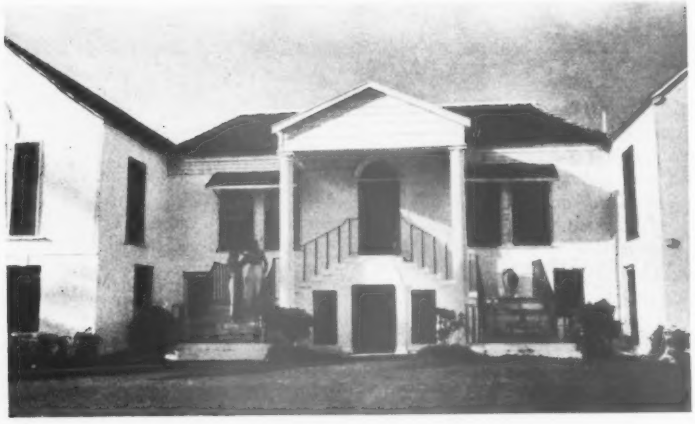
EUROPE'S LONGEST BRIDGE

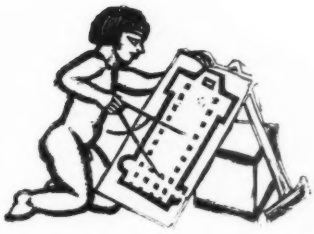
ON Sunday last the King of Denmark opened the new Storström Bridge, Denmark, which is claimed to be the longest bridge in Europe. It is two miles long, and is situated at the south of Zeeland and links the islands of Falster and Masnedo. It has fifty spans, is 85 ft. above water level, and was built by Dorman, Long and Co.



Above is the main street of Falmouth, principal town of the parish of Trelawney, one of the leading ports for sugar export in the eighteenth century. The original roofs have been replaced in some cases by corrugated iron, but the brick and stucco, green shutters and wrought iron balustrades still remain to make one of the finest examples of Colonial variations on the Georgian theme.

On the left is the entrance courtyard of "Good Hope," one of the larger sugar plantations on the island before the freeing of the slaves.

COLONIAL ARCHITECTURE IN JAMAICA



UNACCUSTOMED AS I AM

DURING the past week our two leading architectural societies have announced their programmes of lectures and papers to be read in the 1937-38 session, and it would seem that this is the right moment to consider the possibilities of these meetings and to wonder whether they are as much use to the profession as they might be.

What is the aim and object of these meetings? They have a certain value as social events at which members may meet each other and discuss institute policy and the troubles of their practices, but there are plenty of other ways in which evenings of this kind can be arranged, and it seems only reasonable to expect that, on evenings devoted to the reading of papers, some serious effort might be made by members to pool their knowledge of the subject under discussion and thus contribute towards the advancement of the profession as a whole.

What happens under the present dispensation? It is our duty to be present at a fair number of meetings during the year, and the procedure does not vary a great deal from one meeting to the other. The lecturers have generally taken some trouble to prepare their papers, and are nearly always accepted as experts on their subject. The vote of thanks is often proposed by a distinguished visitor, invited for this purpose, who is probably a member of some other profession intimately concerned with the subject of the paper. Being prepared, this visitor will be terse and coherent, often giving a new and interesting view of the same subject seen from a different angle. The seconder of the vote expresses his surprise at being asked to speak at all, doubts his ability to do so, disclaims all knowledge of the subject and winds up with a mildly funny story, after which " the meeting is open to discussion." Members then sit mumchance in a slightly embarrassed silence, hoping that someone will be bold enough to keep the meeting going. One or two will ask questions on points of detail, somebody else will discover that the subject can be made an excuse for a trot on his favourite hobby-horse, and the author is left to reply—a poor reward for spending several evenings in an attempt to make some contribution to the specialized knowledge of his profession.

We may have painted a dismal picture, but we maintain that it is not grossly distorted, for the apathy of most members of the profession towards the discussion of papers is wide and deep. Yet other professions appear to be able to arouse a certain amount of enthusiasm among their members; in the *Journal of the Institution of Structural Engineers*, for example, the report of the discussion frequently takes up more space than the paper itself, and much the same may be said of several other learned societies. We do not believe, moreover, that architects are naturally tongue-tied and uninterested, and we suggest that the architectural societies should find out how other bodies deal with the same problem. The Structural Engineers nearly always publish their papers before they are read, the Civil Engineers will give advance proofs to any member who cares to ask for them, while for three shillings a year the Physical Society will send advance copies of all papers automatically.

The advantages of this procedure are obvious. Members have anything up to a week in which to prepare their questions and look up any essential references. Listening to a paper being read a single time, the mind notes points which might be profitably pursued, but only the longest of memories can produce authoritative figures or facts to support an alternative thesis, and a highly profitable hare may be allowed to escape unchased lest a speech full of vague generalizations might obscure rather than clarify the point at issue. Nor is there any reason why questions should not be written beforehand and read out to the meeting by the chairman or secretary. This would help not only the busier member with appointments to keep, but also the younger newcomers, who may be diffident about speaking in front of strangers. And if shyness is the only excuse for silence there is no reason why these latter should not come and hear their questions read out and see for themselves how they are received.

We suggest that the R.I.B.A. should adopt this method for a trial period of one year and see whether the standard of their discussions improves. The experiment would not be difficult to carry out; in fact the machinery for doing it is already in existence. All authors submit their manuscripts to the R.I.B.A. in advance, and galley proofs of the paper are available for the press several days before it is actually read. Is there any reason why this privilege should not be extended to any member who wishes to make use of it?

The cost would be small, and we are convinced that the value of the subsequent discussions would be markedly increased; for other societies do not find that the attendance at meetings is reduced because members already know what is going to be said.

The Architects' Journal
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NOTES & TOPICS

THE D.I.A. CONFERS

THE Design and Industries Association took themselves and me to Bexhill for the week-end for their first annual conference.

*

The main purpose of all conferences is to discuss things ; but in this particular case they were discussed intelligently and, what is rarer, intelligibly. The list of speakers : J. E. Barton, Anthony Bertram, Prof. Holford, Frank Murphy, Prof. Herbert Read, Nikolaus Pevsner, Maxwell Fry, to name a few.

*

There was a cleverly produced atmosphere of gaiety and erudition ; and Arthur Elton's films which were shown on Sunday evening were alone worth the trip.

*

The D.I.A. is getting on with the job. It has just launched a series of nearly twenty touring exhibitions which will travel from shop to shop between now and Christmas and are designed to illustrate the series of twelve broadcast talks on "Design in Everyday Things" which Anthony Bertram is going to give on the National Programme beginning on October 4. These display units are going to do more than all the larger exhibitions which we remember to bring D.I.A. principles into the smaller towns.

*

By the way, is it too much to hope that the papers read at Bexhill will be printed ?

NOTE

Members of the architectural profession have so much cause to remember that they are but passing through a vale of tears that I was not surprised when the Editor asked me to strike a note of optimism this week. The time has come to return to our drawing-boards and to leave Cowes, Biarritz and the moors behind us ; inevitably there is a slight depression of spirits which needs lifting.

PARIS

Here is the first happy thought. One of the most famous sights of Paris is no more. The Morgue has gone—or at any rate the weekly finds of the Sûreté are no longer on exhibition—*sic transit gloria mundi.*

BODIES

Public reaction to corpses would prove an interesting study for the practitioners of the new science of mass-observation—national traits and characteristics are curiously emphasized in this connection. Second happy thought. Germany, sacrificing all for the sake of future Nordic warriors, is levelling its cemeteries into playing-fields. An Odinesque gesture, but may the process never be reversed.

*

Thus the Aryan—how different the Celt. A great industrial city had cause some years ago to extend the Welsh reservoirs which gave it its water supply. The process incidentally involved the drowning of a complete village (this kind of thing must bring sunshine into the lives of civil engineers). Ancestor-worship is as strong in Wales as anywhere, and it was thought that the souls of the departed would resent a permanent flood. So Birmingham offered exhumations and a completely rebuilt cemetery on the top of the hill *or* a flat rate of £2 per buried ancestor.

*

The decision, so local history has it, was unanimous : not a grave was disturbed.

BOMBS

Speaking of Nordic warriors reminds me that I have just seen my first bomb shelter—at Watford. It was shaped rather like the puddings which our cook makes at the season of peace and goodwill, but no attempt had been made to give a pleasant colour or texture to the concrete. It was situated, oddly I thought, in the courtyard of a bomb factory, and was for the use of the employees. What you might call tit for tat.

LOOM OF YOUTH

Now that we have taken our breath of sea air in the palm lounge of the Metropole and recuperated our tired bodies at La Grande Exposition, the time has come to see the children off to school and for the schools of architecture to open their doors again.

*

Several hundred raw youths and maidens will soon be launched on the first stage of their career, and I feel that it falls to me to give them a few words of welcome and advice in the first issue of the JOURNAL to which their newly-paid subscription entitles them. For who, if not Astragal—knowing as he does both the seamy and the other side of his profession—is better suited to perform this privileged task ?

*

I feel that I cannot do better than take up the threads of the farewell chat which you probably had with the "head" of your school. You enter the architectural profession for one of four reasons : (*a*) because there is a family practice waiting for you at the end of five years ;

The gradual disappearance of timber scaffolding gives a special interest to a technique which does not yet use hemp or wire lashings. The scaffolding in Dorset shown above is held by six-inch nails only.

(*b*) because you want to make money ; (*c*) because you want a husband, or (*d*) because father thinks you can draw but doesn't believe in art for art's sake.

*

If your reason is (*a*) then you know all, and I'm surprised at you ; if (*b*) then you had better marry the right woman; if (*c*) you evidently know what you are about and have taken the right course ; if (*d*) then I can give you the benefit of my own experiences. I entered the profession on the crest of a wave of enthusiasm for the English country house—I knew all about gun-rooms and flower-rooms and Miss Jekyll. Architecture for me in those dear dead days was summed up in a famous book which you have probably never heard of called "Pot pourri from my Surrey Garden," by the Countess something or other.

*

However, to preserve the cheerful note, the great charm of our profession is that it is nothing if not unexpected. Since then I have designed a public convenience, an exhibition stand in Manchester, a window display for an elastic hosiery company, and passed the burnt-out ruins of my first house.

*

I am also, since last month, a landed proprietor. I have a cottage with walls 3 ft. thick, a quarter acre of thistles, seven miles away from the next building and with no roof. Grazing and peat-cutting rights over twelve thousand acres are included in a conveyance of a gross value of five pounds.

*

——But not sporting rights. These are a questionable luxury amongst inhabitants who do not believe in fishing for trout with all the odds and ends of rod and cast. A twelve-pound hammer, a clear evening and a pair of bathing drawers is the local custom. You see the trout and the trout see you ; they naturally do not like such a costume on the Galloway moors and they retire ; with their backs just touching the underside of the stones they wait for protests in *The Times*.

*

A nice crack with the hammer on the top of the stone, a quick turnover, and up floats a trout—dead to the world for ten seconds. Nineteen in eighty minutes is a local average.

*

Life is full of surprises.

*

However, many privileges are now yours, inestimable privileges which did not fall even to Sir Christopher Wren. You can enter the Florence Hall with an air of ownership, the Building Centre with an air of authority, you can number Mr. Haynes amongst your most regular correspondents and Alvar Aalto amongst your colleagues.

NATIONAL THEATRE

I apologize for returning to this cheery subject, but the whole issue is drifting from the questionable to the ridiculous. The press—lay and otherwise—is unanimous in its demand for a competition, but the committee has given its reason for not wanting one—the design of a theatre, it says now, is *too technical*.

HYDE PARK CORNER

Another very technical problem that will soon be of interest is the new St. George's Hospital—which may now be built in two sections instead of three since an extra £80,000 has just been given to it. The more one looks at the traffic stopping, starting and grinding around the site, the greater grows the conviction that this competition ought to be won on insulation, sound-proofing and ventilation.

*

One hopes that the tightly-sealed skyscraper which ought to be the winner will not have to be sacrificed to the feelings of a tender-hearted public.

SHELF APPEAL CANNED

Finally, you ought to go at once to *Shelf Appeal's* packaging show at the Reimann School to see what good contemporary packs look like and also how well the old ones like Callard and Bowser's butterscotch and Dr. Morse's snuff survive the lapse of time.

*

Collecting a show like this must be a lot of fun, particularly for the awful warnings you can drop in here and there to tell their own shaming story—see Hiram Walker's whisky display cut-out—see, too, several cigarette packs which should perhaps be nameless.

*

See, too (though not as a horror), the amusing and slightly surreal Schiaparelli scent bottles—a happy change from the present ultra sanitary pink and white stuff ; look at the plain American whisky and rum bottles and despise the revolting "Guest Decanters," which are about on a par with our Christmas presentation caskets of cigarettes.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

"*Public reaction to corpses would prove an interesting study for the practitioners of the new science of mass-observation*" 496

"*The highly technical nature of theatre construction involves problems which may not readily be met by a competitive selection of plans.*" — *The National Theatre Appeal Committee* .. 498

"*A new monoplane which appears to have adopted rusticated masonry and an oriel window as its principal features*" 508

"*It is the architect's responsibility and duty to ensure that all nominated sub-contractors receive payment for their work in accordance with the terms of their estimate*" 508

ST. GEORGE'S HOSPITAL

A donation of £80,000 has been made by Mr. Harry Oakes to the treasurers of St. George's Hospital, Hyde Park Corner, for the rebuilding fund. Lord Willingdon, chairman of the Rebuilding Council, stated last week that it had been intended to rebuild in three sections, but the gift would give them the advantage of being able to build the hospital in two halves; the remaining portion to be proceeded with as and when the money is forthcoming.

MINISTER OF HEALTH AND HOUSING

Sir Kingsley Wood, the Minister of Health, last week addressed representatives of the local authorities in Cumberland and Westmorland at Carlisle.

Sir Kingsley Wood, giving the latest figures of housing progress, said that they showed that since the war some 3,450,000 new houses had been erected in this country, but many more were required, particularly a larger number of one-bedroom houses for aged people and for those with larger families. The Minister said there was no decline in local authority building, and building prices were showing signs of steadying. Some 650,000 dwellers in bad and unsatisfactory houses in the slums had already gone to better homes and they were going at the rate of some 25,000 every month. Abatement of overcrowding was already taking place in many areas. He said there was much more to be done, particularly in the provision of houses in the rural districts, and that quality as well as quantity was required in all house-building operations.

Sir Kingsley Wood, in referring to the immediate housing programme, said not only new houses were required, but a balanced provision which must meet the variety of the needs of our people. There was a need for a larger number of one-bedroom houses for aged persons and also a larger number for large families requiring four or more bedrooms. Another requirement, particularly as our people were being moved out of unfit and overcrowded houses, was that the rents should be within the means of the lower-paid workers.

He was glad to say that there was no sign of any decline in local authority building. At the end of July a high record of 66,000 houses were under construction, as compared with 64,000 for the previous month. A matter which was of great importance was the cost of housing, and it was satisfactory that prices were showing signs of steadying.

THE ARCHITECTS' DIARY

Thursday, September 30

NATIONAL SMOKE ABATEMENT SOCIETY. *Annual Conference. At Leeds. Until October 2.*
PUBLIC SCHOOLS ART EXHIBITION. *At the Imperial Institute, South Kensington, S.W.7.*
ENGINEERING AND MARINE EXHIBITION. *At Olympia, W. Until October 2.*

Friday, October 1

TOWN PLANNING INSTITUTE. *At the County Hall, S.E.1. Nineteenth Annual Autumn Meeting. Also, Saturday, October 2. Full details of the conference are given on page 499.*

Monday, October 4

ARCHITECTURAL ASSOCIATION, 36 BEDFORD SQUARE, W.C.1. *Exhibition of photographs taken by A.A. students on a motor tour in Central Europe. Until October 16.*

Wednesday, October 6

NATIONAL COAL CONVENTION. *At Harrogate. Until October 7.*

SIR CHARLES ALLOM AND THE R.A.

"When the Royal Academy, once standing so high, has let down art in the shameful way it has, during the past 15 years especially, one has a right to object," said Sir Charles Allom, in addressing the Conference of the Incorporated Association of Architects and Surveyors at Oxford last Sunday. He continued: "I feel that modern artists have murdered beauty, and architects must be among those who must endeavour to restore the quality and taste of the people.

"In mentioning Epstein's name with contempt for the horrible creation 'Genesis,' I would pay tribute to his vast ability. He is a mighty artist who has allowed himself to be debased by this modernist craze.

"There is a great deterioration in taste in our profession. We must co-operate to create a public that is architecturally-minded."

NATIONAL THEATRE ARCHITECT

After a meeting of the National Theatre Appeal Committee at its Pall Mall headquarters on Tuesday of last week, it was announced that the question of the appointment of an architect had been carefully considered and that the many useful suggestions made to the committee through the Press and privately had been reviewed.

"While the committee realizes," continued the statement, "that there is much to be said for an open competition for designs, it is also realized that the highly technical nature of theatre construction involves problems which may not readily be met by a competitive selection of plans. While not ruling out the possibility of a competition, the committee is of opinion that at the moment the most important task confronting it is the provision of funds for the building and endowment of the theatre. In the meanwhile it will continue to explore the question of the architect, and a further announcement will be made in due course."

APPOINTMENT

Mr. W. A. Brown, of Hamilton, at present chief assistant to the Hamilton County housing and town planning engineer, was last week selected from a short list of seven for the post of housing engineer and architect for the County of Lanark.

The appointment carries a salary of £800, rising to £1,000 per annum.

OFFICIAL OPENINGS

The Earl of Derby will open the new extensions to Evans's Biological Institute, Runcorn, on Thursday, October 7.

Last week the Lord Mayor of London (Sir George Broadbridge) opened the new £51,000 municipal offices at Gillingham, Kent.

MATTHEWMAN SCHOLARSHIP

Mr. Percy Taylor, of Liverpool, has been awarded the Matthewman Scholarship in Architecture (value £375), founded by the Penmaenmawr and Trinidad Lake Asphalt Company.

The competition was open to residents in South-West Lancashire, Cheshire, North Staffordshire, North Wales, the town of Whitchurch, and the Isle of Man. Mr. Taylor is a student at the Liverpool University School of Architecture.

CROYDON SCHOOL OF ARTS AND CRAFTS

The annual exhibition of the work of students of the Croydon School of Arts and Crafts took place last week in the Adult School Hall, Croydon, and the distribution of prizes and certificates was made on Wednesday evening at a public meeting presided over by Mr. Councillor George Lewin, Chairman of the School of Art Sub-committee.

Councillor Dr. Alex. Sandison, O.B.E., distributed the prizes and certificates and afterwards delivered an address. He said that of recent years there had been a number of fascinating new movements in art: one gave additional emphasis to pattern, another to the quality of art by which the essence of a thing was presented rather than its actual form. Young artists seemed to have an instinctive feeling for this last-named development, but the older generation did not seem to have it so easily. The case of literature and beauty was similar. Different styles came along, each expressing the particular needs and ideals of a period. He (Dr. Sandison) would ask the artist to make allowances for laymen of the older generation being soaked in tradition and a little blind at times: he would ask them also to realize that the thrill they got out of their creation was to be found in other branches of art and science. Anybody who did a job really well, and in doing so created something or other, got a thrill which was essentially the same as the artist got out of his artistic creation. Lay people should not let age deprive them of these thrills.

FURNISHED FLATS FOR THE WORKING-CLASSES

An exhibition of furniture particularly selected to meet the needs of families with

small incomes will be opened on October 6 at Camberly House, Cumberland Market, N.W.1, the new block of 128 workers' flats erected by the Commissioners of Crown Lands. Facilities will be given to anyone desiring to see the exhibition between October 6 and October 14, on application to Miss Jeffery, at the Commissioners' local office at that address.

Two flats are to be furnished by House Furnishing, Ltd. Another is to be furnished with furniture lent by various firms. A fourth is to be furnished by the Design and Industries Association.

UNIVERSITY EXTENSION LECTURES AT THE R.I.B.A.

At the request of London University, the R.I.B.A. has lent the Henry Jarvis Hall for a course of University Extension Lectures for members of the general public. The title of the series is "Architecture: Its Place in Human Society," and the lecturer is Mr. Basil R. Ward, A.R.I.B.A., who is a member of the Institute of Sociology, Leplay House.

The course consists of ten lectures, illustrated by lantern slides, under the following titles: I. Introductory: (1) The Sociological Approach to Architecture. II. Introductory: (2) Historical Survey. III. Architecture, an Expression of Man's Activities: Materials and Inventiveness of Man. IV. Traditions, Customs and Habits: their effect upon Architecture. V. The Part Religion has Played. VI. Ornament. VII. Examples of the effect on Architecture of New Forces in Society. VIII. General Tendencies since the Industrial Revolution. IX. The Designer and his approach to Architecture. X. Conclusions.

The first of the series was given on Tuesday last; and the next is to be delivered on Tuesday next. Full particulars can be obtained from the University Extension Registrar, University of London, The Senate House, W.C.1.

TOWN PLANNING INSTITUTE

The nineteenth annual autumn meeting of the above Institute is to be held at the County Hall, London, on October 1 and 2. The programme of the conference is as follows:—

Friday, October 1, 11 a.m.: Meeting in the Conference Hall at the County Hall, Westminster Bridge, S.E.1. Welcome by the Rt. Hon. the Chairman of the London County Council. Reply by the President, Mr. Ewart G. Culpin, J.P., F.R.I.B.A. Paper by Mr. E. E. Finch, M.INST.C.E., F.S.I. (City Engineer) entitled "The Town Planning of the City of London." Discussion. *2.15 p.m.:* Meeting in the Conference Hall at the County Hall. Paper by Mr. H. Berry, A.M.I.MECH.E., A.I.STRUCT.E. (Chairman of Town Planning and Building Regulation Committee, L.C.C.), entitled "Town Planning the County of London." Discussion. There will be an Exhibition of plans and diagrams of London Town Planning Schemes, Housing Schemes, Slum Clearance Schemes and Green Belt proposals. *4.30 p.m.:* Council Meeting at the County Hall. *Evening:* The Improvements Committee of the Corporation of the City of London is entertaining members of the Council and Committees to Dinner at Guildhall to meet the Right Hon. the Lord Mayor and the Sheriffs.

Saturday, October 2, 10 a.m.: Motor coaches leave County Hall (Belvedere Road entrance) for visits to Housing Schemes, Slum Clearance Areas and Green Belt sites, including Loraine Estate, Stamford Hill Estate, Epping Forest (City's contribution to Open Space and Green Belt), and Becontree. *1 p.m.:* Lunch at the Robin Hood, Longbridge Road, Becontree, *2 p.m.:* Continue motor coach tour of inspection, returning via East End Clearance Areas, and arriving at Leighton House at 4.30 p.m. *4.30 p.m.:* Tea at Leighton House, Holland Park Road, Kensington. This old home of Lord Leighton is now the property of the Borough Council and contains many specimens of Leighton's work, together with those of other artists and sculptors.

