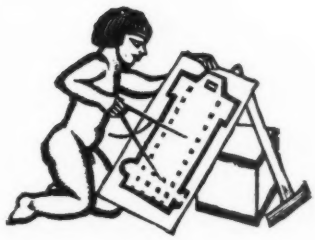

NEW DEPARTURE

IN his inaugural presidential address two months ago Mr. Percy Thomas said that the R.I.B.A. had reached a turning point in its history, or at least a point of new departure. And because of our belief in the truth of this statement and our anxiety that it should not be lightly forgotten as being merely the kind of thing which all new presidents are bound to say, we have tried recently to explain and to stress its meaning more fully.

Since the time of the great depression three years ago the immediate and future prospects of the architectural profession have been the object of a certain amount of attention—at first serious and apprehensive, but later intermittent and rather casually optimistic. In the first and alarmist phase there was much talk of overcrowding, of unregulated entry into the profession and of encroachment upon architectural practice by persons not properly qualified; latterly, with the return of better times, short views have again become the rule and the obtaining of a livelihood from architecture is again open to the individual skill, initiative or astuteness of all who care to call themselves architects. And such a system, or lack of system, has much of the vitality and health of open competition.

It has also grave drawbacks. To mention only a few: it does not make for a high professional standing in the eyes of the public, it renders a collective architectural effort to raise that standing much more difficult, and it encourages an overcrowding which in times of slump must make the financial position of most of its members verge upon the desperate. That overcrowding has now occurred and the very simplest test shows that for the next ten years it is likely to become even greater; the *Register of Registered Architects* for 1935 contains under 13,000 names, but the total of present students and probationers of the R.I.B.A. alone is 5,961. Such figures would seem to make the prospects of the architectural profession worth careful enquiry. The R.I.B.A. has, indeed, reached a point of new departure.

The beginning of a year for which building prospects are good could hardly be bettered as a time for the profession to examine both its position and how it can ensure a reasonable livelihood for its members in the future. The most direct and the most lasting solution to this problem is the enlargement of the scope of architectural activity until, as a matter of course, a properly qualified architect is employed upon every building operation.

This ambition is not Utopian—but it will need far harder work by individual members of the R.I.B.A. than the Institute has been able to rely upon in the past. The R.I.B.A. and its committees can propose, report and recommend, but the field of architectural employment cannot be enlarged to any noticeable extent whilst the majority of members confine their support to paying their subscriptions.

This JOURNAL has recently outlined two directions in which it believes that collective architectural effort should advance. Last week the need was stressed for a more exact knowledge of contemporary building materials and processes. At present building, particularly in small work, is a weird aggregation of old trades and new materials, dry processes and wet processes, and time schedules fitting neither with exactitude.

In a matter involving dependency on so many unpredictable circumstances the behaviour of every combination of materials under all conditions is obviously not ascertainable. But careful observation and experiment by architects, builders, manufacturers and the Building Research Station can not only greatly lessen the chances of failure but will also help to fix the point at which cheapness becomes costly shortsightedness.

But professional efforts should be extended far more widely than this. That architectural opinion should be expressed concerning historical buildings and the preservation of the countryside is no doubt fitting, but if it is expressed over nothing else the business public will gradually come to consider all architects as persons always expensively arty and usually reactionary as well.

Little has yet been heard of architectural opinion or collaboration on questions of mass-production, research into factory and general industrial planning or upon the Land Utilization Survey of the London School of Economics. Yet industry and its future is the most important political and economic problem in the country, and no profession can neglect its study without also jeopardising the livelihood of its members.

During 1936 architects should concern themselves with the placing of all buildings and with what goes on within that vast number that house industry. Until any manufacturer of a common commodity can approach the R.I.B.A. with the certainty of obtaining the latest information relating to the planning and organization of factories such as his own architects will not be up to date. And not until they are up to date will architects be employed, as a matter of course, on every building undertaking.

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
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NOTES & TOPICS

WHOSE JOB?

ANY designer who is serious about his work must make a thorough study of the humanity that is connected with the execution of his ideas. I have pointed out on more than one occasion that architects, as designers, have studied the human element in the building industry, and on several occasions have found it wanting, or even an obstruction to progress.

*

A correspondent sends me an amusing account of his own experience in relation to hollow tile reinforced floors. If these tiles are placed end to end, dry, and the reinforcement and concrete laid between them, the job is done entirely by a concretor. But if the tiles have a buttering of mortar between them, the job has to be done by a bricklayer. More amusing and exasperating still, if the mortar is applied by any old piece of wood, instead of by a trowel, then a bricklayer's labourer can do the work.

*

If the mortar is thrown on without the use of tools, then anybody at all may do the job . . . but it requires much more skill to mortar tiles by hand, without either a trowel or a piece of wood.

AND WHOSE SHUTTERING?

This reminds me of the labour questions which arise in relation to shuttering for concrete work.

*

Special shuttering made of timber on the job is, of course, work for the carpenter. But if the designer standardizes this shuttering so that it can be moved, and used repeatedly, without the use of carpenter's tools, then need a carpenter do the removing?

*

If the shuttering units are designed for steel instead of for wood, any labourer can do the moving.

*

I wonder what happens in the case of shuttering designed for plaster board and lined with tin . . . is the removal of shuttering then accomplished by a chorus of plasterers, joiners and tinsmiths, with plumbers in attendance and paper-hangers in consultation?

AN ENLIGHTENED MINISTRY

There is no doubt about it, the Ministry of Transport is one of our most enlightened public departments. I thought so when they appointed an architectural consultant to work with them on London road improvements, and now they have actually recommended the Middlesex County Council to employ an architect for the new bridge over the river Colne.

*

This is indeed a rare and refreshing event and makes news surprising enough to be given a column heading in *The Times*.

TELEVISION

In the early days of broadcasting, I remember several talks organized by architects in order to tell the public what architecture really stands for.

*

Excellent as those talks were, they all laboured under one difficulty . . . lack of illustration.

*

Television should alter all that. Technically, television should bring the best of all visual arts into every home. Will architecture and its accompanying arts and sciences take their proper place in the television programme?

WHAT IS THERE TO SEE?

As I listened, at a friend's house, to Mr. Max Beerbohm broadcasting the other night on "London revisited" I really did wonder what I should show an intelligent foreigner if I had to take him on a sight-seeing tour around London. A list of old buildings of both architectural and historic interest could easily be made, but if his chief interest were in modern work I should be almost stumped.

*

I suppose more building and rebuilding has been done within the last sixteen or seventeen years than in any similar period before, and yet it is very nearly impossible to think of more than one or two buildings, if as many, put up during that time which can be described as anything more than neat, tidy or useful. There is very little worth taking anyone to see, and much that should be kept from view.

RING ROADS

I see that the Roads Improvement Association has submitted a memorandum to Sir Charles Bressey in which it is suggested that the main principle of highway development for Greater London should be the construction of ring roads.

*

Two rings, it is thought, are needed between the North

A detail of part of a new wrot-iron grille in front of the statue of Marco d'Aviano at the Kaputziner Kirche, Vienna. The designer and craftsman was A. Swarz.

and South Circular Roads and Central London, with the innermost of these just beyond the main line terminal stations.

*

I do not wish to run down what appears to be a logical and useful scheme, but I do recall that during the whole time I spent in Vienna, not once did a taxi in which I was travelling use either of the excellent ring roads of that city. Each time the driver preferred to take the shorter route through the centre.

*

I am aware that the traffic problems of London and Vienna cannot properly be compared, and probably if motorists were sure of making steady progress on ring roads they would use them in preference to the congested central London streets; but to make steady progress possible these roads would have to be designed as traffic routes and not merely as town streets.

A MISGUIDED IDEA

The memorandum also contains the suggestion that the growth of London should be checked (which is commendable) by reducing the attractions in congested areas (which is unfortunate) and so inducing the population to move to new centres with superior amenities.

*

Even if this were a good idea, I don't think much could be hoped from it as most of the heavily populated congested areas so lack attractions that it would be difficult to find any which could be reduced.

CHRISTMAS OUTLOOK

An advance through Northumberland from the west during some hurried Christmas roaming allowed me to see a landscape that would have made a glorious scope for a designer of old-style Christmas cards—had he been able to reproduce its colouring.

*

From beside General Wade's road, still called the military road, beyond Chollerford, three stone and stone-slated houses stood up to the view over forty miles of moor to the faint skyline of Cheviot. The sky to the west, in gorgeous shades of Chinese orange, gave a translucent pink glow to the snow, turned all shadows to violet, and lighted the windows of the houses with a colour only hitherto seen in fruitier Rome Scholarship drawings. For half an hour even ten degrees of frost were well forgotten.

THIN ICE

Later, on one of the smallest Northumbrian lakes and just below half a mile of the square stones of Hadrian's Wall, there was skating. It was good skating, even though in places the ice had had the bad taste to freeze in ripples. A girl waltzing all by herself gave a wonderful exhibition to the accompanying rattle and hiss of her own skates; and it may be claimed that ASTRAGAL, in shoes, on borrowed skates, and poised so treacherously for the first time for ten years, contributed in his wayward *pas seul* of totters and jerks just that touch of broad comedy needed in all great and simple scenes.

TOWN HALL PERIPATETIC

During a brief stay at Newcastle-upon-Tyne the chief architectural gossip of the moment concerned the new municipal offices, on which the Corporation proposes to spend £300,000. This hypothetical building has been to the fore as a local news item for thirty years—ever since the present narrow and straggling pile became hopelessly inconvenient—and the selection of a "final" site has not been made without ironical comment.

*

Sites have been considered near the present building, in Eldon Square, on the Town Moor, near the present City Hall, and—a rare and creditable occurrence—Mr. H. V. Lanchester was called in some years ago to give advice—but nothing happened.

*

Now at least with a site, and not a bad site, chosen, northern architects hope that something will really happen.

*

When it happens, it is to be hoped that the Corporation will remember the days of Grainger, when Newcastle was a city comparable with Bath and New Edinburgh, and will see that their new building does its best to make amends for what has taken place since.

SPOLIATION OF THE COUNTRYSIDE

Mr. Frank Pick recently drew attention to a form of spoliation of the countryside which has rather escaped notice, or has at least escaped the general condemnation which has been the lot of ribbon development.

*

He was referring to the building of houses sporadically all over the countryside so that the distinction between town and country, at any rate round London, was almost wholly breaking down.

*

Mr. Pick blamed the private motor car for making this form of development possible, and I dare say he is right, but whatever the cause, it is a regrettable fact that nearly every decent bit of country anywhere near London has lost, or is in the course of losing, its rural character through this bespattering with houses of one sort and another.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

SCOTTISH HOUSING ADVISORY COMMITTEE

Dr. James R. Adam, Medical Officer of Health for the County of Roxburgh, has been appointed to the Scottish Housing Advisory Committee set up under the Housing (Scotland) Act, 1935, to advise the Department of Health for Scotland on matters arising in connection with the execution of the Housing (Scotland) Acts. The appointment of Dr. Adam completes the committee. The names of the other members of the committee are as follows :

Mr. Henry Alexander (chairman) ; Dr. G. Clark ; Mr. J. Cunnison, M.A. ; Mr. Joseph Duncan ; Miss Grace Drysdale ; Mr. William Elger ; Bailie Rutherford Fortune ; Mr. G. P. Laidlaw ; Mr. Angus McIntosh ; Mr. J. W. McKillop ; Mr. Robert Mitchell ; Miss Eleanor Stewart, J.P. ; Lady Swan ; Mr. J. P. Ross Taylor ; Sir W. E. Whyte, O.B.E. ; and Miss Cecil Young.

The Act provides for the setting up of two sub-committees of the committee to deal with matters relating to urban and rural housing respectively. Sir William E. Whyte has been appointed the chairman of the Urban Sub-Committee, and the other members will be :—

Mr. Henry Alexander, Aberdeen ; Dr. W. G. Clark, Deputy Medical Officer of Health, Edinburgh ; Mr. J. Cunnison, Glasgow ; Miss Grace Drysdale, Edinburgh ; Bailie William Elger, Glasgow ; Bailie Rutherford Fortune, Edinburgh ; Mr. G. P. Laidlaw, Glasgow ; Mr. Robert Mitchell, Dundee ; Miss Eleanor Stewart, Glasgow ; and Lady Swan.

The Rural Sub-Committee will consist of the following members :—

Chairman, Mr. J. P. Ross Taylor, Duns ; Dr. James R. Adam, Roxburgh ; Mr. Henry Alexander, Aberdeen ; Mr. J. Cunnison, Glasgow ; Mr. Joseph F. Duncan, Farm Servants' Union ; Mr. Angus Mackintosh, Thurso ; Mr. J. W. McKillop, County Clerk of Inverness ; Mr. Robert Mitchell, Dundee ; Miss Eleanor Stewart, Glasgow ; Sir William Whyte ; and Miss Cecil Young, Lasswade, Midlothian.

The first meeting of the full committee will be held in January, when important remits, particularly in connection with housing in rural areas, will be submitted for the committee's consideration.

THE ARCHITECTS' DIARY

Thursday, January 2

INTERNATIONAL EXHIBITION OF CHINESE ART. *At the Royal Academy, Burlington House, Piccadilly, W.1.*

BUILDING CENTRE, 158 *New Bond Street, W.1. Exhibition of a model and photographs of the s.s. "Orion," also actual samples of fabrics, furniture, glass, cutlery, etc., used on the ship.* *Last day.*

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. Winter Exhibition : "The Elements of Housing."* 10 *a.m. to* 5 *p.m.*

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE, 29 *Lincoln's Inn Fields, W.C.1. "The Housing Act, 1935," by H. A. Hill.* 7 *p.m.*

PALESTINE EXPLORATION FUND. *At 2, Hinde Street, Manchester Square, W.1. "The Jews as Builders." By Professor A. C. Dickie.* 5 *p.m.*

Friday, January 3

R.I.B.A., 66 *Portland Place*, W.1. *Last of three Christmas Holiday Lectures for Children : "The Architecture of Gardens : English Gardens." By G. A. Jellicoe.* 3.30 *p.m.*

INSTITUTION OF MECHANICAL ENGINEERS, *Storey's Gate, Westminster, S.W.1. "The Work of the National Physical Laboratory, with special reference to the Engineering Department." By Dr. H. J. Gough.* 7 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS, *Western Countries Branch. At the Merchant Venturers' Technical College, Bristol. "The Value of Joint Industrial Agreements." By W. H. Orram.* 7.15 *p.m.*

Monday, January 6

SOCIETY OF CHEMICAL INDUSTRIES. *At Burlington House, Piccadilly, W.1. Joint Meeting with the Road and Building Materials Group.* 8 *p.m.*

CHARTERED SURVEYORS' INSTITUTION, *Gt. George Street, S.W.1. "The Rating of Empty Properties." By Charles Latham, F. C. R. Douglas, R. C. D. Jenkins and Sir George Courthope.* 6.30 *p.m.*

Tuesday, January 7

LONDON SOCIETY, *Lancaster House, St. James's, S.W.1. Annual Children's Party.* 4 *p.m.*

Wednesday, January 8

INSTITUTE OF WELDING. *At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. "Distortion and Residual Stresses in Welds and Welding Procedure." By H. W. Townshend and J. L. Adam.* 6.30 *p.m.*

ARCHITECTS' AND SURVEYORS' APPROVED SOCIETY. *At 66, Portland Place, W.1. Annual General Meeting.* 6.30 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS, *Lancashire and Cheshire Branch. At the College of Technology, Manchester. "The Lay-out, Design and Construction of Aerodromes and Airports." By H. E. Brooke-Bradley.* 6.45 *p.m.*

PRESERVATION OF BATH

Following is a petition which has been signed by a large number of residents in Bath :—

"We the undersigned ratepayers and inhabitants of the City of Bath and visitors to the city do most earnestly appeal to the mayor, aldermen and councillors of the city to refrain from the proposed application to Parliament for powers to enable the council to acquire and demolish the houses which at the present time form the west side of Burton Street.

"We believe that these buildings are a valuable asset to the city, having regard to their eighteenth-century associations and architectural interest ; also that they form one of the attractive shopping centres of the city. We also believe that the loss which the city will sustain if the buildings are removed will in no sensible degree be balanced by the additional facilities thereby afforded for rapid motor traffic. We feel certain that those who motor to and through the city will suffer no serious inconvenience if the buildings are allowed to remain, but on the other hand a large majority of the inhabitants and visitors will deplore the removal of a feature which has helped to create that unique charm which distinguishes Bath from all other English towns."

At a meeting in the Guildhall, Bath, on Monday last, the Bath Parliamentary Bill met with much opposition. Four resolutions in its support were all lost, and the Corporation will now have to consider whether or not it will order a poll of the city.

CONVERSION

Plans have been prepared for converting the Prince Edward Theatre, Old Compton Street, London, into a restaurant, with dancing and cabaret and cinema shows, at a cost stated to be £20,000.

The building was erected some six years ago from the designs of Messrs. E. A. Stone and Partners.

ELEVEN NEW CINEMAS

Messrs. Snape and Ward have decided to establish a new chain of cinemas in the North of England. The situations of 11 have already been decided—all in or near Manchester—and it is expected that others will follow. The sponsors of the scheme will concentrate on comparatively small cinemas, seating from 800 to 1,200 and costing from £10,000 to £15,000 each. Thus the scheme as at present outlined will involve something in the neighbourhood of £150,000.

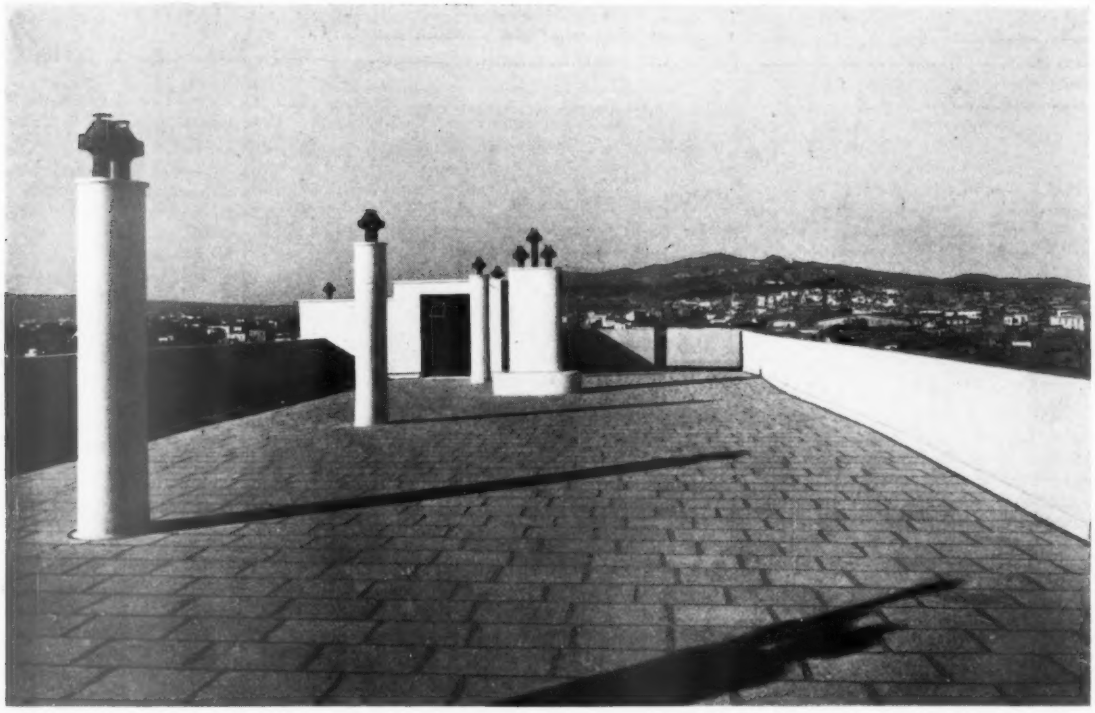
NEW SCHOOL FOR BIRMINGHAM

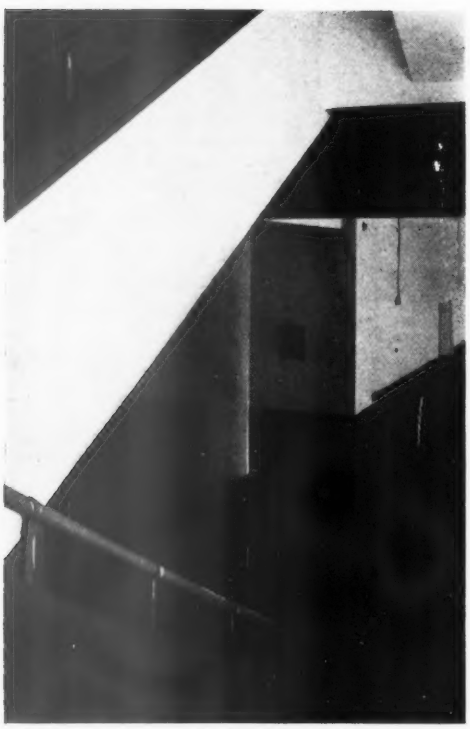
The Birmingham Education Committee states that, having regard to the number of building schemes upon which their architect is at present engaged, the plans for the next new school should be placed in the hands of another architect. The Committee recommends that a permanent school for juniors and infants should be provided at Rubery and that the existing accommodation should be adapted for the purpose of a senior school, and that Mr. George Bernard Cox, F.R.I.B.A., be appointed architect for the proposed extension and rebuilding of the Rubery Council School.

TIMBER DEVELOPMENT ASSOCIATION

A new form of organization has been planned by the Council of the Timber Development Association, and came into operation on January 1. Under this new arrangement, Mr. E. H. B. Boulton becomes the technical director, and Mr. John Gloag has been appointed the public affairs director.

Mr. Gloag is the author of the book on *English Furniture* in the Library of English Art ; he was the editor of *Design in Modern Life*, a book based on a series of broadcast talks in which he took one of the principal parts. In 1922





School in Athens. Designed by P. Karantinos. Top, the roof; left, a detail of the staircase; right, one of the corridors.
(*See also page 1.*)

he was appointed Technical Editor of *The Cabinet Maker*, succeeding Mr. H. P. Shapland in the editorship in 1927. In that year he went into partnership with Fleetwood Pritchard, the founder of F. C. Pritchard, Wood and Partners, as a director of the business. Before his editorship of *The Cabinet Maker* he had been employed in Lever's on the advertising side.

For many years he was a member of the Council of the Design and Industries Association, and is a past chairman of that body; he is a member of the Executive Committee of the Architecture Club, and is a member of the Executive Committee of the Council for the Preservation of Rural England.

Mr. Boulton, in 1920, studied agriculture at Cambridge, and from 1921-1922 studied forestry, taking his degree and diploma in forestry utilization, specializing with distinction in timber technology. In October, 1922, he became a lecturer at the Cambridge University School of Forestry, which post he retained until 1933. The following year he was head of the Forestry Department at the School of Estate Man-

agement at Cambridge, before he was appointed manager of the Timber Development Association. He has studied forestry throughout the State forests of Germany and France, and is a member of the International Association of Wood Anatomists.

On Monday next, the Association has arranged to hold a luncheon at Grosvenor House, Park Lane, W, when the presentation of the awards to the successful candidates in the Association's timber houses competition will be made. Following the luncheon an exhibition of the designs submitted and perspectives of the premiated designs will be opened at the Building Centre, 158 New Bond Street, W.1. The exhibition will remain open until January 25.

DE LA WARR PAVILION, BEXHILL

In our issue for December 12 we omitted to state that Messrs. Noakes & Co. were responsible for the veneered wall panelling to the auditorium and gallery.

ANNOUNCEMENT

Mr. J. K. Winser is joining the staff of Messrs. O. W. Roskill, Industrial Consultants, of 2 Wilfred Street, Buckingham Gate, S.W.1. In order to do this he is relinquishing his present post as head of the Technical Department of the Building Centre. He will retain his connection with the Centre by becoming the technical consultant and by regular weekly visits to the Centre.

