

THE ARCHITECTS' JOURNAL



standard contents

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

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★ 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 I in one week, I 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. 2-33, St. James's Square, S.W.1.	Whitehall 8411
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalt 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
NHBRC	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
RST	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	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, Ruthlergen.	
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

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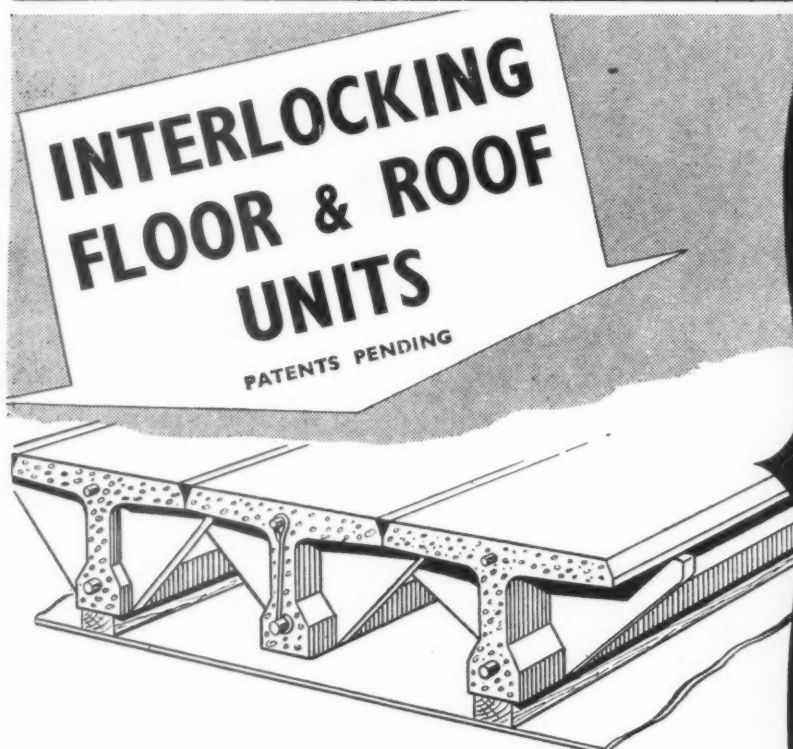
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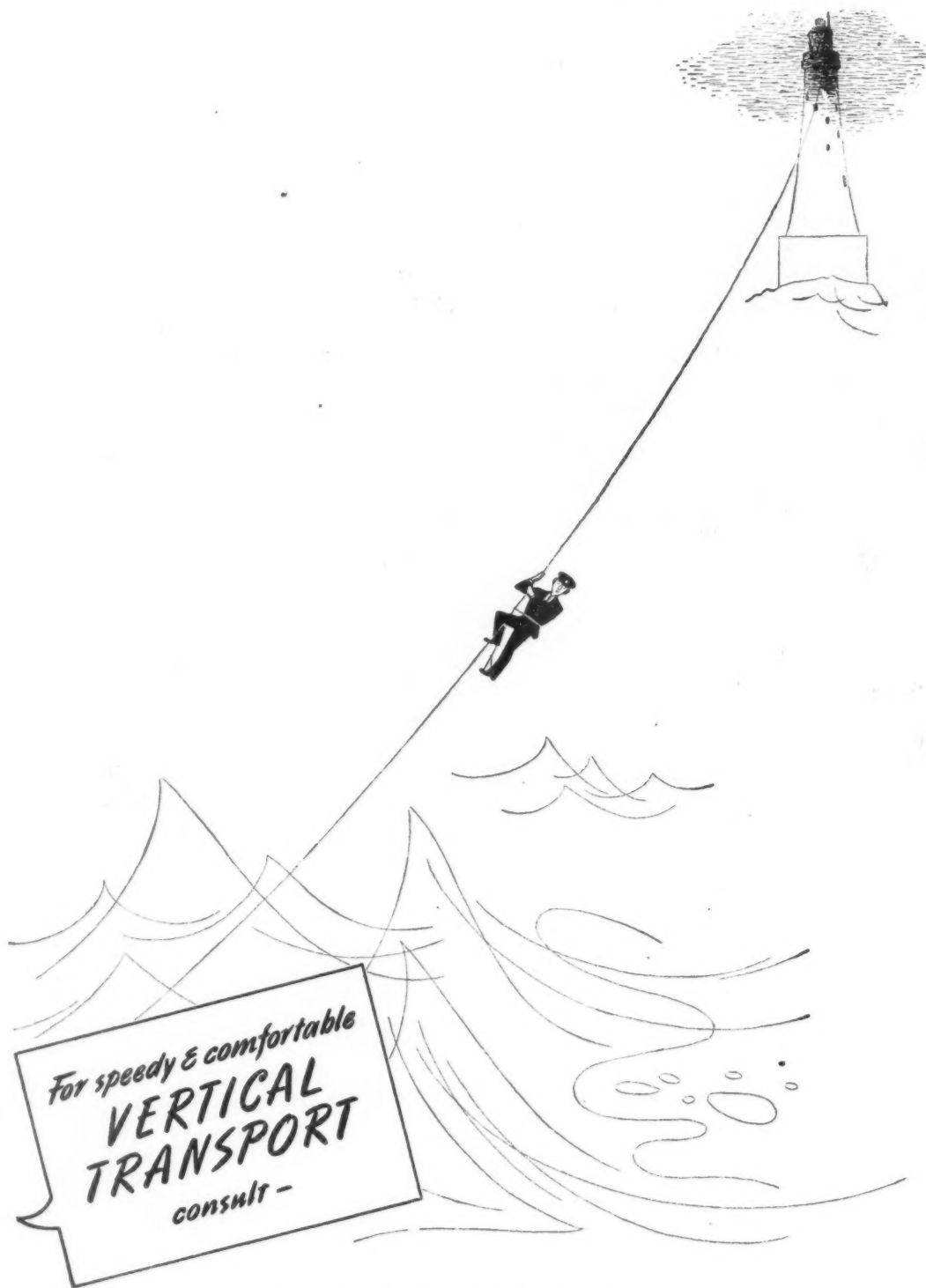
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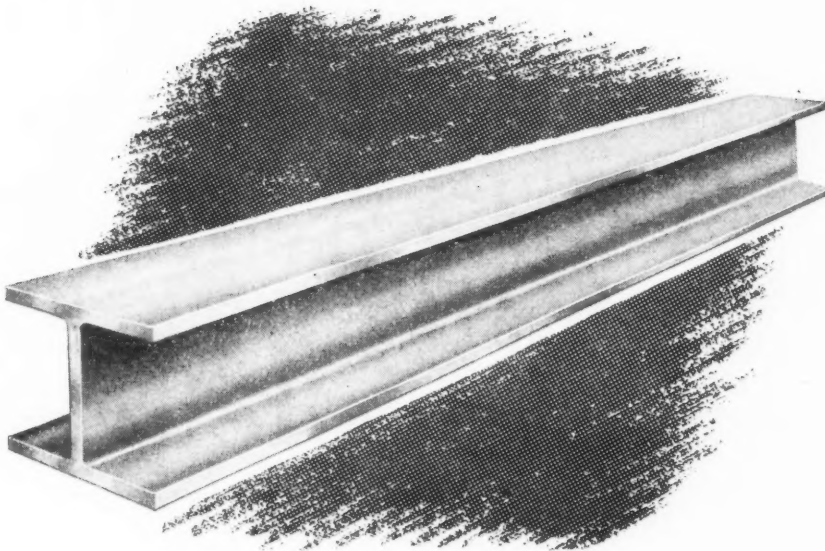
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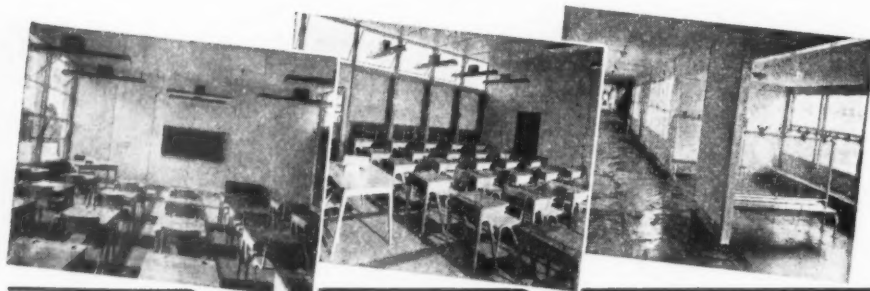
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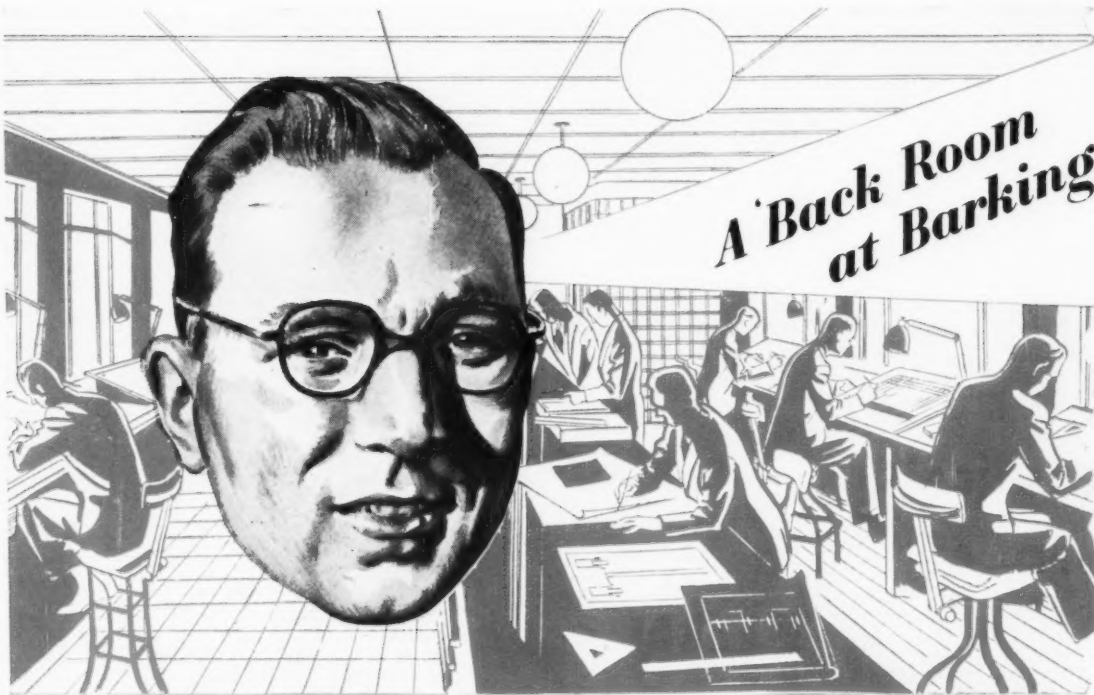


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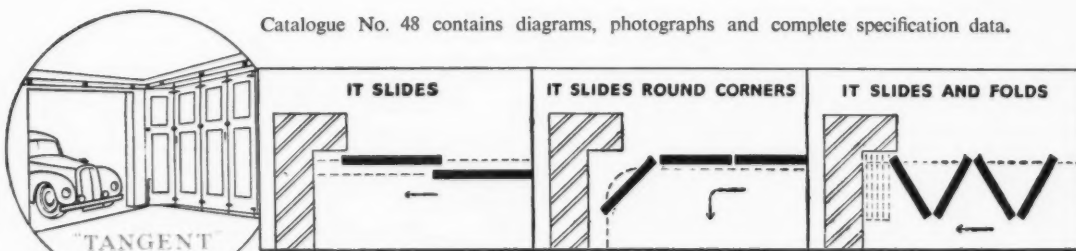
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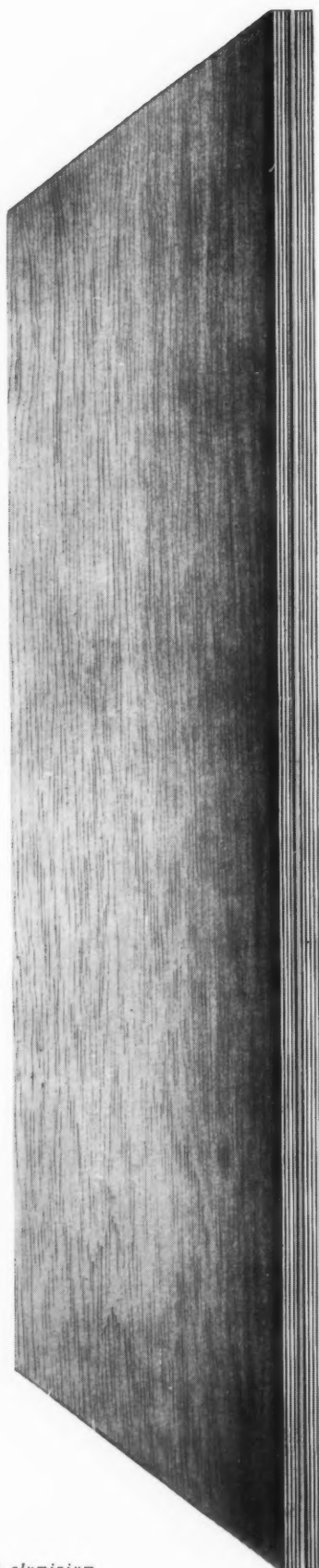
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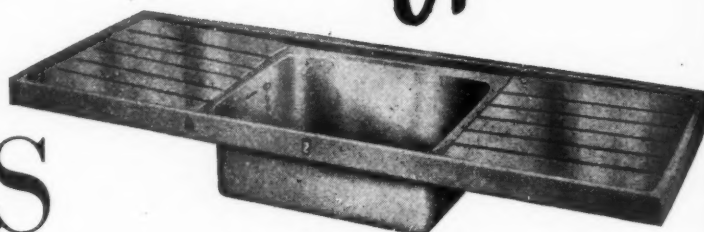


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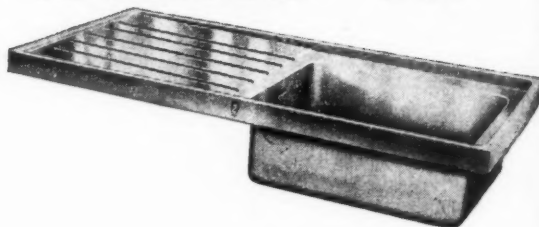
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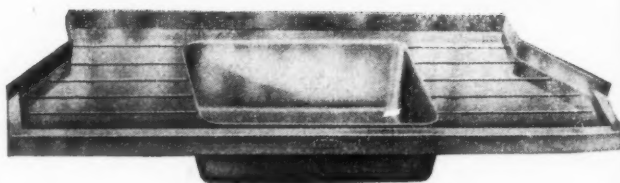
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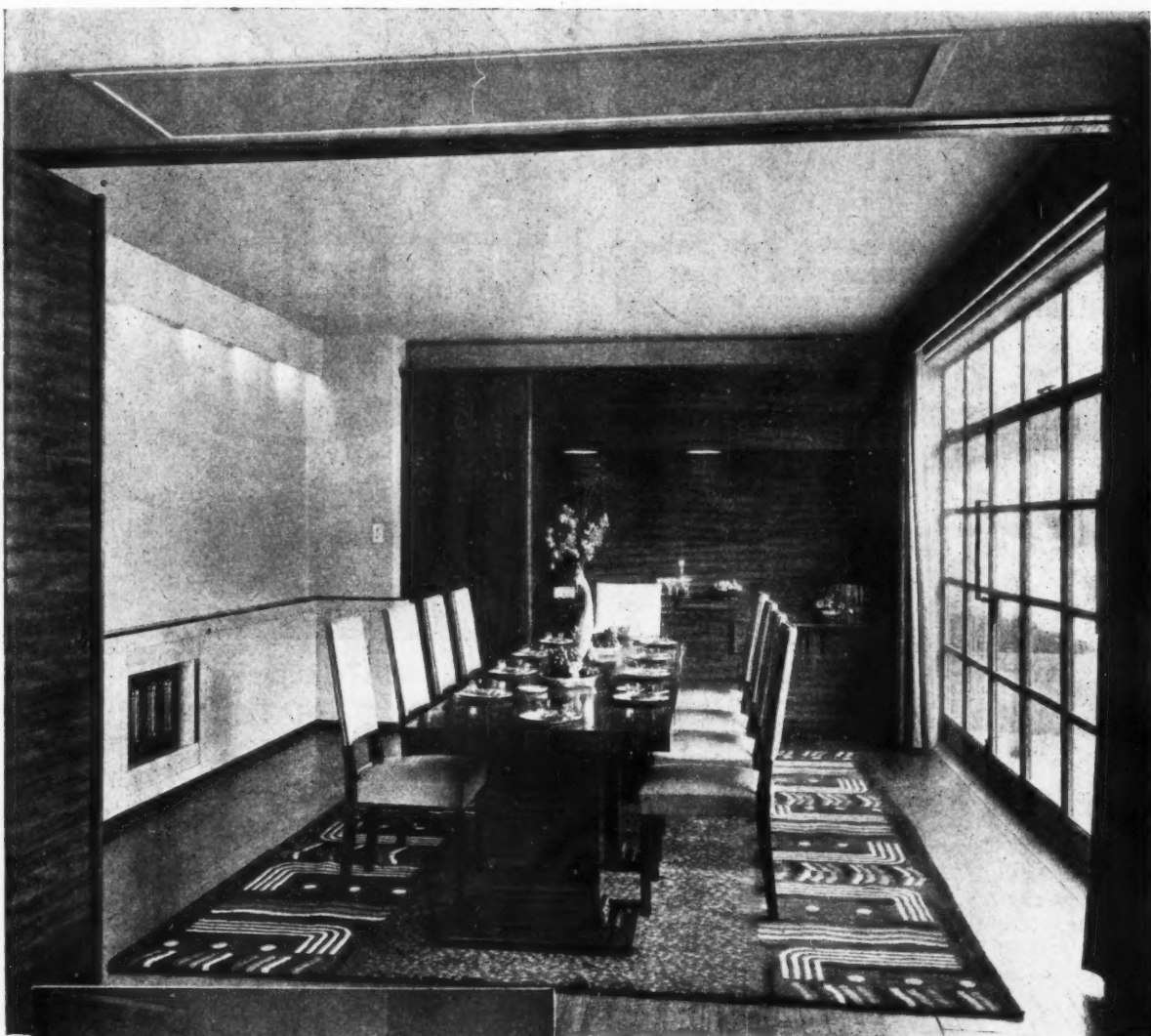
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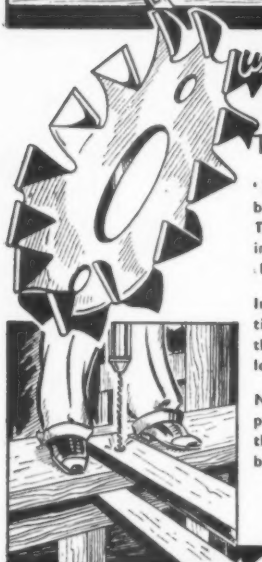
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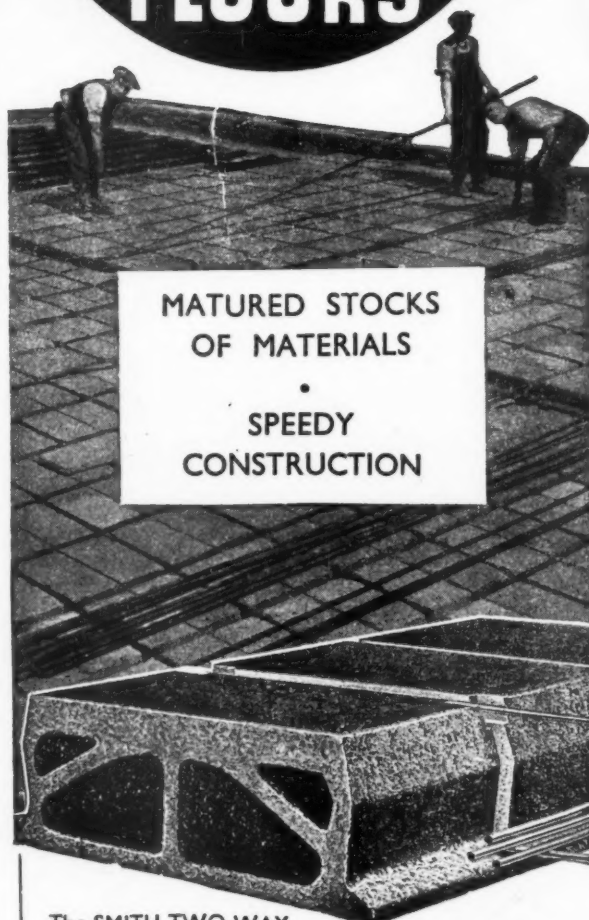
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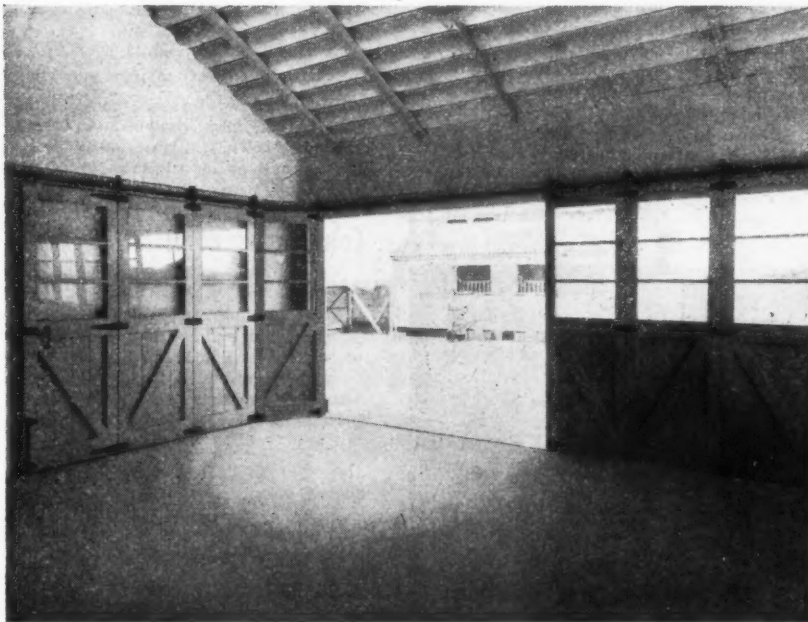
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Versatility of the ALUMINEX patent glazing system

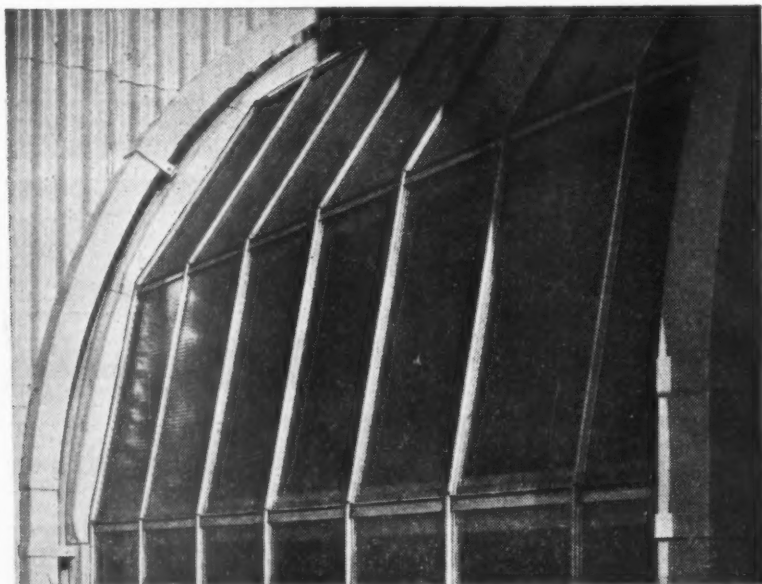
The designers of the Aluminex Patent Glazing system intended to invent something more than a new "dry glazing" technique. They set out to re-think patent glazing from first principles and create a versatile form of glazing of great simplicity that would be an integral part of the design of a building, not a mere appendage.

When the system was designed Architects were invited to take the extruded aluminium alloy glazing bar, the glazing cover strip, the Zed weathering and other fittings and clothe their buildings in walls of glass or ranging series of roof lights, making the appearance and function of Aluminex contribute directly to the overall styling of each building.

The response of Architects to this invitation was immediate. Indeed, the designers' first notions of the possible uses of Aluminex were soon left far behind. New potentialities were discovered by imaginative minds and the process of creative development is still going on.

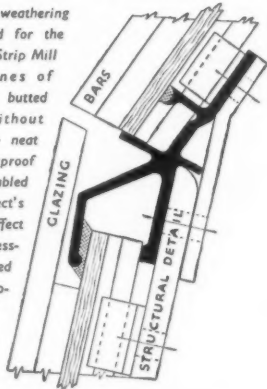
Architects and Aluminex

On some occasions the Architect's conception of the role of Aluminex patent glazing in his building constituted a new challenge to the engineers. For instance, when Sir Percy Thomas & Son, F.R.I.B.A., designed the Cold Mill building of the Steel Company of Wales' great plant at Margam Abbey they decided that Aluminex patent glazing provided all the features required for the distinctive sidewall lights of the building. The general character of the building is enhanced by the neat and clean lines of these curved-top "Cascade" windows shown below.

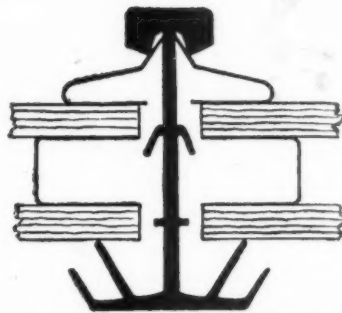


A detail of the Cold Strip Mill of the Steel Company of Wales, at Margam, showing the new "Cascade" windows in Aluminex Patent Glazing. Architect: Sir Percy Thomas & Son, F.R.I.B.A. Engineers: W. S. Atkins & Partners.

This special weathering detail designed for the Margam Cold Strip Mill enabled panes of glass to be butted together without overlap in a neat and weatherproof joint. It enabled the Architect's "Cascade" effect to be successfully carried out. See photograph below.



But the technical problems which confronted the Aluminex engineers were unexpected. A special virtue of the system had always been considered to be its long, straight lines. Now a curved effect was required. The effect was to be gained by a succession of straight planes but it was inadmissible to break the outline of the "Cascade" by allowing panes to overlap each other in a "lobster back" pattern. Therefore the panes had to be butted together. This raised serious difficulties in maintaining the watertightness of the installation. For this job the



This is an Aluminex Patent Glazing bar designed for double glazing. It is of special aluminium alloy extruded to the profile patented by Williams & Williams Ltd. The thermal efficiency of double glazing built with Aluminex is high.

Aluminex engineers designed a new weathering detail. This was in conformity with the normal policy of the Division—to take every necessary action in order to reproduce, by means of Aluminex, the Architect's own design. This new weathering detail took the form shown in the drawing on the left. It is a development of the standard Aluminex Zed weathering extrusion which is one of the notable features of this glazing system.

Large scale glazing

This remarkable versatility of Aluminex applies also to the size of the area to be glazed. The biggest composite plate glass window in the world is the north side-wall window of the Brabazon hangar at Filton (1,052 ft. long by 50 ft. high). Yet it is made of normal Aluminex glazing as used in the smallest of industrial buildings.

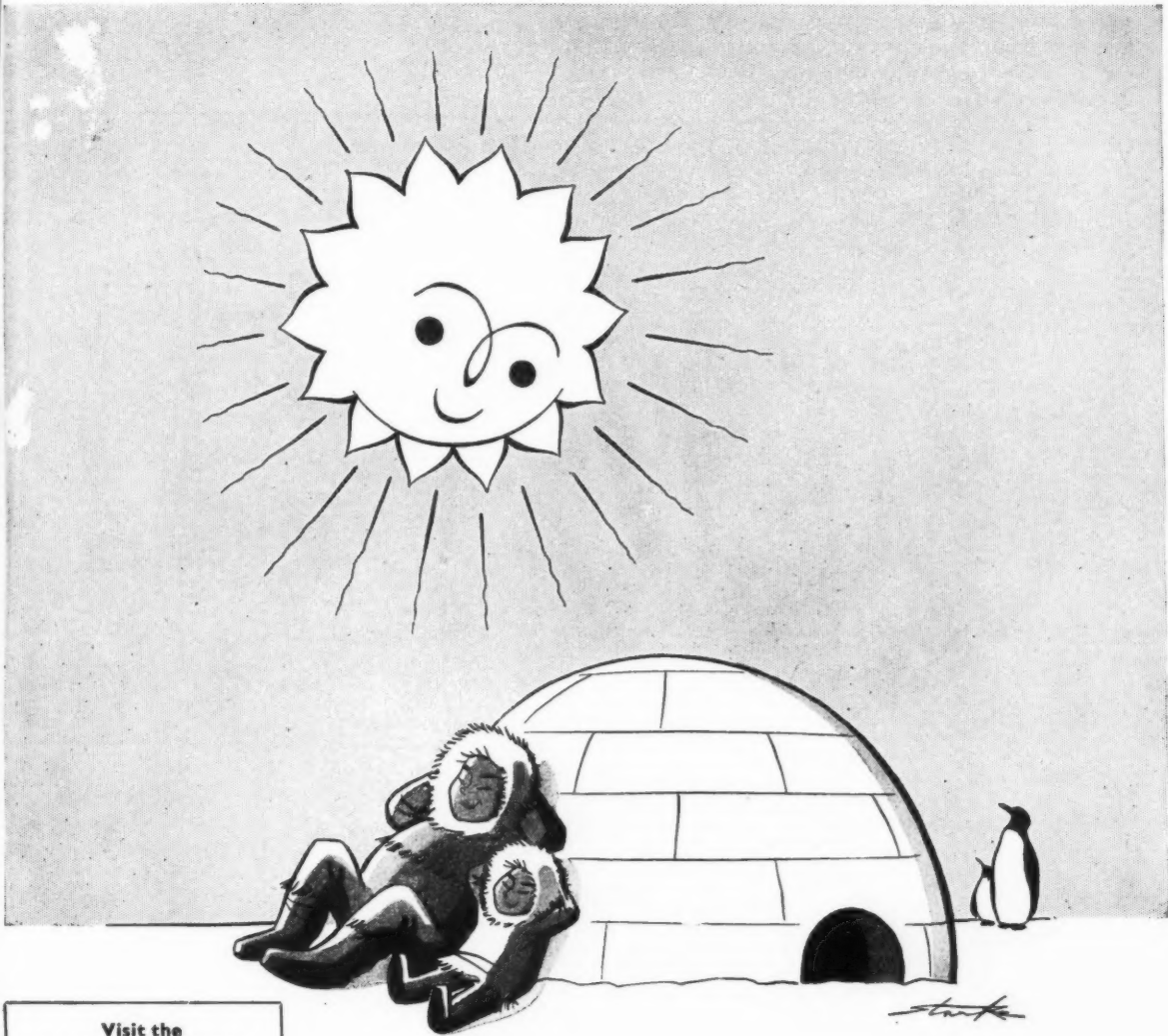
There is a further consideration. Aluminex is also designed for double glazing. This has high insulating properties as well as lightness and attractive appearance to recommend it.

Continuous ventilation

Yet another aspect of this versatile patent glazing system is the provision of ventilators hung on continuous hinges. Aluminex sidewall and roof opening lights are constructed in lengths of 200 ft. for manual operation and in 300 ft. lengths when the opening gear is electrically driven.

