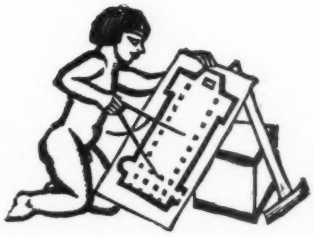
VIVA BELLA

BUSINESS MEN'S PLEASURE GROUND

AT the seaside town of Viva Bella, about twelve miles from Caen, the business men of Paris and Caen are at present busy staging a self-contained Romantic Revival. Roads are everywhere under construction and it is one of the boasts of the inhabitants that no two houses are alike. An even more startling attribute of the development is that each house carries a small tablet giving the name and address of its architect. On the gable ends of the houses the terracotta dragon of mid-Victorian days has been often succeeded by a cat pouncing on a bird. Otherwise—plus ça change, plus c'est la même chose.

ACADEMY ARCHITECTURE, 1936

The summer exhibition at the Royal Academy was opened to the public last Monday. Above is reproduced an exhibit (No. 1451) from the architectural room: a perspective, by R. Myerscough-Walker, of London University. The architect is Charles Holden. Illustrations of other architectural exhibits and a review of the exhibition appear on pages 691–698 of this issue.



THE SURFACES OF BUILDINGS

THAT wall and floor finishes cause from time to time a very special anxiety in everyone connected with the building industry is not likely to be held to be an exaggerated statement in 1936. As things now are, to go further and to hold that the anxiety is both constant and increasing could barely be considered to exceed the facts.

But with these somewhat gloomy pronouncements general agreement ends, and directly enquiring minds move on to classifying causes and seeking solutions, the greatest determination boggles at the number of facts and influences—many of them entirely remote from actual building work—which must share the blame for present difficulties.

Those who from day to day are most closely concerned with building may, if they wish, easily relieve themselves of responsibility. They may maintain that for their part they work within conditions of money, time and competition imposed from without. They do what they can to stretch their means satisfactorily to the end set them; for the rest, it is the job of the Building Research Station to point out where they fail and to help them to do better.

The problem, however, is not so simple as that. The problem is that the public now asks for a value for money in building, and a speed in achieving that value, which cannot be given by the traditional technique which formerly provided finishes, both internal and external, which were durably satisfactory. It is through partial failure in the execution of new techniques, or in adaptations of older techniques, that the present anxieties have arisen.

In helping the industry to fill the gap between what the public demands and what the building industry can at present supply, the Building Research Station can do much if it is asked, but it cannot be expected to do everything. The Building Research Station knows a lot, but in its inability to say very much its position is a very delicate one. And the belief that the Station can take the industry by the hand and trot gently with it into a new world where no finish ever fails is a much too general optimism.

The actual position is more complex. The Station is a Government institution, and therefore has to be very careful what it says. It sees as clearly as all architects and builders that there is a gap to be bridged, and that therefore new methods and materials are to be encouraged. Some of these new materials have unsatisfactory components, or are unwisely used; many more, excellent in themselves, become unsuitable when used in conjunction with other materials. Whichever the reason, the result is some form of failure, the most obvious and general being the failure of a surface finish.

The danger of a too widely advertised condemnation by the Station of some new materials and processes would lie in a general suspicion of all such by the industry, and the consequent abandoning of the continuous search for a technique which will satisfy all the demands, financial as well as technical, which are made on contemporary building.

But, in the meantime, what of surfaces? The industry could tell the public in round terms that they are expecting too much for their money, or, alternatively, that for less money they must grant a much longer time for thoughtful, careful selection of materials and for their even more careful execution. Unfortunately, however, time in contemporary building means money in a very real sense; and in any case until the last day of open competition the public would not listen. Someone can always quote a little cheaper and make a little worse.

The attitude of the public has this justification: that the fact that the general demand is for a value which present building technique cannot supply in a durable form is no direct concern of theirs; they do not understand high labour costs or the time requirements of "wet" building; they merely pay the cheapest price and gain a lasting grumble as maintenance costs mount year by year. The building industry must get out of its own troubles.

Those troubles are large enough. Whether in traditional or more recently developed materials, the client who can be persuaded to pay a fair price can get better lasting value for money than ever before. Such clients are rare.

The remainder set their architects and their builders a terrible problem. Materials in serried thousands are available, some good and some not so good as they might be. However much elimination is practised, every well-equipped modern building must use a very large number. They must be ordered quickly, delivered in rapid succession, stored indifferently, and assembled as fast as may be. There is less and less time for the niceties of judgment and workmanship.

Finally, in nearly all such jobs something "goes." It may not be important, a crack in a wall or a floor, a discoloration of paintwork, or a failure in a rendering, but it generates an annoyance out of all proportion to its size; for, in by far the greater number of cases, nobody knows quite why it happened. Somewhere in the swift sequence of putting together the least quantity of materials something had gone wrong, and days spent in wrangling would fail to produce real evidence of blame.

For the moment, such things must presumably continue. Building technique is not yet both cheap and lastingly durable. Amongst all the contradiction of opinion, only one good rule seems to emerge to suit all cases: large homogeneous areas of finishes, whether internal or external, should be avoided by the cautious. With this warning we must at present be content.

The Architects' Journal
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NOTES & TOPICS

BURLINGTON BURLESQUE

A VISIT to the Royal Academy this year is not at all a depressing experience. The colour alone exhibited in most of the main galleries is more in keeping with the exhilaration of spring than most exhibitions I can remember . . . until the Architecture Room is reached.

*

Here is the most depressing Architecture Room I can remember. In comparison with the rest of the galleries, superficially, the colour is weak, the presentations pompous and the architectural content (with a few exceptions) fair to a very, very low middling.

*

The Academy appears to be able to do nothing about it. And architects, sad to relate (again with a few notable exceptions), appear to be doing less.

*

Can anything be more stupid? With a free exhibition room at our disposal, with thousands of people visiting it every week for several weeks each season, we, the architects, fail to make sure that the show is even remotely representative of the architectural achievements of Britain.

*

Something *must* be done about this ludicrous position. The sending-in day for next year is a long way ahead—but it is certainly none too early for architects as a whole to be making up their minds what they are going to do about it.

WORKING-CLASS HOUSING

Mr. Kaufmann, late Director of Housing at Frankfurt-on-Main, had some hard things to say recently about working-class housing in this country. Housing, he said, had been done in a haphazard way up and down the country and, in spite of the effort which had been made, the real problem—housing the lower-paid workers—had hardly been tackled at all, with the result that the housing situation was no better than it had been at any time since the war. There is a marked similarity between these views and those of the A.T.O., whose exhibition is at present showing at the Housing Centre.

*

In marked contrast was the lively satisfaction which Sir Kingsley Wood expressed at the contribution of private enterprise to the solution of the problem when dining with the Institute of Builders. Private enterprise? Where has that helped house the lower-paid worker?

COMPETITION PENDULUM

Seldom does the ordinary unenlightened municipality think of holding a competition for public baths, even more rarely will it dream of employing an architect who specializes in such things. The obvious way is so much easier: the Borough Engineer knows all about filter plants and plumbing, and can always add a few bits of *moderne* trimming.

*

Hackney now breaks away from these bad habits. . . . The Council suggests a competition for its new baths open to all architects, qualifying this phrase by the additional one that foreign architects should not be debarred.

MINISTRY OF PLANNING

The plea for a Ministry of Planning is made every now and then, and it was again made by Lord Justice Scott when speaking a day or two ago at a meeting of the Hampshire branch of the C.P.R.E.

*

Now national planning is an admirable idea, and might have the most important and far-reaching results, but at the moment references to it are usually rather vague. There is a great deal of talk about "co-ordination" and such like, but very little about what is to be nationally planned.

*

Last year a very good report was prepared for the International Housing and Town Planning Congress by a number of eminent people called "Positive Planning" or something like that. Nothing much has been heard of it since, but it would make a very good basis for a body like the R.I.B.A. Town Planning Committee or the Town Planning Institute to work on. Has the R.I.B.A. Town Planning Committee yet formulated *any* concrete proposals?

INFORMALITY . . .

When, some time ago, Astragal, in company with other architects, welcomed the idea of informal general meetings at the R.I.B.A., he thought mainly of giving the younger members of the profession a chance to express their views—younger members have always been modestly reticent in speaking at the general meetings, no matter what encouragement they have been given.

*

Now I see, from various correspondents, there is a youthful attempt to formalize the informal. Which reminds

The all-electric kitchen, designed by Walter Goodesmith, which is now on view in the main hall of Charing Cross Underground Station.

me of all the old proverbs about omelettes and eggs, and eating cakes as well as having them.

. . . AND DISCUSSION

Confusion persists, too, over the work of the Junior Members Committee (which we all welcomed) and the informal general meetings.

*

Some architects—and the old are as bad as the young—seem to think that the informal general meetings are committee meetings of the younger members of the profession ; which is not so.

*

The former are approved by the Council to give opportunity for informal discussion by all members of the profession who are also members or students of the Institute, the latter is a Committee appointed by the Council chiefly to keep it in touch with the interests of younger architects—and, if one may judge by its first annual report, to do a tidy amount of useful work besides.

*

And one of these useful works is, I see, to organize an open discussion (to be held on Tuesday, May 19) on Mr. Ansell's excellent paper on architectural education—lack of which we have all been grumbling about.

UNSKILLED LABOUR

An architect has just been bewailing to me his difficulties over a " local labour " clause in the contract of a job he was doing for a municipal authority. The municipality, very properly looking after the interests of its own unemployed, had insisted on a very high proportion of local unskilled labour.

*

The Labour Exchange sent down all and sundry, unemployed clerks, porters, shop assistants and others, and the trouble started with the foundation excavations—rather deep ones. Not only were these men unable to dig a straight trench or square pier hole, they threw earth all over each other, banged each other with picks and shovels, and did so much damage that at least one man had to be removed to hospital. The trade of navvy, according to my friend, is a very highly skilled one.

NOBLESSE . . .

While Americans in England are concerned at the possible destruction of a house near Doncaster, once the home of a famous pilgrim father, an owner in Canada, has just demolished a house of equally important associations.

*

The poor fellow was so inconvenienced each week-end by sight-seeing tourists in search of even a barricaded glimpse of this homestead that in desperation he was driven to extreme lengths.

*

His only alternatives would appear to be either to turn himself into a commercial company and charge for admission, or to sell the lot to some preservation of sentiments society—and in any case to live happily ever after.

SAILING

There is something about the set of a sail which appeals to most architects, for all over the country, and abroad too, one constantly hears of yachting architects. The Thames estuary each week end is dotted with their boats, from Chichester in the south to Oban in the north, and even the Moray Firth, their seasonable activities may be observed. So that it was really high time something were done about it, as the A.A. sailing club, which held its first meeting last week, very properly decided.

SOUTHEND

Which reminds me that a new harbour is suggested at Southend, a vast affair stretching out from the promenade to the sea at low tide, with club buildings and restaurants and swimming baths and car parks, all to look quite small and unobtrusive relative to the mile or so of causeway needed to reach that low tide level.

*

This seems to me an admirable scheme, which, properly handled (that is to say, designed with due courage and imagination), should be a very cheerful addition to London's nearest sea resort.

*

Some members of the local council appear to be a little nervous of the advantages. True, over a small section of their sea front they will lose the excitement of catching the height of the tide before it races back again, but the sight of one constant stretch of water of considerable size will surely compensate for this loss of a local pastime.

CHICHESTER

In the South, meanwhile, Chichester forgets about its watercraft and concentrates upon the selection of an architect for its new Civic Centre.

*

An open competition has been voted against on the grounds that they " would not get the best architects entering a competition of that nature." The Council, however, have taken their responsibility very seriously, and have visited many town halls, each the result of different methods of selecting an architect, from commissioning him privately to selecting him in open competition.

*

And their decision now is to hold a limited competition between six architects " possessing special qualification for designing Civic Centres "—a not unreasonable result of their visits.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

MILLBANK FLATS COMPLETED

The seven blocks of flats on the Grosvenor Housing Estate at Millbank, Westminster, are now completed. They comprise 616 dwellings on about six acres and have cost £431,600. The Duke of Westminster gave the site and £113,650 towards the cost of the scheme.

Mrs. Stanley Baldwin is to preside at a ceremony on June 24 to mark the completion.

HOUSING SOCIETY TO AID L.M.S.

Sir Josiah Stamp, chairman of the L.M.S. Railway, has recommended the board to ask the advice of the St. Pancras House Improvement Society in the solution of the housing problem that will be created when Euston Station is rebuilt. The scheme involves the demolition of a large number of houses in the neighbourhood.

B.I.N.C.

At the fourth annual meeting of the Building Industries National Council, held on April 29, the following officers were elected for 1936–1937: President: Mr. Sydney Tatchell, F.R.I.B.A.; past-president: Sir Raymond Unwin, PP.R.I.B.A.; senior vice-president: Mr. J. M. Theobald, V.P.S.I.; vice-presidents: Messrs. W. E. Collier, J.P., T. Barron, J.P., H. J. C. Johnston, and Maurice E. Webb, D.S.O., M.C., F.R.I.B.A.; hon. treasurer: Mr. Oswald Healing, F.S.I.; hon. secretary: Mr. I. Ernest Jones, M.A., B.SC.

Members of Council: Building Materials Manufacturers' and Suppliers' Committee: Messrs. H. Boot, M.INST.C.E., H. Halliday, F.C.I.S., H. J. C. Johnston, H. W. Rogers, Lt. Col. C. W. D. Rowe, M.B.E., and Mr. A. Shirlaw.