ARCHITECTURAL CHAOS

Mr. Darcy Braddell, F.R.I.B.A., speaking at a recent meeting of the Croydon Chapter of the South-Eastern Society of Architects, referred to the present state of architectural chaos in England caused by three distinct groups, one holding that an architect should only design in the antique manner, a second that the design should have nothing in common with the antique, while the centre party's views were more catholic. The disciples of the new architecture did not know exactly what they wanted to do, but were convinced that they were sick of old things and that the world needed a change. This style, variously described as futuristic, modernistic, impressionist and mechanistic, was too inhuman and graceless to last, but it might well be the beginning of a really new architecture. The main faults were its denial of the past and its proneness to worship bare bones.

R. I. B. A.

EXAMINATIONS

The questions set at the Intermediate Final and Special Final Examinations held in November and December, 1935, have been published, and are on sale at the R.I.B.A., price 1s. (exclusive of postage).

INTERMEDIATE EXAMINATION

The R.I.B.A. Intermediate Examination qualifying for election as Student R.I.B.A. was held in London, Edinburgh, Hull, Manchester, Newcastle and Plymouth, from November 15 to 21, 1935. Of the 160 candidates examined, 66 passed and 94 were relegated. The successful candidates are as follows :—

V. B. Asbridge, A. G. Backhouse, A. J. Barker, J. W. Boddy, K. A. Brewster, T. L. Brown, A. H. Bruce, B. Buck, D. W. Calder, R. F. Chapman, J. N. Clark, W. S. Coates, R. W. Coombs, R. Cowan, C. Cox, R. Crookes, A. C. Dewey, F. W. Dickson, W. T. Evans, L. R. Hibberd, D. M. Hodges, C. W. Hodgson, G. F. Horsfall, L. A. Hyde, R. Lambert, G. I. Larkin, T. F. Lawson, E. A. Leah, G. Lee, J. A. Lewis, J. T. Lewis, N. Lister, J. C. Loyd, N. F. McCall, A. E. Mallett, H. Mendus, V. R. Merrett, A. Middleton, C. F. Millner, W. F. Milne, G. Moss, C. G. Murphy, J. S. Neaves, E. R. Pickersgill, D. C. Purcell, H. S. Riley, K. R. Rohm, J. B. Southey, F. Staziker, E. S. Sunderland, W. C. Taffender, C. Tarling, F. Thornton, D. R. Tooth, F. Turner, P. E. Walker, R. E. Waller, R. J. Watson, A. Wildgust, J. M. Wilkinson, A. H. Williams, H. J. Williams, W. A. Williams, A. Woods, G. R. Yeats, and A. J. Zammit.

COMPETITIONS

O P E N

January 7.—Sending-in Day. Proposed pavilion, Argyle Street, Rothesay, for the Rothesay T.C. (open to architects who have been resident and/or practising in Scotland for two years.) Assessor : Col. J. Maurice Arthur, D.S.O., F.R.I.B.A. Premiums : £200, £100 and £50. Closing date : January 7. The last day for questions was November 26. Conditions are obtainable from the Town Clerk, Municipal Buildings, Rothesay.

January 24.—Sending-in Day. Proposed offices for the Harrow U.D.C. (Open to architects of British nationality.) Assessors : C. H. James, F.R.I.B.A., and S. Rowland Pierce, A.R.I.B.A. Premiums : £350, £250 and £150 Conditions, etc., may be obtained on application to Mr. Vernon Younger, Clerk of the Council, Council Offices, Stanmore, Middlesex. (Deposit £2 2s.) The latest date for submission of designs is January 24.

January 31.—Sending-in Day. Proposed Parliament House, Salisbury, Southern Rhodesia, for the Government of Southern Rhodesia. (Open to architects of British citizenship.) Assessor : James R. Adamson, F.R.I.B.A. Premiums : £500, £300, £200 and £100. Conditions, etc., obtainable from the High Commissioner for Southern Rhodesia, Crown House, Aldwych, W.C.2. (Deposit £2 2s.) The designs must be sent to the Assessor at 19 Silverwell Street, Bolton, not later than January 31.

January 31.—Sending-in Day. The North British Architectural Students' Association invites members (i.e., members of Schools and/or Allied Societies at Manchester, Glasgow, Edinburgh, Leeds, Sheffield, Hull and Newcastle) to submit, in competition, designs for : (1) A Church of England Chapel. Assessor : Mr. H. L. Hicks, F.R.I.B.A. Premium : 10 guineas. (2) A Control Tower and Waiting Room for an Aerodrome. Assessor : Mr. R. Bradbury, A.R.I.B.A. Premium : 10 guineas. Conditions are obtainable from the Hon. General Secretary, N.B.A.S.A., School of Architecture, Armstrong College, Newcastle-upon-Tyne, 2. The latest date for submission of designs is January 31.

February 29.—Sending-in Day. Proposed police headquarters, fire station and courts for the Southport Corporation. Assessor : E. Vincent Harris, F.R.I.B.A. Premiums : £300, £200, £100. Conditions, etc., are obtainable from R. Edgar Perrins, Town Clerk, Town Hall, Southport. (Deposit £1 1s.) Closing date : February 29. The last day for questions was January 1.

March 1.—Sending-in Day. Proposed public hall, Harpenden, for the Harpenden U.D.C. (open to architects of British nationality domiciled in the United Kingdom). Assessor : Robert Lowry, F.R.I.B.A. Premiums : £100, £75 and £50. Last day for submission of designs : March 1. Architects were invited to submit names to the Clerk to the Council before December 15 last.

Competitions Pending

General Hospital for the Glamorgan C.C. Assessor : E. Stanley Hall.

Duncan of Jordanstone College of Art, for the Dundee Institute of Art and Technology.

Town Hall Buildings for the Edmonton U.D.C. Assessor : E. Berry Webber, A.R.I.B.A.

Secondary School for Boys, Luton, for the Bedfordshire C.C. Assessor : Professor W. G. Newton, F.R.I.B.A.

Block of shops and offices, for the Borough of Newcastle-under-Lyme. Assessor : H. S. Fairhurst, F.R.I.B.A.

Design for standard joint railway receiving offices in London, for the four main railway companies (L.N.E.R., L.M.S., G.W.R. and Southern). Assessors : Mr. L. H. Bucknell, F.R.I.B.A., Mr. C. Grasemann, Mr. W. H. Hamlyn, F.R.I.B.A. and Mr. Charles Holden, F.R.I.B.A.

Assembly Hall, Salisbury Street, South Shields, for the South Shields T.C.

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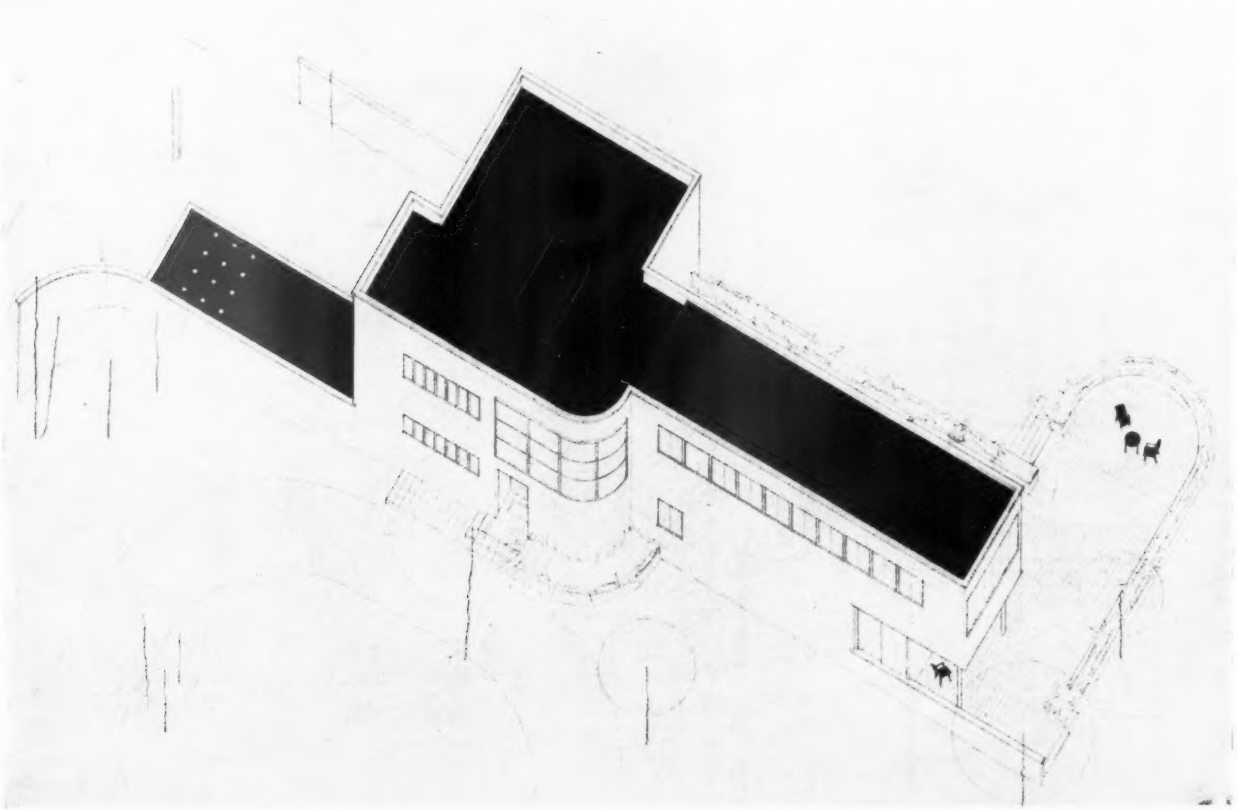
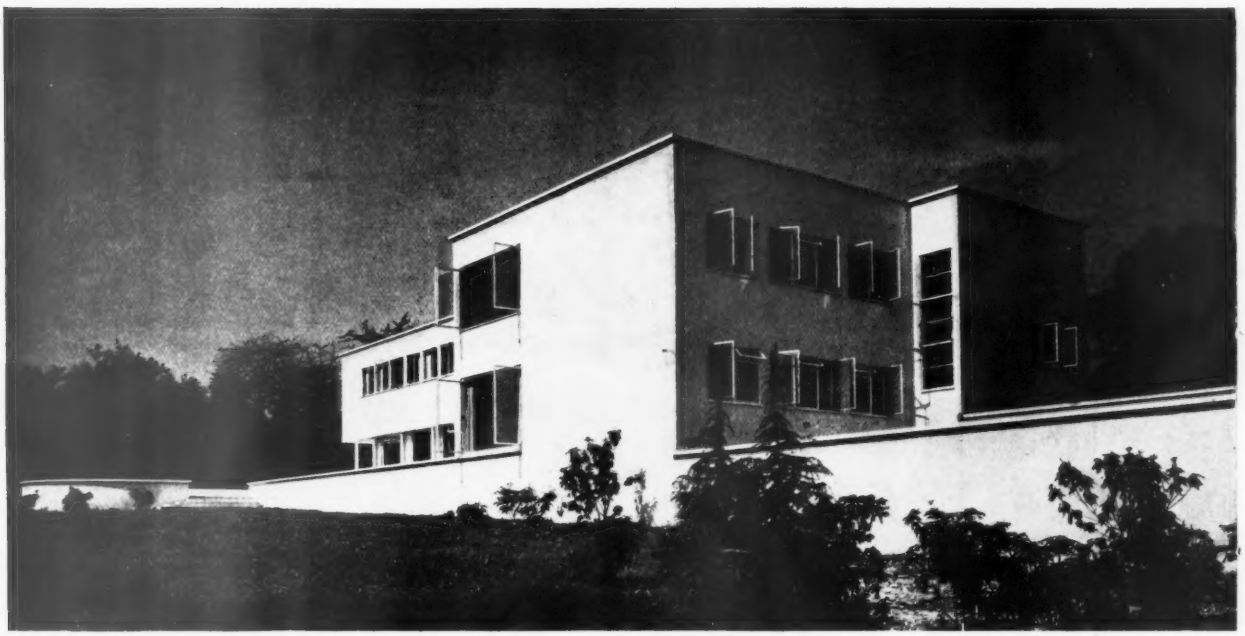
BURGH BUILDINGS, FALKIRK

In the result of the competition for burgh buildings, Falkirk, published in our last issue, the name of one of the authors of the winning design—Mr. J. Inch Morrison, F.R.I.B.A.—was incorrectly given as Mr J. H. Mervin.

HOUSE AT CHALFONT ST. GILES, BUCKS.





DESIGNED BY

MENDELSOHN

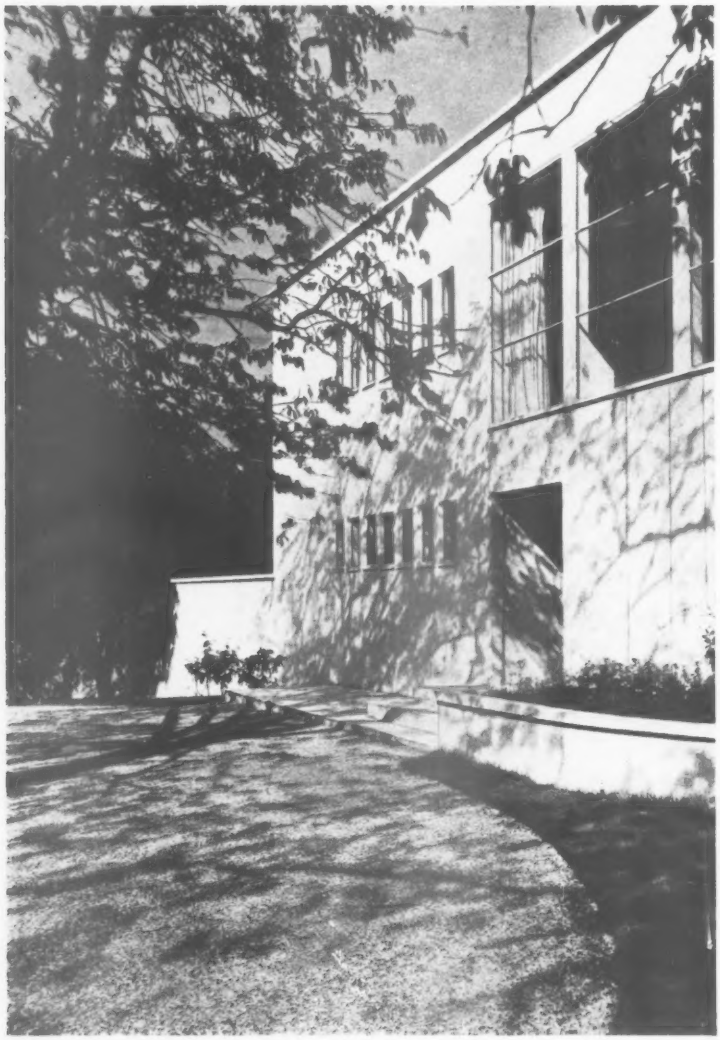
AND CHERMAYEFF

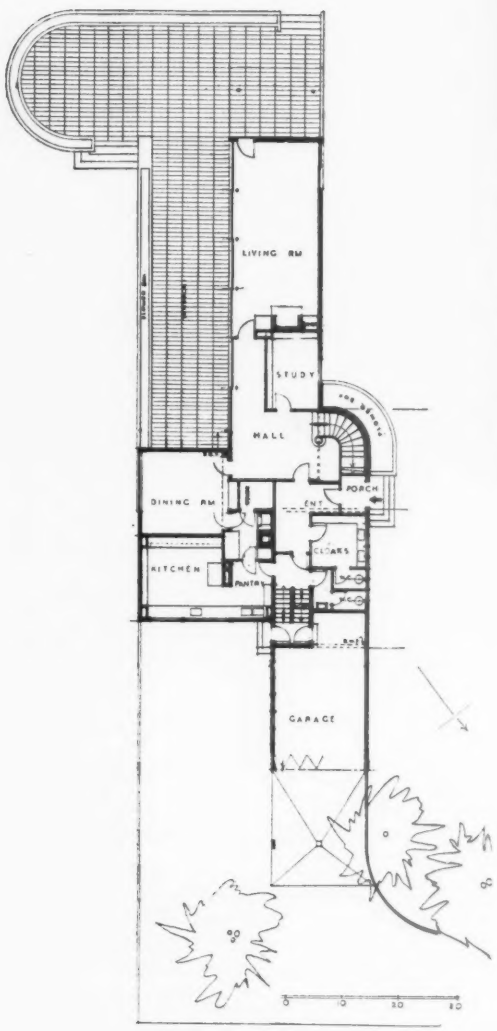
SITE.—*The house is placed at the highest favourable point of the site to command a view to the east over open country, and to the west through woods. The lay-out has been planned to preserve as many as possible of the cherry trees of an old orchard in which the house stands.*

The illustrations show: top, an axonometric; bottom, a general view from the east.

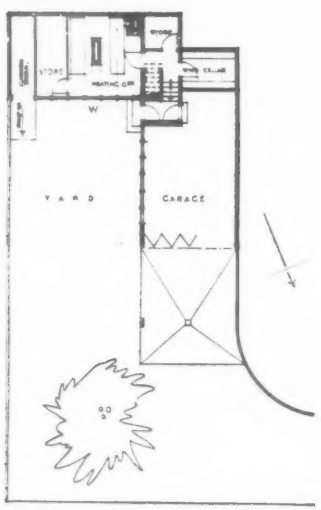
HOUSE AT CHALFONT

DESIGNED BY MENDELSOHN AND CHERMAYEFF



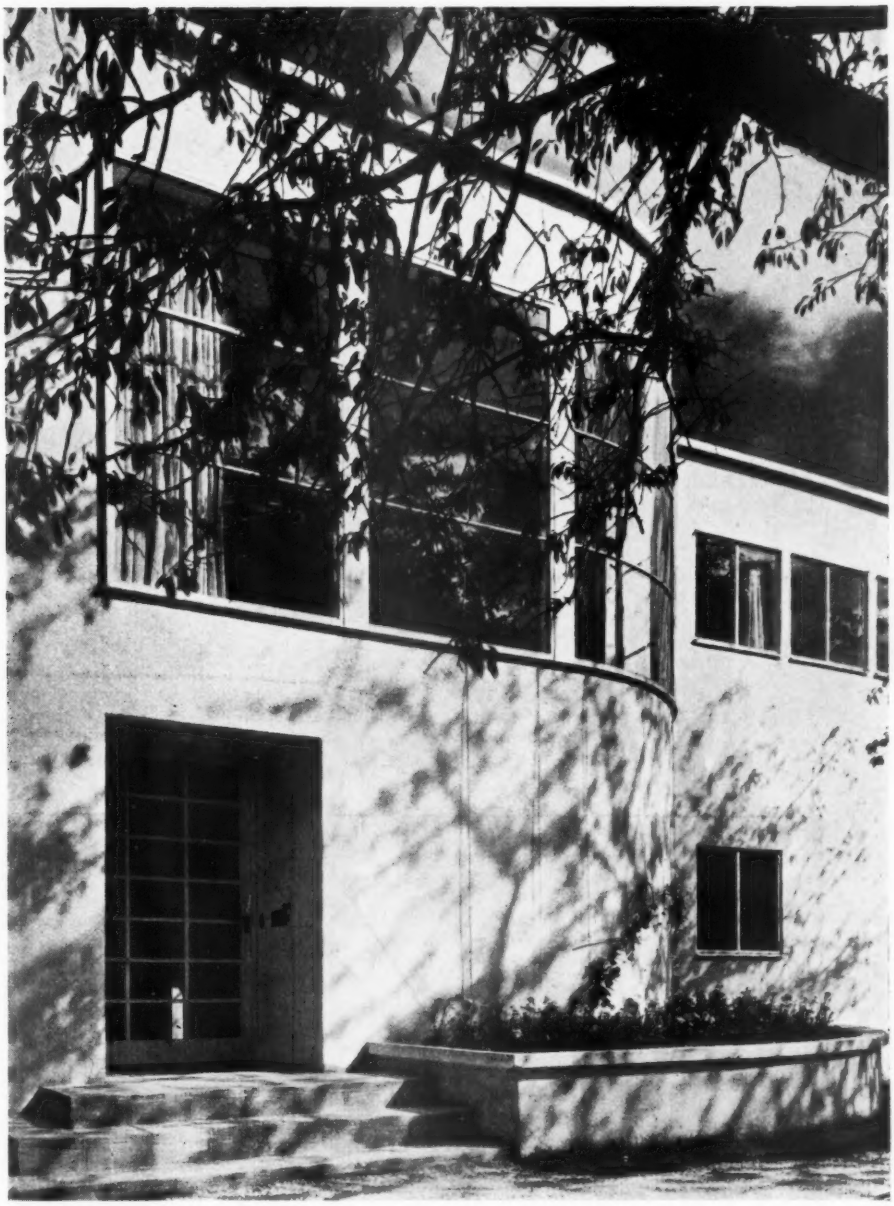


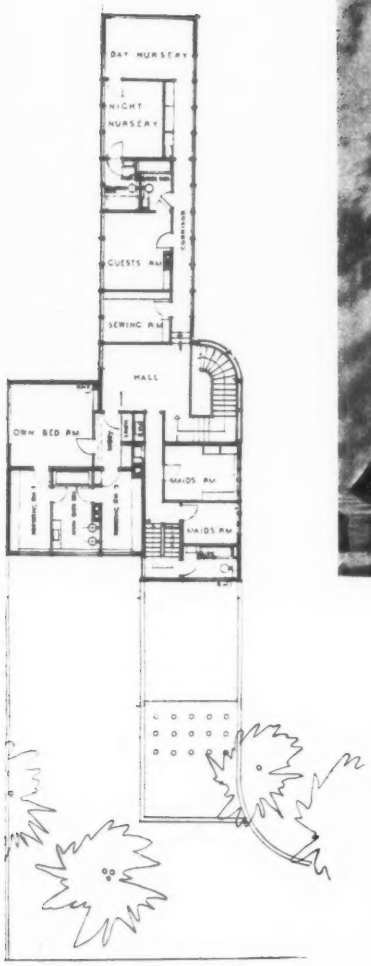
GROUND FLOOR PLAN



GARAGE PLAN

ST. GILES, BUCKINGHAMSHIRE





FIRST FLOOR PLAN

PLAN.—*The plan lay-out uses the building as a screen to the sun terrace and groups the living rooms about the southern angle of the building; the service rooms and circulation facing north. The fall towards the north has been used for a service yard, garage, heating chamber and stores on a lower ground-floor level.*

CONSTRUCTION.—*The construction is of 4 in. reinforced concrete for walls, insulated internally with 1 in. cork and rendered externally. Roofs and floors are of hollow tile insulated with fibre board. Windows are metal, the larger of sliding type, and elsewhere outward opening casements, with sheet-metal surrounds. Internal finishing to walls and ceilings is plaster. Floors generally are of composition.*

Above is a detail of the main entrance doorway with staircase window over, and on the facing page is a general view of the north-west front.

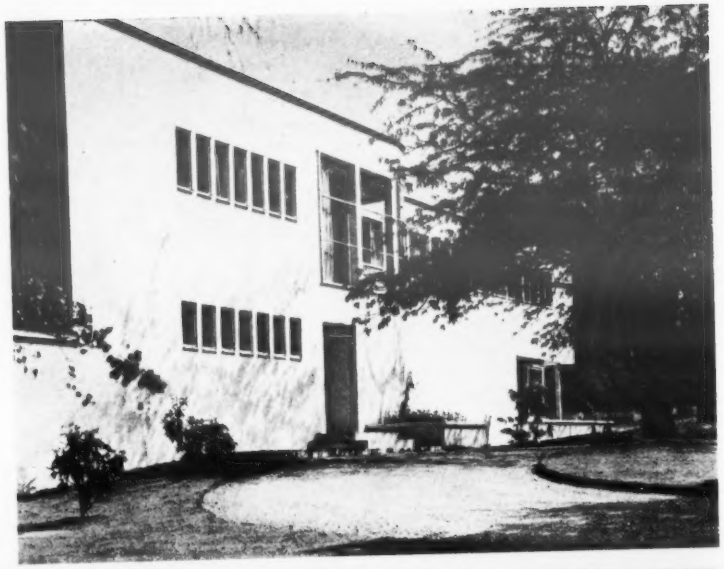
HOUSE AT CHALFONT ST. GILES, BUCKS.