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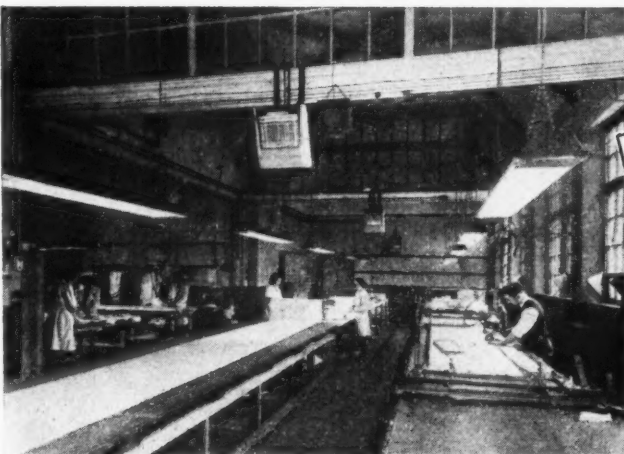


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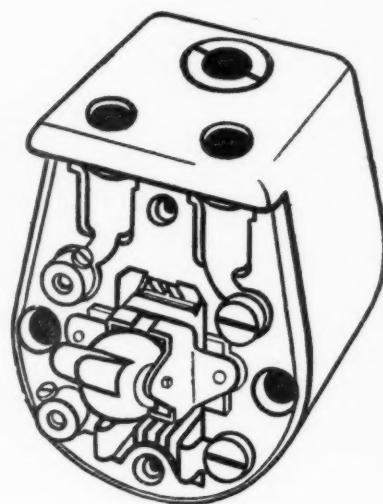


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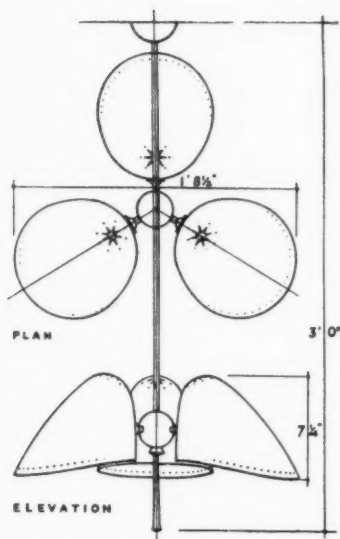
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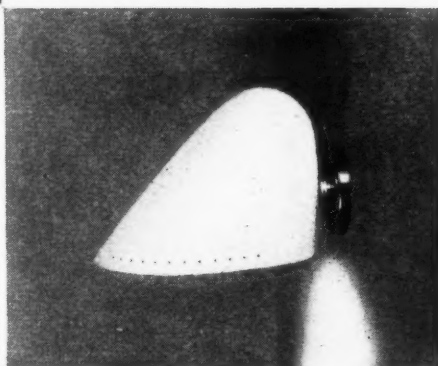
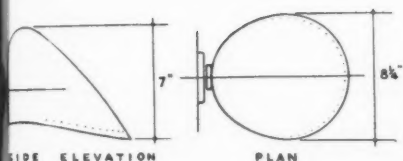
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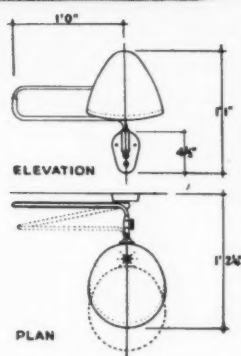
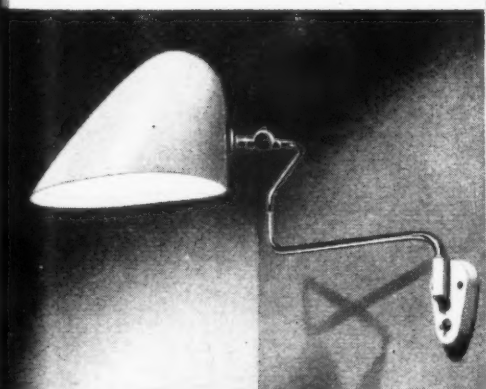
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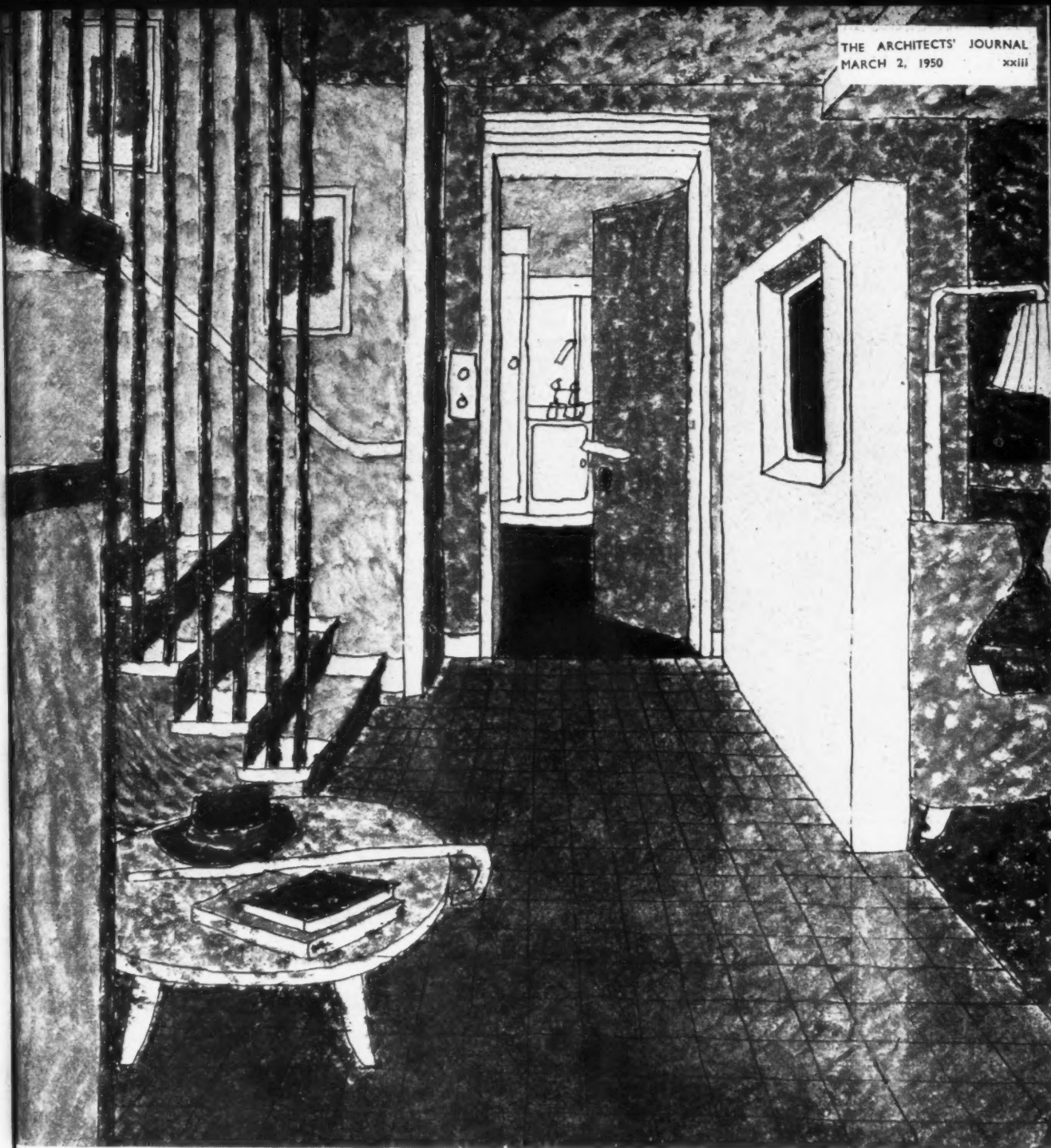
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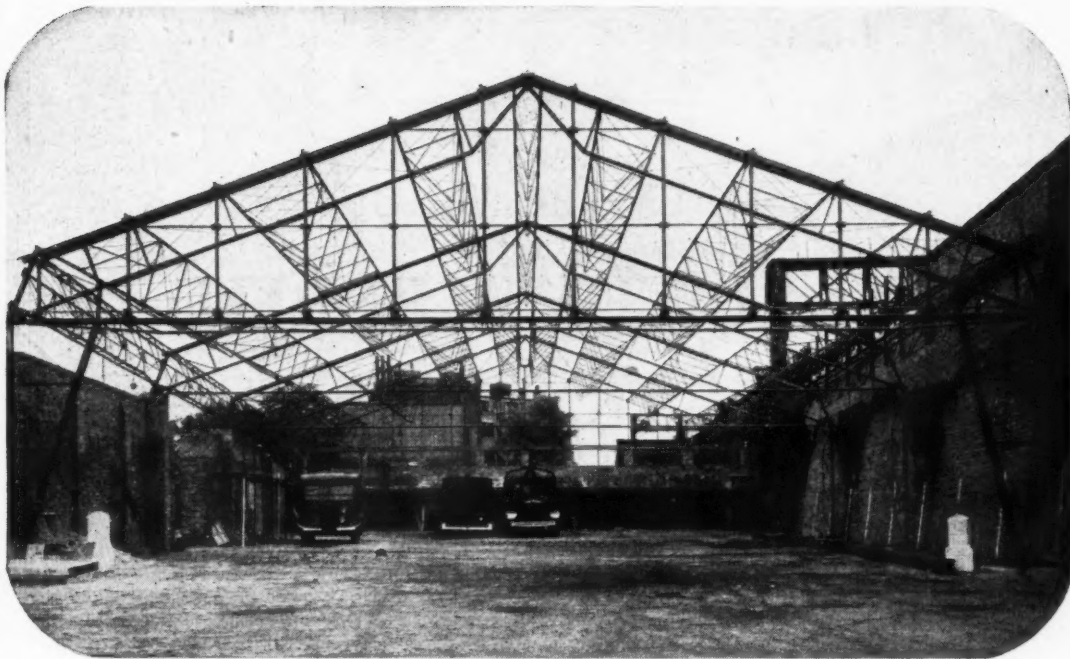
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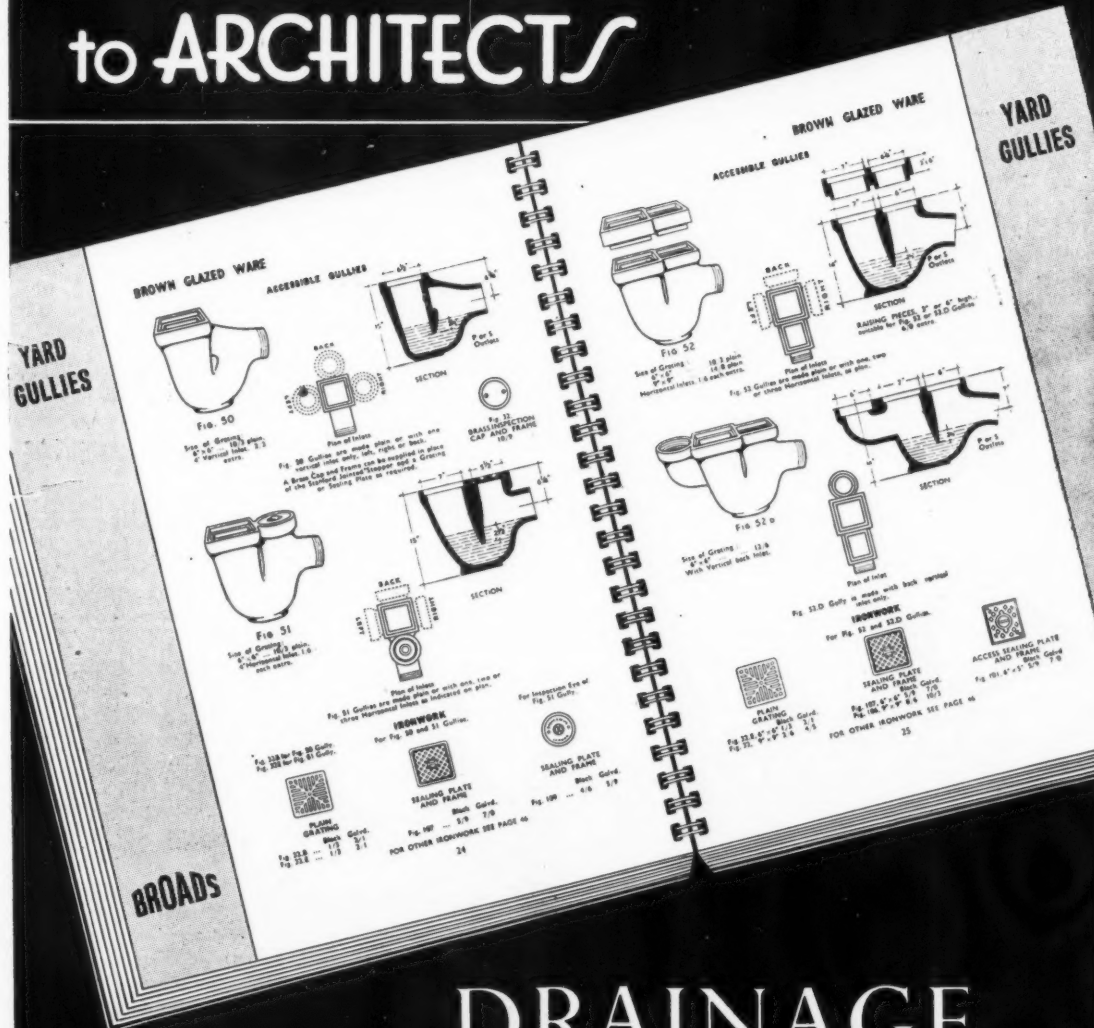
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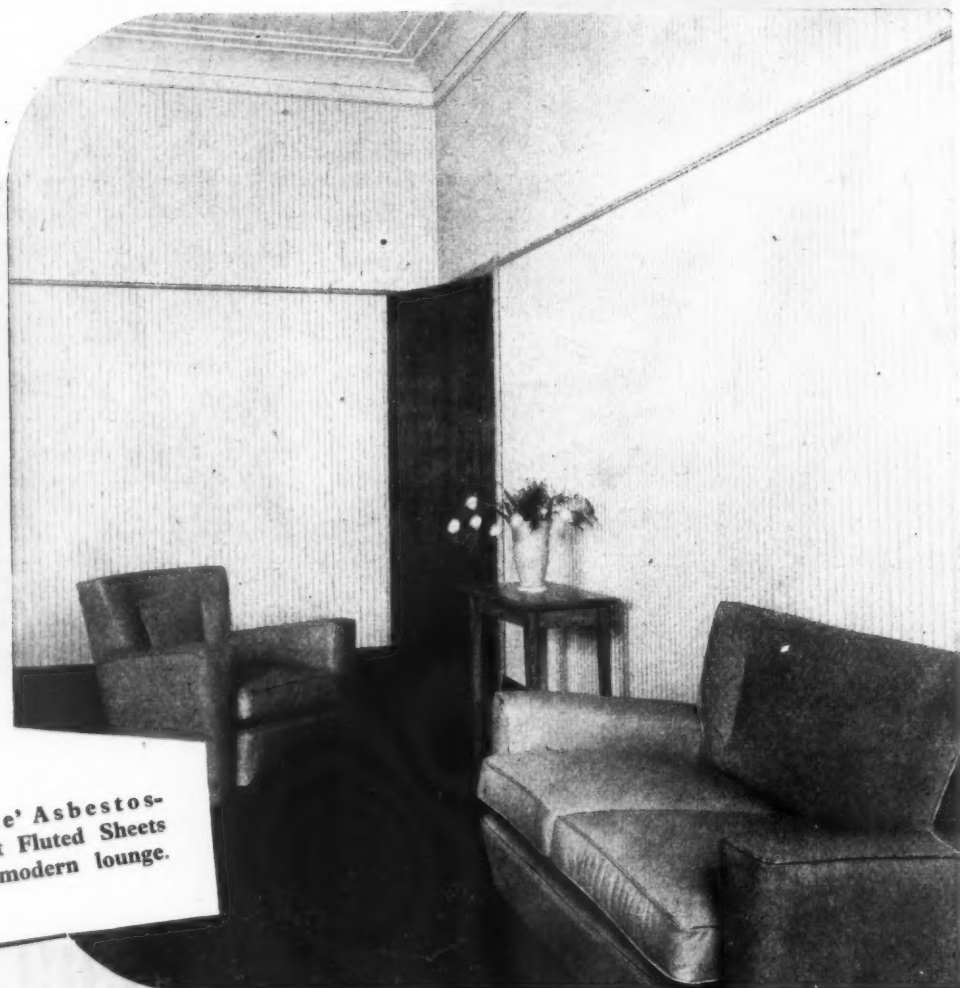
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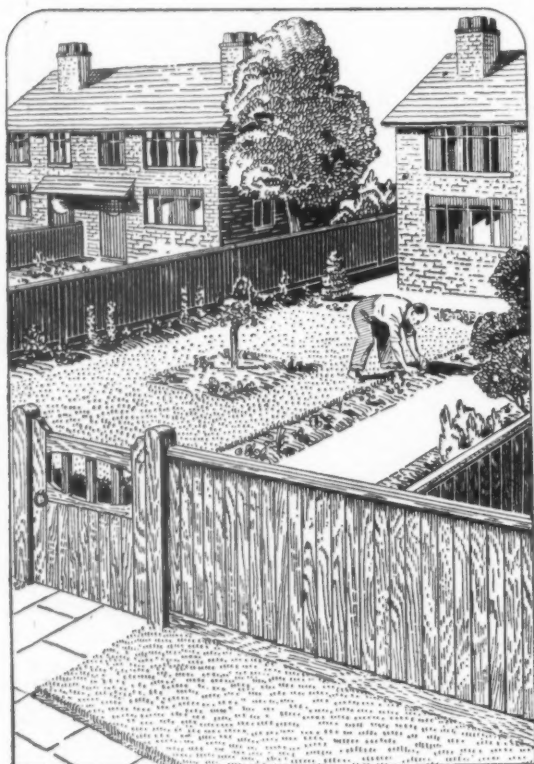
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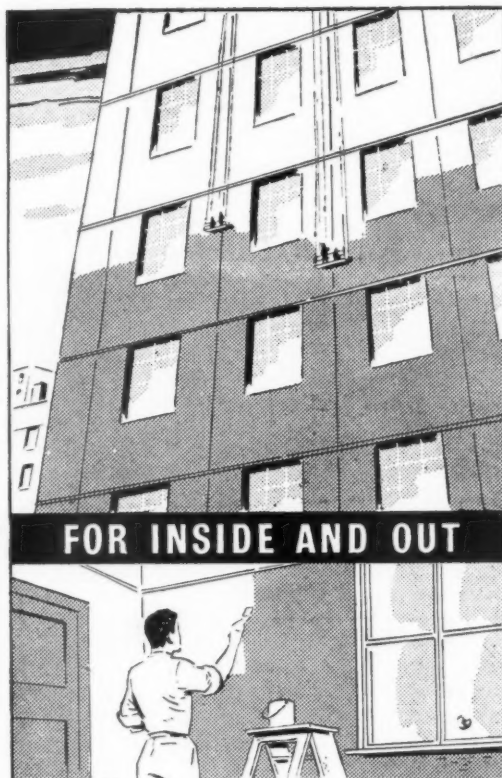
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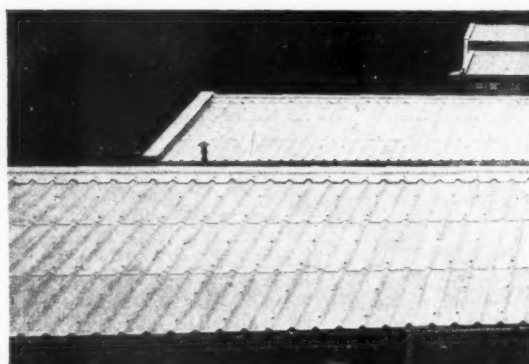
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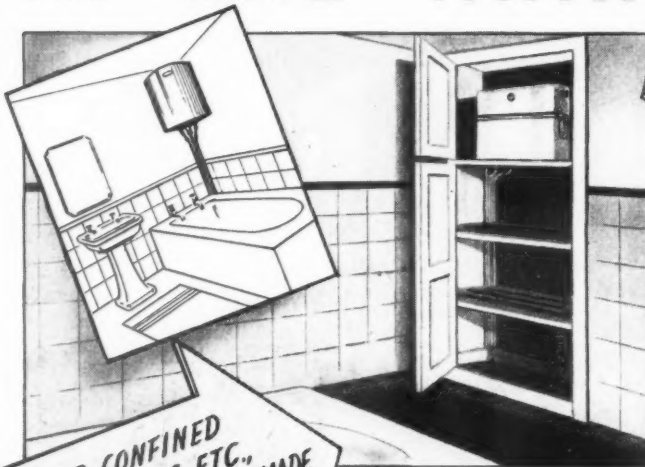


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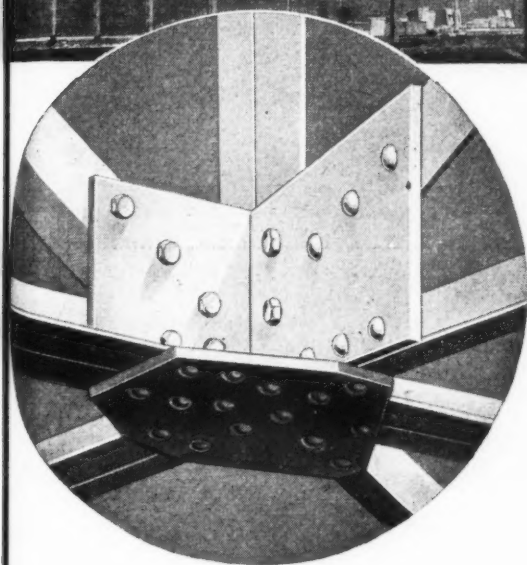
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No 2873 2 March 1950 VOL 111

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AFTER THE POLL IS OVER

It is too early to make many predictions about the effect of the election stalemate on the life of the country. But we can be certain of some things. As far as planning is concerned, it is unlikely that the Government, in its present weak state, will introduce any new legislation. There is a probability, however, that in its short session of power it will come under constant fire from the Tories on the question of private enterprise building.

*

What will be the reaction of the Socialists, who will undoubtedly have one eye fixed firmly on the narrow margin of their success? They will, of course, strive to achieve greater

popularity before next polling day. And what better way could they choose for ingratiating themselves with the floating or vacillating voter than by providing more homes? We may even see the allocation of houses for private enterprise building increased from one in four to one in three. But of that we cannot be sure. It does seem likely, however, that an effort will be made to build more houses within the next few months. This is, perhaps, one of the most useful actions that can come from a Parliament that may well be more vigorous in words than in deeds.

DANISH EXHIBITION

When I saw Finn Juhl, and the other architects who are primarily responsible for the Danish Exhibition at the RIBA in their shirtsleeves last Friday afternoon, surrounded by piles of photographs lying on what is probably the most breakneck floor in London, I had my doubts as to whether the exhibition would be ready for Monday's opening. How nice to be wrong again—but then, I was foolishly judging by English standards. Finn Juhl finished his work on Saturday morning, like all civilized folk, and the result is very pleasing. A suspended ceiling cuts off the high dark centre of the Henry Florence Hall, and round the edges of the ceiling are hung directional signs so that it is easy to find the various types of building exhibited.

*

For the work shown, beautifully detailed and *Architectural Review*-ish, I have nothing but praise. Some of it is familiar, of course, but in compensation there is displayed some excellent new Danish furniture.

Hans Erling Langkilde, the President of the Akademisk Arkitektforening, who was over here for the opening, tells me that the Danes are considering introducing the general contractor into their building team. As readers will remember, at the present the architect is responsible for all that side of the work, for which he gets an extra fee. The Danish Ministry of Housing are interested in this new idea (for them), having seen general contractors at work in Sweden.

*

What the outcome will be is hard to foretell. I myself feel that Danish architectural detailing is good because the architect is always on the site. Any move which would tend to take him away from the job should be treated with caution. As an object lesson, take a look at this country.

MORRIS, LETHABY AND WEBB

There was almost a record crowd at the RIBA last week to hear Mr. Noel Rooke talk of Morris, Lethaby and Philip Webb. It is true that many of them had come to shake hands with the President on their admission to the Institute, but in spite of this the size of the audience showed that there is a considerable interest in the group of architects and designers who made England the Mecca of their foreign colleagues at the end of last century.

*

Those who know all about these men and those who know nothing must have been somewhat disappointed in the evening. Not that it was not a good talk; it was, and personal reminiscences of great men are always interesting, but such meetings are surely more appropriate after the death



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of their hero. I am certain that the majority of those under 40 who went to the RIBA hoped to learn something of how the Morris Group and its immediate successors had contributed to our understanding of the needs of contemporary architecture and what, in their ideas, remains valid for us today.

The little exhibition arranged in the foyer was of the greatest interest. Too often one is apt to think of Morris designs for textiles, wall-papers and so on in terms of the third-rate Tottenham Court Road imitations of them. When confronted with the real thing one is astonished at the confidence and vigour of what must be our most significant native school of design. The current fashionable Scandinavian derivatives pale into insignificance. How splendid it would be if we had contemporary designers who were as vigorous, confident and brilliant, and whose work was of such remarkable quality of design. It is a pity that this exhibition was on for so short a time. Let us hope that someone will consider it worthwhile to repeat it.

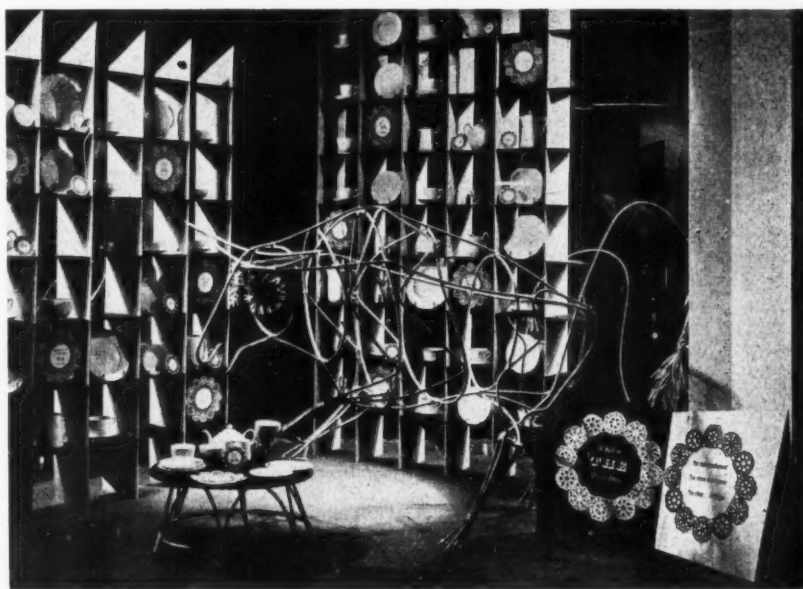
SCANDINAVIAN SKETCHES

Readers will probably remember Hugh Casson's impressions of Sweden and Denmark which appeared in the JOURNAL for December 22. I expect many of them found as much pleasure as I did in the drawings with which he illustrated this article, and they may like to know that the originals of these are now on exhibition at the Building Centre. There are also several more of Casson's charming and inimitable sketches on view.

AIRPORTS: HOME AND AWAY

The KLM air line is a national enterprise in which all Dutchmen take a justifiable pride, just as Londoners take a pride in the efficiency and high design standards of the tube transport system. The latter, by the way, is always one of the first things I show to a foreigner I want to impress.

The Dutch example has the advantage that it is the first thing many visitors see; unfortunately, visitors to Britain have to look at a great many



Last week, students were let loose in Regent Street shops. They were taking part in a competition organized by the CID and the Regent Street Association. Above, is the first prizewinning display by the Royal College of Art; a bull in Lawley's china shop. The student's responsible for this were Miss A. Lee, S. F. V. Noble, Miss P. Reilly and S. A. Smithers. For further photographs see page 271.

things we cannot be at all proud of before they can take refuge in the tube. I am thinking particularly of Schipol airport, just outside Amsterdam, where many visitors make their first contact with Holland. It is admirably designed, and when the enlargement scheme—of which I was shown the drawings the other day, while on a (literally) flying visit to Holland—is completed in about five years time, it should be the most impressive airport in Europe. The present main runway will then be one of five (a second is now under construction) and a complete new passenger station is to be built at the far side of the airport from the present buildings, connecting with the new Amsterdam-Hague-Rotterdam arterial motor-road.

One takes off from Schipol and lands at Heathrow, and the contrast is a sad one. Heathrow, I should add, is very efficiently run and the Customs sheds, passengers' waiting rooms and so on do not compare too badly with their Dutch counterparts, considering that they are all housed in temporary huts. But the general appearance is messy and makeshift. We were told a long time ago that one day the temporary huts would be replaced by permanent buildings, which were to be the subject of an open competition. Is it not

time the Ministry of Civil Aviation gave us a date when the competition will be held and work begun on the site?

BOOKS IN SEARCH OF AN AUTHOR

If any architectural student is looking for a subject for a thesis which would deserve later publication, Astragal can make two recommendations.

The first is for a book on pavings—drives, paths, terraces, steps and so on. There are a number of books which show these things in gorgeous photos and even by drawings, but none that I can find goes into the questions of construction, materials, cost, maintenance, traffic capacity and relative advantages and snags. Second recommendation: a book on lettering (in detachable loose leaf form). There seems to be no book which shows how to construct good Roman and script lettering, and gives examples suitable for use on drawings or carving in stone, wood and slate or casting in metal. Sheets that can be traced, accompanied by short explanatory notes, would enable the possibilities and limitations of each technique to be understood far better than is possible from most existing books on lettering.



Back into The Melting Pot

Visitors to Dublin will be familiar with the new bus station and offices, designed by Michael Scott, which were started in 1946 and which, as the photograph above shows, are now nearing completion. The Government of Eire, however, propose nationalizing transport, and the suggestion has been made that this building should be taken over by the Department of Social Welfare, and that another bus station be built nearby at Smithfield. The conversion of a building of this size into Government offices, necessitating an increase in accommodation of forty per cent., will not only be an extremely expensive proceeding, but will completely destroy the original con-

ception of the design. To expect the architect so to alter a partially completed building is a gross error on the part of the authorities, and suggests a complete lack of understanding of an architect's job, or of appreciation of the art of architecture. This building, so far as it can be judged in its incomplete state, will be one of the most interesting examples of contemporary design in Eire; it can only be hoped that wiser counsels will prevail, and that the architect will be allowed to complete the building to fulfil the true function for which it was designed. For further illustrations of Mr. Scott's uncompleted building turn to page 273.

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AN AMERICAN'S HOME

While politicians of one colour have been exhorting the public to insist on rentable houses, heavily subsidized, and politicians of another hue have stressed the need for houses for sale, we have been reminded that more than one-half of American families have their own home. This statement needs some clarification. Most of these owner-occupiers are probably still repaying the mortgage on their houses, and will go on doing so for anything up to twenty years. Nevertheless, it is undoubtedly more pleasant to acquire a saleable asset than to pay out money that will never be regained.

There is one snag here, however. *The Architectural Forum* reports that there is already serious concern at some of the shoddy workmanship in houses supported by Government guarantee. One wonders whether America's home owners are so fortunate after all. It seems that by the time some of them have paid off the loan they will have gained very little for their money.

LAST RESORT FOR HOLIDAYS

It is obvious that the stimulus of seeing fine contemporary architecture is needed by many of our native architects who are designing or even building today. A trip to Scandinavia, France, Switzerland, or even the USA, if only for seven days, might introduce a change in the well-worn variants of well-worn themes.

But what of the architect who doesn't even want to spend the sum to which he is restricted in most countries? He would surely be envious of members of the engineering or allied industries who, if they are members of the Engineers' Educational Travel Club, can take part in group holiday schemes which mix business with pleasure—the kind of thing that F. R. Yerbury organized when he was secretary of the AA between the wars. Of course, one of the difficulties is that many architects have no time to take a holiday, though it might be possible for them to squeeze one in between the meetings of the Licensing Committee.

ASTRAGAL

The Editors

NEW IDEAS ON SCHOOL DESIGN

THE Government's recent decision to cut capital expenditure on schools by 12 per cent. in 1950, rising to 25 per cent. in 1951, has set in motion a chain of events which is going to radically affect the future design of schools throughout the country. The first link in the chain is the action of the MOE in publishing Building Bulletin No. 2, which is largely concerned with reducing building costs. Contrary to what is so often supposed by architects and builders, enforced economy is not necessarily a limitation to good design, it is rather a stimulus to better planning, better building technique and better detailing. It is, however, essential, ironically enough, that the economy proposed should be sufficiently extreme to upset drastically the existing methods of designing, and that there should be people of sufficient intelligence in key positions to grasp the full implications of the proposed economy.

In this instance the MOE is ably served. Educationalists and architects at the Ministry, and scientists at BRS are combining in a reassessment of the basic requirements of schools and in a study of the planning and building techniques available by which these requirements can best be met. Some of the results of this reassessment are to be found in Building Bulletin No. 2. Although the motivating force is economy, this has not caused an arbitrary cutting of school amenities, but a detailed study of the separate parts of a school, such as dining, teaching and assembly spaces, so as to ensure that maximum use is made of the whole building at all times.

Most encouraging of all is the implication in the bulletin that some of the causes of expense in present day schools, such as noise insulation and adequate day lighting, can be dealt with most economically by utilizing recent technical advances to the full. One example of changes in planning, which could only be achieved by making use of such advances, is shown in brief on page 270. The full implication of all the valuable material contained in this Bulletin will, however, be dealt with more fully in a subsequent issue of the JOURNAL.

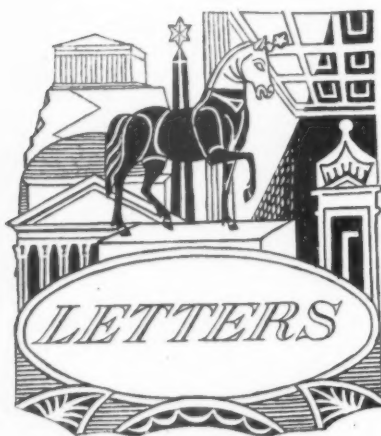
INDUSTRY AND THE '51 FESTIVAL

The summer of next year will see the arrival here of thousands of overseas visitors, and it may safely be assumed that a major part of their stay in these islands will be spent in London. What will they see? The Festival Exhibition on the South Bank, the "live" architecture display in the Stepney-Poplar Reconstruction Area and, it must be confessed, far too many rubbish-strewn bombed sites.

Here is an opportunity which should not be missed. The South Bank Exhibition is, quite rightly, not intended as a trade fair, but we can ill afford to allow so many foreign visitors to come here without showing them something of what British industry can do and is doing. There is something to

be said for the idea put forward this month, by Professor A. E. Richardson, as chairman of the National Amenities Council. This suggestion, which is part of a larger scheme, is that some bombed sites on the river bank should be taken over by various representative trade and industrial organizations, who would hold their own exhibitions.

There are, of course, suitable sites on or near the river between Waterloo Bridge and Tower Bridge, where the preparatory clearing and levelling of the ground would not only serve the trade displays well, but would also be a welcome and useful start for the more permanent proposals of the London County Council for this part of London. An architect could be appointed for the preparation of each industry's exhibit and it should not be difficult to devise a satisfactory degree of cohesion for the whole project. Time is short, but this need be no obstacle to determined enterprise.



H. F. Brand

Pembroke Wicks

J. A. Prowse

Gordon Russell, R.D.I., F.S.I.A.

An Unfair Restriction

SIR.—My reply to L. C. Howitt's letter (February 2) is that only at the hands of a small minority like himself do the findings of the National Joint Council become restrictions—as will be confirmed by a glance through the "Public Appointments" columns. It is interesting to note that the particular advertisement which evoked my criticism was published at a time when its author was, through this journal, chiding another gentleman for the unwarranted pursuit of "sectional" interest. Comment is superfluous.

Judging by the amount of gratuitous information L. C. Howitt has provided, he must think me very ill-informed indeed. It is an unimportant matter of opinion whether the RIBA intermediate examination is to be regarded as Stage 1 or 2 of the whole. Surely the probationership is merely a test of eligibility to compete.

My reference to the "departmental chief's trade union" is no "glaring misconception" from the impartial viewpoint of unattachment. When a learned and cul-

tural society becomes so ethically bankrupt as to endeavour by nefarious means to achieve the monopoly which Parliament has wisely denied it, then severe censure of its way is bound to follow. Is not monopoly the key-note of trade-unionism as we unfortunately know it; and need we go further than this column (December 15, 1949) for details—tacitly admitted to date—of intrigues by the body in question to such an end? It is becoming a matter of real interest whether one genuine argument can be produced for vesting complete control of the profession in a single body, and especially in the organization now aspiring to such domination.

My hypothetical taxpayer would probably swallow L. C. Howitt's benign explanation; it might, however, be unfortunate if he got wind of the miasmas of professional politics beyond.

H. F. BRAND.

Cheshire.

Architects' Registration Act

SIR.—The reply to Major Lambourn's question, in your issue of February 2, as to whether applicants for building licences, who sign their own name in the place provided for the "architect," are committing an offence under the Architects' Registration Act 1938 turns upon the text of Section 1 of the Act, which prohibits an unregistered person from "practising or carrying on business" under the title of architect. If the applicant for a licence is applying on his own behalf in respect of a house which he is building for himself, then he would certainly not be "practising" under the title of architect, and I think it would be very doubtful if he could be said to be "carrying on business" under the title of architect. If, on the other hand, the application for a licence is made by someone who is acting for a client in the way of business, then he would be "carrying on business" under the title and could be prosecuted.

This interpretation is in accord with the general intention of the 1938 Act which was to safeguard the public from being misled by unqualified persons.

PEMBROKE WICKS.

London.

Street Lighting

SIR.—Mr. Falkner, in his letter published in your issue for January 26, is rather less than fair in his strictures on makers of street lighting equipment and also to the many

others who are concerned with the provision of public lighting.

Within the past twenty years the technique of street lighting has been greatly improved, indeed transformed, due to the amount of research lavished upon it, often out of proportion to the economic gain that could ever be expected. Concurrently, there have been enormous advances in the efficiency of light sources, and reductions in the average price of electricity. Many, but far from all, lighting authorities have availed themselves of the advances made and have installed street lighting that is a credit to all concerned. Others, however, have done little or nothing, and it is no exaggeration to say that even within the Greater London area there still exists much street lighting of which many provincial parishes would be ashamed.

The problem of street lighting is economic, and the technical problems arise through the financial limitations imposed on equipment manufacturers and on the industries supplying the illuminant. The solution is always a compromise, and the result on a highway lighted to a satisfactory recognized standard is usually a credit to those responsible for providing the public with the best the money they provide will buy.

It should be emphasised that the best contemporary street lighting practice is known to be far from ideal, but that it probably represents optimum value to beyond the limit at which no road accident could be justly ascribed to faulty lighting.

Existing technique is based on a complete coverage of the road surface, under all conditions, by the broadening and merging of all the bright streaks, to which Mr. Falkner refers, into an evenly bright area. A change to a technique of surface illumination as generally understood would involve a very great increase in the total amount of light needed, with consequent increase in all costs and provision of many more columns.

The most promising recent development in street lighting is the application of tubular fluorescent lamps which, due to their relatively low brightness and large size, effect considerable reduction in glare and improved coverage respectively. For many main road schemes this development, though more expensive initially, can effect appreciable long-term overall economy. Widespread adoption of fluorescent street lighting is at present retarded owing to Treasury reluctance to sanction capital expenditure.

J. A. PROWSE.

London.

Industrial Design

SIR.—I do not know how to take ASTRAGAL's statement that "in the good old days Frank Pick and Gordon Russell did more for industrial design than the whole of the Council of Industrial Design put together."

Frank Pick was one of the earliest advocates of such a body as the Council, which he foresaw could do educational and promotional work for good design, which, for lack of funds, could not be tackled by voluntary bodies. As far as I am concerned, the experience of designing, of manufacturing and of retailing which I gained "in the good old days" has made it possible for me to attempt a pioneering job of an entirely new kind. This experience is now at the disposal of all British manufacturers and retailers instead of one only.

To say that I do not sometimes hanker after the fostering of manufacturing experiments from the inside would be untrue, but who does not share with ASTRAGAL a nostalgic longing to have one's cake and eat it? All the same, I have no regrets, and I hope the same applies to my devoted staff here.

GORDON RUSSELL,

Director,

Council of Industrial Design.

London.



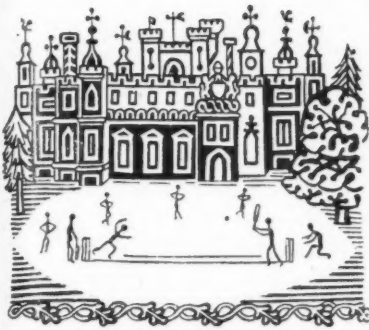
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Below is the third of a series of articles, prepared by Arcon, the JOURNAL's guest editors for 1950, giving the firm's views on the effect of prevailing conditions on the organization of a private practice.

ARCON

The Organization of a Contemporary Practice

In our last two articles we have indicated the type of team organization which Arcon has developed. It is the outcome of the particular circumstances we have met in the changed conditions of architectural practice today. We have also considered the problems of administration and the relationship of the partnership and the staff. We now deal with the relationship of our firm with specialists, and with problems of finance and accountancy.

RELATIONS WITH SPECIALISTS

There has been a lot of talk about the ideal combination of architects, engineers, quantity surveyors and the like. These ideal patterns are apt to be misleading. In fact the testing point must always be: How can this particular job best be tackled here and now? In the light of this question being asked and answered on every occasion, a pattern will begin to emerge. The pattern may be different for different firms, according to the nature of their practice. The alternatives are always whether to employ an outside firm for the specific problem on hand or whether to cope within one's own organization.

The advantage of having a specialist within the firm is that he is immediately to hand whenever required, and that consequently quick answers can be obtained to the problems of the moment. At the same time, having established an internal specialist, it becomes necessary to ensure for him a

continual flow of work, otherwise his employment will become an economic burden on the whole organization. The advantage of the outside consultant is that one is enabled to draw on knowledge based on a wider experience than is possible from a member of one's own firm. This, of course, is offset by the disadvantage of less direct contact and consequent potential delay by way of writing letters, making appointments, etc.