NEW POLICE HEADQUARTERS, PRESTON

About £250,000 is understood to be the cost of the new Lancashire Constabulary headquarters to be built at Hutton, near Preston.

An open competition for designs was decided upon by the Lancashire Standing Joint Committee at Preston last week.

The President of the R.I.B.A. has been asked to appoint an assessor.

WELSH EISTEDDFOD COMPETITION

The following awards have been made in the architectural section of the Welsh Eisteddfod competition: Design for a bridge over a river in Wales—first prize (£20): K. E. Bradley. Design for the entrance to a children's playground—first prize (£10): J. Wilkinson; second prize (£5): K. Twist.

Each of the above prize-winners is a student at the School of Architecture, Manchester College of Art.

ANNOUNCEMENTS

Mr. B. J. Ashwell, A.R.I.B.A., has succeeded the late Mr. R. W. Cable as architect to the Lloyd-Baker Estate, 26 Lloyd Baker Street, W.C.1.

Messrs. Hattrell and Wortley, LL.R.I.B.A., of Coventry, have taken into partnership Mr. Duncan Kaye, A.R.I.B.A. In future the name of the firm will be W. S. Hattrell and Partners.

AN ARCHITECT'S WILL

Mr. William E. V. Compton, of Hesketh Park Hydro, Southport, architect, left £24,319; net personalty, £24,237.

R. I. B. A.

SCHOOLS

Professor John Hilton, M.A., is to open an exhibition entitled "Modern Schools" at the R.I.B.A., on Tuesday, October 12. The exhibition will remain open until October 19, between the hours of 10 a.m. and 8 p.m. (Saturday, 10 a.m. to 6 p.m.).

SESSIONAL MEETINGS

Following is the list of the R.I.B.A. sessional meetings for the ensuing season:—

November 1: President's Inaugural Address. Presentation of the London Architecture Bronze Medal, 1936, to Messrs. Stanley Hall and Easton and Robertson. Unveiling of portrait of the Past President. 8.30 p.m.

November 22: "The Prevention of Noise in Buildings." By Mr. C. J. Morreau, M.A. Cantab. 8 p.m.

December 6: Musical evening arranged by the Social Committee. 8 p.m.

December 20: "The Case for a Learned Society." By Mr. Edward J. Carter. 8 p.m.

January 10: Award of prizes and studentships. Criticism by Mr. Howard Robertson, on works submitted for prizes and studentships. Announcement of the Council's nomination for the Royal Gold Medal, 1938. 8 p.m.

January 24: President's address to students. Presentation of medals and prizes. 8 p.m.

February 7: Social evening, arranged by the Social Committee. 8 p.m.

February 21: "The Work of the Miners' Welfare Committee." By Mr. J. H. Forshaw. 8 p.m.

March 7: "Problems of a Rural Practice," By Mr. Edwin Gunn. 8 p.m.

March 21: "Speculative House Building." By Mr. Stanley C. Ramsey. 8 p.m.

April 4: Presentation of the Royal Gold Medal. 8.30 p.m.

April 25: "London University." By Mr. Charles H. Holden. 8 p.m.

May 9: One Hundred and Fourth Annual General Meeting. Discussion of Annual Report. 8 p.m.

June 20: Announcement of result of annual election of council. Informal discussion on matters of professional interest. 8 p.m.

D. I. A.

The Design and Industries Association held a conference at the De La Warr Pavilion, Bexhill, last week-end. On this and the following page we print extracts from the papers read by Professor Herbert Read and Mr. Maxwell Fry. Some of the other papers read during the conference will be printed in next week's issue.

DESIGN AS A SOCIAL FACTOR

By Professor Herbert Read

I HAVE been asked to speak on "Design as a Social Factor." In the ordinary course of propaganda we tend to simplify the factors involved. We think of the object to be designed — something simple and comprehensible enough. We think of the designer—an individual who has to be brought into relation with this object. We think of the manufacturer, again as an individual who has to be persuaded to employ the designer; and perhaps if we are considerate enough we think of the consumer, again as an individual who has to be persuaded to buy the object designed. It then looks like a simple series of links which have only to be made aware of each other to form a single chain.

But it is not so simple in reality. Just as the economists find that their economic man has little or no correspondence to the mass-man of modern society, so we discover that our designer, our manufacturer and our consumer cannot be considered as isolated units. They are all part of a social complex which cannot be dismantled—which adds up to something more than the sum of its component units.

In the end it turns out that we are not dealing with single or simple factors, but with social groups, vocational groups, national groups, and in general with what we call psychological or ideological factors.

Now the dogma to which I cling, and for which I could, if necessary, offer psychological and biological evidence, is that the instinct for what we call good design is an innate possession of every unspoilt human being. It is one of the ironies of history that all the cycles of civilization

still leave the savage and the peasant in possession of the surest instinct for the fundamentally right plastic forms. These primitives have not got what we call the brains to design a motor-car or a seaside pavilion, but they never fail to make a good job of a bowl or a basket, a blanket or a rug.

It is logical to conclude, therefore, that it is all a question of education—that if we can bring up our children in such a way that their taste is not corrupted, then this natural instinct for good design will have free play and gradually the whole taste of our time and country will be purified.

A right system of education is, admittedly, going to be one of the principal agents of reform, but the moment you approach this aspect of the problem with any practical intention, you encounter overwhelming difficulties.

The whole balance of education, as between intellectual and instinctive activity, must be redressed. Let us frankly face the fact that the joyful expression of rhythm and harmony and colour has nothing whatever to do with logic, reason and memory and the rest of our intellectual fetishes. I am not an anti-intellectualist. I do not say that we had better trust to our instincts in all the affairs of life. But I do say that our educational system is grossly overweighted with intellectual aims; that this rationalization of the child has a stultifying effect on its æsthetic impulses and is directly responsible for the triumph of ugliness in our age.

But the educational difficulties do not end with that immense problem. You can educate the child in school, but outside the school another educational process goes on all the time—the influence of the child's environment. It is no good developing the creative and appreciative impulse in the child if at the same time you compel it to inhabit ugly schools, to sit at ugly desks, to wear ugly clothes, to go home through ugly streets and to live in an ugly house surrounded by ugly objects. And so insensibly we are led to the wider social problem. Education alone will not suffice, because education can only be partial and is perhaps impossible in the ugly chaos which the industrial age has created.

We need a reform of public taste—a vast spiritual movement comparable to the religious Reformation of the sixteenth century. But a reformation is a violent process; it doesn't just happen. It means breaking down old habits, making new associations, adapting ourselves to new conditions. It is a difficult and uncomfortable experience for the majority of people, and the majority of people are just not going to bother to reform themselves *unless compelled*. We must not forget that the man in the street regards reformers such as we are as at best harmless cranks, but more likely as people who want to interfere with something he considers his private concern—his personal taste, his carpets and chairs, even the ornaments on the mantelpiece. And that is the attitude not only of the man in the street, but also of the manufacturer of such carpets and chairs and ornaments. Such people resent our activities still more bitterly — to them we are just obnoxious interlopers trying to tell them how to run their businesses.

But we have our technique for dealing with the manufacturer. We can point out to him—indeed, we can prove to him—that what we call good design is a commercial asset, and that in a world of shrinking markets, where the manufacturer can depend less and less on the exploitation of new consumers, the appearance and quality of his goods is going to be the determining factor.

In this respect we must work through public institutions. Remember in the first place that already a vast amount of production and distribution is carried out by public or semi-public bodies. When you realize that it is our ambition not only to improve the design of pots and pans, of furniture and textiles, but also of public buildings like town halls and railway stations, council houses and Government offices, of roads and all they carry in the way of signposts and lighting systems; when you consider, moreover, that an enormous institutional organization like the co-operative movement is one of the worst offenders in the field of design—then you will begin to see why we must create a public conscience in this matter. We must enforce a public standard of decency—of decent design; and I deliberately use the word *enforce*. Somewhere in the country we must have an institution which can be referred to for correct standards of design, just as we have found it necessary to have an institution which can be referred to for a correct standard of weights and measures. So let us have a national institution for the determination and the exhibition of the right principles of design in industry. Let the industrialists come forward and found such an institution for their own sakes and for the sake of their trade.

I realize that I have not yet answered the simple and devastating question: to what end? Why should we take this trouble and expend this energy for the sake of something so intangible as beauty? There is the economic argument already used, but the economist might turn on us and say let us rather have a League of Industrial Peace to eliminate all competitive factors, among them design. After all, from a strictly economic point of view, there is no need to make things beautiful so long as they function satisfactorily. No; in the end we must abandon the economic argument. We must use it for strategic purposes, but finally we shall have to confess that beauty is its own end; that we are fighting for better design as part of a better world. In the end our argument is not economic nor practical, nor even ethical; it is simply æsthetic. We may have the conviction that there is a final correspondence between what is efficient and what is good and what is true; a conviction that beauty is an attribute of universal truth. In that sense we join forces with all men of good will. We are out so to change the appearances of things—the plastic forms and shape of the things we build and make and use—that it shall be said when we have succeeded that we have created a new civilization which reflects in unknown splendour our greater control over the forces of nature, our finer response to the promptings of the spirit.

DESIGN FOR THE CITY

By E. Maxwell Fry

The world we live in is, we say, an artificial creation. So long as it satisfies primary needs we are content with it, with the gregarious cheerful town of changing sights, of social activity. But when their needs are no longer satisfied, when the town becomes too artificial, too mechanical and ugly, too uselessly complicated and shallowly distracting, then we return to nature, rush to the country, and recuperate our natural vitality.

The major problem of both house and flat design revolves round this vital consideration. The rest is detailed work. The design of the dwelling is intimately bound up with the design of the town and if town planning fails to respond to primary human needs, then of what use are either houses or flats however good in themselves? It is the life we have to live in them and about them that matters.

I stray, perforce, into this province of town planning. But I return to say that in each house and flat are to be found the principle that animates town planning, the same sort of needs, the same economies. It is a matter of degree.

Take the dwelling as a group. What needs do we architects serve today? What is our programme? We are to provide in the main the shelter for a family life as Western civilization knows it today, and as we hope it may know it as it develops to good ends. Our programme has developed as society generally has pursued the path of self-examination, and brought science more closely to the study of social needs. The expression of respectability and social grading was once the prime requirement of an architect's programme. This changes. The idea of free and healthy living gradually predominates. The idea of comfort changes so as to include real rest and relaxation; even in the company of others.

Menial service in the form of a domestic slavery vanishes from the western world with the absorption of female labour into industry, and the unionisation of domestic labour itself. The domestic machine takes the place of Mary Ann, and the family reorganises itself to meet the new conditions, creates the idea of a labour-saving house, which perforce becomes a flat as an extension of natural logic. The flat has come to stay. In London absorption point is many years off.

In these changed conditions how to meet primary needs? Not so difficult in the house with its garden, loosely connected with other such units. Here there is room to move, and space and the contact with nature sufficient to bring a varied life in and around the dwelling.

But in the flat how to do this? The flat is logical only under the conditions imposed by the development of industry and transport and the absence of domestic service. It is a creation which may easily become too artificial to bear if primary needs are unsatisfied. They nearly always are in London, and the ultimate danger to society is not good to think upon. Our present system of development is heaping up trouble for us in the future. For observe that it is a prime need that a flat being a dwelling should provide shelter for an active and healthy family life. But flat life as we know it in London fails to recognize the existence of children.

It fails in much else too. It denies the proper entry of sun and air, being developed at such high density that open space is meagre; and so stylistically or snobbishly that windows are too small and unadaptable. In being densely built there is little open space in which natural things may flourish, trees, grass and flowers may grow and be seen, and human beings deposit themselves, exercise, relax and refresh their tired bodies and minds. Of what avail all manner of mechanistic gadgets where these prime needs go uncared for?

To live in boxes lifted off the ground and away from contact with the earth is not the life of a free man. A balcony may take you into the air, will bring you some flowers and rid you of claustrophobia; but it, too, is not enough. No, we have not found the responsive economy of flat life, which is predominantly the life of the city.

It lies overlaid with considerations of profit and privilege, stale bad custom and superficial thinking. But unless we find this responsive economy, city life will become progressively impoverished and the race will suffer.

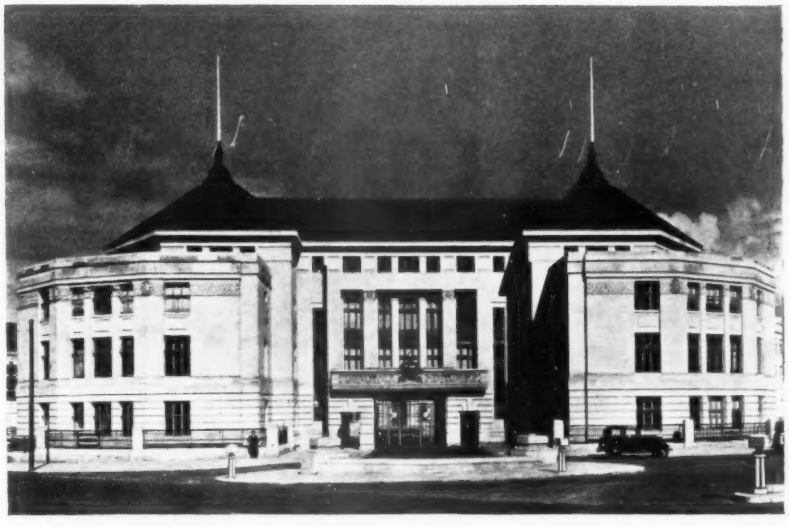
We are engaged now with the second of the architects' two enquiries: materials and structure. Again a search for a responsive economy. A hundred odd years ago they found a workable town unit. A house unit that satisfied social needs, and was within the economy of their productive and industrial machine.

What are our urban units to be? How grouped? I have discussed some of the problems that face us in meeting social needs. What now of the means of carrying these out in terms of building? How can we best use our productive system of handwork and machine, in large operations and small? This problem goes hand in hand with the first, the one reinforcing the other.

Industry has done much already in the small pattern shop, in providing us with equipment, so much of it clean and beautiful, for the smaller parts of building. We need now to study the machinery of the city, so that we can re-develop it and build new cities to larger urban patterns or units of building, and so that we may engage the larger benefits of well-imagined machinery that may help us to defeat our poverty and bring the full life back to town. Nature should be for the townsmen a daily experience, said Gropius, and this we can make possible by understanding the industrial machine equally with the rhythms of human existence. There should be no divorce. Both are a part of nature.

WANDSWORTH ADMINISTRATIVE OFFICE BUILDING

DESIGNED BY EDWARD A. HUNT



GENERAL PROBLEM — *The building is the predominant feature of the civic centre scheme. It combines in one building all the manifold interests covered by the administrative work of the Borough, and removes the difficulties involved by the former wide distribution of the various departments.*

CONSTRUCTION—*Steel frame, with hollow tile and reinforced concrete floors and roofs. Internal walls are flettons; partitions are burnt clay hollow blocks; and staircase cores are reinforced concrete.*

ELEVATIONAL TREATMENT—*The principal elevations are faced with Portland and Corsham stones on fletton brick backings; rear elevations are brick with red facings and stone dressings. Along the High Street elevations are stone bas reliefs portraying the more marked epochs in the history of the Borough. Space is allocated to each of the five parishes, and the story runs through from the earliest records to the present day.*

The photographs show: top, the entrance to the Council Chamber from the courtyard; and the main front, showing the carriage drive to the courtyard.

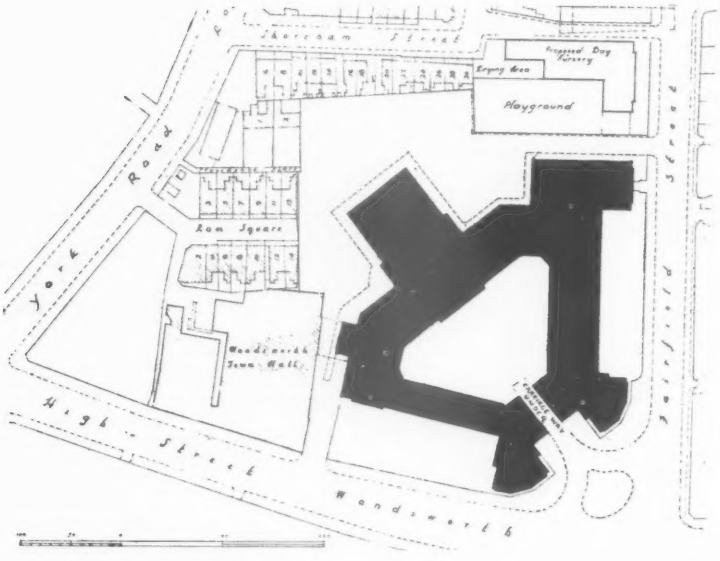
WANDSWORTH ADMINISTRATIVE OFFICE BUILDING:

PLAN—*The desire to combat noise led to the planning of the principal rooms around the courtyard and the setting of the building well within the site. The Public Health Department is self-contained and is planned on three floors. It includes an infant welfare department and a tuberculosis dispensary.*

ROOM ACCOMMODATION—*Main building, 98 rooms, excluding Council suite, which has 15, and the Public Health Department, which has 28 rooms.*

COUNCIL AND STAFF ACCOMMODATION—*Council chamber, 95 aldermen and councillors; staff, about 350 persons. The personnel accommodation is in excess of present requirements.*

The photograph shows the High Street front.



SITE PLAN

DESIGNED BY EDWARD A. HUNT

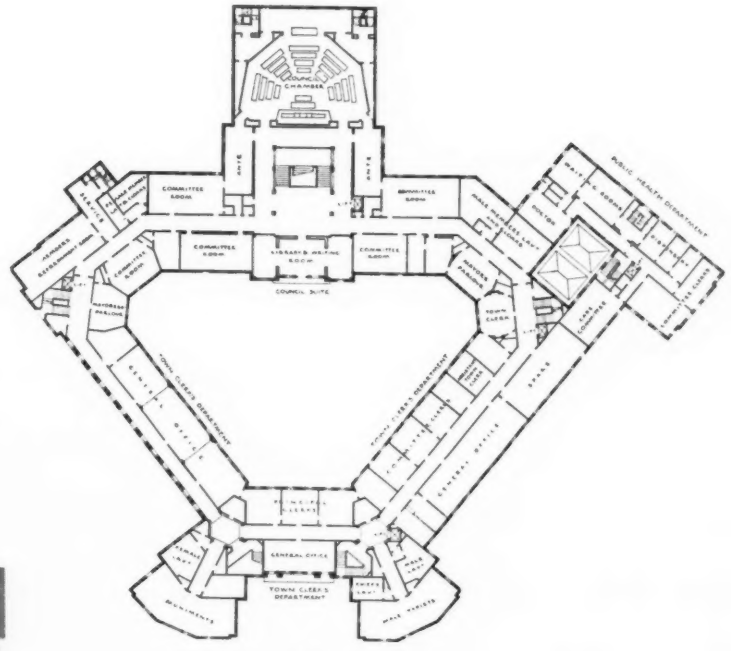
INTERNAL FINISHES—*The main entrance hall and staircase leading to the Council Chamber are paved with marbles from Spain, Portugal and Italy, the walls being lined with Algerian onyx in panels, with Sarancolin plinths, bands and piers. The hall on the ground floor has a fibrous plaster coffered ceiling; that on the first floor a deep fibrous plaster cove, leading up to a rectangular laylight immediately over the main staircase, from which is suspended a bronze and glass electric light fitting.*

The walls of the Council Chamber are panelled in English brown oak to a height of 9 ft. 6 ins., above which they are covered with an acoustic felt faced with a maize-coloured cloth fabric. In the upper part of each of the facet walls are recesses having red and gold hangings. The seats and desks of the Aldermen and Councillors are in English brown oak, upholstered in red morocco. The dais end desk, with accommodation for the Mayor and eight others, also in English brown oak, has a background of three vertical panels of red brocatelle, framed with Sarancolin marble.

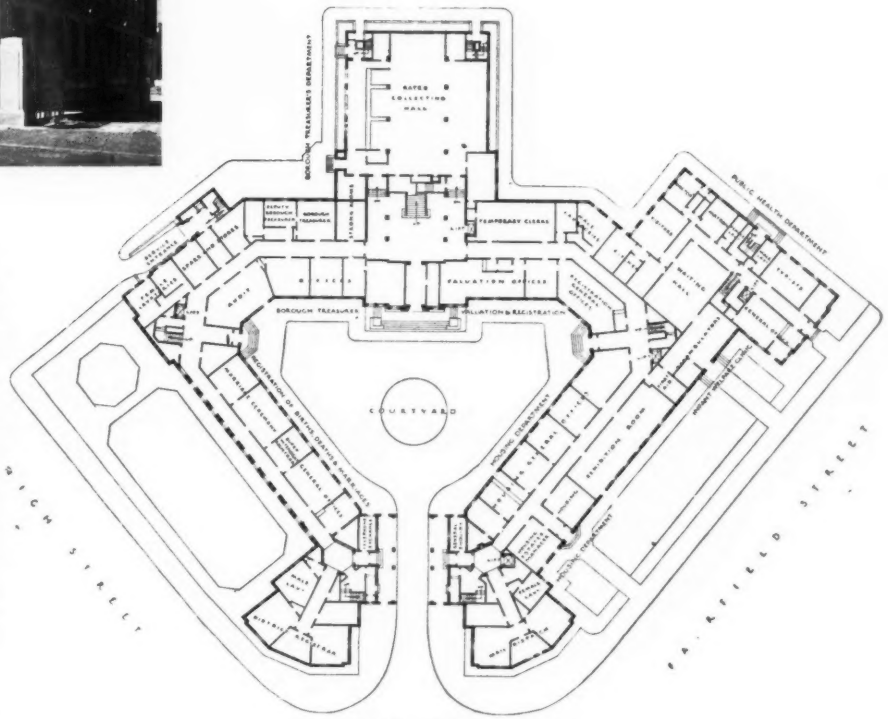
The principal committee room is panelled from floor to ceiling in English oak, with brown oak veneered panels. The ceiling has an enriched fibrous plaster panel mould, with a field of sprayed acoustic asbestos. The remaining committee rooms have dadoes in English oak, plain plastered walls, and ceilings treated with sprayed asbestos and plaster panel moulds.

The Mayor's Parlour and Town Clerk's rooms, which are en suite, are panelled in English oak, the ceilings having plaster panel moulds. Each of these rooms has an electric fireplace. The chief officers' rooms have dadoes in English oak, with plain plastered walls, cove cornices and panel-moulded ceilings.

The photograph is of the Public Health Department in Fairfield Street.