THE ARCHITECTS' DIARY

Thursday, May 7

ROYAL ACADEMY, *Burlington House, Piccadilly, W.1. Summer Exhibition.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Exhibition of Cartoon Drawings. Until May 28, 10 a.m. to 7 p.m.*

SOCIETY OF ANTIQUARIES, *Burlington House, Piccadilly, W.1.* "*The Early Tenth-Century Church at Quintanilla de las Viñas, Spain.*" *By Dr. W. M. Whitehill and A. W. Clapham; and* "*The Visor of a Hounskull found at Pevensey Castle.*" *By J. G. Mann.* 8.30 *p.m.*

INSTITUTION OF ELECTRICAL ENGINEERS, *Savoy Place, W.C.2. Annual General Meeting. Also* "*Television—an Outline.*" *By Dr. E. Mallet.* 6 *p.m.*

Friday, May 8

ARCHITECTURAL ASSOCIATION. *Dinner to Mr. Howard Robertson. At the Savoy Hotel, W.C.* 7.30 *p.m.*

INSTITUTION OF SANITARY ENGINEERS. *At Caxton Hall, Caxton Street, S.W.1.* "*The Deterioration of Concrete due to Chemical Attack.*" *By F. M. Lea.* 6 *p.m.*

Monday, May 11

R.I.B.A., 66 *Portland Place, W.1. Annual General Meeting.* 8 *p.m.*

Tuesday, May 12

CHARTERED SURVEYORS' INSTITUTION. *Annual Dinner. At the Grosvenor Hotel, W.1.*

ILLUMINATING ENGINEERING SOCIETY. *At the Institution of Mechanical Engineers, Storey's Gate, S.W.1. Annual Meeting. Also* "*Progress in Illumination in France.*" *By Dr. Morry Cohn.* 7 *p.m*

UNIVERSITY OF LONDON, *W.C.* "*Planning in Town and Country: Difficulties and Possibilities.*" *By Professor Patrick Abercrombie.* 5.30 *p.m.*

Wednesday, May 13

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2.* "*The Case for Land Improvement and Reclamation.*" *By Professor R. G. Stapleton.* 8 *p.m.*

Chartered Surveyors' Institution: Messrs. C. H. Bedells, F.S.I., A. S. Bennion, F.S.I., E. C. Harris, F.S.I., Oswald Healing, F.S.I., ASSOC.INST.C.E., J. M. Theobald, V.P.S.I. and Col. F. M. Falkner, O.B.E.

National Federation of Building Trades Employers: Messrs. W. Bosworth, W. E. Collier, J.P., W. H. Forsdike, G. S. Harding, I. Ernest Jones, M.A., B.SC., and G. H. Parker.

National Federation of Building Trades Operatives: Messrs. T. Barron, J.P., R. Coppock, L.C.C., G. Elmer, G. Hicks, M.P., J. W. Stephenson, and A. H. Telling.

R.I.B.A.: Messrs. K. M. B. Cross, M.A., F.R.I.B.A., Howard N. Robertson, M.C., F.R.I.B.A., S.A.D.G., Sydney Tatchell, F.R.I.B.A., Maurice E. Webb, F.R.I.B.A., C. Woodward, A.R.I.B.A., and Sir Raymond Unwin, PP.R.I.B.A.

Federation of Civil Engineering Contractors: Messrs. B. J. Allison, B. C. Kehoe, and G. G. Lynde, M.INST.C.E.

Reinforced Concrete Association: Messrs. R. V. Chate, A.M.INST.C.E., G. C. Dutton, M.INST.C.E., and H. E. Steinberg, M.INST.C.E.

British Electrical and Allied Manufacturers' Association: Mr. C. Rodgers, O.B.E., B.SC., B.ENG., M.I.E.E.

C. Roland Woods, M.B.E., LL.B. (hon. secretary of the Advisory Committee on Building Acts and Byelaws), B. S. Townroe, M.A., J.P. (hon. secretary of the Technical Committee of Review); Secretary: Mr. H. B. Bryant; Economist and Statistician: Mr. L. J. Gollop.

WEST YORKSHIRE SOCIETY OF ARCHITECTS

At the annual meeting of the above Society, held recently at Leeds, Mr. C. E. Fox, F.R.I.B.A., of Halifax, was elected President for the ensuing session, with Mr. R. A. Easdale, A.R.I.B.A., Castleford, and Mr. Norval R. Paxton, A.R.I.B.A., Leeds, as vice-presidents.

Mr. F. L. Charlton, F.R.I.B.A., Leeds, was re-elected honorary treasurer, and Messrs. Norval R. Paxton and Harold Conolly, A.R.I.B.A., Harrogate, joint honorary secretaries. Mr. Victor Bain, F.R.I.B.A., the retiring president, held that office for two years.

HACKNEY MARSH

A special meeting of the London County Council was held at County Hall on Tuesday to discuss reports presented by the Housing and Public Health Committee and the Parliamentary Committee dealing with the proposal to use part of Hackney Marsh for housing purposes. The report presented by the latter Committee stated that a Bill had been drafted to give effect to a decision of the Council, made on April 8, to apply for Parliamentary powers to utilize, for housing purposes, a portion (about 30 acres) of Hackney Marsh. The Bill provides that the Council shall give instead of the 30 acres at Hackney Marsh 50 acres at Chigwell, or, with the consent of the Minister of Health, substitute as public open space any other land the Council may determine.

The Housing and Public Health Committee, in its report, informed the Council of an alternative scheme submitted by Mr. Arthur G. C. Villiers, of Manor House, Hackney Wick. It was on the application of Mr. Villiers that the Divisional Court issued a writ prohibiting the Minister of Health from considering the Council's proposal for the appropriation under the Housing Acts of the portion of Hackney Marsh in question.

This scheme, put forward by Mr. Villiers, which has been prepared by Mr. John Dower, M.A., A.R.I.B.A., is, briefly, as follows:—

"The plots proposed for housing use are in close proximity to each other on a stretch of former marsh land immediately to the south of Hackney Marsh and within the County of London. They are as near to, and as accessible from, the slum-clearance areas of Bethnal Green, Stepney, etc., as the 30 acres of the London County Council's proposal, from which they are about half a mile distant. Like the 30 acres, they are low-lying ground made up by old and well-consolidated dumping, and they are equally suitable for housing use from an engineering point of view. Experience gained in the erection of industrial and other buildings on adjoining plots has shown that a simple and comparatively inexpensive piling system provides a foundation which would be adequate for five-storey blocks of flats. The roads adjoining the plots, Eastway and Waterden Road, are fully and recently sewered and are first-class thoroughfares. Since the plots form a reasonably compact group and no individual plot is smaller than 3 acres, there should be no difficulty in obtaining a satisfactory development as regards both

architectural treatment and convenience of management.

"The total extent of these plots is about 25 acres, comparing with the 30 acres of the London County Council's proposal. Since it would presumably be necessary to devote some part of the L.C.C. scheme to a school and to recreation space (which uses are provided for on other plots in the scheme here proposed) and since the L.C.C. scheme would require a higher proportion of new roadways within its curtilage, the scheme here proposed may reasonably be regarded as equal, or very nearly equal, to the L.C.C. scheme in effective extent for housing use. At a density of 60 flats per acre (which appears to have been proposed for the L.C.C. scheme) the 25 acres would accommodate some 1,500 flats, containing about 6,000 persons. It is, however, suggested that a rather lower density of development is very desirable, and the scheme as drawn shows the lay-out for approximately 1,140 flats in five-storey blocks, containing about 4,500 persons. A minimum space of 100 feet between building frontages has been adopted and the density varies between 40 and 50 flats per acre."

The Committee's comments on Mr. Dower's scheme are as follows :—

"The various plots of land are known to the Council's officers and some of them have, in fact, been the subject of reports to us in the past. We have, however, thoroughly reviewed the whole position in order to see what reasonably practicable alternative to the Hackney Marsh proposal could be recommended in the light of Mr. Villiers' suggestions. We would have been prepared, in the special circumstances, to have overlooked certain disadvantages in the sites in order to avoid the necessity for taking a portion of Hackney Marsh; but, after careful consideration of the proposals submitted and the advice tendered to us by the Council's officers, following on interviews with Mr. Villiers and Mr. Dower, we are of opinion that, while plots 1 and 2, which are only about six acres in extent, are not open to such grave objections as the others, none of the sites suggested is suitable for the erection of working-class dwellings by the Council. We do not consider that the scheme submitted by Mr. Villiers presents a practicable alternative to the Council's proposal for utilising 30 acres of Hackney Marsh for housing purposes or affords sufficient reason for the Council to revise its previous decision in the matter. While we are unable to accept them, we recognise that the proposals are submitted with the genuine desire to assist in the improvement of housing conditions in this part of London without recourse to building on part of a public open space, and we fully appreciate the public spirit displayed by Mr. Villiers and his friends in undertaking the large amount of work and the thought entailed in the preparation of the scheme.

"We shall, in conjunction with the Parks Committee, consider, in due course, whether any of the sites suggested are suitable for public open space for the purpose of clause 4 (2) of the Bill submitted by the Parliamentary Committee."

A summary of the Bill referred to in the above paragraph was given on page 581 of the JOURNAL for April 16.

LETTERS FROM READERS

The Harpenden Competition

SIR,—I would like to reply to two letters in your issue for April 23.

First, H. J. D. reveals minor divergences concerning the position and number of dressing-rooms required in the scheme. Surely a reasonable degree of flexibility is always allowed for in fulfilling the conditions of all competitions?

Secondly, "Experentia Docet" claims that the second design is unworkable. Referring to the Answers to Questions the latter half of Clause 33 states "The buildings may be carried up on the boundary line between 'C' and Arden Grove." As may be seen from the site plan no outbuildings of the adjoining property occur on this boundary. Hence it seems there would be no objection to the building touching this N.W. boundary.

Complaints concerning premiated designs are annoying both to competitors and to the competition system as a whole. It seems only right that they should be discouraged.

BASIL G. DUCKETT.

"You Pay the Rent—Who Gets the Profits?"

SIR,—The frontispiece published in your issue for April 23 under the above heading is somewhat misleading, at any rate as regards London, and savours of political propaganda.

On the left-hand side of the Downham house is shown the expenditure, whilst on the right is shown what is purported to be the profit received by the landlord.

In order to check the statement it will be necessary to ascertain the outgoings on a house let at a similar rent.

In accordance with the London Assessment Conference scale the rateable value of a house in Lewisham let at 15s. per week would be £17. Hereunder, therefore, are the outgoings per week :—

	s.	d.	s.	d.
Rental			15	0
Rates	4	2		
Repairs and maintenance	2	0		
Replacement of capital..	1	6		
Management	1	6		
Voids and insurance contingencies	1	0		
			10	2
Leaving a balance per week of			4	10

or £12 11s. 4d. per annum, representing 5 per cent. interest in perpetuity on £251.

Not a single house in Downham was built for this money, and, when the cost of the land has been added to the cost of building, it will be seen that someone else has provided the money to enable the tenants of municipal housing estates (if the illustration is a typical example) to enjoy cheaper rents than would otherwise be possible.

At the back of the rate demands will be seen the amount contributed by ratepayers, including working-class people, to enable Council tenants to live in comparative comfort, and to this must be added the Government grants which come out of the pockets of the taxpayers. (See Third Schedule, Housing Act, 1935.)

Let us review the statement shown in the illustration.

Rates

The amount shown is correct so far as Downham is concerned, since the estate enjoys lower assessments than houses let at similar rentals elsewhere in the borough.

Repairs and Maintenance

The allowance for repairs, maintenance and replacement of capital is reasonable.

The following important items, however, have apparently not been taken into consideration :—

Management

No provision has been made for management which, in municipal housing estates, is an expense out of all proportion to the rents received. These should include the salaries not only of the collectors and clerical staff, but also the just proportion of the expenses of the Surveyor's and Valuer's offices and Treasurer's and Solicitor's departments.

Voids

One has only to examine the local Press to prove that municipal housing estates do have arrears of rent and empties, and allowance should be made for such contingencies.

Insurance

This also has not been mentioned. Are we to presume that, in accordance with good management, the property is insured, or do ratepayers have to meet all claims?

Extras

The hedges on the Downham estate are kept in trim by eight men permanently employed by the London County

BASIL G. DUCKETT

ESTATE MANAGER

Council. The weekly cost per house for this service should be taken into consideration in arriving at the total amount of outgoings.

If all these items are taken into consideration, it will be seen that very little, if any, of the 8s. 3d. per week is left as profit to the ratepayer.

By way of extra comparison with other properties, I submit hereunder the weekly amounts of rates payable on houses let at 15s. per week in working-class districts of London :—

Stepney	4s. 10d.	per week
Poplar	5s. 9d.	do.
Bethnal Green ..	5s. 5d.	do.
Shoreditch ..	4s. 5d.	do.
Camberwell ..	4s. 3d.	do.

ESTATE MANAGER

R.I.B.A.

INFORMAL GENERAL MEETING

The fifth and last informal general meeting of the Session 1935-1936 will be held on Tuesday, May 19, at 6.15 p.m.

The meeting will take the form of an open discussion on the recent paper by Mr. W. H. Ansell, M.C. (F.), on "Architectural Education," which is reprinted in full in the R.I.B.A. Journal for April 4, 1936.

The chair will be taken by Mr. John Summerson, B.A. (Arch.), London, A.R.I.B.A. Tea will be provided from 5.30 p.m. onwards.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the R.I.B.A. :

The R.I.B.A. Examination Board in India.—The Board of Architectural Education reported that it had appointed Mr. Percy Wilson (A.) to serve as one of the R.I.B.A. representatives on the R.I.B.A. Examination Board in India. The other R.I.B.A. representatives are Mr. D. W. Ditchburn (F.) and Professor Claude Batley (A.).

Officers of the Board of Architectural Education, 1936–1937.—The officers of the Board for the year ending March 31, 1937, were appointed as follows :—Chairman: Mr. T. A: Darcy Braddell. Vice-chairmen : Mr. Hubert Lidbetter (Chairman of the Examinations Committee); Professor L. B. Budden (Chairman of the Schools Committee); Mr. Stephen Welsh (Chairman of the Prizes and Scholarships Committee). Hon. Secretary : Mr. A. B. Knapp-Fisher.