There is today a much wider specialist requirement than was traditionally understood by this word. Under the heading of specialist, we include, along with the engineer, quantity surveyors, etc., those who have a specialized knowledge of manufacturing processes. In view of the growing impact of machine produced goods upon the industry the architect is in need of more and more expert advice.

In Arcon, for the more normal specialist advice we generally employ outside firms of consultants. In addition, we make a very full use of the services provided by industry today for supplying detailed information relating to the latest techniques.

At the same time, within our organization we have endeavoured to build up a versatile staff with a wide variety of specialized knowledge, ranging from structural engineering to model making, who are also capable of undertaking more normal types of work when required.

FINANCE AND ACCOUNTING

The general trend of taxation, the Defence Regulations, PAYE and Statutory Insurances, are some of the factors which have made architects sadly conscious of the shortening balance and the widening time factor between outgoing and incomings.

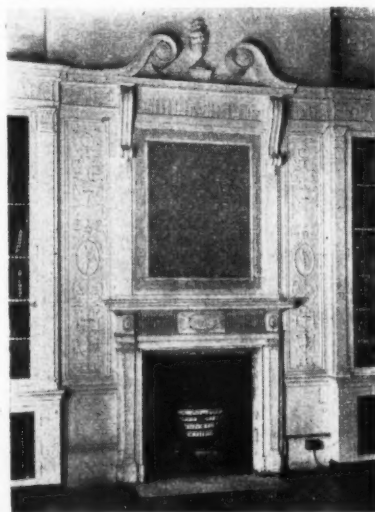
While we can propose no panacea we would suggest that efficient book-keeping and accountancy is a basic requirement. In any architectural office the routine of pay packet, insur-

ance stamps and PAYE deductions can most conveniently be handled by specialized staff. Whether, without unduly increasing overheads, such specification is possible must of course depend upon the size of the office. If, however, it is necessary to seek an argument to turn the balance in favour of engaging such specialized staff, then we would suggest that due weight be given to the establishment and operation of an accurate job-costing system. In these days, when "payments on account" are more than a convenience and when the basis of charge must often be "ad quantum meruit," a job costing system is a substantial asset.

We operate a costing system based on the "worked drawing office man hour," and the cost of these man hours plus direct charges, plus an allocation of overheads, is booked to the appropriate job. Thus every week we know the cost to us of every job in the office. Every quarter our accounts are audited, and before the commencement of each quarter we draw up a forecast of total incomings and outgoings for that quarter. This forecast is not only a statement of finance, but also a plan of work related directly to income and expenditure on each job, which in turn is related to the total capital resources of the firm and to the total theoretical capacity of the staff employed at that time.

CONCLUSION

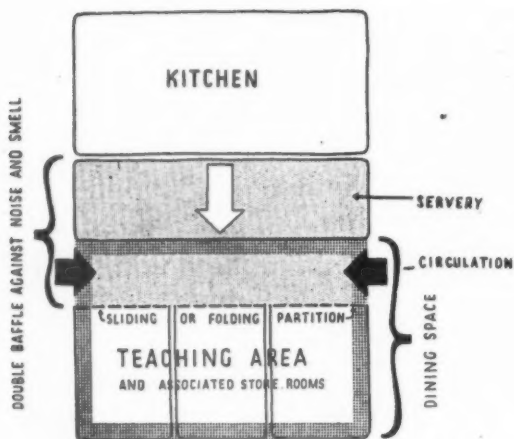
We would like to close by saying that in the end, any organization reflects the personalities of the men at the top. Organization should not be impersonal but should be the result both of a way of doing things and a way of looking at things. There must be many solutions to the problems of organizing an architectural practice. We have indicated our particular approach and we hope that what we have said will serve as a jumping off point for debate in the pages of the JOURNAL throughout the year.



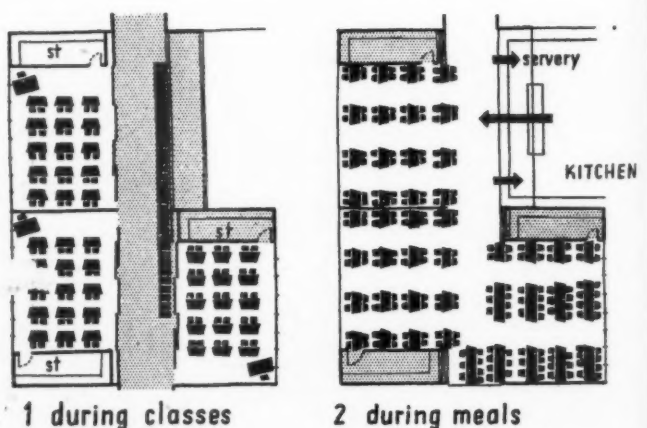
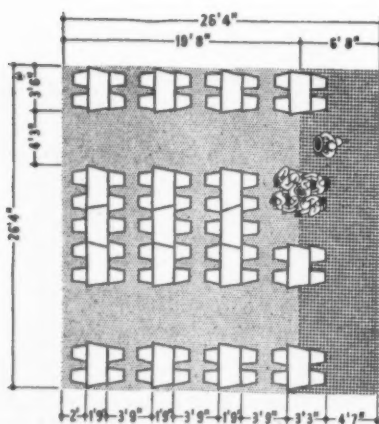
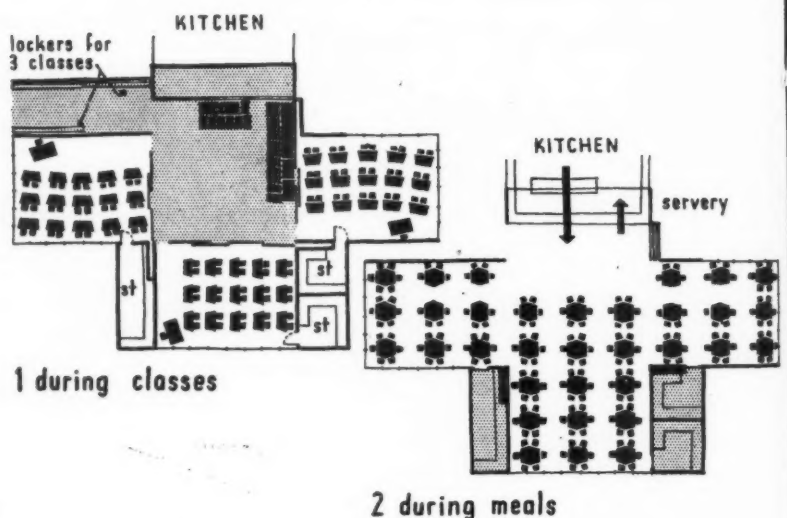
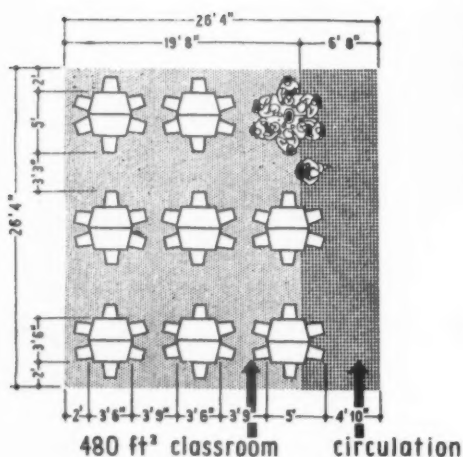
AA MEMORIAL UNVEILED

A new memorial tablet (left), recording the names of 159 students and members of staff of the AA, who died on National Service in the two world wars, was unveiled in the Association's library on Tuesday by Henry Brad-dock, AA president, and was dedicated by the Dean of St. Paul's. This tablet, which replaces one commemorating the 96 members who died in the 1914-1918 war, was executed by E. G. and A. T. Bradford, Ltd.

BUILDING BULLETIN NO. 2: SECONDARY SCHOOLS



The second of the MOE's Bulletins was published this week, and dealt with the vital problem of designing secondary schools in the light of the recent proposals to cut capital expenditure on school building by 25 per cent by 1951. On this page is one of the suggested methods of economizing by a dual use of the normal dining space for both meals and teaching. The principle is shown diagrammatically, left, and the drawings below give some of the many ways illustrated in the Bulletin in which the teaching areas can be arranged. Below left, a suggested table layout for a dining space which, though it takes up more space than a linear arrangement, bottom left, gives comfortable spacing and allows dishes as well as plates to be put on the tables. Below, an example of "pavilion" layout; the plans show space used for teaching on the left and dining on the right. Here, in a twenty class, four-form entry school, sixty-five per cent. of the pupils, plus the staff can be accommodated. Bottom, an example of "corridor" layout, accommodating the same number of pupils and staff. Although in this case the space per pupil is low, there are only nine surplus tables.





COMPETITION

Health Centre, Manchester

The promoters of the 18th Building Trades Exhibition, to be held at the City Hall, Manchester, April 18-29, 1950, Provincial Exhibitions Ltd., have invited the Manchester Society of Architects to organize a competition for a Health Centre in accordance with the following conditions and instructions. The competition is open to members and students of the Manchester Society of Architects and its affiliated societies in Blackpool, Oldham and Preston.

The assessors will be: F. Leslie Halliday, president of the Manchester Society of Architects; Leonard C. Howitt, City Architect, Manchester; Dr. C. Metcalfe Brown, barrister-at-law, Medical Officer of Health, Manchester. The premiums are: First, £100; second, £60; third, £40.

Designs are to be submitted to Provincial Exhibitions Ltd., City Hall, Manchester, not later than 5 p.m. on March 27. No question in connection with this competition can be answered. It is not the intention of the promoters to proceed with the scheme, but it is intended to prepare a model of the winning design to be shown at the Building Trades Exhibition.

The site is 250 ft. square. A 50-ft. road runs along the northerly side and a 35-ft. road on the west side. There is a 20-ft.

INFORMATION CENTRE

INDEX, 1949

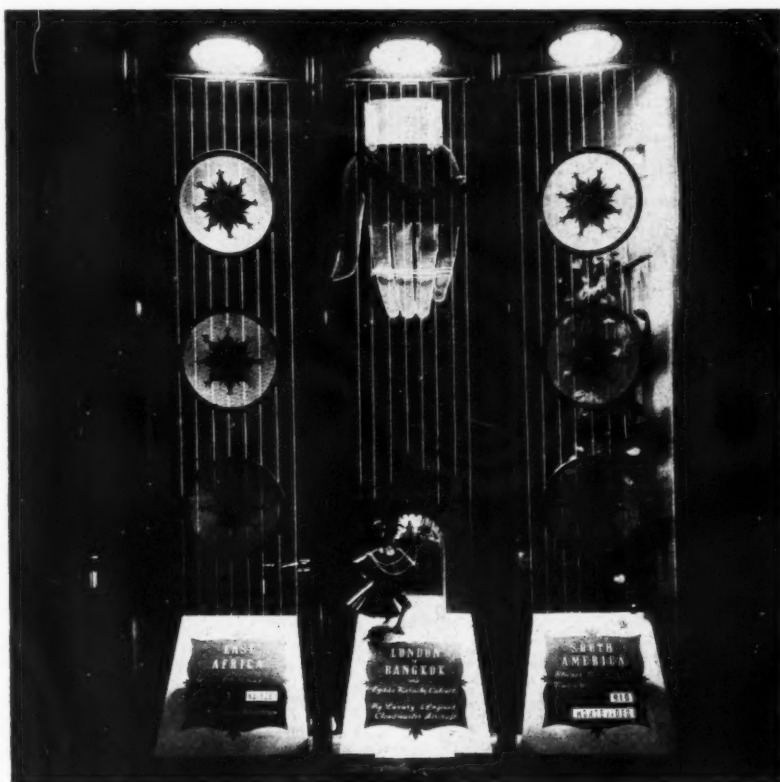
An alphabetical index covering items published during the twelve months ended December 31, 1949, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, not later than March 6, 1950.

Please send me the Information Centre Index for 1949:—

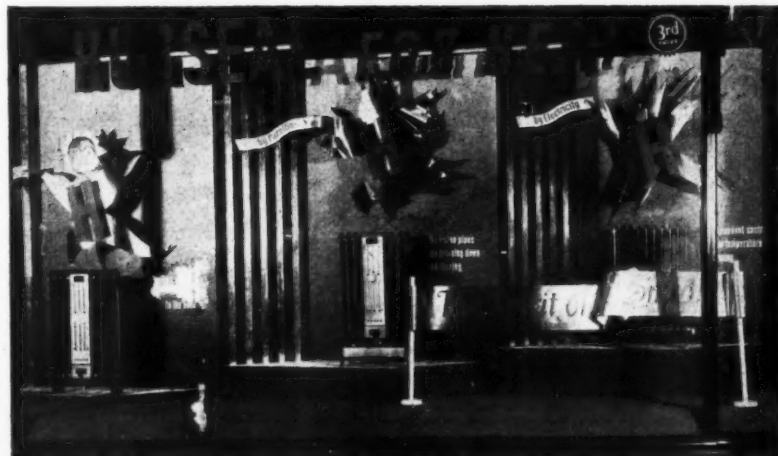
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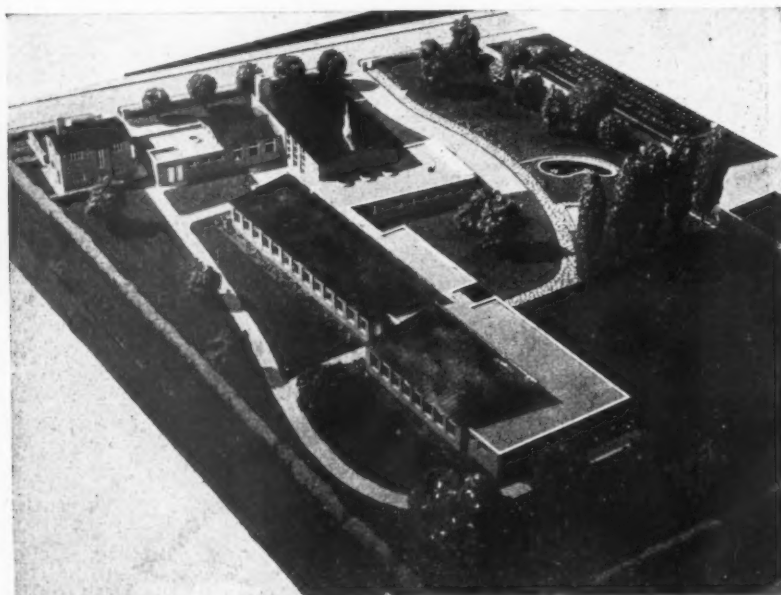
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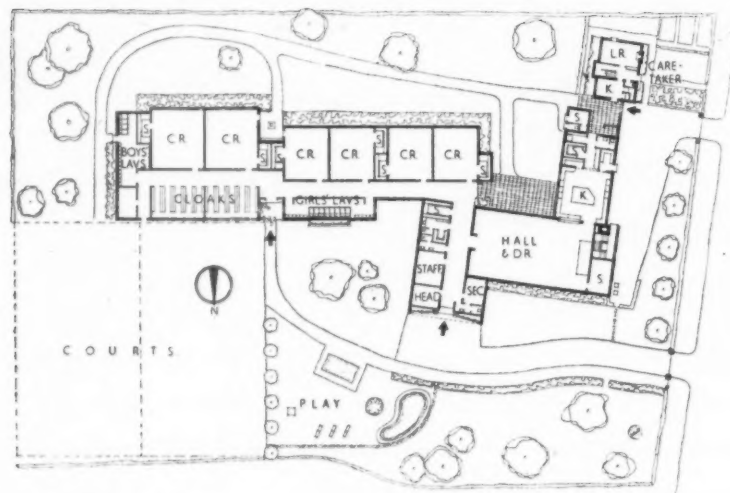
Last week, students from artschools in London and the Home Counties dressed windows in Regent Street, when a competition for the design of window displays was organized by the CID and the Regent Street Association. Above, the second prizewinning display for the Scandinavian Air Lines, by students of the Beckenham School of Art (C. Edser, Miss C. E. Jeffries, C. Walklin, D. A. Voisey, G. W. Harold and J. A. Gillard). Below, the window display at Hulseals Ltd., which won third place for students of the City of Canterbury College of Arts and Crafts (K. Barnaby, M. J. Carr, D. Chamberlain, A. R. Harris, B. Jones, and P. A. Scott.) The first prize-winning display is illustrated on page 265.



AN INFANTS' PRIMARY SCHOOL FOR THORNABY



A model of the school as seen from the south-west.



Plan [Scale: 1/4" = 1'0"]

It is proposed to build a two-form primary school for 240 infants at Thornaby in the North Riding of Yorkshire. The architect is Martin Lidbetter. There will be four classrooms and two general purpose rooms, as well as store rooms, lavatories, cloak rooms, kitchen, assembly hall (which will be used as dining room) and a caretaker's house. Continuous glazing will not be employed in the classrooms; instead large paned, wood framed, centre pivoted windows will be used. The classrooms will also have north light clerestories. Where possible, load bearing brick walls will be used. Flat roofs will be of reinforced concrete, or wood wool slabs on spans, finished on the upper surfaces with mineralised felt. Pitched roofs will be of insulation board with a covering of light weight copper sheeting. Classroom floors will be of solid concrete with a wood block finish. Heating will be by accelerated low pressure hot water. The boilers will be coke fired. Two tarmac paved courts, a sandpit, a pond and grass area will be included.

building line on both of these frontages. An open school playground abuts against the south boundary, and on the east an open space 70 ft. wide separates the site from a block of three-storey flats. The site is level and all services are available. Full conditions are obtainable from the promoters.

LEEDS

Architect's Memorial Dinner

Under the terms of the will of William Hoffman Wood, a Leeds architect, who died in 1933, a gold medal was awarded to Sir Alexander Fleming for his discovery of penicillin, at a dinner held at the Civic Hall, Leeds, on February 17. To date, six medals have been awarded. This year it is proposed to award a gold medal to an architect, who was born in Yorkshire, within 60 miles of Leeds, and one of whose parents was also born in Yorkshire. It is hoped that a chair of architecture will be endowed at Leeds University, with the residue of Mr. Wood's estate, before the end of 1953. Fourteen students have so far benefited by scholarships granted under the will of Mr. Wood.

RIBA

Diplomas in Town Planning

Mr. Leslie V. Mitchell and Robert G. Turnbull have been awarded the RIBA Diploma in Town Planning.

RIGHTS OF WAY

Information Sought for Survey

Every parish council in England and Wales is being asked to take steps now to help in preparing the greatest survey of public rights of way ever to be made in this country. The co-operation of everyone who has information on rights of way is being sought. The Commons, Open Spaces and Footpaths Preservation Society has issued a booklet entitled *Survey of Rights of Way*, which has been widely distributed to local authorities by the Ministry of Town and Country Planning as a guide to the way in which the job of gathering and recording information should be done.

Parish councils are advised to appoint committees to carry out surveys, adding to the committees, if they wish, knowledgeable persons who are not members of the council. These committees are recommended to consult maps and records of enclosure awards, to collect evidence from old inhabitants, and themselves to walk over all reputed public ways in their parishes.

When the necessary information has been collected, parish councils are advised to prepare maps showing footpaths, bridle roads, cart roads and green lanes, driftways and metalled paths, as well as the condition of all tracks and paths, the position and condition of all stiles, stepping stones, kissing gates, footbridges and other means of passage, and the position and details of all obstructions and notice boards.

DUBLIN BUS STATION UNDER CONSTRUCTION



The new bus station and offices in Dublin designed by Michael Scott, are sited close to the eighteenth century Customs House on the banks of the Liffey. The photograph above should allay fears that the new building will jar with the old. There is, however, fresh cause for alarm, as it has been proposed that the new buildings should be radically altered in order to house the Department of Social Welfare. This would mean that the existing office accommodation for 800 would have to be increased to 1,100, while the garage space for eighteen buses would be redundant. Such extreme alterations could be carried out at this late stage only at the expense of the architectural qualities of what promises to be a worthy contemporary example of the architecture for which Dublin is justly famous. Right, the street frontages. See also page 266.



Under the National Parks and Access to the Countryside Act the duty of arranging for the necessary survey of public rights of way falls upon county councils, and it will be from the information collected in the ways described that they will be able to assemble the material for their final survey.

BBC

Talks on the County of London and Greater London Plans

A series of four talks will be included in the Third Programme on the County of London and Greater London Plans. In the first talk, on March 18, John Summerson will give an historical account of the growth

of London. On the next day Peter Shephard, an architect and planner, will discuss the question: "What is wrong with London?" On March 28 he will have a "critical conversation" about the plans for London with a representative of the County Plan and an expert on the Greater London Plan. The final programme will take place during the first week in April, when a speaker not yet named will take as his topic: "How Will the Plans Work?"

DIARY

The Duties of a District Surveyor. Richard B. Ling. At St. Ermin's Hotel, Caxton Street, S.W.1. (Sponsor, IRA.) 6.30 p.m. MAR. 3

Public Lighting. J. M. Waldram. At RSA, John Adam Street, W.C.2. 8 p.m. MAR. 6

Forestry Villages. Dr. Thomas Sharp. At 13, Suffolk Street, S.W.1. (Sponsor, HC.) 1.15 p.m. MAR. 7

1951 Exhibition. Hugh Casson. At RIBA, 66, Portland Place, W.1. 6 p.m. MAR. 7

General Meeting. Central Area No. 1 of LMBA. Derry and Toms Restaurant, W.8. 12.45 p.m. MAR. 8

Requisitioning of Buildings. Debate: that in the opinion of this meeting the continued requisitioning of buildings is against the public interest. At Caxton Hall, Westminster, S.W.1. (Sponsor, IAAS.) 6 p.m. MAR. 8

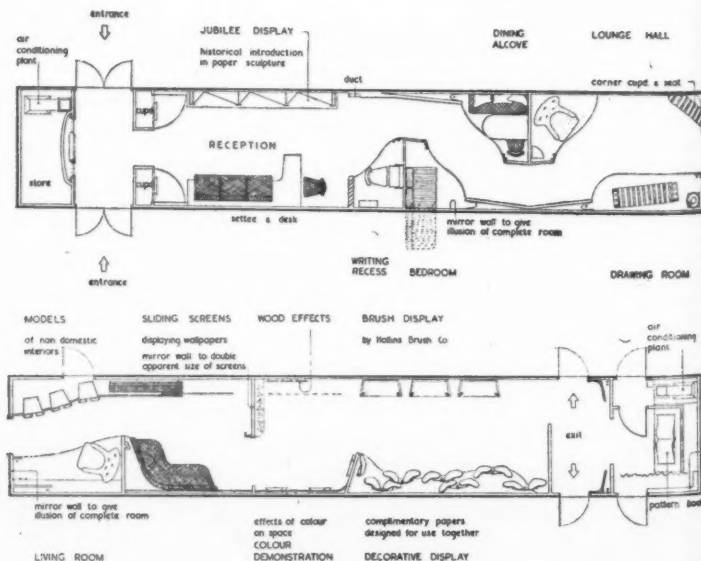
The Claim for Living Space. F. J. Osborn. At the Planning Centre, 28, King Street, Covent Garden, W.C.2. 6.15 p.m. MAR. 8

Talks on the County of London and Greater London Plans. BBC. See news item on this page. MAR. 18, 19 AND 28

EXHIBITION TRAIN FOR THE WALL PAPER MANUFACTURERS LTD.



The interior of this two-coach exhibition train for Wall Paper Manufacturers Ltd. was designed by Kenneth Cheesman. Above, a view from the entrance of the first coach; below, a plan of the two coaches to 1/12 in. scale; top left, the dining alcove; centre left, the bedroom, showing how a mirror wall has been used to give the illusion of depth; bottom left, the writing recess. The principal contractor was A. Davies and Co. (Shopfitters), Ltd., of Acton.



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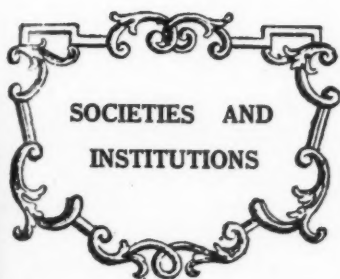
RSA

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Speeches and lectures delivered before societies, as well as reports of their activities are dealt with under this title, which includes professional societies, trade associations and government departments. To save space they are represented by their initials—see front cover. Lectures cannot usually be reported in full, but the extracts given are in the speaker's own words.

RSA

R. D. Russell

February 7. FURNITURE TODAY: TUPPENCE PLAIN, PENNY COLOURED. Inaugural lecture as Professor of Wood, Metals and Plastics, at the Royal College of Art, delivered at the RSA, 6, John Adam Street, W.C.2.

R. D. Russell I think that contemporary furniture designers are suffering from two very serious limitations as compared with their pre-Industrial Revolution counterparts; they are completely out of touch with their public and they have only the most frigid nodding acquaintance with Delight who, as you know, is that chancy, entrancing, pretty sister of those thoroughly decent, reliable chaps Commodity and Firmness, with whom all respectable designers are now such chums. Good furniture, as Sir Henry Wotton said of good building, has these three conditions and real devotion to all of them is essential.

As the result of these limitations, designers' furniture, though commodious (which in modern jargon has become "planned to provide adequate accommodation") and firm (which, alas, has become "made to reasonable performance standards") has little of that popular quality of delight, enrichment or decoration as understood and demanded by the mass of the uncritical public; it has therefore been well made in small quantities for an intellectual minority and consequently expensive.

The other, or coloured side, of the picture is that some of the furniture trade has had the wit, or the low cunning if you prefer it, not to worry overmuch about these somewhat reticent unspectacular qualities of commodity and firmness, but to cover up, literally and figuratively, any deficiencies in these respects with a lavish caricature of delight—a mindless joyless cynical enrichment—which, unfortunately, the public has been uncritical enough to accept; such furniture

was poorly made in vast quantities for the mass market and very cheaply indeed.

So there we have the contradiction in terms—decent expensive simplicity or revolting cheap elaboration—or at least we had before furniture production was controlled, and short of a miracle, will have again, immediately controls are lifted. On one side of an iron curtain there is the mass of the customers wanting, as they always have, and quite rightly, some element of delight in the things they buy and use, although they may have lost, as I hope and believe temporarily, the faculty of appreciating good decoration when they see it. On the other side are the designers who have certainly lost the compelling urge to produce enrichment in terms the public can understand and accept. On the customer's side are most of the manufacturers—and who shall blame them—for their livelihood depends upon this close contact. With the designers are a few devotees to the cause of contemporary design. Occasionally one of the manufacturers, many of whom honestly want to make well designed furniture, nips round to take a few orders for the devotees. It is not a satisfactory set-up.

I want this evening to make the case that really close contact between designer and customer and a mutual delight in enrichment are elements essential to a good standard of popular industrial design and, indeed, that they are the unavoidable preliminaries to the genuine co-operation between designer and manufacturer that we all accept as being so important. I want to examine the circumstances that led to the lapse of these indispensable elements, and to suggest very briefly how designers might be trained to be capable of making and enlarging a chink in the iron curtain between themselves and the customers, and eventually of scrapping it altogether.

The desire for beauty or enrichment has existed from remote pre-history. Archaeologists tell us that flints over a hundred thousand years old seem to have been fashioned with more care and delicacy than was necessary for mere functional efficiency. That may be wishful thinking, but it is certain that throughout the Bronze Age civilization which is sometimes, and today so quaintly, called the Bronze Age barbarism, the craftsman was a favoured and greatly respected member of the community. He provided the tools without which history could not have happened, and he began with the cachet of being itinerant, free and debonair when his customers were restricted to their little plots of land by the labour of trying to wrench a precarious living out of them. Homer in the *Odyssey* says: "A soothsayer, a doctor, a singer and a craftsman is sure of a welcome everywhere."

DOMESTIC DELIGHT

From this time onwards, for more than five thousand years, we have a succession of intensely personal domestic objects, of great beauty and glorified by that quality of delight which was given to them by their makers and appreciated by their users. In these islands we have, to take a few examples, Celtic bronzes, fifteenth century ironwork, seventeenth century glass and pottery, eighteenth century furniture for cottages or for great houses. Right up to the exquisite culmination of the Regency there was this brilliant stream of shared delight—running from time to time more clearly through different trades, but always to be found somewhere. Even now, in the few crafts that have managed to keep their skill and contact with their customers—in for instance the weaving of tweed and the making of baskets and of some hand tools—a trickle of the great stream is still apparent. These complementary characteristics of first rate design have been by no means limited to the work of craftsmen-designers, although here they are bound to be much in evidence.

In the golden eighteenth century, chairs designed and made by country craftsmen, furniture designed and made by the fashionable cabinet makers—Chippendale, Hepplewhite, Sheraton and others—and the extremely sophisticated furniture designed by Robert Adam and other architects, and made by the fashionable cabinet-makers, all had an unparalleled degree of elegance and distinction. At one extreme the country makers of Windsor chairs were working to an established pattern which had been current for a hundred years; they knew how very good it was and had no urge to change it radically. Indeed, time has proved them right, for this same type of chair made today is as fresh as ever. Of course they were always making slight alterations to the pattern, refining it, increasing its strength and comfort, but they were fairly cautious, anyway, and knew their customers: people who lived very much as they themselves did, who had no use for novelty, and whose decent work in other fields—as smiths or wheelwrights or builders—provided them with an uncompromising standard of good workmanship.

These simple chairs have inspired many of the most interesting contemporary designs in Denmark, which has acquired a worldwide and thoroughly deserved reputation for furniture of this character; they have, in the economy of their structure, the inevitable quality of good engineering, and no better chairs have ever been made. That would be achievement enough, but the makers went further. In the light-hearted carving of splats, in the turning of legs and rails, they added their contribution of delight to the widow's curse from which generations of users have drawn pleasure.

ROBERT ADAM

At the other extreme, in this astonishing eighteenth century, we have Robert Adam designing his superb furniture, classics of lavish elegance and perfect detail, to be made by Chippendale's craftsmen for Osterley Park, Harewood and other noble houses. He was fortunate in working for cultured humanists in an extremely civilised age, for men whose knowledge and interest and appreciation must have stimulated him. There can be no doubt that the delight and perfection of his furniture gave his clients tremendous pleasure; and, equally, there can be no doubt that abundant delight went into his designing, and that it was transmitted without loss—indeed, with their own contributions added—by the carvers and cabinet makers, working in a great tradition, who executed these lovely designs.

Certainly it is a far cry from the cultivated urbanity and almost faultless standards of the eighteenth and early nineteenth centuries in England, through the smoky metamorphosis of the Industrial Revolution, to the ill manners and squalor of the twentieth: from Robert Adam, assured and integrated with his period, to the designer of contemporary furniture, so often harassed and in revolt against his. It may need plenty of imagination (which, anyway, he should have) for a student of today to think of himself, however humbly, as a potential successor to Robert Adam; of the spindle hands who will perhaps execute the enrichment he evolves as alternatives to Chippendale's wood carvers; to compare the dreary little suburban houses into which much of his furniture will go with Osterley and Harewood, and the housewives, who will be his customers, with Lord Jersey and Edwin Lascelles.

But the devotion to Sir Henry Wotton's three conditions of Commodity, Firmness and Delight, the genuine feeling for materials and for skill in using them, and the happy co-operation with both makers and customers, all of which together made possible the great achievements of the Georgian and Regency designers, could again do as much today; could equip contemporary designers to play their part in the creation of factory-

made furniture quite as exciting in an entirely different way and still in the great tradition. Most of these essential characteristics do, in fact, apply today. As I said before, I think that two of them—devotion to Delight and contact with the customers—have got mislaid in the fog of mechanization, and of these the first is infinitely the more difficult to retrieve, for it depends upon a state of mind, a natural exuberance, and can be encouraged and developed by example but not instilled by training.

With the reservation that decent standards of humanism and of quality must be maintained, it was no bad thing that some goods should be mass-produced in factories cheaply enough to reach a public for which they had been almost fabulous luxuries. But the Industrial Revolution happened too quickly to be kept under control. Soon the standard of quality began to be overwhelmed by that of cheapness, a process which in some factory-made furniture reached, what I hope and pray to have been, its final degradation between the two great wars of this century. As for the standard of humanism; in the early years it hardly existed. Industry was ruthless and irresponsible in its treatment of people, and the factories turned out not only mass-produced goods but also the mass-produced humanity which became the customers for these goods—a new breed of customers without background or tradition in well-made work, who had no hesitation in adopting the shabby standards of the industries that employed them, who still wanted their delight, but were only too eager to accept a lot of meretricious value for a little money.

The descendants of designers, from the turn of the preceding century, so near in time but so remote in character, could find no place in the new order, and did not want to adapt themselves to it. And so the hacks shut up in factories away from sun and light and gaiety, away from their enormous markets, began, without emotion, the dreary process of grinding out a mockery of delight—ornament because they were told the customers demanded it; ornament to cover up shoddy structure; ornament to make cheap things look valuable; penny coloured had become the ideal.

MORRIS, THE VISIONARY

Reaction from the evils of the Industrial Revolution came from William Morris, roaring in the wilderness for better conditions of living, for a return to hand work and for breaking up the machines. Morris was a poet, a visionary, and something of a crazy; he believed passionately in every aspect of Wotton's famous conditions, but he was blinded to the merits of seventeenth, eighteenth, and early nineteenth century work by his obsession for the Gothic and by his fanatic rejection of any idea of designer's inspiration. "That talk of inspiration is sheer nonsense," he said. "There is no such thing; it is a mere matter of craftsmanship." This somewhat bigoted creed, which became a characteristic of the Arts and Crafts movement, is echoed by furniture craftsmen today.

But from Morris came the reiteration of the almost forgotten idea that ordinary people's houses and everything in them should be well made and beautiful. Of course he meant hand made; his mistrust and contempt of mechanized industry would have prevented him from considering the possibility of achieving this end by means of industrial design. But, nevertheless, indirectly through the distinguished architect-designers who were his disciples—Webb, Lethaby, Voysey, Mackintosh—this conviction has, I think, had an effect upon contemporary industrial design throughout the world of far greater importance than Morris's direct influence upon contemporary craftsmanship. Morris is, in fact, the father of the Modern movement. The brilliant

men working and teaching at the turn of the century and before took over and applied the essence of his doctrines and were fifty years ahead of their time; thanks to them and to him, England was all set to be the centre of a modern renaissance, but the tragedy of the Kaiser's war intervened.

FUNCTIONAL FURNITURE

The ideas of Morris and his followers were taken up and adapted with even more enthusiasm in Germany, where, before this first war, the Modern movement was already established and flourishing. And from Germany, between the wars, ideas for extremely functional experimental furniture came back to England and were welcomed by a few advanced designers. Intended for factory production, this furniture was good in form, entirely impersonal in character, and stripped down to bare essentials as a protest against the ostentatious vulgarity of the period. Much of it was first developed by designers trained in the famous Bauhaus, under the inspiring guidance of Gropius and Mies van der Rohe. Its engineering precision was in tune with the idealization of technique and of machine processes then in vogue. In many ways it was admirable, and as the result of a purge it was necessary, but its coldly unemotional quality struck a chill to the hearts of the public and inserted in them the conviction, still firmly held, that all designers are more or less dangerous.

In the nineteen-twenties, at about the time when this international form for mass-production was engaging the attention of more uncompromisingly contemporary designers, furniture of very different character was being made in this country, largely by hand and in small quantities. It, too, was contemporary, but at the same time strongly national and traditional, with great feeling for wood and for craftsmanship. It was designed by men who were the true descendants of Morris and Lethaby; who were in the Modern Movement, but not restricted by the dogma of the Arts and Crafts; who were prepared to make the fullest possible use of modern techniques wherever these did not depreciate the quality of fine cabinet-making.

It is, I think, from a blend of these two complementary types of design, from a combination of the intellectual appreciation of engineering in wood and the emotional pleasure in the subtleties of skilled cabinet works: from this mixture—with a dash of English eighteenth century sophisticated elegance at second hand by way of Denmark—that the best of today's industrial design of furniture has evolved. This contemporary furniture is distinguished by a thoroughly competent understanding and acceptance of techniques; it is, of course, commodious and firm and, in a limited designer's sense, delightful. By this I mean that genuine pleasure has gone to the achievement of its niceties of detail and finish; to the way, perhaps, that doors are hung; to the careful design of structure to mask joints that in mass-production cannot be perfect; to the tactile form of handles. This pleasure is shared by other designers and by the more cultivated minority of the public; but these refinements ring no bell with the masses from whom, at the very best, such furniture produces the reaction that it is neat and plain. And because it must be decently and honestly made it is tuppence. Although I think it does not go nearly far enough in exploring the possibilities of enrichment in terms the public can understand, the best of this furniture has arrived at an important stage of development in this direction, for it is human and friendly and it provides a sound basis for the next adventurous step.