DESIGNED BY

MENDELSOHN

AND CHERMAYEFF

The photographs show: above, a detail of the overhanging day nursery at the south-west end of the building; right, the north screen wall to the garage approach, showing the R.C. column supporting the washing-space roof.



The photographs show: above, a detail of the main staircase handrail, in stainless steel and waxed oak; right (top), the approach drive; and the living room, with furniture and panelling in waxed sycamore; the small tables have white rubber tops, and the curtains and upholstery are in varying shades of brown.

HOUSE AT CHALFONT ST. GILES, BUCKS.

DESIGNED BY MENDELSOHN AND CHERMAYEFF

For list of general and sub-contractors see page 32.

The photographs show: top, looking from the hall into the living room through a clear glazed door; below, the dining room, showing the sliding folding windows. The furniture is sycamore with copper metal work; right, the cloakroom lobby with radiators recessed behind grilles, with cupboards between and mirror over.

LETTERS FROM READERS

A. COX
VINCENT L. ROTHER
DENYS L. LASDUN
JOHN MADGE
G. N. KENT, L.R.I.B.A., F.S.I.
IVOR L. JAMES, L.R.I.B.A.
GLEDHILL AND WIGMORE
JOHN SWARBRICK, F.R.I.B.A.

Architectural Education

SIR,—In their recent letter, Messrs. Ratcliff, Pye, and Beal said quite truly that architectural education today is divorced from reality. Their statement naturally raises the question of how far it is possible today to bring education into actual contact with technical conditions—factory production and building. The existing system of profit production seems to hold out little hope for a proper relation between the architect and the producer. And the Bauhaus system of artificially recreating factory conditions does not solve the problem, and is certainly not a solution that could be applied to all the schools in this country. Architectural education cannot be reorganized to suit contemporary technical conditions until society itself has been reorganized to suit power production.

It seems that the only possible direction today is towards reform within the existing school conditions. If the students cannot be in actual contact with production, they can at least study contemporary building technique and apply it in their school subjects to the building problems of today. Their school curriculum can at least recognize that social and technical conditions have changed since the Industrial Revolution. In some schools the proper recognition of this and all that it entails would mean almost an entire reorganization of thought.

How can this be brought about?

Among the students themselves this recognition of conditions is already apparent. It is for them to meet and discuss the particular problems in their schools, with the object of forming some basis for co-operation with the staff in working towards educational improvement. The students who are alive to the situation today must take the first step.

A. COX

SIR,—The "few students" and myself mentioned recently in the letter of Mr. Maddison wish to thank him for his flattery. It is, we believe, the first time on record in which one student has so complimented another.

We do feel, however, that Mr. Maddison rather avoids too much by inferring that we are *not* "the only people who know the solution (to architectural education) or who have thought about it at all." This statement suggests that he has thought about it also. Does he by any chance object to our expressing his views?

Despite this, we should be more than happy at any time to live up to his expectations by showing, "through the pages of THE ARCHITECTS' JOURNAL" what the educational system for architecture might be.

VINCENT J. ROTHER

SIR,—In connection with the recent correspondence on architectural education, I note that it is an expression of students rather than of the profession. This implies a definite failing within the schools.

I suggest that this might be remedied by conscious direction in the educational system . . . this direction being a realization of the architect's responsibility in and towards society. Without such direction, the work of the student can have none of the living quality which relates building to social environment.

Surely it is this lack of consciousness that has led to the confusion which is apparent today.

DENYS L. LASDUN

SIR,—There can be no disagreement that the interest of students in their own training is essential if that training is to be of value; and the response to the correspondence in your pages shows that such an interest does exist. But it is significant that so far all comment has been adverse to the *status quo*; students are dissatisfied with being forced to practise in subjects now out of scale, and in materials now out of date; they resent, too, the assumption, so widespread, that the architect is an "artist" and can never therefore be expected to fit his work into any wider scheme of living. But for all that their criticism has been negative.

It is not that there is no precedent for a more realistic type of training. There was nothing specifically German about the Bauhaus; in fact, the atavistic enthusiasm of the Hitlerites has condemned it as being un-Nordic. The descriptions of the Bauhaus given by Gropius and Moholy-Nagy are enough to make any English student jealous. Why can we not have something on these lines?

For the rest of us it must be realized that a reasonable and concerted request can easily lead to concessions. If students could decide what improvements in their training would benefit them unity and foresight could often gain these improvements for them. If a change is to be made in the programme of our schools it must be prompted by those for whom the schools are run.

JOHN MADGE

Timber Houses

SIR,—I was very pleased to read Mr. Gloag's letter published in your issue for December 19, and I find great pleasure in replying to it.

I do not dislike the new style in design when it is used for suitable materials and in suitable areas. I am full of appreciation for the De La Warr Pavilion at Bexhill: the sweep of that staircase is glorious to behold.

I am an enthusiast for the use of timber for the component parts of buildings, or for whole buildings, in all cases where it can be properly employed for such uses.

I am of opinion that the premiated designs would have looked better in concrete.

The attempt to compare an eighteenth-century brick building with a modern design in concrete is, I think, absurd.

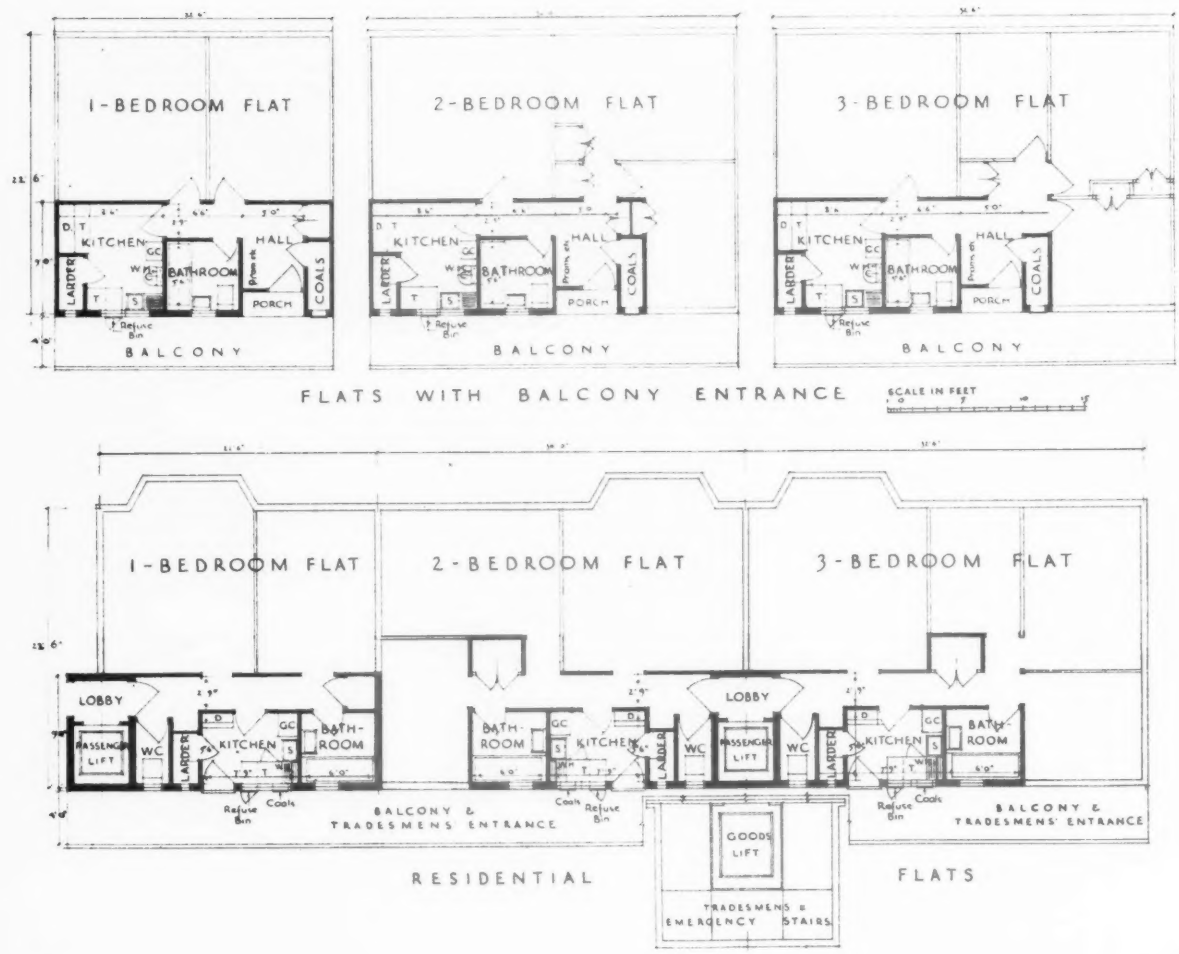
The former is built with traditional materials and technique from traditional design which is limited strictly by the physical properties of the materials.

The latter is an entirely new method of combining an old and a new material in which the cross-sectional area of any part may remain constant, whilst the strength may be varied through wide limits at the will of the designer; this has made possible a form of design which is not available for the designer in homogeneous materials.

Timber is one of the oldest building materials in the world, beautiful to look at, and kindly to work, and it is worked by traditional methods; the machines in a joinery works use traditional methods, with the exception, perhaps, of a dovetailer, which uses a milling cutter; for instance, a planer adzes the work by extremely short strokes with a very broad adze.

I am led irresistibly to the conclusion that timber buildings should be designed to have a traditional appearance and should not follow the forms dictated by the peculiar properties of the concrete structure.

The premiated designs seem to me to be so crude for reproduction in timber, they call for such mean capacity from the craftsmen who are



A method of planning self-contained flats. See letter below.

employed to build them that I feel that the poor men would be bored to death.

Can it be denied that in feeling and construction the ordinary chicken house has been copied? The only difference is in scale.

Mr. Gloag claims to recognize imagination in this capacity for copying constructional "pot-hooks and hangers."

May I direct Mr. Gloag's imagination to the feelings of the occupants of the living-room of the most commended design on such a day as this; the thermometer showing 14 degrees of frost; it is the only living-room in the house, 33 ft. by 13 ft. and 16 ft. high, with 240 ft. sup. of glass in one side, and one small open fire is the only available heating system.

The wind pressure on this glazed area may reasonably reach 1.60 tons, and this calls for a 9 in. by 4 in. sound "yellow" transom; the drawing seems to provide a 4 in. by 2 in. transom, so the sufferings of the occupants may not be confined entirely to the winter.

G. N. KENT

SIR,—In your issue for December 19 Mr. John Gloag takes to task Mr. G. N. Kent, for his adverse criticism of the premiated designs for the Timber House Competition.

Mr. Gloag should consider that all correct period form has evolved through the intelligent realization and application of the uses and limitations of contemporary materials.

In our day steel, concrete and glass, with properties hitherto unknown, have, by this same intelligent use of their capabilities, produced what is broadly termed the modern style.

One would no more desire to express modernism in wood, the most ancient of building materials, any more than one would care to build a Gothic church in concrete.

I. L. JAMES

Self-contained Flats

SIR,—We enclose herewith a sketch of a revised method of planning self-contained flats, based on a service unit.

We think it possible that this plan may be of interest to your readers.

The attached plan shows a revised scheme for standardizing flat planning, based on a commended design in the Birmingham Building Trades Exhibition Architectural Competition.

The authors endeavoured to arrange the planning on the principle of a Service Unit applicable to flats of 1, 2 and/or 3 bedrooms. Each unit consists of: Entrance hall; service passage; bathroom; combined or separate w.c.; kitchen; larder; and

contains all the essential conveniences and service arrangements, including independent hot-water supply, special refuse bin, fuel store, etc.

By grouping together the bath, lavatory basin, water-heating, sink, etc., the greatest economy in plumbing has been effected, individually and collectively, and a minimum loss of heat is assured in the hot water system. The units are similar in every respect, and they are applicable to any method of construction. The attached plans show the arrangement for both residential and balcony working-class flats.

GLEDHILL AND WIGMORE

Hours of Sunshine

SIR,—I have just observed in the JOURNAL for December 19 that a question has been asked regarding possible hours of sunshine and that a reply of the Building Research Station has been published.

I observe that the particulars given relate to the possible hours of sunshine that might be enjoyed on the external wall of a building. Such statistics are, naturally, very different from those that would obtain in respect of points inside rooms. What architects are mainly concerned with, in my opinion, is the extent to which sunshine can be enjoyed in the interior of buildings. This naturally depends on the width and height of the windows, their situation in relation to one another and the positions in the interior in respect of which data is required. When such positions are comparatively close to the outer face of the wall much more sunshine is enjoyed than when they are further back in the interior.

It is also very important to take into consideration the altitude of the sun, as the amount of illumination received on the horizontal plane of a table from the sun at midsummer is infinitely greater than the amount of illumination received, at the same hour of the day, when the sun is at the altitude at which we find it in midwinter. Between those two extremes there are a whole series of values which, in my opinion, it is very important to take into consideration. I know of no better way in which the really material data regarding sunshine, at any specific point, can be determined than by superimposing the solar paths and hours of the day upon photographs taken from the points in question, showing the windows from which light from the sun might be received. I am enclosing herewith an illustration (Fig. 1) showing solar paths superimposed upon a photograph, taken by means of the photo-theodolite now used in connection with right of

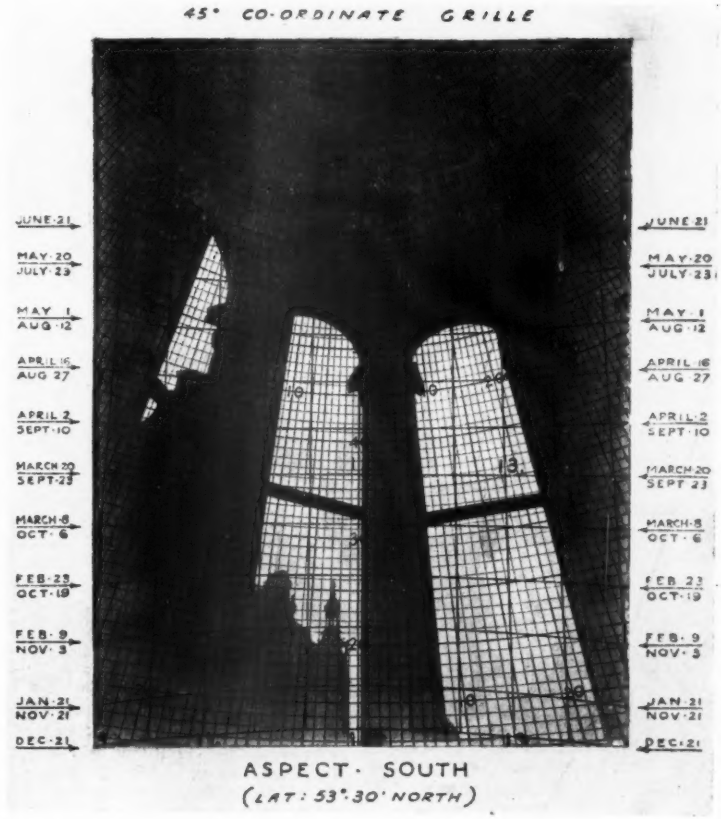


Figure 1. An illustration showing solar paths superimposed upon a photograph taken by means of the photo-theodolite.

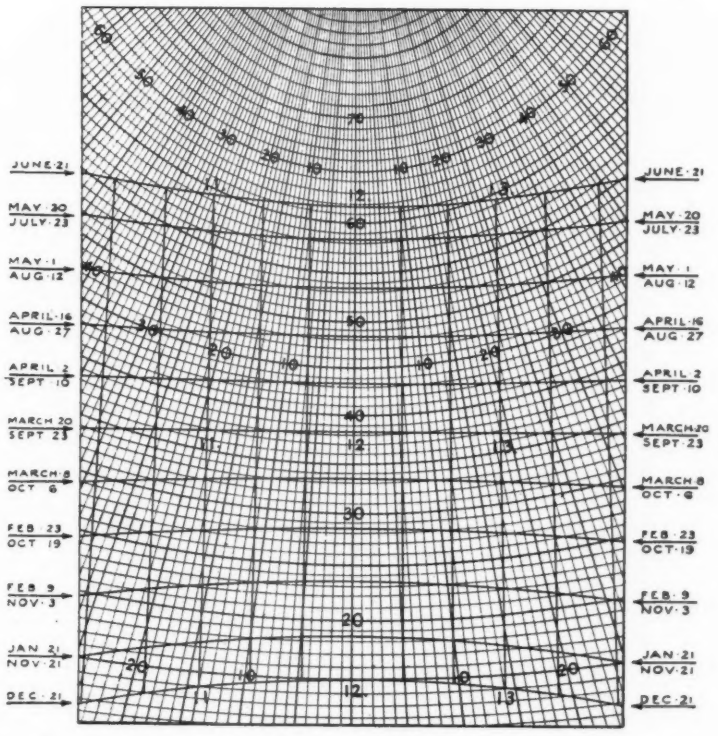


Figure 2. Grille showing the solar paths at various months of the year.

light cases in court. Photographs of this kind can be obtained with an exposure of about two seconds, at normal times of the year, and grilles showing the solar paths at various months of the year may be superimposed upon them automatically without a single calculation being made. The whole operation is of the simplest possible description. In order that the grille of solar paths may be more clearly seen I am also forwarding you a separate illustration of a similar grille (Fig. 2) for use at another latitude. It will be seen that on this grille the hours of the day are indicated as 11, 12 and 13 o'clock, together with 20 minute intervals. By the use of a grille of this kind it is not merely possible to discover the months of the year during which light from the sun would penetrate an interior over irregular external obstructions, but also to determine the exact time of day at which the sun would appear and disappear.

Data of this kind regarding sunshine seems to me to be infinitely more useful to practising architects than mere statistics relating to hypothetical points on the exterior of buildings that bear no relation whatever to the interior of the rooms and to the points at which the occupants would naturally wish to enjoy sunshine. JOHN SWARBRICK

OBITUARY

E. M. GIBBS

We regret to record the death of Mr. Edward Michael Gibbs, M.A., J.P., F.R.I.B.A., architect and surveyor, of Sheffield.

Born in 1847, Mr. Gibbs was educated at the Milk Street School, Sheffield, and received his early architectural training at the Sheffield School of Art (where he won national bronze medals and other prizes) and later at the Royal Academy Schools in London. In addition, he learnt the practical side of building by acting as clerk of works for a Bradford builder.

He was articled to Messrs. Flockton and Abbott in Sheffield and, later, served as an assistant to the late Mr. Alfred Waterhouse, R.A., in London. He commenced practice on his own account in 1872, acting as architect for the Sheffield Public Baths and the Highfield and Upperthorpe branch libraries. Six years later he entered into partnership with Mr. Thomas J. Flockton, in collaboration with whom he designed the Mappin Art Gallery, the Church of St. John the Evangelist, Ranmoor, and many shops. With the death of Mr. Flockton he became the senior partner of the firm, which was then styled Gibbs and Flockton.

The buildings erected in Sheffield from the designs of the firm include the following: Fever Hospital at Lodge Moor, the University (including the Arts Department in Western Bank and the Applied Science Department in St. George's Square), the Channing Hall, the Athenæum Club, the present offices of the *Sheffield Telegraph*, several branch banks, the University Mining Department, the Royal Hospital Annexe (Fulwood), Glossop Road Baths, the Builders' Exchange, the Blind School in Manchester Road, Ranmoor Church, Fire Station, Foster's Buildings, White Building (Fitzalan Square), Bluecoat School and very many of the large residences, saleshops, showrooms and offices of the city. In London he designed the *Sheffield Telegraph* buildings in Fleet Street.

Mr. Gibbs was surveyor, jointly with Major C. B. Flockton, to the Town Trustees, and other important surveyorships held by his firm were those of Birley's Charity and Sheffield Royal Grammar School. He was elected a Fellow of the R.I.B.A. in 1892 and had occupied the positions of honorary secretary and president of the Sheffield and South Yorkshire Society of Architects and Surveyors and honorary treasurer of the Sheffield Society of Artists. He was also an honorary Master of Arts of the University of Sheffield and a Justice of the Peace for the city, a trustee of the Woofindin Homes, a director of the Gladstone Buildings Company and a governor of the University. It was largely owing to Mr. Gibbs's efforts that the Department of Architecture at the University was founded. In 1918 Mr. Gibbs was appointed a member of a National Committee, set up by the Ministry of Reconstruction, to deal with the question of after-the-war rents and housing. To the report of the Committee published in March, 1919, he appended reservations, explaining his views as to the lines on which legislation should deal with increases of rent, mortgage interest, and other matters.

EDWARD MONSON

We regret to record the death of Mr. Edward Monson, Retired Fellow of the R.I.B.A., of Grosvenor House, Acton Vale. He was born at Ipswich in 1847.

Mr. Monson was the architect for numerous buildings throughout the country, including churches, schools, banks, shops and houses. His churches included St. Margaret's, Twickenham, St. Alban's, Acton Green, and St. Martin's, West Acton. He was diocesan surveyor to the Bishop of London up to 1915, when he retired from practice, a J.P. for Middlesex and one of the oldest Freemasons in the country.

Mr. Monson was the father of Messrs. E. C. P. and H. Monson, architects and surveyors.

C. S. THOMAS

The death took place recently of Mr. Charles Samuel Thomas, F.R.I.B.A., of Messrs. C. S. Thomas and Herbert Jones, of Swansea.

Born in 1874, he was educated at the Swansea Art School and Technical College and articled to Messrs. J. P. Jones and Rowlands, of Swansea and Cardiff.

After completing his articles he joined the late Mr. W. W. Williams, of Swansea, as chief assistant, continuing with him until his death in 1902. In that year he took over the practice and was appointed architect to several school boards in the Swansea district. He also designed a number of chapels in Swansea and the Swansea Valley.

In 1908 Mr. Thomas entered into partnership with Mr. J. Herbert Jones, F.R.I.B.A., with whom he carried out a large amount of ecclesiastical, commercial and domestic work in Swansea and the neighbourhood, as well as school buildings in other parts of the country.

He was elected a Fellow of the R.I.B.A. in 1925, and was a vide-president of the South Wales Institute of Architects.

Rehousing of Families from Depressed Areas

As a result of representations made by the County Council of Ayr, Sir Godfrey Collins, the Secretary of State for Scotland, has had under consideration the steps which local authorities in county areas may take in carrying out their housing operations to facilitate the transfer of families from depressed areas to other areas in the county where there are prospects of employment through industrial development.

A number of miners were recently transferred to Mauchline to take up permanent employment there, but owing to the lack of housing accommodation in the locality, they had to return to their homes in the depressed areas.

The county council then submitted proposals to the Department of Health for Scotland for the erection of new houses at Mauchline for the accommodation of families to be transferred from other parts of the county, and asked whether the subsidy available under the Housing (Scotland) Act, 1935, which was passed for the relief of overcrowding, would be paid for these houses.