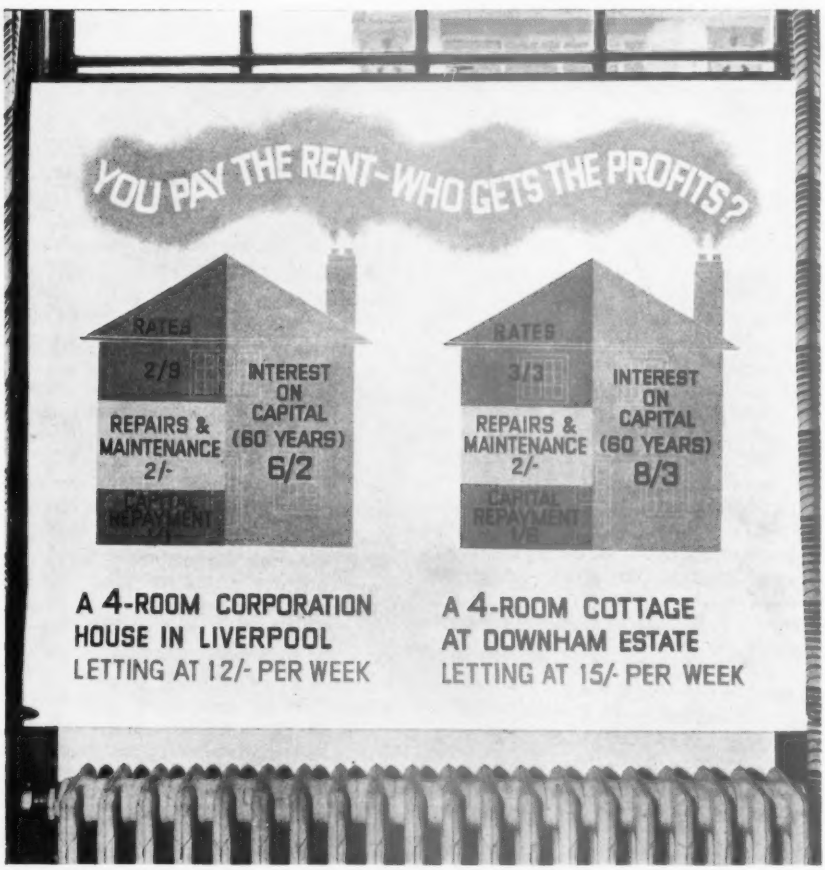
Twenty-second Annual Conference of the National Association for the Prevention of Tuberculosis.—Mr. E. Stanley Hall (Vice-president) was appointed as the R.I.B.A. delegate to the Twenty-second Annual Conference of the National Association for the Prevention of Tuberculosis to be held in London from July 16 to 18.

League of Nations Health Organisation.—The Science Standing Committee reported that, as a matter of urgency, it had appointed Mr. P. J. Waldram (L.) to represent the Institute on a sub-committee on "Health and Comfort Conditions in Housing," appointed as a result of the recent joint meeting of interested bodies called by the Dean of the London School of Hygiene and Tropical Medicine.

Standardization of Baths and Fittings.—The Science Standing Committee reported that, as a matter of urgency, it had appointed Mr. R. J. Angel (F.) to represent the Institute on a Technical Committee, set up by the British Standards Institution, as a result of representations made by the Committee and the Building Industries National Council, to consider the standardization of baths and their fittings.

1937 *Exhibition.*—The principle of the proposals of the Art Standing Committee and Exhibition Sub-Committee for the organization of a major Exhibition in February and March, 1937, was approved.

Amendment of the Bye-laws of the Branch Societies of the Wessex Society of Architects.—An amendment of the bye-laws of the Branch Societies of the Wessex Society of Architects was formally approved.



The photograph of one of the screens at the exhibition of working-class housing at the Housing Centre, which is the subject of the letter on this and the preceding page.

Municipal Buildings, Dartford

The Town Council of Dartford invites architects practising in the United Kingdom to submit competition designs for the erection of municipal buildings and assembly hall. The assessor is Mr. P. D. Hepworth, F.R.I.B.A.; and the following premiums are offered : 200 guineas, 100 guineas and 50 guineas.

The last day for submission of designs is August 21, 1936, and the last day for questions is June 29, 1936.

Conditions of the competition may be obtained on application to Mr. J. James Hurtley, Town Clerk, Dartford. (Deposit : £1 1s.)

£200,000 Baths for Hackney

At a recent meeting of the Hackney Borough Council it was decided to promote an open competition for the new central baths. The estimated cost of the scheme is £200,000.

The Baths Committee reported that it had considered a list of architects submitted by the R.I.B.A., but, in order that the widest possible scope should be afforded for obtaining the best designs, it had come to the conclusion that an architect should be selected by an open competition and that competitive designs by foreign architects should not be debarred.

The Council resolved to ask the R.I.B.A. to appoint an assessor to draw up the conditions of an open competition, on the lines indicated above, for a design for a new central baths establishment, and to ask the assessor, before proceeding to competition, to advise the Council on the question of the suitability of the existing site (at Lower Clapton Road) and as to alternative sites.

THE BIRMINGHAM COMPETITION

PROPOSED WORKING-CLASS FLATS

THE CONDITIONS REVIEWED

Scheme : Proposed working-class flats in the Trinity Street and Vaughton Street area, Birmingham.

Promoters : The Birmingham Corporation.

Assessor : Louis de Soissons, O.B.E., F.R.I.B.A., S.A.D.G., M.T.P.I.

Sending in day : 12 noon—July 11, 1936.

Last day for questions : May 9, 1936.

Premiums : £400, £250, £150, £100.

Conditions : Obtainable from Mr. Herbert J. Manzoni, City Engineer and Surveyor, Council House, Birmingham, 2. (Deposit £2 2s.).

SLUM clearance is rather like a war : it goes on for a long time and when it's over you've got to settle the many and difficult problems raised by it. Anyway, slum makes a nice, serious idealistic topic, and is deservedly popular among after-dinner speakers and vagrant film stars. And too often that's about as far as it gets.

With a few notable exceptions like Liverpool and the L.C.C., most corporations treat the matter in a desultory and aimless way, plastering the sore in one place to see it break out in another. They attempt to cure sporadically an endemic disease.

The actual execution of slum clearance schemes lies in the hands of a comparatively small group of men. The majority of them are corporation architects and the remainder architects in private practice who have had a long experience in this class of work. Their work is capable and efficient but suffers from inbreeding. It is never experimental and rarely progressive. It is a closed shop and the chances of an outsider breaking in are small. There is thus little incentive for the younger architects to give any serious and comprehensive study to the problem.

The Birmingham Corporation and its advisers are therefore to be congratulated on having promoted just such a competition. The Corporation has set a precedent which will stimulate progressive and experimental activity in the social and technical problems involved ; and will, moreover, encourage younger architects to study the question.

The conditions are, however, rather disappointing. In the first place they tend to suggest a stereotyped solution, and, secondly, the social information they give is wholly insufficient. It is realized, of course, that the drafting of the conditions of such a competition present far greater difficulties than those of, say, a town hall. Far too little is left to the competitors. Height restrictions are laid down, if ambiguously : " The height of the buildings should be so governed as to provide for not more than three storeys to be climbed to reach the living quarters of the highest tenements." That may mean that the height is limited to four floors, or three and a maisonette.

Comprehensive heating systems are ruled out ; combination fires in the living-rooms and a coal fire in one bedroom are required. And, of course, an old enemy, compliance with the local building regulations, is seen again. It might have been better to follow the system adopted in France. The architects are given the amount the Corporation is prepared to spend, the site and the number of people to be rehoused. Within these limits they have a free hand. In this particular competition the assessor and the Corporation would have had ample opportunity for considering the practical merits of solutions submitted before awarding the premiums.

As regards the social problems involved the programme is dumb. No mention is made of the native; of the immediate surroundings whether residential or industrial ; of the type of worker ; of the position of immediate transport, and recreational and educational facilities; or even of the amount of traffic on the roads surrounding the site.

The premiums seem fair but the actual amount of work involved in this competition is difficult to estimate. In connection with the fees to the winning architect it should be noted that, although the conditions rightly suggest a prefabricated construction, no allowance is made for the fees of a consulting engineer.

SITE

The site is fairly straightforward. It is bounded on all four sides by roads and there is a slight fall to the north. The road dividing the site in two is to be closed and the work will be proceeded with in two halves, the one being completed before the other begins.

Sewers exist in the four boundary roads, and their levels present no difficulties. No notice need be taken of existing property, such as basements, within the site.

AREAS

Gross—6.11 acres.

Net (i.e. within building line)—4.86.

Density—45 flats/gross acre.

As much of the site as possible is to be given to recreational areas.

PLANNING

Approximate accommodation percentages.

2 room	3 room	4 room
5 %	20 %	75 %

Minimum areas all types of flat in feet super.

L. R.	B. R. 1.	B. R. 2.	B. R. 3.
160	140	110	70

Equipment.

Full-sized baths and w.c.'s are required to every flat ; combination coal fires to living-room and a coal fire in at least one bedroom. Private balconies, drying-room or other facilities must be provided on each floor, and storage is required for prams and bicycles.

Service and/or passenger lifts (to take stretcher cases) should be included in the scheme but not in the cost.

The conditions especially suggest the use of prefabricated materials and fittings in view of the scarcity of bricklayers and joiners in Birmingham.

DRAWINGS REQUIRED

1 : A complete lay-out plan to a scale of 20 ft. to the inch showing the surrounding streets and the treatment of open spaces.

2 : Key plans in outline to a scale of 20 ft. to the inch showing each type flat, position of stairways, lifts, balconies, refuse disposal, etc.

3 : Elevational sections to a scale of 20 ft. to an inch to illustrate fully the relationship of the component parts of the plan and the lay-out.

The Birmingham Competition: Site Plan

4: Drawings showing each type flat in plan and elevational sections, including fittings and position of furniture, to a scale of 4 ft. to an inch. Structural walls should be clearly differentiated from non-structural.

5: Drawings explanatory of the system of construction and of any special features, staircases, etc., to include a complete typical cross section and part of the external elevations to a scale of 4 ft. to an inch. These elevations to illustrate fully the architectural treatment.

The drawings to be executed in pencil or ink on white paper and to be rendered in monochrome. The sectional parts on plan and section to be coloured in black, and prints (black line process) will be accepted.

REPORT

The report is required to be much more detailed than is usual in competitions and will clearly have considerable weight in the award.

It is divided into two sections: 1—An admirably clean schedule of statistics relating to the lay-out and planning adopted. 2—The report proper which should give details of (*a*) method of insulating floors and walls against sound and heat; (*b*) particulars of equipment; (*c*) design of floors, roofs and the method of treating their upper and lower surfaces including suggested coverings. 3—Internal structural walls and partitions.

COST

The cost is divided into several sections; per flat, habitable area, and on cube. The cost of laying out the site is to be included.

Competitions Open

May 22.—Sending-in Day. Five-apartment semi-detached cottage for the Glasgow Corporation in connection with the Housing and Health Exhibition to be held at Kelvin Hall, Glasgow, in October (open to architects practising in Scotland). Assessors: J. M'Kissack, W. B. M'Nab and J. H. Fernie. Premiums: £75, £50, and £25. The designs must be sent to the Manager, Kelvin Hall, Glasgow, not later than May 22, 1936.

May 27.—Sending-in Day. Secondary school for boys at Luton for the Bedfordshire County Council. Assessor: Professor W. G. Newton, F.R.I.B.A. Premiums: £200, £100 and £50. The last day for questions was March 25. Conditions are obtainable from Mr. J. B. Graham, Clerk of the Bedfordshire County Council, Shire Hall, Bedford. (Deposit £1 1s.)

May 29.—Sending-in Day. Public health hospital at Church, near Pontypridd, for the Glamorgan County Council (Open to architects of British nationality.) Assessors: E. Stanley Hall and W. James Nash, FF.R.I.B.A. Premiums: £500, £300 and £150. The last day for questions was February 28. Conditions are obtainable from the Clerk to the County Council, Glamorgan County Hall, Cardiff. (Deposit £1 1s.)

June 1.—Sending-in Day. Public elementary schools to accommodate 650 children, to be erected at Surrenden Road, Folkestone, for the Folkestone Borough Council. (Open to architects of British nationality.) Assessor: Verner O. Rees, F.R.I.B.A. Premiums: £200, £125 and £75. The last day for questions was March 31. Conditions are obtainable from Mr. J. A. Wilkinson, Clerk of the Folkestone Borough Education Committee, Education Offices, Old Harvey Grammar School, Foord Road, Folkestone. (Deposit £1 1s.)

September 14.—Sending-in Day. Town hall and municipal buildings, Barking, for the Barking Corporation. (Open to architects practising in the United Kingdom.) Assessor: H. V. Lanchester, F.R.I.B.A. Premiums: £500, £250 and £200 for distribution as recommended by the assessor. The last day for questions is May 1. Conditions are obtainable from Mr. S. A. Jewers, Town Clerk, Town Hall, Barking. (Deposit £2 2s.)

Obituary

We regret to record the death of Mr. Francis B. Andrews, F.R.I.B.A., F.S.A., F.R.HIST.S., senior partner in the firm of Francis B. Andrews and Son, architects of Birmingham.

Mr. Andrews was responsible for the design of several churches in Birmingham. He was elected an Associate of the R.I.B.A. in 1889, and a Fellow in 1928.

Mr. Andrews took a lifelong interest in historical architecture, and wrote a series of papers on the transactions of the Birmingham Archæological Society on Pershore Abbey, of which he was appointed architect in succession to Sir Harold Brakspear.