The industrial designers must take some share of whatever blame is going for the

present situation, for they have not attempted seriously to regain that contact with their customers which was lost during the Industrial Revolution. With them, of course, I must associate myself, for any shortcomings I may ascribe to them collectively are those which I see most clearly in myself. Admittedly, that contact is infinitely more difficult with the vast impersonal market of today than it was in the eighteenth century, but still it is an essential element of good popular design and it must be regained. But perhaps, after all, the designers have not done too badly, for the resurrection from the dark pit of the late nineteenth century was bound to be very slow and very tentative; they have at least achieved the beginnings of a civilized idiom and, what may be more important, the habit of working as members of a production team. The next and even more exciting stage of the Modern Movement is in the hands of the students.

Armed by their training, with a standard and a faith sure enough to be unshaken by the appalling shocks it will most certainly have, these designers of the next generation must somehow get to know their customers, must find out how people live and what they like and why they like it. They must resist the natural reaction to recoil in horror from the worst examples of popular taste and, instead, when confronted by some really terrible piece of furniture, understand that this grisly, depraved exhibit may contain the secret formula for which they are searching; that it is only one of many possible solutions to the popular and uncritical demand for delight with which fundamentally they cannot but be in sympathy. They must remember that, if they can be wise enough to analyse it calmly and objectively, they may find an alternative solution which is quite as popular.

CONTROLLED COMPROMISE

They must apply to designing for their customers those same principles of co-operation and of controlled compromise which are now accepted as an essential part of working in the production team of a factory. They must, in fact, be prepared to work for their customers even at the expense of not designing entirely for each other and of sacrificing the gratification of applications for photographs of their work by all the most fashionable design magazines. They must be encouraged to open their minds to the enchanting possibilities of delight and to want, from the bottom of their hearts, to use enrichment, for it is this genuine urge that makes all the enormous difference between significant and meaningless decoration. It is, I think, extremely important that they should be able to experiment with hand-made furniture, for in this it is possible to be light-hearted, and the limiting idea of the perfection demanded by repetition does not apply. The wise philosopher in James Stephens "The Crock of Gold" said: "Finality is Death: Perfection is Finality: Nothing is Perfect: There are Lumps in it." It was his porridge that he was talking about, but it might as well have been decoration, where there always have been, and always will be, some lumps to be found in it; and they will be found so much more easily by the makers or the designers than by anyone else.

All this, in addition to their normal training, is a pretty stiff programme for the next generation of designers: they can be helped by their training to acquire the point of view necessary to achieve it, but the actual achievement depends very largely upon them. If they can succeed, they will have the tremendous satisfaction of bringing about the renaissance of contemporary popular design in this country and of bridging the disastrous gap of the Industrial Revolution to the glories of the past. And their future will be assured, for they will be accepted by manufacturers with open arms.

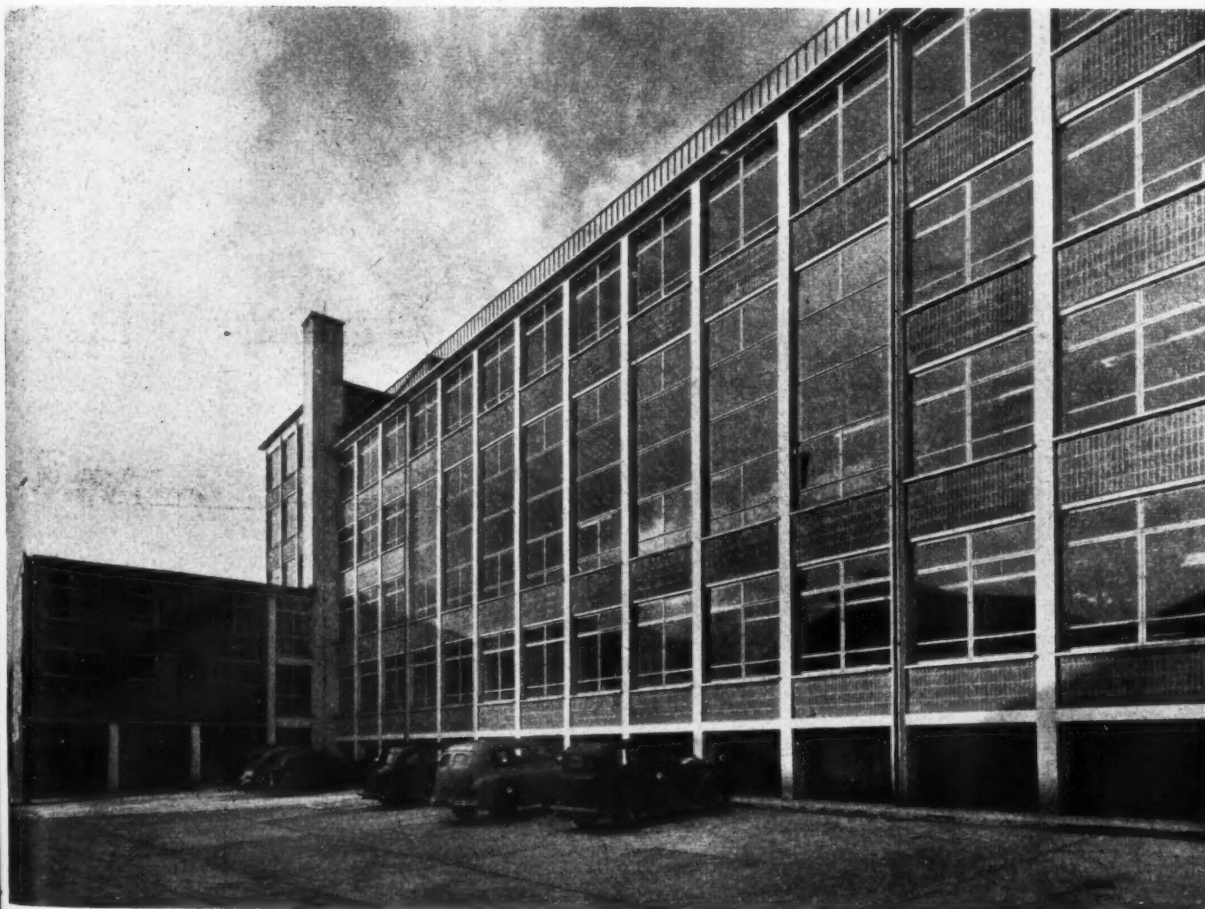
OFFICES

at WALLSEND, NORTHUMBERLAND

designed by RICHARD SHEPPARD and PARTNERS,
assistant architects, CHARLES E. BANTIN and DERRICK P. CHALLIS

The shipbuilding company of Swan, Hunter and Wigam Richardson, Ltd., has decided upon a policy of general reorganization in order to increase efficiency and production in the yard. This includes centralizing the administration, building a new fabricating and platers' shop, and re-siting railway communications and traffic arteries. The general scheme is planned on a long-term basis, and is designed to maintain the utmost production while building operations are proceeding. The first stage, consisting of administration offices and a ship model gallery, has now been completed.

The offices from the south-east.

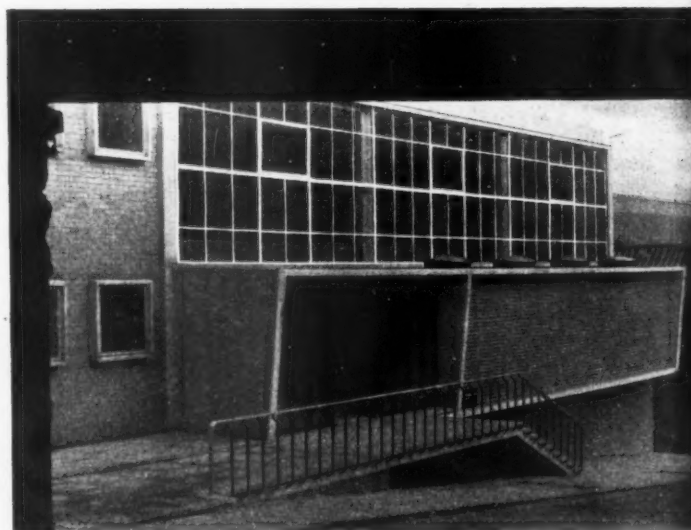
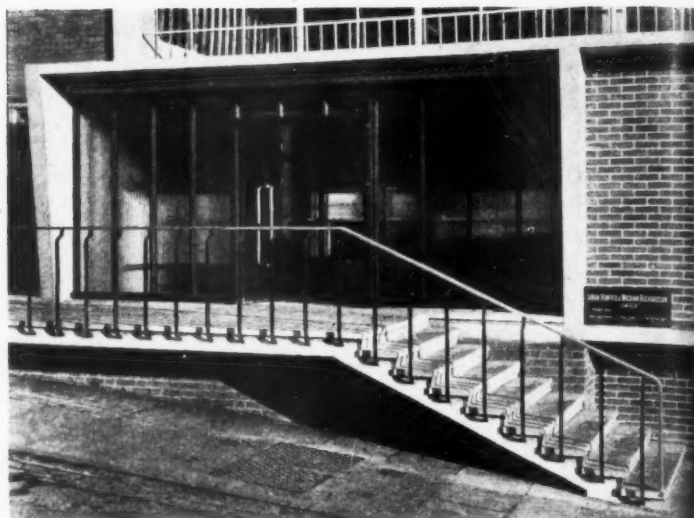


OFFICES

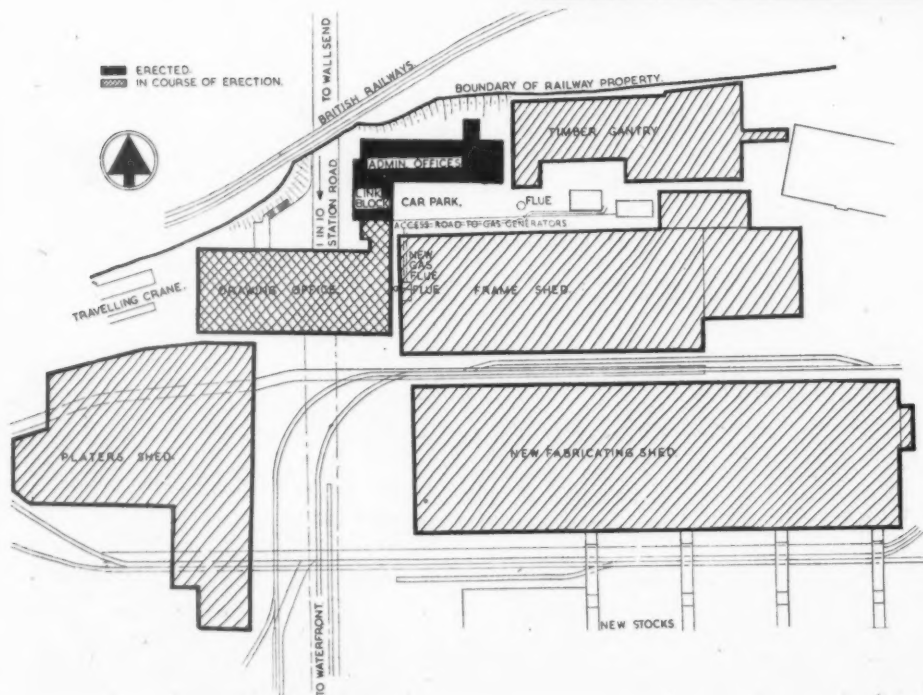
at WALLSEND, NORTHUMBERLAND
designed by RICHARD SHEPPARD and PARTNERS

GENERAL.—Most of the present buildings, sheds and berths of the firm date from the middle of the last century, and are now spread all over the yard in unsuitable positions, and in some cases occupying valuable space which could be used for construction work. The only suitable place to commence building was on the east side of Station Road—the main access to the West Yard, and on this site the new administrative offices have been built. The offices which have been vacated by the administrative staff as a result will give way to new drawing offices, which are shortly to be erected. They will be at first floor level, in order to maintain the present access to the yard, and will be connected to the link block of the administrative offices. When the drawing offices have been completed it will be possible to demolish all the old buildings to the south of a frame shed, and to build new fabricating sheds and platers' shops, with berths adjoining, stretching to the waterfront.

SITE.—There is a slope of one in ten from north to south over the whole site, which extends from a steep railway embankment (with RC retaining walls to prevent subsidence) as north boundary down



Top, detail of the main entrance.
Above, the link block as seen from
the railway bridge.

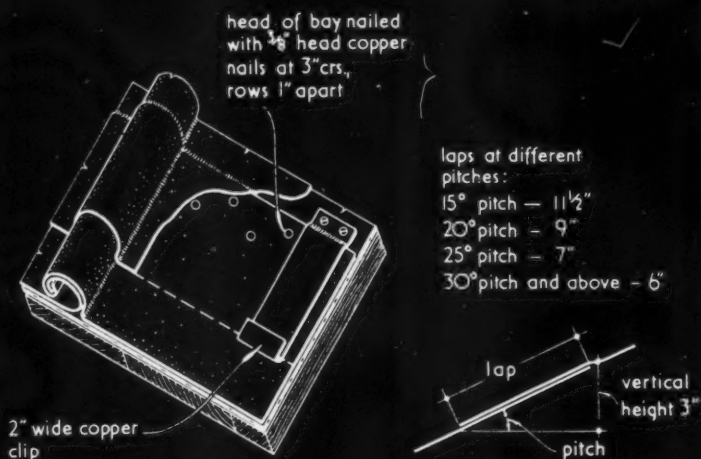


Site plan

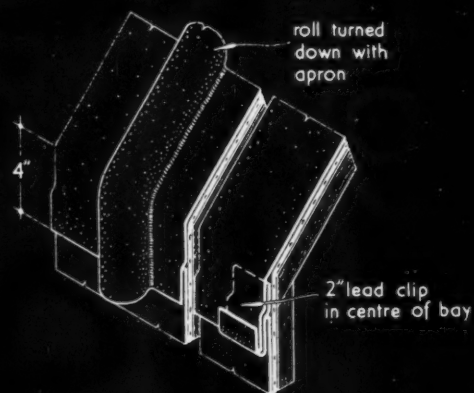
LEAD AND ALLOYS APPLICATIONS

10.G12

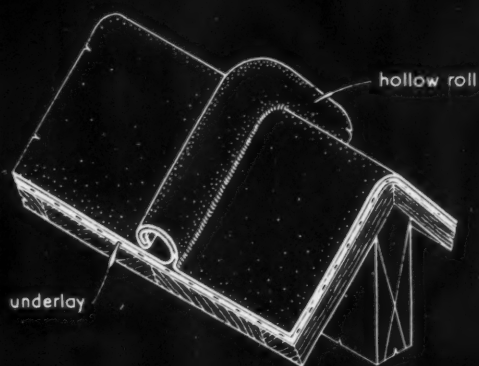
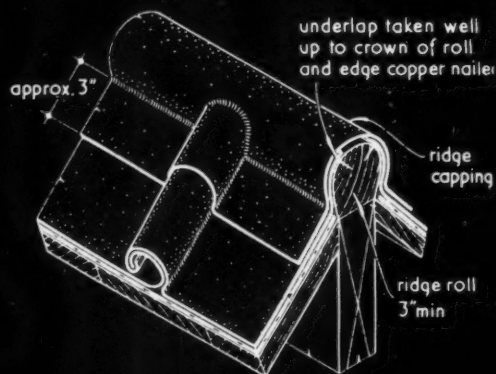
The Architects' Journal Library of Information Sheets 253. Editor: Cotterell Butler, A.R.I.B.A.



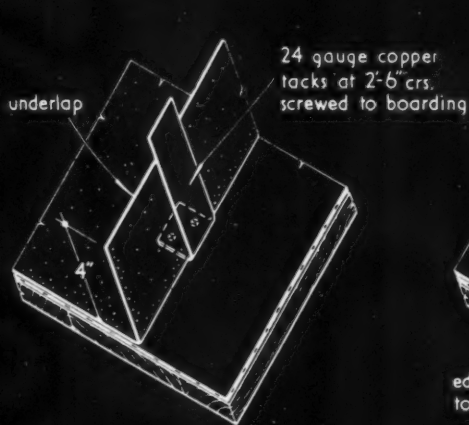
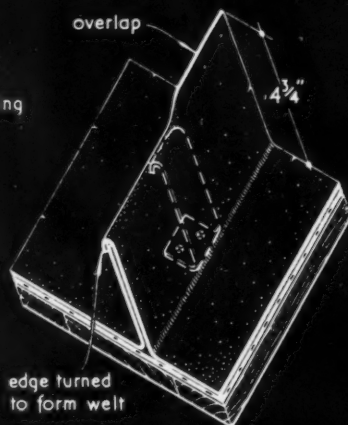
DETAILS OF LAP.



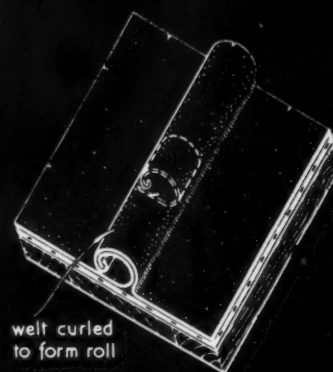
FINISH AT EAVES OR PARAPET GUTTER. (HOLLOW ROLL)

HOLLOW ROLL CARRIED OVER RIDGE.
ALTERNATIVE METHODS OF FINISH AT RIDGE.

RIDGE ROLL AND CAPPING.

①
CONSTRUCTION OF HOLLOW ROLL.

②



③

SHEET LEAD COVERINGS FOR PITCHED ROOFS.

Compiled from information supplied by The Lead Industries Development Council

10.G12 SHEET LEAD COVERINGS FOR PITCHED ROOFS

This Sheet sets out the main details of sheet lead coverings for pitched roofs (roofs of pitch above 15°). It should be read in conjunction with Sheet 10.G11 which deals with lead coverings for flat roofs.

Construction Generally

Roof boarding: This should be well seasoned and as far as possible rift sawn to minimise warping. The boards should preferably be laid to run diagonally across the roof, or, if this is not possible, with their grain running in the direction of the fall of the roof. Nail heads should be driven below the surface, sharp corners trimmed off and high places planed down.

Felt or building paper: Bitumen impregnated sarking felt or stout waterproof building paper should be laid over the boarding to minimise surface irregularities and also to assist in allowing free movement of the lead. The felt should be laid across the fall of the roof, all joints being butted under the rolls. It is important that bitumen impregnated felt, used as an underlay, should have a surface coating not likely to soften and cause adhesion between the lead and the base upon which it is laid, as this will restrict movement of the lead.

Expansion

Expansion and contraction of the lead is reduced to a satisfactory limit by laying pieces of an area not greater than 24 sq. ft. and length not greater than 10 ft., if joints and fixings are designed not only to retain the lead in position but also to allow for natural movement.

Sizes of Lead Bays

For pitched roofs adequate support is provided by fixings at the joints (see below) if the width of bay is limited to a maximum of 1 ft. 8 in. Where it is necessary to use bays of greater width intermediate fixings (see Sheet 10.G21) are required, the general principle being to ensure that there are fixings at 2 ft. 6 in. maximum intervals. Even with intermediate fixings the lead sheet must not exceed 24 sq. ft. in area or 10 ft. in length.

For rectangular bays of 1 ft. 9 in. maximum width it is advisable to restrict the length to 8 ft. This permits the bays to be cut across a normal 8 ft. wide sheet of lead. One of the traditional methods of covering spires was to divide the surface area up into bays, to give a herringbone pattern, with wood rolls running diagonally without the use of laps. The vertical height between rolls was about 2 ft. 6 in. and the length of bay 5 ft. (For wood roll intersections see Sheet 10.G11).

Joints

Laps are used for joints across the fall of the roof and rolls, either wood-cored or hollow, for joints with the fall. Hollow rolls are usually preferred if the work is straightforward and there are few abutments or intersections.

Laps

The length of laps should correspond to a vertical height of 3 in. to guard against water being drawn up between the two layers of lead by capillary attraction. Fixing at laps is carried out by nailing the top of the underlapping bay with large flat headed copper nails. A 2 in. copper clip (24 gauge) may be fixed in the centre of the bay to hold down the free edge of the overlap and provide extra support. For bays of normal width this is optional, but for bays exceeding 1 ft. 9 in. clips are necessary.

Rolls

The hollow roll is made by forming a tall welt and curling this into a roll. 2 in. copper clips (24 gauge) are fitted in the roll at 2 ft. 6 in. intervals. Copper clips are also fitted to wood-cored rolls (see Sheet 10.G11) when these are used for pitched roofs.

Finish at Eaves or Parapet Gutter

Hollow roll ends, at eaves or where the roof discharges into a parapet gutter, may be simply turned over the edge together with the end of the bay. The roll end can be finished in a similar manner to that used for wood-cored rolls or flattened to form a double welt.

Finish at Ridge

Where hollow rolls are used a method of treatment at ridge is to carry the bays over, in alternate directions, for about a quarter to one third of the length of the bay. The hollow rolls are simply bent over together with the bays.

A second method is to fit a wood ridge roll of about 3 in. minimum height to give a good upstand. Although primarily for wood rolls this finish can also be used for hollow rolls. Lead clips are fitted, one to each bay to hold down the free edge. Each capping piece should not exceed 7 ft. long and laps at passings, arranged to coincide with clips, should be 4 in. An anti-capillary groove, about ½ in. wide and ¼ in. deep, should be cut into the wood core of the ridge roll into which the underlap is dressed.

Weight of Lead

6 lb./sq. ft. is a suitable substance for even the highest quality work.

Finish at Abutments

This is by the simple treatment of an upstand against the wall, 4 in. to 6 in., with a cover flashing as for flat roof coverings. Stepped cover flashings are similar to those required for chimney stack side flashings (see Sheet 10.G1).

Compiled from information supplied by:

The Lead Industries Development Council.

Address: Eagle House, Jermyn Street, London, S.W.1.

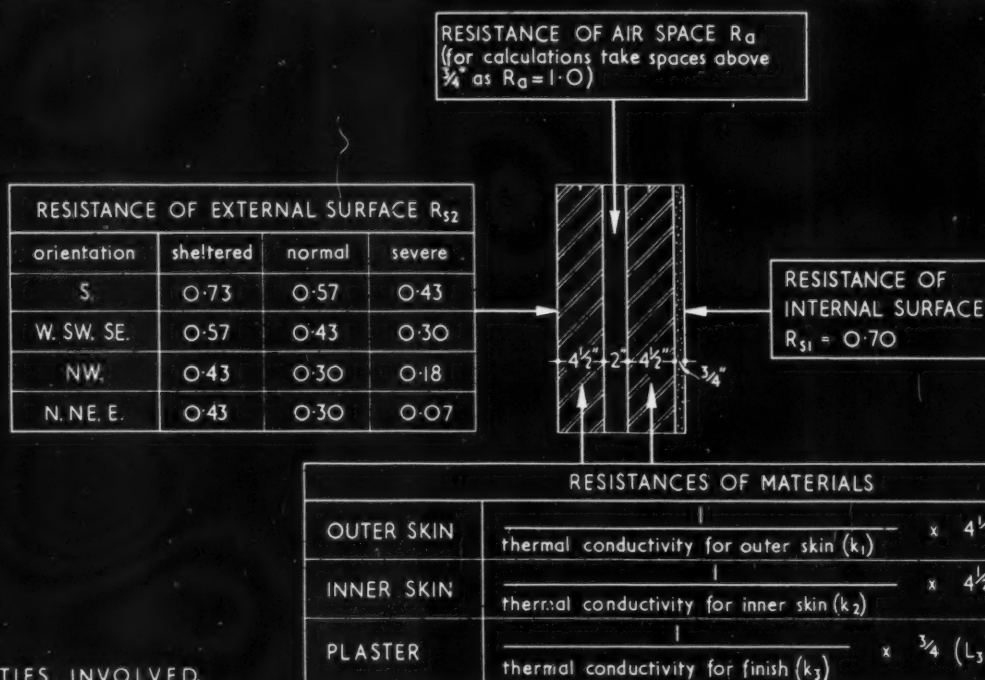
Telephone: Whitehall 7264.

THERMAL INSULATION | GENERAL DATA | FORMULÆ

28.A1

28.A1

The Architects' Journal Library of Information Sheets 254. Editor: Cotterell Butler, A.R.I.B.A.



QUANTITIES INVOLVED.

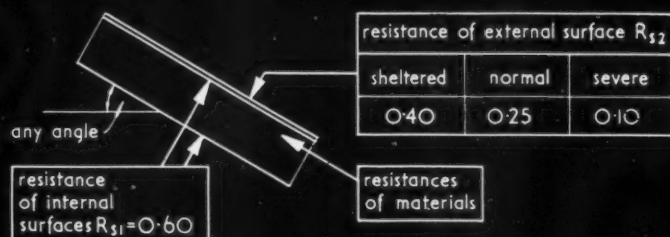
thermal transmittance (U) = $\frac{1}{\text{resistance of internal surface} + \text{resistance of external surface} + \text{sum of resistances of materials} + \text{resistance of air space}}$

$$U = \frac{1}{R_{s1} + R_{s2} + \frac{L_1}{k_1} + \frac{L_2}{k_2} + \frac{L_3}{k_3} + R_a}$$

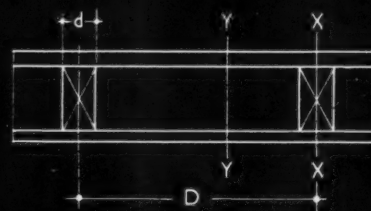
FORMULA.

ESTIMATION OF THERMAL TRANSMITTANCE OF A TYPICAL CAVITY WALL.

note: all surface resistances shown are for plane surfaces.
for corrugated surface deduct 20%



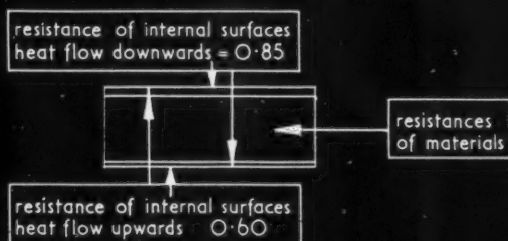
RESISTANCES FOR FLAT AND SLOPING ROOFS.



calculate U through X-X
calculate U through Y-Y
then final U value for structure

$$= \frac{d}{D} \times UX + \frac{D-d}{D} \times UY$$

CALCULATION OF U VALUE
WHERE PIERS OR JOISTS
ARE INVOLVED.



RESISTANCES FOR FLOORS AND CEILINGS.

CALCULATION OF THERMAL TRANSMITTANCE (U) OF STRUCTURES.

Compiled from information supplied by Structural Insulation Ltd.

28.A1 CALCULATION OF THERMAL TRANSMITTANCE (U) FOR STRUCTURES

This sheet, one of a group on thermal insulation, sets out diagrammatically the factors involved in the basic formulae required for the calculation of thermal transmittance coefficients (U) for walls and roofs.

The reciprocals reproduced below are selected to assist rapid calculation of coefficients since the majority of materials have conductivities lying between 0.2 and 20.0, and usually total resistances lie between 5.0 and 1.0.

This table, therefore, gives immediate reference to resistivities ($\frac{1}{k}$) from conductivities (k) and transmittance coefficients ($\frac{1}{R}$) from calculated total resistance (R).

Reciprocals

No.	Recip- rocal	No.	Recip- rocal	No.	Recip- rocal
0.2	5.0	0.74	1.35	1.28	0.78
0.21	4.76	0.75	1.33	1.29	0.78
0.22	4.55	0.76	1.32	1.30	0.77
0.23	4.35	0.77	1.30	1.31	0.76
0.24	4.17	0.78	1.28	1.32	0.76
0.25	4.0	0.79	1.27	1.33	0.75
0.26	3.85	0.80	1.25	1.34	0.75
0.27	3.70	0.81	1.24	1.35	0.74
0.28	3.57	0.82	1.22	1.36	0.74
0.29	3.45	0.83	1.21	1.37	0.73
0.30	3.33	0.84	1.19	1.38	0.73
0.31	3.23	0.85	1.18	1.39	0.72
0.32	3.13	0.86	1.16	1.40	0.71
0.33	3.03	0.87	1.15	1.41	0.71
0.34	2.94	0.88	1.14	1.42	0.70
0.35	2.86	0.89	1.12	1.43	0.70
0.36	2.78	0.90	1.11	1.44	0.69
0.37	2.70	0.91	1.10	1.45	0.69
0.38	2.63	0.92	1.09	1.46	0.69
0.39	2.56	0.93	1.08	1.47	0.68
0.40	2.50	0.94	1.06	1.48	0.68
0.41	2.44	0.95	1.05	1.49	0.67
0.42	2.38	0.96	1.04	1.50	0.67
0.43	2.33	0.97	1.03	1.51	0.66
0.44	2.27	0.98	1.02	1.52	0.66
0.45	2.22	0.99	1.01	1.53	0.65
0.46	2.17	1.0	1.0	1.54	0.65
0.47	2.13	1.01	0.99	1.55	0.65
0.48	2.08	1.02	0.98	1.56	0.64
0.49	2.04	1.03	0.97	1.57	0.64
0.50	2.0	1.04	0.96	1.58	0.63
0.51	1.96	1.05	0.95	1.59	0.63
0.52	1.92	1.06	0.94	1.60	0.63
0.53	1.89	1.07	0.94	1.61	0.62
0.54	1.85	1.08	0.93	1.62	0.62
0.55	1.82	1.09	0.92	1.63	0.61
0.56	1.79	1.10	0.91	1.64	0.61
0.57	1.75	1.11	0.90	1.65	0.61
0.58	1.72	1.12	0.89	1.66	0.60
0.59	1.70	1.13	0.89	1.67	0.60
0.60	1.67	1.14	0.88	1.68	0.60
0.61	1.64	1.15	0.87	1.69	0.59
0.62	1.61	1.16	0.86	1.70	0.59
0.63	1.59	1.17	0.86	1.71	0.59
0.64	1.56	1.18	0.85	1.72	0.58
0.65	1.54	1.19	0.84	1.73	0.58
0.66	1.52	1.20	0.83	1.74	0.58
0.67	1.50	1.21	0.83	1.75	0.57
0.68	1.47	1.22	0.82	1.76	0.57
0.69	1.45	1.23	0.81	1.77	0.57
0.70	1.43	1.24	0.81	1.78	0.56
0.71	1.41	1.25	0.80	1.79	0.56
0.72	1.39	1.26	0.79	1.80	0.56
0.73	1.37	1.27	0.79	1.81	0.55

No.	Recip- rocal	No.	Recip- rocal	No.	Recip- rocal
1.82	0.55	2.68		5.15	
1.83	0.55	to	0.37	to	0.19
1.84		2.74		5.42	
to	0.54	2.75		5.43	
1.87		to	0.36	to	0.18
1.88		2.82		5.73	
to	0.53	2.83		5.74	
1.90		to	0.35	to	0.17
1.91		2.90		6.08	
to	0.52	2.91		6.09	
1.94		to	0.34	to	0.16
1.95		2.98		6.47	
to	0.51	2.99		6.48	
1.98		to	0.33	to	0.15
1.99		3.08		6.92	
to	0.50	3.09		6.93	
2.02		to	0.32	to	0.14
2.03		3.18		7.43	
to	0.49	3.19		7.44	
2.06		to	0.31	to	0.13
2.07		3.28		8.03	
to	0.48	3.29		8.04	
2.10		to	0.30	to	0.12
2.11		3.39		8.73	
to	0.47	3.40		8.74	
2.15		to	0.29	to	0.11
2.16		3.51		9.57	
to	0.46	3.52		9.58	
2.20		to	0.28	to	0.10
2.21		3.64		10.58	
to	0.45	3.65		10.59	
2.24		to	0.27	to	0.09
2.25		3.78		11.80	
to	0.44	3.79		11.81	
2.30		to	0.26	to	0.08
2.31		3.93		13.40	
to	0.43	3.94		13.41	
2.35		to	0.25	to	0.07
2.36		4.09		15.50	
to	0.42	4.10		15.51	
2.41		to	0.24	to	0.06
2.42		4.26		18.30	
to	0.41	4.27		18.31	
2.47		to	0.23	to	0.05
2.48		4.45		20.00	
to	0.40	4.46			
2.53		to	0.22		
2.54		4.66			
to	0.39	4.67			
2.60		to	0.21		
2.61		4.89			
to	0.38	4.90			
2.67		to	0.20		
		5.14			

Further Information.

Structural Insulation Ltd., maintain a technical department for the preparation of thermal insulation and heat loss calculations, which is available to advise on problems dealing with this subject generally.

Compiled from information supplied by :

Structural Insulation Ltd.

Address : 5, Queen Anne's Gate, London, S.W.1.

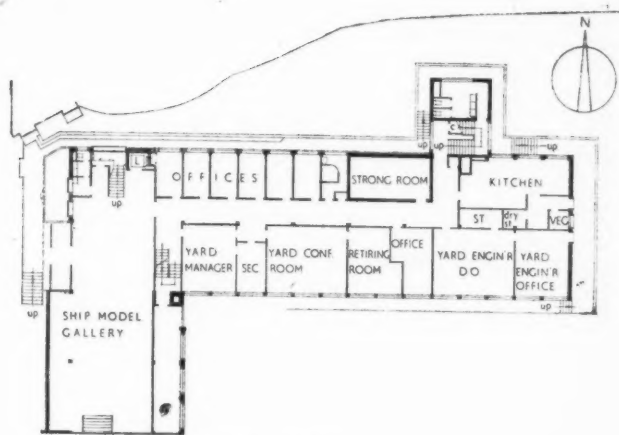
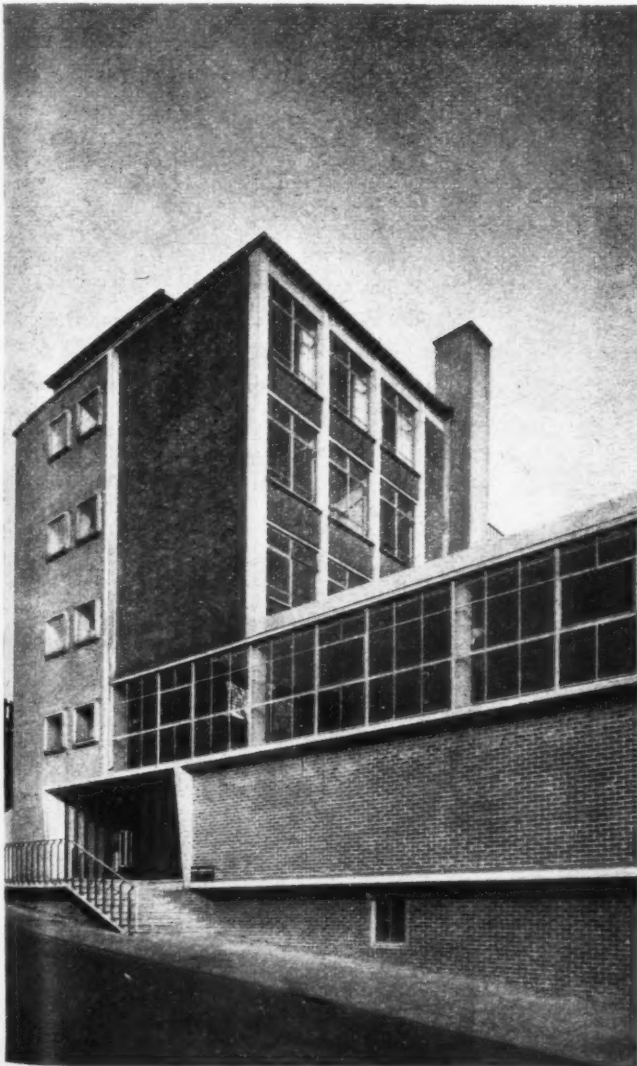
Telephone : Whitehall 4176/7.

Telegrams : Thermecon, Parl, London.

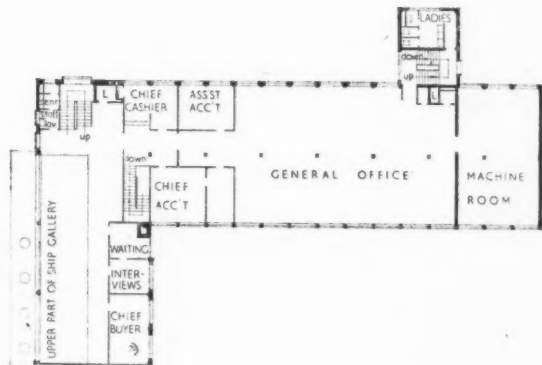
to the waterfront. The site is divided into an east and a west portion, on either side of the main entrance. A headroom of 11 ft. 8 in. over the main access road has had to be retained. A minor access road to the transformer house and gas producing plant has a headroom of 11 ft.; this also has had to be maintained. An overhead gas flue, which crossed the site, has been replaced by an underground flue, constructed of brick, where it crosses the minor access road.