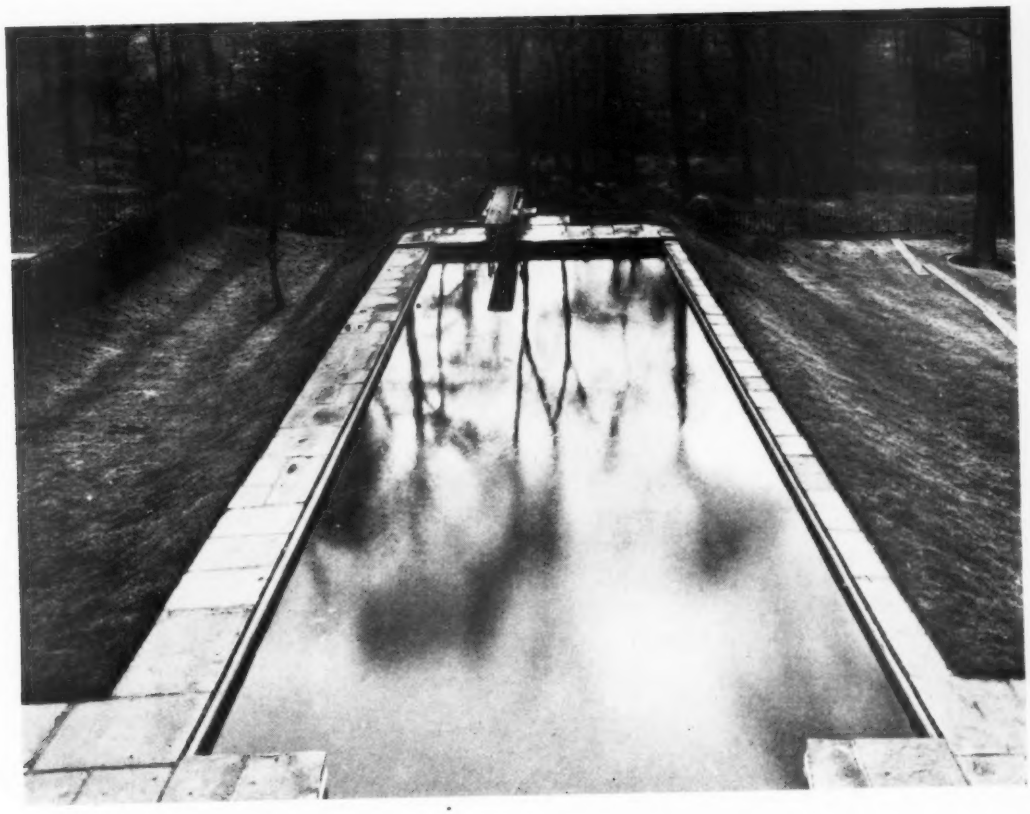
On the instructions of Sir Godfrey Collins, the department has indicated to the county council in what circumstances subsidy under the Act would be available. The effect of the decision is that a county council need not necessarily build the houses required for decrowding purposes in the places where the overcrowding exists, but that, having ascertained its total requirements, it may erect the new houses throughout the county in the manner which best serves the needs of the community as a whole, including the needs of particular areas in connection with industrial expansion. Before subsidy would be payable, however, it must be shown that the new houses erected in expanding areas will be occupied by families coming directly from overcrowded houses in the county, or that the provision of the new houses will enable at least an equivalent number of overcrowded families to be rehoused in fit accommodation rendered vacant by the families to whom the new houses are allocated.

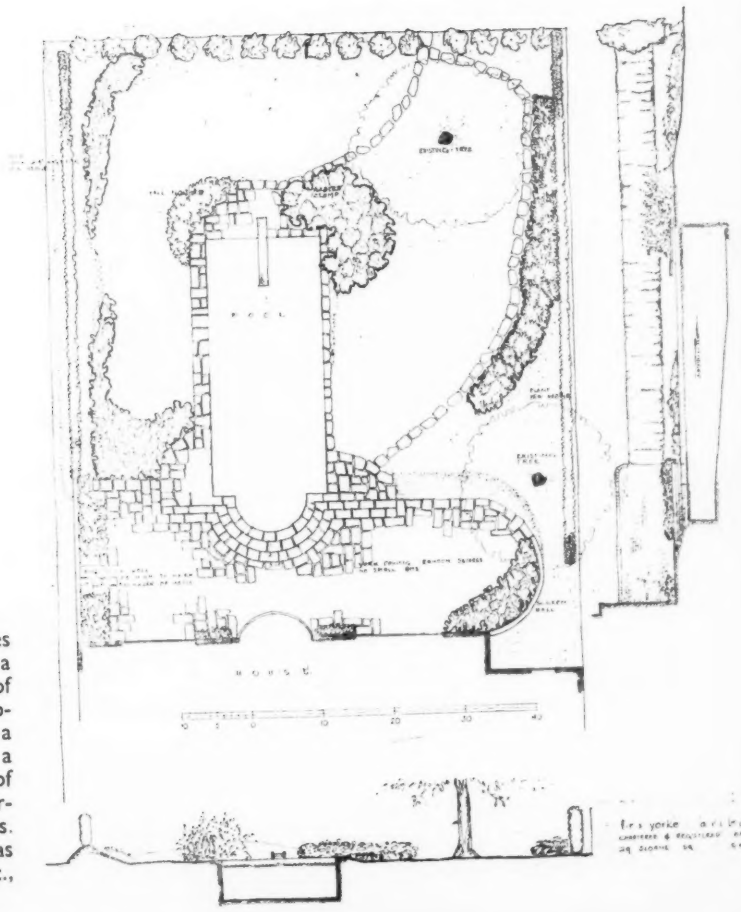
Sir Godfrey Collins considers that this decision will greatly facilitate the transfer of families from the depressed areas, and will enable local authorities to make the best use of the housing accommodation to be provided in their districts.

FILING REFERENCE:

WORKING DETAILS : 383

SWIMMING BATH • HOUSE AT HAMPSTEAD • F. R. S. YORKE



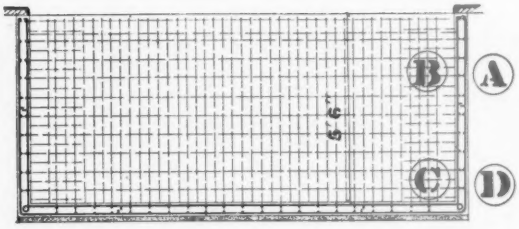


This swimming pool measures 45 ft. by 17 ft., and is on a sloping site in the garden of an existing house in Hampstead. To the right is a site plan, and above is a view taken from one of the bedroom windows. Overleaf are reinforcement details. The consulting engineer was Mr. W. E. J. Budgen, B.Sc., A.M.I.C.E.

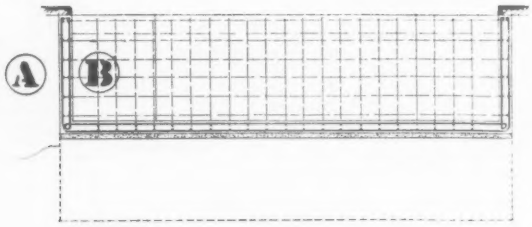
FILING REFERENCE:

WORKING DETAILS : 384

SWIMMING BATH • HOUSE AT HAMPSTEAD • F. R. S. YORKE



SECTION BB



SECTION CC

A — ½" AT 9" CRS LAPPED 21" WHERE NECESSARY

B — ½" AT 9" CRS LAPPED 21" WHERE NECESSARY

C — ⅜" AT 9" CRS

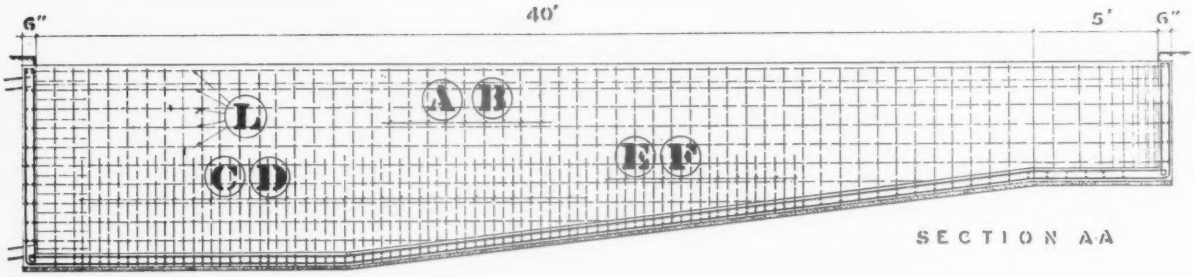
D — ⅜" AT 9" CRS

E — ⅜ AT 9" CRS

F — ½" AT 9" CRS

G — ½" AT 9" CRS TOP & BTM OF FLOOR SLABS

H — ½" AT 9" CRS TO LAP 21" WITH FLOOR RODS



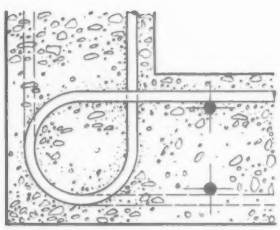
SECTION AA

I — ½" AT 9" CRS

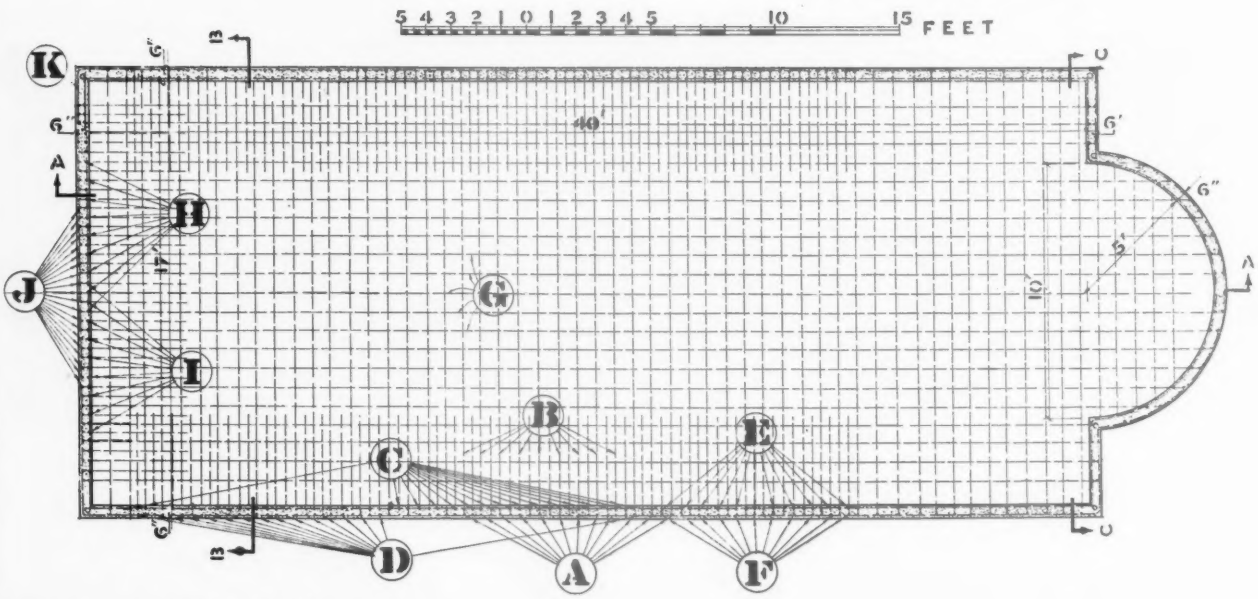
J — ½" AT 4½" CRS ALTERNATE RODS LAP 21" WITH FLOOR RODS ALTERNATE RODS ARE FLOOR RODS CARRIED UP WALL

K & — ½" AT 9" CRS HORIZONTAL LAP RODS AT ALL CORNERS

L — HORIZONTAL ½" AT 9" CRS ON BOTH FACES



ENLARGED DETAIL OF LOOPS TO RODS TYPE B. C. E. H. I. & K



Reinforcement details of the swimming pool illustrated overleaf.

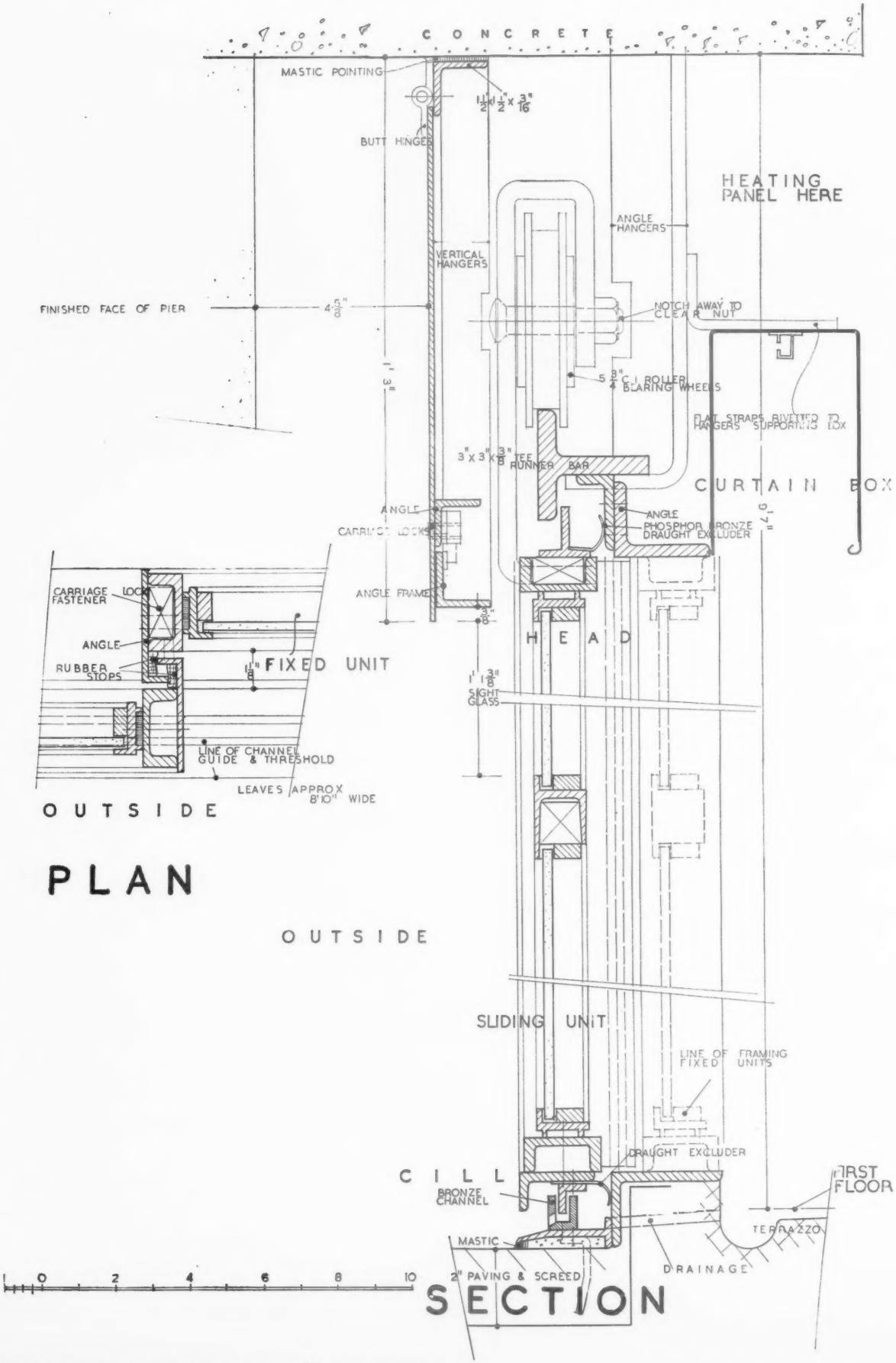
WORKING DETAILS : 385

SLIDING WINDOWS • DE LA WARR PAVILION, BEXHILL • MENDELSOHN AND CHERMAYEFF

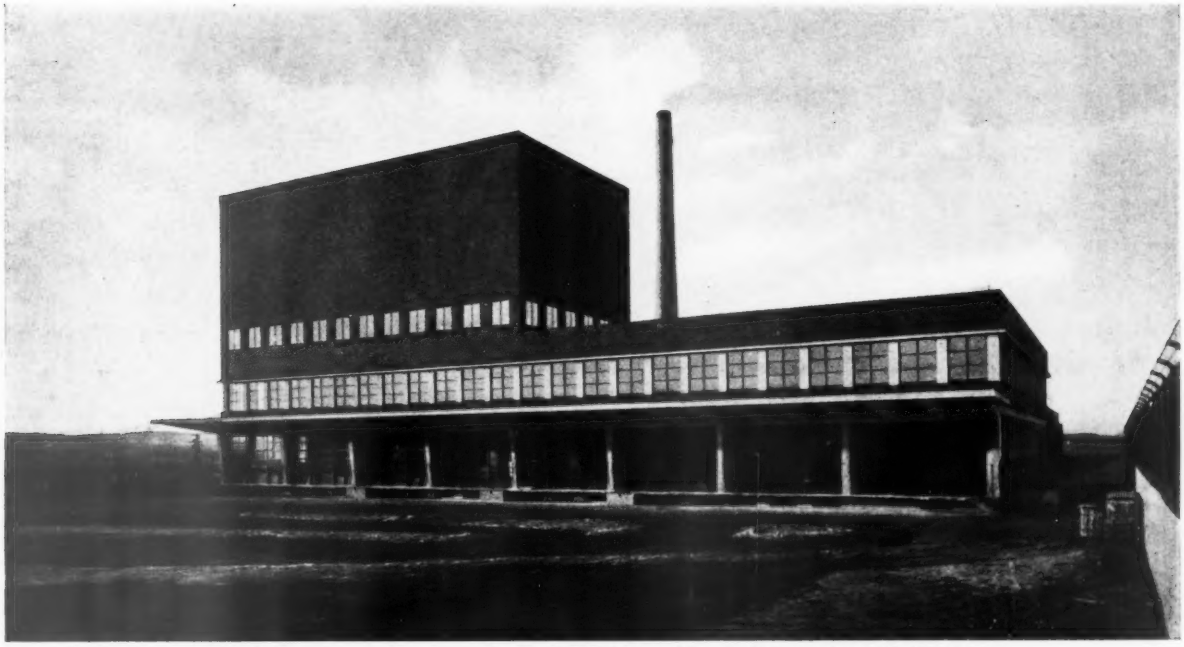
The windows to the first floor reading room, the interior and exterior of which are illustrated above, are arranged to slide. The drawings overleaf show how the sliding half of each bay is hung from a track and give details of the floor channels and arrangements for the exclusion of draughts.

WORKING DETAILS : 386

SLIDING WINDOWS • DE LA WARR PAVILION, BEXHILL • MENDELSOHN AND CHERMAYEFF



Section and details of the sliding windows illustrated overleaf.



Bakery, Lören, Norway. By B. B. Ulrichsen. From "Industrial Architecture."

LITERATURE

ARCHITECTURE AND THE FACTORY

[*BY A. G. ALEXANDER*]

Industrial Architecture. Edited by C. G. Holme. Introduction by L. H. Bucknell. The Studio. Price 30s.

THE design of industrial buildings by the architectural profession is today becoming more general. The ever-increasing predominance of machine-made goods over those made by hand demands an ever-increasing number of buildings to house the machine. The welfare of those engaged in these factories, at one time below the average industrialist's consideration, now assumes the importance which is its due.

With the aim of "providing suggestions and indicating practical advantages which the individual concern may find of service" The Studio, Ltd., have produced *Industrial Architecture*, a book addressed to the industrialist as well as the student of architecture. This book is one containing many illustrations, and is introduced by L. H. Bucknell, F.R.I.B.A.

It is admitted that it does not pretend to be a textbook, but sets out rather to survey generally the trend of industrial design of today. It is doubtful, however, whether either the industrialist or the student of architecture will find in its pages much of any real value excepting in the introduction.

The average industrialist is usually a first-class business man who has a good idea of what he wants, cares more for the economical running of his factory than he does for its external appearance, and demands accurate estimates of cost in all his undertakings.

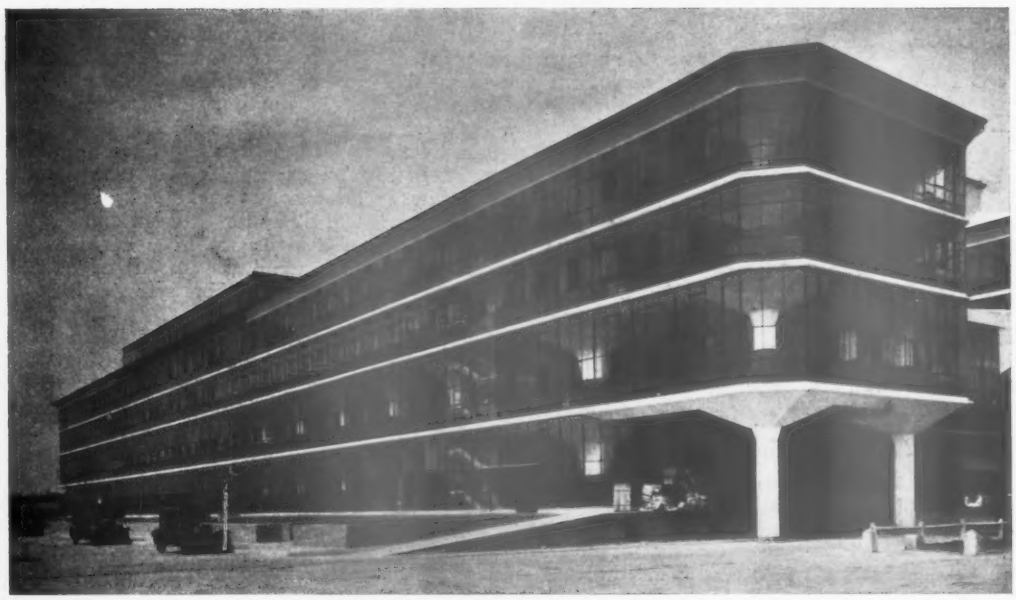
His factory is for the housing of his particular industry only and is not an end in itself. He may with a little persuasion, backed up by a lot of figures to justify the expenditure, agree to expend a little on appearance for the sake of advertisement. He will, however, look through this book in vain for any real guidance to the initial cost of various types of buildings, comparative maintenance cost of the numerous materials of construction which are available today, the advantages and disadvantages of the single- and multi-storeyed factory and such other questions on which he will be primarily interested.

There are certainly a few instances where the costs of some of the buildings illustrated are referred to briefly, but the lack of a common denominator renders their comparison a difficult task. It requires an effort to reduce Canadian cents per cubic foot and Swiss francs per metre into pence per cubic foot. The busy industrialist will not usually pursue the matter further and the possible usefulness of the information contained in the book is lost.

The design of a factory is almost invariably based on the process involved in manufacturing the particular product or products it is intended to house. The flow of these processes, from the introduction of the raw material to the loading of the finished article, is of the utmost importance. The essence of good industrial design lies largely in producing a plan which will allow for the continuous "flow" of all the materials of manufacture with the least amount of human or mechanical effort and the least waste of time, having in consideration the restrictions of the available site.

This consideration of having "flow" in design will be one of the main interests of the student of architecture, but he will find little real guidance in this book. The student asks for plans and still more plans from which, by study, he will find the means by which good "flow" is maintained. It is true that there appear to be four plans reproduced, which give the general lay-out of each of four buildings, but the information therein is so meagre that the student is little better off than if there had been no plan at all.

It would appear that the photographs, excellently reproduced as they are, are of little more than pictorial interest, and the introduction of good explanatory plans would have been of considerably more use to the student. The photographs with their notes attached give, of course, some idea of detail and finish, but the student is



Above: Siemens-Schuckert Factory, Berlin. By Hans Hertlein.

Left: Boots' Factory, Nottingham. By Sir E. Owen Williams, K.B.E. The photograph shows the roof above the dispatch dock From "Industrial Architecture."

left just nibbling at the subject and is given little into which he can get his teeth.

He will, however, be able to console himself somewhat in absorbing the introduction. It is unusual for an introduction to delve more into a subject than the book itself, but it would appear that this is the case in this instance. On broad lines the general trend of industrial planning is traced to its present rather chaotic state as a result of promiscuous development in past years.

It is rapidly being realized that Factory Slums exist as well as Domestic Slums, and only when the industries of this country are planned on a national basis can any order be obtained. This is a policy which at present is probably almost out of sight, but, as in Housing, the problem is in every way becoming one of national importance. It is anticipated that some order and scheme in general industrial planning will be obtained first in Regional Planning, later to be absorbed into a whole as a national scheme.

In Mr. Bucknell's introduction the student will find sound comment on such matters as Style and Architecture, Horizontality and Verticality, and the "all-glass" staircase, of which he

Hay's Wharf, London Bridge, S.E.
By H. S. Goodhart - Rendel.
From "Industrial Architecture."

would do well to take note. The "Orders" are put into their proper place as well as the fashions of today.

The introduction also gives a summary of the general requirements in planning an industrial building from the choice of the site, through the various stages covering Initial Services, Materials, Welfare, Ventilation and Lighting to Fire Protection. This is followed by a useful list of Acts, Reports and Surveys having a direct bearing on the subject. All of this should be of considerable interest to both the industrialist and the student.