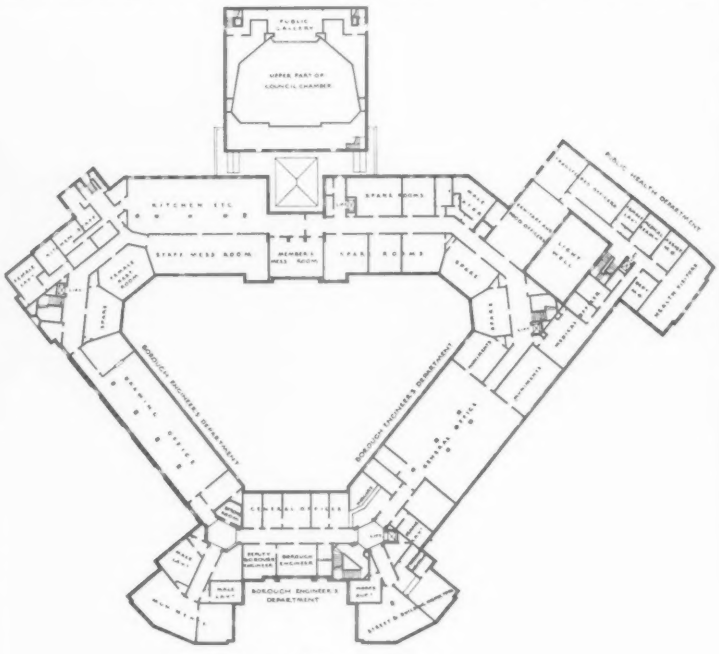


FIRST FLOOR PLAN



GROUND FLOOR PLAN

WANDSWORTH ADMINISTRATIVE OFFICE BUILDING



SECOND FLOOR PLAN

DESIGNED BY

EDWARD A. HUNT

SERVICES — *In the Council Chamber heating and ventilation is by a plenum system; the washed air being blown in through grilles in the back of the back row of the councillors' seats, and extracted through a grating round the edge of the laylight. With the exception of the Council suite, the building is heated by concealed panels of hot-water pipes in the ceilings, with control valves in each room, and supplied by gas-fired boilers. There is extract ventilation in each room, connected to trunks above the corridor ceilings. There are also five electric lifts, and synchronized electric clocks working direct from the mains, and provided with trickle-charged accumulators in case of failure of the mains.*

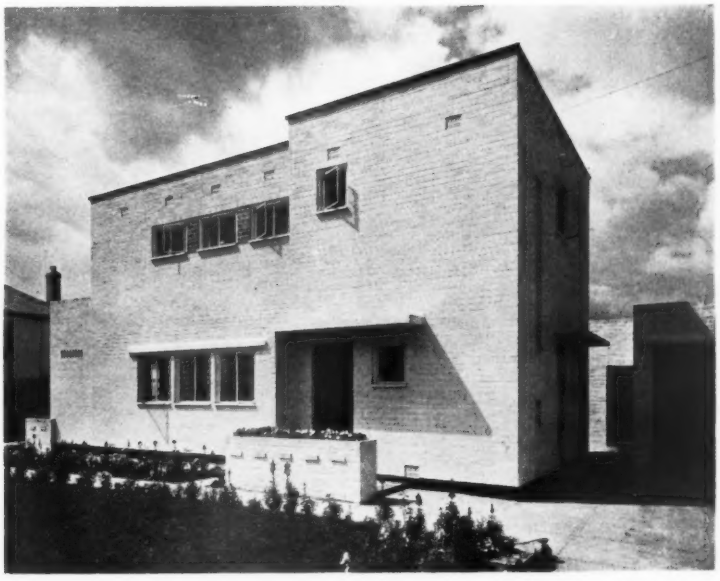
The photographs show, top, the Mayor's Parlour; centre, library and writing room; below, left, main committee room; right, Council Chamber.

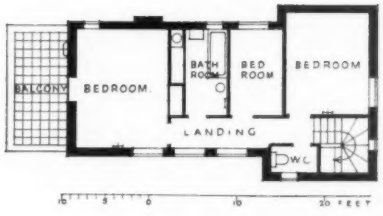
For list of general and sub-contractors, see page 524.

HOUSE AT HOGHTON, NEAR PRESTON

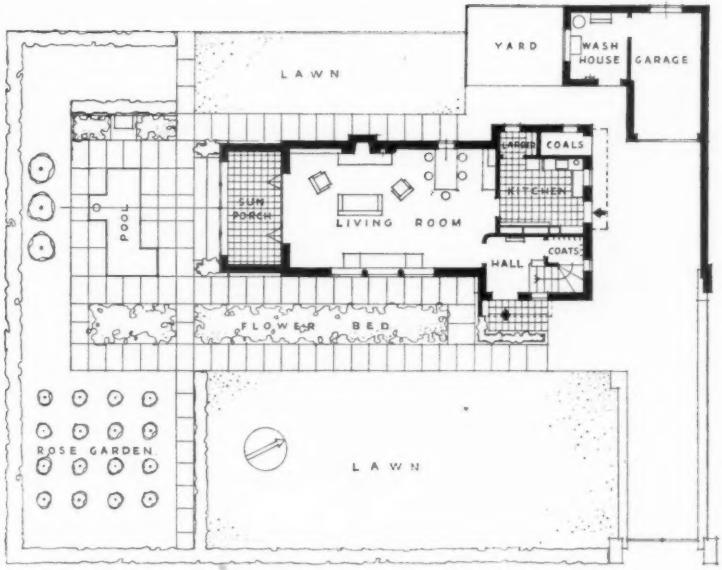
DESIGNED BY

FRANK WADDINGTON





FIRST FLOOR PLAN



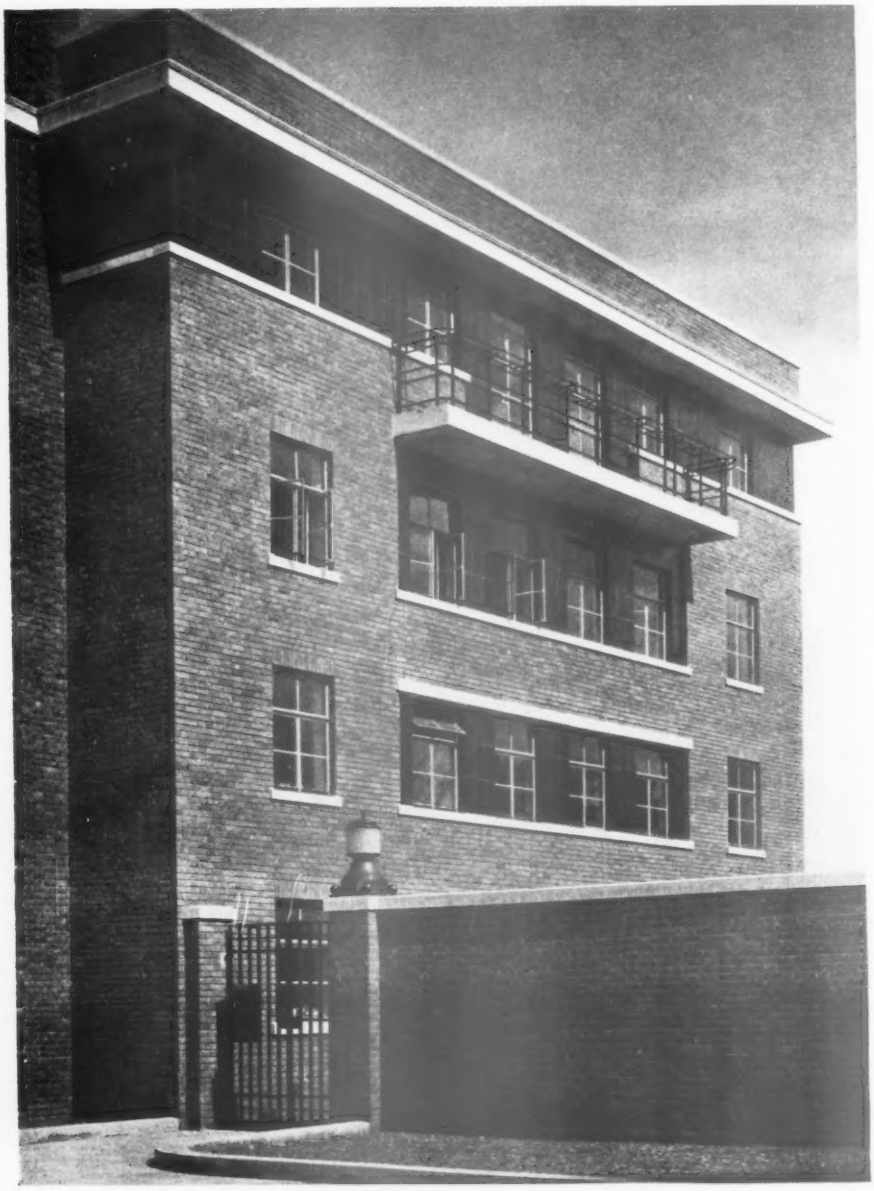
GROUND FLOOR PLAN

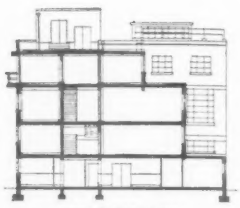
The external walls are built of rustic brick, finished with off-white distemper. The plinth is tarred and the parapet walls are finished with a 2-inch thick black faience coping. The external doors are painted a special green colour and the undersides of canopies a sky blue.

The photographs show: top, right, the entrance front; top, a view from the south; bottom, the living room.

For list of general and sub-contractors see page 525.

KINGSTON TELEPHONE EXCHANGE:

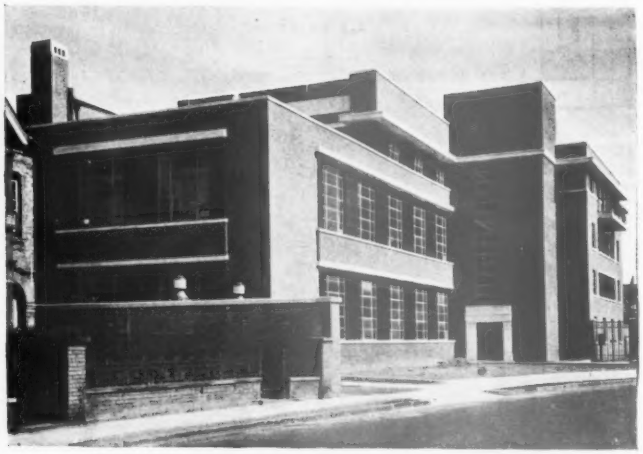


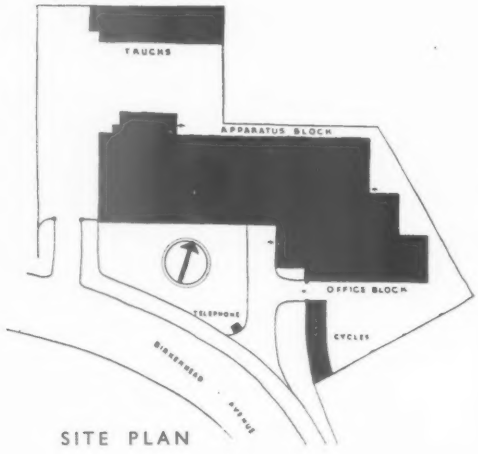


SECTION

GENERAL PROBLEM—*The building has been designed, as every telephone exchange has to be, to meet, in the most economical and effective way, the requirements of the Post Office Engineers. It houses a highly specialized engineering plant.*

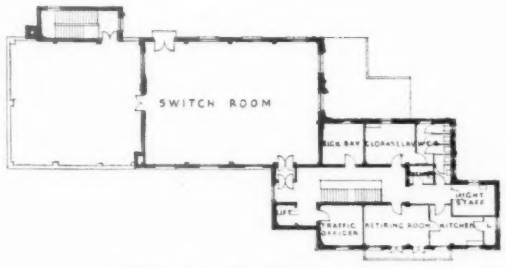
The photographs show: left, the south side of the office block; below, a general view taken from the south-west.

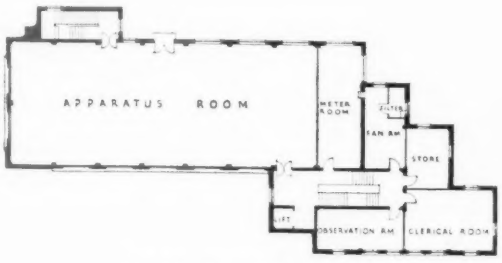


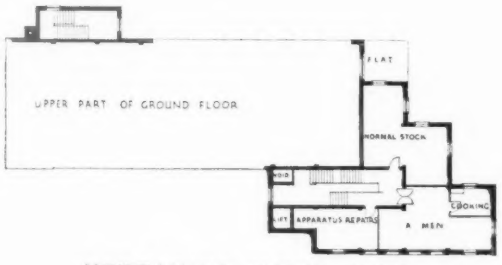


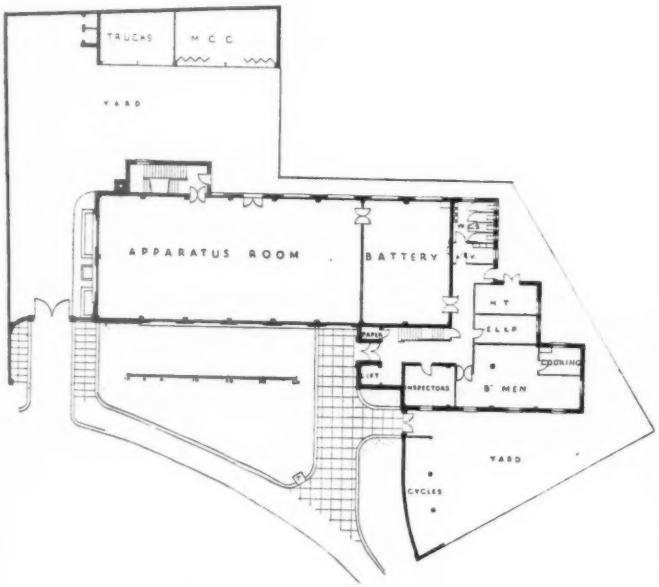
SITE PLAN

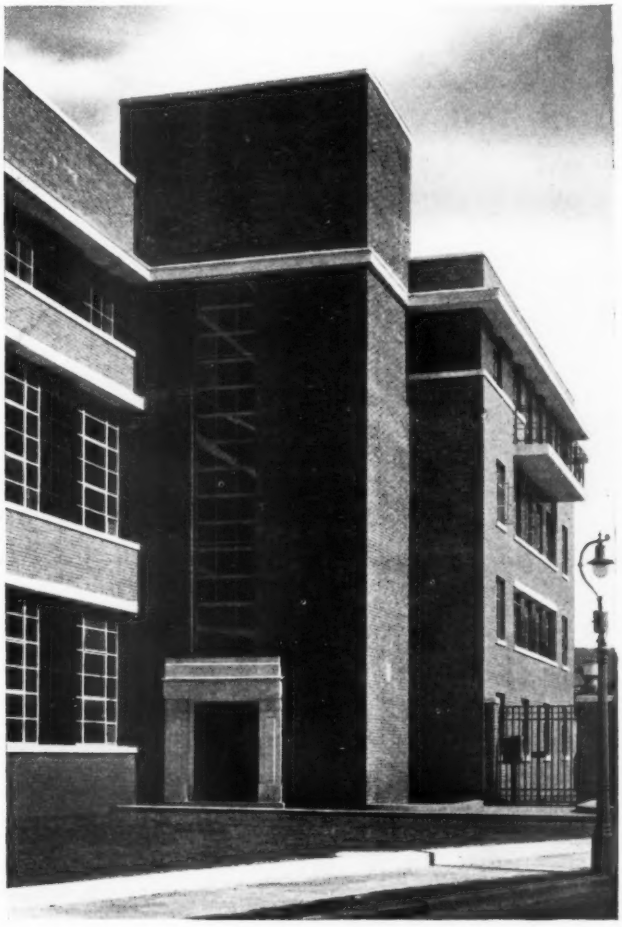
BY JOHN H. MARKHAM (H.M. OFFICE OF WORKS)











CONSTRUCTION—*Brick walls, stone dressings; metal windows and balcony; and asphalt roof.*

ELEVATIONAL TREATMENT—*This was governed by the necessity for large windows. One of the difficulties which had to be contended with was the unavoidable difference in height between the apparatus rooms and the few rooms allotted to offices and staff requirements. This accounts for the two parts of the building being united by the entrance and staircase tower, which is of somewhat different scale as regards fenestration.*

The photograph is of the entrance and staircase tower.

For list of general and sub-contractors see page 525.

LETTERS FROM READERS

JOHN MURRAY EASTON

ARTHUR WELFORD

SURVEYOR

Lost Horizons

SIR,—In order to be quite sure of being recognized as such, members of the Left Wing of the architectural body throughout the world have hitherto been under the necessity of dressing all their buildings in smooth white rendering. All of these cannot be monolithic all the time, and some can never even start life as monoliths, but they can and do hide their polylithic nature under this white uniform which, with the help of some well-understood conventions, places them beyond reach of suspicion as surely as does a black or a brown shirt in other spheres.

Look through the *Architettura Funzionale* of Alberto Sartoris. There you find a bare half-dozen exceptions to the rule, and these are not the well-thumbed pages in the library copy. A sense of delicacy has forbidden everyone to look too closely at their nakedness.

Yet one of the chief apostles has been loosening up a bit of late years. M. Le Corbusier himself has made delicious play with the randomest of rubble cheek by jowl with rendered surfaces, and it is unlikely that we shall have long to wait before we see the same thing sprouting from the alien clay of Middlesex.

The purpose of this letter is not to expose a sheep-like quality in men that has already too frequently been held up against them, but to call for action.

There is M. Le Corbusier using stone ; and here at the head of this page is a drawing of a new monoplane which appears to have adopted rusticated masonry and an oriel window as its principal features. Now the airplane is the perfect symbol of functional orthodoxy in design. It shares with the girl in shorts and the Dunhill pipe the honour of bringing every lecture on modern architecture to a fitting close, and surely where the airplane leads we may and must follow. Not slavishly, of course ! The oriel may be difficult to absorb into the architectural synthesis just at first. It does look a little speculative builder-ish at the top but it all gives a great sense of liberation and discloses fresh horizons. So on to the re-discovery of the old materials and the old themes !

Brick and stone, pitched roofs and dormers, all lie ready for re-use. But the lead *must* come from the Left. Unless that lead comes from the very tip of the Left Wing, it will be no good, for there would inevitably be failure to recognize how absolutely different is the old re-discovered by the young from the old unforgotten by the ageing.

JOHN MURRAY EASTON

The Next Slump

SIR,—In my letter which you publish in your issue for September 23, there is a printer's error which entirely destroys its sense. " —together with the stamps necessary— " should read " —together with the slumps necessary— " for that (bank) control.

May I answer the four points raised by your Leader Writer.

(1) The rise in cost of living, etc., are symptoms, not causes. The present boom was caused by the release of a large volume of national credit by way of " loans " from banks for armament and subsidiary purposes. The next slump will be caused by the cutting off of this flow of monetized credit, and the recovery and destruction of the released credit by taxation. Incidentally we shall have acquired greatly increased armed forces which will have to be kept up as an added national liability out of the proceeds of further taxation.

(2) Why, in a world of already great and potentially enormous production, damp down demand ?

(3) The cure for slumps and booms is to make and to continue to make financially possible the total consumption of all we can produce. This is a mathematical (financial) problem ; why try to divert it into a psychological one ?

(4) Modern economists' theories are not really eclectic, they will not discuss the Social Credit theory which you mention, and they do not appear even to examine " *all* the facts."

If I may say so, your Leading Article is based on the assumption that the financial system must be taken for granted as being perfect ; therefore all ills in our economy are to be cured by planning and the application of psychology !

In a world already bulging with goods to the extent that some have to be destroyed " to keep prices up " ; with a productive system not working to the full and even suppressed, but capable of an enormously increased and increasing output ; and with seriously great unsatisfied individual demand which is not effective owing to an inherent and chronic shortage of individual purchasing power, the remedy is obvious.

Planning artificial scarcity will not cure slump, boom, or poverty ; and a board of public (so-called) investment will never produce a public dividend on those investments but, on the contrary, liabilities and further public debt.

No ! There need be no slump, but neither it nor any other will be avoided by the planning advocated in your Leading Article.

ARTHUR WELFORD

Payment to Sub-contractors

SIR,—I have read with interest Mr. C. E. T. Cridland's letter regarding sub-contractors' fees, which prompts me to suggest that the following method of payment to nominated sub-contractors for work done under P.C. items in the main contract, might be generally adopted by architects :—

A clause in the contract should be drawn up on the lines that the architect will instruct the contractor to make payments on account or in full to nominated sub-contractors, and will arrange to reimburse the contractor on production of the sub-contractor's official receipt ; also that the architect reserves the right to certify payment direct to nominated sub-contractors.

When the architect has authorized the contractor to make a payment to the sub-contractor, he would inform the sub-contractor accordingly.

A system on these lines is at present used by certain architects and is regarded as being very satisfactory.

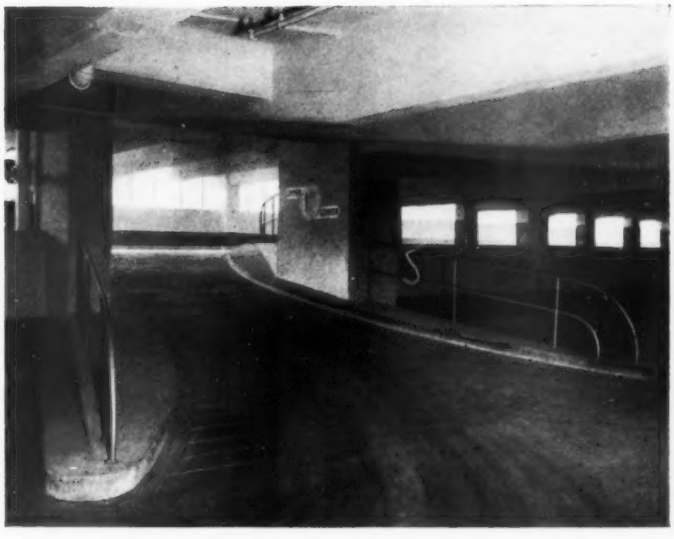
It ensures that should the general contractor have the misfortune to fail financially the sub-contractor would be safeguarded.

I note Mr. Cridland says he realizes that the architect is a very busy man and is not really paid for the office work entailed in keeping track of the payments to sub-contractors. I submit, however, that it is the architect's responsibility and duty to ensure that all nominated sub-contractors receive payment for their work as promptly as possible, and in accordance with the terms of their estimate.