PLAN.—The new administrative office block is sited to the west of the main approach to the yard, and is five storeys high with a north and south aspect. The link block is two storeys high and situated on the south side of the office block. Accommodation has been planned as follows: The ground floor contains the Yard Engineer's Dept., conference rooms and Ships' Manager's Rooms, all of which

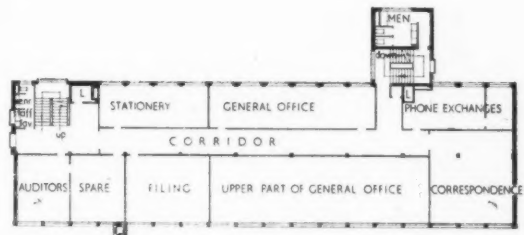
The link block from the south-west.



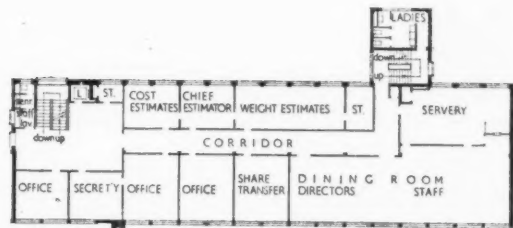
Ground floor [Scale 1/4" = 1'0"]



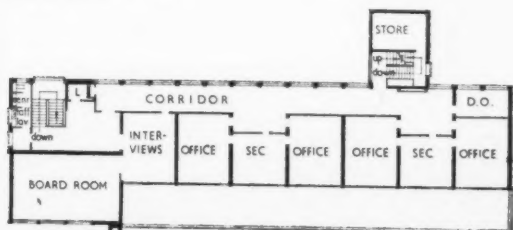
First floor

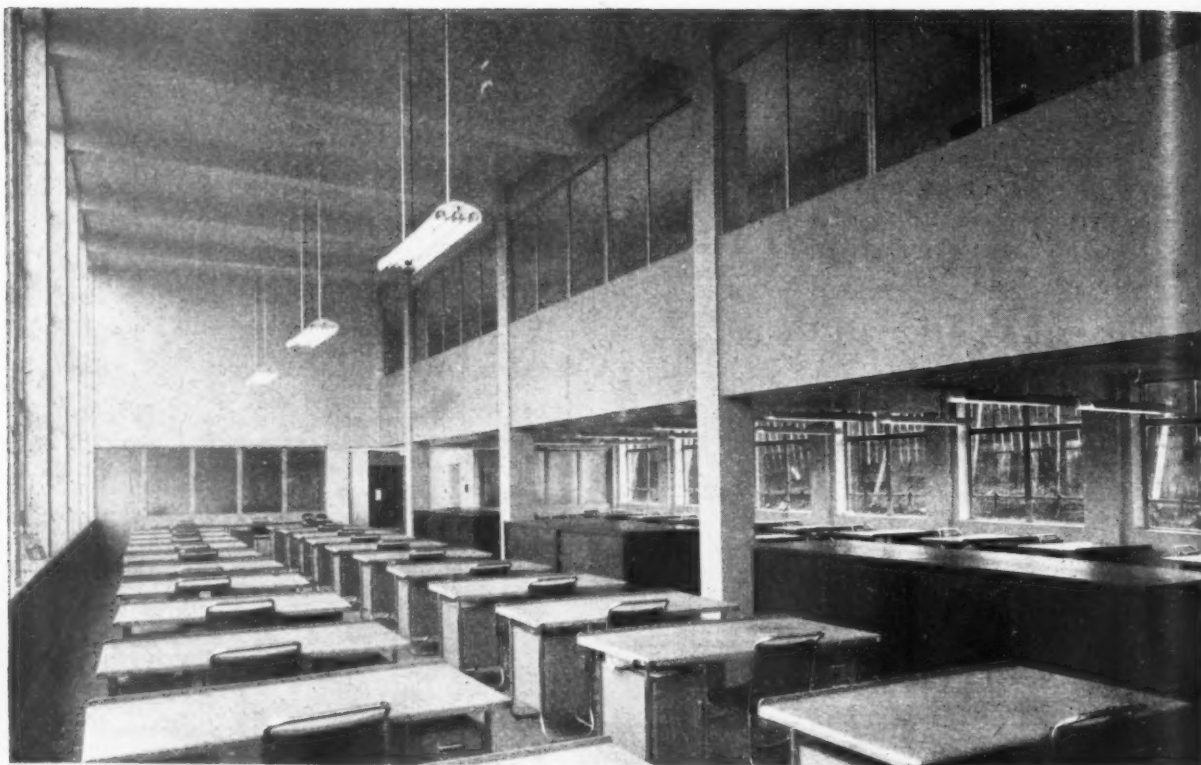


Second floor



Third and fourth floor





Above, the general office; below left, the board room; bottom, one of the offices on the fourth floor.

OFFICES

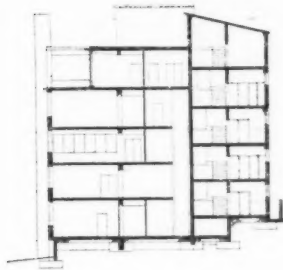
at WALLSEND, NORTHUMBERLAND
by RICHARD SHEPPARD and PARTNERS



have direct access to the yard by a covered way which runs along the east side of the link block. The first and second floors contain the general office, typing and accounts departments. The third floor contains the senior executive offices. On the fourth floor are the directors' rooms and the board room. These have been set back on the southern facade in order to escape the noise of the yard. Staff lavatories are provided at mezzanine level at the east end of the building.

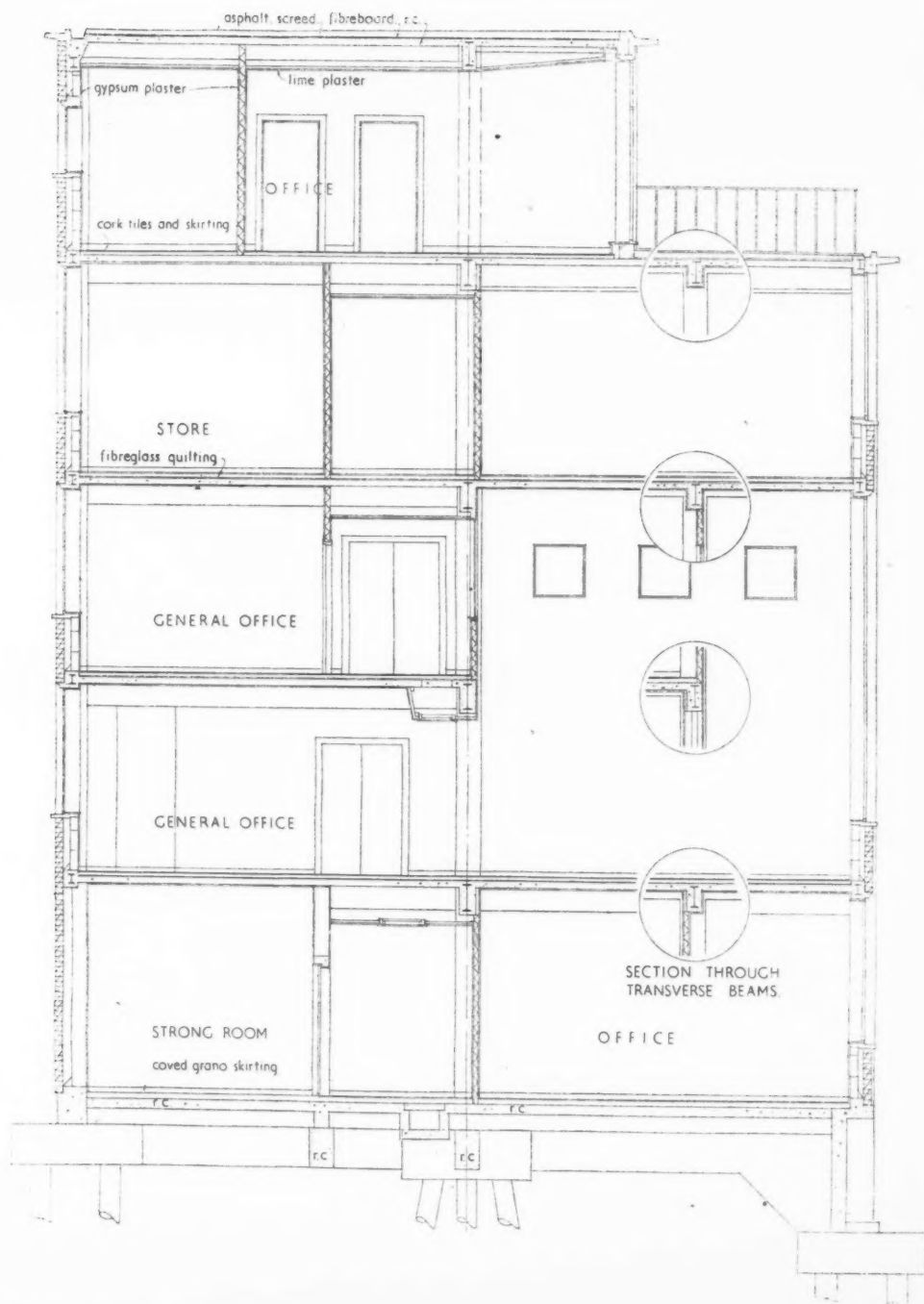
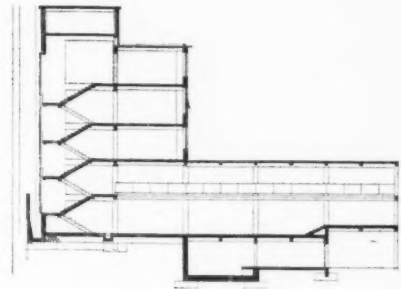
The link block has been designed to provide a display area for models of ships built by the firm. A corridor at mezzanine level on the east side of this will provide access to the future drawing offices.

CONSTRUCTION.—Blue clay soil has necessitated the use of *in situ* concrete piled foundations. The floors are of 4-in. *in situ* reinforced concrete, with a 3-in. screed and a floor finish. The roof is also of 4-in. *in situ* concrete, but with a 1-in. wood wool and foamed slag screed and asphalt finish, laid to fall. The concrete gutters are concealed. External walls are of 4½-in. brick, with a cavity and 4½-in. foamed slag blocks. Internal walls between offices are of 3-in. breeze blocks. A double



Left, south-north section through offices. Right, north-south section through offices and link block.

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

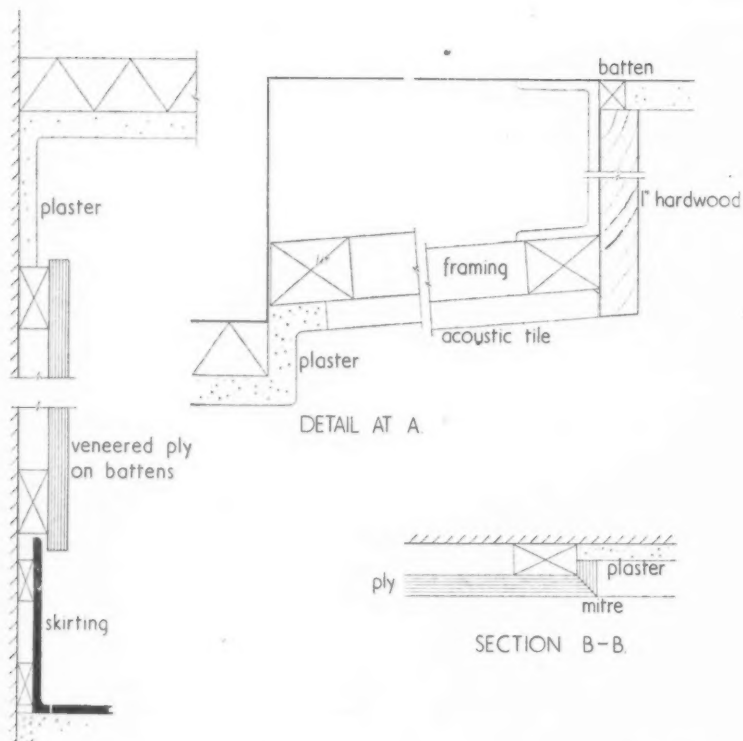


Cross section through administrative offices.

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

OFFICES

at WALLSEND, NORTHUMBERLAND
by RICHARD SHEPPARD AND PARTNERS.

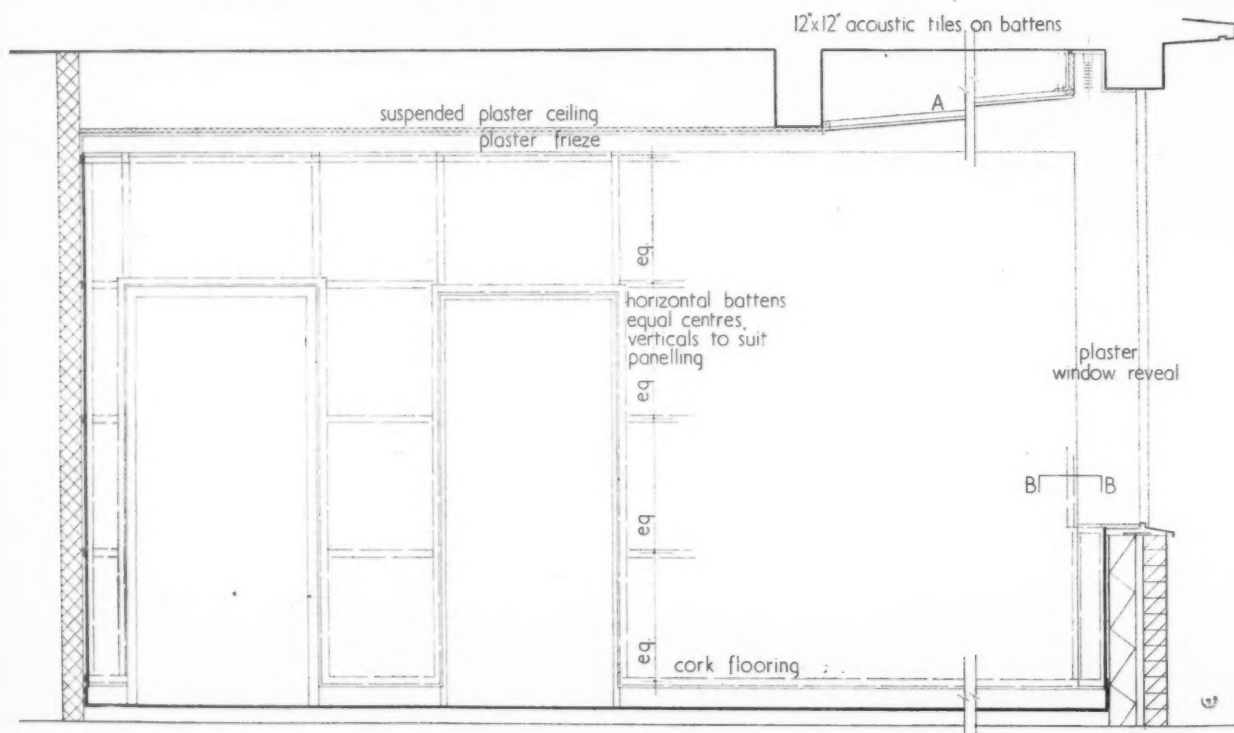


Details of the cross section below.

[Scale: 3" = 1'0"]

Cross section of one of the offices on the fourth floor.

[Scale 3/8" = 1'0"]



skin of 3-in. breeze blocks with a cavity separate rooms on the fourth floor. Purpose-made metal casement windows have been used throughout.

EXTERNAL FINISHES.—The east, north and part of the west external walls are faced with a light brown brick. The south wall of the office block is faced with dark brown bricks in soldier courses. The horizontal panel on the west wall is also of dark brown bricks, flush jointed. The vertical panel of dark brown bricks with recessed headers has raked joints. Colour mix has been added to the mortar. External concrete surfaces have been cement rendered. The stack is also rendered. Rain water pipes are of copper. The balcony railing on the fourth floor is of aluminium; the balusters of steel, painted maroon.

INTERNAL FINISHES.—The entrance doors are of teak. The screens are of plate glass and broad reeded glass. The walls and ceiling of the ship model gallery are plaster finished. The floor and skirtings are precast *in situ* terrazzo. The columns are finished with a dark maroon flat paint. Ceilings and the soffit to the staircase are finished with a pale blue flat paint. The walls are stone coloured.

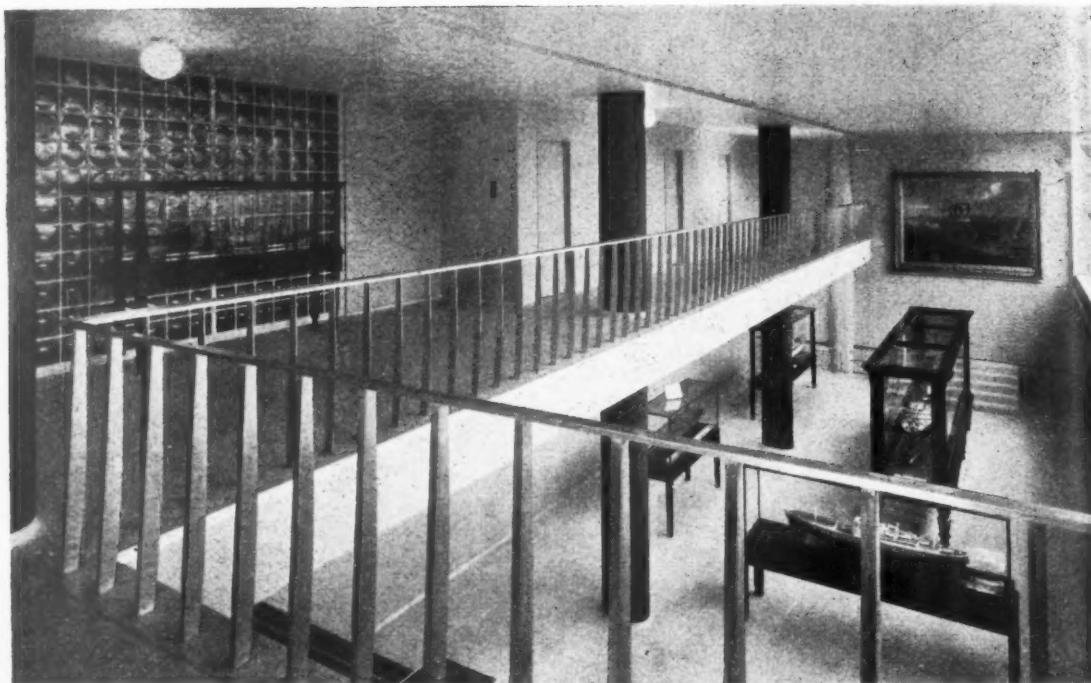


The porter's desk in the ship model gallery, and the main staircase.

The gallery railings are of aluminium and the lighting fittings are purpose-made of spun aluminium, spray painted. The main staircase is of reinforced concrete carcase with a terrazzo finish to the treads and risers; the handrails and balusters are of aluminium. The walls and ceilings of the offices are plaster finished and painted with washable distemper. Skirtings are of softwood. Acoustic tiles are used on the ceiling of the machine room. Softwood framed flush doors are hung in pressed steel door frames. The walls of the directors' rooms and the board room are panelled in various woods. The floors are laid with cork and the skirtings are

of aluminium. Acoustic tiles are set in recessed ceiling panels. Veneered solid flush doors are hung in ebonised hardwood frames.

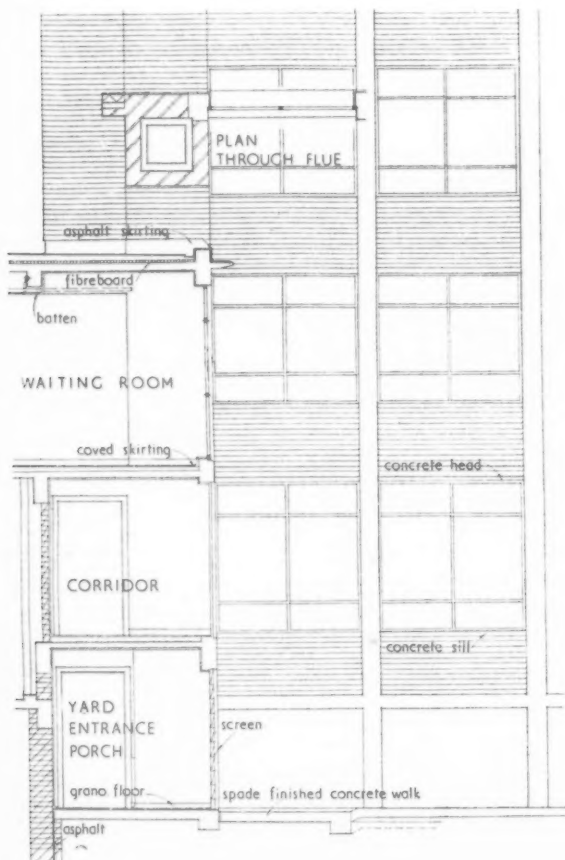
FITTINGS.—The table, chairs, side tables, coffee tables and sideboard in the board room, and the porter's desk, were designed by the architects. The table in the board room is made of teak with ash lipping. The top is finished with Niger goat skin. The sideboard is made of similar materials. Teak strips on aluminium form a finish to the sideboard. The chairs are upholstered with blue tapestry. The tub easy chairs in the ante room are upholstered



The ship model gallery.

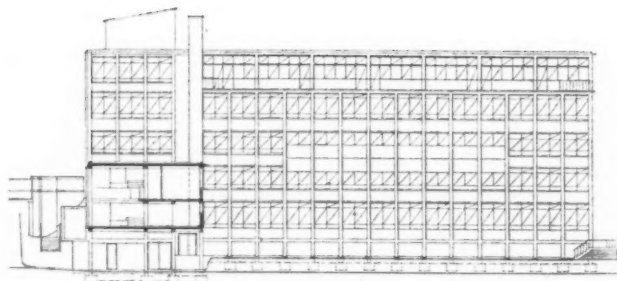
OFFICES

at WALLSEND, NORTHUMBERLAND
designed by RICHARD SHEPPARD and PARTNERS.



Part section through link block.

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



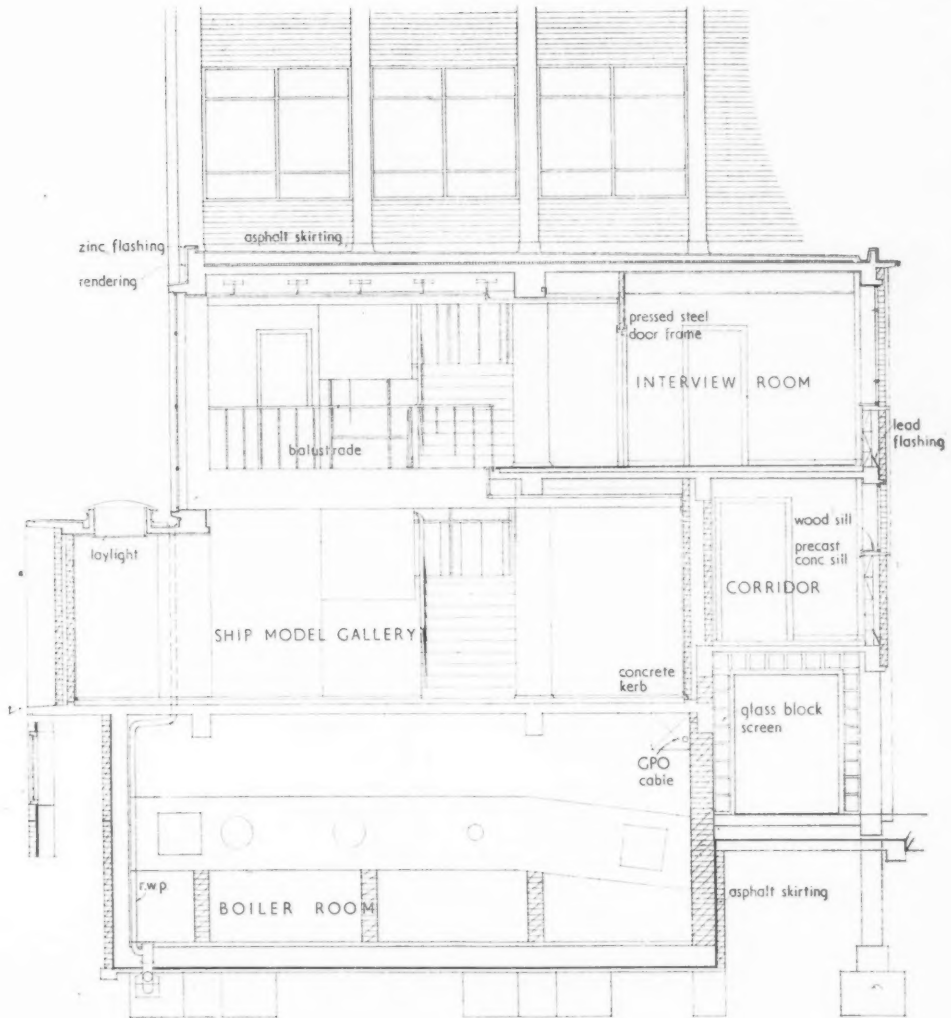
South elevation and section through link block.

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

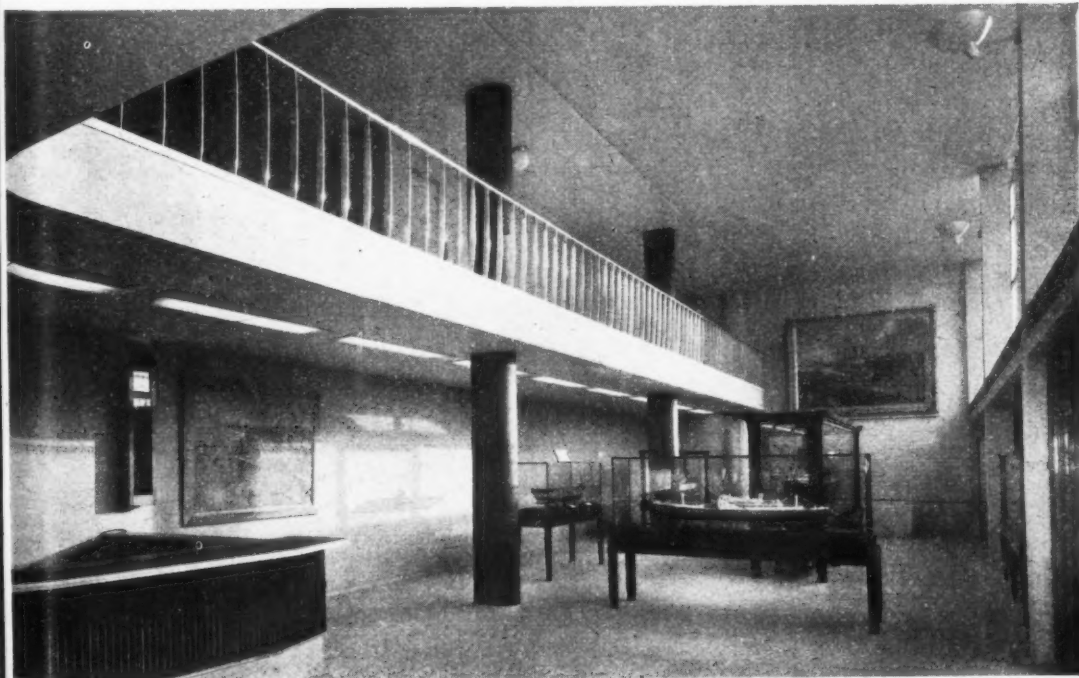
in plain brown tapestry. Coffee tables are constructed in ash with a finish of heat-resisting polish. The centre carpet in the board room is plain nigger brown; in the ante room yellow and white damask. The porter's desk is constructed of teak and has an ash plinth. The top of the desk is covered with blue hide. The lipping of the desk is of ash. One side is faced with acoustic aluminium tiles. For a list of contractors and sub-contractors, see page 292.

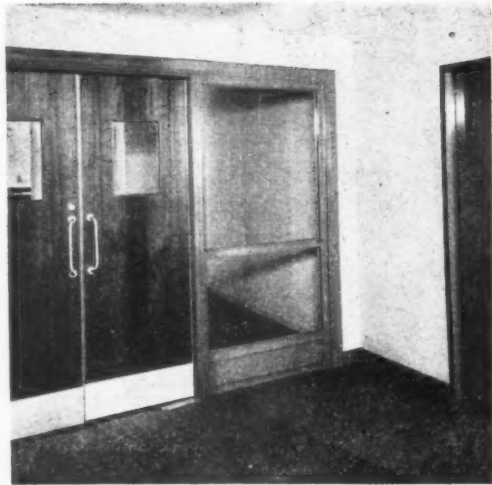
*The ship
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Access to
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Cross section of the link
block
[Scale: 1"=1'0"]

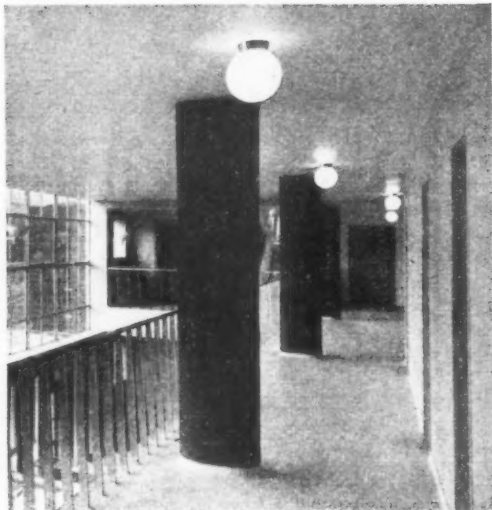


The ship model gallery as
seen from the main staircase.
Access to the drawing offices,
which are now being built,
will be through the corridor
at mezzanine level.





Above, the secondary staircase; top right, doors to the general office; right, first floor of the ship model gallery; below, the main staircase.



OFFICES

at WALLSEND, NORTHUMBERLAND
designed by RICHARD SHEPPARD and PARTNERS.



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INFORMATION CENTRE • INFORMATION SHEETS
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TECHNICAL SECTION

DOMESTIC WATER HEATING

Report by H. G. Goddard on a lecture by Dr. J. C. Weston of BRS.

A large part of the writings on domestic hot water supply recently issued have been sponsored by one or another of the heat-providing industries; and though they are excellent of their kind and give very useful assistance in the design of systems to use a specific fuel, their facilities for comparing various fuels are naturally limited.

Dr. Weston's paper is, therefore, most valuable, since it is without bias of any kind; and is full of factual information, much of which is derived from practical experience with the BRS full-scale heating trials at Abbot's Langley.

The author reminds us that although the Egerton Committee, in its report, referred to adequate hot water supplies as a necessity in every home, recent surveys have shown that only about one third of the houses in this country have a piped supply to sink, basin and bath, and two out of five households have only kettles, pans and coppers as their means of water heating; that is, 5½ million households have entirely inadequate water heating arrangements. The information of this type has been obtained from a social survey, recently completed; the relevant data given in the paper are quoted from this report. The data for the cost of providing hot water have been obtained from the experimental houses at the BRS.

Actual figures for appliance distribution are: 36 per cent. of households have a piped hot water supply to bath, basin and sink;

44 per cent. do not have any piped supply at all; 54 per cent. have access to a bathroom; 64 per cent. have solid fuel water heating appliances (with or without gas or electric auxiliaries); 37 per cent. have gas, and 10 per cent. electricity. In the latter cases, 17 per cent. use gas alone and 2 per cent. electricity alone.

SOLID FUEL

The copper is the most used solid fuel device, but is obsolescent: 33 per cent. of pre-1914 houses had them, and only 14 per cent. of post-1918 houses; they are rarely installed now. 24 per cent. use a boiler in the back of a stove or open fire, and 8 per cent. an independent boiler. 1 per cent. have hot water laid on from a central source. In view of the lack of temperature control with back boilers and small independent boilers, overheating is bound to occur from time to time; to avoid scale formation, indirect water heating is desirable. Small boilers can usually heat one or two radiators as well: the larger ones, of 25,000 B.Th.U.'s or more, are usually of the central heating type, with thermostatic air control; they may be of the magazine type, in which case they are selective in respect of fuel, which usually has to be sized anthracite.

GAS

Gas coppers are used by 30 per cent. of households; instantaneous water heaters by 12 per cent. Of these, the small sizes (consumption up to 60 cu. ft./hr.) do not need a flue; the larger (up to 200 cu. ft./hr.) require one. The latter may be a multi-point type. Only 1 per cent. of households use gas storage water heaters. These may be small, 2-5 gallons, for sink use; or 12

gallons and upwards for multi-point use. Some of the latter are of the divided storage type, permitting a small quantity of hot water to be stored in the top of the vessel, for sink use, and a larger quantity, in the rest of the vessel, when required. A flue is necessary for equipment giving a high recovery rate (18-20 gallons/hr. heated to 140°F.). The heating appliance may be built in a single unit with the storage, or may be in the form of a separate circulator, which may be connected to an existing system.

ELECTRICITY

11 per cent. of households have electrical appliances, divided equally among wash-boilers, immersion heaters and self contained storage heaters, the latter being, in fact, immersion heaters, factory-assembled in storage vessels with insulated case; while the former can be used in conjunction with existing storage. Some of the former have a built-in cold supply tank; they are generally thermostatically controlled though the plain immersion heater may be manually controlled. Divided storage may be used, as with gas, with heaters of 2½ kW. at low level for general use, and ½ kW. at high level for the sink. Instantaneous electric heaters are heavily loaded and unpopular with supply authorities.

SOLAR HEAT

Solar water heating is in use in America and in Europe; it is still an open question if an installation here, for summer use, could be made at a cost comparable with other methods.

THE USE OF HOT WATER

Various estimates have been made of the amount of hot water required by a household, but little direct information has been available. The Egerton Committee's suggestion was 240 gallons/week at 140°F. Data on actual consumption have been obtained in the experimental houses of the BRS, the quantity of heat in the hot water used being measured by a specially constructed B.Th.U. meter, incorporating a water meter and a mixing-valve, used in reverse. Measurements were taken in the eight houses at Bucknalls Close, and the twenty at Abbot's Langley. In the former case, the hot water storage is in a 40 gallon rectangular tank, insulated with ¾ in. lami-

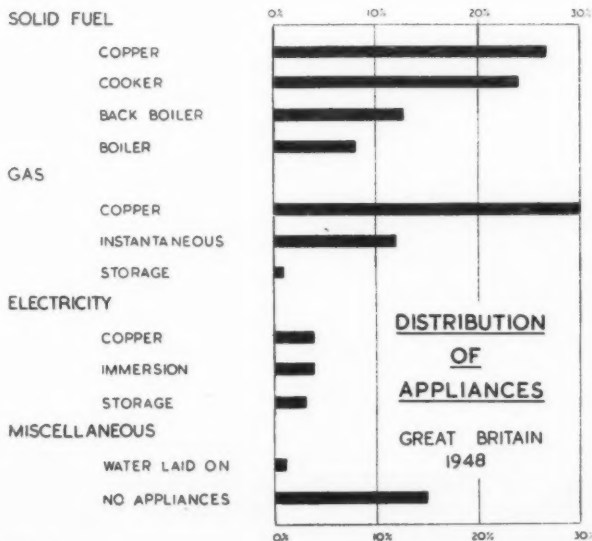


Fig. 1.

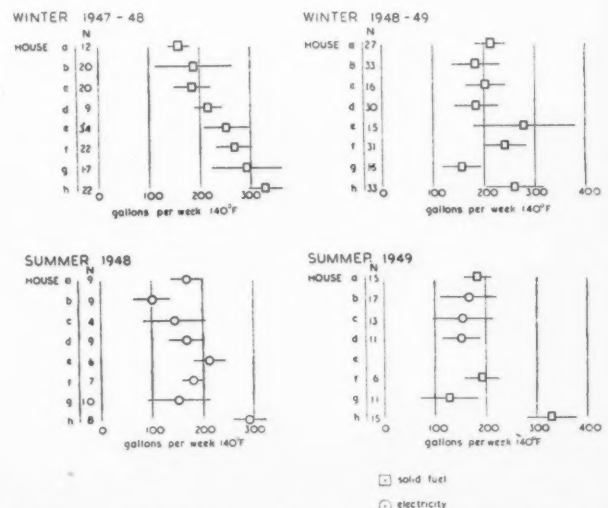


Fig. 2. Hot water consumption at Bucknalls Close, 1947-1949.

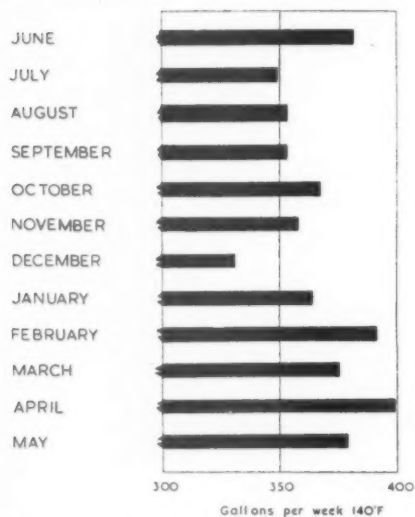


Fig. 3. Hot water consumption, Park Lawn, Milwaukee, 1944-5.

nated asbestos. There is an immersion heater in the tank, and heat is also supplied by the magazine-fired central heating boiler. During the winters of 1947-1948 and 1948-1949, the tenants used the boiler for water heating. In the summer of 1948, all used the immersion heaters; in the summer of 1949, some used one, some the other.