After digesting this admirable meal, they may then pass to lighter fare in looking through the pictures.

GUIDANCE FOR THE LAITY

[*BY DONALD McGAVIN*]

The House: A Machine for Living In. By Anthony Bertram. London: A. and C. Black, Ltd. Price 5s.

THIS entertaining book is written for the layman.

In the foreword it claims that it is an attempt to display the history and basic principles of the art and science of home-making, considered functionally. No word here of an attempt, you will notice, to persuade any man into some particular way of thinking. And yet under a thin disguise, one thrown off long before the more detailed part of the book is reached, it is a strong effort to convert the uncritical, everyday person from his tendency to accept as reasonably satisfactory any kind of accommodation that may be provided for him to a critical attitude that may lead him to demand a home built in a clean style and with all its fittings adapted to his needs.

The thesis is succinctly put in the accompanying and amusing line illustrations by A. G. Wise.

To some the second part of the title may be a stumbling block. No thinking person would deny the desirability of a simpler and more purely functional architecture than that which is most prevalent today. Yet the expression, "A machine to live in," is a cause of offence to many. An excellent tonic, this phrase undoubtedly helped to clear the way towards saner thinking about building and so to saner building. In spite of this, it still causes a strong reaction in many who spend their lives surrounded by machines and whose hope of recreation at the end of each day is to get away from all idea of machinery. It is the apparent implications of the expression, not its true implications, that are the cause of this uneasiness. The shy animal must be won by gaining its confidence and it might perhaps have been more tactful to have allayed the suspicions of a touchy reader by laying rather less stress on the machine aspect of a house. By the time that a timid fellow has had his tub referred to as a machine for bathing in, been told that the kitchen is the engine of the house-machine and been warned that he should never undress in his bedroom, he may well be wondering if, after all, we do dominate our machinery or if our machinery dominates us.

Such fears are superfluous. The true argument is well stated in Plato's *Republic*, in that sentence which the author places at the head of his list of quotations: "Are not the excellence, beauty and correctness of every manufactured article, or living creature, or action to be tried only by a reference to the purpose intended in their construction or in their natural constitution?"

So, overcoming his objections, the reader will find an argument logically developed from the history of the house, its component parts and various of its accessories. Compressed as this account must be, omitting many things for want of space, it yet succeeds in giving a satisfactory sense of the continuous evolution of domestic life. The early hall which was the centre of all activity, the first branching away into a rudimentary privacy, the increasing subdivision of functions and consequent multiplication of rooms leading to the excessive complexity of the large house, and now the reintegration of function into a few, or even single, large living rooms—all this is traced out in a way that must interest even the dullest.

The book, presumably, is addressed to the man with a modest store of intelligence, and every such person could wish that it were twice its length or more. Perhaps the author and his publishers knew best. Perhaps such a book should only be introductory and stimulating, leaving the reader to follow out the various lines for himself. But many will wish that more space had been given to the modern flat, which, for town dwellers, is so largely replacing the house, and which raises so acutely the problem of making the maximum use of the minimum space. Others would have liked at least short mention of children, the factor that completely disorganizes the planning of any small house, still more so of a flat.

The text is summarized in a quite admirable way by the drawings with which the book is illustrated. There are more pleasures in the book than have been touched upon in this review, and it can be recommended warmly to all those who knowing nothing of architecture yet have an active interest in the things around them and amongst which they spend their days.

MOISTURE IN TIMBER IN NEW BUILDINGS

The Moisture Content of Timber in New Buildings. By R. A. G. Knight. Forest Products Research Records, No. 5. London: H.M. Stationery Office. Price 6d.

THE shrinkage and expansion of wood are caused for the most part by variation in the amount of moisture it contains. In buildings this sometimes leads to badly fitting doors and windows, and may seriously detract from the appearance of decorations, etc.

The Forest Products Research Laboratory of the Department of Scientific and Industrial Research has carried out experiments to ascertain, in terms of the moisture in the wood, the conditions in buildings that have dried out and thus reached a steady state, and also to determine the rate of drying of new buildings and the behaviour of timber in them. The results are given in Forest Products Research Records, No. 5, which has just been published.

Timber specimens were exposed and observed in the following newly completed buildings: Thames House, Millbank; a City bank building; Broadcasting House; and the Princes Risborough Post Office.

Tests were also carried out in the following buildings during and after erection: St. Mary's Hospital, Paddington; the Royal Masonic Hospital, Ravenscourt Park; a house at Princes Risborough; and an extension to the Laboratory.

From the conclusions reached in the report it would seem sufficient for buildings to be dried by temporary heating or other measures until the moisture content of wood samples placed in them are not much greater than 12 per cent. Timber should then be installed after being seasoned to this value or a little below it.

Subsequent attempts to "dry" the structure should be modified to the maintenance of only such heating as is required for comfort. "By these means," the report states, "the woodwork in the building would be safe from undue shrinkage, and although the maturing process in general would perhaps be slower, it is to be expected that general benefit would result.

"The baking of a building in the early days of occupation is strongly to be deprecated, for apart from the unnecessary expense it entails, even the most carefully seasoned and fitted joinery work is bound to shrink and possibly to distort, an occurrence which is often the cause of dispute between contractor and owner."

The period taken for a new building to "dry" is dependent on a number of factors. It would seem that the third and fourth floors of St. Mary's Hospital dried in six months, the first floor in three months, and the Royal Masonic Hospital in five months. The house at Princes Risborough dried in four months but, owing to the intermittent nature of the heating applied during this time, weather conditions had a considerable influence.

FLATS IN UXBRIDGE ROAD, EALING

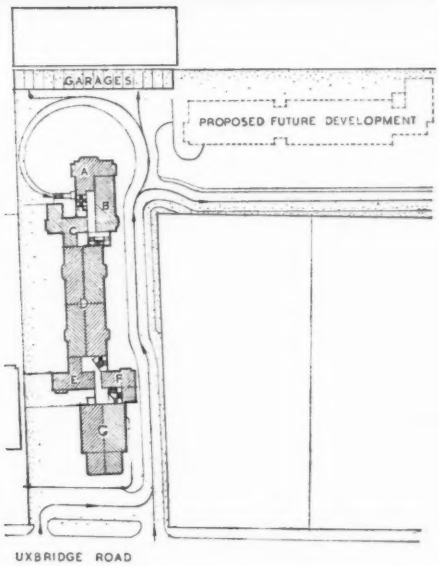
DESIGNED BY ERNEST SCHAUFELBERG

PURPOSE.—*Flats to let at moderate rentals, with shops at ground floor level on the Uxbridge Road front.*

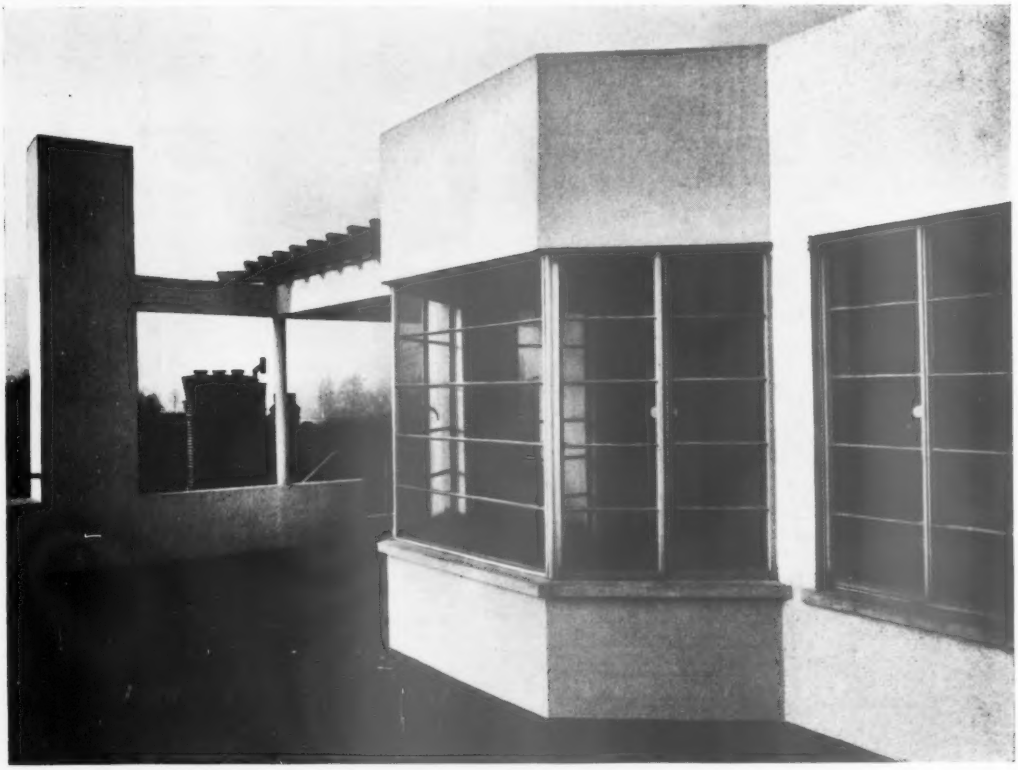
SITE AND PLAN.—*The site measuring 370 ft. by 110 ft., the block form adopted appeared to yield the most economical results; the building containing 38 flats and a showroom of 8,000 super ft.*

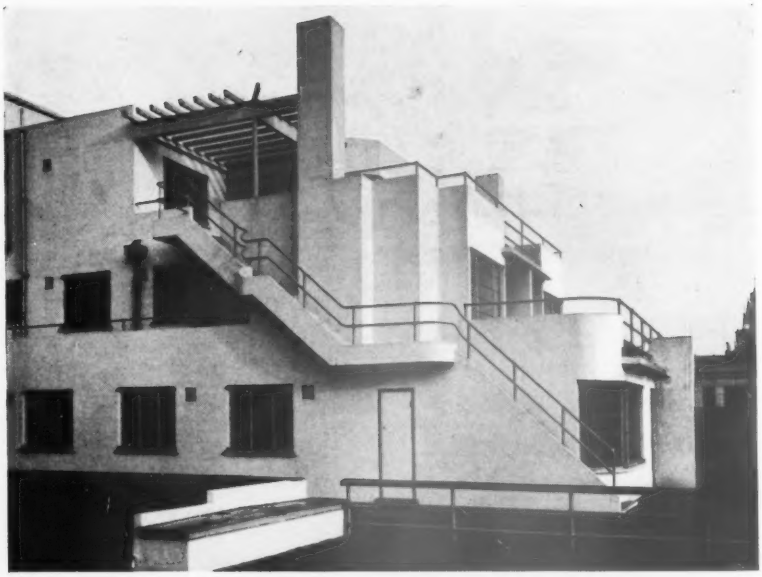
The building consists of two units, each in the form of a cross, which allows of only two main stairs, each serving 19 flats. Most of the flats have balconies or terraces, those facing south are large enough to be used as roof gardens to which there is external access for gardeners.

Several plan types are available in the flats as shown on page 29.



FLATS IN UXBRIDGE ROAD, EALING:





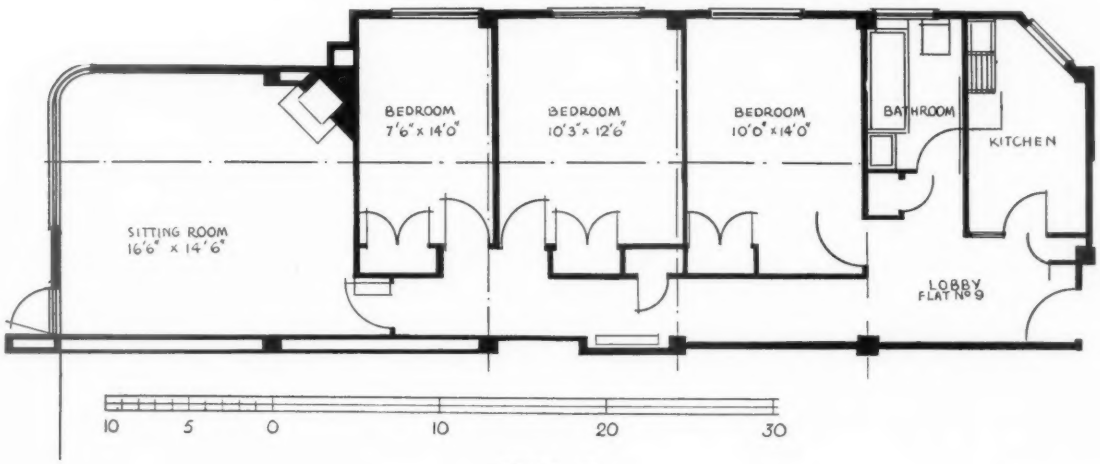
CONSTRUCTION.—*Reinforced concrete construction throughout with external walls lined with 1 in. cork. Double 3 in. breeze partitions are used between flats and single elsewhere; hollow tile floors with battens and boarding in living rooms. Corridors, kitchens and bathrooms have composition flooring. Windows are of steel, and external balustrades of steel tubing; internal balustrades are of wrought iron.*

SERVICES.—*Services include central hot water heating and supply, two passenger lifts, and refrigerators in each flat. Coal fires are provided in living rooms, with electric points elsewhere.*

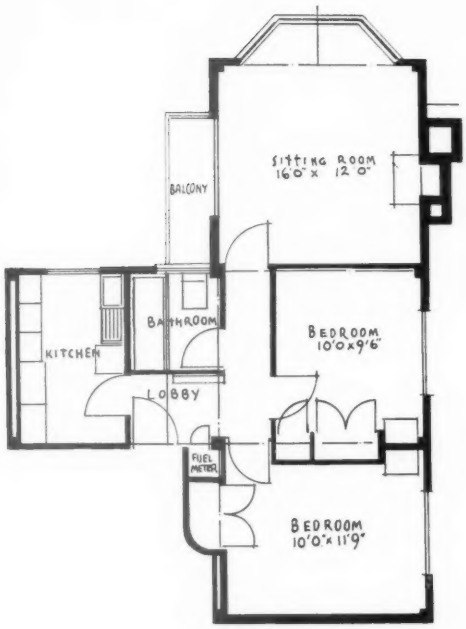
COST.—*The cost worked out at 1s. 3d. per cu. ft.*

For list of general and sub-contractors, see page 33.

DESIGNED BY ERNEST SCHAUFELBERG

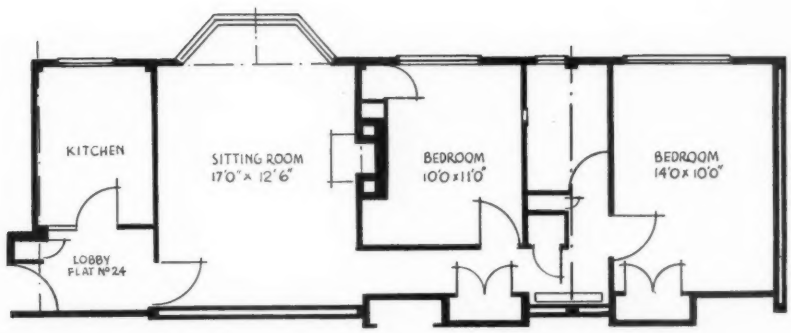


TYPE G.



TYPE C.

TYPE F.

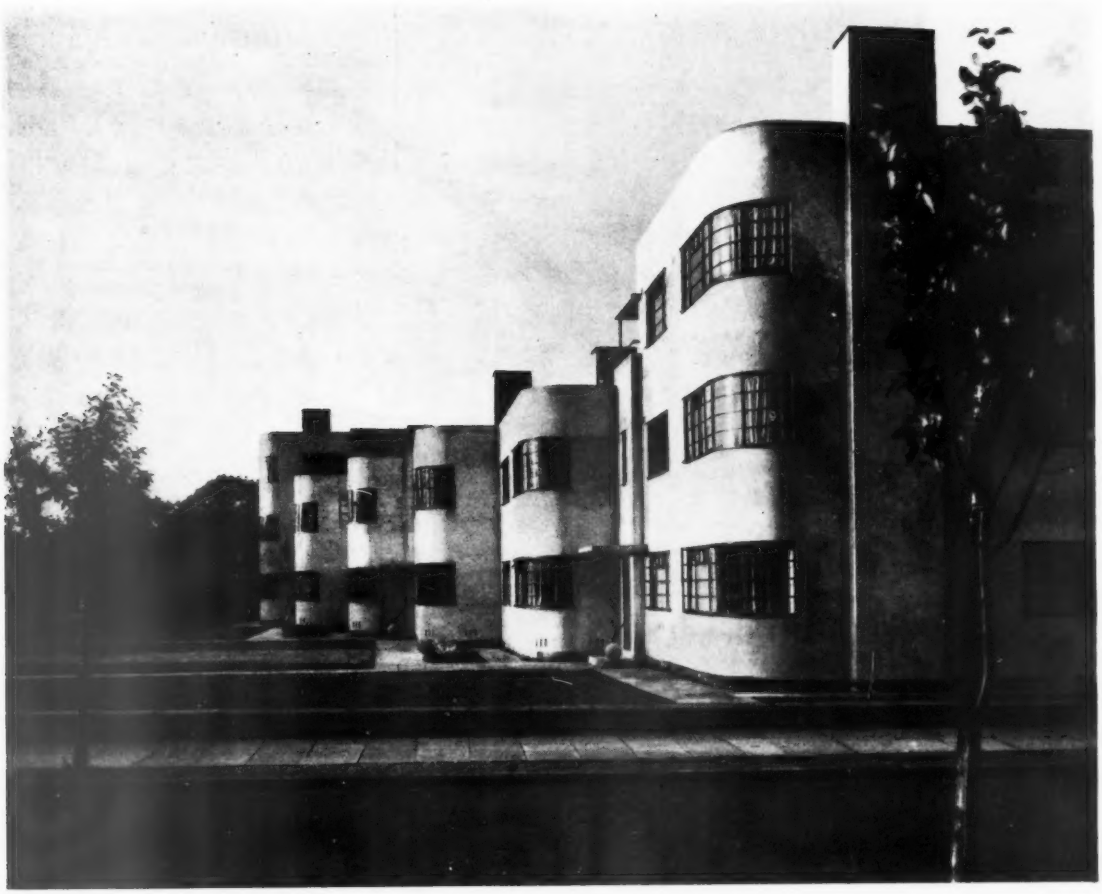


TYPE D.

On this page are reproduced plans of four typical flats. See site plan on page 27.

FLATS AT HALL GREEN, BIRMINGHAM:

DESIGNED BY FRANCIS W. B. YORKE



PURPOSE.—*A block of flats to let at reasonable rents near the centre of the city.*

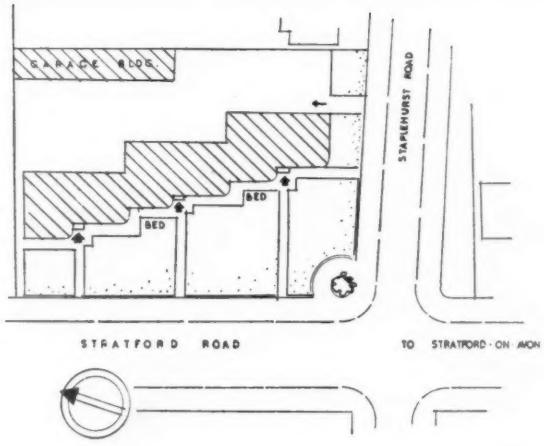
SITE AND BLOCK PLAN.—*The block form shown was adopted to increase the number of flats in the scheme, and to provide a south-west aspect for all living rooms. The building regulations permitted a third storey only at the ends of the block.*

PLAN.—*All flats have two bedrooms and vary slightly in floor area. The staircases serve two flats on each floor, and the entrance doors to the flats are staggered to increase privacy.*

CONSTRUCTION.—*The building is of brick throughout with 12 in. cavity external walls, and 9 ins. and 4½ ins. internal. Floors and roofs are of R.C. slab, and roofs are finished with layers of bituminous felting on insulating boards.*

EXTERNAL FINISH.—*The external walls and chimneys are rendered in putty-coloured cement. The windows are steel casements with metal cills, and are painted light green.*

INTERNAL FINISH.—*Living rooms are plastered with boarded floors on felted battens. Kitchens have terrazzo floors and bathrooms cork tiles. Window cills are of composition. Entrances and landings are of terrazzo, and stair balustrades are of wrought iron. Kitchens are equipped with cabinets, ironing boards, and drawers. Doors are flush with 2 in. linings, without architraves.*

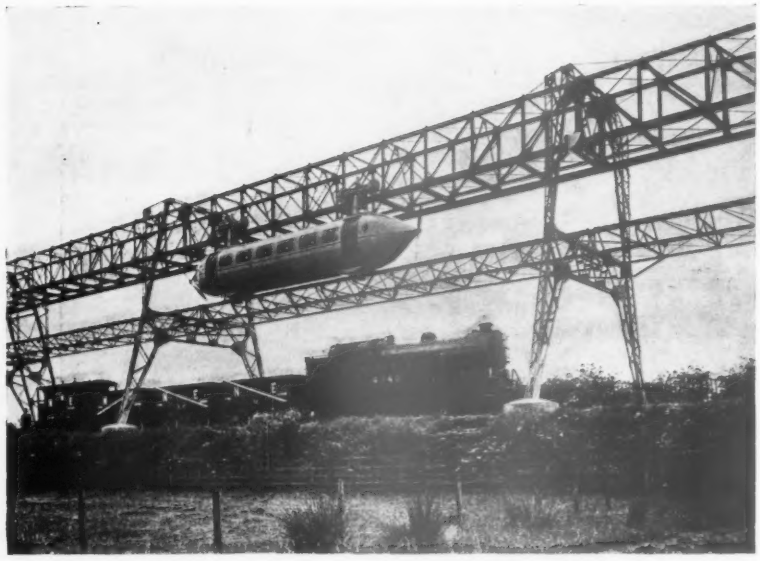


SERVICES.—*Hot water is from gas water heaters in cabinets fitted with airing cupboards. Living rooms have coal, gas or electric fires provided for, electric fires being installed elsewhere.*

COST.—*The cost of the block was approximately 1s. per cubic foot.*

Above is a general view of the block from the south.

(For list of general and sub-contractors, see page 33.



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Planning with Ramps

THE planning of multi-storey garages can be a fascinating spare time occupation, as the possible arrangements of ramps and ramps within ramps are almost limitless. It was, therefore, with great interest that I approached a booklet describing the Hoenig patent system of construction for garages.

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For this the patentees claim that it enables more cars to be parked in any given space than any other system; the booklet saying that the principle is that of a system of "complementary intersecting structures."

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Briefly, the "system" consists of the division of the floor area of the building into four areas in plan, each area being one-third of a floor height above or below the neighbouring portion (see plan below).

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The patentees claim that this arrangement reduces the usual wastage of space for gangways, ramps and general manœuvring which is unfortunately necessary with all systems. They also claim that floor heights can be reduced to 9 ft. since, on account of "the reduced distance between stanchions lighter beams are employed." However, no stanchions are shown in the typical plans in the booklet and it is therefore difficult to judge this statement.

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They also claim that it is easy to divide the building into cells with fire-resisting shutters and for this the ramp system allows the by-passing of any one cell.

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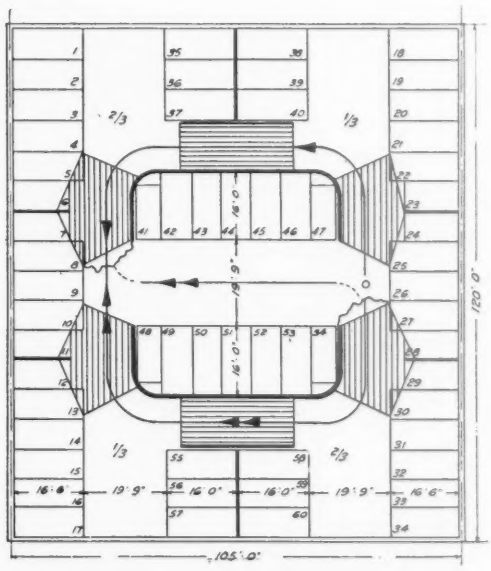
The system is also advocated for departmental stores, office blocks, flats and tenements, public buildings, hospitals, schools and innumerable other types of building, all of which are apparently to be designed with the object of allowing vehicles to ascend to the top floors.