SURVEYOR

WORKING DETAILS : 595

RAMP CONSTRUCTION • GARAGE AT OLYMPIA, W. • JOSEPH EMBERTON



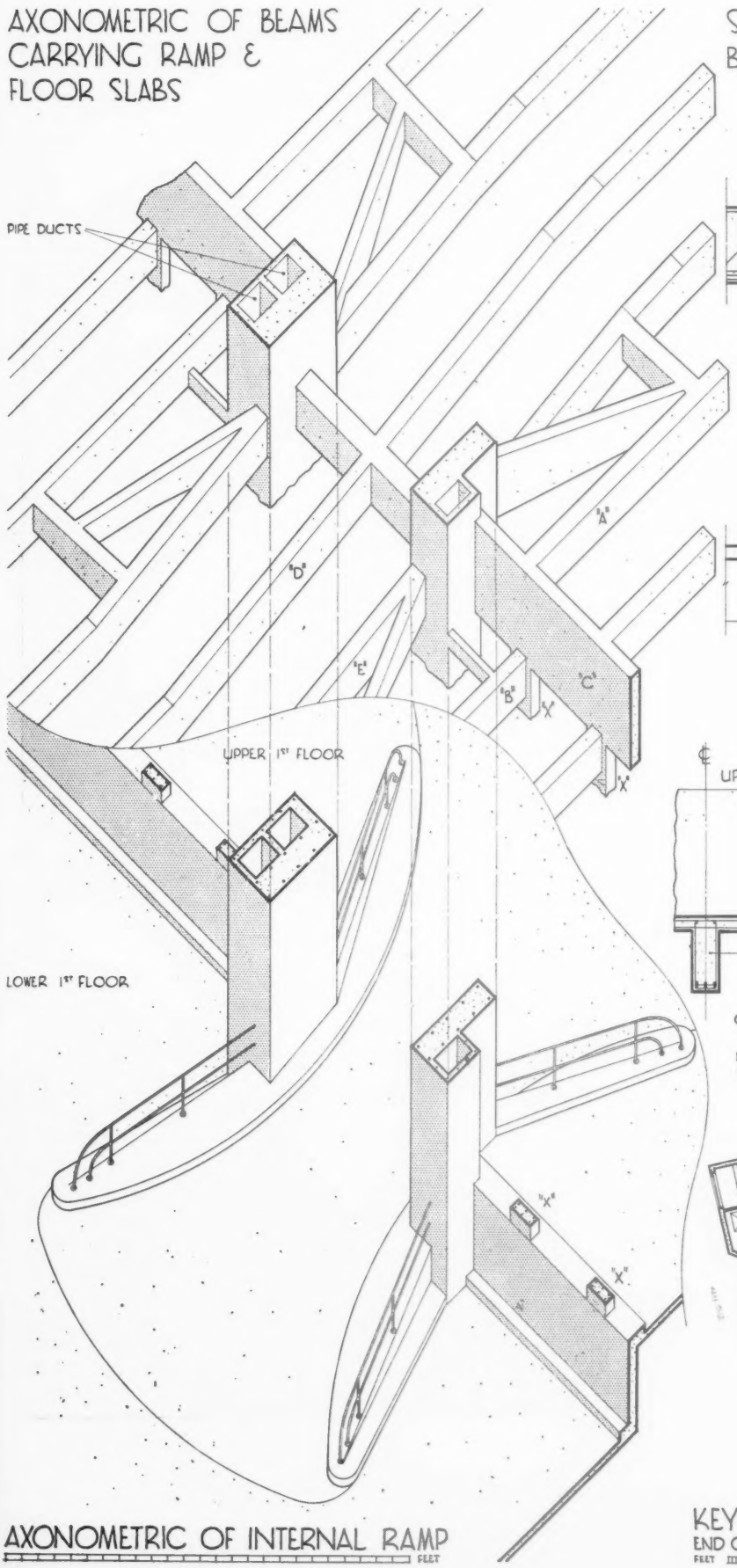
The garage contains ten floors, each half a storey high, all connected by ramps. These are situated at either end of the building, thus enabling one-way traffic to be used when desirable.
The ramps are constructed entirely in reinforced concrete, the floors and ramps having a special finish to make them hard and dust-resisting.
Details are shown overleaf.

FILING REFERENCE:

WORKING DETAILS : 596

RAMP CONSTRUCTION • GARAGE AT OLYMPIA, W. • JOSEPH EMBERTON

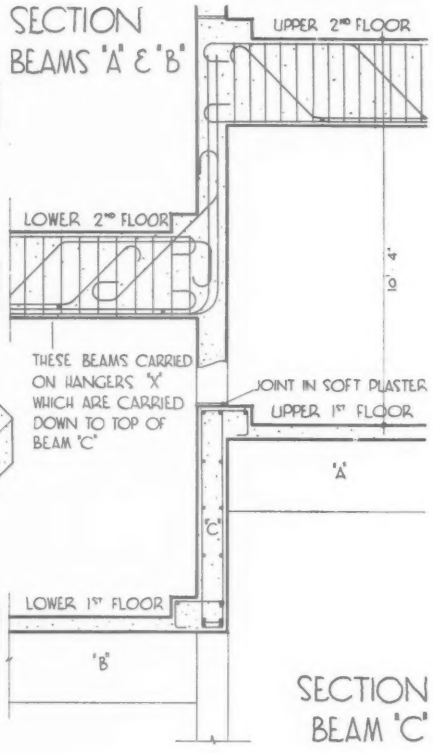
AXONOMETRIC OF BEAMS CARRYING RAMP & FLOOR SLABS



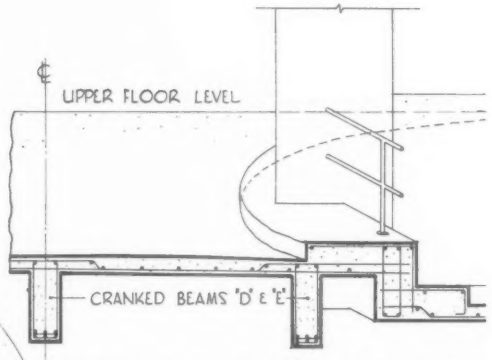
AXONOMETRIC OF INTERNAL RAMP

FEET

SECTION BEAMS "A" & "B"



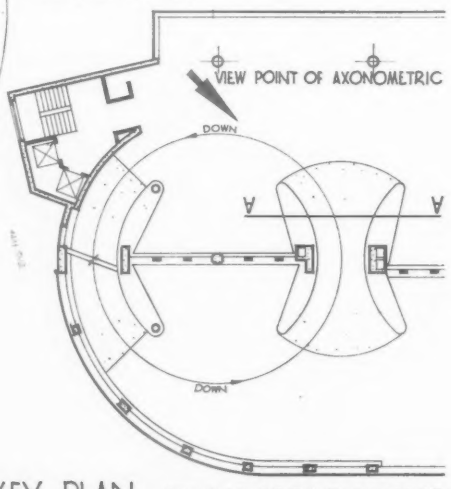
SECTION BEAM "C"



SECTION THRO' RAMP AT A-A

FEET

SCALE OF DETAILS



KEY PLAN SHOWING CIRCULATION. OTHER END OF GARAGE SIMILAR FOR UP TRAFFIC.

FEET

Axonometric and details of the ramp illustrated overleaf.

The Architects' Journal Library of Planned Information

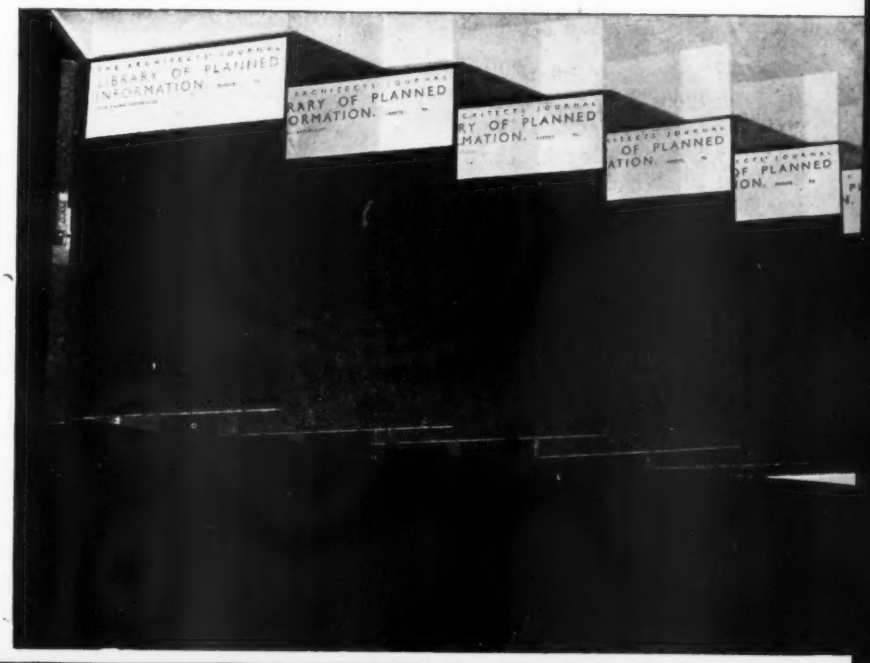
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

560 Kitchen Equipment

561 Asbestos Cement Roofing



Sheets Issued since Index :

501 : Aluminium
502 : Fixing Blocks
503 : Approximate Estimating—XII
504 : Aluminium
505 : Aluminium
506 : Approximate Estimating—XIII
507 : Plumbing : Jointing of Copper Pipe
508 : Roofing—Valley Flashings
509 : The Equipment of Buildings
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512 : School Lighting
513 : Approximate Estimating—XIV
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522 : Reinforced Asbestos-Cement Roofing Tiles
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525 : Metal Reinforced Asbestos Cement
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536 : Asbestos-Cement Ventilators
537 : Slate Window Cills, etc.
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548 : Wallboards
549 : Elementary Schools—V
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551 : U.S.A. Plumbing—IV
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556 : Kitchen Equipment
557 : Asbestos Cement Roofing
558 : A.B.M. Rainwater Pipes
559 : Flashing

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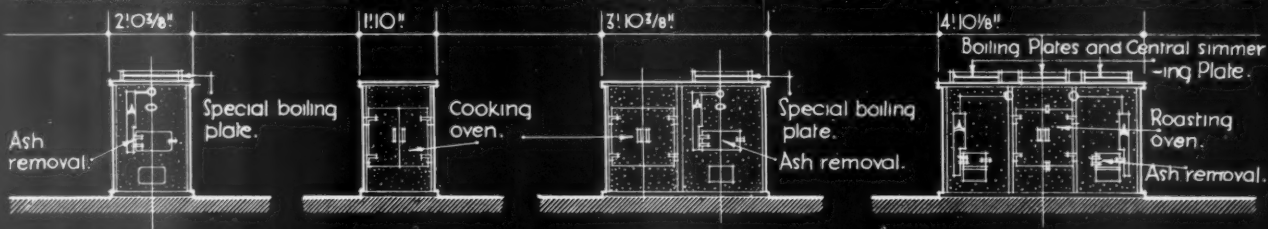
ELEVATIONS SHOWING THE BUILDING UP OF LARGE SCALE COOKING MODELS FROM STANDARD AGA UNITS:

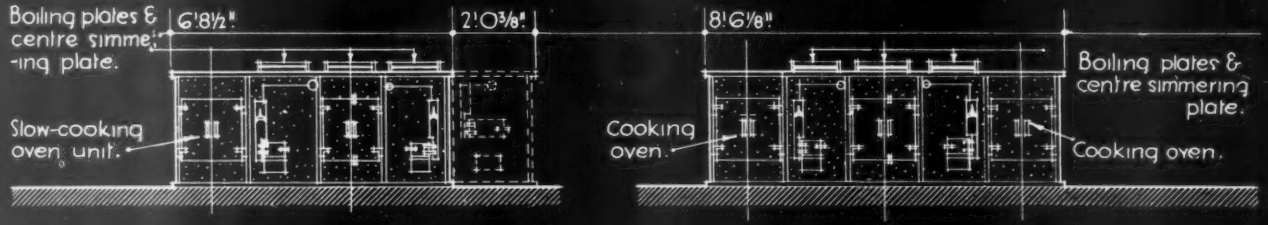


MODEL H.10. An auxillary to other equipment to provide additional boiling space.

TYPE 20 or 40 slow-cooking oven unit, auxillary to MODEL H.10 or H.30 respectively.

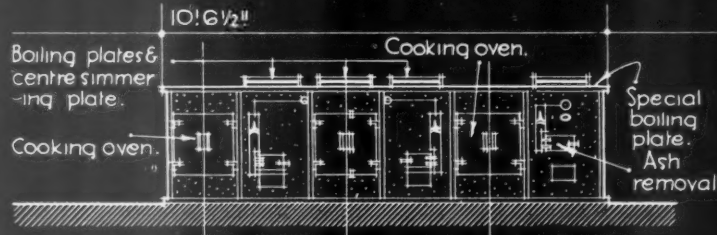
MODEL H.12, combination of Model H.10 and Type 20 slow cooking oven.

MODEL H.30. Considerable hotplate & roasting accomodation is provided, but no slow cooking or warming oven.



MODEL H.34. An all purpose unit similar to model H30. but with the slow-cooking oven type 40 fitted. Model H.10. may be fitted in position shown dotted.

MODEL H.344. This model provides considerable warming & slow cooking accomodation by means of the two Type 40 cooking ovens in addition to the roasting & boiling facilities at the centre.



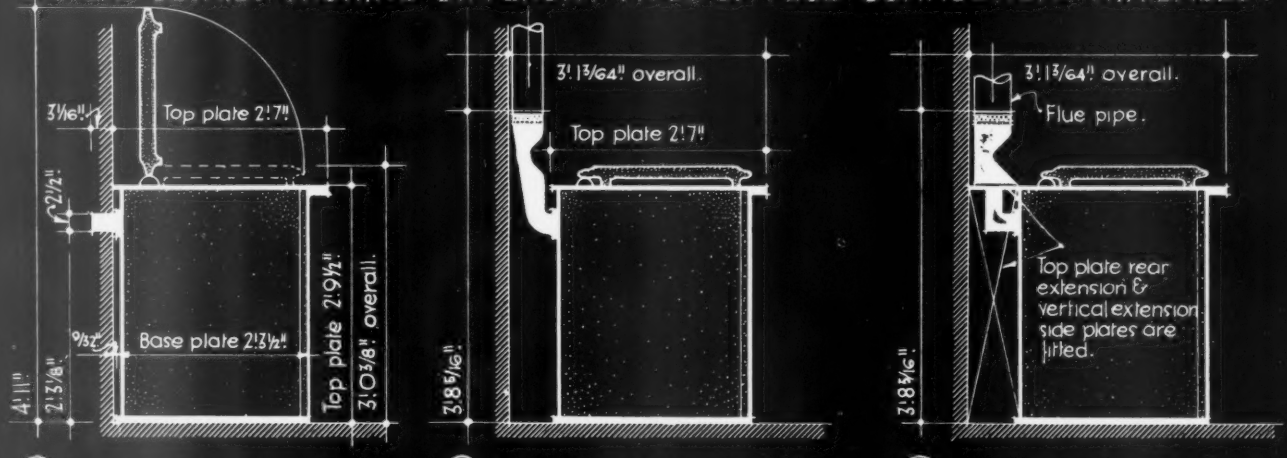
HEIGHT: The standard height of all models is 2'9 1/2" from floor to top plate.

DEPTH: Standard depth from front to back of all models is 2'7".

MODEL H.1234. In this model predominance of slow-cooking oven capacity is provided, with one central roasting oven. Extra hot plate area is obtained by the use of unit Model H.10.

FUEL CONSUMPTION: (per annum). H10, £4. H.12, £6. H30, £12. H34, £14. H34 with H10, £18. H344 £16. H1234, £20.

TYPICAL DETAILS SHOWING DIFFERENT TYPES OF FLUE CONNECTIONS AVAILABLE:



(A) Horizontal flue stub connection for fitting to a built-in flue. The top plate of the cooker fits tight against the back wall.

(B) Angle flue chamber for connection to vertical flue outlet. The top plate of the cooker stands away from the wall as shown.

(C) Angle flue stub type connection for fitting to overhead chimney or flue. Top & side extension plates enables unit to fit against back wall.

Information from Aga Heat Ltd.

INFORMATION SHEET: HEAT STORAGE COOKERS, No 3: HEAVY COOKING UNITS.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Oscar P. Payne.

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 560 •

KITCHEN EQUIPMENT

Product : The Aga Cooker

General :
This is the third of a series of Sheets dealing with the Aga cookers, and shows a selection of the standard heavy cooking models formed by various arrangements of the basic Aga units. Multiple cooking models of this nature may be suitably connected up to almost any capacity, and although it is possible to supply units with the slow cooking ovens in alternative positions if the kitchens require it, the standard position for such auxiliary equipment is on the left hand side of the unit from which it takes its heat.

All Aga models are suitable for installation in either new or existing buildings, and they may replace, or be positioned in front of, or beside, existing ranges without any structural alteration. For particulars of typical fire unit construction and the heat storage and control principles by which they operate, see previous Information Sheet No. 1 of this series.

Oven Capacity :
The roasting oven, centrally placed in the twin fire unit, Model H 30, is 18 ins. by 18 ins. by 20 ins. deep, with a temperature controlled and maintained within fine limits by the standard Aga draught stabilizers and automatic thermostat control. The auxiliary slow-cooking oven unit, type 40 and type 20 also has an 18 ins. by 18 ins. by 20 ins. deep oven, able to be kept at a constant temperature day and night, the top section being intended for slow cooking stocks, soups, sauces, root vegetables, etc., and the lower part for plate heating and keeping food warm.

Hot Plates :
The auxiliary fire unit, Model H 10, has a special boiling plate for extra heavy work. This plate is very rapid in use, being directly heated by its own fire, and is suitable for quick boiling, deep fat frying, grilling, etc. The hot plate area of the twin fire unit, Model H 30, is 6 sq. ft., the right and left plates being for fast boiling, separated by the central simmering plate. The whole of the top except the insulated front rail of this unit is available for cooking purposes.

Insulating Lids :
The hot plates of both units Nos. H 10 and H 30 are provided with hinged insulating lids for the conservation of heat when not in use. The lids have stainless steel tops and are lifted by means of the insulated front bar. When in the raised position they form a splash-back to the particular hot plate being used.

Fuel Consumption :
Automatic control of the flue speeds or draught and the cooking temperatures, make it possible to guarantee a maximum fuel consumption for any of the Aga models. The figures given on the face of this Sheet are based on an approved grade coke at 40s. per ton.

Flues :
The Aga cooker flue may enter that of any boiler or other appliance, and will not detract from the efficiency of the flue. The products of combustion are negligible, and the fact of the flue being already in use by another appliance does not affect the cooker, owing to its being thermostatically controlled.

The slow-burning properties of the cooker require only a small but positive draught. Three types of flue connection are available A, B, and C, as illustrated.

The neatest method of installation is that where the cooker stands against a wall—the flue nozzle entering the main flue. In such cases a built-in soot door should be provided for chimney sweeping. When the cooker is to be connected to the main chimney by means of flue pipe, a B or C type flue connection should be ordered. The correct flue material can be supplied by the Company at standard prices.

Orders should clearly state which type of flue connection should be supplied. Cooking ovens will always be supplied to work on the left-hand side of the unit from which it takes its heat unless the order states to the contrary.

Hearth :
To ensure correct working of the Aga Cooker, it is important that the hearth or base upon which the cooker stands should be absolutely level. The base plate of the Aga cooker bears on a number of places over its surface. Therefore, it is essential that the hearth or base should be smooth.

The approximate weight of the Model H 30 is 17 cwt., spread over an area of 11 sq. ft. If required, it can be raised on a brick or cement dais flush with the front plate of the cooker. If the cooker is to stand on a wooden floor, it is recommended that an asbestos cement base should be used as a precautionary measure.

Finish :
All models are finished in cream vitreous enamel with dull nickel tops. Models H 10 and H 12 can be supplied with black tops if desired.

Prices :
The Models are priced as follows :—

H 10, from £36 10 0.
H 12, from £56 10 0.
H 30, from £105 0 0.
H 34, from £125 0 0.
H 344, from £145 0 0.
H 123, from £161 10 0.
H 1234, from £181 10 0.

Delivery and erection charges are extra in every case, the amounts varying according to distance, etc. Any Aga model may be obtained on hire purchase, over periods of one to four years.

The word "Aga" is the registered trade mark of the Aga Heat Ltd.

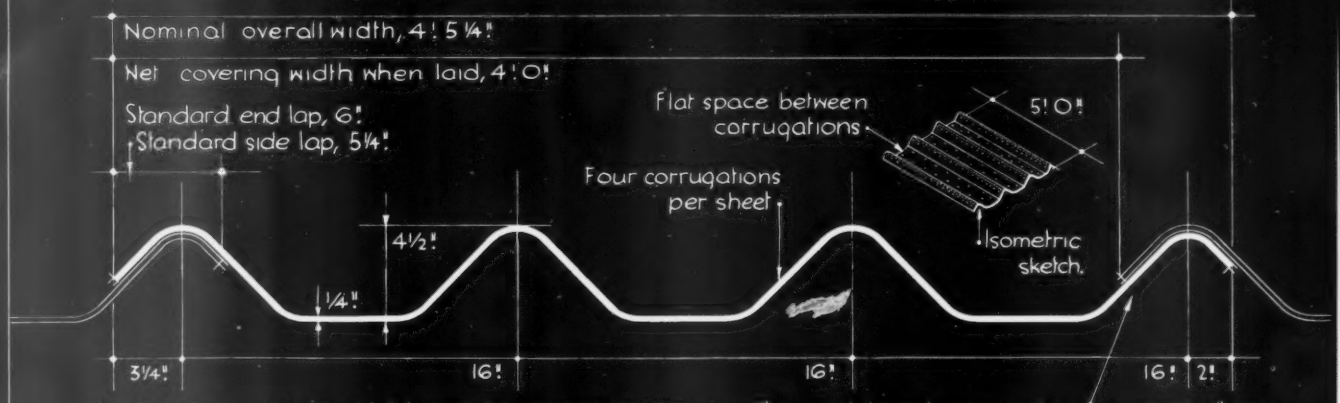
Previous Sheets :
The first two Sheets in this series dealing with Aga Cookers are Nos. 553 and 556.

Name of Manufacturers : Aga Heat Limited.
Address : Orchard House, 30 Orchard Street, W.1
Showrooms : 20 North Audley Street, London, W.1
Telephone : Mayfair 6131 (6 lines)

4. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

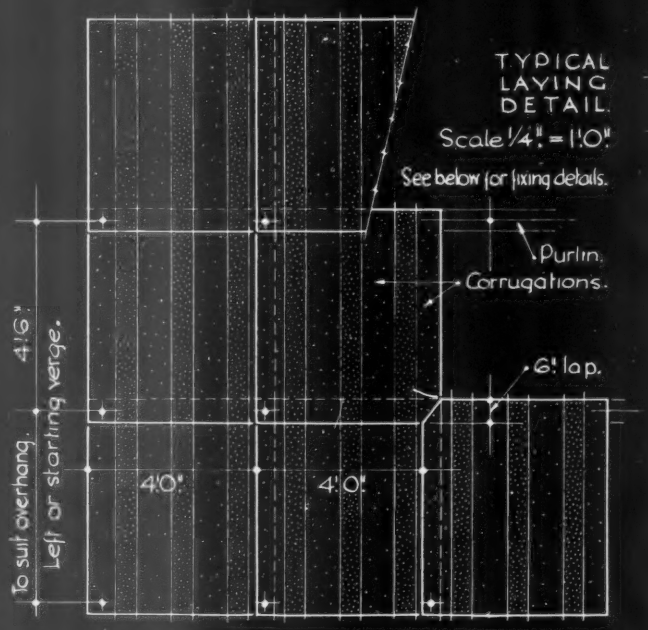
TURNALL · SUPER SIXTEEN · CORRUGATED ASBESTOS-CEMENT ROOFING SHEETS.