Design for the completion of Piccadilly Circus. By Sir Reginald Blomfield. Perspective by Cyril A. Farey. (No. 1411)

ARCHITECTURE AT THE ROYAL ACADEMY

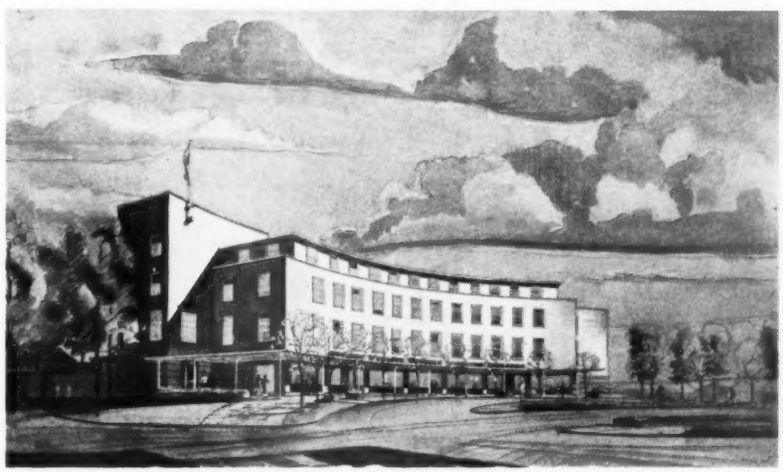
[*REVIEWED BY L. W. THORNTON WHITE*]

BRITISH architecture during the past year has produced many examples of vigorous, healthy work. Almost every week we have been offered by the press illustrations of work of more than average merit. It would be a comparatively simple matter to select a hundred recent buildings which would, with fair accuracy, form a representative exhibition of our architectural achievements during the last twelve months. Such a collection of work would more than favourably compare with any similar collection of the last decade.

It is difficult to understand, therefore, why the architecture room at the Royal Academy should be the dullest for very many years. Most of the more prominent exhibits are singularly pale and lifeless as examples of architecture, whatever they may be as examples of draughtsmanship. Visitors to the Academy may reasonably expect to see representative examples of contemporary British architecture. Instead, they will see a few scattered examples of such work among a vast array of retrospective design, some nearly exact replicas of Georgian houses (dozens of them), one or two really scholarly essays in adding to old buildings of some character and charm, and the usual examples (not so many this year) of that coarse and brutal variety of misunderstood imitative work which passes as *moderne* to the uninitiated.

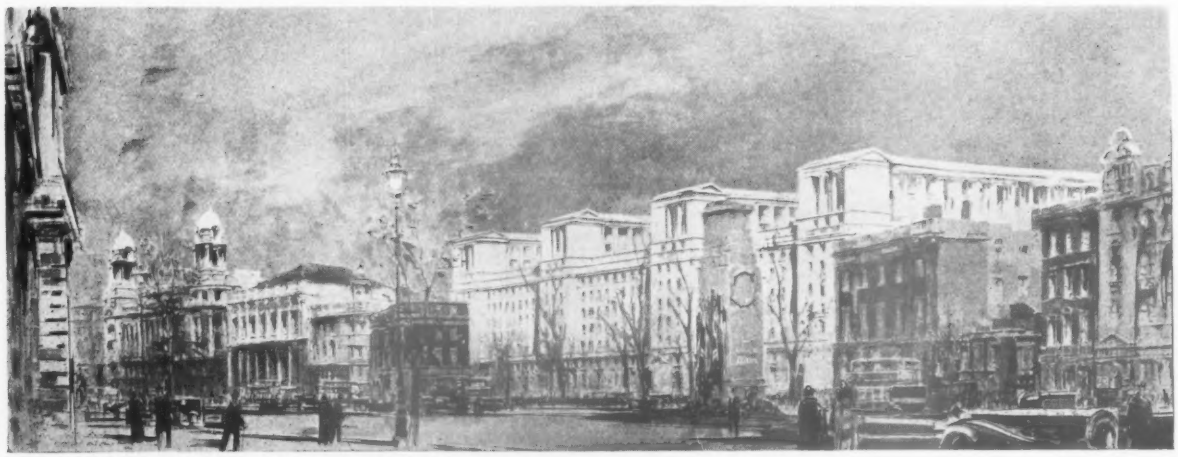
Why is this? Are we to believe that, apart from a few notable exceptions, the men who are doing our more vigorous and vital work are having their drawings rejected by the Academy? If this is the case, there is nothing more to be said—we must leave the Academy to maintain its own standards. But is this really the position? May it not be that our brighter architects are not submitting their work at all to the Academy? In this event then emphatically the fault lies with the architects themselves, and it would be high time that personal fads and prejudices be put aside so that architecture may be properly represented at one of the most popular exhibitions held in the most populous city in the world. In this case, too, it seems to be inconsistent that architects should expend time and effort in preparing exhibitions to travel the country, and even visit remote parts of the Continent, and yet neglect one exhibition (a free one, too) which attracts many thousands of visitors every year, every London season.

One contribution to the dullness this year is the large amount of imitative work, most of it falling far below the standard of the original. Sir Herbert



Shops and annexe, St. Austell Bay Hotel. By Louis de Soissons. Perspective by N. Westwood. (No. 1422)

ARCHITECTURE AT THE



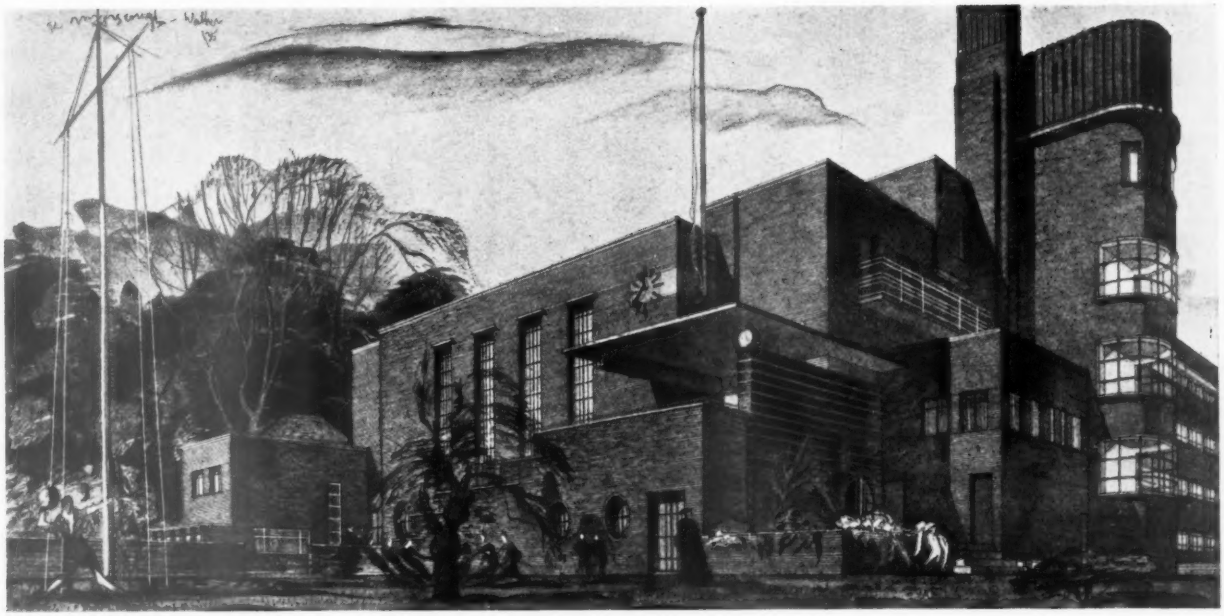
New Government Offices, Whitehall Gardens, S.W. By E. Vincent Harris. Perspective by William Walcot. (No. 1438.)

National Archives Building, Washington, D.C., U.S.A. By John R. Pope. (No. 1374.)

Baker does not himself exhibit this year, but poor but recognizable copies of his works loom largely from the walls. Mr. Grey Wornum has no exhibit, but the quality of his R.I.B.A. building reflects itself in less appropriate problems and therefore less successful solutions. At first glance, one may be forgiven for thinking that Mr. Charles Holden has about a dozen exhibits, all unaccountably below his usual standard, but on second glance not one of that dozen bears his name. Imitating draughtsmen, too, is a game of some popularity. Some rather poor-looking Harveys are not by J. D. M. at all; some very jaundiced imitations fall far short of the standard achieved by Myerscough-Walker's more skilful use of yellows; and though many have tried, few have succeeded in attaining the luminosity of Cyril Farey's washes. Two draughtsmen new to these walls, Mr. Edmund Ward and Mr. N. C. Westwood, make their promising debut.

The Architect Academicians themselves exhibit modestly this year. Sir John Burnet, Tait and Lorne show two small but complicated buildings, the Burlington School for Girls at Hammersmith and the new nurses' home for the Royal Masonic Hospital. Both buildings are of brick. Professor

ROYAL ACADEMY EXHIBITION



Burlington School for Girls, Hammersmith. By Sir John Burnet, Tait and Lorne. Perspective by R. Myerscough-Walker. (No. 1349.)

Stockleigh Hall, Regent's Park, N.W. By Robert Atkinson. Perspective by J. D. M. Harvey. (No. 1365.)

ARCHITECTURE AT THE

New Municipal Offices, Dagenham. By E. Berry Webber. Perspective by Cyril A. Farey. (No. 1410.)

Richardson shows us with some conviction how to adapt, if one is inclined to do so, classical elements to the lighter environment of the English racecourse—in a Royal Pavilion at Ascot and the Jockey Club at Newmarket. Even his flanking funereal urns fail to cast a shadow over the decorous jollity of the Ascot building. Sir Reginald Blomfield has a large perspective of his scheme for the enlargement of Piccadilly Circus, duplicating the County Fire Office building on the Pavilion site and generally unifying the diverse activities of the Circus behind the stylish façades of provincial French municipal buildings—perhaps to the ultimate confusion of our own provincial visitors. Sir Reginald joins Mr. Guy Dawber in other galleries in the Academy in showing us really delightful examples of their water colour and drawing skill. Mr. Guy Dawber, too, exhibits as his diploma work, a perspective of Ashley Chase, Dorset, a most characteristic example of his genius for handling the English country house in local materials.

Sir Giles Gilbert Scott exhibits the difficult problem of clothing the new Guinness Brewery in a mantel of becoming brickwork, relying as much upon the careful choice of the brick as upon the massing and sparse details of the huge structure.

The new Government offices in Whitehall, in a vigorous perspective by Mr. Walcot, represent Mr. Vincent Harris's major work, four great cliffs of stonework, meticulously detailed, like four mirage reflections of the Cenotaph of the street below. Neither Sir Edwin Lutyens nor Sir Herbert Baker exhibit in the architectural room, but their portraits in oils appear in the main galleries, in company with those of Sir Ian MacAlister and Mr. Myerscough-Walker.

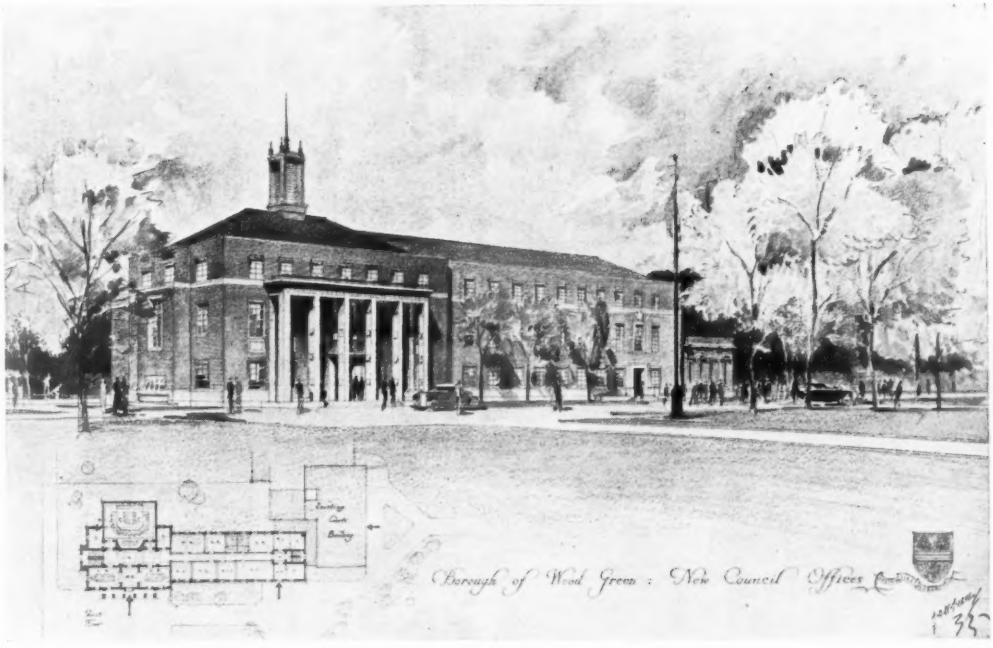
There is a dramatic night view of Mr. Holden's University building and near it a boldly rendered elevation of the centre pavilion on the Foundling Hospital site, the work of Mr. L. H. Bucknell—one of the few buildings exhibited which shows some sympathetic handling of sculpture in relation to architecture. Nearby is a cinema by Mr. A. W. Kenyon, another interesting study in brickwork, but with sculpture used in almost an ecclesiastical manner—patron saints rather than picture-going fans. One of the best ecclesiastical buildings shown is the new John Keble Church at Mill Hill, by Mr. D. Martin-Smith, well up to the promise of the competition drawings. There is a church, too, by Mr. George Drysdale, which looks much more interesting than its very humble elevation drawings suggest. Two new buildings at Stowe illustrate diverse work by Mr. R. Fielding Dodd—the new Art School of reasonably proportioned practical elements and the new Walpole House, which approximates more closely to the Stowe everybody knows. "Lock-up Garages at Musselburgh' scarcely sounds an acceptable title for an Academy exhibit, but Mr. Philip Hepworth gets away with it in suitable Dutch farmhouse guise.

Prominent in the room is a most carefully-worked-out and delicate drawing of the new National Archives Building at Washington, U.S.A., by Mr. J. R. Pope, and there are two intimate studies of its interior. The building is a strict interpretation of the Washington classical style. Mr. J. J. Joass again shows us how to handle a central pierced tower with wings on either side, this year adapted to the requirements of an hotel at Bournemouth. Messrs. James and Pierce have several perspectives of municipal buildings, and other drawings in the room show that they are rapidly becoming an influence in traditional English town-hall work. Lancashire, in Stretford Technical College, by Mr. J. Wilkinson, replies heartily to the newer schools' tradition recently established by the Middlesex C.C. There are some very big blocks of flats, most of them without any outstanding quality, and most of them with enough stonework to upset the brickwork with which they are faced.