W. E. J. B.



Plan of garage arranged on the Hoenig system. (See note on this page.)

A New Type of Railway

Railways are not, strictly speaking, anything to do with architects, save in so far as they involve considerations of town planning. But any new railway system is worth considering if it has any particular advantages over the more orthodox type.

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The Railplane system, described at some length in a booklet recently sent to me, consists of a streamline car suspended on bogies running on a single overhead rail and propelled by airscrews. The general arrangement of this system can be easily understood from the illustration at the head of these notes.

•

As a complete breakaway from tradition, this system is worth investigating, but one or two claims are made for it which could be equally well applied to the ordinary railway system. It does, however, look as though construction would be fairly cheap, since the track is virtually a continuous bridge, and only a minimum of excavation is necesary for foundations.

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In undeveloped districts this system would probably be extremely useful, but it hardly seems likely that it will be much developed in this country. Anyone who is interested can see a sample length of track at Bearsden, near Glasgow.

THE BUILDINGS ILLUSTRATED

"SHRUBS WOOD," CHALFONT ST. GILES (pages 9-14). The general contractors were C. Miskin and Sons, Ltd. The principal sub-contractors and suppliers included :—

Structure.—Sika-Francois, Ltd., damp-courses; Ragusa Asphalt Paving Co., Ltd., asphalt; Helical Bar and Engineering Co., Ltd., reinforced concrete and hollow tile floors; Imperial Chemical Industries, Ltd., partition blocks and Pioneer plaster;

D. Anderson and Sons, Ltd., roofing felt.

Finishes.—Joseph Sankey and Sons, Ltd., metal door trim and skirtings; Carter & Co., Ltd., tiles; Pilkington Bros., Ltd., "Vitrolite"; Joseph Ebner and Sons, Ltd., "Ebnerite" flooring; D. Burkle and Sons, Ltd., joinery; Venesta, Ltd., "Plymax"; J. Whitehead and Sons, Ltd., marble; Edinburgh Weavers, Ltd., textiles; Plan, Ltd., textiles and furniture; Marion Dorn, Ltd., rugs.

Equipment.—Ashwell and Nesbit, Ltd., central heating; Aga Heat, Ltd., cooker; Ideal Boilers and Radiators, Ltd., radiators; Clarke & Co., Ltd., electric wiring; Troughton and Young, Ltd., Best and Lloyd, Ltd., and Plan, Ltd., electric light fittings; Ferranti, Ltd., electric heating; A. Johnson & Co., Ltd., stainless steel sinks; George Jennings & Co., Ltd., sanitary fittings; J. D. Beardmore & Co., Ltd., door furniture and cloakroom fittings; Crittall Manufacturing Co., Ltd., casements and window furniture; Educational Supply Association, Ltd., folding gates and garage doors; D. Burkle and Son, Ltd., rolling shutters and furniture; James Gibbons and Sons, Ltd., metalwork; Fortnum and Mason, garden furniture; James Ritchie and Sons, Ltd., lifts; Synchronome Co., Ltd., clocks.

LONGFIELD HOUSE, EALING (pages 27-29). The general contractors were Griggs and Sons, Ltd. The principal sub-contractors and suppliers included: John Bolding and Sons, Ltd., cold water fittings, pipework and sanitary ware; H. W. Dutton & Co., hot water fittings, pipework, boilers, radiators, etc.; Bratt Colbran & Co., Ltd., coal fireplaces; Phœnix Electric Co. (London), Ltd., electric wiring; Berry's Electric, Ltd., Magicoal fires; Modern Kitchen Equipment, Ltd., kitchen ware, larders, etc.; Electrolux, Ltd., "Freezolux" gas refrigerators; Express Lift Co., Ltd., lifts; H. A. Booth, Ltd., plumbing; Williams and Williams, Ltd., steel casements; Helical Bar and Engineering Co., Ltd., reinforced concrete engineers; Yannedis & Co., Ltd., ironmongery; T. W. Palmer & Co., railings; Morgan Brown & Co., Ltd., dust disposal and coal-bins; Gas Light and Coke Co., Ltd., gas installation; Stic B. Paint Sales, Ltd., outside finish.

PETERSFIELD COURT, BIRMINGHAM (pages 30-31). The general contractors were A. E. Jennens & Co. The principal sub-contractors and suppliers included:—

Structure.—Birmingham Concrete Steel Co., fireproof construction; Dow's Granolithic Co., Ltd., artificial stone; D. Anderson and Sons, Ltd., Macasfelt roofing.

Finishes.—Venetian Flooring Co., Ltd., patent terrazzo flooring; Timms, stair-treads and plaster; Sharp Bros. and Knight, joinery; Aplin Bros., decoration.

Equipment.—James Gibbons, Ltd., casements and window furniture; P. and F. Smith, paving and paths; Horrell and Bowman, Ltd., grates, sanitary fittings, mantels; Hurry Water Heater Co., Ltd., stoves and Ottawa water heaters; Harold F. Ward, electric wiring and bells; General Electric Co., Ltd., electric heating; Hancox and James, door furniture; Haywards, Ltd., metalwork and W.I. balustrades to stairs; Triumph Kitchen Cabinet Works Co., Ltd., kitchen cabinets.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILES RADIUS)

BALHAM. *Flats.* Messrs. Harland and Parker, Ltd., are to proceed with the erection of a block of flats in Nightingale Lane.

BECONTREE. *Shopping Centre.* The L.C.C. has leased land in Green Lane and Greenside, Becontree, to Mr. J. G. Tilley, for the erection of a shopping centre.

BERMONDSEY. *Flats.* The B.C. is to erect 165 flats at the Neckinger site at a cost of £86,926; 34 flats at Elim Road, at a cost of £18,028, and offices and flats on the Neckinger School site, at a cost of £30,217.

BETHNAL GREEN. *Tenements.* The L.C.C. is to erect 87 tenements on the Ada Place area, Bethnal Green, at a cost of £46,575.

CARSHALTON. *Library and Welfare Clinic.* The U.D.C. is to erect a library and welfare centre at Middleton Road on the St. Helier Estate.

COULSDON. *Works Extension, etc.* Plans passed by the U.D.C.: Works extensions, Brighton Road, for Messrs. T. Haywood and Sons; 16 houses, Chaldon Way, for Messrs. H. Miller & Co.; four houses, Westwood Road, for Mr. E. B. Clarke; two houses, Cearn Way, for Mr. W. J. L. Horsman; two houses, Placehouse Lane, for Heritage Homes, Ltd.; three bungalows, Chaldon Way, for Wycombe Estates, Ltd.; café and 11 flats, Sherwood Oaks, off Oaks Road, for Mr. C. E. Hanscomb; four shops and flats, Coulsdon Road, for Firmus Constructions, Ltd.; 20 houses, Woodland Grove, for Mr. E. G. Welsby; 12 houses, Lacey Lane, for Taylor-Woodrow Estates, Ltd.; two houses, Chaldon Way, for Messrs. Lovatt and Shaw; two houses, Chaldon Way, for Mr. H. Foster; two houses, Melrose Road, for Mr. H. J. Salter; two houses, Coulsdon Road, for Mr. P. A. Moore; 16 houses, Eskdale Gardens, for Messrs. J. Laing and Son, Ltd.

COULSDON. *Church and Schools.* The London Congregation Union has acquired a site at the junction of Placehouse Lane and Tollers Lane, Coulsdon, for the erection of a church and schools.

CROYDON. *Houses, etc.* Plans passed by the Corporation: Six houses, Lorne Gardens, for Messrs. Berg, Ltd.; two houses, The Ridgeway, for Mr. H. G. Palmer; factory, Lower Coombe Street, for Mr. H. Price; two shops and offices, High Street, for Liverpool Victoria Friendly Society; four houses, Links View Road, for Messrs. T. Markwick & Co.; six shops, Bywood Road, for Messrs. Wylie and Berlyn, Ltd.; factory, off Purley Way, for Union Radio Co., Ltd.; warehouses, Whitehorse Road, for Mr. C. Wagner; 26 houses, Christian Fields, for Mr. A. E. Pitt; three shops and flats, London Road, for South Suburban Co-operative Society, Ltd.; 92 houses, Lodge Lane, Addington, for First National Housing Trust, Ltd.; alterations and additions, 71 High Street, for Bata Shoe Co., Ltd.; alterations and additions, Railway Arms P.H., North End, for Messrs. Page and Overton, Ltd.

DEPTFORD. *Reconstruction.* The L.C.C. is to clear and reconstruct the Addey Street area, Deptford, at a cost of £92,000.

EALING. *Flats.* The following plans have been submitted to the T.C. for approval: Messrs. Sowery Bros., for 42 flats and 14 garages at Gunnersbury Avenue; Mr. H. Ingham Ashworth for 48 flats at Church Road; Messrs. Soar and Soar for 17 flats at Greenford Road and Costons Lane; Messrs. Grainger Bros., Ltd., for 44 flats at Rabourn Close; Mr. Alwin Gorbing for 18 flats at Pitshanger Lane and Holyoake Walk; and Mr. G. P. Bath for 12 flats at Gunnersbury Avenue.

HACKNEY. *Maternity Centre.* The B.C. has purchased a site in Richmond Terrace for the erection of a maternity centre.

SOUTHERN COUNTIES

GRAVESEND. *Municipal Offices.* The Corporation is to acquire property in Woodville Terrace for the extension of the municipal offices.

GUILDFORD. *Garage, etc.* Messrs. Holloways Garage, Ltd., propose to erect a garage, showroom and offices in North Street, Guildford.

GUILDFORD. *Houses.* Plans passed by the Corporation: Shop and house, Woodbridge Hill, for Mr. E. Heath; 14 houses, Cherry Tree Avenue, for Mr. H. Ashenden; 11 houses, Belmont Avenue, for Mr. E. J. Piner; two houses, Winterhill estate, for Armstrong Estates, Ltd.

PORTSMOUTH. *Houses.* The Corporation is to erect another 100 houses on the Portsdown Hill estate.

EASTERN COUNTIES

IPSWICH. *Rehousing.* The Corporation is to undertake clearances involving the provision of rehousing for 1,228 persons.

IPSWICH. *Bus Depot.* The Corporation has purchased land in Nacton Road for the erection of a trolley-bus depot.

MIDLAND COUNTIES

CHESTERFIELD. *Houses.* The Corporation is to prepare plans for the erection of 28 houses in Sheffield Road.

KIDDERMINSTER. *Civic Centre.* The Kidderminster Corporation recommends the purchase of the Pike Mills site in Green Street for development as a civic centre.

KIDDERMINSTER. *Houses.* The Corporation is to erect a further 75 houses on the Foley Park Estate.

WHITTINGHAM. *Development.* Mr. F. Durham is to develop land at High Street, New Whittingham, near Chesterfield.

NORTHERN COUNTIES

BLACKPOOL. *Branch Library and Clinic.* The Corporation has approved plans for the erection of a branch library and clinic at Bispham.

SCARBOROUGH. *Hotel, etc.* Plans passed by the Corporation: Private hotel, Ryndle Street, for Mr. J. F. Bramhald; six houses, Filey Road, for Mr. T. W. Whipp; two houses, Peasholm Drive, for Messrs. A. Moore and Son; house, Scalby Mills Road, for Mr. W. H. Ogden.

WAKEFIELD. *Redevelopment.* The Corporation has asked the housing architect to prepare schemes for the redevelopment of the Northgate and New Street areas.

WAKEFIELD. *Houses.* Plans passed by the Corporation: Two houses, Thornes Lane, for Mr. H. Smith; six houses, Woodcock Street, for Mr. L. Holdsworth; public house, Stanley Road, for Samuel Smith Old Brewery (Tadcaster), Ltd.; works extension, Ings Road, for Messrs. C. Wensley and Son; warehouse extension, Calder Vale Road, for Messrs. E. Green and Son, Ltd.; two houses, Lonsdale Road, for Mr. G. L. Gibson.

WALES

CARDIFF. *Club House.* Capt. Bailey has submitted plans to the Cardiff Corporation for the erection of a clubhouse for the Aeroplane Club at the aerodrome.

SWANSEA. *School.* The Education Committee has purchased land on the Sketty Hall Estate for the erection of a grammar school.

SWANSEA. *Post Office.* The Corporation has leased a site in Mayhill Road for Mr. Ivor John, for the erection of a post office.

SCOTLAND

GLASGOW. *Reconstruction.* The Glasgow Education Committee has approved plans for the reconstruction of the centre block of the High School of Glasgow, extension of St. Mark's School, and alterations at the Springburn and Eastpark Schools.

RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

			I s. d.	II s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5	1 1½
A	Aberdeen ..	Scotland	1 6	1 1½
A_1	Abergavenny ..	S. Wales & M.	1 5½	1 1½
A_2	Abingdon ..	S. Counties	1 4½	1 0½
A	Accrington ..	N.W. Counties	1 6	1 1½
A_2	Addlestone ..	S. Counties	1 4½	1 0½
A	Adlington ..	N.W. Counties	1 6	1 1½
A	Airdrie	Scotland	*1 6	1 1½
C	Aldeburgh ..	E. Counties	1 2	10½
A	Altrincham ..	N.W. Counties	1 6	1 1½
B_2	Appleby ..	N.W. Counties	1 2½	11
A	Ashton-under-Lyne	N.W. Counties	1 6	1 1½
B_1	Aylesbury ..	S. Counties	1 3½	11½
B_1	BANBURY ..	S. Counties	1 3½	11½
B_1	Bangor ..	N.W. Counties	1 3½	11½
A_2	Barnard Castle	N.E. Coast	1 4½	1 0½
A	Barnsley ..	Yorkshire	1 6	1 1½
B	Barnstaple ..	S.W. Counties	1 4	1 0
A	Barrow	N.W. Counties	1 6	1 1½
A	Barry	S. Wales & M.	1 6	1 1½
B_1	Basingstoke ..	S.W. Counties	1 3½	11½
A_2	Bath	S.W. Counties	1 5	1 0½
A	Batley	Yorkshire	1 6	1 1½
A_2	Bedford ..	E. Counties	1 5	1 0½
A_2	Berwick-on-Tweed	N.E. Coast	1 5	1 0½
A_2	Bewdley ..	Mid. Counties	1 5	1 0½
B_2	Bicester ..	S. Counties	1 2½	11
	Birkenhead ..	N.W. Counties	*1 7½	1 2½
A	Birmingham ..	Mid Counties	1 6	1 1½
A_1	Bishop Auckland	N.E. Coast	1 5½	1 1½
A	Blackburn ..	N.W. Counties	1 6	1 1½
A	Blackpool ..	N.W. Counties	1 6	1 1½
A	Blyth	N.E. Coast	1 6	1 1½
B_1	Bognor ..	S. Counties	1 3½	11½
A	Bolton	N.W. Counties	1 6	1 1½
A_2	Boston	Mid. Counties	1 4½	1 0½
A_2	Bournemouth ..	S. Counties	1 5	1 0½
B_2	Bovey Tracey	S.W. Counties	1 3	11½
A	Bradford ..	Yorkshire	1 6	1 1½
A_1	Brentwood ..	E. Counties	1 5½	1 1½
A	Bridgend ..	S. Wales & M.	1 6	1 1½
B	Bridgwater ..	S.W. Counties	1 4	1 0
A_1	Bridlington ..	Yorkshire	1 5½	1 1½
A	Brighouse ..	Yorkshire	1 6	1 1½
A_2	Brighton ..	S. Counties	1 5	1 0½
A	Bristol	S.W. Counties	1 6	1 1½
B	Brixham ..	S.W. Counties	1 3	11½
A	Bromsgrove ..	Mid. Counties	1 5	1 0½
B	Bromyard ..	Mid. Counties	1 2½	11
A	Burnley	N.W. Counties	1 6	1 1½
A	Burslem	Mid. Counties	1 6	1 1½
A	Burton-on-Trent	Mid. Counties	1 6	1 1½
A	Bury	N.W. Counties	1 6	1 1½
A	Buxton	N.W. Counties	1 5½	1 1½
A_1	CAMBRIDGE ..	E. Counties	1 5½	1 1½
B_1	Canterbury ..	S. Counties	1 3½	11½
A	Cardiff	S. Wales & M.	1 6	1 1½
A	Carlisle	N.W. Counties	1 6	1 1½
B	Carmarthen ..	S. Wales & M.	1 4	1 0
B	Carnarvon ..	N.W. Counties	1 4	1 0
A	Carnforth ..	N.W. Counties	1 6	1 1½
A	Castleford ..	Yorkshire	1 6	1 1½
A_2	Chatham ..	S. Counties	1 4½	1 0½
A	Chelmsford ..	E. Counties	1 4½	1 0½
A	Cheltenham ..	S.W. Counties	1 4½	1 0½
A	Chester	N.W. Counties	1 6	1 1½
A	Chesterfield ..	Mid. Counties	1 6	1 1½
B_1	Chichester ..	S. Counties	1 3½	11½
A	Chorley	N.W. Counties	1 6	1 1½
B_1	Cirencester ..	S. Counties	1 3½	11½
A	Clitheroe ..	N.W. Counties	1 6	1 1½
A	Clydebank ..	Scotland	1 6	1 1½
A	Coalville ..	Mid. Counties	1 6	1 1½
A_2	Colchester ..	E. Counties	1 5	1 0½
A	Colne	N.W. Counties	1 5½	1 1½
A_2	Colwyn Bay ..	N.W. Counties	1 5	1 0½
A_1	Consett	N.E. Coast	1 5½	1 1½
A_2	Conway	N.W. Counties	1 5	1 0½
A	Coventry	Mid. Counties	1 6	1 1½
A_2	Crewe	N.W. Counties	1 5	1 0½
A	Cumberland ..	N.W. Counties	1 4½	1 0½
A	DARLINGTON ..	N.E. Coast	1 6	1 1½
A	Darwen	N.W. Counties	1 6	1 1½
B_1	Deal	S. Counties	1 3½	11½
A_2	Denbigh	N.W. Counties	1 4½	1 0½
A	Derby	Mid. Counties	1 6	1 1½
A	Dewsbury ..	Yorkshire	1 6	1 1½
B	Didcot	S. Counties	1 4	1 0
A	Doncaster ..	Yorkshire	1 6	1 1½
B_1	Dorchester ..	S.W. Counties	1 3½	11½
A	Driffield ..	Yorkshire	1 4½	1 0½
A_2	Droitwich ..	Mid. Counties	1 5	1 0½
A	Dudley	Mid. Counties	1 6	1 1½
A_2	Dumfries ..	Scotland	1 5½	1 1½
A	Dundee	Scotland	1 6	1 1½
A	Durham	N.E. Coast	1 6	1 1½
A_2	EASTBOURNE ..	S. Counties	1 5	1 0½
A_1	Ebbw Vale ..	S. Wales & M.	1 5½	1 1½
A	Edinburgh ..	Scotland	1 6	1 1½
A_1	E. Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 5½	1 1½
A_2	Exeter	S.W. Counties	*1 5	1 0½
B	Exmouth ..	S.W. Counties	1 4	1 0
A_2	FELIXSTOWE ..	E. Counties	1 4½	1 0½
A	Filey	Yorkshire	1 4½	1 0½
A	Fleetwood ..	N.W. Counties	1 6	1 1½
B_1	Folkestone ..	S. Counties	1 3½	11½
A	Frodsham ..	N.W. Counties	1 6	1 1½
B_2	Frome	S.W. Counties	1 3	11½
A	GATESHEAD ..	N.E. Coast	1 6	1 1½
B	Gillingham ..	S. Counties	1 4	1 0
A	Glasgow ..	Scotland	1 6½	1 2
A_2	Gloucester ..	S.W. Counties	1 5	1 0½
A_2	Goole	Yorkshire	1 5	1 0½
A_2	Gosport ..	S. Counties	1 5	1 0½
A_2	Grantham ..	Mid. Counties	1 4½	1 0½
A_1	Gravesend ..	S. Counties	1 5½	1 1½
A	Greenock ..	Scotland	*1 6	1 1½
A	Grimsby ..	Yorkshire	1 6	1 1½
B	Guildford ..	S. Counties	1 4	1 0
A	HALIFAX ..	Yorkshire	1 6	1 1½
A	Hanley ..	Mid. Counties	1 6	1 1½
A	Harrogate ..	Yorkshire	1 6	1 1½
A	Hartlepools ..	N.E. Coast	1 6	1 1½
B	Harwich ..	E. Counties	1 4	1 0
B_1	Hastings ..	S. Counties	1 3½	11½
A_2	Hatfield ..	S. Counties	1 5	1 0½
B	Hereford ..	S.W. Counties	1 4	1 0
A	Hertford ..	E. Counties	1 5	1 0½
A	Heysham ..	N.W. Counties	1 6	1 1½
A	Howden ..	N.E. Coast	1 6	1 1½
A	Huddersfield ..	Yorkshire	1 6	1 1½
A	Hull	Yorkshire	1 6	1 1½
A	ILKLEY ..	Yorkshire	1 6	1 1½
A	Immingham ..	Mid. Counties	1 6	1 1½
A_2	Ipswich ..	E. Counties	1 5	1 0½
B_2	Isle of Wight ..	S. Counties	1 3	11½
A	JARROW ..	N.E. Coast	1 6	1 1½
A	KEIGHLEY ..	Yorkshire	1 6	1 1½
A_2	Kendal ..	N.W. Counties	1 4½	1 0½
A_2	Keswick ..	N.W. Counties	1 4½	1 0½
A_1	Kettering ..	Mid. Counties	1 5½	1 1½
A_2	Kidderminster	Mid. Counties	1 5	1 0½
B_1	King's Lynn ..	E. Counties	1 3½	11½
A	LANCASTER ..	N.W. Counties	1 6	1 1½
A_1	Leamington ..	Mid. Counties	1 5½	1 1½
A	Leeds	Yorkshire	1 6	1 1½
A	Leek	Mid. Counties	1 6	1 1½
A	Leicester ..	Mid. Counties	1 6	1 1½
A	Leigh	N.W. Counties	1 6	1 1½
B	Lewes	S. Counties	1 2½	11
A_2	Lichfield ..	Mid. Counties	1 5	1 0½
A	Lincoln	Mid. Counties	1 6	1 1½
	Liverpool ..	N.W. Counties	*1 7½	1 2½
A_2	Llandudno ..	N.W. Counties	1 5	1 0½
A	Llanelly ..	S. Wales & M.	1 6	1 1½
	London (12-miles radius)		1 7½	1 2½
	Do. (12-15 miles radius)		1 7	1 2½
A	Long Eaton ..	Mid. Counties	1 6	1 1½
A	Loughborough	Mid. Counties	1 6	1 1½
A_1	Luton	E. Counties	1 5½	1 1½
A	Lytham ..	N.W. Counties	1 6	1 1½
A_1	MACCLES-FIELD	N.W. Counties	1 5½	1 1½
A_2	Maidstone ..	S. Counties	1 4½	1 0½
A_2	Malvern ..	Mid. Counties	1 4½	1 0½
A	Manchester ..	N.W. Counties	1 6	1 1½
A	Mansfield ..	Mid. Counties	1 6	1 1½
B_1	Margate ..	S. Counties	1 3½	11½
A	Matlock ..	Mid. Counties	1 4½	1 0½
A_1	Merthyr ..	S. Wales & M.	1 5½	1 1½
A	Middlesbrough	N. E. Coast	1 6	1 1½
A_2	Middlewich ..	N. W. Counties	1 5	1 0½
B_2	Minehead ..	S.W. Counties	1 3	11½
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 3	11½
A	Morecambe ..	N.W. Counties	1 6	1 1½
A_2	NANTWICH ..	N.W. Counties	1 5	1 0½
A	Neath	S. Wales & M.	1 6	1 1½
A	Nelson	N.W. Counties	1 6	1 1½
A	Newcastle ..	N.E. Coast	1 6	1 1½
A	Newport ..	S. Wales & M.	1 6	1 1½
A	Normanton ..	Yorkshire	1 6	1 1½
A	Northampton	Mid. Counties	1 6	1 1½
A	North Staffs ..	Mid. Counties	1 6	1 1½
A	North Shields ..	N.E. Coast	1 6	1 1½
A_1	Norwich ..	E. Counties	1 5½	1 1½
A	Nottingham ..	Mid. Counties	1 6	1 1½
A	Nuneaton ..	Mid. Counties	1 6	1 1½
A	OAKHAM ..	Mid. Counties	1 4½	1 0½
A	Oldham	N.W. Counties	1 6	1 1½
A_2	Oswestry ..	N.W. Counties	1 4½	1 0½
A_1	Oxford	S. Counties	1 5½	1 1½
A	PAISLEY ..	Scotland	*1 6	1 1½
B_2	Pembroke ..	S. Wales & M.	1 2½	11
A	Perth	Scotland	*1 6	1 1½
A_1	Peterborough ..	E. Counties	1 5½	1 1½
A	Plymouth ..	S.W. Counties	*1 6	1 1½
A	Pontefract ..	Yorkshire	1 6	1 1½
A_1	Pontypridd ..	S. Wales & M.	1 5½	1 1½
A_2	Portsmouth ..	S. Counties	1 5	1 0½
A	Preston	N.W. Counties	1 6	1 1½
A	QUEENSFERRY	N.W. Counties	1 6	1 1½
A_2	READING ..	S. Counties	1 5	1 0½
B	Reigate	S. Counties	1 4	1 0
A	Retford	Mid. Counties	1 4½	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 5½	1 1½
A	Ripon	Yorkshire	1 4½	1 0½
A	Rochdale ..	N.W. Counties	1 6	1 1½
B	Rochester ..	S. Counties	1 4	1 0
A_1	Ruabon ..	N.W. Counties	1 5½	1 1½
A	Rugby	Mid. Counties	1 6	1 1½
A_2	Rugeley ..	Mid. Counties	1 5	1 0½
A	Runcorn ..	N.W. Counties	1 6	1 1½
A_1	ST. ALBANS ..	E. Counties	1 5½	1 1½
A	St. Helens ..	N.W. Counties	1 6	1 1½
B_2	Salisbury ..	S.W. Counties	1 3	11½
A_1	Scarborough ..	Yorkshire	1 5½	1 1½
A	Scunthorpe ..	Mid. Counties	1 6	1 1½
A	Sheffield ..	Yorkshire	1 6	1 1½
A	Shipley	Yorkshire	1 6	1 1½
A_2	Shrewsbury ..	Mid. Counties	1 5	1 0½
A_2	Skipton	Yorkshire	1 5	1 0½
A_2	Slough	S. Counties	1 5	1 0½
A_1	Solihull	Mid. Counties	1 5½	1 1½
A_2	Southampton ..	S. Counties	1 5	1 0½
A_1	Southend-on-Sea	E. Counties	1 5½	1 1½
A	Southport ..	N.W. Counties	1 6	1 1½
A	S. Shields ..	N.E. Coast	1 6	1 1½
A_1	Stafford ..	Mid. Counties	1 5½	1 1½
A	Stirling ..	Scotland	1 6½	1 2
A	Stockport ..	N.W. Counties	1 6	1 1½
A	Stockton-on-Tees	N.E. Coast	1 6	1 1½
A	Stoke-on-Trent	Mid. Counties	1 6	1 1½
B	Stroud	S.W. Counties	1 4	1 0
A	Sunderland ..	N.E. Coast	1 6	1 1½
A	Swansea ..	S. Wales & M.	1 6	1 1½
A	Swindon ..	S.W. Counties	1 4½	1 0½
A_1	TAMWORTH ..	N.W. Counties	1 5½	1 1½
B	Taunton ..	S.W. Counties	1 4	1 0
A	Teesside Dist. ..	N.E. Counties	1 6	1 1½
A_2	Teignmouth ..	S.W. Coast	1 5	1 0½
A	Todmorden ..	Yorkshire	1 6	1 1½
A_1	Torquay ..	S.W. Counties	1 5½	1 1½
B_2	Truro	S.W. Counties	1 3	11½
A_2	Tunbridge Wells	S. Counties	1 4½	1 0½
A	Tunstall ..	Mid. Counties	1 6	1 1½
A	Tyne District ..	N.E. Coast	1 6	1 1½
A	WAKEFIELD ..	Yorkshire	1 6	1 1½
A	Walsall	Mid. Counties	1 6	1 1½
A	Warrington ..	N.W. Counties	1 6	1 1½
A_1	Warwick	Mid. Counties	1 5½	1 1½
A_1	Wellingborough	Mid. Counties	1 5½	1 1½
A	West Bromwich	Mid. Counties	1 6	1 1½
A_2	Weston-s.-Mare	W. Counties	1 5	1 0½
A_2	Whitby	Yorkshire	1 5	1 0½
A	Widnes	N.W. Counties	1 6	1 1½
A	Wigan	N.W. Counties	1 6	1 1½
B	Winchester ..	S. Counties	1 4	1 0
A_2	Windsor	S. Counties	1 5	1 0½
A	Wolverhampton	Mid. Counties	1 6	1 1½
A_2	Worcester ..	Mid. Counties	1 5	1 0½
A_2	Worksop ..	Yorkshire	1 4½	1 0½
A_1	Wrexham ..	N.W. Counties	1 5½	1 1½
A	Wycombe ..	S. Counties	1 4½	1 0½
B	YARMOUTH ..	E. Counties	1 4	1 0
B	Yeovil	S.W. Counties	1 4	1 0
A	York	Yorkshire	1 6	1 1½