For details of the asbestos-cement roofing accessories for use in conjunction with these sheets, see Sheet № 2. of this series.

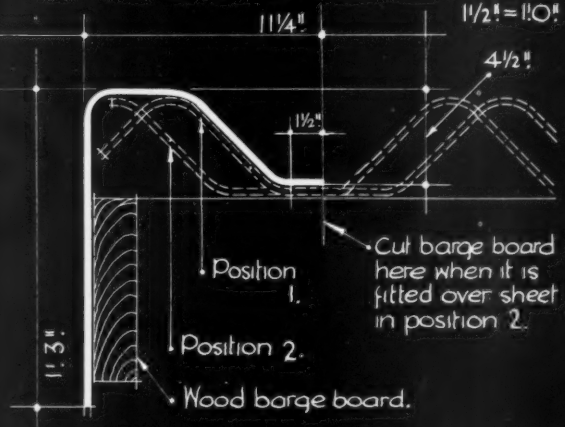


PURLIN SPACING: Up to 4' 6" centre to centre for either wood or steel construction.

The right hand corrugation is smaller than the others to ensure even bearing along the purlin.



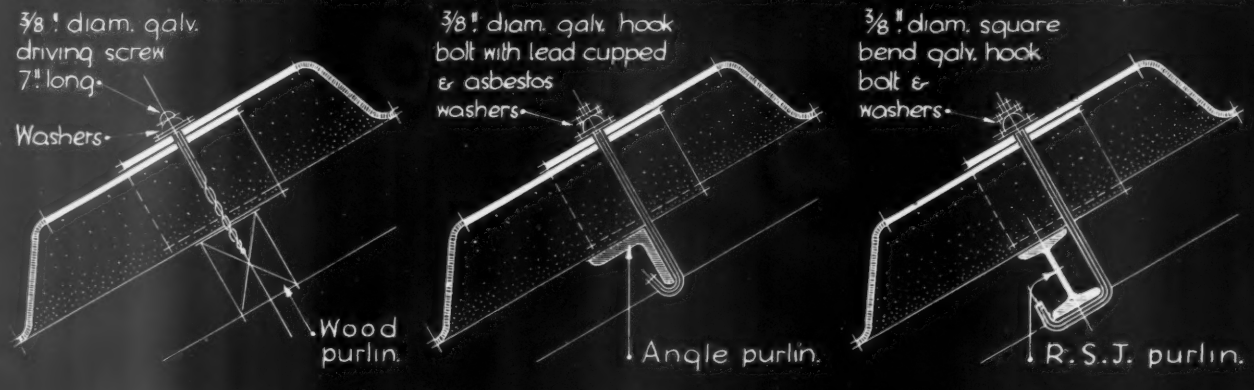
DETAIL OF BARGE-BOARD: SCALE 1½" = 1' 0"



Where the barge board is used in position 2. the verge corrugation is cut along the centre line.

Other accessories, not shown here, are similar to those previously illustrated for use with the Turnall · Trafford Tiles.

TYPICAL WOOD AND STEEL PURLIN FIXING DETAILS : Scale, 1½ Inches equals 1 Foot.



Information from Turners Asbestos Cement Co. branch of Turner & Newall Ltd.

INFORMATION SHEET : CORRUGATED ASBESTOS-CEMENT SHEETING: № 1.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 · Oscar A. Bayne.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 561 •

ASBESTOS CEMENT ROOFING

Product : Turnall Super Sixteen Corrugated Sheets

General :

This is the first of two Information Sheets devoted to " Turnall " Super Sixteen corrugated Asbestos-cement roofing sheets, and illustrates the shape and size of this type of covering, together with the standard methods of laying and fixing. The following Sheet will deal with the Asbestos-cement roofing accessories for use in conjunction with this product.

Material :

The sheets are milled from a combination of British Standard Specification Portland Cement and natural mineral rock white asbestos fibre. The fibre imparts to the cement certain characteristics such as toughness and flexibility, which permit it to be used in the form of sheets capable of being cut and sawn. In the process of manufacture the fibres are thoroughly and uniformly coated with fine cement particles. The sheets are not moulded, but are built up in rolling mills in the form of layers or films of asbestos and cement regularly distributed and interlaced to constitute a kind of tough woven fabric.

Purlin Spacing :

The wood or steel purlins supporting this form of roofing may be spaced at 4 ft. 6 in. centre to centre.

Size, Lap and Weight :

Turnall Super Sixteen sheets are made in a standard length of 5 ft. by a nominal over-all width of 4 ft. 5¼ in., the material having a nominal thickness of ¼ in. throughout. There are four corrugations per sheet, standing 4½ in. high and 16 in. centre to centre. The right-hand corrugation of each sheet is made slightly lower than the others, to ensure a close fitting vertical lap with the adjoining sheet, and at the same time to give even bearing of the sheets along the purlins.

The sheets are laid to an end or horizontal lap of 6 in., and the side or vertical lap of 5¼ in. permits a net cover of 4 ft. when laid.

The weight of 100 sq. ft. of laid roofing is approximately 316 lb., and 14 sq. yds. of sheeting are required to cover 100 sq. ft. of the roof.

Method of Laying :

As shown in the diagrams, Turnall Super Sixteen sheets are laid from left to right. In order that only three thicknesses of material should occur at purlin fixings, tiles are mitred on the job to suit their actual position on the roof, but for the purposes of illustration the tiles shown are given unit letters. The mitre in every case is cut by means of an ordinary hand-saw, and should extend 6 in. along the length of the tile and 5¼ in. along the end edge.

Where it is necessary to commence laying both slopes of a pitched roof from one end of a building, it will be necessary on one slope for the fixer to carefully set out and measure back to suit the net cover width of 4 ft. for the sheet unit. In the event of a surplus length of roof, a portion of tile may be used by trimming a sheet back as required.

Fixing :

Fixing to steel purlined roofs is by means of ⅜ in. diameter galvanized hook bolt, capped with a Serval asbestos washer and a lead cupped washer beneath the tightening nut. When timber framing is used, the sheets are drilled for 7 in. long by ⅜ in. diameter galvanized driving screws these also having the washers already mentioned.

A joiner's hand-brace and gouge-bit are used for drilling the tiles, and this is always done through the crown of the corrugation.

If the structure is near the sea, a manufacturing town, railway or works giving off acid fumes, all galvanized fastenings should have a coating of bituminous solution before and after erection.

Prices :

For quantities over 2 tons in England and Wales.

Supply of materials only, 2/9¼ per sq. yard (grey colour).

Supply and fixing over 15 squares, 42/6 per square approximately (grey colour).

Information from : Turners Asbestos Cement Co. Branch of Turner & Newall Ltd.

Address, Central Office : Trafford Park, Manchester, 17

Telephone : Trafford Park 2181 (8 lines)

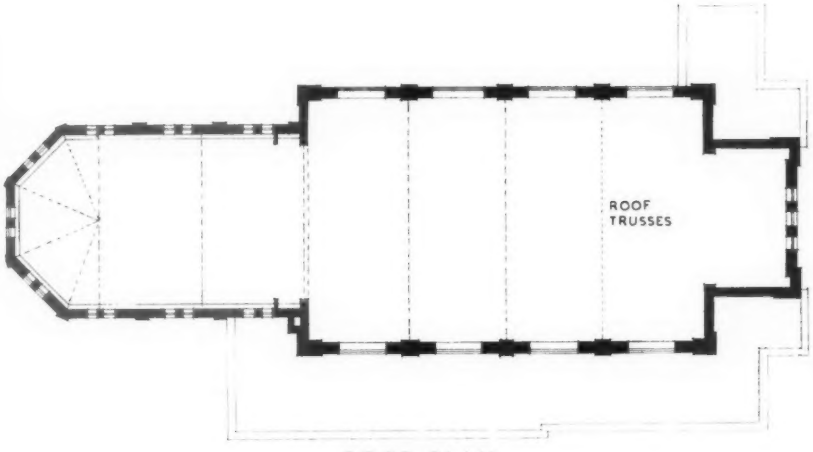
London Office : Asbestos House, Southwark Street, S.E.1

Telephone : Waterloo 4041

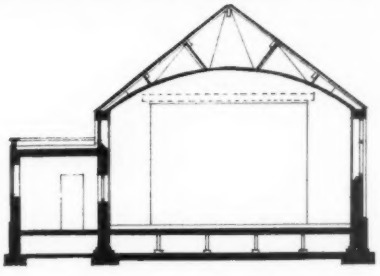
CHAPEL AND PARISH HALL, BEXLEY

DESIGNED BY

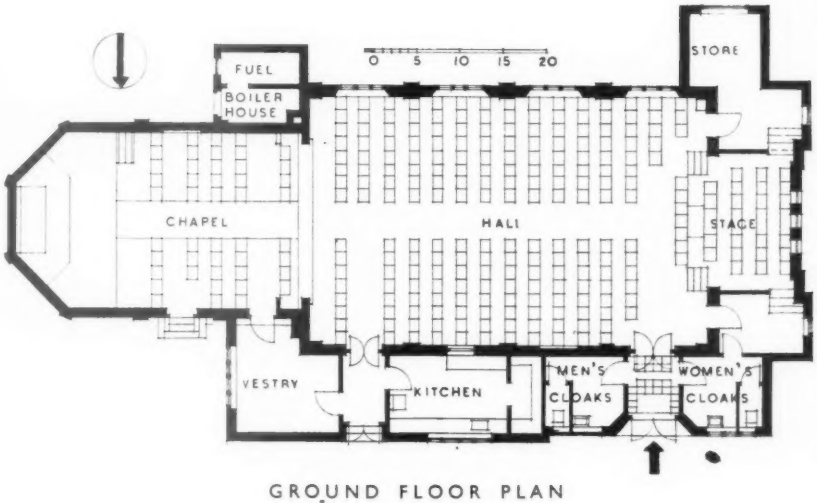
P. M. ANDREWS



ROOF PLAN



SECTION



GROUND FLOOR PLAN

GENERAL PROBLEM—*A small chapel and parish hall to be used independently, or as one building, and separated by sliding doors as soundproof as possible. The hall has a stage at the opposite end to the chapel, so that the audience sits in the reverse direction to the congregation. Kitchen, retiring and cloak rooms adjoin the hall and a vestry adjoins the chapel, which has a separate entrance. Under the stage is a chair store.*

SITE—*Blendon Hall Estate, Bexley, Kent. The site is a corner one, square and level. Provision had to be made for a future church to adjoin the chapel and hall.*

CONSTRUCTION—*The walls of the hall and the chapel are 14-in. brick; those of the cloak-rooms, vestry, etc., 11-in. hollow brick. Roofs consist of steel trusses. In the hall the ceiling is plastered; in the chapel it is formed of insulating board.*

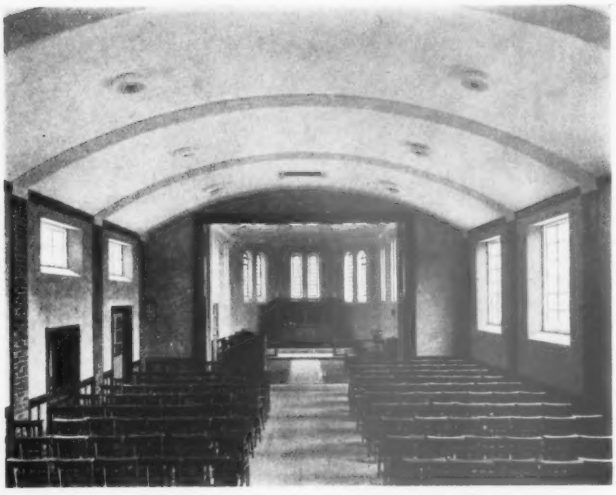
ELEVATIONAL TREATMENT—*An effort was made to give the chapel a faintly ecclesiastical appearance by the use of small round-headed windows, grouped together. No money was available for carving or ornament, and the simplest architectural character had to be given to the building.*

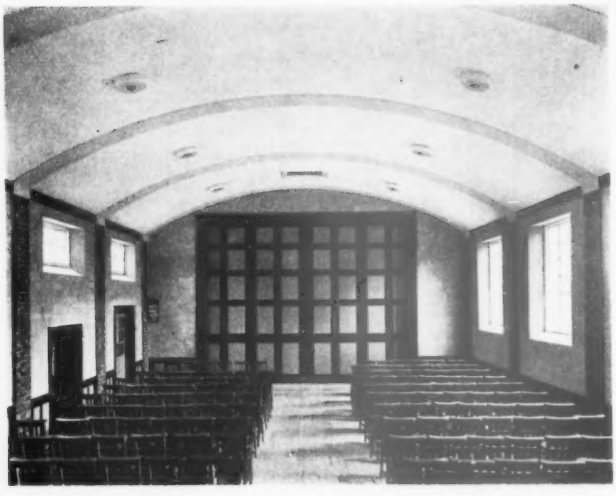
ACCOMMODATION—*Hall, 240 persons; chapel, 45.*

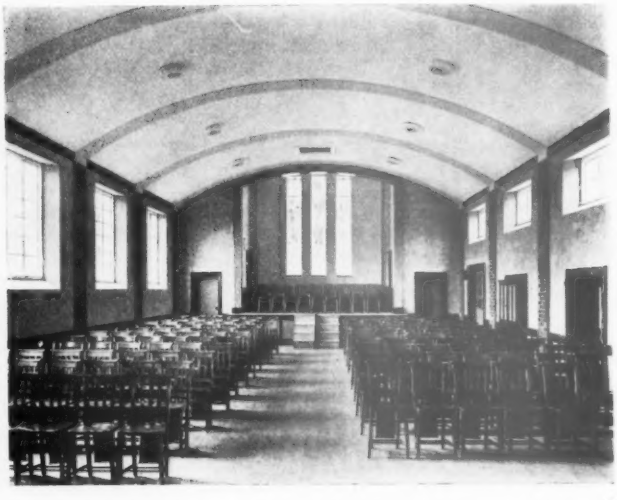
The photograph is of the south front.

E

CHAPEL AND PARISH HALL, BEXLEY,







CHAPEL CEILING—*The roof principals support a number of steel purlins. These in turn carry the patent adjustable metal fixing, which is held in position by steel clips, the adjustable metal fixing forming a backing to which the insulating board is fixed by special self-tapping screws, the holes for the screws being punched into the metal with a bradawl. The ceiling is divided into panels, and is distempered cream and white, which is the same colour as the plastered walls below.*

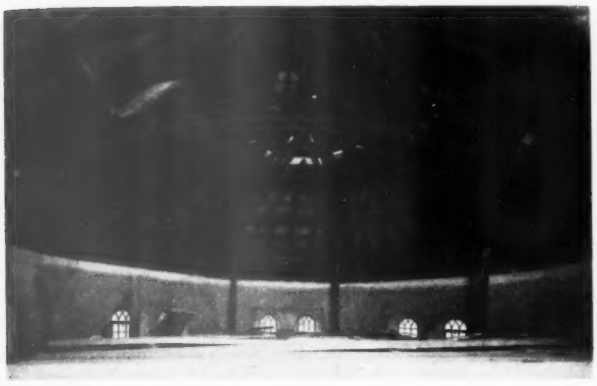
CONTRACT PRICE—*£3,245.*

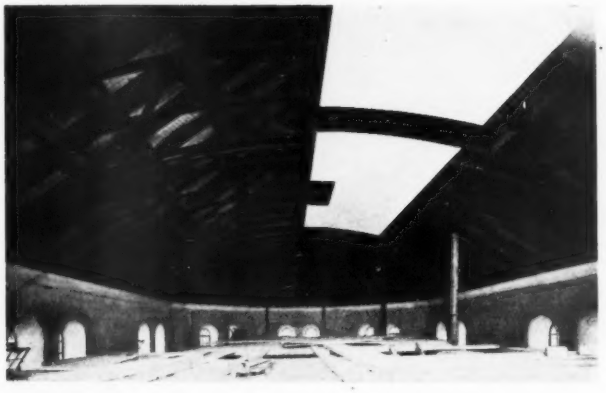
PRICE PER FOOT CUBE—*10½d.*

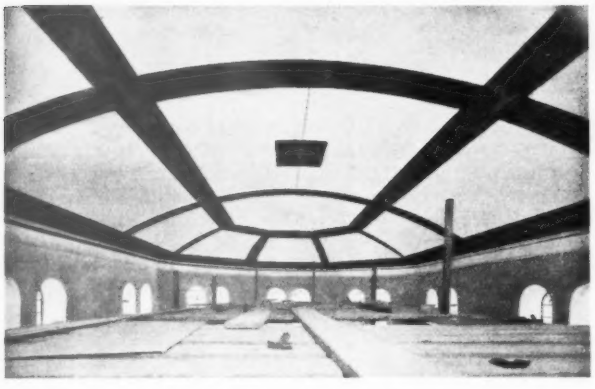
The photographs show : Left, top, looking from the hall into the chapel ; centre, a view in the same direction, with the sliding doors closed ; left, the hall and stage. The altar is at the opposite end to the stage. Above is a view of the altar.
On the facing page are detail drawings of the chapel roof and progress photographs showing the method of fixing the insulating board to the steel trusses.

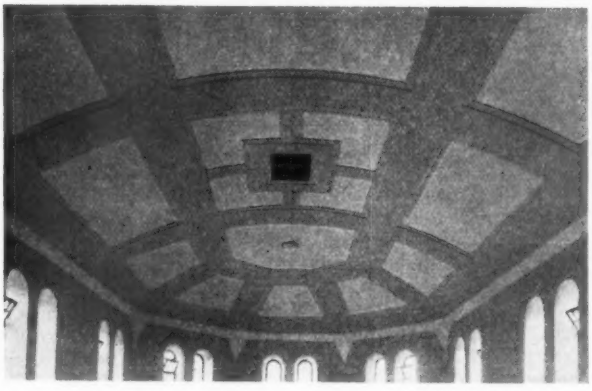
For list of general and sub-contractors see page 525.

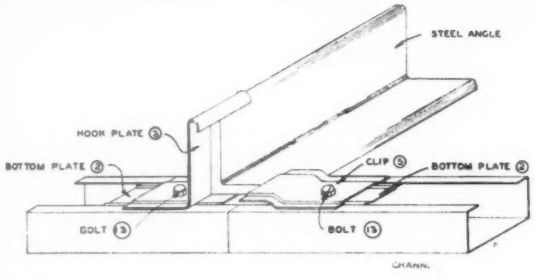
DESIGNED BY P. M. ANDREWS



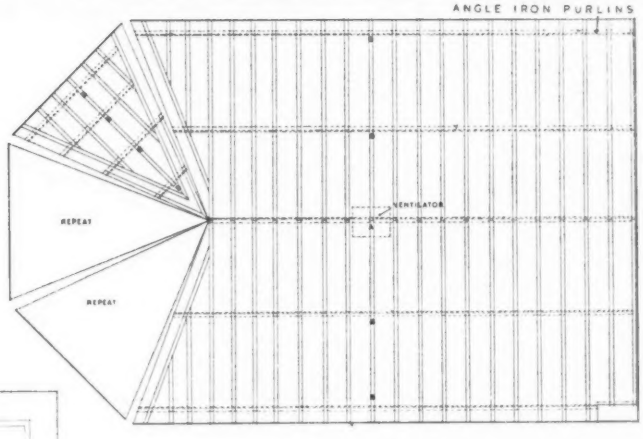




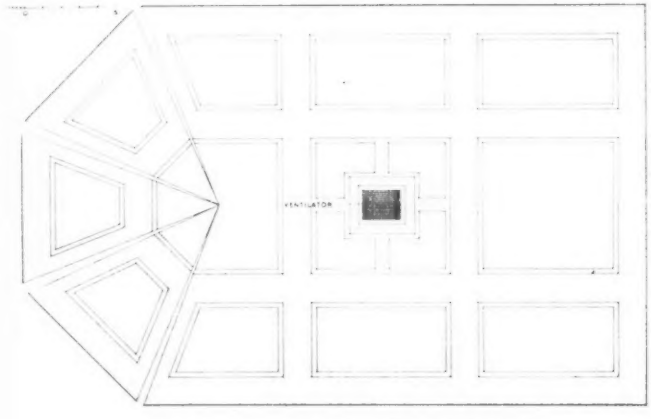




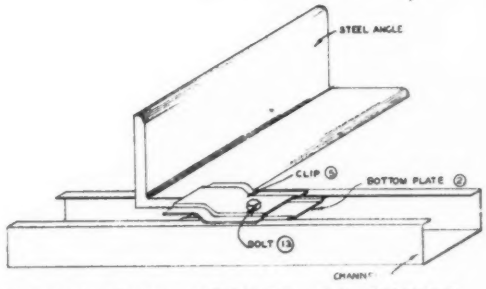
METHOD OF FIXING CHANNEL TO STEEL ANGLES WHERE JOINTS OCCUR



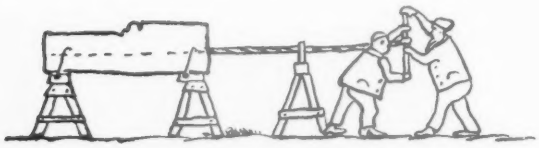
CEILING PLAN SHOWING CONSTRUCTION



PLAN OF FINISHED CEILING



ALTERNATIVE METHOD OF FIXING CHANNELS TO STEEL ANGLES



"It is hard work turning the handle of a 15-foot auger....."
From "The Village Carpenter."

L I T E R A T U R E

THE WOOD AND THE TREES

[*By E. H. W. ATKINSON*]

The Village Carpenter. By Walter Rose. Introduction by Frank Kendon. Cambridge: The University Press. Price 8s. 6d.
A Pocket Book of British Trees. By E. H. B. Boulton. London: A. and C. Black. Price 5s.

MR. ROSE has produced a little masterpiece that must surely become a classic. His book has all the virtues that one looks for in a beautiful piece of carpentry—it is unaffected in style, its flourishes in keeping with the characters of the work and of its author, and its structure is patently sound. Mr. Rose is a master carpenter of Buckinghamshire; his father was a master carpenter before him, and his again before that, so that the family history in carpentry goes back to pre-enclosure days.