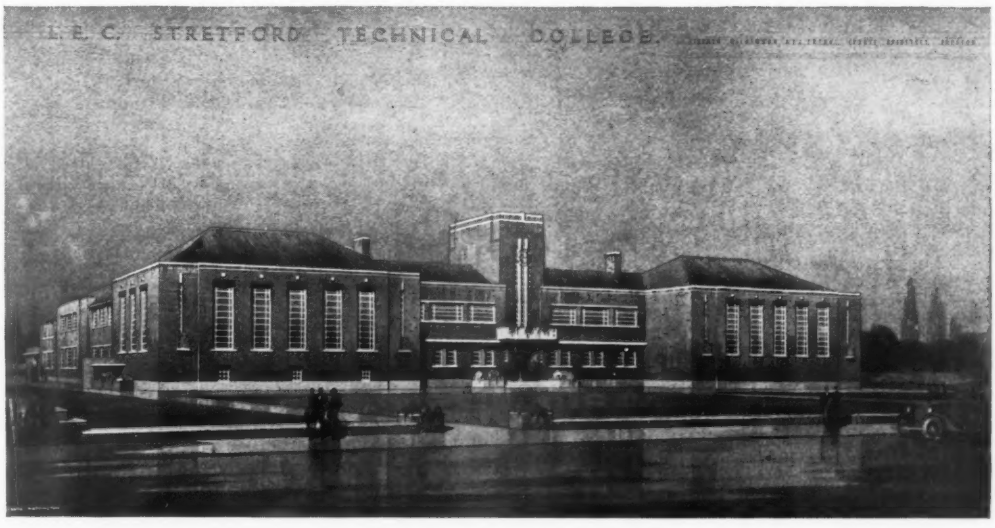
It is not a vintage year for the work of official architects. The Welsh Board of Health building at Cathays Park,

ROYAL ACADEMY EXHIBITION

Central Offices, Hertford, for the Hertfordshire County Council. By C. H. James and S. Rowland Pierce. Perspective by J. D. M. Harvey. (No. 1424.)

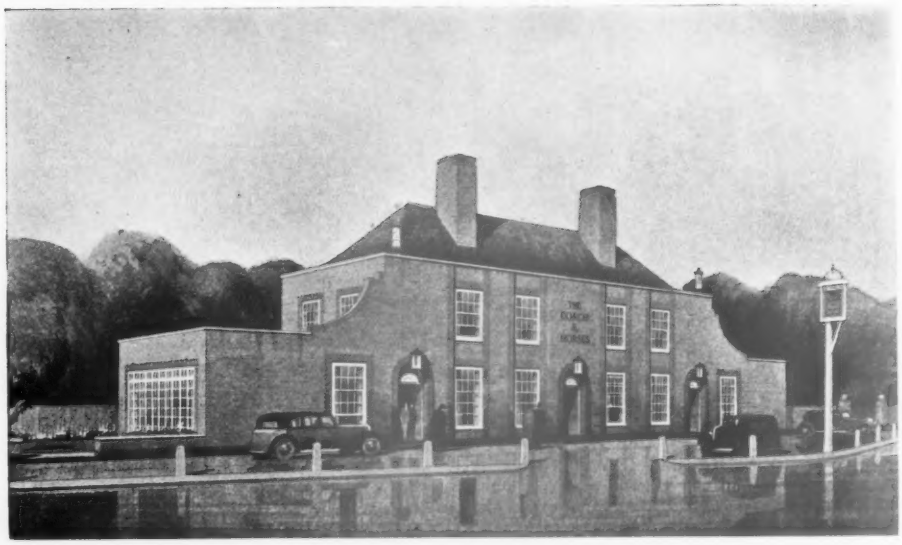


New Council Offices for the Borough of Wood Green. By C. H. James and S. Rowland Pierce. Perspective by J. D. M. Harvey. (No. 1383.)

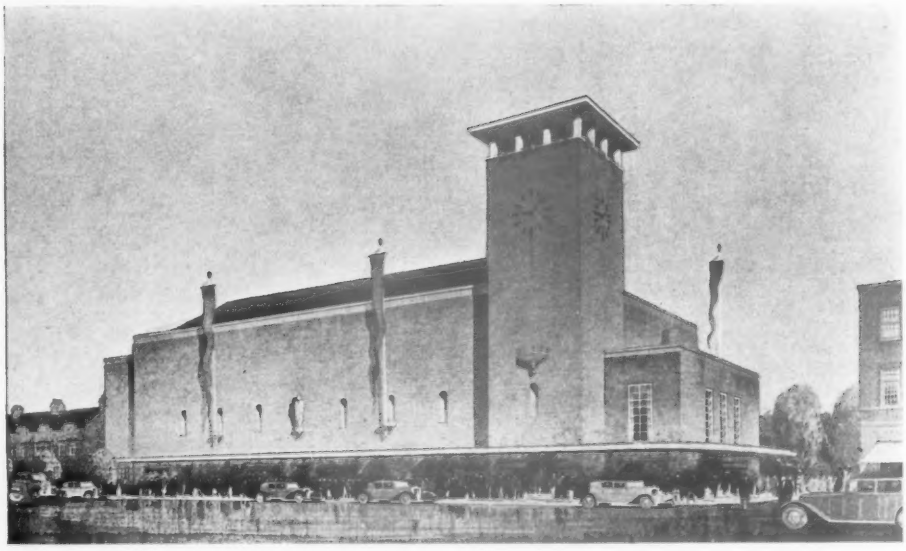


Stretford Technical College, for the Lancashire Education Committee. By Stephen Wilkinson. Perspective by Frank Waddington. (No. 1391.)

ARCHITECTURE AT THE



New licensed premises at Egham, Surrey. By Joseph Hill. Perspective by Cyril A. Farey. (No. 1377.)



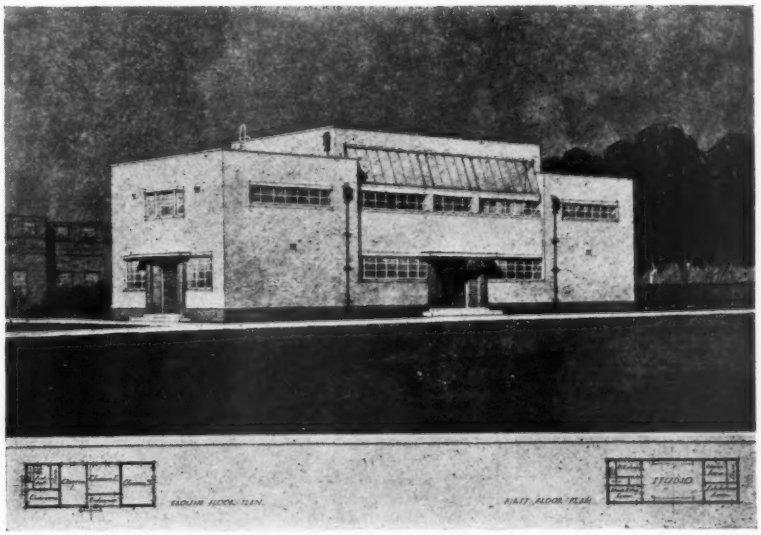
Palace Cinema, Chatham. By Arthur W. Kenyon. Perspective by Cyril A. Farey. (No. 1453.)

Cardiff, by Mr. P. K. Hanton is an easy lead in the H.M.O.W. field.

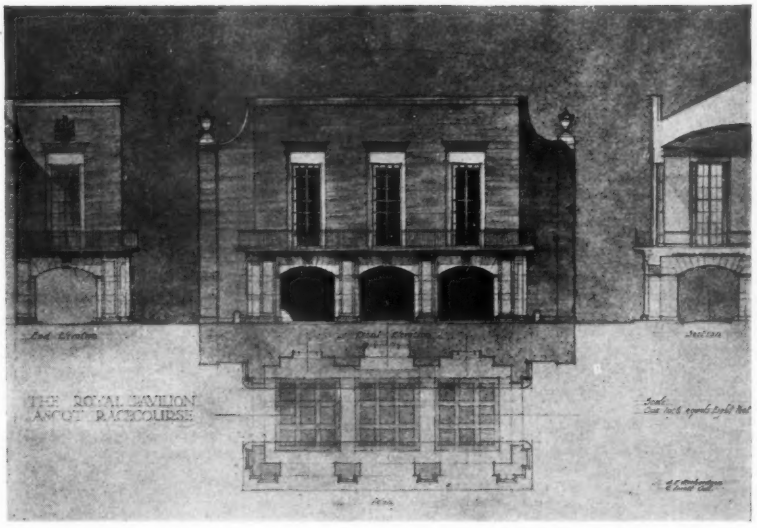
Then one or two indifferent models in the centre of the room balance on masses of stained-glass cartoons. There have been some first-rate models made during the past year, some even with the personal assistance of R.A. sculptors —it is difficult to understand why at least one of them is not in the room. A departure in presentation which needs encouragement is Mr. Maufe's interior of Guildford Cathedral, in oils instead of the usual very wet water colours, surrounded by enormous borders of white cardboard.

Apart from the Architecture Room, the Academy (judging by one quick round of the remaining galleries) is a better year than usual — which makes it even more difficult to understand the general indifference of the building exhibits. The Council of the Academy may be assumed to delegate its powers to a special selection committee who choose the architectural exhibits as well as those in sculpture, and painting. And this annual pastime of grumbling at the Royal Academy Architecture Room is the only reasonable result of a sincere desire for the proper representation of contemporary British architecture. The grumbling we hear in every direction should not be necessary. It would subdue to the gentle level of a merely human murmur if this serious situation were tackled in earnest first by our brighter and more representative architects and, secondly, by the R.A. Council in arranging, or even in co-opting to, its selection committee for architecture. I hope that the chief fault lies with the architects.

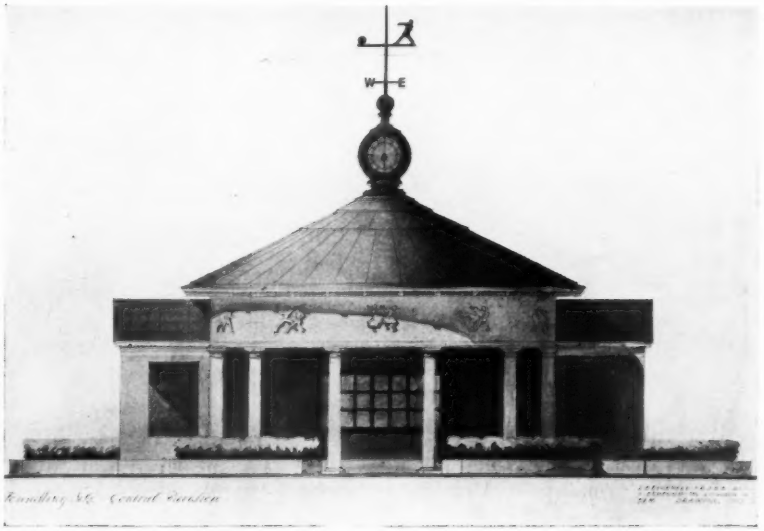
ROYAL ACADEMY EXHIBITION



New Art School, Stowe School, Buckinghamshire. By R. Fielding Dodd. Perspective by Cyril A. Farey. (No. 1355.)

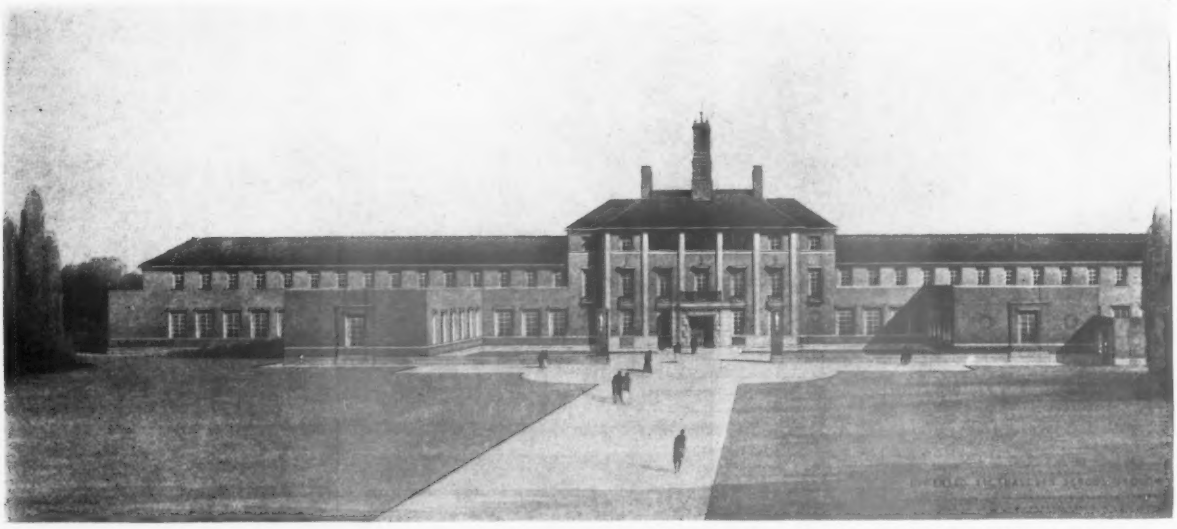


The Royal Pavilion, Ascot. By A. E. Richardson and C. Lovett Gill. (No. 1353.)



Central Pavilion, Foundling Site. By Leonard H. Bucknell (No. 1452). Drawing by the architect.

THE ROYAL ACADEMY EXHIBITION



The new Licensed Victuallers' School, Slough. By J. R. Leathart and W. F. Granger. Perspective by Cyril A. Farey. (No. 1425.)

Above : Winning Design for John Keble Church, Mill Hill, N.W. By Donald Martin-Smith. Perspective by the architect. (No. 1404.)

Right : "The Running Footman" Licensed Premises, Charles Street, Mayfair. By Alfred W. Blomfield. Perspective by Thomas Worrall. (No. 1428.)