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

WAGES

		s.	d.
Bricklayer	per hour	1	7½
Carpenter	,,	1	7½
Joiner	,,	1	7½
Machinist	,,	1	8½
Mason (Banker)	,,	1	7½
,, (Fixer)	,,	1	8½
Plumber	,,	1	7½
Painter	,,	1	6½
Paperhanger	,,	1	6½
Glazier	,,	1	7½
Slater	,,	1	7½
Scaffolder	,,	1	3½
Timberman	,,	1	3½
Navvy	,,	1	2½
General Labourer	,,	1	2½
Lorryman	,,	1	5½
Crane Driver	,,	1	6½
Watchman	per week	2	10	0

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	3	0	9
Portland Cement, in 4 ton lots (d/d site, including Paper Bags)	,,	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	,,	2	5	0
White Portland Cement, in 1-ton lots	,,	8	15	0
Thames Ballast	per Y.C.		6	3
¾" Crushed Ballast	,,		6	9
Building Sand	,,		7	3
Washed Sand	,,		8	3
2" Broken Brick	,,		8	0
¾" ,, ,,	,,		10	3
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	,,	3	6	5	3
Rest Bends	,,	4	3	6	3
Single Junctions	,,	3	6	5	3
Double ,,	,,	4	9	6	6
Straight channels	per F.F	1	6	2	6
¾" Channel bends	each	2	9	4	0
Channel junctions	,,	4	6	6	6
Channel tapers	,,	2	9	4	0
Yard gullies	,,	6	9	8	9
Interceptors	,,	16	0	19	6
IRON DRAINS:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead Wool	lb.		6		—
Gaskin	,,		5		—

BRICKLAYER

		£	s.	d.
Flettons	per M.	2	15	0
Grooved do.	,,	2	17	0
Phorpres bricks	,,	2	15	0
,, Cellular bricks	,,	2	15	0
Stocks, 1st quality	,,	4	11	0
,, and ,,	,,	4	2	6
Blue Bricks, Pressed	,,	8	17	6
,, Wirecuts	,,	7	17	6
,, Brindles	,,	7	0	0
,, Bullnose	,,	9	0	0
Red Sand-faced Facings	,,	6	18	6
Red Rubbers for Arches	,,	12	0	0
Multicoloured Facings	,,	7	10	0
Luton Facings	,,	7	10	0
Phorpres White Facings	,,	3	17	3
,, Rustic Facings	,,	3	12	3
Midhurst White Facings	,,	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	,,	21	0	0
Headers	,,	20	10	0
Bullnose	,,	27	10	0
Double Stretchers	,,	29	10	0
Double Headers	,,	26	10	0
Glazed Second Quality, *Less*	,,	1	0	0
,, Buffs and Creams, *Add*	,,	2	0	0
,, Other Colours	,,	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" ,, ,, ,,	,,		1	10
3" ,, ,, ,,	,,		2	1
4" ,, ,, ,,	,,		2	6

MASON

The following d/d F.O.R. at Nine Elms:		s.	d.
Portland stone, Whitbed	F.C.	4	4½
,, ,, Basebed	,,	4	7½
Bath stone	,,	2	10
York stone	,,	6	6
,, ,, Sawn templates	,,	7	6
,, ,, Paving, 2"	F.S.	1	8
,, ,, ,, 3"	,,	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station

		£	s.	d.
24" × 12" Duchesses	per M.	28	17	6
22" × 12" Marchionesses	,,	24	10	0
20" × 10" Countesses	,,	19	5	0
18" × 10" Viscountesses	,,	15	10	0
18" × 9" Ladies	,,	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey per 1,000 (actual)		21	11	6
,, ,, green ,,	,,	24	7	4
Best machine roofing tiles	,,	4	10	0
Best hand-made do.	,,	5	0	0
Hips and valleys	each			9½
,, hand-made	,,			10
Nails, compo	lb.		1	4
,, copper	,,		1	6

CARPENTER AND JOINER

		s.	d.
Good carcassing timber	F.C.	2	2
Birch	as 1" F.S.		9
Deal, Joiner's	,, ,,		5
,, ,, 2nds	,, ,,		4
Mahogany, Honduras	,, ,,	1	3
,, African	,, ,,	1	1
,, Cuban	,, ,,	2	6
Oak, plain American	,, ,,	1	0
,, Figured ,,	,, ,,	1	3
,, plain Japanese	,, ,,	1	2
,, Figured ,,	,, ,,	1	5
,, Austrian wainscot	,, ,,	1	6
,, English	,, ,,	1	11
Pine, Yellow	,, ,,	1	0
,, Oregon	,, ,,		4
,, British Columbian	,, ,,		4
Teak, Moulmein	,, ,,	1	5
,, Burma	,, ,,	1	2
Walnut, American	,, ,,	2	3
,, French	,, ,,	2	3
Whitewood, American	,, ,,	1	1
Deal floorings, ¾"	Sq.	18	6
,, 1"	,,	1	6
,, 1"	,,	1	2	0
,, 1¼"	,,	1	5	0
,, 1½"	,,	1	10	0
Deal matchings ¾"	,,		14	0
,, 1"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup. Thickness	¼" A	¼" B	¼" BB	⅜" A	⅜" B	⅜" BB	½" A	½" B	½" BB	¾" A	¾" B	¾" BB
Qualities	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5½	–	10	8	0	1/-	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings:
(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

	½"	¾"	1"	1½"	2"
Tubes, 2'-14' long, per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"-3' long each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long ,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long ,,	11	1/3	2/2	2/10	5/3
,, ,, 3"M-½" long ,,	8	10	1/5	1/11	3/6
Bends ,,	8	11	1/7½	2/7½	5/2
Springs not socketed ,,	5	7	1/1½	1/11½	3/11
Socket unions ,,	2/-	3/-	5/6	6/9	10/-
Elbows, square ,,	10	1/1	1/6	2/2	4/3
Tees ,,	1/-	1/3	1/10	2/6	5/1
Crosses ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets ,,	4	6	9	1/-	2/-
Flanges ,,	9	1/-	1/4	1/9	2/9
Caps ,,	3½	5	8	1/-	2/-
Backnuts ,,	2	3	5	6	1/1
Iron main cocks ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs ,,	—	4/-	7/6	10/-	21/-

Discounts:

TUBES.

	Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	42½

FITTINGS.

	Per cent.		Per cent.
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

SMITH AND FOUNDER—*continued.*

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ⅜"	,,	10	6
,, ,, ½"	,,	10	3
,, ,, ⅝"	,,	10	0
,, ,, ¾"	,,	9	6
,, ,, ⅞"	,,	9	6
,, ,, 1"	,,	9	0
,, ,, 1¼"	,,	9	6
,, ,, 1½"	,,	9	6
	¼"		4"
Cast-iron rain-water pipes of ordinary thickness metal	F.R.	s. 8	d. 10
Shoes	each	2	0	3	0
Anti-splash shoes	,,	4	6	8	0
Boots	,,	3	0	4	0
Bends	,,	2	7	3	9
,, with access door	,,		—	6	3
Heads	,,	4	0	5	0
Swan-necks up to 9" offsets	,,	3	9	6	0
Plinth bends, 4½" to 6"	,,	3	9	5	3
Half-round rain-water gutters of ordinary thickness metal	F.R.		5		6
Stop ends	each		6		6
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		s.	d.
Lead, milled sheets	cwt.	26	3
,, drawn pipes	,,	26	3
,, soil pipe	,,	26	3
,, scrap	,,	18	0
Solder, plumbers'	lb.		9½
,, fine do.	,,	1	0
Copper, sheet	,,		8½
,, tubes	,,		11
	3"	4"	6"
L.C.C. soil and waste pipes:			
Plain cast F.R.	1 0	1 2	2 8
Coated ,,	1 1	1 3	2 8
Galvanized ,,	2 0	2 6	4 6
Holderbats each	3 10	4 0	4 9
Bends ,,	3 9	5 3	10 3
Shoes ,,	2 10	4 4	9 6
Heads ,,	4 8	8 5	12 9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	0
Gothite Plaster	,,	3	6	0
Pioneer Plaster	,,	3	6	0
Thistle plaster	,,	3	6	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3

GLAZIER

	s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.			F.S.	2½
,, ,, 26 oz. ,, ,,			,,	3
Flemish, Arctic, Figures (white)*			,,	7
Blazoned glasses			,,	2 6
Reeded; Cross Reeded			,,	11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite			,,	6
Crown sheet glass (n/e 12 in. x 10 in.)			,,	2 0
Flashed opals (white and coloured)	1 0	and	2 0	
¼" rough cast; rolled plate			,,	5½
¼" wired cast; wired rolled			,,	9½
¼" Georgian wired cast			,,	11
¼" Polished plate, n/e 1 ft.			,, †10 to ‡1	1
,, ,, 2			,, †1 2 ,, ‡1	4
,, ,, 4			,, †2 3 ,, ‡2	6
,, ,, 8			,, †2 9 ,, ‡3	2
,, ,, 20			,, †3 7 ,, ‡4	2
,, ,, 45			,, †3 11 ,, ‡4	7
,, ,, 100			,, †5 0 ,, ‡5	7
Vita glass, sheet, n/e 1 ft.			,,	1 0
,, ,, 2 ft.			,,	1 3
,, ,, over 2 ft.			,,	1 9
,, plate, n/e 1 ft.			,,	1 6
,, ,, 2 ft.			,,	3 0
,, ,, 5 ft.			,,	4 0
,, ,, 7 ft.			,,	5 0
,, ,, 15 ft.			,,	6 0
,, ,, over 15 ft.			,,	7 6
"Calorex" sheet 21 oz., and 32 oz.	2	6	and 3	6
,, rough cast ¼" and ½"			,, 8½ ,, 1	0
Putty, linseed oil			lb.	3

* *Colours, 1d. F.S. extra.*
† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

PAINTER

		£	s.	d.
White lead in 1 cwt. casks	cwt.	2	8	6
Linseed oil	gall.		2	3
Boiled oil	,,		2	9
Turpentine	,,		4	1½
Patent knotting			14	0
Distemper, washable	cwt	2	6	0
,, ordinary	,,	2	0	0
Whitening	,,		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	,,		14	0
Outside varnish	,,		16	0
White enamel	,,	1	15	0
Ready mixed paint	,,		13	6
Brunswick black			7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR		£	s.	d.
Digging over surface n/e 12" deep and cart away	Y.S.		2	9
" to reduce levels n/e 5' 0" deep and cart away	Y.C.		8	6
" to form basement n/e 5' 0" and cart away	"		9	0
" " 10' 0" deep and cart away	"		9	6
" " 15' 0" deep and cart away	"		10	0
If in stiff clay	add			6
If in underpinning	"		4	0
Planking and strutting to sides of excavation	F.S.		1	0
" " to pier holes	"			5
" " to trenches	"			5
" " extra, only if left in	"			3
Hardcore, filled in and rammed	Y.C.		10	0
Portland cement concrete in foundations (6-1)	"	1	6	0
" " (4-2-1)	"	1	12	6
" " underpinning	"	1	16	0
Finishing surface of concrete, space face	Y.S.			7

DRAINLAYER		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
" junctions	"	3	9	4	6
Gullies and gratings	"	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	26	10	0
" " in cement	"	27	12	6
" Stocks in cement	"	34	0	0
" Blues in cement	"	50	0	0
Extra only for circular on plan	"	2	0	0
" backing to masonry	"	1	10	0
" raising on old walls	"	2	0	0
" underpinning	"	5	10	0½
Fair Face and pointing internally	F.S.			1½
Extra over flet ton brickwork for picked stock facings and pointing	"			8
" " " red brick facings and pointing	"			11
" " " blue brick facings and pointing	"		1	4
" " " glazed brick facings and pointing	"		3	6
Tuck pointing	"			7½
Weather pointing in cement	"			3
Slate dampcourse	"			10
Vertical dampcourse	"		1	1

ASPHALTER		s.	d.
½" Horizontal dampcourse	Y.S.	4	6
½" Vertical dampcourse	"	6	9
½" paving or flat	"	4	0
1" paving or flat	"	5	6
1" × 6" skirting	F.R.	1	0
Angle fillet	"		2
Rounded angle	"		2
Cesspools	Each	5	0

MASON		s.	d.
Portland stone, including all labours, hoisting, fixing and cleaning down, complete	F.C.	17	9
Bath stone and do., all as last	"	13	6
Artificial stone and do	"	13	0
York stone templates, fixed complete	"	10	6
" thresholds	"	13	6
" sills	"	1	0	6

SLATER AND TILER		£	s.	d.
Slating, Bangor or equal, laid to a 3" lap, and fixing with compo nails, 20" × 10"	Sqr.	3	10	0
Do., 18" × 9"	"	3	7	0
Do., 24" × 12"	"	3	17	0
Westmorland slating, laid with diminished courses	"	6	0	0
Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course	"	3	0	0
Do., all as last, but of machine-made tiles	"	2	16	0
20" × 10" medium Old Delabole slating, laid to a 3" lap (grey)	"	2	16	0
" " " " " (green)	"	4	15	0

CARPENTER AND JOINER		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	2	6
Shuttering to sides and soffits of beams	F.S.			7
" to stanchions	"			7
" to staircases	"		1	6
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	"		4	6
" " roofs	"		6	6
" " trusses	"		7	6
" " partitions	"		8	6
1" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" " " " "	"	1	17	6
1½" " " " "	"	2	3	0
1" × 2" fir battening for Countess slating	"		9	0
Do. for 4" gauge tiling	"		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
" " " 2 "	"		2	9
" " " 3 "	"		3	3
Stout herringbone strutting to 9" joists	F.R.			10½
1" deal gutter boards and bearers	F.S.		1	2
1½" " " " "	"		1	6
2" deal wrought rounded roll	F.R.			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	1	0
1¼" do.	"	2	10	0
1½" do.	"	2	17	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1¼" do.			1	9

CARPENTER AND JOINER—*continued*		s.	d.
1½" deal moulded sashes of average size	F.S.	1	9½
2" " " " "	"	1	11½
1½" deal cased frames double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅝" parting beads, and with brass faced axle pulleys, etc., fixed complete		3	7
2" " " " "	"	3	10
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" " " " "	"	2	8
1½" " but moulded both sides	"	2	4
2" " " " "	"	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	0
4½" × 3½" " " "	"	1	4
1½" deal tongued and moulded window board, on and including deal bearers	F.S.	1	9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2	6
1½" deal moulded wall strings	"	2	1
1½" " outer strings	"	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" " " " "	"	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	"	6	0

SMITH AND FOUNDER		£	s.	d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.		16	6
Riveted plate or compound girders, and hoisting and fixing in position	"	1	0	8
Do., stanchions with riveted caps and bases and do.	"		19	0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	"		17	6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.			11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10	0

PLUMBER		£	s.	d.
Milled lead and labour in flats	cwt.	2	0	3
Do. in flashings	"	2	3	9
Do. in covering to turrets	"	2	9	3
Do. in soakers	"	1	15	9
Labour to welted edge	F.R.			3½
Open copper nailing	"			3
Close " "	"			4

		½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1¼" s.	1¼" d.	2" s.	2" d.	4" s.	4" d.
Lead service pipe and fixing with pipe hooks	F.R.	10		1	0	1	3	2	0	2	10	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		5	6
Extra, only to bends	Each	—		—		—		—		2	0	6	9
Do. to stop ends	"	6½		8		9		11		1	0	—	
Boiler screws and unions	"	3	3	3	9	5	0	8	0	—		—	
Lead traps	"	—		—		—		6	3	8	9	—	
Screw down bib valves	"	6	9	9	6	11	0	—		—		—	
Do. stop cocks	"	7	0	9	6	12	6	—		—		—	

		s.	d.
4" cast-iron ½-rd. gutter and fixing	F.R.	1	0
Extra, only stop ends	Each	1	0
Do. angles	"	1	6
Do. outlets	"	2	9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1	2
Extra, only for shoes	Each	1	3
Do. for plain heads	"	5	6

PLASTERER AND TILING		s.	d.
Expanded metal lathing, small mesh	Y.S.	2	0
Do. in n/w to beams, stanchions, etc.	"	2	9
Lathing with sawn laths to ceilings	"	1	3
½" screeding in Portland cement and sand or tiling, wood block floor, etc.	"	1	5
Do. vertical	"	1	7
Rough render on walls	"	1	2½
Render, float and set in lime and hair	"	1	9
Render and set in Sirapite	"	1	11
Render, backing in cement and sand, and set in Keene's cement	"	2	9
Extra, only if on lathing	"		4
Keene's cement, angle and arris	F.R.		6
Arris	"		1½
Rounded angle, small	"		3
Plain cornices in plaster, including dubbing out, per 1" girth	"		1½
1" granolithic pavings	Y.S.	3	6
1½" " " "	"	4	6
6" × 6" white glazed wall tiling and fixing on prepared screed	"	17	6
9" × 3" " " " "	"	2	6
Extra, only for small quadrant angle	F.R.		8

GLAZIER		s.	d.
21 oz. sheet glass and glazing with putty	F.S.		6½
26 oz. do. and do.	"		7½
Flemish, Arctic Figured (white) and glazing with putty	"	1	1
Cathedral glass and do.	"	1	2
Glazing only, British polished plate	"		7
Extra, only if in beads	"		2
Washleather	F.R.		4

PAINTER		s.	d.
Clearcolle and whiten ceilings	Y.S.		6
Do. and distemper walls	"		9
Do. with washable distemper	"	1	1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	"	3	3
Do. on woodwork	"	3	6
Do. on steelwork	"	3	0
Do. and brush grain and twice varnish	"	3	6
Stain and twice varnish woodwork	"	1	11
Stain and wax-polish woodwork	"	4	6
French polishing	F.S.	1	2
Stripping off old paper	Piece	2	0
Hanging ordinary paper	from "	2	9

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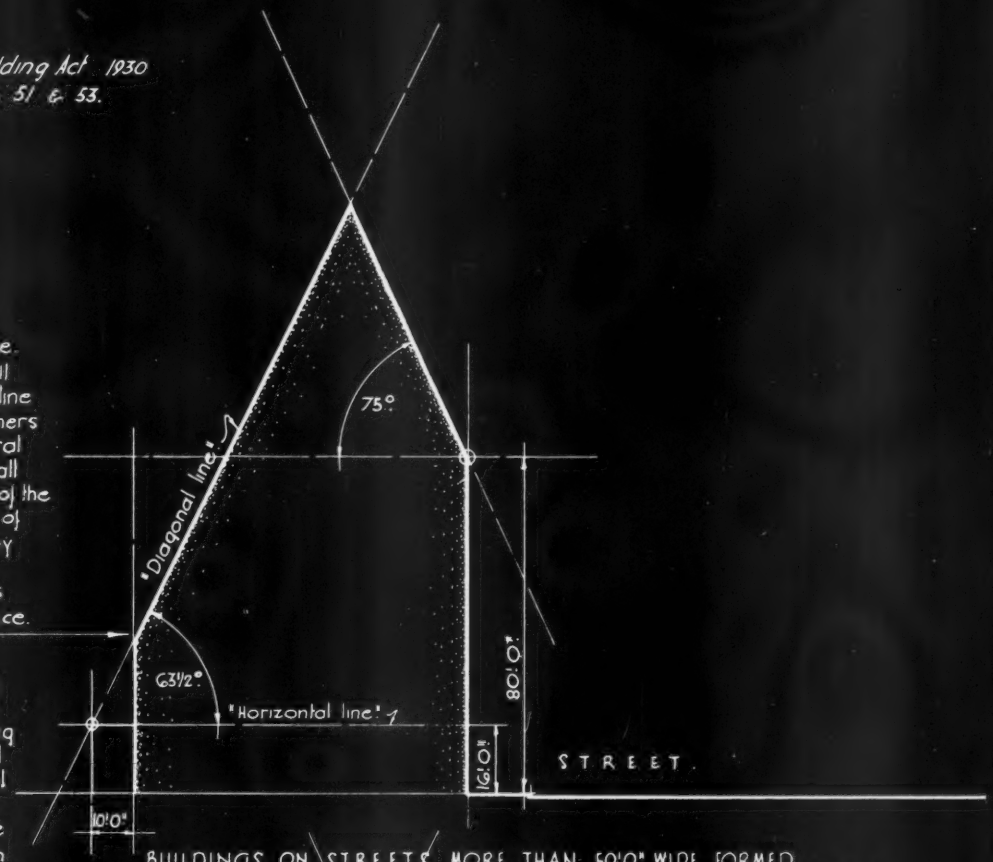
For full detail see
London Building Act 1930
Sections 44, 51 & 53.