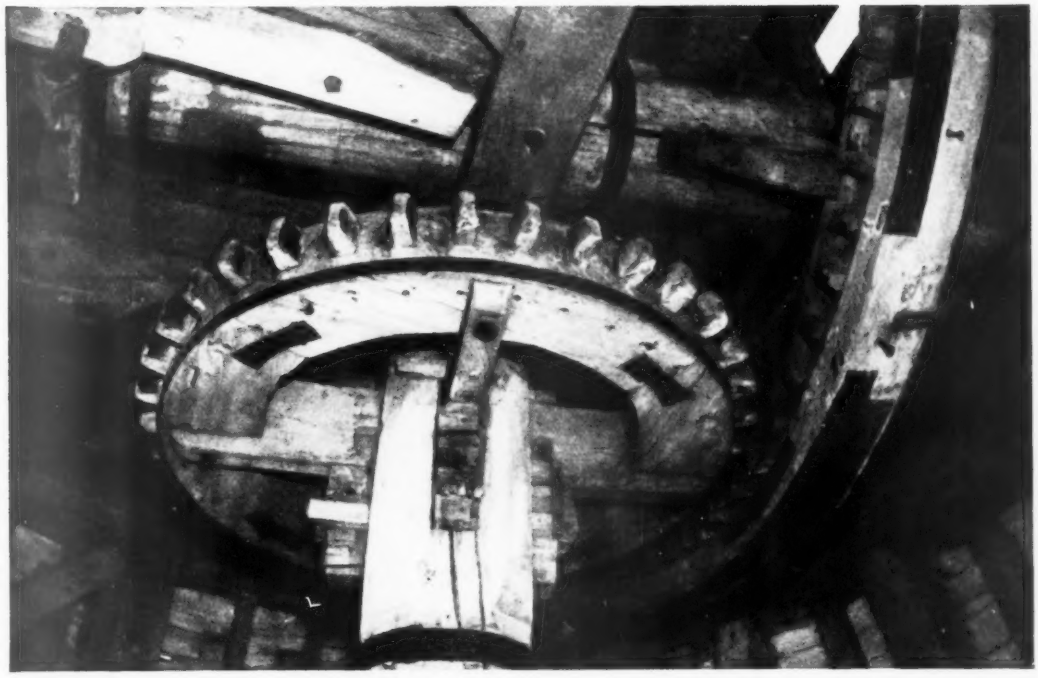
The traditions in which they worked go back to lose their roots somewhere in the texture of the countryside's history. Theirs is a craft that can never die out, but so much that has distinguished it these hundreds of years has gone since machine work came in that it was important that someone should record the way the work was done while yet there was time. I have read few books that I found so fascinating as Mr. Rose's.

There is none of the artiness about him that despises the machine. "The machine has released man from drudgery," he says, "the logical consequence being that this displacement of employment should find its remedy in craftwork of far higher orders than has hitherto been possible." But it is impossible not to feel, while reading the book, that something of tremendous value has gone out of the countryside, not only of craftsmanship, but also of the character of its people, since the carpenter's craft changed. There were days not so very long ago—Mr. Rose worked with the men who learned and practised their craft in them—when nails were hand-made, when the village carpenter was called upon to make rat-traps, to build pumps from the butts of trees that he went out and chose and felled, to mend great wooden cogwheels for wind- and water-mills, to make field gates—a day's work for a man was the making of a gate that came out a good deal more satisfactory-looking than the mass-produced article of today—to make the doors of houses, to make coffins and lift the dead into them—a coffin ordered by the parish cost 11s. 6d.—and to choose the wood for all this work, much of it while it was still growing on the very farms that kept the carpenters employed.

The men who did all this may not have known about much else than carpentry. But how well they knew it, and how important it was to their neighbours that they should know it. Their tools and their technique are described with a craftsman's respect by Mr. Rose. He uses the old craftsmen's words—a part of the language well-known to few—and explains them either in the text or in an unfailingly adequate index-glossary, and he has a really excellent series of photographs taken by Mr. M. Wiedling.

Mr. Boulton's book—it is not quite a pocket-book since it has sharp corners, is a little heavy, and is possibly a shade too big for current styles in pockets—is in its text and illustrations another very satisfactory piece of work. It sets out to be, and is, a scientific handbook for the unlearned. What is more, it works. A duffer in these matters, I have tried it out on my walks abroad, and it has not yet failed me even in identifications that I fancied would be a little difficult. The arrangement is good. The pictures of trees all face one way, the pictures of flowers and fruit, the other; reference and identification are thus very easy. The

Bottom gate hook and thimble showing wings and spike. From "The Village Carpenter."



In the top storey of a windmill, showing the large horizontal axle to which the sails outside are fixed. From "The Village Carpenter."

information it contains is, too, well set out, under systematic headings, including—a point that would please Mr. Rose—one for the uses of its timber.

KELLY'S DIRECTORY

Kelly's Directory of the Building Trades, 1937, London : Kelly's Directories, Ltd., Price 50s.

THE 21st edition of *Kelly's Directory*, 1937, has just been published.

This Directory covers England, Scotland and Wales, and constitutes an invaluable guide to the building and allied trades. In addition to the names of upwards of 20,000 builders, it gives also the names of those engaged in the various allied professions and trades such as builders in concrete ; timber merchants ; glaziers ; stone, marble and granite masons ; sanitary engineers ; architects ; land and estate agents ; surveyors, etc., and of manufacturers and suppliers of the different articles and materials used.

The book comprises : A places section, which gives the names for each county, arranged alphabetically under the towns and villages ; also such details as population, early closing and market days for each place. An alphabetical trades classification for the London postal district, with the names (and addresses) arranged alphabetically under each trade. A similar trades classification for the rest of England, Scotland and Wales, with the names (and addresses) arranged alphabetically under each trade.

There is also an extensive section giving in alphabetical order a list of branded articles and specialities used in the building trades, together with the names and addresses of the manufacturers.

R.I.B.A. FINAL EXAMINATION

Alternative Problems in Design

FOLLOWING is a list of the alternative problems in design for the year ending December 31, 1938. Copies of the list may be obtained free on application at the R.I.B.A. :

Instructions to Candidates

The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, R.I.B.A., 66 Portland Place, London, W.1, on or immediately before the dates specified below.

Each set of drawings must be signed in ink by the author and must bear his full name and address and the name of the school, if any, in which the drawings have been prepared.

All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work, and that the drawings have been wholly executed by him In the preparation of the design the student may profit by advice.

Drawings for subjects (*a*) are to have the shadows projected at an angle of 45 deg. in line, monochrome, or colour. Drawings for subjects (*b*) are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly and unaffected character. Prints of drawings are not submissible.

After a design has been approved it may be resubmitted together with the specified working drawings on one of the two published dates for the receipt of drawings immediately following the date on which the design was submitted.

All candidates taking the Final Examination will be required to include in the four Testimonies of Study for which they must secure approval before being admitted to the Examination, at least one constructional subject (working drawings of an approved design), and one problem involving an acoustical treatment. In addition, considerations of common-sense acoustics as they apply in ordinary modern design must not be ignored in any Final Examination Testimony of Study. Where a reverberation table is asked for it should be as complete as possible and the reverberation formula should be quoted. Acoustic diagrams showing the reflection of sound beams should be to a scale of one-eighth of an inch to a foot. The two subjects set for 1938 which may be treated acoustically are Problems Nos. 26 and 29. The two subjects which may be treated acoustically may be submitted *on any of the published dates* for receiving Problems in Design in any particular year, *provided that they are treated acoustically*. Candidates treating a Problem in Design acoustically must submit the acoustical calculations, etc., when they first submit the design. Design subjects taken from one year's list may not be submitted in any subsequent year.

Drawings which have been submitted by candidates and rejected by the examiners may not be revised and resubmitted. A list of articles and books on the subject of Acoustics to guide candidates in obtaining the necessary information may be obtained free on application to the Secretary, R.I.B.A.

A set of approved Final Examination Testimonies of Study has been deposited in the R.I.B.A. Reference Library for the information and guidance of students.

Dates for the submission of Designs in 1938.

Subject No. 25	February 28
Subject No. 26	April 29
Subject No. 27	June 30
Subject No. 28	August 31
Subject No. 29	October 31
Subject No. 30	December 30

No. 25

(*a*) *A Block of Family Flats.*—A freehold corner site near Kensington Gardens has been bought for the erection of a block of large family flats of a high-class character. (See figure 1 overleaf.)

The restrictions on the site are as follows :—

12 flats only will be permitted, and the height is limited to six floors.

The building lines are 20 ft. on the north and east boundaries, and 15 ft. along the road frontage.

Accommodation required per flat :—2 living rooms ; 5 or 6 bedrooms, inclusive of maids' bedrooms ; 3 bathrooms ; cloakroom ; kitchen ; pantry ; maids' sitting space ; larder.

Full equipment of a modern luxury flat, including storage space for clothes, food, wine, cleaning materials, fuel, trunks, pram, books, toys and everything necessary to a well-to-do family with two or three children, a nurse and two maids, all of whom will live in.

Passenger and service lifts, porters and meter room, heating chamber, etc. Alternative means of escape.

In view of the high rentals rooms should be of good size and the planning of the principal rooms for sunshine should be carefully considered. The question of sound insulation both in planning and construction must be given special attention in view of the number of children which the building will contain. Nurseries should have sound-resisting floors and living rooms should not be placed against bedrooms on party walls.

No garages will be required, provision for these having been made on the adjoining site.

Materials and Construction.—The adjoining buildings are mainly in brick and stone and of the late Georgian and early Victorian periods. Any materials or methods of construction which are considered suitable may be adopted, but the candidates should have sound reasons for their adoption. Attractive elevations are of great importance in helping to secure the right class of tenant, but reasonable economy in the use of facing materials must be considered.

Drawings required :—

Ground floor plan showing layout of site ; Plans of other floors. (Repeat plans need not be shown) ; 3 Elevations ; 1 Section — ⅛th scale.

Brief report describing the proposals for sound insulating construction and planning for quiet.

(*b*) *Working Drawings for a Block of Family Flats.* The design for a Block of Family Flats may, after it has been approved, be submitted with the addition of ⅛ scale Site plan showing drainage. [Combined soil and r.w. drainage allowed.]

Ground floor and typical upper floor ; Two principal elevations ; cross section — ⅛th scale.

½ in. detail of a portion of the building.

No. 26

In accordance with "Instructions to Candidates" (above) this problem may be treated acoustically.

(*a*) *Two Concert Halls.*—A city in the North of England, having a tradition of choral music, is to build two halls upon a rectangular site 190 ft. by 250 ft., of which the shorter front to the east is upon a main street. On the south and west sides are secondary streets, so that the site has direct access on three sides. On the north side there is a party wall.

The halls are to be let separately and must have separate entrances, cloak rooms and lavatories. They must be planned so that disturbing sounds shall not at any time penetrate from one to the other. The party wall on the north must be carefully defended against the danger of noise transmission.

The large concert hall is required to seat at least 1,800 audience with, in addition, a total choir and orchestra of 260. A floor space of at least 5,000 sq. ft. is to be level for dancing. This hall is not to be used for theatricals and must not have a proscenium arch. The choir staging must curve round on plan sufficiently to give the conductor a fair view of the whole chorus. Since music is the first requirement, a reverberation of two seconds *with a full audience* is asked for. Some students' seats looking down upon the platform are desirable so that the technique of soloists can be studied. A space of at least 8 ft. is required between platform front and the first row of seats. Daylight lighting is required.

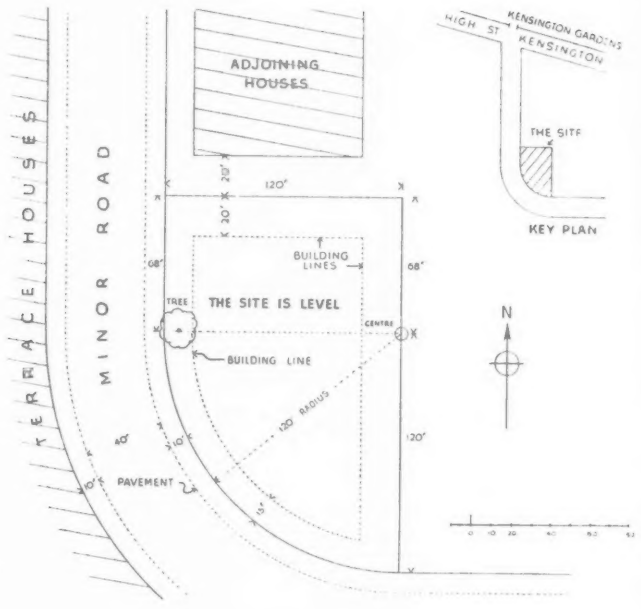


Figure 1

The choir staging in the large hall must have easy access to a large rehearsal room at least 2,400 sq. ft. which shall also be used as a concourse by competing choirs on festival occasions. This rehearsal room must have a tea counter across one end or along part of one side and connect with suitable kitchen and pantry space. There must also be ample lavatory accommodation adjacent for both sexes.

Two small soloists' rooms are required having fairly easy access to platform as from the left-hand side of the conductor. A large chair store is required to take parterre seats of the large hall.

The small hall is to seat at least 600. It will be used for a repertory theatre as well as an auditorium for chamber music. It must have a proscenium and forestage, and a simple form of permanent cyclorama at rear of stage. The stage must connect with a scenery dock having easy access from street and also with a theatrical studio at least 400 sq. ft. The small hall must have a top light which can be darkened. The floor need not be level. Fire exits must be adequate. A spacious foyer must connect with the large hall and have good means of access to it from principal ranges of seats, so that the hall can rapidly empty itself. There must be separate entrances and box offices; also a manager's office with a typists' room. A small caretaker's flat with a living room, kitchen, bedroom, bath and W.C. is required, and there must be space in basement for a boiler house.

Drawings required.—Plans, sections, and elevations to 1/16 scale to illustrate the scheme.

Acoustics.—All candidates taking this subject must note the general planning provision they have made against noise transmission and must sketch on their drawings the suggested sound absorbent treatment for both halls. Candidates taking this as their specific acoustic subject must in addition submit a reverberation table for the large hall only, which shall provide the reverberation period indicated above as desirable.

(*b*) *Working Drawings for Two Concert Halls.*—The design for two concert halls may, after it has been approved, be re-submitted with the addition of ½ inch scale details necessary to illustrate thoroughly the building and fitting of the large hall.

No. 27

(*a*) *A Public Library.*—A design is required for a Public Library in a small town. The site, which is approximately level, is as shown in figure 2.

No light can be obtained over adjoining properties and there are no rights of light to be respected.

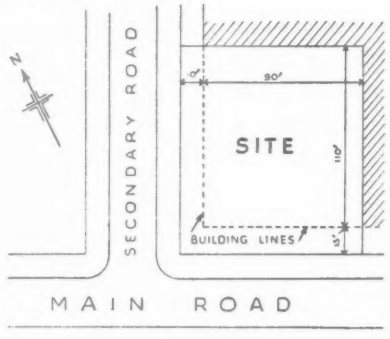


Figure 2

Accommodation.	sq. ft.
(1) Spacious entrance hall with porter's and telephone boxes.	
(2) Lending department	2,500
(3) Reading room and space for newspapers	1,500
(4) Children's library	1,000
(5) Cataloguing and work room	300
(6) Staff room with small kitchen attached	300
(7) Staff lavatories and cloakrooms for both sexes.	
(8) Reference department	2,500
(9) Committee room and librarian's office	300
(10) Book repairs and filing room	300
(11) Lecture hall with seating capacity for 100 people.	
(12) Small retiring room and lavatory adjoining platform.	
(13) Large book store under whole of lending department.	
(14) Heating chamber and fuel store	

A book lift should communicate with all floors.

Note.—Nos. (1) to (7) inclusive may suitably be placed on the ground floor. Nos. (8) to (12) inclusive may be on a first floor and Nos. (13) and (14) should be in the basement. Ease of supervision is of primary importance.

Drawings required :—

Plans of all floors, two elevations and two sections to ⅛-in. scale.

Half-inch scale detail of main entrance and portion of principal façade.

(*b*) *Working Drawings of a Public Library.*—The design for a public library may, after it has been approved, be resubmitted with the addition of complete plans, elevations and sections to ⅛-in. scale.

Half-inch scale detail of main entrance and portion of the entrance hall.

No. 28

(*a*) *A Works Canteen.*—An industrial firm, having recently completed their factory on the outskirts of a provincial town, has decided to proceed with the works canteen, a site for which has been allocated as shown in figure 3.

About 50 per cent. of the employees will use the canteen for meals, but it will be necessary to accommodate the full number of employees occasionally for concerts, dances and meetings.

The area of the canteen itself may have to be increased by 25 per cent. in 10 years' time and in planning provision should be made for this extension.

The employers stipulate a fire-resisting building and while they wish to reduce maintenance costs to the minimum they do not desire an extravagant finish.

The site is level and all services are available in the works road.

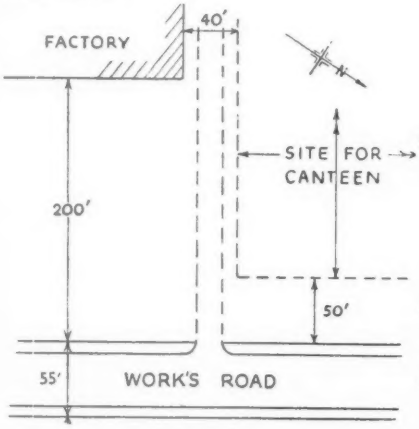


Figure 3

Accommodation.—*Canteen,* with cafeteria service, to seat approximately 500 (250 men, 250 women) for meals and approximately 900 for concerts. Employees can obtain cooked meals or light refreshments. No provision need be made for warming up food brought by employees. The canteen should be capable of subdivision into two or three rooms by folding partitions. In addition a small stage and prop store should be provided. *Staff dining room,* to seat 60 clerical staff at small tables with waitress service, separate entrance and cloaks. *Directors' dining room,* to seat 30 at small tables with waitress service, separate entrance and cloaks. *Bar,* with counter service to canteen. *Billiard room* (2 tables). *Games room :* Three table tennis tables and six card tables. Men's and women's cloaks and lavatories. Women's rest room. Kitchen, service, stores, manageress's room, etc. ; heating and hot water services will be available from the factory and no provision is required for a heating plant.

Drawings required :—

Sufficient plans, sections and elevations to explain the design .. .. } ⅛-in. scale.
Site plan .. .. .. 1/32-in. scale.

(*b*) *Working Drawings for a Works Canteen.*—The design for a works canteen may, after it has been approved, be resubmitted with the addition of

(*a*) Ground floor plan to ⅛-in. scale, showing all construction and drainage.

(*b*) Half-inch scale detail (approximately imperial size) showing details of a portion of the canteen in plan, section and elevation.

No. 29

In accordance with Instructions to Candidates (above) this problem may be treated acoustically.

(*a*) *A Dental School.*—A provincial University intends to erect a school for the teaching of dentistry.

The site is level and rectangular ; it has a frontage of 100 ft. on a busy and noisy thoroughfare on the N.W., while there is a narrow back street to the rear of the site on the S.E. The sides of the site are shut in by adjoining buildings. The depth of the site from front to rear is 120 ft. The whole site may be built over if desired.

The accommodation is to include : –

	sq. ft.
1. Separate entrances for (*a*) patients and (*b*) staff and students (the latter may be separated if desired). Lift to all floors to take stretcher cases.	
2. Entrance hall.	
Porter's office and telephone.	
Secretary's office	200
Directors' office	200
Staff common room	400
Students' common room	600
Students' locker room for 80 students.	
Lavatory accommodation for staff and students.	
3. Patients' waiting hall, with small reception office adjoining, not included in the area	700
Examination-room with two dental chairs	250
Almoner's office, with easy access to patients' waiting hall	100
Patients' lavatory accommodation for both sexes.	
4. Lecture-room, which is also used as museum for small exhibits ..	800
Reading-room and library ..	300
Pathology	700
5. Students' laboratory with benches for 40 students	1,600
Vulcanizing and casting room, adjoining laboratory, with fume cupboard and casting tables ..	250
Plaster-room (for storage of plaster)	250
Instructor's office	150
6. Extraction-room with two dental chairs	360
Gas-room with one dental chair ..	200
Recovery-rooms for both sexes.	
Surgeons' changing-room and lavatory.	
Patients' waiting-room, and lavatories for both sexes.	
7. Conservation-room for 40 dental chairs with north top light (this room is used for stopping teeth) ..	3,000
Store, adjoining conservation-room	100
Prosthetics-room (for fitting artificial dentures) with ten dental chairs	700
Patients' waiting-room and lavatories for both sexes.	
Demonstration-room with one dental unit and chair for tuition ..	200
8. Heating and ventilating plant.	
A dental chair occupies a floor area of about 8 ft. by 8 ft.	

The acoustics of the lecture room must be considered and it must be placed in a quiet situation. Patients are often very noisy when under gas, and extraction and gas rooms must be insulated from the rest of the building.

The rooms to be used by patients must be separated from the rooms used by students alone, and the whole plan should allow of good supervision. The various departments have been grouped in numbered sections in the list of accommodation.

Candidates who are taking this for their specific acoustic subject must submit a reverberation table for the lecture-room and state briefly the principles on which their sound insulation has been designed.

Drawings required :—

Plans .. ..
Two sections ..
Two elevations .. } ⅛-in. scale.

(*b*) *Working Drawings for a Dental School.*—The design for a dental school may, after it has been approved, be resubmitted with the addition of plans, two elevations and two sections to ⅛-in. scale. Half-inch detail of a portion of the building.

No. 30

(*a*) *A Housing Scheme.*—The owners of a factory established in a small market town propose to erect 60 dwellings for their factory employees, and ten dwellings for aged pensioners of the firm. The housing site has an area of 7 acres ; it is rectangular in shape with a frontage of 400 ft. to a classified highway on its southern side, and a depth of 763 ft. Only one road access is permitted to the highway. The site has a total fall of 10 ft. from north to south at an even slope. A main sewer and other services are available under the highway, which has a building line of 25 ft. from the road boundary fence.

The ten pensioners' dwellings must each contain one bedroom, living-room, bath and w.c., kitchenette, etc., all on the ground floor. The 60 two-storey cottages are to be planned as follows :—

10 with living-room, kitchen and two bedrooms ;

40 with living-room, kitchen and three bedrooms ;

10 with parlour, living-room, kitchen and four bedrooms.

Each dwelling must contain a bathroom, and must have a *minimum* floor area of 680 sq. ft. (measured on both floors within the external walls).

The lay-out of the site must provide for a children's playground of half an acre and a bowling green or tennis court.

Drawings required :—

(1) Lay-out plan to 1-500th scale, showing buildings (in block), roads, paths, playground, etc.

(2) ⅛-in. scale plans showing each variation in type, with elevations and sections sufficient to illustrate the scheme.

(*b*) *Working Drawings for a Housing Scheme.*—The design for a housing scheme may, after it has been approved, be resubmitted with the addition of :—

(1) Complete working drawings to ¼-in. scale, showing plans for each floor, sections and elevations, of each type of house.