HOUSE AT ESHER, SURREY

DESIGNED BY STANLEY HALL AND EASTON AND ROBERTSON

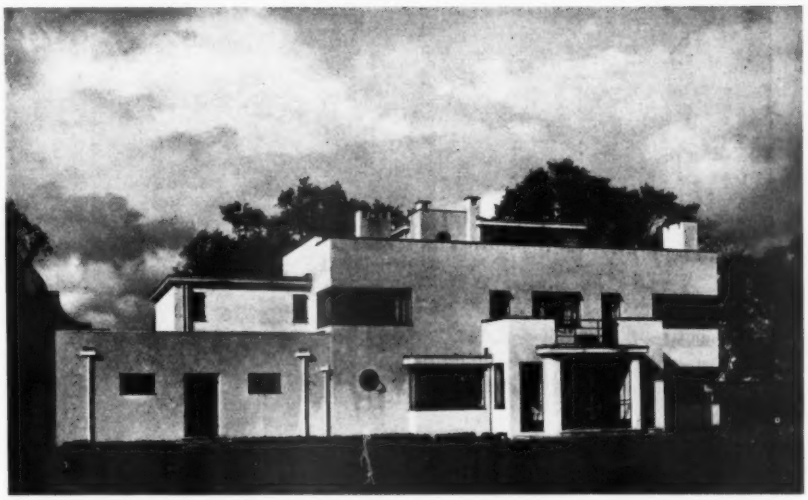
GENERAL PROBLEM.—*The client required a house with a large open floor space on the ground floor. This was obtained by connecting the lounge with the drawing-room and dining-room by wide folding doors. Other requirements included a garage, laundry, tool store, workroom, playroom, flat roof and shelter for sun-bathing and outdoor sleeping, and a loggia with easy access from the principal rooms on the ground floor.*

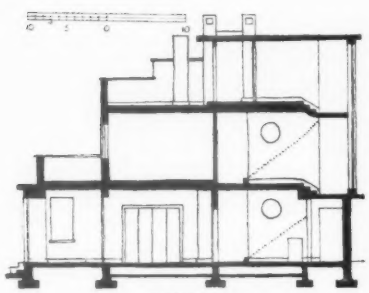
SITE.—*In Esher Close, Esher, and commanding extensive views on the south side.*

CONSTRUCTION.—*The external walls are brick, rendered; the dressings are artificial stone, and the windows metal. Cantilevered steel joists are used to support the walls over the corner windows to avoid the need of columns.*

ELEVATIONAL TREATMENT.—*The client desired a very simple elevational treatment and large windows, without glazing bars. A flat roof space, accessible from the principal bedrooms, was also needed. This was provided by a balcony and by the roof of the loggia.*

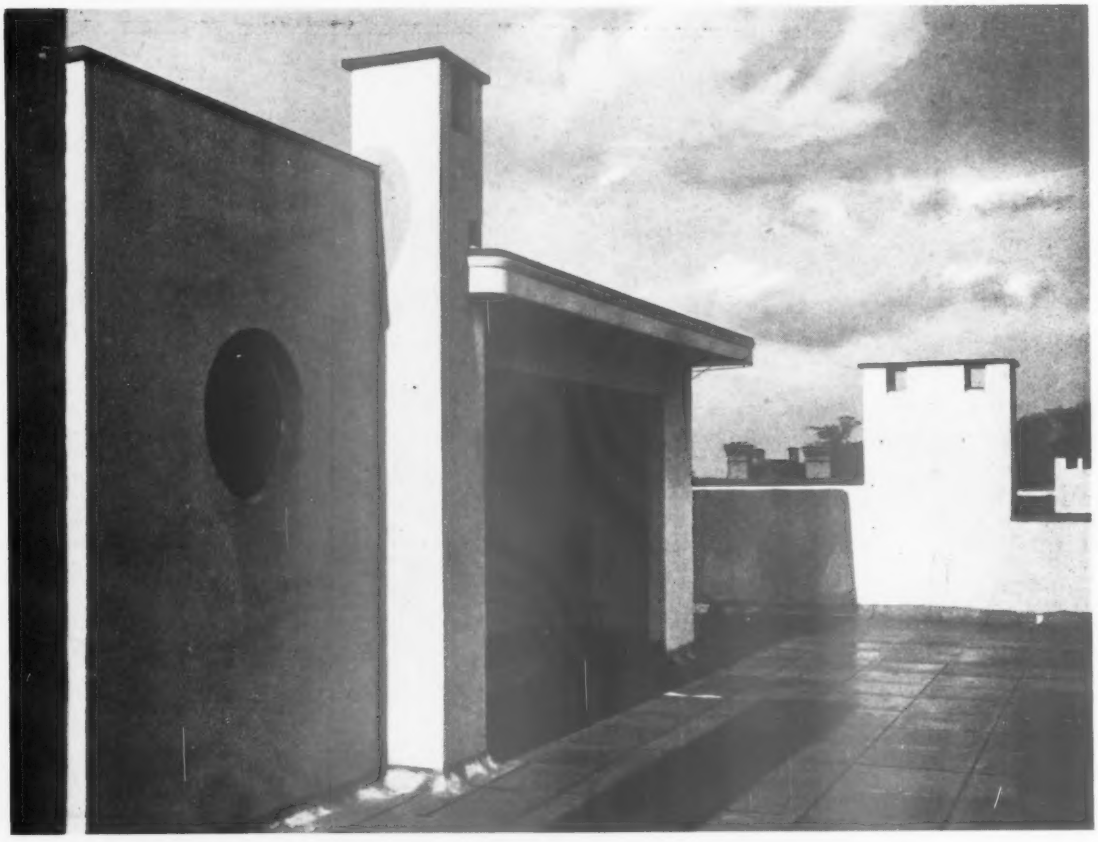
The photographs show : above, the entrance doorway and staircase window ; right, the rear elevation and entrance to loggia.





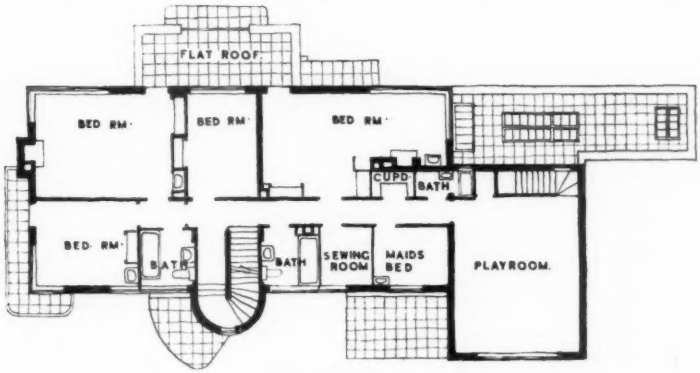
SECTION

HOUSE AT ESHER: BY STANLEY HALL

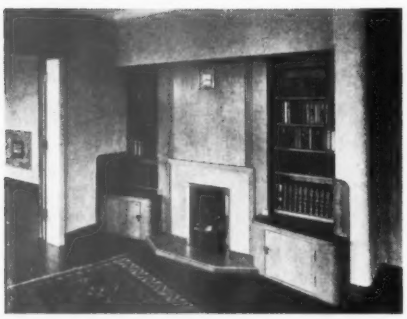


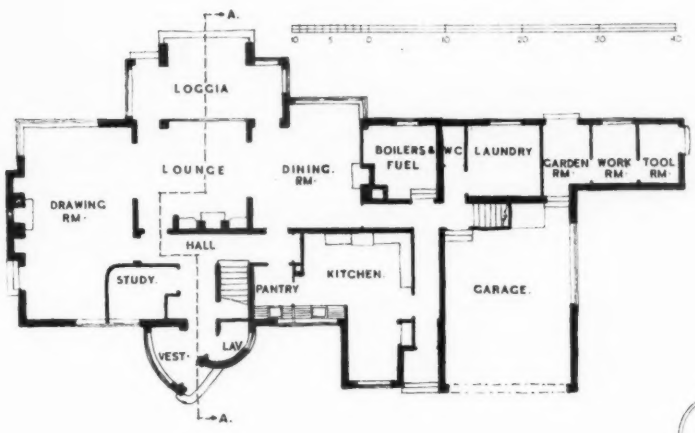
Above, a corner of the flat roof; left, the entrance to the loggia.

AND EASTON AND ROBERTSON



FIRST FLOOR PLAN





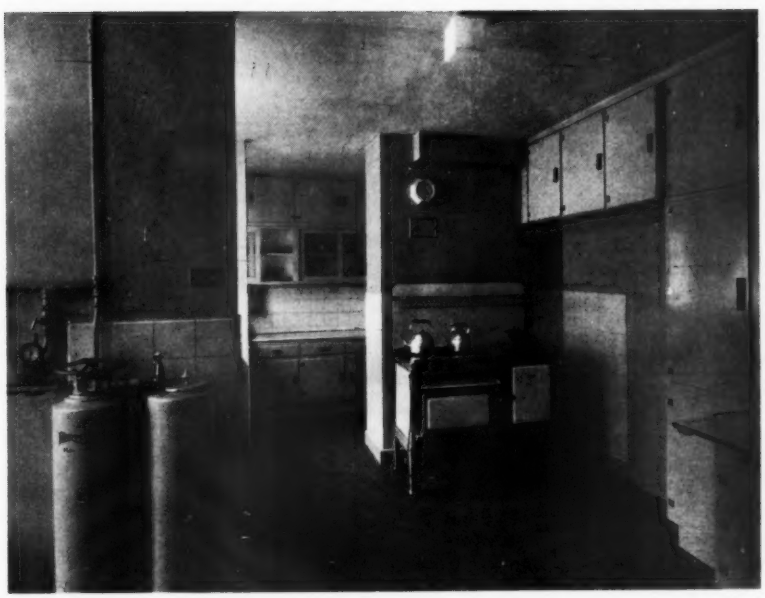
GROUND FLOOR PLAN

PLAN.—*The living-rooms and the best bedrooms are planned to obtain the maximum advantages from the aspect of the site and the greatest amount of sunlight. Large sheets of plate glass are fitted in the windows to give unrestricted vision.*

INTERNAL FINISH.—*The floors are finished in teak in the drawing-room, lounge, dining-room and study ; maple in the bedrooms, oak in the passages, cork tiles in the bathrooms, marble in the vestibule and artificial stone in the loggia. The bathrooms are tiled to door height. All the bedrooms have built-in wardrobes and are provided with wash-basins. The fitments in the kitchen and the pantry are designed to make the best use of all the wall space. French walnut flush doors are fitted throughout the house. The staircase is oak.*

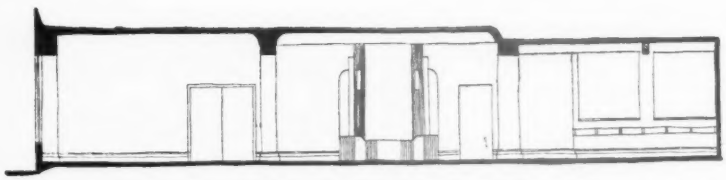
The photographs show : above, the drawing-room ; centre, the lounge ; right, the kitchen, looking towards the pantry.

For list of general and sub-contractors, see page 713.

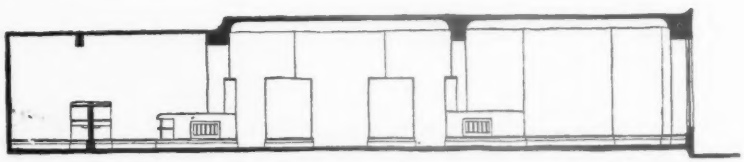


SHOWROOMS, CAVENDISH PLACE, W.

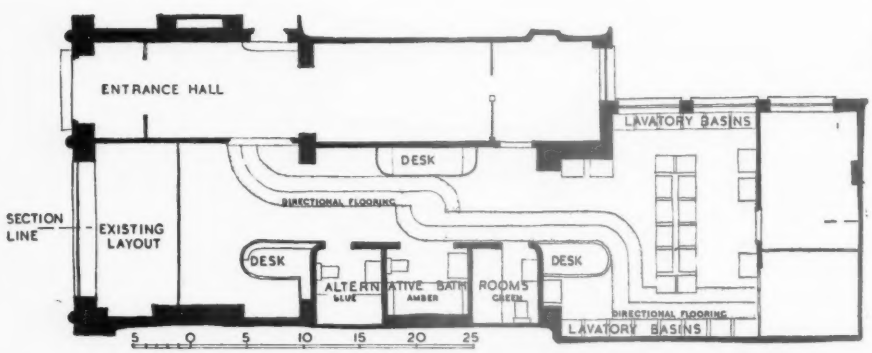
DESIGNED BY FARMER AND DARK



SECTION LOOKING TOWARDS RECEPTION DESK



SECTION LOOKING TOWARDS BATHROOM



PLAN

GENERAL PROBLEM. — *Internal reconstruction of the ground floor of No. 2 Cavendish Place, W., to provide a show bathroom in the window overlooking the street, three show bathrooms and one bath setting with mirrors in the centre of the plan, and a display of lavatory basins at the farther end.*

PLAN.—*An existing showroom, in which the original doorways and windows were to be retained. The show bathrooms are planned opposite the entrance door to attract interest. A directional floor, inlaid in coloured rubber, guides the visitor to the bathrooms and to the lavatory basins beyond.*

INTERNAL FINISH.—*The walls and ceilings are painted and have an eggshell finish. The skirting is black and the walls are pale pink beige in three distinct bands of graded colour, the upper tint extending over the cornice and the ceiling. Electric fires are built in the backs of the desks.*

The photographs are : left, a show bathroom ; right, top, looking towards the showroom window ; centre, bath setting with mirrors.

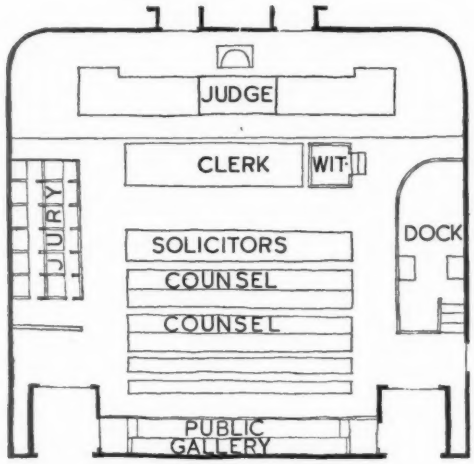
For list of general and sub-contractors, see page 713.

