. D. Robson, A.R.I.B.A., County Architect, County Hall, March, not later than Saturday, 18th February, 1950.

**ISLE OF ELY COUNTY COUNCIL.
ERECTION OF TWO PAIRS OF SEMI-DETACHED HOUSES, IN MAPLE GROVE, MARCH.**

Tenders are invited from Building Contractors for the erection of two pairs of semi-detached houses in Maple Grove, March.
Contractors wishing to tender should make application to Mr. D. Robson, A.R.I.B.A., County Architect, County Hall, March, not later than Saturday, 18th February, 1950.

Applications must be accompanied by a cheque for £2 2s., made payable to the Isle of Ely County Council as deposit for Bills of Quantities, which deposit will be returned on receipt of a bona fide tender.

The successful contractor will be required to enter into a formal contract, a copy of which may be seen at the office of the Clerk of the County Council.

The lowest or any tender will not necessarily be accepted.

R. F. G. THURLOW,

Clerk of the County Council.

County Hall, March.

3290

Partnership

6 lines or under, 10s.; each additional line, 1s. 6d.

PARTNERSHIP or position leading to Partnership in West Riding, preferably Bradford area, by A.R.I.B.A., A.A.Dip., 34 years old, with sound training, varied experience, and good connections; capital available. Box 3156.

Architectural Appointments Vacant

4 lines or under, 5s.; each additional line, 1s. 6d.

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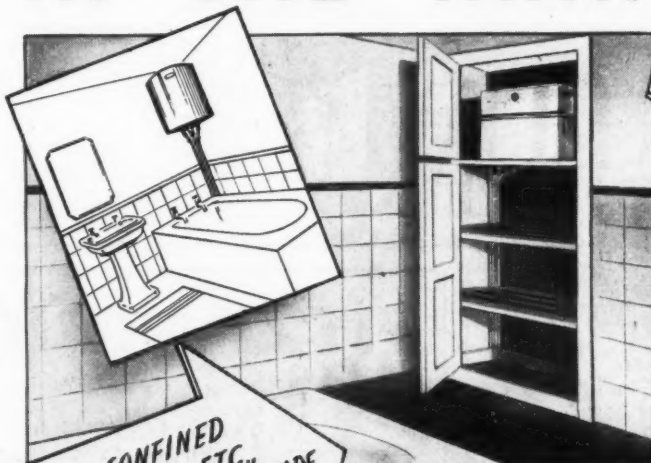
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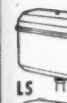


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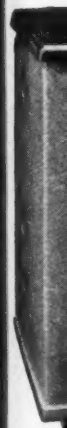


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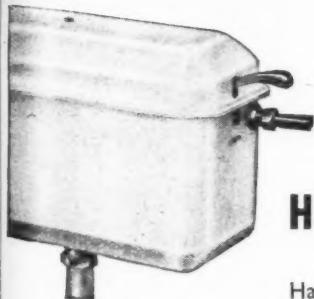
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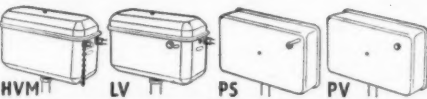


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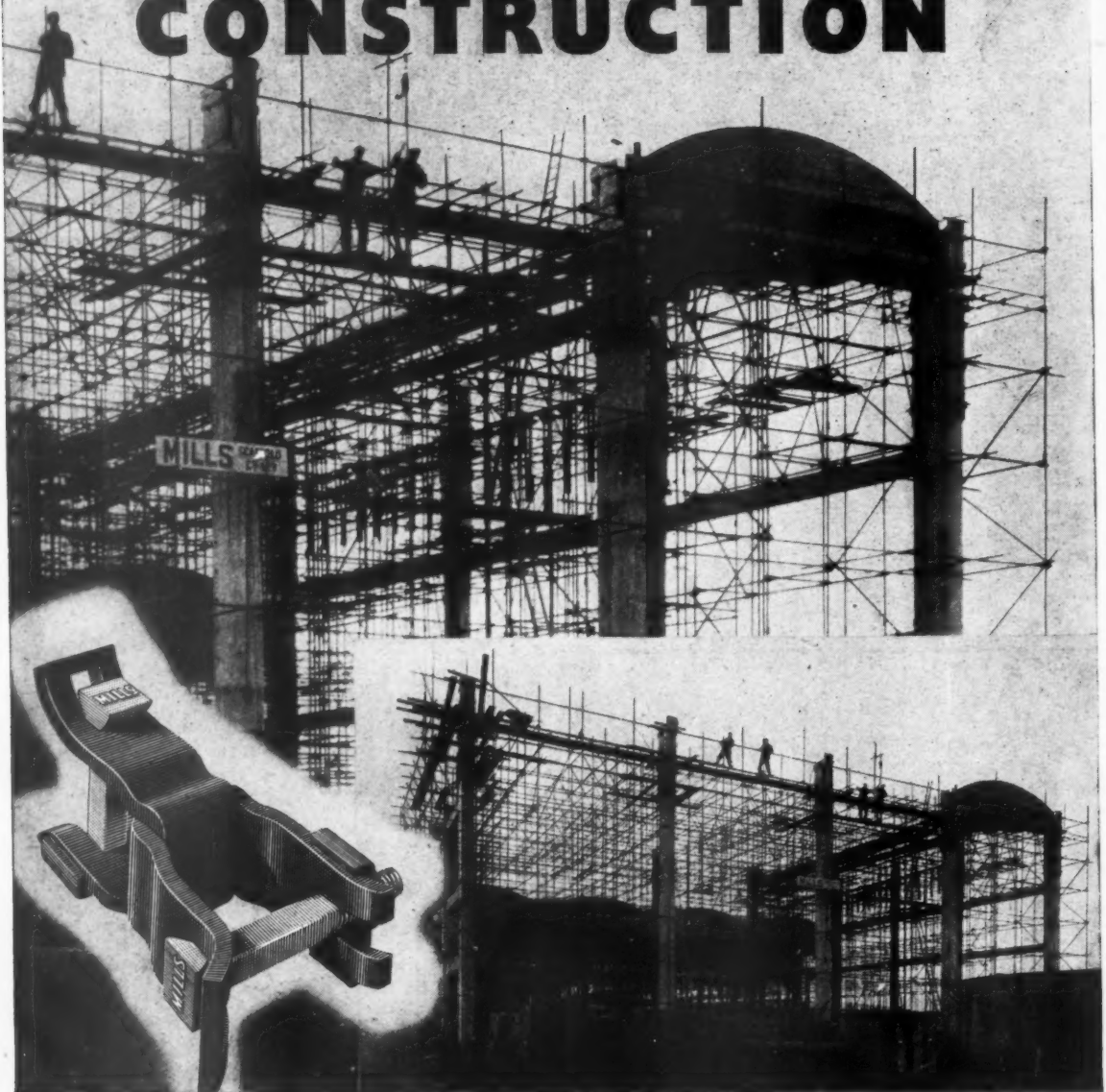
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