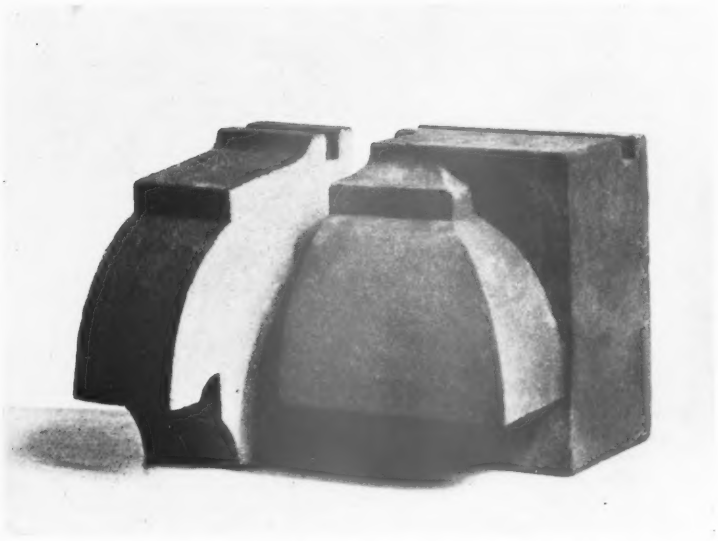
(2) Drainage plan of the whole scheme to 1-500th scale, showing direction and size of drains.

(*N.B.*—Soil drains and surface water to be separate systems. The main sewer is approximately 10 ft. below the highway.)

Manufacturers' Items

In the list of contractors for Messrs. Kennedy's Showrooms, Ltd., in our issue for September 23, we omitted the name of Messrs. Telephone Rentals, Ltd., who were responsible for the internal telephone service.

Messrs. J. and E. Hall, Ltd., have transferred their offices at Nos. 121–123 Charterhouse Street, E.C., to No. 10 St. Swithin's Lane, E.C.4.



A machine-pressed cill and cill return fletton made by the Marston Valley Brick Co.

TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Purpose-made Flettons

THE photograph at the head of these notes shows some interesting machine-pressed flettons made by the Marston Valley people for a block of flats in Hackney, designed by Messrs. Joseph. The cill return measures 7 by 7⅜ by 5½ ins., a good deal more than one expects in a machine-pressed brick, nor, so far as I know, have flettons ever before been made for this purpose. Expensive, of course, unless the order is a pretty big one, but none the less it is worth knowing that such things can be done if there is a need for them. In the ordinary way the manufacturers would be able to deliver special jobs like this in five or six weeks, but nowadays there is liable to be a delay in making the steel moulds, so two months would probably be safer until the worst of the armaments boom is over.—(*The Marston Valley Brick Co., Ltd., Lidlington, Bedfordshire.*)

Fixing Vitrolite

Almost any architect will tell you that Vitrolite should be fixed with mastic, but most people's knowledge seems to end there, and it may therefore be worth while to explain exactly how it ought to be done. The manufacturers have just produced a long typescript on the subject and, as they may be assumed to know what they are talking about, I have made a précis of it.

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For interior work the first essential is a plumb true and rigid structure with a screed of 3 to 1 sand and Portland cement finished with a wood float. Next a coat of Gripon sealer, 20 to 24 sq. yds. to the gallon. Fixing starts at the skirting, and at the lowest point if the floor is uneven, the rake being cut off the bottom edges to ensure a perfectly level line at the top. The mastic is rolled up into a sausage about 1 in. diameter and applied in dabs about 2 ins. long every three or four inches, so that, when the sheet is pressed into position with a slight rotating movement, about 70 per cent. of its back is covered with mastic and there is a bed $\frac{3}{16}$ to $\frac{1}{4}$ in. thick. The space between the joints can be varied, but it will usually be found that pieces of cardboard about the thickness of a visiting card are the most suitable for forming a cushion between horizontal joints; two pieces about 1 by $\frac{1}{4}$ in. should be placed at the end of each ashlar and set back slightly from the face, for this prevents the ends from coming together and shelling, and also gives a key for the pointing as well as an even joint.

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If narrow bands are introduced for decoration's sake it is advisable to support the panels above on galvanized metal anchors, or apply a dab of Keene's at both ends of each strip. Either of these methods will prevent the panels from being pushed out by the downward thrust of the upper panels. Where lavatory basins and flushing cisterns are screwed to the wall there is some danger of the Vitrolite behind them being pushed inwards, and dabs of Keene's used in the same way will get over this trouble. All joints should be pointed with a mixture of white lead in oil, mixed with a little white oil varnish or gold size; coloured joints can be made by adding powder pigments or oil colours, red lead being substituted for white in the base mixture if this makes it easier to get the required shade.

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Alternatives to the Portland cement screed base are hard and seasoned plaster or flat asbestos sheeting, which should be quite rigid and true, and fixed to studding at not more than 14 to 15 in. centres. Fixing direct to wood is dangerous, as its coefficient of expansion is too high.

Ceilings are comparatively simple, the easiest way being to arrange the sizes of the sheets so that they will work in with the joist spacing, when they can be secured by a continuous cover strip or by screws and rosettes at the intersections. If the sheet sizes cannot be made to fit, the ceiling should be covered with T & G boarding and each square separated by a wood fillet to take the screws for fixing a cover bead over the joints. With a concrete ceiling, corners can be nipped off the panels, which can then be secured by screws with rosettes or large washers, suitable wood blocks being placed in the concrete to take the screws. All three of these methods have proved satisfactory in practice, but it is obvious that if a single sheet gets broken the pieces will fall on the floor, and it is therefore recommended that the joints should be pointed to prevent this. Alternatively, use a coat of sealer and a thin cushion of the mastic, or fix a layer of Hessian to the back of the panels with a mixture of boiled oil and varnish.

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In external work the problem is much more difficult, for Vitrolite expands far less than wood, masonry or metal, and should not be in direct contact with these or any other structural materials. The same backing of Portland cement screed and sealer is best for external work, and the mastic is applied in the same way, but a continuous ribbon of it should be run round the edge of each panel to prevent moisture reaching the dabs through the joints; a strip of expansion tape should also be placed in all horizontal joints. In all exposed places the mastic should be protected with metal sections or flashings, and above a height of 8 ft. every other course should have metal anchors or clips to take the weight. The plinth should be set on a layer of mastic and expansion tape or lead strip, and only in exceptional circumstances should the bottom edge of the Vitrolite be allowed to run below the level of the pavement. If this is necessary a space of at least half an inch should be left and filled in with mastic. In general, it is recommended that metal sections should be used for surrounds to openings, canopies, copings, and in other exposed positions; it is best for the panels to pass underneath metal or wood cills, or behind metal window frames, but expansion joints must always be provided.

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Quite a lot about the same subject, but far too many manufacturers make a habit of assuming that all workmen know just how everything should be done and the architect is left to quarrel with the contractor and try to decide whose fault the failures are. Any manufacturer who takes the trouble to issue really foolproof instructions deserves a bouquet from everybody.—(*British Vitrolite Co., Ltd., 7 Albemarle Street, London, W.1.*)

THE BUILDINGS ILLUSTRATED

WANDSWORTH ADMINISTRATIVE OFFICE BUILDING (pages 501-504). Architect: Edward Hunt (of W. and E. Hunt). Consultants: B. L. Hurst and Peirce, structural steelwork; William MacIntyre, engineering services: Hope Bagenal, A.R.I.B.A., acoustics; L. A. Francis and Sons, quantity surveyors. Clerk of the

Works: Mr. H. G. Ruscoe. Contractors; Dove Brothers, Ltd., superstructure builders: Mr. H. J. Moyes, demolition; Kirk and Kirk, Ltd., foundations; A. D. Dawnay and Sons, Ltd., steelwork. Sub-contractors: Accordo Blinds, Ltd., internal blinds; The Acme Flooring and Paving Co., Ltd., wood block paving; Robert Adams, Ltd., door springs; R. Y. Ames, roofing tiles and facing bricks; Art Pavements and Decorations, Ltd., terrazzo floors; Anselm Odling and Sons, Ltd., marble; Bainbridge Reynolds, Ltd., copper flagstaff bases; Baldwins (Birmingham), Ltd., sanitary fittings; F. J. Barnes, Ltd., stonemasonry; A. Bell & Co., Ltd., faience tiling; Benham and Sons, Ltd., kitchen equipment; Frederick Braby & Co., Ltd., copper finial; Carter & Co., Ltd., glazed tiling; Caxton Floors, Ltd., reinforced floors and roofs; Clark, Hunt & Co., Ltd., ironmongery; T. Clarke & Co., Ltd., electrical services; Comyn Ching & Co., Ltd., metalwork; Richard Crittall & Co., Ltd., heating and ventilation services; Eaton, Parr and Gibson, Ltd., mirrors; David Evans, stone carving; The Express Lift Co., Ltd., lifts; Fenning & Co., Ltd., marble; R. Fox and Sons, cellulose spraying; Galliers (Wholesale), Ltd., light fittings; H. E. Gaze, Ltd., fibrous plaster; General Electric Co., Ltd., light fittings; James Gibbons, Ltd., locks; Walter Gilbert, bronze lamps; J. W. Gray and Sons, Ltd., lightning conductors; Matthew Hall & Co., Ltd., plumbing; G. A. Harvey & Co., Ltd., steel shelving; Haywards, Ltd., laylights; Henry Hope and Sons, Ltd., metal windows; George Jennings, Ltd., sanitary fittings; G. Johnson Brothers, metalwork; Korkoid Decorative Floors, flooring; Sidney Laughton, hangings and furniture; Thomas Lawrence and Sons, Ltd., facing bricks; Lighting Trades, Ltd., light fittings; John Linehan, stone carving; London Brick Company, partition blocks; London Electric Firm, electric light suspension gear; London Spray and Brush Painting Co., Ltd., decorative painting; Luxfer, Ltd., laylights and electro copper glazing; H. H. Martyn & Co., Ltd., metalwork and joinery; May Acoustics, Ltd., acoustic plaster; Morris-Singer Company, metalwork, Moler Products Ltd., Fosalsil Flue Bricks; Nettlefold and Sons, Ltd., ironmongery; Newalls Insulation Co., acoustic plaster; T. W. Palmer & Co., Ltd., metalwork; Paragon Glazing Co., Ltd., roof lights; Parker, Winder and Achurch, fountain pump; Patent Victoria Stone Company, artificial stone paving; Piggott Brothers, Ltd., flagstaffs; Plastering, Ltd., fibrous plaster; Wm. Salter, Edwards & Co., Ltd., asphalting; Edwin Showell and Sons, Ltd., ironmongery; Sika Francois, Ltd., waterproofing; Starkie Gardner, Ltd., metalwork; Stevens and Adams, Ltd., wood flooring; Veronese, Ltd., fibrous plaster; David White, garden work; Whitfield's Safe and Door Co., Ltd., strong-room doors.

HOUSE AT HOGHTON, NR. PRESTON (page 505). Architect: Frank Waddington. The general contractors were The Palatine Construction Co., Ltd., and the principal sub-contractors were: Ravenhead Brick Co., Ltd., bricks (rustics); West Lancashire Brick Co., bricks to garage (sandlime); Vulcanite, Ltd., flat roofing; Williams and Williams, Ltd., metal windows and folding sliding doors; J. Cartmell and Sons, Ltd., oak floors; Granwood Flooring Co., Ltd., patent flooring; Shaw's Glazed Brick Co., Ltd., faience fireplace and coping; H. Wiggins & Co., Ltd., monel metal sink; Venesta Plywood Co., Ltd., internal doors.

KINGSTON TELEPHONE EXCHANGE (pages 506-507). Architect: John H. Markham. The general contractors were H. H. and F. Roll, Ltd., and the sub-contractors and suppliers included: Lawford Asphalte Co., asphalt; Neot Moxon, steel bars; Ruberoid Co., Ltd., roofing felt; Jos. F. Ebner, wood-block flooring; G. Johnson Brothers, bronze lamps; Humphries Jackson and Ambler, Ltd., casements; Hill and Smith, Ltd., w.i. gates; B. J. Uden, plaster.

ST. JAMES CHAPEL AND HALL, BEXLEY. KENT (pages 517-519). Architect: P. M. Andrews. The general contractors were Norman, Wright, Ltd., and the sub-contractors and suppliers included: London Brick Co., rustic flettons; Young & Co., roof trusses; Roberts Adlard & Co., Ltd., pantiles; Duranbrite Flooring Co., Ltd., jointless flooring; W. H. Freer, central heating; Tyler and Freeman, electric wiring; Yannedis & Co., Ltd., door furniture; C. E. Welstead, casements; Educational Supply Association, folding doors; Tentest Fibre Board Co., Ltd., ceiling; Watts & Co., textiles for altar hangings; Dart and Francis, church fittings.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICT (15 MILES RADIUS)

CAMBERWELL. *Health Centre.* The B.C. has purchased property in Camberwell Road for the new health centre.

EAST HAM. *Electricity Offices.* The East Ham Corporation is to extend the electricity offices in Nelson Street at a cost of £4,750 by direct labour.

FINCHLEY. *Post-mortem Room, etc.* The Finchley Hornsey, Wood Green and Friern Barnet Joint Hospital Committee is to extend the nurses' home and provide a post-mortem room at the Isolation Hospital, at an estimated cost of £2,585.

LONDON. *Offices.* Plans passed by the City of London Corporation: Office building, six storeys, 80-81A Coleman Street.

POPLAR. *Flats.* The Poplar B.C. is to erect 38 flats in Glengall Road, at a cost of £43,704.

POPLAR. *Town Hall Furnishing.* The Poplar B.C. is to furnish rooms at the town hall at a cost of £4,319.

POPLAR. *Baths Improvement.* The Poplar B.C. is to provide a foam bath suite and improve ventilation in the ablution room at Poplar Baths, at a cost of £2,784.

POPLAR. *Cinema.* Plans passed by the Poplar B.C.: Cinema, East India Dock Road, Mr. Andrew Mather.

SOUTHWARK. *Housing.* The City of London Corporation is to erect dwellings in the Pocock Street area of Southwark, at a cost of approximately £50,000.

EASTERN COUNTIES

GRIMSBY. *Nurses' Home, etc.* The Grimsby Corporation has appointed Mr. H. S. Hall, as architect for the erection of a proposed Municipal infirmary and nurses' home.

IPSWICH. *School.* The Ipswich Education Committee has obtained a site on the Whitton housing estate for the erection of a junior school.

IPSWICH. *Development.* Mr. S. P. Upshall is to develop an estate off Sidegate Lane, Ipswich.

LOWESTOFT. *Development.* Mr. P. V. Huckle is to develop the Gunton Hall Farm Estate, Lowestoft.

LOWESTOFT. *Houses.* Plans passed by the Corporation: Two houses, Marsh Road, for Mr. R. Lowe; 20 houses, Long Road, for Messrs. P. C. and H. W. Easey; 12 houses, Kirkley Run, for Mr. S. J. Leaper; two houses, Enstone Road, for Mr. D. E. Wells; six bungalows, Yarmouth Road, for Mr. A. E. Ingles; sports pavilion, Dell Road, for Mr. Rist; church building, Yarmouth Road, for Mr. P. J. Wilson; rebuilding Gas House Tavern, East Street, for Messrs. Steward and Patteson, Ltd.; alterations, Bridge Road, for Lowestoft Co-operative Society Ltd.

NORWICH. *Extensions.* The Corporation has approved plans by the City architect for extensions at the maternity home, at a cost of £20,310.

NORWICH. *Extensions.* The Norwich Education Committee is to erect an elementary school for about 900 junior children at Earlham North Estate.

NORWICH. *Extensions.* The Corporation has approved the scheme for reconstructing and improving the Wensum Bath as prepared by the City Engineer and City Architect, at a total estimated cost of £8,813.

SOUTHERN COUNTIES

BRIGHTON. *School Enlargements.* The Brighton Education Committee is to enlarge Moulsecoomb Junior Mixed Department School, at a cost of £4,353.

BRIGHTON. *Cinema, etc.* Plans passed by the Brighton Corporation: 42 flats and six lock-up shops, High Street, Rottingdean, Central London Property Trust, Ltd.; cinema, Old London Road, Patcham, Gaumont British Picture Corporation, Ltd.; houses, Highfield Crescent, Withdean Estate East, Mr. Charles Wm. Parkes.

BRIGHTON. *Factory.* The Brighton Corporation has leased the site of Nos. 12-24 Edwin Place, to Mr. W. I. Taylor, for the purpose of erecting a small factory for the manufacture of light instruments.

MIDLAND COUNTIES

SHREWSBURY. *Office Extensions.* The Shropshire C.C. is to complete the office extensions at Shrewsbury, at a cost of £55,000.

SHROPSHIRE. *School.* The Shropshire Education Committee has approved plans of the new senior council school to be erected on the site of the Ellesmere Poor Law Institution, for about 250 children.

SHROPSHIRE. *Extensions at Technical College.* The Shropshire Education Committee has asked the county architect to prepare plans of extensions at the Walker Technical College, at an estimated cost of £13,000.

SOUTH-WESTERN COUNTIES

BOURNEMOUTH. *Cinema, etc.* Plans passed by the Corporation: Odeon cinema, Christchurch Road, Messrs. Elcock & Co.; six houses, Newstead Road, Mr. A. Bedford; Scouts assembly hall, Stanton Road, Mr. W. R. Stride; four bungalows, Western Avenue, Mr. F. E. Etches; house, Littledown Avenue, Mr. Stacey; two houses, Merrivale Avenue, Mr. E. W. Patrick; house, Lindberg Road, Mr. E. A. Weeks; house, Brassey Road, Mr. W. W. Mason; four houses, Wimborne Road, Messrs. A. C. Barnes & Co.; three bungalows, Durdells Avenue, Mr. W. A. Boulton; house, Branksome Hill Road, Mr. E. Carpenter; two houses, Leybourne Avenue, Mr. F. F. Hawkins; additions to boarding house, Bournemouth High School for Girls, Branksome Hill Road, The Governors; bungalow, Iford Lane, Mr. F. Garnham; house, Haverstock Road, Mr. J. Rolph.

PAIGNTON. *Bungalows, etc.* Plans passed by the Paignton U.D.C.: 42 bungalows, Colley End Road, Mr. C. H. Drew.

NORTHERN COUNTIES

BUCKNALL. *Houses.* The Northmere Building Co. are to erect 64 houses on land between North Street and Fellbrook Lane, Bucknall, Staffs.

CHESTER. *Houses.* Plans passed by the Chester Corporation: 12 houses, Sealand Road, T. B. Gorst and Sons.

CHURCH STRETTON. *School.* The Ludlow Voluntary Schools' Association is to provide a new C. E. Senior School at Church Stretton for 250 children, at a cost of £15,000.

REDCAR. *Pavilion Improvements.* The Redcar Corporation is to improve and enlarge the pavilion at a cost of £2,700.

SEDGLEY. *Baths.* The U.D.C. is to take into consideration the provision of public baths as part of a scheme under the Physical Training and Recreation Act, and has asked the Surveyor to collect such information as will enable him to submit a scheme.