Law Courts *(continued)*

THE ASSIZE COURT

The Judge's Dais

THE Judge's dais should run the width of the Court and be about 5 ft. 6 ins. wide. The Judge's entrance door is desirably placed directly behind his chair on the major axis of the Court. This door should be hidden by the Judge's chair and screen, which, as the chief furniture of the Court, may be designed in the grand manner. The Judge's desk should be spacious, as it becomes littered with books, papers and maps. The height of the Judge's dais from the general level of the floor is determined by two factors : (*a*) the level of the Judge's dais, the jury's and witness boxes, and the dock should all be approximately the same, and the actual top of the upstands to these units should be higher than the heads of the people walking about the well of the Court, as it is distracting for advocates to see heads moving above the side of the witness box; (*b*) the Associate, or Clerk of Assize, must be able to converse privately with the Judge by simply standing up, and it should not be necessary to raise the Associate's seat up more than 2 ft. 6 ins. from the general floor level. It is important that the head of the Associate does not project above the top of the Judge's desk when he (the Associate) is sitting down.



A layout for a general purpose Court which avoids the dock being so placed as to mask the rear of the Court.

Four feet is sufficient height for the Judge's dais, providing the Judge's seat is raised above the general level of the dais and the Associate's platform is raised 2 ft. 3 ins. above the level of the well of the Court.

The Associate

The Associate's chair and desk should harmonize with the bench and provide seats for two persons. If possible the Associate or Clerk of the Assize should have access to the Court without coming into contact with either the public or the legal profession, otherwise they may be embarrassed by litigants and others. Any door provided for the purpose should be accessible from the Clerk of the Assize and Associate's room.

Witness Box

The Witness Box is approximately 3 ft. by 5 ft., outside dimensions, and it should be raised to the same height as the Judge's dais, and be about 12 ft. from the Judge. Access should be provided to the box both from the Court and the Judge's dais. A wide ledge should be provided for documents.

Jury Box

The Jury Box is approximately 15 ft. by 6 ft., outside dimensions, and should contain two rows of six seats in tiers. The level of the front tier should be level with the Judge's dais and the back row should be 9 ins. higher. The seating should be comfortable and a narrow continuous desk or ledge should be provided.

The position of the doors to the jury's retiring room must be very carefully considered, because it is undesirable that the jury, when they leave the Court, should come into contact with any members of the public who might influence them. The box is usually placed on the left-hand side of the Judge against the wall; one end of the box may be against the Judge's dais.

Dock

The Dock has to be large enough to contain a number of prisoners and is usually made about 11 ft. by 6 ft. outside dimensions. Direct access must be made from the dock to the cells and if a staircase is used it should be wide enough to allow a struggling prisoner to be easily removed. Access should be provided from the Court to the dock. The floor of the dock should be about 4 ft. above the general level of the Court. It may be wholly or partially surrounded by strong guard rails; in any case it should be deep enough to prevent a prisoner from getting out easily.

Press

The Press Box should accommodate about six reporters and may be about 12 ft. by 4 ft. outside dimensions. If this box is placed symmetrically with the jury box then the two boxes are usually made to match. A continuous ledge must be provided in this box for writing material.

Barristers

The Barristers' seats should be in tiers rising about 7 ins. minimum for each tier. " Tip-up "

seats have been found very useful in this case, as they allow the advocate plenty of room for gesture. Desks should be provided in at least the first three rows of these seats, and a ledge underneath the desk is very useful.

Officials and advocates should not have to walk the length of the Court each time they come and go. A door near the centre of the Court leading to the barristers' rooms is very useful; this would allow an advocate to look into the Court to see how a case is going without disturbing anyone.

The Civil Assize Court at Liverpool has a good arrangement. In this Court the tiering of the seats is continued for about ten rows, and a passage runs behind these seats at the general floor level. Behind this passage is the public gallery, the lowest tier of which is level with the back row of the seats. Three or four of the front rows are reserved for barristers and solicitors; witnesses and others are permitted to occupy the remainder.

This arrangement allows everyone to see clearly, cuts off the public from the waiting juniors, solicitors, etc., and provides a passage round the Court in which people can walk without causing annoyance.

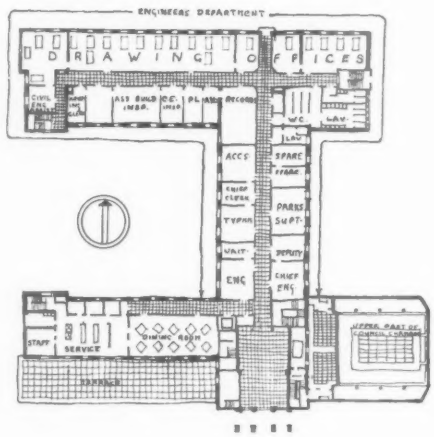
POLICE COURTS

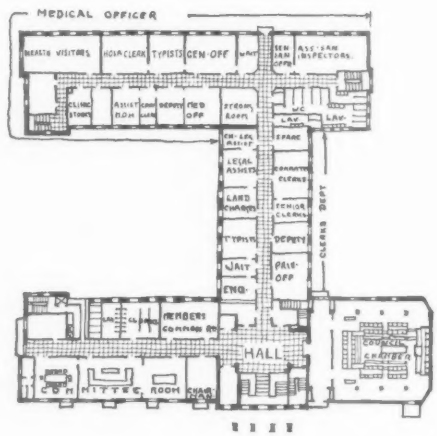
THERE are two types of Police Court generally in use to-day, one for adult and one for juvenile offenders. Both these Courts are planned on the same lines as Assize Courts, but the whole arrangement is simpler and smaller.

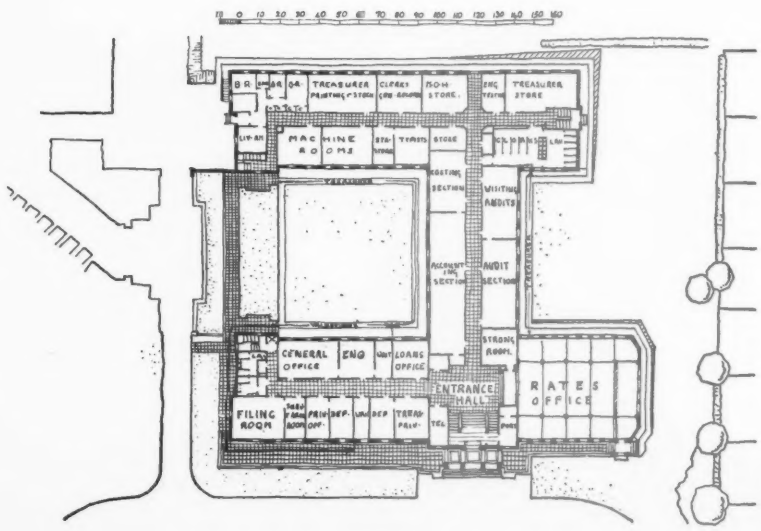
There are usually about five Magistrates on the bench, but for licensing there are twelve, and for the inaugural ceremony of a new Mayor as chief magistrate, as many as twenty-eight people are sometimes on the dais at once.

The magistrates' bench should stretch across the width of the Court and be wide enough to take two rows of chairs. The bench should be raised about 3 ft. to 3 ft. 6 ins. above the floor level of the Court.

The Magistrates' Clerk sits in front of the bench, and at each end of his desk and slightly in front of him there is a witness box, which is raised about 1 ft. above the floor level of the Court. These witness boxes should not be crowded onto the bench, but should be kept







Harrow: Ground, First and Second Floor Plans

TOWN HALLS

away enough to allow each Magistrate a view of the witness's face. The boxes are placed about 10 ft. away from the Clerk's seat.

The desks for the Barristers and Solicitors need not be stepped up as in the Assize Court, but a rise is desirable. These desks should not be placed too near the Clerk's desk; a good-sized well to a Court is always useful.

The public gallery is generally composed of some five or six rows of seats, rising in tiers from the floor of the Court. The back-to-back spacing of the seats should be kept wide enough to allow people to leave the Court without causing disturbance. Access to the gallery should be by a separate door or, if possible, directly into the street.

If the Court is to be used by the County Court, a jury box must be provided.

The jury box should be raised to the height of the bench level, and if possible the jury should be able to leave the Court without coming into contact with the public.

The Magistrates' Clerk should, if possible, have a separate access to the Court from that used by the legal profession and litigants.

The Juvenile Court is much simpler in its arrangement, and there is no dock or jury box.

Smaller Assize Court Rooms

The usual fully-equipped Court building consists of two Assize Courts, a large entrance or Assize hall, suites of rooms for the Judges, the legal profession, consultation and officials' rooms, library, lunch room, jury retiring-rooms, cells and police accommodation. In some cities the Police Court is also housed in the Courts' building.

It may appear to be putting the cart before the horse to discuss the layout of the actual court rooms before considering the building as a whole, but this has been done because court rooms are the major feature, and until they are designed it is impossible to plan the subsidiary accommodation. There are so few methods of grouping these two or three Courts together that it was considered better to leave the general layout of the building until after the arrangement of the court rooms had been determined.

Assize Hall

The biggest of the subsidiary units is the Assize Hall.

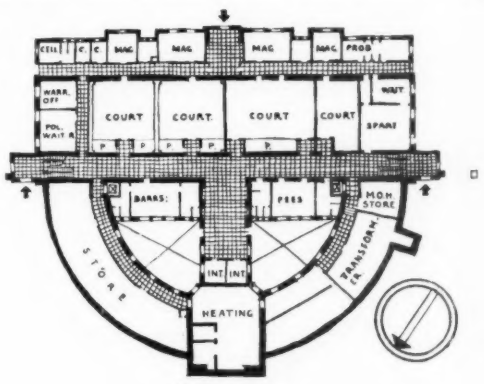
The purpose of the Assize Hall is to provide a common meeting place and waiting hall for advocates, solicitors, witnesses and waiting jurors who are not engaged on a current case. The shape of the hall varies from a wide corridor to a very magnificent and large hall. The length is usually governed by the position it occupies in relation to the court rooms. The hall is generally placed either between the court rooms as at Southampton or along the ends of two Courts placed side by side as at Swansea.

The Hall should be able to accommodate the large number of people which are always to be found waiting about in the court building when the Courts are sitting. The Assize Hall at Swansea is approximately 70 ft. by 20 ft.

Connected with the Assize Hall by corridors are the rooms of the legal profession and the court officials.

The Barristers' Robing-room is the largest of these rooms (Swansea 40 ft. by 18 ft.), and should be provided with lockers, tables and comfortable chairs. A separate toilet with two w.c.'s should adjoin this room and be inaccessible to the public. It should be remembered in planning this room that Barristers have to plead in either Court, and the room should be convenient for both Courts.

Adjoining the Barristers' Rooms is a room for the Barristers' clerks (Swansea 18 ft. by 18 ft.), with coat hooks and tables and chairs. The



Kingston

consultation rooms are usually placed adjoining the clerks' rooms; Swansea Courts are provided with three of these rooms, each approximately 18 ft. by 10 ft.

The Solicitors' room should be large (Swansea 28 ft. by 19 ft.), and should be furnished in a similar way to the Barristers' room and have a separate lavatory.

The Law Library is an important room (Swansea 24 ft. by 18 ft.), and is sometimes used as a Barristers' Robing-room in Court buildings of limited size. It should be remembered that when the Assize Courts' Lists are overcrowded, another Court may be held in the Library, and it is important to plan the room to adjoin the Assize Hall.

The Sheriff's rooms (Swansea, two rooms, 11 ft. 6 ins. by 18 ft.) should be placed on the side adjoining the Criminal Court, as the Sheriff is the King's representative in the County and is legally responsible for the custody of all prisoners and the empanelling of the jury.

The rooms for the Associate and Clerk of the Assize should be planned so that they are near their own Courts, and, if possible, a separate toilet should be provided for each. The rooms should be easily accessible from the Assize Hall. In the Police Court the taxing is done by the Magistrates' Clerk, who should, if possible, have a separate retiring room of his own. (Taxing is the assessment of costs between parties.)

It is understood from various discussions with court officials and advocates that it is preferable to keep the legal profession and the court officials as segregated as possible. This helps

to maintain the dignity of the Courts, and neither barristers nor solicitors desire to be embarrassed by constant contact with clients or witnesses while waiting for cases to be called.

Waiting rooms for male and female witnesses should be placed near the main entrance door and off the Assize Hall. These rooms should be provided with separate toilets, and should be comfortably furnished with tables, chairs and places for hanging up coats. Some of the witnesses are poor people who bring their luncheon and tea to the Court.

Rooms for the police should be provided near the entrance doors to the Court building.

The jury retiring room should have its own toilet accommodation, and does not require any special planning except that it is desirable for the jury to leave the retiring room and the building by a secondary entrance without coming into contact with the public.

The Judges' room should be furnished like a library. A private luncheon room is sometimes provided for the Judges. Each Judge should have a separate toilet.

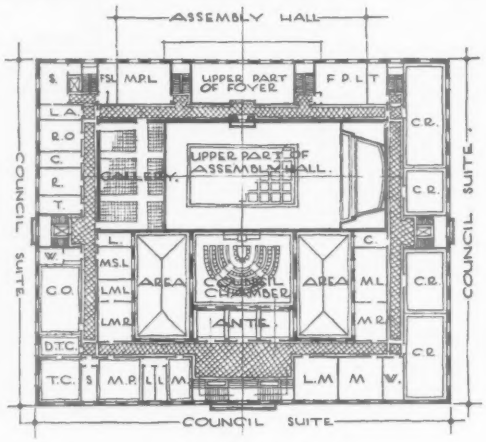
The cells are usually planned in the lower ground floor under the Judge's dais and retiring room. At Swansea there are seven small and one large cell for men and three cells for women, separate exercise yards (about 24 ft. by 13 ft.), a room for the matron, a room for the police, a consultation room, a waiting room with light cubicles, and male and female lavatories. There is very little in the planning of this accommodation which is not obvious.

The size of a cell is about 10 ft. by 13 ft.