Fig. 2 shows the mean weekly consumption of hot water at 140°F. in the various houses: the lines on either side of the mean consumption show the deviation from the average. The average for all the houses during the winters 1947-1948 and 1948-1949 was 245 and 223 gallons; for the summer 1948, when all used electricity, it was 179 gallons, and for summer 1949, 166 for the electricity users, 223 for the solid fuel. It

seems that where the same system is used summer and winter, there is no seasonal variation in consumption; but when electricity is used, there is a substantial reduction. This is confirmed by a check on water consumption. The reason seems to be that whereas the cost of water heating by electricity is proportional to the quantity used, with solid fuel equipment, after a certain figure, an increase in water consumption costs but little in fuel.

Fig. 3 shows consumption figures for an American scheme, where water was regularly metered, for comparison. There is only a small seasonal variation. It will be seen that the average consumption in this district heating scheme is 370 galls./week; and this level is also found in other schemes.

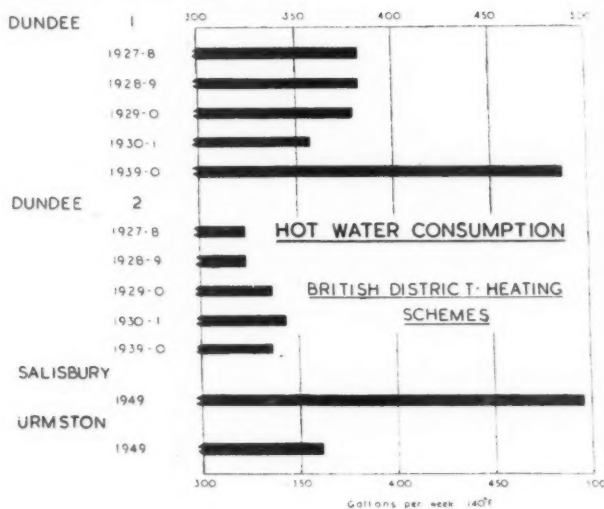


Fig. 4.

Fig. 4 shows, for comparison, consumptions for some British schemes: again the average is 350 galls./week. In Dundee (2) there is some limit placed on consumption as there is a calorifier to every eight houses. (A speaker in the discussion also told us that the high consumption in the other Dundee scheme resulted from the provision of hot water for a communal laundry, of which advantage was taken by other than the residents for whom it was supplied.)

Fig. 5 shows the average consumption for the experimental houses at Abbot's Langley. The average consumption, 232 gallons at 140°F., is in accordance with the Bucknall's Close figures. There is some indication that consumptions are higher when solid fuel appliances are used.

An analysis of gas consumption among households using gas for cooking and water heating (not connected with the BRS experiment), showed that the average weekly usage was no more than 70 gallons; and though some water may have been heated on the cooker, the total seems unlikely to be more than 100 gallons per week. It is possible that an unduly large number of low-income users was included in the group examined, and it is important to remember that facilities to adjust consumption to suit income are important for these. Although 350 gallons per week may sound desirable, if all this must be paid for in the fixed charge it can be inconvenient.

For the benefit of designers, it is suggested that for gas and electricity, 150 gallons at 140°F. should be taken as the standard; and for solid fuel appliances, 250 gallons. Attention must however be paid to the production of appliances of high efficiency to

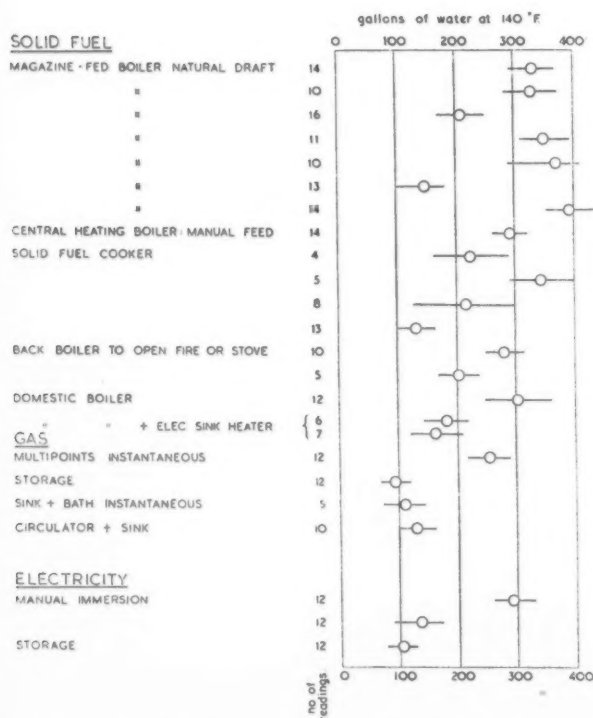


Fig. 5. Hot water consumption at Abbot's Langley, 1949.

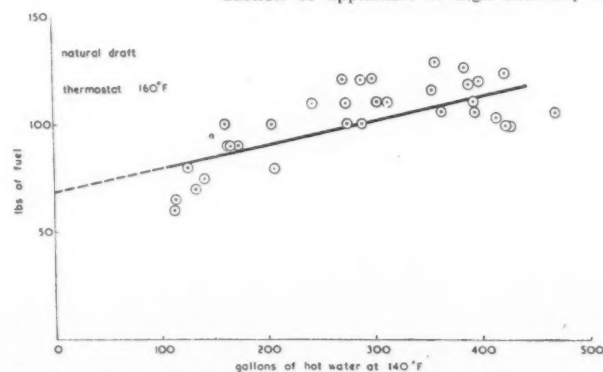
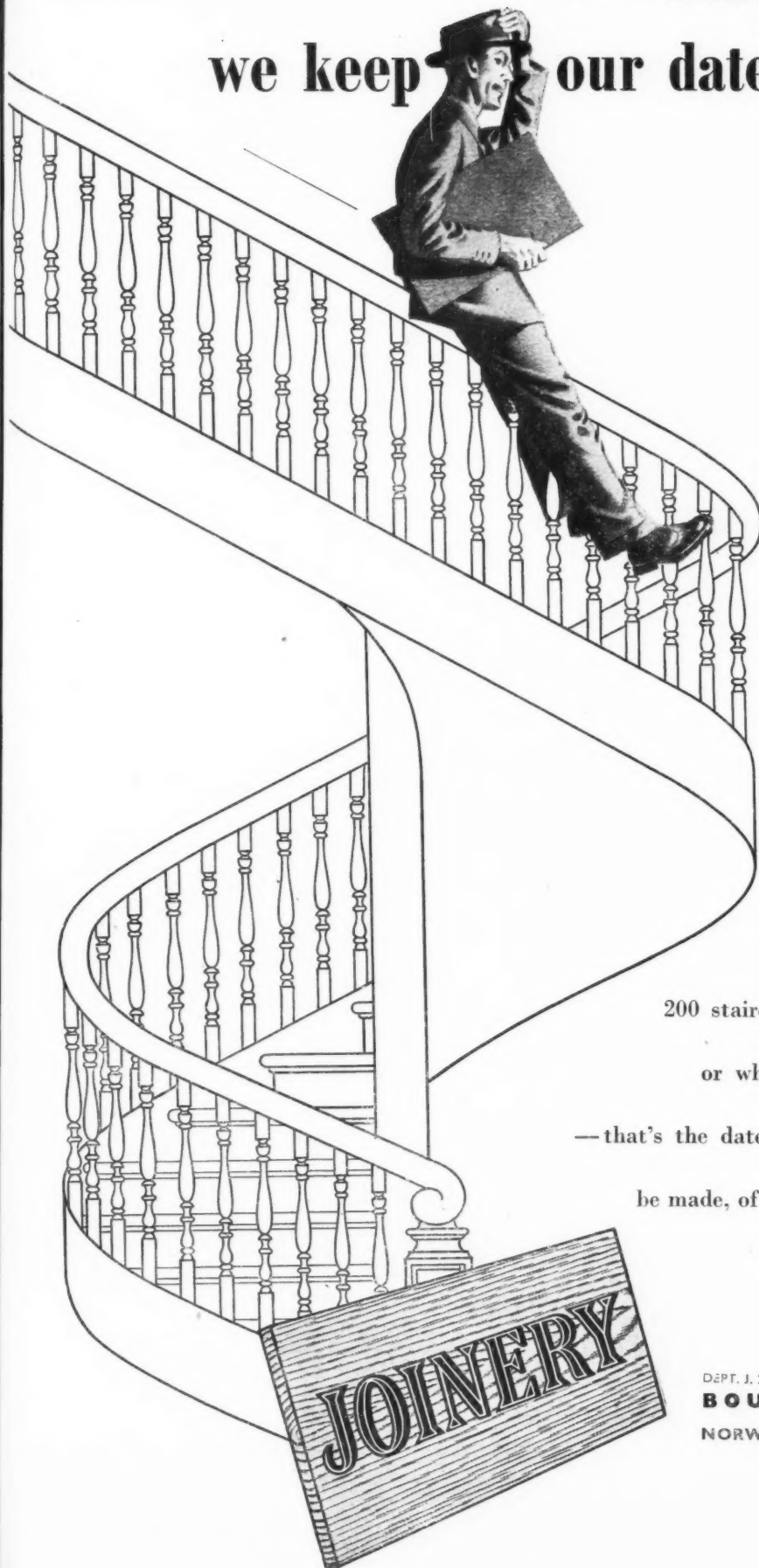


Fig. 6. Domestic water heating. Graph of fuel used by a magazine fed boiler.

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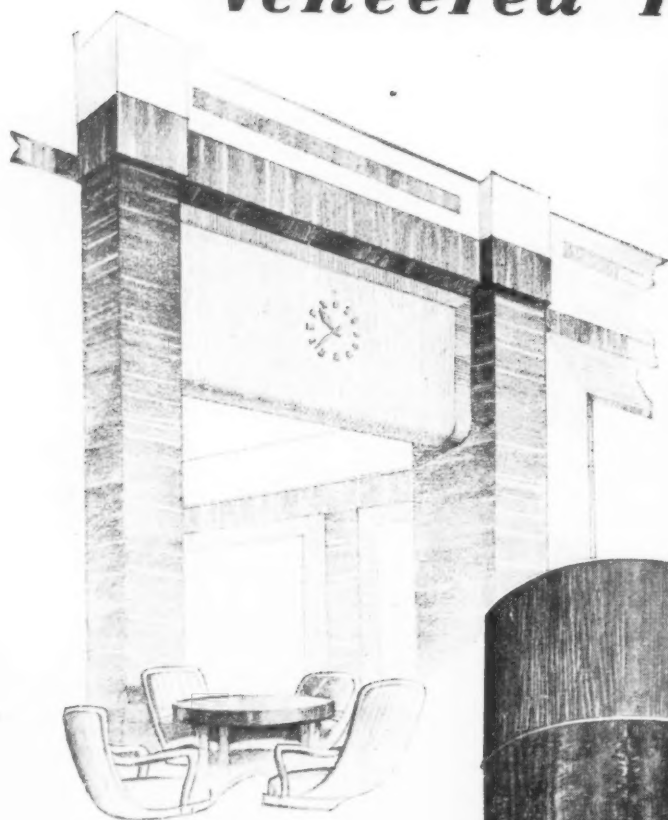
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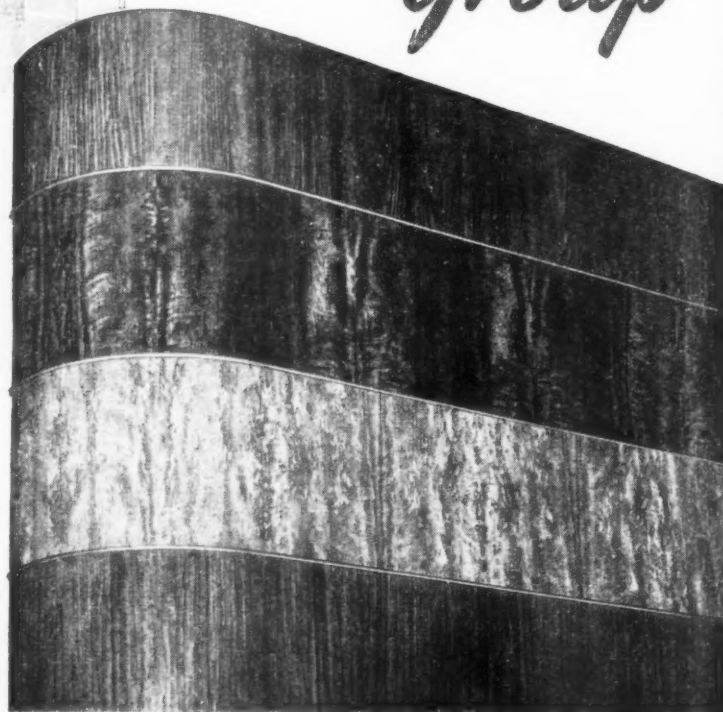


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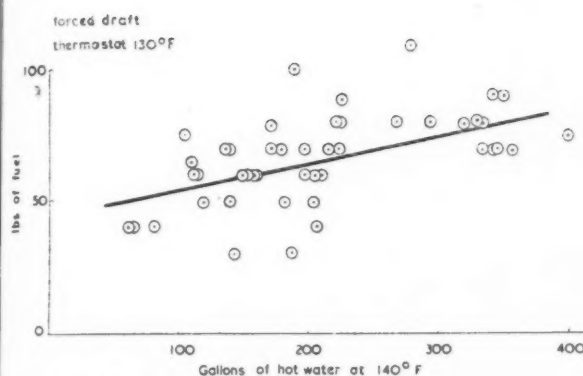


Fig. 7. Fuel used by magazine fed boiler.

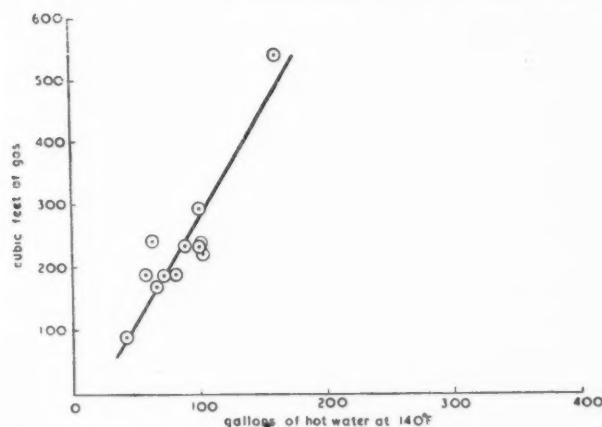


Fig. 8. Fuel used by gas storage boiler.

give 50-500 gallons a week, to suit all pockets. As a design figure, 350 gallons a week is given for hot water from a central source.

FUEL USED FOR HOT WATER

There are wide variations in the amount of fuel used by different families, and by the same family using different appliances, and this is an important factor in deciding on what apparatus to use. The BRS houses give useful information here: the small number is not important, for it has been shown that "tenant habits," by way of times and number of draw-offs, have but little effect on the consumption with well controlled apparatus—less, in fact, than 5 per cent. Stoking does, of course, play a large part in the efficiency of a domestic boiler. It should here be mentioned that the BRS hot water installations are compact, and the tanks and primary circulation are well insulated.

SOLID FUEL

Fig. 6 gives the solid fuel consumption, plotted against hot water supplied for the four houses at Abbot's Langley with magazine boilers (natural draught), and Fig. 7 for the Bucknall's Close houses (forced draught). For the same thermostat setting

(160°F.) both give about 100 gallons of water for 11 lb. of fuel. The lower the boiler thermostat setting, the better the economy: but the natural draught boiler has a minimum fuel consumption of 75 lb./week: lower than this it goes out. The forced draught boiler has a lower minimum consumption of 45-50 lb./week, thus permitting a lower thermostat setting. Of the heat value in 100 lb. of fuel, 14 therms, 10 therms are given out by the natural draught boiler (70 per cent. efficiency). Of this, 1.9 therms go to providing 250 gallons of hot water, 2-3 therms are absorbed in the airing cupboard: the remainder go to provide space heating which is unwanted in the summer. The domestic boiler exhibits similar characteristics, but is susceptible to variations in stoking: widely different results were obtained during the occupied and the unoccupied period: but generally, 100 lb. of anthracite, or 120 lb. of coke, will provide 250 gallons of hot water at 140°F.

GAS

Figs. 8 and 9 show gas consumption of storage and multi-point heaters used intermittently. The former showed a consumption of 2-4 therms per week (another authority gives 3 therms). Used continually, the same equipment gave 250 gallons at

140°F. with a consumption of 6-2 therms: while the multi-point instantaneous heater gave the same quantity for 2-5 therms (another authority gave 4-2 for this): the answer seems to lie between the two; say, 3-3 therms. A house having a bath heater and sink heater used but one therm for 122 gallons at 140°F.: another, with sink heater and circulator, provided 130 gallons at 140°F. for 2-3 therms.

ELECTRICITY

Figs. 10, 11 and 12 provide similar data for electric water heaters. These are generally used intermittently: only at high consumptions (250 gallons/week up) are they likely to be used continuously. Consumption is 112 kWh. for 250 gallons/week: losses are 57 kWh./week, a good deal higher than was expected: the excess is not easily accounted for—but merely by leaving the linen cupboard door open, it was found that consumption went up by 18 kWh. The lagging of the tanks was not in accordance with recommended practice, and certain houses have had it brought up to the standard required for electrical water heating, that is 3 in. The efficiency of the heater is then 87 per cent. But then housewives complain that the airing cupboard does not get hot enough, and demand a heater, which

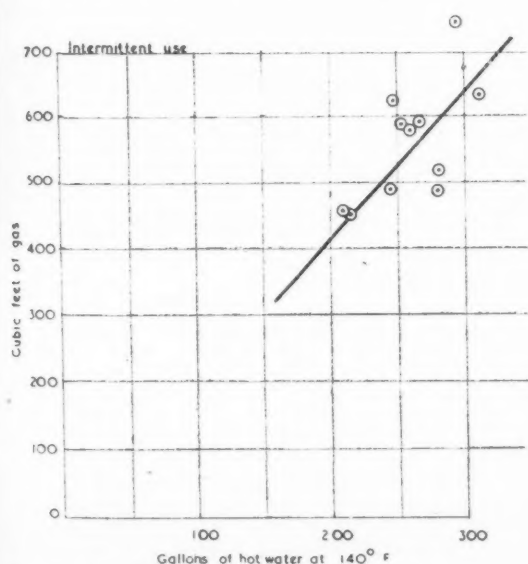


Fig. 9. Fuel used by a multi-point gas heater.

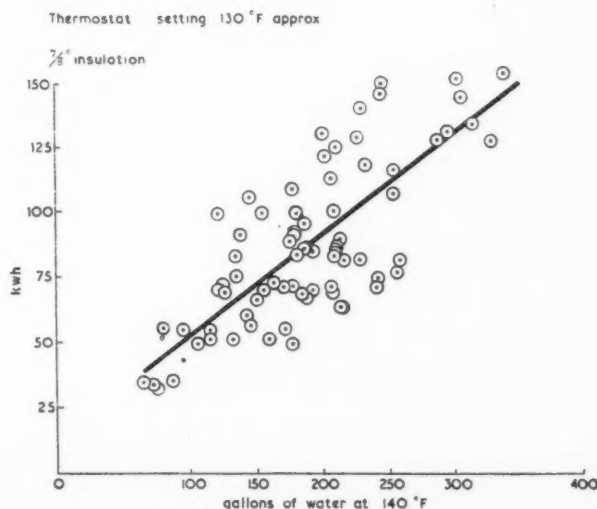
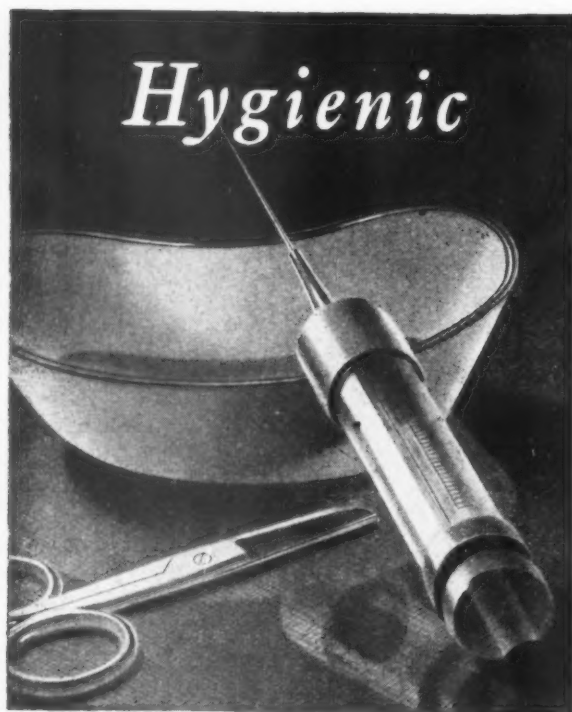


Fig. 10. Fuel used by an electric immersion heater.



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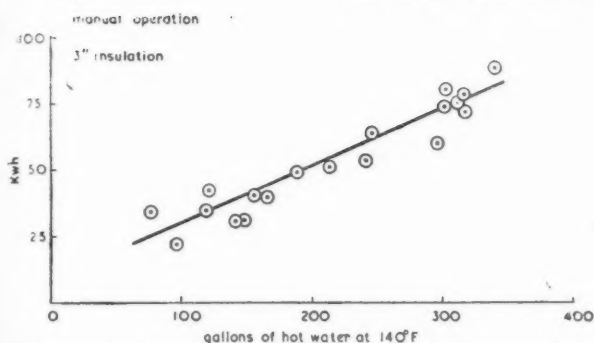


Fig. 11. Fuel used by a manually operated electric immersion heater.

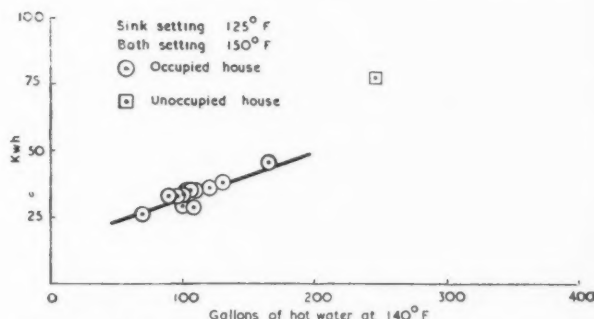


Fig. 12. Fuel used by an electric storage heater.

will increase the consumption, once again, by 5-10 kWh. per week. Used intermittently, a storage heater gave 240 gallons at 140°F. for an average consumption of 84 kWh. A sink heater took 8½ kWh. to provide 28 gallons at 140°F.

COSTS

The data above can be used to compare the costs of different methods of water heating; but it must be remembered that this is but a part of the heat services of the house, and comparisons should be based on all of these together, at least for new houses. In the case of existing houses, however, equipment may be added to an existing system, for instance, for summer use; and the capital cost will depend on the house: in the case of gas, the cost of fitting may be more than that of the apparatus. With gas at 1s. per therm, electricity 4d. per kWh., and coke at 90s. per ton, the cost of providing 200-250 gallons of hot water per week will be of the order of 3s. to 4s. If anything, solid fuel is slightly dearer than the others for summer water heating, but as the cost includes heating the airing cupboard, the difference is small. As a matter of principle, where the load is less than 200 gallons per week, during the summer, electricity or gas are likely to be cheaper, and if greater than 250 gallons, then solid fuel will have the advantage.

CONCLUSION

The paper contains much which is valuable to the architect as well as to the engineer:

perhaps it may be useful, for the former's benefit, to summarize the main points raised, and to add one or two others arising from them:—

1. Far too large a proportion of households are without domestic hot water, to modern standards: every possible step should be taken to correct this.

2. Solid fuel is used much more than electricity or gas for water heating; while its use is undoubtedly economical when it is used in combination with winter space heating, it tends to be more costly than electricity or gas for water heating only for a small house in summer. This is because of the comparatively high minimum consumption rates of the boilers: more hot water than is really needed is produced, and heat is wasted in unwanted space-heating. This factor is reflected in the consumption of hot water: with solid fuel appliances, it averages 250 gallons per week per household, while with gas or electricity, it is only 150 gallons per week per household, the tenants having discovered that the extra 100 gallons of hot water in the first instance cost little, if any, more: while in the latter, cost is roughly proportional to consumption. The general principle is that, subject to the considerations shown in paragraph 3, where the consumption is greater than 250 gallons per week, the solid fuel will be more economical; where less than 200, electricity or gas; and in the latter case, the ideal will be to provide a solid fuel appliance for winter, and an auxiliary gas or electric heater for summer. The cost of summer water heating is likely to be from 3s. to 4s. per week.

3. The high degree of insulation (3 in.) of the tank, necessary for economical water heating by electricity, may prevent it giving enough heat to the airing cupboard: the additional heater necessary may offset the economy shown to be gained in paragraph 2. The same applies to a heated towel rail, which will be entirely uneconomic if operated from an electrically heated water system: a separate rail, with direct electric heating, will be necessary if such a device is required. There has been recent controversy as to whether a heated linen cupboard is necessary; but our very damp climate, even in summer, seems to make it desirable. Far more necessary, however, at least in the country, is a drying closet, in which washing and wet coats may be dried without filling the whole house with steam. For this, the waste heat from a solid fuel system may be used: alternatively, a gas or electric heater may be installed. As the use is only intermittent, these may not be uneconomic; but with solid fuel the cost is likely to be still less.

4. The use of solar heat for summer water heating seems to be at least a worthwhile subject for experiment.

5. The use of meters or individual calorifiers for hot water supply from a central source seems very necessary to prevent wasteful consumption: without them, at least 350 gallons per week per household must be allowed.

6. Consumption figures (Figs. 8 and 9) suggest that the multi-point instantaneous gas water heater is, in general, more economical than the storage type.

Announcements

The RIBA Board of Architectural Education announce that the closing date for the submission of forms of application for the Tite Prize is March 23. The competition will be held in London and at non-Metropolitan centres on Wednesday, May 3. The competition for the Victory Scholarship will be held on the same day. The closing date for the submission of forms of application is March 27. Forms of application for admission to the competitions may be obtained at the RIBA, 66, Portland Place, W.1.

An exhibition of ICI technical literature will be held at the Academy Cinema Exhibition Hall, Oxford Street, W.1 (near Oxford Circus) from March 6 to March 17 inclusive, except Sunday. Besides showing visitors a comprehensive selection of ICI's technical literature for industry and agriculture, the exhibition will, taking a recent discovery as a model, trace the production of literature describing the product in question from the original entries in a scientist's

laboratory notebook to the printing press. Another exhibit—a selection of technical publications grouped according to the industries for which they are intended—will illustrate the diversity of the interests that ICI serves. ICI publishes new technical literature at the rate of two publications per day, or 800 per year, and from two to four million copies are printed annually.

An exhibition of Bakelite, Waverite and Vybak plastics will be held in the Exhibition Rooms of the British Colour Council at 13, Portman Square, W.1 from March 9 to 17. (Hours of opening, 10 a.m. to 6 p.m. Mondays to Fridays only.) The central feature will be the Bakelite Limited, Traveling Exhibition which has recently been shown in Brussels, Oslo and Stockholm. In addition, a number of larger items will be included which it was not possible to send overseas. Admission will be by ticket only. Waverite Ltd. will be sending out a large number of tickets, but if any reader has not received one, and wishes to have one, he should write to Waverite Ltd., 18, Grosvenor Gardens, S.W.1.

Owing to Mr. R. Furneaux Jordan's increased duties at the AA School, Messrs. Fairweather

& Jordan have very regretfully decided to dissolve partnership. Mr. George Fairweather will continue to practise at 28, Wigmore Street, W.1.

The Council for Codes of Practice have now issued in final form the Code 114.100, "Suspended Concrete Floors and Roofs (Including Stairs)." The document comprises a head sub-code, 114.100, and sub-codes 114.101—114.105, the main codes for all of which is 114 "Structural Use of Normal Reinforced Concrete in Buildings," already published. Code 114.100 deals with the general aspects of concrete floors and roofs, while the remaining sub-codes deal in detail with particular forms of construction as follows:—114.101 Floors and Roofs of Solid Slab Construction; 114.102 Floors and Roofs of Flat Slab Construction; 114.103 Floors and Roofs of Ribbed Construction; 114.104 Floors and Roofs of Precast Construction; 114.105 Floors and Roofs of Filler Joist Construction. Pending the amalgamation of Code 114 and its sub-codes as one publication, the present document has been so arranged that it is, as far as is possible, complete in itself. There is, therefore, a certain amount of repetition of material

already published in Code 114. The Code also contains recommendations concerning aggregates for concrete, and deals in detail with formwork including selection of materials, construction, erection and stripping. Copies may be obtained from the British Standards Institution, 24-28, Victoria Street, S.W.1, price 6s., post free, reference CP 114,100, 114,105. (1950.)

The BOT announce that the Import Licensing Department are prepared to receive applications for licences to import Italian rough marble during 1950. Only large marble falling within the following definition may be imported:—Marble, rough or rough-sawn (not carborundum sawn) and not pitted, bevelled, shaped or further prepared. Application will be considered from importers who received licences during 1949, and imports for the period ending June 30, 1950, will be limited to a c.i.f. value not exceeding 50 per cent. of each importer's individual allocations for the year 1949.

Mr. T. R. Mehandru, F.I.A.A., M.I.E., registered architect (England), who practised for about sixteen years as an architect at 7, The Mall, Lahore, is now practising at 7, Marina Hotel, New Delhi (tel.: 43749 & 44261.) He will be glad to receive technical literature, trade catalogues and other publications.

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Correction

To a letter from Mr. William H. Cutmore, published on February 2, we wrongly added that he is hon. secretary of the South Eastern Society of Architects. He is, in fact, secretary of the Kingston-on-Thames District Chapter of the Society.

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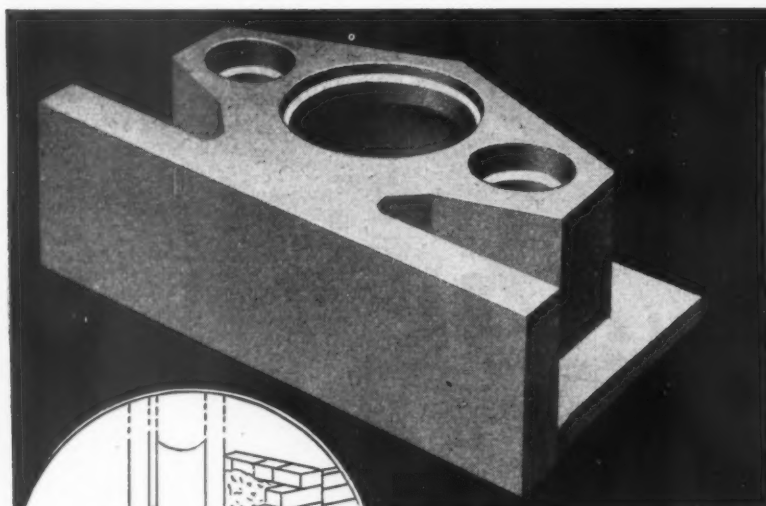
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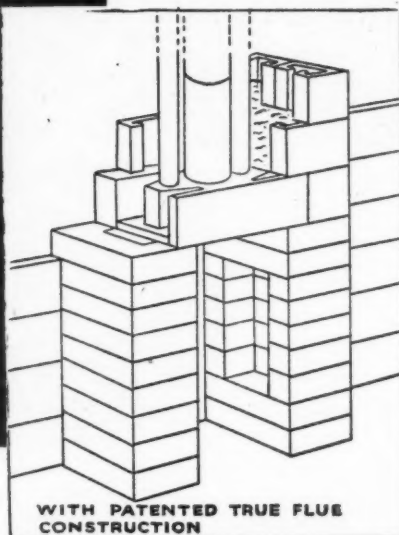
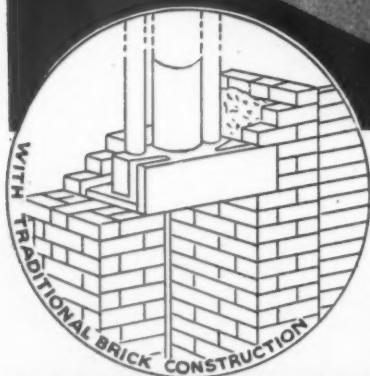
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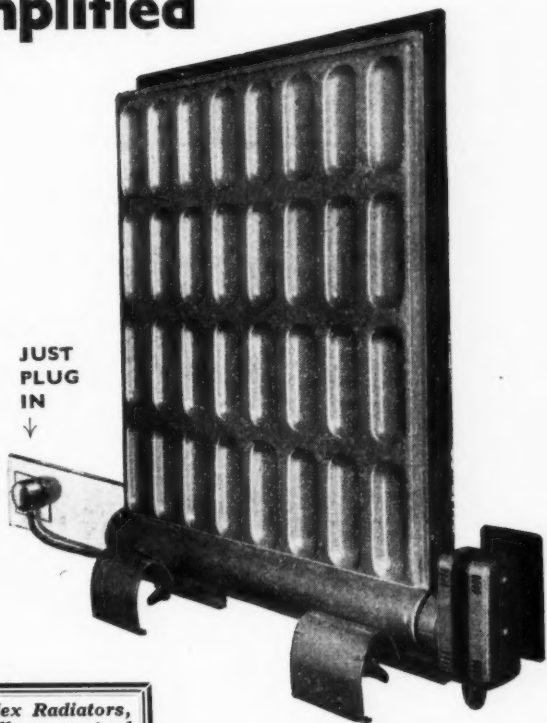
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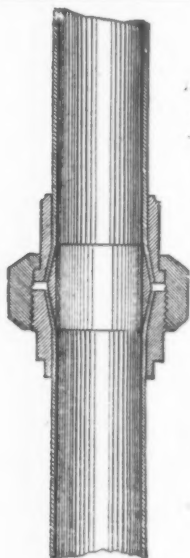
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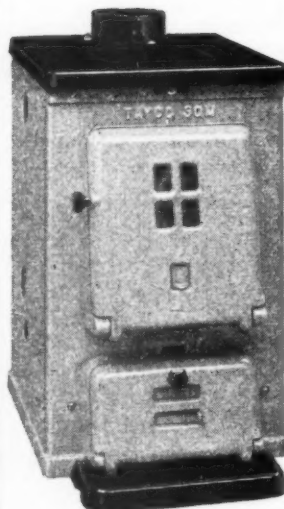
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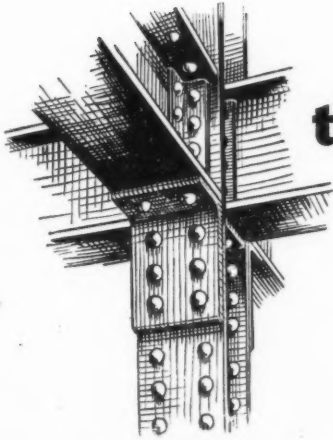
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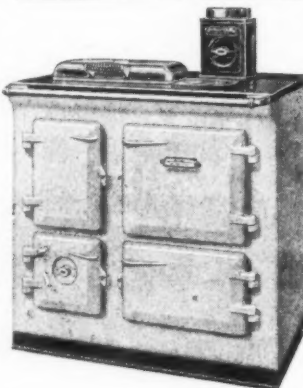
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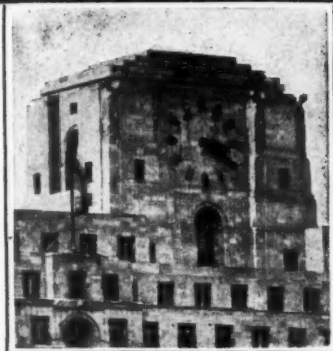
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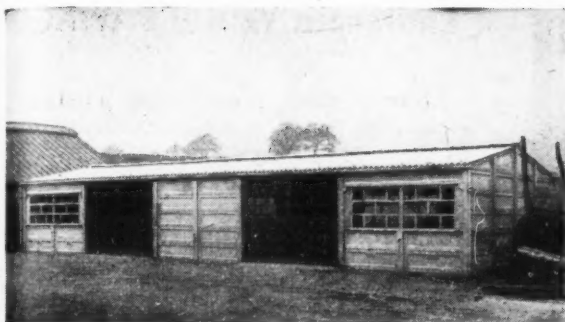
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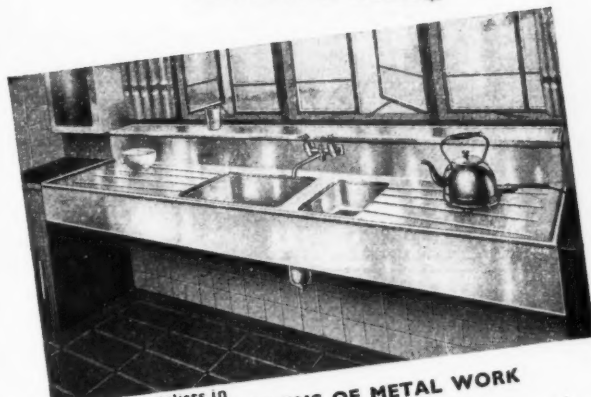
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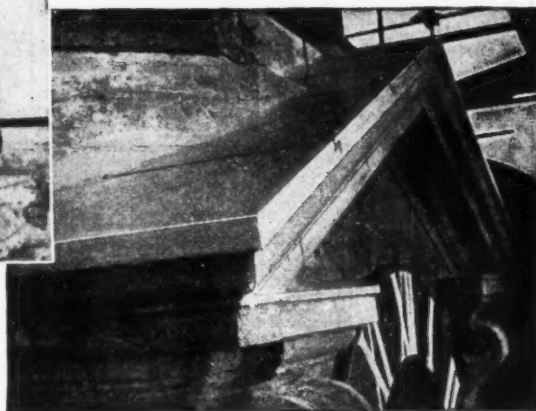
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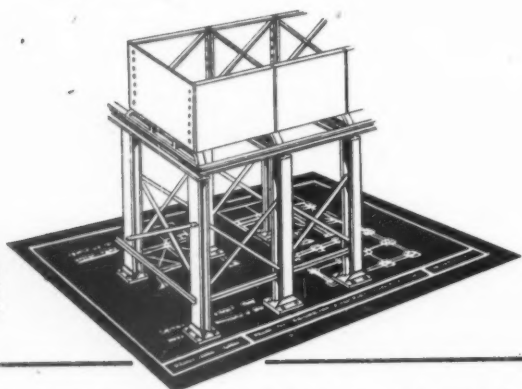
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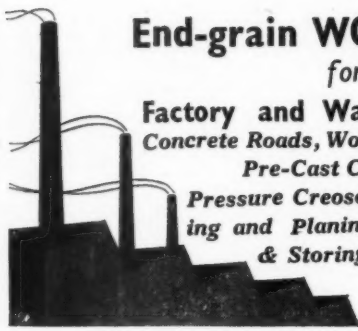
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CLASSIFIED ADVERTISEMENTS

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.