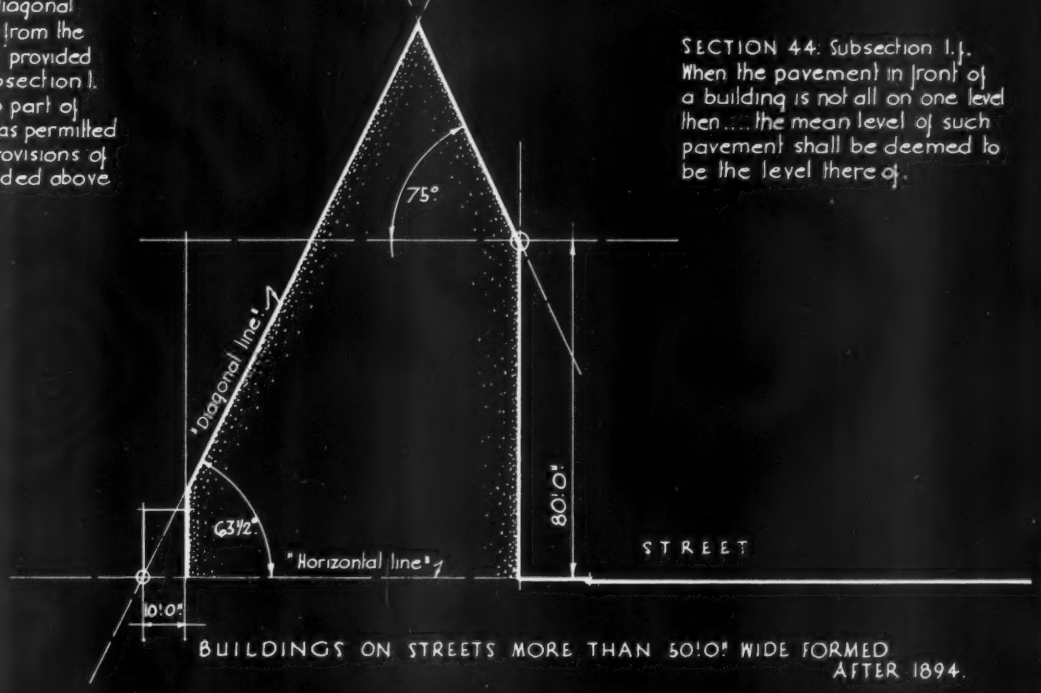
DOMESTIC BUILDINGS,
SECTION 44, Subsection 1e.
No part of such building shall extend above the diagonal line except chimneys gables dormers turrets or other architectural ornaments aggregating in all to not more than one third of the width of the rear elevation of such building and except any building which under the provisions of this section is permitted on the open space.

Subsection 3.
Notwithstanding the preceding provisions of this part of this Act any part of any domestic building may extend above the diagonal line if the Council or the Tribunal of appeal are satisfied that an open cubic space of air will be provided at the rear of such building equivalent to the open cubic space which would have been provided at the rear of such building if such diagonal line had been drawn from the ground level in manner provided in paragraph (v) of subsection 1. of this section and if no part of such building (except as permitted under the preceding provisions of this section) had extended above such diagonal line.



BUILDINGS ON STREETS MORE THAN 50'0" WIDE FORMED
BEFORE 1862
BETWEEN 1862 & 1894.

SECTION 44. Subsection 1.f.
When the pavement in front of a building is not all on one level then.... the mean level of such pavement shall be deemed to be the level thereof.



BUILDINGS ON STREETS MORE THAN 50'0" WIDE FORMED
AFTER 1894.

INFORMATION SHEET : DIGEST OF L.B.A. 1930 : LIMITS OF HEIGHT OF BUILDINGS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 295 •

LIMITS OF HEIGHT OF BUILDINGS

THIS sheet sets out diagrammatically the provisions of the London Building Act, 1930, for the limits in height of buildings.. The relevant sections of the Act are set out below.

Height of Buildings Limited

51 (1) A building (not being a church or chapel) shall not be erected of or be subsequently increased to a greater height than eighty feet (exclusive of two storey in the roof and of ornamental towers, turrets or other architectural features or decorations) without the consent of the Council.
This subsection shall not apply to the rebuilding of any building to the same height as its height on the twenty-fifth day of August eighteen hundred and ninety-four.

51 (2) Where any building which existed on the said twenty-fifth day of August and which forms part of a continuous block or row of buildings exceeds the height prescribed by this section nothing in this section shall prevent any other building in the same block or row belonging at that date to the owner of the first-mentioned building from being carried to a height not exceeding the height of that building.

51 (3) Nothing in this section shall affect the exercise of any powers conferred upon any railway company by any special Act of Parliament for railway purposes.

Procedure where Greater Height Allowed

52 (1) Whenever the Council consent to the erection of any building of a greater height than that prescribed by this Act notice of such consent shall within one week after such consent has been given be published and served in such manner as the Council may direct and the consent shall not be acted on until the expiration of twenty-one days after such publication or service or in the event of any appeal against such consent until after the determination of such appeal.

52 (2) (*a*) The owner or lessee of any building or land within one hundred yards of the site of any intended building who may deem himself aggrieved by the grant of such consent in respect of the last mentioned building ; or (*b*) any applicant for consent which has been refused ;
may within twenty-one days after the publication of notice of the consent or after the date of the refusal (as the case may be) appeal to the tribunal of appeal.

52 (3) Whenever such consent has been refused and the applicant to whom it has been refused intends to appeal against the refusal the applicant shall give notice within twenty-one days of the refusal in such manner as the Council may direct to the owner or lessee of any building or land within one hundred yards of the site of the building to which the refusal relates that he intends to appeal against the refusal.

52 (4) In the case of an appeal against the refusal of consent any owner or lessee of any building or land within one hundred yards of the site of the intended building may appear and be heard before the tribunal of appeal against any application to reverse or vary the refusal.

Height of Buildings in Certain Cases

53 (1) No building (other than a church or chapel) being a building which is on the side of a street formed or laid out after the seventh day of August eighteen hundred and sixty-two and of a less width than fifty feet shall without the consent of the Council be raised and no building shall without the consent of the Council be erected on the side of any such street so that the height* of such building exceeds the distance of the front or nearest external wall of such building from the opposite side of such street.
Where any such building is erected or raised or intended to be erected or raised on a corner plot so as to abut upon more than one street the height of the building shall (unless the Council otherwise consent) be regulated by the wider of such streets so far as it abuts or will abut upon such wider streets and also so far as it abuts or will abut upon the narrower of such streets to a distance of forty feet from the wider street.

53 (2) Notwithstanding anything in the last foregoing subsection any building erected or raised before the first day of January eighteen hundred and ninety-five to a height to which no objection could have been taken under any law then in force may be re-erected to its then existing height.

53 (3) Nothing in this section shall affect the exercise of any powers conferred upon any railway company by any special Act of Parliament for railway purposes.

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* To ascertain whether the height of a building exceeds the limit in this section the building must not be regarded as a whole, but each part separately to see if that part exceeds the height. Measurement to be taken from the front wall of each part to the opposite side of the street : Att.-gen. v. Metcalf (1907) 2 ch. 23 ; 76 L.J. Ch. 259 ; 96 L. T. 351—C. A.

32.

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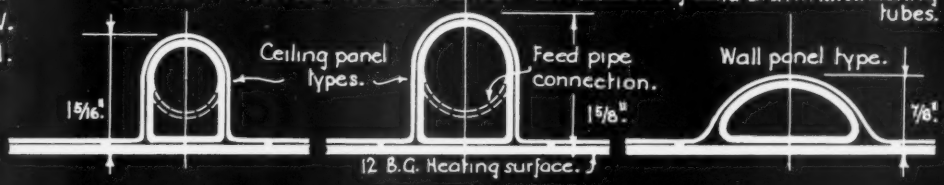
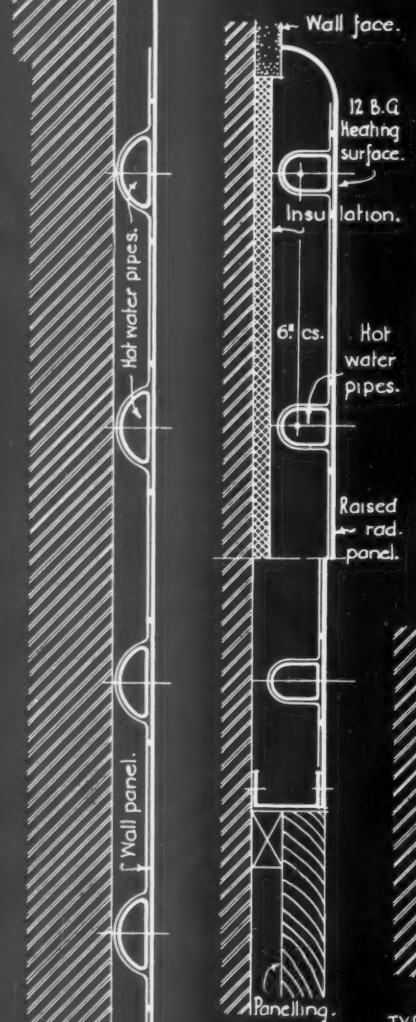
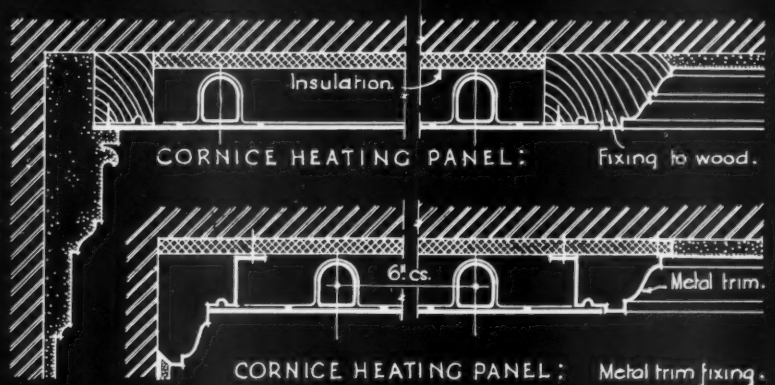
SECTION THRO' PANEL UNDER WINDOW.

SANKEY PANEL RADIATORS. ½ F.S. details of solid drawn M.S. heating tubes.



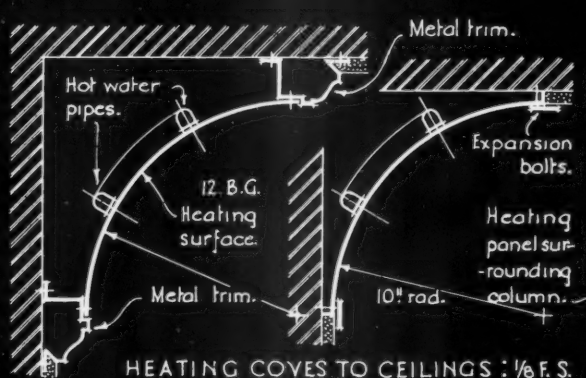


CEILING HEATING PANELS: Flush and projecting types.

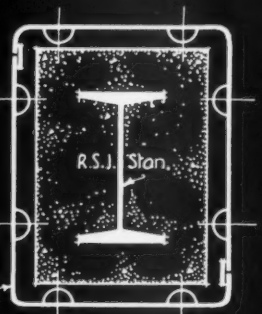


CORNICE HEATING PANEL: Fixing to wood.

CORNICE HEATING PANEL: Metal trim fixing.



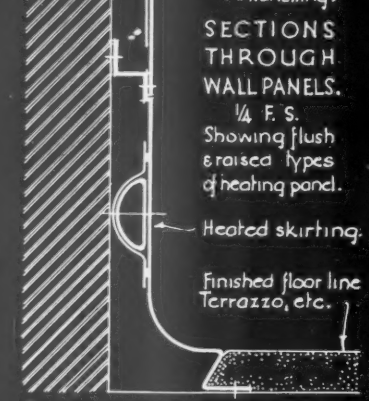
HEATING COVES TO CEILINGS: ⅛ F.S.

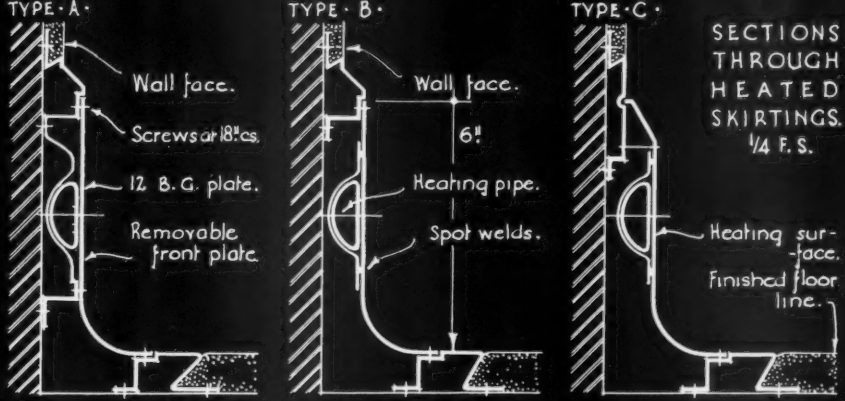


PANEL HEATING TO COLUMN.

SECTIONS THROUGH WALL PANELS.

¼ F.S. Showing flush & raised types of heating panel.





SECTIONS THROUGH HEATED SKIRTINGS.

¼ F.S.

The Sankey heating system is a method of providing heating units concealed in skirtings, cornices, and flush or raised panels.

Information from Joseph Sankey & Sons, Ltd.

INFORMATION SHEET: SANKEY PANEL SYSTEM OF HOT WATER HEATING.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON · WC1 · Oca. a. Bayne.

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PANEL HEATING

General :

The Sankey radiant heating panel consists essentially of a plain front plate, with a grid of flat-faced heating tubes held in contact with it by a corrugated distributor plate. The front plate and distributor plate are held together (gripping the heating tubes between them) by countersunk rivets invisible on the face, or by spot welding.

Heating Tubes :

The tubes forming the heating grid are made in two types, each for a particular purpose.

The broad flat type is used for skirtings and vertical panels requiring exceptionally small depth. The U-shaped tubes are made in two sizes, $\frac{3}{4}$ in. and 1 in. The $\frac{3}{4}$ in. size is used for panels, cornices, etc., in heating systems with forced circulation, and for panels of up to approximately 40 sq. ft. The 1-in. size is used for heating systems with gravity circulations and for panels of more than 40 sq. ft.

The design of the U tube (provisionally patented) is an especial feature of the heating system, the shape of the tube prevents the trapping of air in the panels and renders unnecessary the running of air lines to ventilate them.

The Heating Grid :

The tubes gripped between the face plate and the distributing plate are run in parallel lines at either 4 in. centre to centre, or 6 in. centre to centre, and are formed into a grid by being joined across the ends into flow and return headers. These headers are provided with flow and return connections for linking the heating grid with the heating system.

Radiant Heat Emission :

Heating panels with tubes spaced at 6 in. centre to centre give a radiant heat emission of 80 to 85 B.T.U.s per sq. ft. per hour under a temperature difference of 100 deg. F. between the surrounding air and the surface of the radiator.

If tubes are spaced at 4 in. centre to centre, the radiant heat emission is approximately 90 to 95 B.T.U.s per sq. ft. per hour under the same conditions.

Heating Capacity :

Graphs showing the heat emission capacity of Sankey heating panels of all types may be obtained from the manufacturers.

Heated Cornices and Skirtings :

The various types set out in this Sheet are standard designs, but it should be noted that the system lends itself particularly to special work.

Variations of any type are readily produced, provided heating tubes are arranged at the standard spacings—i.e., either 6 in. or 4 in. centre to centre of tubes.

Fixing :

The panels are usually fixed by means of countersunk screws, or bolts with countersunk nuts, the face plates of the heating panel being embossed to form the counter-sinking.

Bolts or screws are held to the structure by Anderson, Phillips or similar lead expansion bolts.

Connection and Valves :

Connections of standard type may be used, or the joints may be welded.

Standard globe or gate valves are used.

Manufacturers :	Joseph Sankey & Sons, Ltd.
Address :	Hadley Castle Works, Wellington, Shropshire
Telephone :	Wellington 66
London Office :	168 Regent Street, W.1
Telephone :	Regent 2748

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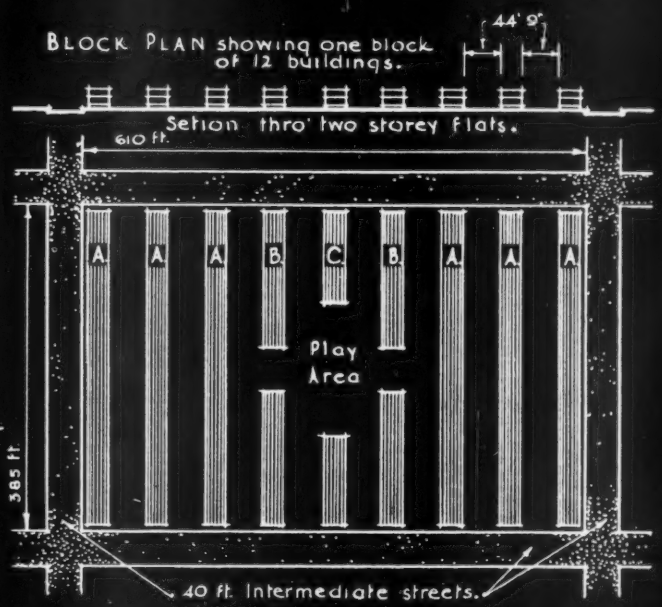
TYPE I TWO STOREY BLOCKS

SITE PLAN OF 12 BLOCKS.
For notes see back of this sheet.

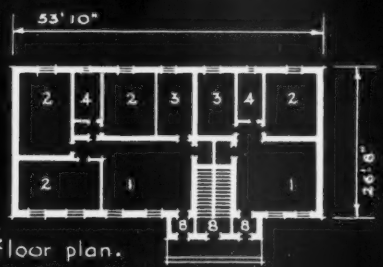
BLOCK PLAN showing one block of 12 buildings.



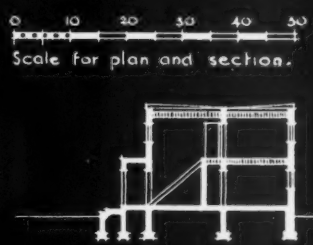
Block size (property line to property line)	386 x 610 ft.
Streets bordering 12 block area, width of.	80 "
Intermediate streets.	40 "
Sidewalks, width of.	5 "
Population for 12 blocks.	11,136 People
Area built on.	37 %
Play Area for 12 blocks.	46,460 sq. ft.
Density per gross acre.	138 People

Number of buildings.	Number of units in 12 Blocks	Number of rooms per unit	Total no. of rooms in 12 Blocks
72 Buildings. (A.) 7 units each	504	16	8064
48 Buildings. (B.) 3 units each	144	16	2304
24 Buildings. (C.) 2 units each	48	16	768
Grand total.	696		11,136 rooms

LEGEND
1. Living room.
2. Bed room.
3. Kitchen.
4. Bath room.
5. Entrance hall.



Typical floor plan.



PLAN OF TWO STOREY FLAT : ONE UNIT
Wall bearing construction. (no basement)

SECTION.

Factual data of one complete unit. Two storey flats:

Number of rooms per floor. (Including kitchen.)	8
" " 3 room apartments per floor	1
" " 4 " " " "	none
" " 5 " " " "	1
Total number of " "	2
" " " " " unit	4
" " " rooms " "	16

Information from The Housing Study Guild, New York. ②

INFORMATION SHEET: ANALYSIS OF VARIOUS TYPES OF HOUSING SCHEME
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1. Olive A. Bayne

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AMERICAN HOUSING

(ii)

This Sheet gives the site lay-out, plans, sections and general data of the two-storey block without basement.

COSTS	Cost per 16-room unit	Cost per room including kitchen
Foundations :	$	
Excavation and Disposal	91·00	
Backfill	9·60	
Rough grading	13·00	
Concrete footings, including forms and reinforcement	581·25	
Waterproofing of floor finish	21·30	
Total	716·15	44·75
Structure and Enclosure—	$	
Outside bearing walls	1,226·00	
Inside bearing walls	790·00	
Ground floor finish	257·60	
Open truss joists for first floor	637·50	
Roof trusses	546·00	
6 in. hollow tile walls	175·00	
Steel lintols	35·00	
Precast stone cills	44·20	
Steel sashes and glazing	183·60	
Ground floor insulation (1½ in. cork)	130·00	
Total	4,024·90	251·55
Stairs, Halls, Corridors, etc.—	$	
Porch, roof, brickwork, finishes, etc.	80·05	
Steel stairs and landings	130·00	
Steel sashes and glazing	8·05	
Fireproof entrance door and hardware	48·60	
Painting stairs, windows, doors, etc. (2 coats)	19·95	
4 lighting fittings	18·00	
Bellwork and mailboxes	23·00	
Hollow tile walls, glazed	180·00	
,, ,, unglazed	63·00	
Sundries, coppersmith, etc.	212·85	
Total	783·50	49·00
Roof—	$	
Copper flashings, etc.	36·40	
3-ply roofing	95·60	
Insulation and screeded fill	232·00	
Total	364·00	22·75
Finishes and Equipment—	$	
2 in. plaster partitions	267·95	
Plastering of internal walls	190·30	
4 fireproof entrance doors and furniture	93·80	
20 internal doors and hardware	210·00	
⅞ in. hardwood floors in mastic	457·60	
Skirtings and picture mouldings	86·50	
Tile floor for bathrooms	57·60	
Painting walls, ceilings, doors, etc. (2 coats)	342·40	
14 metal wardrobes	175·00	
4 kitchen cabinets	180·00	
4 medicine cabinets	26·00	
26 window blinds	16·90	
4 gas cookers	100·00	
4 refrigerators	320·00	
Sundries	408·60	
Total	2,932·65	183·30
Plumbing—	$	
Cost per unit, not including gas lines	1,643·20	102·7
Heating—		
By central plant with boilers arranged for firing by oil or coke supplying heating and hot water plant		17·62
Radiators, etc.		37·10
		54·72
Gas and Electrical—	$	
Initial costs of gas carcassing	112·00	
Electric meter connection	8·00	
46 outlets and fittings	207·00	
Total	327·00	20·57

Total cost per room, including kitchen .. $729·34