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.	I. d.	II. s.	II. d.
A	ABERDARE ...	S. Wales & M.	1	7	1	2½
A	Aberdeen ...	Scotland	1	7	1	2½
A_1	Abergavenny ...	S. Wales & M.	1	6½	1	2
A_2	Abingdon ...	S. Counties	1	5½	1	1½
A	Accrington ...	N.W. Counties	1	7	1	2½
A_2	Addlestone ...	S. Counties	1	6	1	1½
A	Adlington ...	N.W. Counties	1	7	1	2½
A	Airdrie ...	Scotland	*1	7	1	2½
C	Aldeburgh ...	E. Counties	1	3	0	11½
A	Altrincham ...	N.W. Counties	1	7	1	2½
B_2	Appleby ...	N.W. Counties	1	3½	0	11½
A	Ashton-under-Lyne	N.W. Counties	1	7	1	2½
B	Aylesbury ...	S. Counties	1	5	1	0½
B	BANBURY ...	S. Counties	1	5	1	0½
B_1	Bangor ...	N.W. Counties	1	4½	1	0½
A_2	Barnard Castle	N.E. Coast	1	5½	1	1½
A	Barnsley ...	Yorkshire	1	7	1	2½
B	Barnstaple ...	S.W. Counties	1	5	1	0½
A	Barrow ...	N.W. Counties	1	7	1	2½
A	Barry ...	S. Wales & M.	1	7	1	2½
B	Basingstoke ...	S.W. Counties	1	5	1	0½
A_2	Bath	S.W. Counties	1	6	1	1½
A	Batley ...	Yorkshire	1	7	1	2½
A_2	Bedford ...	E. Counties	1	6	1	1½
A_2	Berwick-on-Tweed	N.E. Coast	1	6	1	1½
A_2	Bewdley ...	Mid. Counties	1	6	1	1½
B	Bicester ...	S. Counties	1	5	1	0½
	Birkenhead ...	N.W. Counties	*1	8	1	3
A	Birmingham ...	Mid. Counties	1	7	1	2½
A_1	Bishop Auckland	N.E. Coast	1	6½	1	2
A	Blackburn ...	N.W. Counties	1	7	1	2½
A	Blackpool ...	N.W. Counties	1	7	1	2½
A	Blyth	N.E. Coast	1	7	1	2½
B	Bognor ...	S. Counties	1	5	1	0½
A	Bolton ...	N.W. Counties	1	7	1	2½
A_2	Boston ...	Mid. Counties	1	5½	1	1½
A_2	Bournemouth...	S. Counties	1	6	1	1½
B_2	Bovey Tracey	S.W. Counties	1	4	1	0
A	Bradford ...	Yorkshire	1	7	1	2½
A_1	Brentwood ...	E. Counties	1	6½	1	2
A	Bridgend ...	S. Wales & M.	1	7	1	2½
B	Bridgwater ...	S.W. Counties	1	5	1	0½
A_1	Bridlington ...	Yorkshire	1	6½	1	2
A	Brighouse ...	Yorkshire	1	7	1	2½
A	Brighton ...	S. Counties	1	6	1	1½
A	Bristol ...	S.W. Counties	1	7	1	2½
B	Brixham ...	S.W. Counties	1	5	1	0½
A	Bromsgrove ...	Mid. Counties	1	7	1	2½
B	Bromyard ...	Mid. Counties	1	5	1	0½
A	Burnley ...	N.W. Counties	1	7	1	2½
A	Burslem ...	Mid. Counties	1	7	1	2½
A	Burton-on-Trent	Mid. Counties	1	7	1	2½
A	Bury	N.W. Counties	1	7	1	2½
A_1	Buxton ...	N.W. Counties	1	6½	1	2
A_2	CAMBRIDGE	E. Counties	1	6½	1	2
B_1	Canterbury ...	S. Counties	1	4½	1	0½
A	Cardiff ...	S. Wales & M.	1	7	1	2½
A	Carlisle ...	N.W. Counties	1	7	1	2½
B	Carmarthen ...	S. Wales & M.	1	5	1	0½
B	Carnarvon ...	N.W. Counties	1	5	1	0½
A_1	Carnforth ...	N.W. Counties	1	7	1	2½
A	Castleford ...	Yorkshire	1	7	1	2½
A_2	Chatham ...	S. Counties	1	5½	1	1½
A_2	Chelmsford ...	E. Counties	1	5½	1	1½
A_2	Cheltenham ...	S.W. Counties	1	5½	1	1½
A	Chester ...	N.W. Counties	1	7	1	2½
A	Chesterfield ...	Mid. Counties	1	7	1	2½
B	Chichester ...	S. Counties	1	5	1	0½
A	Chorley ...	N.W. Counties	1	7	1	2½
B_1	Cirencester ...	S. Counties	1	4½	1	0½
A	Clitheroe ...	N.W. Counties	1	7	1	2½
A	Clydebank ...	Scotland	1	7	1	2½
A	Coalville ...	Mid. Counties	1	7	1	2½
A_2	Colchester ...	E. Counties	1	6	1	1½
A_1	Colne	N.W. Counties	1	6½	1	2
A_2	Colwyn Bay ...	N.W. Counties	1	6	1	1½
A_1	Consett ...	N.E. Coast	1	6½	1	2
A_2	Conway ...	N.W. Counties	1	6	1	1½
A	Coventry ...	Mid. Counties	1	7	1	2½
A_2	Crewe	N.W. Counties	1	6	1	1½
A_2	Cumberland ...	N.W. Counties	1	5½	1	1½
A	DARLINGTON	N.E. Coast	1	7	1	2½
A	Darwen ...	N.W. Counties	1	7	1	2½
B_1	Deal	S. Counties	1	4½	1	0½
A_2	Denbigh ...	N.W. Counties	1	5½	1	1½
A	Derby	Mid. Counties	1	7	1	2½
A	Dewsbury ...	Yorkshire	1	7	1	2½
B	Didcot ...	S. Counties	1	5	1	0½
A	Doncaster ...	Yorkshire	1	7	1	2½
B_1	Dorchester ...	S.W. Counties	1	4½	1	0½
A_2	Driffield ...	Yorkshire	1	5½	1	1½
A_2	Droitwich ...	Mid. Counties	1	6	1	1½
A	Dudley ...	Mid. Counties	1	7	1	2½
A_2	Dumfries ...	Scotland	1	6	1	1½
A	Dundee ...	Scotland	1	7	1	2½
A	Durham ...	N.E. Coast	1	7	1	2½
A_2	EASTBOURNE	S. Counties	1	6	1	1½
A_1	Ebbw Vale ...	S. Wales & M.	1	6½	1	2
A	Edinburgh ...	Scotland	1	7	1	2½
A_2	Exeter ...	S.W. Counties	*1	6	1	1½
B	Exmouth ...	S.W. Counties	1	5	1	0½
A_2	FELIXSTOWE	E. Counties	1	5½	1	1½
A_2	Filey	Yorkshire	1	5½	1	1½
A	Fleetwood ...	N.W. Counties	1	7	1	2½
B_1	Folkestone ...	S. Counties	1	4½	1	0½
A	Frodsham ...	N.W. Counties	1	7	1	2
B_2	Frome ...	S.W. Counties	1	4	1	0
A	GATESHEAD	N.E. Coast	1	7	1	2½
B	Gillingham ...	S. Counties	1	5	1	0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1	6½	1	2
A	Glasgow ...	Scotland	1	7	1	2½
A_2	Gloucester ...	S.W. Counties	1	6	1	1½
A_2	Goole	Yorkshire	1	6	1	1½
A_2	Gosport ...	S. Counties	1	6	1	1½
A_2	Grantham ...	Mid. Counties	1	5½	1	1
A_1	Gravesend ...	S. Counties	1	6½	1	2
A	Greenock ...	Scotland	*1	7	1	2
A	Grimsby ...	Mid. Counties	1	7	1	2
B	Guildford ...	S. Counties	1	5	1	0
A	HALIFAX ...	Yorkshire	1	7	1	2½
A	Hanley ...	Mid. Counties	1	7	1	2½
A	Harrogate ...	Yorkshire	1	7	1	2½
A	Hartlepools ...	N.E. Coast	1	7	1	2½
B	Harwich ...	E. Counties	1	5	1	0½
B	Hastings ...	S. Counties	1	5	1	0½
A_2	Hatfield ...	S. Counties	1	6	1	1½
B	Hereford ...	S.W. Counties	1	5	1	0½
A_2	Hertford ...	E. Counties	1	6	1	1½
A	Heysham ...	N.W. Counties	1	7	1	2½
A	Howden ...	N.E. Coast	1	7	1	2½
A	Huddersfield ...	Yorkshire	1	7	1	2½
A	Hull	Yorkshire	1	7	1	2½
A	ILKLEY ...	Yorkshire	1	7	1	2½
A	Immingham ...	Mid. Counties	1	7	1	2½
A_2	Ipswich ...	E. Counties	1	6	1	1½
B_2	Isle of Wight ...	S. Counties	1	4	1	0
A	JARROW ...	N.E. Coast	1	7	1	2½
A	KEIGHLEY ...	Yorkshire	1	7	1	2½
A_2	Kendal ...	N.W. Counties	1	5½	1	1½
A_2	Keswick ...	N.W. Counties	1	5½	1	1½
A_1	Kettering ...	Mid. Counties	1	6½	1	2
A_2	Kidderminster	Mid. Counties	1	6	1	1½
B_1	King's Lynn ...	E. Counties	1	4½	1	0½
A	LANCASTER ...	N.W. Counties	1	7	1	2½
A_1	Leamington ...	Mid. Counties	1	6½	1	2
A	Leeds	Yorkshire	1	7	1	2½
A	Leek	Mid. Counties	1	7	1	2½
A	Leicester ...	Mid. Counties	1	7	1	2½
A	Leigh	N.W. Counties	1	7	1	2½
B	Lewes	S. Counties	1	5	1	0½
A_2	Lichfield ...	Mid. Counties	1	6	1	1½
A	Lincoln ...	Mid. Counties	1	7	1	2½
	Liverpool ...	N.W. Counties	*1	8½	1	3½
A_2	Llandudno ...	N.W. Counties	1	6	1	1½
A	Llanelly ...	S. Wales & M.	1	7	1	2½
	London (12-miles radius)		1	8½	1	3½
	Do. (12-15 miles radius)		1	8	1	3
A	Long Eaton ...	Mid. Counties	1	7	1	2½
A	Loughborough ...	Mid. Counties	1	7	1	2½
A_1	Luton	E. Counties	1	6½	1	2
A	Lytham ...	N.W. Counties	1	7	1	2½
A_1	MACCLESFIELD	N.W. Counties	1	6½	1	2
A_2	Maidstone ...	S. Counties	1	5½	1	1½
A_2	Malvern ...	Mid. Counties	1	5½	1	1½
A	Manchester ...	N.W. Counties	1	7	1	2½
A	Mansfield ...	Mid. Counties	1	7	1	2½
B_1	Margate ...	S. Counties	1	4½	1	0½
A_2	Matlock ...	Mid. Counties	1	5½	1	1½
A_1	Merthyr ...	S. Wales & M.	1	6½	1	2
A	Middlesbrough	N.E. Coast	1	7	1	2½
A_2	Middlewich ...	N.W. Counties	1	6	1	1½
B_2	Minehead ...	S.W. Counties	1	4	1	0
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1	4	1	0
A	Morecambe ...	N.W. Counties	1	7	1	2½
A_2	NANTWICH ...	N.W. Counties	1	6	1	1½
A	Neath	S. Wales & M.	1	7	1	2½
A	Nelson ...	N.W. Counties	1	7	1	2½
A	Newcastle ...	N.E. Coast	1	7	1	2½
A	Newport ...	S. Wales & M.	1	7	1	2½
A	Normanton ...	Yorkshire	1	7	1	2½
A	Northampton ...	Mid. Counties	1	7	1	2½
A	North Shields...	N.E. Coast	1	7	1	2½
A	North Staffs ...	Mid. Counties	1	7	1	2½
A_1	Norwich ...	E. Counties	1	6½	1	2
A	Nottingham ...	Mid. Counties	1	7	1	2½
A	Nuneaton ...	Mid. Counties	1	7	1	2½
A_2	OAKHAM ...	Mid. Counties	1	5½	1	1½
A	Oldham ...	N.W. Counties	1	7	1	2½
A_2	Oswestry ...	N.W. Counties	1	5½	1	1½
A_1	Oxford ...	S. Counties	1	6½	1	2
A	PAISLEY ...	Scotland	*1	7	1	2
B_2	Pembroke ...	S. Wales & M.	1	3½	0	11½
A	Perth	Scotland	*1	7	1	2½
A_1	Peterborough ...	E. Counties	1	6½	1	2
A	Plymouth ...	S.W. Counties	*1	7	1	2½
A	Pontefract ...	Yorkshire	1	7	1	2½
A_1	Pontypridd ...	S. Wales & M.	1	6½	1	2
A_2	Portsmouth ...	S. Counties	1	6	1	1½
A	Preston ...	N.W. Counties	1	7	1	2½
A	QUEENSFERRY	N.W. Counties	1	7	1	2½
A_2	READING ...	S. Counties	1	6½	1	2
B	Reigate ...	S. Counties	1	5½	1	1½
A_2	Retford ...	Mid. Counties	1	5½	1	1½
A_1	Rhondda Valley	S. Wales & M.	1	6½	1	2
A_2	Ripon	Yorkshire	1	5½	1	1½
A	Rochdale ...	N.W. Counties	1	7	1	2½
B	Rochester ...	S. Counties	1	5	1	0½
A_1	Ruabon ...	N.W. Counties	1	6½	1	2
A	Rugby ...	Mid. Counties	1	7	1	2½
A_2	Rugeley ...	Mid. Counties	1	6	1	1½
A	Runcorn ...	N.W. Counties	1	7	1	2½
A_1	ST. ALBANS ...	E. Counties	1	6½	1	2
A	St. Helens ...	N.W. Counties	1	7	1	2½
B_2	Salisbury ...	S.W. Counties	1	3½	0	11½
A_1	Scarborough ...	Yorkshire	1	6½	1	2
A	Scunthorpe ...	Mid. Counties	1	7	1	2½
A	Sheffield ...	Yorkshire	1	7	1	2½
A	Shipley ...	Yorkshire	1	7	1	2½
A_2	Shrewsbury ...	Mid. Counties	1	6	1	1½
A_2	Skipton ...	Yorkshire	1	6	1	1½
A_2	Slough ...	S. Counties	1	6	1	1½
A_1	Solihull ...	Mid. Counties	1	6½	1	2
A_2	Southampton...	S. Counties	1	6	1	1½
A_1	Southend-on-Sea	E. Counties	1	6½	1	2
A	Southport ...	N.W. Counties	1	7	1	2½
A	S. Shields ...	N.E. Coast	1	7	1	2½
A_1	Stafford ...	Mid. Counties	1	6½	1	2
A	Stirling ...	Scotland	1	7½	1	2½
A	Stockport ...	N.W. Counties	1	7	1	2½
A	Stockton-on-Tees	N.E. Coast	1	7	1	2½
A	Stoke-on-Trent	Mid. Counties	1	7	1	2½
B	Stroud ...	S.W. Counties	1	5	1	0½
A	Sunderland ...	N.E. Coast	1	7	1	2½
A	Swansea ...	S. Wales & M.	1	7	1	2½
A_2	Swindon ...	S.W. Counties	1	5½	1	1½
A_1	TAMWORTH ...	N.W. Counties	1	6½	1	2
B	Taunton ...	S.W. Counties	1	5	1	0½
A	Teesside Dist....	N.E. Counties	1	7	1	2½
A_2	Teignmouth ...	S.W. Coast	1	6	1	1½
A	Todmorden ...	Yorkshire	1	7	1	2½
A_1	Torquay ...	S.W. Counties	1	6½	1	2
B_2	Truro	S.W. Counties	1	4	1	0
A_2	Tunbridge Wells	S. Counties	1	5½	1	1½
A	Tunstall ...	Mid. Counties	1	7	1	2½
A	Tyne District....	N.E. Coast	1	7	1	2½
A	WAKEFIELD	Yorkshire	1	7	1	2½
A	Walsall ...	Mid. Counties	1	7	1	2½
A	Warrington ...	N.W. Counties	1	7	1	2½
A_1	Warwick ...	Mid. Counties	1	6½	1	2
A_1	Wellingborough	Mid. Counties	1	6½	1	2
A	West Bromwich	Mid. Counties	1	7	1	2½
A_2	Weston-s.-Mare	S.W. Counties	1	6	1	1½
A_2	Whitby ...	Yorkshire	1	6	1	1½
A	Widnes ...	N.W. Counties	1	7	1	2½
A	Wigan ...	N.W. Counties	1	7	1	2½
B	Winchester ...	S. Counties	1	5	1	0½
A_2	Windsor ...	S. Counties	1	6	1	1½
A	Wolverhampton	Mid. Counties	1	7	1	2½
A_2	Worcester ...	Mid. Counties	1	6	1	1½
A_2	Worksop ...	Yorkshire	1	5½	1	1½
A_1	Wrexham ...	N.W. Counties	1	6½	1	2
A_2	Wycombe ...	S. Counties	1	5½	1	1½
B	YARMOUTH ...	E. Counties	1	5	1	0½
B	Yeovil	S.W. Counties	1	5	1	0½
A	York	Yorkshire	1	7	1	2½

* 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. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorized annual regradings.

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 8½
Carpenter . . . . . ,,	1 8½
Joiner . . . . . ,,	1 8½
Machinist . . . . . ,,	1 9
Mason (Banker) . . . . . ,,	1 8½
,, (Fixer) . . . . . ,,	1 9
Plumber . . . . . ,,	1 8½
Painter . . . . . ,,	1 7½
Paperhanger . . . . . ,,	1 7½
Glazier . . . . . ,,	1 8½
Slater . . . . . ,,	1 8½
Scaffolder . . . . . ,,	1 4½
Timberman . . . . . ,,	1 4½
Navvy . . . . . ,,	1 3½
General Labourer . . . . . ,,	1 3½
Lorryman . . . . . ,,	1 6½
Crane Driver . . . . . ,,	1 7½
Watchman . . . . . per week	2 10 0

MATERIALS

EXCAVATOR AND CONCRETOR

	£ s. d.
Grey Stone Lime . . . . . per ton	2 2 0
Blue Lias Lime . . . . . ,,	1 18 6
Hydrated Lime . . . . . ,,	2 5 0
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 6
¾" Crushed Ballast . . . . . ,,	7 0
Building Sand . . . . . ,,	7 6
Washed Sand . . . . . ,,	8 6
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. d.	6" s. 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.R.	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.	2 3	3 8
Bends . . . . each	6 4	13 1
Inspection bends . . ,,	11 5	14 4
Single junctions . . ,,	11 2	22 10
Double junctions . . ,,	17 2	30 9
Lead Wool . . . . lb.	6	—
Gaskin . . . . . ,,	5	—

BRICKLAYER

	£ s. d.
Flettons . . . . . per M.	2 12 0
Grooved do. . . . . ,,	2 14 0
Phorpres bricks . . . . ,,	2 15 0
,, Cellular bricks . . . ,,	2 15 0
Stocks, 1st quality . . . ,,	4 11 0
,, 2nd ,, ... ,,	4 2 6
Blue Bricks, Pressed . . . ,,	8 14 0
,, Wirecuts . . . ,,	7 12 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 . . ,,	4 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 5 0
Best hand-made do. . . ,, ,,	4 17 6
Hips and valleys . . . ,,	9
,, hand-made . . . each	9½
Nails, compo . . . . . ,,	1 4
,, copper . . . . . per lb.	1 6

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber . . F.C. 2s. 7d.	– 2 10
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 3
,, Burma . . . . ,, ,,	1 2
Walnut, American . . . ,, ,,	2 3
,, French . . . . ,, ,,	2 3
Whitewood, American . . ,, ,,	1 1
Deal floorings, ¾" . . . Sq.	18 6
,, 1" . . . . ,,	1 1 6
,, 1¼" . . . . ,,	1 2 0
,, 1½" . . . . ,,	1 5 0
,, 1¾" . . . . ,,	1 10 0
Deal matchings, ¾" . . . ,,	14 0
,, 1" . . . . ,,	15 6
Rough boarding, ¾" . . . ,,	1 4 0
,, 1" . . . . ,,	16 0
,, 1¼" . . . . ,,	18 0
Plywood, per ft. sup.:	1 6 0

Thickness	¼" A	¼" B	¼" BB	⅜" A	⅜" B	⅜" BB	½" A	½" B	½" BB	⅝" A	⅝" B	⅝" 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	–	11-	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.)

	¼"	⅜"	½"	¾"	1"
Tubes 2'–14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" 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	5	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	Per cent.		Per cent.
TUBES			
Gas . . .	66⅔	Galvanized gas .	56⅔
Water . . .	61⅔	,, water .	51⅔
Steam . . .	58⅔	,, steam .	46⅔
FITTINGS			
Gas . . .	57⅔	Galvanized gas .	48⅔
Water . . .	53⅔	,, water .	46⅔
Steam . . .	48⅔	,, steam .	41⅔

	s. d.
Rolled steel joists cut to length . . cwt.	15 6
Mild steel reinforcing rods, ¾" . . ,,	16 0
,, ,, ,, ⅝" . . ,,	15 9
,, ,, ,, ½" . . ,,	15 3

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ⅜" . . cwt.	15 3
,, ,, ,, ¼" . . ,,	15 3
,, ,, ,, 1" . . ,,	15 3
,, ,, ,, 1¼" . . ,,	15 3
,, ,, ,, 1½" . . ,,	15 3

Cast-iron rain-water pipes of ordinary thickness metal	3" s. d.	4" s. d.
	F.R.	8	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

	3" s. d.	4" s. d.	6" s. d.
Lead, milled sheets . . cwt.			33 6
,, drawn pipes . . ,,			33 0
,, soil pipes . . ,,			36 0
,, scrap . . . ,,			21 0
Solder, plumbers' . . lb.			1 1½
,, fine do. . . ,,			1 4
Copper, sheet . . ,,			1 0½
,, tubes . . ,,			1 2½
L.C.C. soil and waste pipes:			
Plain cast . . F.R.	1 0	1 2	2 6
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 0 0
Plaster, coarse . . . ,,	2 15 0
,, fine . . . . ,,	4 7 6
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, 24 oz., squares n/e 2 ft. s. F.S.		2½
,, ,, 26 oz. ,, ,, ,,		3½
Flemish, Arctic, Figures (white)* . ,,		7½
Blazoned glasses . . . ,,		2 6
Reeded: Cross Reeded . . ,,		11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite ,,		6½
Crown sheet glass (n/e 12" × 10") . ,,		2 0
Flashed opals (white and coloured) . ,,	1 0 and	2 0
¾" rough cast; rolled plate . ,,		6
¾" wired cast; wired rolled . ,,		10½
¾" Georgian wired cast . . ,,		11½
¼" Polished plate, n/e 1 ft. . ,,	†1 0 to	‡1 3
,, ,, 2 . ,,	†1 4 ,,	‡1 6
,, ,, 4 . ,,	†2 6 ,,	‡2 9
,, ,, 8 . ,,	†2 11 ,,	‡3 4
,, ,, 20 . ,,	†3 1 ,,	‡3 9
,, ,, 45 . ,,	†3 3 ,,	‡4 0
,, ,, 100 . ,,	†4 0 ,,	‡4 10
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 ¾" and 1" . ,,	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 17 9
Linseed oil . . . . . gall.	3 2
Boiled oil . . . . . ,,	3 5
Turpentine . . . . . ,,	3 9
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.	5	9	8	3
Extra, only for bends (cast iron)	Each	12	3	18	4

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
" rising on old walls	"	2	0	0
" underpinning	"	5	10	0
Fair Face and pointing internally	F.S.			1½
Extra over fletton 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	9
½″ Vertical dampcourse	"	7	9
½″ paving or flat	"	6	3
1″ paving or flat	"	7	6
1″ × 6″ skirting	F.R.	1	0
Angle fillet	"		2½
Rounded angle	"		2½
Cesspools	Each	5	6

MASON	£	s.	d.
Portland stone, including all labour, 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 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 trutting	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
⅝″ deal sawn boarding and fixing to joists	Sqr.	1	14	6
1″ " " " " "	"	1	17	6
1½″ " " " " "	"	2	3	0
4″ × 2″ fir battening for Countess slating	"		9	6
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
1½″ do.	"	2	10	0
1¾″ do.	"	2	17	0
1″ deal moulded skirting fixed on, and including grounds plugged to wall	F.S.		1	6
1½″ do.	"		1	9

CARPENTER AND JOINER—*continued*		s.	d.
1¼″ deal moulded sashes of average size	F.S.	1	0½
2″ " " " " "	"	1	11½
1¼″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1¼″ beads, 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
1¼″ deal four-panel square, both sides, door	F.S.	2	0
2″ " " " " "	"	2	8
1¼″ " but moulded both sides	"	2	4
2″ " " " " "	"	3	0
4″ × 3″ deal, rebated and moulded frames	F.R.	1	0
4½″ × 3½″ " " " "	"	1	4
1¼″ deal tongued and moulded window board, on and including deal bearers	F.S.	1	9
1¼″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2	6
1¼″ deal moulded wall strings	"	2	1
1¼″ " " 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
1¼″ × 1¼″ " " "	"	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.	18	6
Riveted plate or compound girders, and hoisting and fixing in position	"	1 3	0
Do. stanchions with riveted caps and bases and do.	"	1 2	0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	"	1 2	0
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	4	0
Do. in flashings	"	2	7	6
Do. in covering to turrets	"	2	13	0
Do. in soakers	"	1	18	9
Labour to welted edge	F.R.			3½
Open copper nailing	"			3
Close "	"			4

Lead service pipe and fixing with pipe hooks	F.R.	½″ s.	½″ d.	¾″ s.	¾″ d.	1″ s.	1″ d.	1¼″ s.	1¼″ d.	2″ s.	2″ d.	4″ s.	4″ d.
		1	2	1	4	1	8½	2	7	3	6	—	
Do. soil pipe and fixing with cast lead tacks		—		—		—		—		—		7	3
Extra, only to bends	Each	—		—		—		—		2	3	7	6
Do. to stop ends	"	6½		8		9		11		1	0	—	
Boiler screws and unions	"	3	3	3	9	5	0	8	0	—		—	
Lead traps	"	—		—		—		8	0	11	6	—	
Screw down bib valves	"	6	9	9	6	11	0	—		—		—	
Do. stop cocks	"	7	0	9	6	12	6	—		—		—	
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 under on walls	"	1	2½
Render, refloat 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″ " " " "	"	1 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 beds	"		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	"	5	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