Copies 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, VERN PARK, WHITELEAF. Tel.: Uplands 9335, 931

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, Bell House, London, S.W.1. 2065

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 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

SOUTH-WESTERN REGIONAL HOSPITAL BOARD.

ARCHITECT'S DEPARTMENT.

Applications are invited for the post of SENIOR ARCHITECTURAL ASSISTANT to the Board. Applicants must be Members of the Royal Institute of British Architects, and have had considerable experience in hospital design. Salary in Grade A.P.T. VIII, £685 per annum, rising by annual increments of £25 to £760.

The appointment will be subject to the provisions of the National Health Service (Superannuation) Regulations, and the successful candidate will be required to pass a medical examination.

Applications, setting out qualifications and experience, and giving names and addresses of three referees, should reach the Secretary of the Board, at 5/6, Cotham Lawn Road, Bristol, 6, not later than the 4th March, 1950. 3475

COUNTY BOROUGH OF DERBY.

Applications are invited for the following appointments on the permanent staff, in accordance with the National Scale of Salaries:—

TWO JUNIOR ARCHITECTS, Grade I/II. Salary £300-£465.

Applicants should have passed the Preliminary Examination of the R.I.B.A. and have had experience in general architectural work.

The appointments will be subject to one month's notice in writing on either side, and to the terms of the National Joint Council's Scheme of Conditions of Service, and the Provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Forms of application may be obtained from Thos. W. East, F.R.I.B.A., Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed together with a copy of one testimonial and the names of two persons to whom reference may be made, to arrive not later than Monday, 13th March, 1950. Canvassing, directly or indirectly, will be a disqualification.

E. H. NICHOLS.

Town Clerk. 3545

BOROUGH OF NELSON.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, in the Borough Surveyor's Department, at a salary in accordance with Grade IV of the National Scales of Salaries (£430 to £525).

Candidates should have experience in housing and general work, and preference will be given to applicants who have passed the Final or Inter. R.I.B.A. examination.

Applications, giving detailed particulars of experience and qualifications, endorsed "Architectural Assistant," with copies of three recent testimonials, to be delivered to the undersigned on or before Tuesday, 7th March, 1950.

F. W. ROBERTS.

Town Clerk.

Town Hall, Nelson.

15th February, 1950.

3542

CITY OF LIVERPOOL.
ARCHITECTURAL AND HOUSING DEPARTMENT.

Applications are invited for the undermentioned appointments:—

(a) ONE ASSISTANT ARCHITECT (Housing). A.P.T., Grade VI. Salary £595-£660.

(b) ONE ASSISTANT ARCHITECT (Housing). A.P.T., Grade IV. Salary £480-£525.

(c) TWO ASSISTANT SURVEYORS. A.P.T., Grade V. Salary £520-£570.

(d) ONE ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade VI. Salary £595-£660.

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

(f) ONE TECHNICAL ASSISTANT. A.P.T., Grade II. Salary £420-£465.

(g) ONE CLERK OF WORKS (Temporary). Misc., Grade III. Salary £420-£465.

Candidates for (a) should possess experience in large scale housing development, preferably in Local or Central Government service, and must be qualified A.R.I.B.A. or equivalent. Candidates for (b) should have practical experience in housing work, and must have passed the Intermediate Examination of the R.I.B.A. or its equivalent. Candidates for (c) should have experience in surveying and site development, and have passed the final examination of the appropriate professional body. Candidates for (d) and (e) should have had experience in taking off for all types of buildings and road and sewer works, valuations for interim certificates, and the settlement of final accounts, and should have passed the Final Examination of an appropriate professional body. Candidates for (f) should possess experience in keeping records in connection with the acquisition and disposal of properties, and be capable of draughtsmanship. Candidates for (g) must be experienced in the supervision of large scale site development works.

Appointments (a) to (f) inclusive are superannuable. Appointment (g) is a temporary appointment for a period of two years. Application forms may be obtained from, and should be returned to, the City Architect and Director of Housing, Blackburn Chambers, Dale Street, Kingsway Liverpool, 2, by 6th March, 1950, endorsed "Application for..." adding the title of the post applied for, and accompanied by copies of three recent testimonials.

The appointments are subject to the Standing Orders of the City Council. Canvassing disqualifies.

THOMAS ALKER.

Town Clerk.

Liverpool.

February, 1950. (2191)

3516

BOROUGH OF ROMFORD.
ARCHITECTURAL ASSISTANT.

Applications are invited for the post of a SENIOR ASSISTANT ARCHITECT, in the Borough Engineer and Surveyor's Department, at a salary within Grade VI of the National Scale of Salaries for Local Authorities' Staffs, viz., £595 per annum, rising to £660 per annum. Consideration will be given to a higher commencing salary than the minimum of the grade if circumstances warrant such a course.

Applicants must be registered Architects, and preference will be given to those also holding a recognised qualification. A thorough knowledge of design and construction (preferably of a Municipal nature) is essential. They should also possess experience in dealing with contracts, preparation of estimates and specifications for repairs and administrative experience in dealing with correspondence, accounts and labour.

The Council is prepared to consider the provision of housing accommodation for the selected applicant.

Applications, endorsed "Architectural Assistant," stating age, present position, salary, qualifications, and details of previous experience, together with the names of two referees, to whom enquiry may be made as to character and ability, should reach the undersigned not later than Saturday, 18th March, 1950.

The appointment is subject to:—

(a) National Scheme of Conditions of Service.

(b) Local Government Superannuation Act, 1937.

(c) One month's notice on either side.

(d) Satisfactory passing of a medical examination.

J. TWINN.

Town Clerk.

Town Hall, Romford.

14th February, 1950.

3607

SOUTH-EASTERN GAS BOARD.
ARCHITECT AND SURVEYOR'S DEPARTMENT—CROYDON.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above position, for which the commencing salary will be from £500 per annum, dependent upon qualifications and experience. The future salary and conditions of employment will be regulated by the appropriate negotiating machinery.

Applicants should be suitably trained and capable of preparing working drawings and specifications, and have had good experience in industrial buildings, offices and showrooms.

After a probationary period, the post will become a permanent one. The successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications and experience, etc., should be sent to the undersigned not later than 14 days from the date of publication of this notice.

R. J. MCRAE.

Personnel Manager.

Katharine Street, Croydon. 3616

SURREY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, Grade V, at a commencing salary of £520 per annum, rising by annual increments of £15/£20 to a maximum of £570 per annum, plus London allowance of up to £30 per annum, according to age. Applicants should have passed the Intermediate Examination (Quantities) of the Royal Institution of Chartered Surveyors, and have experience of site measuring, abstracting and Billing on substantial contracts and taking off smaller works.

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 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 18th March, 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 expected to make his own arrangements in this direction.

DUDLEY AUKLAND.

Clerk of the Council.

County Hall, Kingston-upon-Thames. 3602

MALVERN URBAN DISTRICT COUNCIL.

TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of a Temporary Architectural Assistant, on the staff of the Surveyor and Water Engineer, at a salary in accordance with the National Scale, A.P.T. IV (£480, rising by £15 increments to £525). A house will be available at normal rent, if required, by the successful applicant, should he be married.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications, experience and previous appointments, accompanied by copies of at least two recent testimonials, in envelopes endorsed "Architectural Assistant," should be forwarded to the undersigned not later than Friday, 3rd March, 1950.

J. BULMAN.

Clerk of the Council.

The Council House, Malvern.

10th February, 1950.

3603

RAMSBOTTOM URBAN DISTRICT COUNCIL.

APPOINTMENT OF JUNIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment in the Department of the Engineer and Surveyor, at a salary within Grades I and II of the A.P.T. Division of the N.J.C. Scales (£390-£465). The commencing salary will depend on the ability of the applicant.

Applicants should have received regular training with an Architect or attended an approved course of study in architecture. The possession of the Intermediate R.I.B.A. or its equivalent will be an advantage. The position offers an opportunity of acquiring comprehensive experience of the architecture of Local Government work.

The appointment will be subject to the National Joint Council's Scheme of Conditions, the provisions of the Local Government Superannuation Act, 1937, and to the successful candidate satisfactorily passing a medical examination, and will be terminable by one month's notice on either side.

Applications, stating age, present and previous appointments, qualifications and experience, giving the names of two persons to whom reference can be made, must be delivered to the undersigned not later than 9.30 a.m. on Wednesday, the 8th March, 1950, in a sealed envelope endorsed "Architectural Assistant."

Canvassing in any form will be a disqualification.

F. BELLIS.

Clerk of the Council.

Council Offices, Ramsbottom, Lancs.

14th February, 1950.

3522

BOROUGH OF ACTON.
BOROUGH ENGINEER'S DEPARTMENT.
Applications are invited for the following permanent appointments:—
ARCHITECTURAL ASSISTANT. A.P.T. Grade V (£520-£570 p.a.) of the National Scale, plus London "weighting."

Applicants must be Registered Architects, experienced in the design, erection, and maintenance of dwellings and public buildings.
BUILDING INSPECTOR. A.P.T. Grade III (£450-£495 p.a.) of the National Scale, plus London "weighting."

Applicants must be experienced in the administration of building byelaws and the relevant Statutory provisions, and preferably hold the Building Inspector's Certificate of the Institution of Municipal Engineers, or its equivalent.
The commencing salary may be fixed within the Grades, according to the qualifications and experience of the successful candidates.

Application forms may be obtained from the Borough Engineer, Town Hall, Acton, W.3, to whom they must be returned by 10th March, 1950.
Canvassing will disqualify.

H. C. LOCKYER.

Town Clerk.

Town Hall, Acton, W.3. 3553

BOROUGH OF ASHTON-UNDER-LYNE.
BOROUGH SURVEYOR'S DEPARTMENT.
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Senior Architectural Assistant, at a salary in accordance with Grade V of the Administrative, Professional and Technical Division of the National Scales, commencing at £520 per annum, and rising, subject to satisfactory service, to a maximum of £570 per annum.

Applicants must have passed the Final Examination of the R.I.B.A. or the R.I.C.S. or be Registered Architects, and must have had considerable experience with other local authorities in connection with Housing and Public Buildings.

The successful candidate will be required to pass satisfactorily a medical examination and to contribute to the Corporation's Superannuation Fund.

Housing accommodation will be available for the successful candidate if required.

Applications, endorsed "Senior Architectural Assistant" giving age, qualifications, experience, details of training, present and previous appointments, and the names and addresses of two persons to whom reference may be made, should be received by the undersigned not later than the 10th March, 1950.

Applicants should state in their applications whether or not they are, to their knowledge, related to any member of or the holder of any senior office under the Council.
Canvassing, either directly or indirectly, will be a disqualification.

G. A. MALONE.

Town Clerk.

Town Hall, Ashton-under-Lyne. 3551

17th February, 1950.

HIS MAJESTY'S COLONIAL SERVICE.

THE COLONIAL ENGINEERING SERVICE.

A vacancy exists in the Public Works Department, Cyprus, for a temporary TOWN PLANNING OFFICER.

Candidates should be Corporate Members of the Town Planning Institute and should preferably possess Architectural qualifications. They should have had practical experience in the field of town planning. Candidates must be British subjects, physically fit, and between the ages of 30 to 45.

The appointment is temporary in the first instance and on agreement for three years.

Salary will be in the scale £800-£1,320 per annum, point of entry depending on age, experience, and approved war service. An expatriation allowance of 15 per cent. of salary is payable; a temporary cost-of-living allowance, which is liable to variations at any time, is also payable. This amounts to £30 for a single man or £57.4s. for a married man, with additions for the first three children.

Government quarters may be available at a low rent. Free passages to Cyprus for the officer, his wife and family are provided on appointment and on satisfactory completion of the agreement.

The duties of the post will be to establish a Government Town Planning Office, to advise in the preparation of town planning legislation, and to prepare and carry out any town planning schemes that may be approved.

Intending candidates should write to the Director of Recruitment (Colonial Service), Colonial Office, Sanctuary Buildings, Great Smith Street, S.W.1, stating age, professional qualifications, brief details of experience, and quoting the reference No. 27281/21. 3500

WARWICKSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Vacancies occur for the posts of ASSISTANT ARCHITECTS as follows:—

Grade VI (£595 to £660).

Grade V (£520 to £570).

Grade III (£450 to £495).

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

Application forms can be obtained from C. H. Elkins, F.R.I.B.A., A.R.I.C.S., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS.

Clerk of the Council.

Shire Hall, Warwick. 3605

COUNTY BOROUGH OF GATESHEAD.
CHIEF ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments in the Chief Architect's Department:—

(a) SENIOR ASSISTANT ARCHITECT. A.P.T. VI (£595-£660 p.a.).

(b) ASSISTANT ARCHITECT. A.P.T. V (£520-£570 p.a.).

(c) JUNIOR ARCHITECTURAL ASSISTANT. A.P.T. II to IV, according to experience (£420-£525).

(d) SENIOR ASSISTANT QUANTITY SURVEYOR. A.P.T. VI (£595-£660 p.a.).

(e) ESTIMATING AND COST CLERK. A.P.T. IV (£480-£525).

(f) ASSISTANT ESTIMATING AND COST CLERK. General Division (maximum £385 p.a.).

(g) ASSISTANT HEATING AND VENTILATING ENGINEER. A.P.T. IV (£480-£525).

Candidates for (a) must be Registered Architects and Corporate Members of the Royal Institute of British Architects, and should have had good experience in the design and construction of schools and public buildings. They should be capable of taking charge of a section of the department.

Candidates for (b) must be Registered Architects and have a sound knowledge of design and construction.

Candidates for (c) must have passed the Intermediate Examination of the Royal Institute of British Architects and be quick and neat draughtsmen. The salary in this case will depend upon the length of experience after passing the Intermediate Examination.

Candidates for (d) should be Members of the Royal Institution of Chartered Surveyors and be experienced in the preparation of Bills of Quantities, Specifications, Estimates, and the settlement of Final Accounts.

Candidates for (e) should have had considerable experience in the preparation of estimates and costing of large capital and maintenance work, and should be capable of taking charge of a staff engaged on this work.

Candidates for (f) should have had previous experience of this work, preferably in a Contractor's office.

Candidates for (g) should be Associate Members of the Institute of Heating and Ventilating Engineers, and should have had considerable experience in the design and supervision of the erection of all classes of New Heating, Hot Water Supply and Ventilating Systems and alterations to existing plants, including Laundry and Kitchen Equipment.

All these appointments will be subject to Local Government Superannuation Act, 1937, and to one month's notice on either side. The successful applicants will be required to pass a medical examination.

The question of housing accommodation, if found necessary, will be discussed at the interview.

Applications to be made on forms obtained from the Chief Architect should be returned, together with copies of three recent testimonials, to H. J. Cook, A.R.I.B.A., M.I.Struct.E., Chief Architect, Municipal Buildings, Swinburn Street, Gateshead, 8, not later than Monday, 13th March, 1950.

J. W. PORTER.

Town Clerk.

17th February, 1950. 3563

BOROUGH OF SWINDON.

APPOINTMENT OF ASSISTANT BUILDING INSPECTOR.

Applications are invited for the above appointment in the Borough Architect and Planning Officer's Department, at a salary in accordance with Grade I of the National Scales (£390-£435).

Preference will be given to applicants who hold the Building Inspector's Certificate of the Institution of Municipal Engineers, and who have had a general experience in the building trade and the administration of Building Byelaws under a Local Authority.

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

Applications, on forms obtainable from me, must be returned not later than 18th March, 1950.

Canvassing will be a disqualification.

D. MURRAY JOHN.

Town Clerk.

Civic Offices, Swindon. 3613

22nd February, 1950.

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, 21st March, 1950.

G. C. GODBER.

Clerk of the Council.

Shrewsbury. 3623

February, 1950.

HUYTON-WITH-ROBY URBAN DISTRICT COUNCIL.
APPOINTMENT OF ASSISTANT BUILDING INSPECTOR.

Applications are invited for the appointment of Assistant Building Inspector, at a salary in accordance with Grade III of the A.P.T. Division of the National Scales, i.e., £450 x £15 = £495. The Council will provide housing accommodation if necessary, for which the successful candidate will pay rent and rates. The position is established and will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination. Applicants should hold a Building Inspector's Examination Certificate of the Institution of Municipal Engineers, or of the R.I.B.A.

Applications, stating age, experience, qualifications, and present and past appointments, with the names and addresses of two persons to whom reference may be made, should reach the undersigned not later than the 4th March, 1950.

Canvassing disqualifies.

H. E. H. LAWTON.

Clerk of the Council.

Council Offices, Derby Road, Huyton. 3556

13th February, 1950.

SPALDING RURAL DISTRICT COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the full-time appointment of TECHNICAL ASSISTANT, in A.P.T. Division, Grade IV, of the National Scale (commencing at £480 and rising to £525 per annum). The successful applicant will work under the direction of the Council's Architect, and his main duties will be to prepare Bills of Quantities, Estimates, Valuations and settlement of accounts in connection with the Council's housing schemes. Applicants should have a sound and practical knowledge of architectural and quantity surveying work.

The appointment will be subject to the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications and experience, together with the names and addresses of three persons to whom reference may be made, must be received by the undersigned not later than 8th March, 1950, and endorsed "Technical Assistant."

A candidate who is related to a member of official of the Council must disclose the fact in his application. Canvassing will disqualify.

The Council are prepared to let a house in the Rural District to the successful applicant.

L. FENNEL.

Clerk of the Council.

Rural Council Offices. 3599

10, The Crescent, Spalding, Lincs.

21st February, 1950.

BOROUGH OF SHREWSBURY.

APPOINTMENT OF TWO ARCHITECTURAL ASSISTANTS.

Applications are invited for the following appointments on the Permanent Staff of the Borough Surveyor:—

(a) ARCHITECTURAL ASSISTANT. Salary A.P.T. Grade IV, £480 to £525 per annum.

Candidates should have passed the Final or Intermediate Examination of the R.I.B.A. and have subsequently worked in an Architectural Office for a period of not less than two years.

Housing accommodation will be made available if required.

(b) ARCHITECTURAL ASSISTANT. Salary A.P.T. Grade III, £450 to £495 per annum.

Applicants should preferably have passed the Intermediate Examination of the R.I.B.A. and had some practical experience.

Applicants must be experienced in general architectural work and in the layout, design and construction of houses, three and four storey flats, and other domestic and public buildings.

The appointments are subject to the National Joint Council Scheme of Conditions of Service, and the provisions of the Local Government (Superannuation) Act, 1937, as adopted by the Council, and to the passing of a medical examination, and termination by one month's notice on either side.

Applications on forms to be obtained from the Borough Surveyor, Mr. F. R. Dinnis, A.M.I.C.E., Guildhall, Shrewsbury, to be returned to him not later than Friday, 10th March, 1950.

S. R. H. LOXTON.

Town Clerk.

Guildhall, Shrewsbury. 3591

15th February, 1950.

BOROUGH OF SWINDON.

APPOINTMENT OF PLANNING ASSISTANT.

Applications are invited for the appointment of a Planning Assistant, on the staff of the Borough Architect and Planning Officer, at a salary in accordance with A.P.T., Grade II, of the National Scales (£420-£465).

Applicants should be capable draughtsmen and colourists. The successful applicant will be required to assist in the revision of ordnance maps and the presentation of town planning surveys and proposals in map form.

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

Applications, on forms obtainable from me, must be returned not later than 11th March, 1950.

Canvassing will be a disqualification.

D. MURRAY JOHN.

Town Clerk.

Civic Offices, Swindon. 3573

20th February, 1950.

COUNTY BOROUGH OF NEWPORT, MON.

BOROUGH ARCHITECTS' DEPARTMENT.
Applications are invited for the under-mentioned appointments of Architects and Quantity Surveyors:—

PERMANENT STAFF:

- (a) **THREE ASSISTANT ARCHITECTS.** Salary A.P.T. Grade VI (£595-£660).
(b) **ONE ASSISTANT ARCHITECT.** Salary A.P.T. Grade V (£520-£570).
(c) **TWO ARCHITECTURAL ASSISTANTS.** Salary A.P.T. Grade IV (£480-£525).
(d) **ONE ARCHITECTURAL ASSISTANT.** Salary A.P.T. Grade III (£450-£495).
(e) **ONE ASSISTANT QUANTITY SURVEYOR.** Salary A.P.T. Grade VII (£635-£710).
(f) **ONE ASSISTANT QUANTITY SURVEYOR.** Salary A.P.T. Grade IV (£480-£525).
(g) **ONE ASSISTANT QUANTITY SURVEYOR.** Salary A.P.T. Grade III (£450-£495).

TEMPORARY STAFF:

- (h) **ONE ASSISTANT ARCHITECT.** Salary A.P.T. Grade VI (£595-£660).
(i) **ONE ASSISTANT ARCHITECT.** Salary A.P.T. Grade V (£520-£570).
(j) **TWO ARCHITECTURAL ASSISTANTS.** Salary A.P.T. Grade II (£420-£465).
(k) **ONE ASSISTANT QUANTITY SURVEYOR.** Salary A.P.T. Grade VI (£595-£660).
Applications should give age, qualifications and experience, and the names of three referees, and should reach the undersigned not later than Monday, 6th March, 1950.
Canvassing, directly or indirectly, will disqualify.

JOHN BLACKETT, F.R.I.B.A.,*Borough Architect.*

Town Hall, Newport, Mon. 3571

COUNTY BOROUGH OF BURNLEY.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
Applications are invited for the appointment of **ARCHITECTURAL ASSISTANT**, at a salary in accordance with Grade IV of the National Scale (£480-£525 per annum).

Applicants should have passed the R.I.B.A. Intermediate Examination or its equivalent, and have had good general experience in an architectural office.

Conditions of service are those formulated by the National Joint Council, and the appointment is on the established staff and subject to the provisions of the Local Government Superannuation Act, 1937, the successful applicant being required to pass a medical examination. The appointment is terminable by one month's notice on either side.

Canvassing, either directly or indirectly, will disqualify the candidates, and any relationship to a member or senior officer of the Council must be clearly stated in the application.

Forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Burnley, to whom applications should be returned in the envelope provided not later than 9 a.m. on Saturday, 11th March, 1950.

C. V. THORNLEY,*Town Clerk.*

Town Hall, Burnley. 3575

February, 1950.

CAMBRIDGESHIRE COUNTY COUNCIL.**COUNTY ARCHITECTS' DEPARTMENT.**

Applications are invited for the following appointments:—

- (a) **ONE QUANTITY SURVEYOR.** Grade VIII, A.P.T. Division (£685 × £25-£760).
(b) **ONE QUANTITY SURVEYOR.** Grade VII, A.P.T. Division (£650 × £25-£710).
(c) **ONE ENGINEERING ASSISTANT.** Grade VIII, A.P.T. Division (£685 × £26-£760).
(d) **ONE ARCHITECTURAL ASSISTANT.** Grade VI, A.P.T. Division (£595 × £20 × £20 × £25-£660).
(e) **ONE ARCHITECTURAL ASSISTANT.** Grade IV, A.P.T. Division (£480 × £15-£525).

(a) and (b) Applicants should be Associate Members of the Royal Institute of Chartered Surveyors (Quantities Section), and have had considerable experience in taking off, abstracting and preparation of Bills of Quantities, specifications, detailed estimates, valuations for interim certificates, and the settlement of final accounts.

(c) Applicants should be fully qualified heating, ventilating and electrical Engineers, and have had experience in the preparation of schemes, including writing specifications and preparing estimates of costs.

(d) Applicants should be fully qualified Architects and Members of the Royal Institute of British Architects, and have had experience in design and construction of all types of public buildings.

(e) Applicants should be Student Members of the Royal Institute of British Architects, and have a good general knowledge of construction and detail, and be able to prepare drawings from preliminary sketches.

Applications, stating age, qualifications and experience, accompanied by one recent testimonial, and the names and addresses of two referees, should be sent to the Clerk of the County Council, Shire Hall, Cambridge, not later than Wednesday, 22nd March, 1950.

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

CHARLES PHYTHIAN,*Clerk of the County Council.*

Shire Hall, Cambridge. 3622

22nd February, 1950.

STATES OF GUERNSEY.

Applications are invited for the following appointments in the Public Works Department.

The appointments are pensionable, and the salaries are subject to a cost-of-living bonus of £50 per annum for a married man or £25 for a single man.

QUANTITY SURVEYOR.

Salary £600 per annum, rising by annual increments of £20 to £650 per annum, plus cost-of-living bonus.

Applicants should be Associate Members of the Royal Institution of Chartered Surveyors, and have had thorough experience in the preparation of specifications for housing sites, schools and public buildings, including taking off and billing of building quantities and measuring up of work for interim and final certificates.

GENERAL ARCHITECTURAL ASSISTANT.

Grade II. Salary £550 per annum, rising by annual increments of £15 to £600 per annum, plus cost-of-living bonus.

Applicants must be Registered Architects and preferably Corporate Members of the Royal Institute of British Architects, and must have a thorough knowledge of architectural works, with practical experience in the design and development of public buildings of all types and the preparation of working drawings and specifications.

Candidates must not be over 45 years of age, and the successful applicants will be required to pass a medical examination.

The appointments will be terminable by one month's notice on either side.

Applicants should indicate, in the following order:—

- (a) The specific appointment applied for.
(b) Name and address.
(c) Age.
(d) Educational training.
(e) Professional qualifications.
(f) Present position, salary and date of appointment.
(g) Previous positions, with salaries and dates of appointments.
(h) Detailed particulars of experience.
(i) Any further remarks in support of application.
(j) Notice required to terminate present appointment.

Applications, endorsed "Technical Assistants," together with copies of two recent testimonials, should reach the undersigned not later than noon on Monday, 27th March, 1950.

Canvassing in any form will disqualify.

L. A. GUILLEMETTE,*States Supervisor.*

States Office, Guernsey. 3621

21st February, 1950.

COUNTY BOROUGH OF BARROW-IN-FURNESS.**BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.****ARCHITECTURAL ASSISTANT—GRADE III OR IV.**

Applications are invited for the permanent appointment of Architectural Assistant, on Grade III (£450-£495 p.a.) or Grade IV (£480-£525). The grading of the post and the commencing salary will be fixed in accordance with the successful candidate's training, experience, and qualifications.

Housing accommodation is not available in respect of this appointment.

Conditions of appointment and forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Barrow-in-Furness, to whom completed applications must be returned not later than Monday, 20th March, 1950.

LAWRENCE ALLEN*Town Clerk.*

Town Hall, Barrow-in-Furness. 3620

CITY OF LEICESTER.**CITY ARCHITECTS' DEPARTMENT.****(AMENDED ADVERTISEMENT).**

Applications are invited for the following appointments on the established staff:—

- (a) **CHIEF QUANTITY SURVEYOR.** A.P.T. Grade IX. Salary £750-£900 per annum. Applicants must be Fellows or Professional Associates (Quantities Sub-Division) of the R.I.C.S., and must be experienced in the preparation of Specifications, Estimates, Bills of Quantities, Valuation and Measurement for Interim Certificates and Settlement of Final Accounts.
(b) **ASSISTANT QUANTITY SURVEYORS.** A.P.T. Grade VI. Salary £595-£660 per annum. Applicants must be A.R.I.C.S. (Quantities Sub-Division).
(c) **ASSISTANT ARCHITECTS.** A.P.T. Grade VII. Salary £635-£710 per annum.
(d) **ASSISTANT ARCHITECTS.** A.P.T. Grade V. Salary £520-£570 per annum.

Applicants must be Registered Architects, and preference will be given to those holding a recognised Architectural qualification. Experience in the design and erection of large buildings is desirable for post (c).

The appointments will be subject to the National Scheme of Conditions of Service and to the passing of a medical examination.

Applications, stating post desired, age, experience, qualifications, past and present appointments, with present salary, together with copies of two recent testimonials, should be sent to the undersigned not later than Tuesday, 14th March, 1950.

J. H. LLOYD OWEN,*City Architect.*

10, Loseby Lane, Leicester. 3601

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COUNTY BOROUGH OF GREAT YARMOUTH.**EDUCATION COMMITTEE.****APPOINTMENT OF CLERK OF WORKS.**

Applications are invited for the appointment of Clerk of Works to supervise the erection of the new Gorleston Girls' Secondary Modern School. The appointment will be temporary for approximately 2½ years, and subject to one month's notice on either side.

The salary will be £10 10s. per week.

Applicants must have a thorough knowledge of the building trade, must be conversant with plans, specifications, and bills of quantities, and competent to set out work, give levels, and keep all necessary records and progress reports.

Applications, stating age, present employment, previous appointments, experience and qualification, accompanied by copies of three recent testimonials, must be delivered to the Town Clerk, Town Hall, Great Yarmouth, not later than 17th March, 1950.

FARRA CONWAY*Town Clerk.*

Town Hall, Great Yarmouth. 3577

CITY OF COVENTRY ARCHITECTURAL DEPARTMENT.**APPOINTMENT OF ASSISTANT ELECTRICAL ENGINEER.**

Applications are invited for the permanent appointment to the post of Assistant Electrical Engineer, at a salary in accordance with Grade V, A.P.T. Division (£520 to £570 per annum).

Applicants should be Corporate or Graduate Members of the Institution of Electrical Engineers, and have had a regular training in the following: Electrical Installation work, with subsequent experience, preferably with a local authority, in the preparation of schemes, estimates, specifications and drawings for electrical installations; the supervision of work in progress, and in the final testing and certification of completed installations.

The successful applicant will be required to act as section deputy, and administrative experience is therefore essential.

The appointment 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.

The successful applicant will be expected to belong to an appropriate organisation as referred to in Paragraph 44 of the National Conditions of Service.

Forms of application may be obtained from 14, Warwick Row, Coventry, and should be returned, completed, together with copies of two recent testimonials, not later than Tuesday, 28th March, 1950.

D. E. E. GIBSON,*City Architect.*

14, Warwick Row, Coventry 3570

WEST MIDLANDS GAS BOARD.**BIRMINGHAM DISTRICT.****ARCHITECTURAL DRAUGHTSMAN.**

Applications are invited for the position of Architectural Draughtsman, with experience in industrial buildings and ability to handle schemes from site survey to completion, and to prepare estimates.

The salary will be in accordance with the Local Authorities Scale, A.P.T. V (minimum £520—maximum £570 per annum). The successful applicant will be required to pass a medical examination and to subscribe to such scheme of superannuation as the Board may adopt in the future.

Applications, giving personal details, particulars of training, qualifications and experience, together with the names of three referees, should be addressed to Mr. J. E. Wakeford, Divisional Manager, West Midlands Gas Board, Birmingham District, Gas Offices, Edmund Street, Birmingham, 3, to reach him not later than 14 days after the appearance of this notice.

F. H. CURETON,*Secretary.*

3625

NORTH WESTERN GAS BOARD.**APPOINTMENT OF ARCHITECTURAL AND SURVEYING DRAUGHTSMEN.**

Applications are invited for the above positions on the Central Headquarters Staff of the Board, located in Manchester.

Applicants should have had experience in industrial design and in the preparation of specifications and quantities for new works and alterations to existing buildings.

In the case of Architectural Draughtsmen an additional qualification would be experience in the preparation of perspective schemes.

The Surveying Draughtsmen must be capable of taking surveys and measurements for estimating purposes and the preparation of interim and final accounts.

The salary will be within the range of £520 to £610 per annum, according to the qualifications and experience of the candidate. The successful candidates may be required to pass a medical examination and to subscribe to such scheme of superannuation as the Board may adopt in the future.

Applications, giving details of qualifications and experience of the candidate, and with the names of two referees, should be returned to the undersigned not later than 10 days after the appearance of this advertisement.

S. G. DEAVIN,*Secretary.*

Bridgewater House, 3569

60, Whitworth Street, Manchester, 1.

**COUNTY BOROUGH OF STOCKPORT.
EDUCATION COMMITTEE.**

Applications are invited for the following appointments:—
(1) ARCHITECTURAL ASSISTANT. A.P. and T., Grade VI. Salary £595-£660.
(2) ARCHITECTURAL ASSISTANT. A.P. and T., Grade III-IV. Salary £450-£525 per annum.
Application forms and conditions of appointment may be obtained from the undersigned.

E. GWYN THOMAS,

Director of Education.

Education Offices, Town Hall, Stockport 3919

LEEDS REGIONAL HOSPITAL BOARD.

Applications are invited for the post of ARCHITECTURAL ASSISTANT on the Headquarters Staff of the Board. Salary scale £450-£525. Commencing salary in accordance with experience.

Candidates must have experience of preparing details, working drawings and surveying buildings, and preferably have some experience of hospital construction.

The appointment will be subject to the National Health Service (Superannuation) Regulations, 1947/49, and in the case of a new entrant to the Service to the passing of a satisfactory medical examination.

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, the 16th March, 1950.

Canvassing in any form, either directly or indirectly, will disqualify. 3604

COUNTY OF LINCOLN—PARTS OF

KESTEVEN.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of TWO ARCHITECTURAL ASSISTANTS.

(a) Salary on A.P.T., Grade V/VI, i.e., £520, rising by annual increments of £15, £20 and £25 to a maximum of £660 per annum. Previous experience in the Architect's Office of a Local Authority is desirable. Candidates should be Registered Architects, and preferably Associates of the R.I.B.A.

(b) Salary on A.P.T., Grade III, i.e., £450, rising by annual increments of £15 to a maximum of £495 per annum. Candidates should have had good general experience in the design and construction of buildings, and preference will be given to those who have passed the Intermediate examination of the R.I.B.A.

Commencing salary in either appointment will be in accordance with experience, and car and subsistence allowances will be paid on the National Scales.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, to satisfactory medical certificates, and to one month's notice in writing on either side.

Applications, stating which appointment is desired, and giving full particulars of age, experience, qualifications, and present appointment, together with copies of two recent testimonials or the names and addresses of two referees, should reach the undersigned not later than the 31st March, 1950. Canvassing, either directly or indirectly, will disqualify.

J. E. BLOW,

Clerk of the County Council.

County Offices, Sleaford, Lincs. 3606
22nd February, 1950.

MINISTRY OF WORKS.

Vacancies exist for ARCHITECTURAL ASSISTANTS at Risley (Warrington), Windscale (Cumberland) and Manchester, for drawing office duties in connection with Research Establishments. Candidates should be of British nationality, and have had a recognised Architectural training and fair experience.

Salary: Architectural Assistants, £283 per annum at age 21, with £20 additional for each year above that age to a maximum of £495 per annum.
Leading Architectural Assistants, £470-£595 per annum.

Although the posts are not established, some of them have long term possibilities and competitions are held periodically to fill established vacancies. Hostel accommodation for men at reasonable cost is available at Risley and Windscale.

Vacancies also exist in London and other Regional Offices throughout the country. Apply in writing, stating locality desired, age, training and experience, Chief Architect, WG10/AN, Ministry of Works, Abell House, John Islip Street, London, S.W.1. 3397

COUNTY BOROUGH OF HALIFAX.

BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the appointment of a GRADUATE ASSISTANT ENGINEER. Salary in accordance with National Scales, A.P.T. I (£390-£435).

Candidates should possess an Engineering degree and will be required to pass a medical examination. The appointment will be subject to the conditions of service adopted by the Corporation and to the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications, and any previous experience, accompanied by copies of three recent testimonials, should be endorsed "Graduate Assistant," and delivered to the undersigned not later than Saturday, 11th March, 1950.

RICHARD DE Z. HALL,

Town Clerk.

Town Hall, Halifax. 3615
21st February, 1950.

LONDON COUNTY COUNCIL.

Hammersmith School of Building and Arts and Crafts, Lime Grove, W.12. Required as soon as possible in the Senior Building School:—

(a) THREE STUDIO MASTERS in the Architectural Section, preparing Students for the Intermediate and Final Examinations of the R.I.B.A. Applicants should hold the A.R.I.B.A. and have preferably been trained at a School of Architecture. Hammersmith is one of the R.I.B.A. "listed" schools providing approved full-time instruction in Architecture up to the R.I.B.A. Final Examination.

(b) A LECTURER, to be responsible for "Building Construction" throughout the Senior School. Applicants should have the A.R.I.B.A. or similar qualifications, and have adequate practical experience; some teaching experience is desirable. This appointment will ultimately rank as a post of responsibility, carrying with it an extra allowance above the salary scale of £50 to £100.

(c) A LECTURER in structural work, for the Structural Engineering Course and the Higher National Diploma Course in Building. The ability to teach Land Surveying up to Intermediate standard of the Royal Institute of Chartered Surveyors is essential. Applicants should be Corporate Members of the Institution of Civil Engineers or the Institution of Structural Engineers or a similar professional institution.

The salary for all these posts is that of the Burnham Technical Scale for Assistants, which ranges in London for a man from a minimum of £336-£618 to a maximum of £603-£708, according to age, qualifications and experience.

Application forms from the Secretary at the School, returnable within 14 days of the publication of this advertisement. Please state post for which application is made. (214) 3592

FIFE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited from parties having suitable qualifications to fill the following vacancies:—

(a) SENIOR QUANTITY SURVEYOR, and

(b) QUANTITY SURVEYOR.

Applicants should be Fellow or Associate Members of the Royal Institute of Chartered Surveyors (Quantities Section), with considerable experience in the preparation of estimates, Bills of Materials, measuring up and adjustment of final accounts. Salary in respect of

(a) £650, rising by four annual increments of £30 and one of £10 to a maximum of £780 per annum; and

(b) £520, rising by two annual increments of £25 and three of £30 to £660 per annum.

(c) QUANTITY SURVEYING ASSISTANTS (TWO). Applicants should have passed the Intermediate Examination of the Royal Institute of Chartered Surveyors and have had five years' office experience. One of the positions is on a salary grade of £400, rising by annual increments of £20 to £520 per annum, and the other post is on a salary grade of £350, rising by annual increments of £20 to a maximum of £450 per annum.

(d) JUNIOR SURVEYING ASSISTANTS (TWO). Applicants should have a knowledge of building construction, squaring dimensions, checking variations in costs of labour and materials, and similar duties in connection with large housing and other contracts. Salary grade £320, rising by increments of £20 to a maximum of £400 per annum.

With regard to (a), (b) and (c) above, consideration will be given by the County Council to provision of housing for suitable applicants.

The foregoing appointments are superannuable, and successful candidates will be required to pass a medical examination. Applications, stating age, training, qualifications, experience, previous appointments, post applied for, together with copies of recent testimonials, to be lodged with the undersigned not later than 13th March, 1950. No canvassing.

J. M. MITCHELL,

County Clerk.

County Buildings, Cupar. 3591
17th February, 1950.

BRITISH ELECTRICITY AUTHORITY.

Applications are invited for the appointment of an ASSISTANT in the office of the Architect at the Authority's headquarters in London.

The successful candidate will be required to assist the Architect generally in the running of his office and be able to deal with day-to-day matters in his absence. He or she may also be required from time to time to attend meetings with Contractors and other Architects, to produce minutes, and later be responsible for drafting the necessary documents to implement the decision. To this extent, a general knowledge of architectural and engineering terms and previous experience in an architect's office would be an advantage.

The salary, which is provisional and subject to future negotiation, will be within Grade "B" of the National Joint Council Interim Scheme of Salaries, i.e., £450-£550 per annum, plus the appropriate London weighting.

Letters of application, stating age, qualifications, experience and present salary, should be forwarded to D. Moffat, Director of Establishments, British Electricity House, Great Portland Street, W.1, to be received not later than 10th March, 1950.

Please quote reference AE/50. 3587

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 Scales:—

DEPUTY TO CHIEF ASSISTANT ARCHITECT. Grade A.P.T., VIII (£685-£760 per annum).

ASSISTANT ARCHITECT. Grade A.P.T., VI (£595-£660 per annum).

ASSISTANT QUANTITY SURVEYOR. Grade A.P.T., VI (£595-£660 per annum).

The commencing stage within the grade will be determined according to qualifications and experience, and applicants may be assured that there is a variety of work on large scale housing and flat schemes and proposals for redevelopment areas.

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, J.R.I.B.A., Director of Housing, Town Hall, Manchester, 2, endorsed as to the position applied for, not later than 15th March, 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.

February, 1950. 3604

BOROUGH OF CAMBERWELL.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited from suitably qualified persons for the under-mentioned established posts:—

ARCHITECTURAL STAFF:

(1) SENIOR ASSISTANT ARCHITECT. A.P.T., VII/VIII (£665 to £790, including London weighting).

Applicants must have had sound experience in general architectural work and have passed the Final Examination of the Royal Institute of British Architects. The duties will include the preparation of sketch designs, working drawings and specifications, and supervision of work under construction.

(2) and (3) TWO ASSISTANT ARCHITECTS. A.P.T., V/VI (£550 to £690, including London weighting).

Applicants should have sound general experience in architectural work and be registered Architects.

(4) ASSISTANT ARCHITECT. A.P.T., III/IV (£420 to £555, including London weighting).

Applicants should have passed the R.I.B.A. Intermediate Examination or its equivalent, and have had at least two years' experience in an architectural office.

All the above appointments are subject to:—

(i) N.I.C. Scheme of Conditions of Service.

(ii) The provision of the Camberwell and other Metropolitan Borough Councils (Superannuation) Act, 1938, as amended.

(iii) The passing of a medical examination.

(iv) Termination of one month's notice on either side.

The Council is unable to offer any assistance in obtaining housing accommodation for the successful candidates.

Applications from staff in the service of other local authorities will not be considered unless they have been in the service of their present employers for a period of not less than two years.

Forms of application may be obtained from Mr. John Clann, B.Sc., A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Camberwell, and must be returned to the undersigned not later than Wednesday, the 22nd March, 1950.

DARRELL MUSKER,

Town Clerk.

Town Hall, Camberwell, S.E.5. 3596

COUNTY OF LINCOLN—PARTS OF LINDSEY.

Applications are invited for a TEMPORARY CLERK OF WORKS, to supervise the erection of new Police Buildings and Magistrates' Courts and Superintendent's and Inspector's Houses at the Civic Centre Site, Southorpe, at a salary of £12 12s per week inclusive.

Candidates must have practical knowledge of all branches of the Building Trade and be experienced in the supervision and erection of buildings, capable of setting out, taking levels, measuring up, checking quantities, keeping records, and making reports.

The duration of the appointment is expected to be approximately 24 to 30 months. The work is expected to start March, 1950. The appointment will be terminable by one month's notice on either side.

Applications, stating age, qualifications and experience, with particulars of past and present employment, and accompanied by copies of three recent testimonials, must be received by the Architects, Messrs. Charles B. Pearson & Son, F.R.I.B.A., 18, Dalton Square, Lancaster, not later than 6th March, 1950.

H. COPLAND,

Clerk of the County Council.

County Offices, Lincoln. 3631

February, 1950.

BATTERSEA BOROUGH COUNCIL. APPOINTMENT OF TECHNICAL ASSISTANTS.

Applications are invited for the following permanent appointments on the Council's technical staff, according to Council's Scale of Salaries:—

ENGINEERING STAFF:
ONE ENGINEERING ASSISTANT. A.P.T., Grade VI. Salary £595, rising by annual increments to £660 per annum.

ARCHITECTURAL STAFF:
(i) ONE SENIOR ASSISTANT ARCHITECT. A.P.T., Grade VIII. Salary £685, rising by annual increments to £760 per annum.

(ii) ONE ASSISTANT ARCHITECT. A.P.T., Grade VII. Salary £635, rising by annual increments to £710 per annum.

(iii) TWO ARCHITECTURAL ASSISTANTS. A.P.T., Grades III-IV. Salary £450, rising by annual increments to £595 per annum.

(iv) TWO DRAUGHTSMEN. A.P.T., Grades I/II. Salary £390, rising by annual increments to £465 per annum.

London weighting, according to age, is payable in addition in each case.

Candidates for appointments (i) and (ii) must be Members of the R.I.B.A.

Commencing salary at any point within the grade or grades mentioned will be according to the qualifications and experience of the successful candidate.

Forms of application, giving full particulars of each appointment, may be obtained from the Borough Engineer and Surveyor, Town Hall, Battersea, S.W.11, and should be returned to the undersigned in a suitably endorsed envelope by 15th March, 1950.

R. G. BERRY.

Town Clerk.

Town Hall, Battersea, S.W.11. 3594

NORTH THAMES GAS BOARD.

Applications are invited for the following appointment in the Architects' Section of the Chief Engineer's Department at Westminster: **SENIOR ARCHITECTURAL ASSISTANT**, minimum starting salary £650 per annum.

Applicants, who must be Registered Architects and should be studying for or have passed the Final Examination of the R.I.B.A., should be capable of preparing working and detailed drawings and specifications, and supervising and controlling the work on contracts. Experience in design and planning of industrial buildings would be an advantage.

The appointment is of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications, stating age, qualifications and particulars of previous appointments held, must be submitted to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 9757. 3543

Tenders for Contracts

CITY OF CARDIFF.

NEW PAVILION—SOPHIA GARDENS.

Tenders will shortly be invited from selected Contractors for the construction and completion of the above-mentioned building; the exterior wall foundations and steel framework of which are at present erected.

The work to commence approximately on the 1st April, and be completed by the 31st August, 1950.

Large Building or Engineering Contractors desirous of tendering should submit details of their Plant, Labour and Materials, which they could make available immediately.

A Pro Forma can be obtained from the City Surveyor, City Hall, Cardiff, to whom it should be returned on or before the 10th March, 1950.

A deposit of £2 2s. will be required from the selected Contractors, which will be returned on receipt of a bona fide Tender.

S. TAPPER-JONES.

Town Clerk.

3614

Architectural Appointments Vacant

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

ARCHITECTURAL ASSISTANTS (Senior and Junior) required by Ronald Ward & Partners, 33, St. George's Drive, S.W.1. Telephone Victoria 6531, 6603, 5310. 3528

ASSISTANT required in busy Berkshire office, with work in all parts of the country; an opportunity for a man with initiative and drive to show his capabilities; good prospects for a capable man. Apply, with full particulars of experience and salary required, to Box 3342.

ARCHITECTURAL ASSISTANT required in Maidenhead for large Practice of London and Provincial work; applicants must be capable of supervising work and conversant with by-laws. Reply, with particulars of experience and salary required, to Box 3343.

ARCHITECT'S ASSISTANT required immediately, with experience of industrial buildings and capable of preparing working drawings and details. Applicants are requested to state age, experience, and salary required, to The Austin Motor Co., Ltd., P.O. Box 41, Birmingham. 3438

RICHARD COSTAIN, LTD. require QUANTITY SURVEYORS for home service. Apply in writing, giving details of age, experience, salary required, and availability, to Personnel Director, Richard Costain, Ltd., Dolphin Square, London, S.W.1. 3607

J. SAINSBURY, LTD., multiple food traders, require an additional qualified ARCHITECT to assist Manager of Building Development Department; work includes alterations and extensions in business and domestic premises; permanent, pensionable appointment; commencing salary £800 per annum. Applicants, who should be under 40, should apply in writing, giving details of education, qualifications, and of previous and present posts, to Personnel Manager (Q/A), J. Sainsbury, Ltd., Stamford House, Blackfriars, S.E.1. 3470

REQUIRED, as SERVICE INSPECTOR, an active Structural or Civil Engineer, who has had considerable experience in responsible supervising capacity in the erection of reinforced concrete structures, preferably with some design experience; will be required to travel extensively in the British Isles, but must live in the London area; attributes required are agreeable personality, sound judgment on erection problems, and able to write concise factual reports. Write, giving full details and salary required, to Managing Director, The Trussed Concrete Steel Company, Limited, 35/41, Lower Marsh, S.W.1. 3396

SENIOR ARCHITECTURAL ASSISTANT needed for modern Bristol Architects' office; cottage accommodation could be made available. Applicants should apply in writing, giving details of experience and salary required, to McDonald & Brown, 1, Unity Street, Bristol, 1. Tel.: 22374/5. Specimens of work would be an advantage and would be returned. 3567

ARCHITECTURAL ASSISTANT. Inter. A standard, neat and efficient draughtsman essential, in small office, W.C.2 district; permanency and good prospects for suitable applicant. Apply, stating age, experience, and salary required, to Box 3603.

WANTED, in West End office, ARCHITECTURAL ASSISTANT, good practical draughtsman; preferably accustomed to school building. Experience, age, and salary to Box 3469.

HARRISON & SEEL, A./A.R.I.B.A., have the following vacancies for interesting and varied work in London: (a) **QUALIFIED ARCHITECT**, with good experience and a special flair for organising work; attractive salary to right man. (b) **QUALIFIED SENIOR ASSISTANT**, with good practical experience, able to take responsibility; salaries by arrangement. Applications in writing to 34, Holland Park Road, London, W.14. 3529

NORTH THAMES GAS BOARD.—A WOMAN TRACER is required in the Board's Estate Department, Kensington, to work on General Architectural and Building Plans; salary according to age and experience, and there are good prospects for advancement; hours 9 a.m. to 5 p.m. Mondays to Fridays, and 9 a.m. to 12.30 p.m. Saturdays, with one Saturday morning in four granted as leave with pay; staff canteen is available. Candidates, preferably not more than 25 years of age, should apply to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, W.8, quoting reference 9758. 3544

QUANTITY SURVEYORS. SENIOR ASSISTANTS required. Preferably with pre-war experience in Scheduling; probable costing; measuring and agreeing Final Measurements. Apply in writing to S.C.W.B., Ltd., Architectural Department, 119, Paisley Road, Glasgow, C.5. Envelopes to be endorsed "Surveyor." 2026

ARCHITECTS. SENIOR ASSISTANTS required. Should have good knowledge of commercial and industrial buildings and contemporary design. Apply in writing to S.C.W.B., Ltd., Architectural Department, 119, Paisley Road, Glasgow, C.5. Envelopes to be endorsed "Architect." 2025

SOUTH BANK RESTAURANT, 1951.—Experienced ASSISTANT required immediately to assist in preparation of working drawings; ability to detail rapidly essential. Apply, giving particulars, telephone number, salary required, to Leonard Manasseh, A.R.I.B.A., 20, Buckingham Street, Strand, W.C.2. Tel.: Temple Bar 0658. 3281

ARCHITECTURAL ASSISTANTS required immediately: Intermediate standard or above; office experience; salaries up to £550 p.a.; permanency; housing, hospital, hotel, factory and general work; busy office. Write Roddle & Wilkinson, F./L.R.I.B.A., Long Causeway Chambers, Peterborough. Telephone: Peterborough 2166. 3523

SIR JOHN BURNET, TAIT & PARTNERS require ASSISTANT ARCHITECTS, with sound experience in design and construction. Applicants must be capable of the preparation of working drawings and specifications, and be able to assume responsibility for all stages of the work.

Salary from £750 to £850, with special terms for men of outstanding ability.

Address: 10, Bedford Square, London, W.C.1. 3453

LARGE BUILDING AND CIVIL ENGINEERING ORGANISATION require a QUANTITY SURVEYOR for service in the Middle East; good salary and allowances payable; no wives and/or families initial tour. Apply in writing, giving full details of age (preferably not over 43), experience, etc., to Box 3608.

ARCHITECT'S SENIOR ASSISTANT required in Welwyn Garden City, fully qualified; possibilities of eventual partnership will be considered. 3566

SENIOR QUANTITY SURVEYOR required immediately, to take charge of re-measurement of large building contracts in London. Apply in writing, giving full details of age, experience, qualifications, etc., to Hugh B. Lloyd, Chartered Surveyor, 9th Floor, Duncan House, Dolphin Square, London, S.W.1. 3611

QUANTITY SURVEYORS required immediately; men with sound practical experience desirable. Apply in writing, giving full details of age, experience, and salary required, to Hugh B. Lloyd, Chartered Surveyor, 9th Floor, Duncan House, Dolphin Square, London, S.W.1. 3612

ARCHITECTURAL ASSISTANT required immediately; Intermediate standard, for varied and interesting work; must be neat and accurate draughtsman, with keen interest in design. Box 3619.

SENIOR ARCHITECTURAL ASSISTANT urgently required; capable of running office, visiting works in progress, seeing clients, council officers and builders when necessary; state age, experience, and salary. Reply first to G. H. Goldsmith, 26, Neville Court, St. John's Wood, N.W.8. 3566

PERMANENT positions available for competent SENIOR ASSISTANTS in established London office; salary according to experience up to £650 per annum. Box 3593.

ARCHITECTURAL ASSISTANT required, at about R.I.B.A. Intermediate standard; with some office experience. Welch & Lander, F.R.I.B.A., 38 Gloucester Place, Portman Square, W.1. Welbeck 6551. 3549

ASSISTANT ARCHITECT (Final R.I.B.A. stage) required in offices of resident Architect of large multiple organisation in London, for work on new buildings, extensions, improvements. Applications, giving details of age, past and present employment, training and experience, and commencing salary expected, to be sent to Box F.T.414, Everetts Advertising, Ltd., 10, Hertford Street, W.1. 3598

B.C.C. invites applications for two posts as **ASSISTANT DESIGNERS**, Television Service; successful applicants must be skilled architectural draughtsmen, preferably with stage and/or film experience; work will be in connection with Children's Programmes at the Lime Grove Studios, Shepherd's Bush, and it is essential that applicants should be sympathetic with, and prepared to specialise in, work in that sphere; starting salary £470 (may be higher if qualifications and experience are exceptional), rising by £30 to £680 maximum. Detailed applications to Appointments Officer, B.C.C., Broadcasting House, London, W.1, within 7 days, marked "Assistant Designers, A.J." For acknowledgment enclose stamped addressed envelope. 3626

MIDLANDS.—ARCHITECTURAL ASSISTANTS wanted for Private Office; one Senior or Semi-Senior, with experience of Industrial Buildings; one Junior, preferably with same, but not essential; good salaries. Please write Box 3561.

ARCHITECTURAL ASSISTANT (fully qualified) required for progressive appointment with firm of private Architects; must have had good office experience; age 25-35; salary £260 per annum. Apply, with full particulars of qualifications and experience, to Box 3560.

SENIOR ARCHITECTURAL ASSISTANT, good all round experience, preferably with knowledge of high-class joinery detailing and interested in contemporary design, for small but busy London office. Write, stating particulars of training, experience, and salary required, to E. C. Kent, F.R.I.B.A., M.T.P.I., 6, Gray's Inn Road, W.C.1. 3579

REQUIRED at once, by Architects in the South Kensington area, a really experienced and SENIOR ASSISTANT; salary £15 to £20, according to ability; only those fully qualified and with experience in large housing schemes need apply (5-day week). Box 3596.

JUNIOR ASSISTANT required; Intermediate standard, with at least one year's office experience, and preferably some experience of housing work. Clifford Duke, A.R.I.B.A., 111, Haverstock Hill, N.W.3. Primrose 2512. 3627

ARCHITECTURAL ASSISTANT required for General Practice, Factories, Warehouses, Hospital Work, etc. Kindly write, stating age, experience and salary required, A. Neville Holt, F.R.I.B.A., 20, Exchange Street East, Liverpool, 2. 3584

SENIOR ARCHITECTURAL ASSISTANTS required by United Dairies, Limited; applicants to state age and experience in the preparation of surveys, sketch plans and working drawings, and be able to supervise work in progress. Apply in writing, stating qualifications and salary required, to Chief Architect, 31, St. Petersburgh Place, London, W.2. 3576

ARCHITECT'S ASSISTANT required at end April. Write in confidence, stating age, experience, and salary, to W. Leslie Jones, I.R.B.A., 87, High Street, Great Missenden, Bucks. 3583

HULME CHADWICK, of 26, Eccleston Street, E.C.1, has vacancies for SENIOR and JUNIOR ASSISTANTS; the work is mostly Exhibitions and Showrooms, and applicants should not only have constructional experience, but considerable designing ability. Please quote references, experience, and salary required. 3574

ARCHITECTURAL ASSISTANT required by major industrial organisation, with head office in the West End of London; applicants should be experienced in the preparation of surveys, sketch plans, working drawings in connection with industrial buildings; also able to supervise work in progress and prepare reports in regard to same; qualifications desirable, but not essential. Apply in writing, stating age, qualifications, full details of experience, and salary required, to Dept. M.52, Box No. 4274A, A.K. Adv., 212a, Shaftesbury Avenue, W.C.2. 3572

THE BRITISH COUNCIL invites applications for the post of ASSISTANT in the Aids and Displays Department, London Headquarters. Duties: to design and assemble small exhibitions, to assemble major exhibitions, occasionally to accompany exhibitions overseas, and to do some office work concerning exhibitions. Candidates must be men, aged preferably between 24 and 36 years, and must have had about two years' experience in either an architect's office or a commercial artist's studio; experience of model-making and some knowledge of exhibition-making, of theatre lighting, and of a foreign language, are desirable additional qualifications. Gross salary according to age, experience and qualifications, but will not exceed £450 per annum. 3580

Write, quoting title of post and enclosing stamped, addressed foolscap envelope for application form and further particulars to the Director, Personnel Department, The British Council, 3, Hanover Street, London, W.1, to whom completed forms should be returned within two weeks of to-day's date. 3580

Architectural Appointments Wanted

CHARTERED ARCHITECT (43), University qualified, desires change; seeks responsible position with scope in London; extensive first-class experience in large-scale modern Housing, Commercial and Industrial schemes; complete charge. Box 3294.

ARCHITECT'S ASSISTANT, Student R.I.B.A., 5 years' general office experience, at present employed on housing, desires position in progressive Dublin firm. Box 3581.

ARCHITECTURAL ASSISTANT, over 6 years' experience in housing, industrial and exhibition work, capable of office management, requires progressive change, preferably in London area. Box 469.

MANAGING ASSISTANT (Chartered), wide experience in all aspects of professional work; seeks change to a similar position with prospects; London area preferred; please state remuneration. Box 474.

SENIOR ASSISTANT, taking special Final; 12 years' outstanding experience building, including 3 years' architect's office; qual. draughtsman, exper. surveyor, estimator, negotiator; conduct works from initial enquiry to final account, all stages; prepare own specification, quantities, and obtain tenders and quotes; seeks immediate change from contractor's to Architect's office for permanent position utilising above capabilities; holiday required September, otherwise long hours, hard work no deterrent; salary £575 p.a. G. Hill, 7, Earls Court Square, S.W.5. 471

MALE (aged 22), two years' Day School Architecture, desires post in London area; intending to study Intermediate and Final R.I.B.A.; varied work preferred. Box 470.

ARCHITECTURAL ASSISTANT (age 25), pre-Inter, standard R.I.B.A., seeks position in progressive office. Box 472.

Other Appointments Vacant

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

INTELLIGENT and enthusiastic, young man, with some knowledge of building construction and materials, wanted for unusually interesting selling job, mainly in London (full-time). Write, with full particulars of age, training, experience, salary required, to Box 366.

ESTIMATORS wanted; used to Brakepress work. Apply personally or by letter to Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17. 2143

ARCHITECTURAL Metalworkers require a **DESIGNER-DRAUGHTSMAN** of considerable merit; top salaried position for skilled man. Apply The Morris Singer Company, Hope House, 61, Peter Street, Westminster, S.W.1. 3564

LARGE BUILDING AND CIVIL ENGINEERING ORGANISATION require **BUILDING GENERAL FOREMAN**, for service in the Middle East; good salary and allowances payable; no wives and/or families initial tour. Apply in writing, giving full details of age, experience, etc., to Box 3610.

J. E. SLATER, LTD., Kibworth, Leicestershire, require a trained **DRAUGHTSMAN**, with Architect's office experience, to take charge of drawing office producing designs for shop fronts and interiors and exhibition stands; must have good knowledge of modern constructional methods and materials, and be able to produce detailed working drawings and complete specifications; applicants must be prepared to travel and take complete control of jobs on site. Write, giving full details of training experience and salary required. 3460

LONDON ELECTRICITY BOARD. VACANCY—JUNIOR QUANTITY SURVEYOR (WORKER-UP).

APPLICATIONS are invited for the post of the Junior Quantity Surveyor (Worker-up) in the Architect's Section of the Chief Engineer's Department at Lesco House, Stamford Street, S.E.1.

Applicants should preferably have had experience in a Quantity Surveyor's or Builder's office, and be capable of "working up" in all trades and of simple "taking off," and will be on the staff of a Chartered Quantity Surveyor.

The commencing salary will be £400 per annum. This salary is provisional and subject to adjustment through the appropriate negotiating machinery.

Application forms obtainable on receipt of a stamped addressed foolscap envelope from the Establishments Officer at 46/47, New Broad Street, E.C.2, should be returned duly completed not later than 8th March, 1950. Please mark envelope EST/V/644/A. 3515

AN East Anglian Brewery requires the services of a **SURVEYOR**, to take charge of their Building and Maintenance Department, which serves a large number of Licensed Premises.

Candidates should be about 45 years of age, and should be Members of the R.I.B.A. or R.I.C.S., and experience in the alteration and maintenance of licensed premises would be an advantage.

There is a Contributory Pensions Scheme in operation.

Applications, which will be treated in confidence, should state fully experience, qualifications, age and salary required, and should be submitted not later than the 25th March, 1950. Box 3600.

SALES REPRESENTATIVE is required for the Midlands to concentrate upon Architects, Local Authority Surveyors, Builders, and Sub-Contractors; a man with drawing office experience is preferred, and residence in Midlands essential; salary, commission and expenses; motor car provided. Write Box Z.D.189, Deacons' Advertising, 36, Leadenhall Street, London, E.C.3. 3557

THE CIVIL SERVICE COMMISSIONERS

invite applications for the following permanent appointments:—

(1) About **FIFTEEN CIVIL ENGINEERS**—14 vacancies in the Admiralty and at least 1 in the Ministry of Supply.

(2) About **SIX QUANTITY SURVEYORS** in the Admiralty.

There may be a few vacancies in other Departments.

Candidates must be not less than 30 years of age on the 1st January, 1950.

Candidates for posts (1) must be Corporate Members of the Institution of Civil Engineers, and candidates for post (2) must be Corporate Members of the Royal Institution of Chartered Surveyors (Quantities Section). All candidates must have had wide professional experience. Specific experience is also laid down.

London inclusive salary scale (men), £750-£1,000. Salaries for women and for posts in the provinces are somewhat lower.

Further particulars and application forms from the Secretary, Civil Service Commission, Scientific Branch, 7th Floor, Trinidad House, Old Burlington Street, London, W.1, quoting No. 2970. Completed application forms must be returned by 24th March, 1950. 3589

CONTRACTS MANAGER required by well-known Specialist Building Firm to organise and build up Contract Department; experience estimating and control essential; excellent opportunity for man of technical and administrative ability. Apply in first instance to Box 2775.

SETTER-OUT wanted for Architectural Metalwork; good wages and ideal working conditions. Apply The Morris Singer Co., Ltd., Ferry Lane, Forest Road, Walthamstow, E.17. 3524

THE CIVIL SERVICE COMMISSIONERS invite applications for the following permanent appointments:—

(a) About **FIFTEEN LANDS OFFICERS** in the War Office.

(b) ONE **ASSISTANT ESTATE OFFICER** in the Ministry of Town and Country Planning.

There may be a few vacancies in other Departments. Candidates must be not less than 30 years of age on 1st January, 1950, and must have obtained Corporate Membership of the Royal Institution of Chartered Surveyors or the Chartered Auctioneers' and Estate Agents' Institute or the Lands Agents' Society, or alternatively have obtained a University degree in Estate Management (B.A. Camb. or B.Sc. London). In addition, candidates will be expected to possess wide professional experience in private practice or in the service of a Local Authority or Government Department. For posts (a) candidates must have experience of Land Agency and/or Agriculture valuation. For post (b), preference will be given to applicants who have a sound knowledge of town and country planning as a background to large scale estate development and estate management. Inclusive London salary scales: £750-£1,000 (men), £650-£850 (women)—somewhat lower in the Provinces.

Further particulars and application forms from the Secretary, Civil Service Commission, Scientific Branch, 7th Floor, Trinidad House, Old Burlington Street, London, W.1, quoting No. 2974. Completed application forms must be returned by 24th March, 1950. 3590

Services Offered

4 lines or under, 2s. 6d.; each additional line, 1s.

MANUFACTURERS of exclusive hand-made Lampshades; architects' contracts carried out. J. & M. Beagley, 51, Great Ormond Street, London, W.C.1. Chancery 8959. 2397

ARCHITECTURAL MODELS and Dioramas Edward J. Ashenden, A.R.C.A., 15, Chesham Studios, 185, Kings Road, S.W.3. Tel.: Flax 6103. 2556

FRENCH POLISHING CONTRACTORS able to undertake work of any description; building work a speciality. J. Taylor, 6, Edwards Place, Knebela Street, E.2. 3114

COMPLETE Full-time Architectural Assistance offered by two competent Seniors (30); own office and car. S. C. Hahn & R. D. Edwards, 5, Station Parade, Elmers End, Beckenham, Kent. Tel. BEC. 1277. 3193

ARCHITECTURAL AND CIVIL ENGINEER combine to offer their services for the Design of all types of Structures in steel and reinforced concrete. Box 3296.

WINDOWS, Wrought Ironwork, and Light Structures designed and fabricated by "New" Services, 85, Heath Street, Birmingham. 18; designs and estimates free. 3297

DRAUGHTSMAN—Spare-time Architectural Drafting and Tracing neatly and proficiently executed. Box 3628.

EXPERIENCED Lady Secretary, fully conversant with Architectural procedure and practice, seeks position as **PERSONAL SECRETARY** to Architect. Apply Box 3586.

NOTICE TO ARCHITECTS, ETC.—A small group of fully qualified Architectural Assistants offer to assist professionals in the preparation of Designs, Working details, Surveys, Perspectives, etc., on part-time basis; superb draughtsmanship; moderate remuneration. Box 2932.

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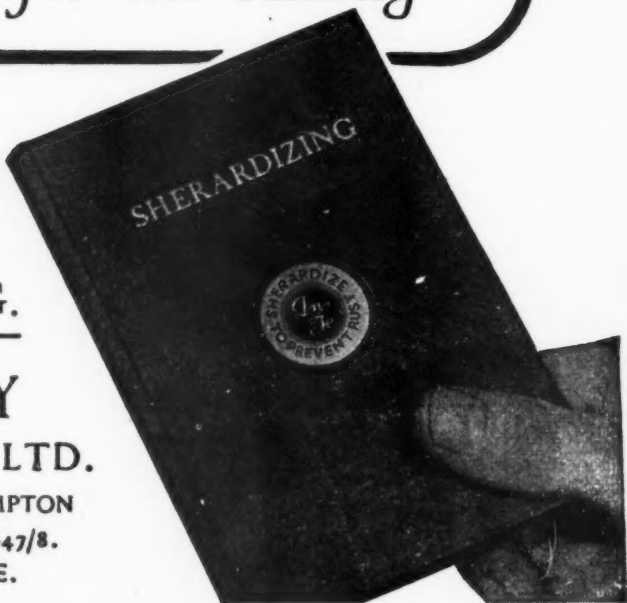
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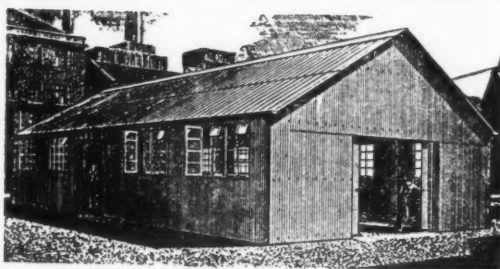
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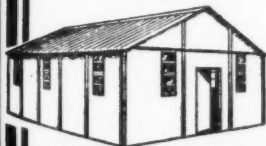
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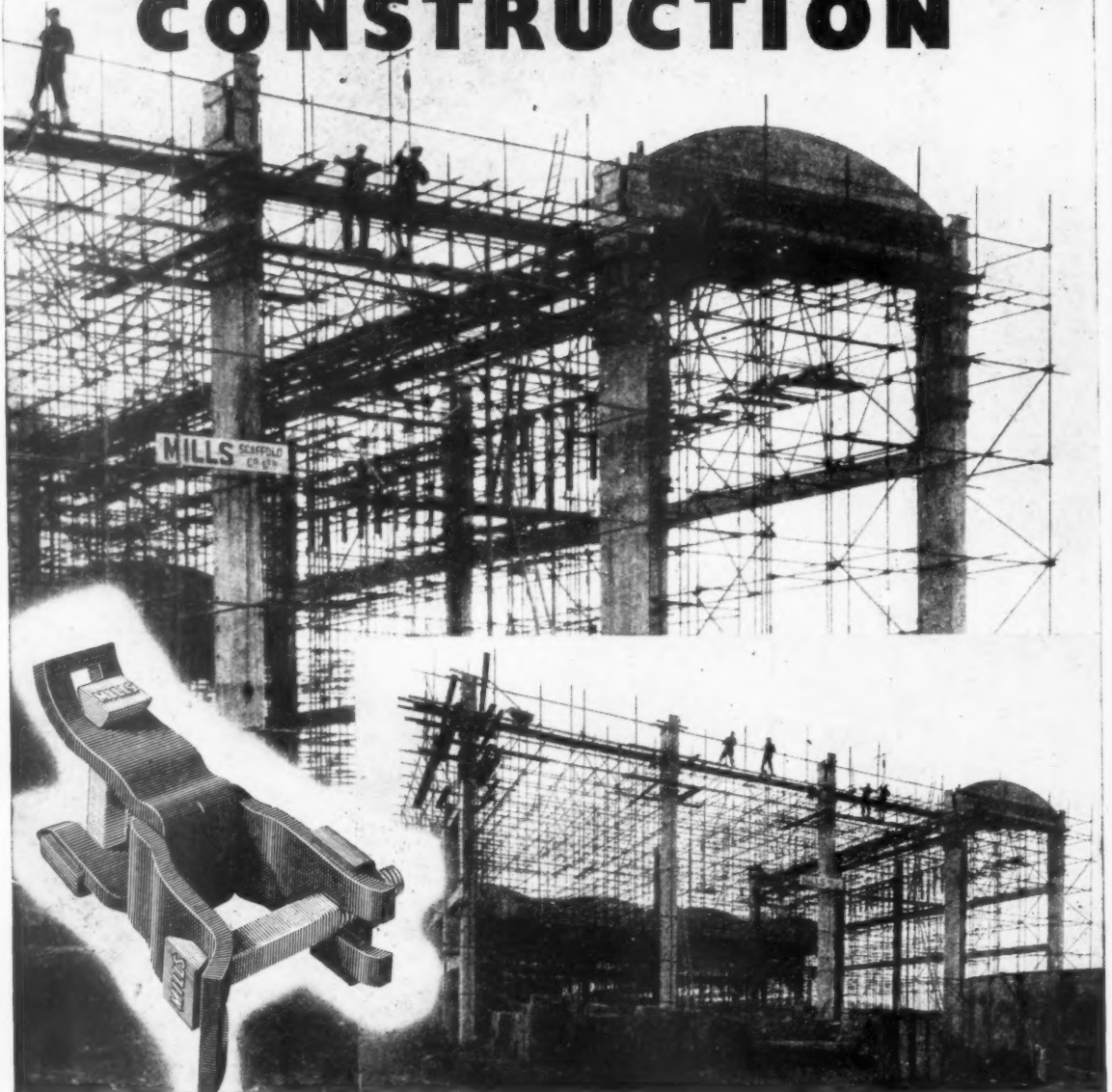
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