General Summary

One of the cardinal points to gain when planning the building is to ensure that control of the public and visitors is easy and effective. One public entrance should be sufficient, and if one policeman can control the visitors to the gallery and the assize hall and courts so much the better. The public *must* be kept entirely separated from the legal profession and the court officials.

If possible, the court officials and the sheriff



Southwark

FIRST FLOOR PLAN

ASSEMBLY HALL

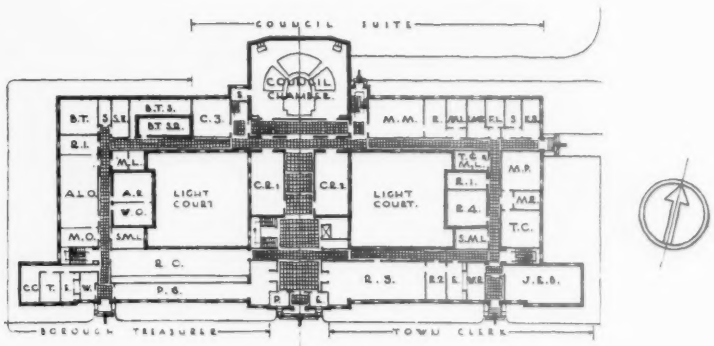
M.P.L.	Male Public Lavatories
F.P.L.	Female Public Lavatories

COUNCIL SUITE

C.R.	Committee Room
W.	Waiting
M.	Members
L.M.	Lady Members
M.R.	Members' Robing
M.L.	Members' Lavatory
C.	Cleaner
M.	Mayoress
L.	Lavatory
M.P.	Mayor's Parlour
S.	Secretary
L.M.R.	Lady Members' Robing
L.M.L.	Lady Members' Lavatory
M.S.L.	Male Staff Lavatory
L.	Lavatory
T.C.	Town Clerk
D.T.C.	Deputy Town Clerk
G.O.	General Office
W.	Waiting
T.	Typists
R.	Registration
C.	Conveyancing
R.O.	Rating Office
L.A.	Legal Assistants
S.	Spare

should have a separate entrance into the building.

It is essential to remember that there are always a great many people waiting or listening to cases, and it is no use trying to cramp a building of this sort.



Swindon

KEY TO PLAN

COUNCIL SUITE

C. 1, 2, 3.	Committee Rooms
M.M.	Male Members
R.	Robing
M.L.	Male Lavatory
L.M.R.	Lady Members' Room
F.L.	Female Lavatory
S.	Store
K.S.	Kitchen and Services
M.P.	Mayor's Parlour
M.R.	Mayor's Robing
T.C. & M.L.	Town Clerk and Mayor's Lavatory

TOWN CLERK

T.C.	Town Clerk
E.	T. C. Enquiries
R. 1, 2, 3, 4.	Town Clerk's Dept.
J.E.B.	Juvenile Employment Bureau
W.R.	Waiting Room
P.	Porter

BOROUGH TREASURER

R.O.	Rates Office
P.S.	Public Space
W.	Waiting Room
E.	Enquiries
T.	Typists
C.C.	Chief Collector
S.M.L.	Staff Male Lavatory
M.O.	Multiplexing Room
W.O.	Wages Office
A.R.	Audit Room
A.L.O.	Accounts and Ledger Office
M.L.	Male Lavatory
R.I.	Deputy Treasurer
B.T.	Borough Treasurer
S.R.	Spare Room
B.T.S.	B. T. Stores
B.T.S.R.	B. T. Strong Room
S.	Stationery

FURNITURE FOR THE LOWER-PAID WORKERS

1

2

On this page are reproduced photographs of some of the furniture now on view at the showrooms recently opened in Seymour Street, Euston, N.W., by House Furnishing, Ltd. The object of the promoters is to retail low-priced furniture and materials for the lower-paid workers. The photographs show : **1**, *table in deal (39s. 6d.), chair (7s. 9d.), tea set, twenty-one pieces (9s.), teapot (3s. 6d. extra) ;* **2**, *rubber-sprung chair in birch, with loose cushion (50s.).*

3

3, *oak bed, 4 ft. 6 ins. wide, with spiral mattress (44s. 6d.), coloured Witney blankets (12s. each), coverlet (6s. 11d.), tallboy (27s. 6d.), fitted wardrobe (29s. 6d.), chair (5s. 9d.), set of three jugs (3s.) ;* **4**, *bed settee, complete with mattress and storage space for blankets (147s.), bed-chair (26s.), dinner service, twenty-six pieces (25s.), felt embroidered rugs (10s. each), washable rugs (6s. each), furnishing materials in fast colours from 9d. to 3s. 3d. per yard.*

4

SOCIETIES AND INSTITUTIONS

TOWN PLANNING INSTITUTE

SOME PRACTICAL PLANNING PROBLEMS

A paper entitled "Some Practical Planning Problems" was read by Mr. T. F. Thomson, Planning Officer, North Oxfordshire, at a recent meeting of the Town Planning Institute. Extracts from the paper are printed below:

ADMINISTRATION

"ANY substantial progress in the guidance of community development must rest, first, on a firm basis of law and constitutionality, and secondly, on the establishment of the planning agency in an efficient relation to local and regional government." This statement from Professor Hubbard's survey of American City Planning brings out, in the form of a definite rule, an underlying principle which is equally true of our English attempts at municipal planning. It is not, however, always as easy as it sounds to maintain an efficient relationship as between the committees of even one local authority. There is a regrettable tendency for committees, particularly spending committees, quite apart from the officials—who are often ready to co-operate—to seek to override their planning committee, if the expediency of the moment so dictates. This tendency can seriously invidiate the position of the planning officer when dealing, in the name of his council, with private individuals or private companies in matters where the council itself, acting through another committee, has proved itself a not inconspicuous offender.

There are also considerable difficulties arising when the Planning Authority is a joint body and the Interim Development Authority is a constituent small (but self-important) local authority. If certain interests are affected, not perhaps excluding their own, by a recommendation, passed to them by the Planning Authority, relating to an interim development permission, it is more than probable that they will refuse to accept the advice of the Planning Authority, although they may have accepted it on a previous occasion in an almost identical case. This is manifest injustice, which could be very largely smoothed out by an administration of interim development by the Joint Planning Authority, which would be possible but for Section 48 of the Town and Country Planning Act.

In this connection it is of interest to note that it was recently reported from Germany that their joint planning boards are representative not only of constituent local authorities, but also of railways, highway boards, water boards, air ports, and industrial and agricultural boards. In all cases plans formulated by the joint planning board must be accepted as final by all its constituent bodies. It would seem that our joint executive planning committees would gain by a similarly comprehensive representation and authority.

New problems of administration arise under the Restriction of Ribbon Development Act, particularly when this Act is being administered by a committee which is not also the planning committee of the authority controlling highways. In some cities, county boroughs and counties, this difficulty has been overcome by the Council delegating its powers under the Restriction of Ribbon Development Act to its Planning Committee, with an obligation to report to the spending committee (in this case the Highways Committee) only on matters involving questions of policy or immediate expenditure. An unsuspected admirer of efficient methodology (a speculative builder) told me the other day how successful this joint administration is working in the County of Warwick.

The closest co-operation between the authorities on this matter is necessary if separate authorities are administering the two Acts, a state of affairs which is the more general, and this can usually be arranged by fixing a date before which neither permission is issued to the applicant, thus affording an interval for mutual consultation between the two authorities as to the result of their respective decisions. When this cannot be conveniently arranged, a note on each permission, to the effect that it is incomplete without that of the other authority, is a way of overcoming the difficulty.

The quotation given at the head of this paper makes a strong point of planning resting upon a firm "basis of law and constitutionality." No planning policy which has no such secure legal foundation is likely to achieve anything of abiding value in practice. Town and country planning is a great interference with the right of the individual property owner to do as he pleases with his own. This is probably as it should be, in view of what is at stake, but it would seem to be desirable that the Minister of Health should be placed under an obligation to see not only that qualified town planners are engaged on the technical side by planning authorities, but that a legal expert is constantly available on the spot to give advice and to insist, so far as is possible, on advice being acted upon.

One hears of such extraordinary action being illegally taken by local authorities under supposed "planning powers," without challenge, that there is a danger of an exposure of these illegal practices leading to unpleasant repercussions on the whole town-planning movement.

ZONING FOR INDUSTRY

I want to raise one or two problems relating to the siting of industry, assuming that the major national issue has been taken in hand.

Where is one to put industry? It must have public services in abundance; it ought not to be on flood land; it should be near to as many forms of through communication as possible; it should generally be so sited that the odours and smoke (if any), presumably carried in the direction of the wind, will not pass over the majority of the residential zones. This, and similar data is theory. What do we find in practice?

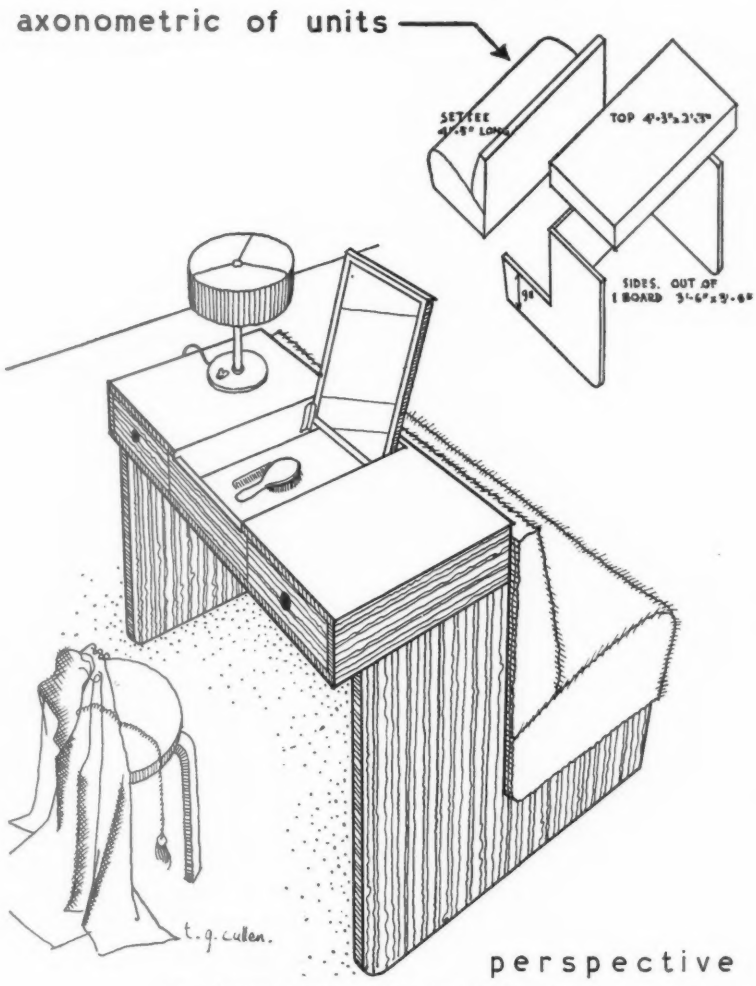
More often than not public services are non-existent in the localities which, based on other factors, are suitable for industry. In the rare exceptions the demand for 12 or 16 per acre residential land will be such that all efforts to preserve the land for its proper use may fail during the interim period. The local authority will probably itself build houses on the land! The apparent remedy is that sites for industry should be provided for by reservations, and not by zoning. Power should be available for the responsible authority to purchase such reserved land, if necessary, compulsorily, and develop and maintain it precisely as they maintain and develop other municipal enterprises. Industry needs guidance of this kind, and will respond if we could only get the system working. I know of one town where local private individuals had to subscribe in order to reduce an extortionate figure which was being asked for a site for an important new industry, in order to dissuade the promoters from abandoning the idea and going elsewhere.

Another problem which frequently arises concerns the amount of land which ought to be reserved for industry. Whether or not we have any justification for doing so, we usually determine in various ways what is to be the reasonably foreseeable maximum residential area for any given centre, and from this an estimated maximum population can be calculated. It follows from this that there ought to be some relationship between this estimated population figure and the area to be allotted for industry. In a properly planned new town there would be, and American practice seems to suggest 10 acres per 1,000 population as being all that is really necessary for the accommodation of industry. In Amsterdam where the City is the land-owner, I believe the figure that is worked upon is something like 11 per cent. of the total area set aside for future residential use.

Whatever figure we adopt as a basis for industrial zoning, we have no guarantee that industry will come and occupy our zones, and it seems that a law somewhat similar to that in force in at least one other European country is long overdue. This provides that no new industry likely to employ more than 100 persons may be established in any of the existing congested centres. Difficult as this would be to put into operation, it would solve an untold number of our present planning problems.

RESIDENCE

Our collective practical experience of the control afforded by density regulation, over the "type" of residence, must have revealed a widespread and evident ineffectiveness, and it seems high time that density and "type" (as distinct from mere "size") were linked more closely together. I am advised that it would be legal to do this by a slight modification of Clause 44, to bring in size, which would work with, or as an alternative to, design and external appearance, in securing a satisfactory "type" of house in any given zone. The reason for this suggestion is that size is linked with design in Section 12 of the Act. Some of us have worked on the idea of limiting the minimum frontage in any given density zone by fixing a maximum depth (varying according to the density zone) beyond which limit excessive depth of plot would not count for density calculation purposes. This would involve a third column in the table attached to Model Clause 36, but I am advised that it would be *ultra vires*, and



Dressing table settee, designed by Godfrey Samuel

liable to challenge in the Courts even if the Minister approved such a proposal.

The idea of bringing size into the wording of Clause 44 seems to me to represent a possible solution of this difficulty as to "type" of house, although we shall undoubtedly come up against all sorts of difficulties in its administration.

Whilst dealing with problems connected with residence, one can scarcely pass over the very large question of municipal housing, in its relation to town and country planning. It is a matter which bristles with difficulties, since there is a surprising lack of co-operation between the housing and town planning departments both of the Ministry of Health itself and of local authorities. It is true that a very great deal of post-war municipal housing is, in quality of design and conception, of such a high standard that it would be presumptuous for the planning authority to criticize it even on planning grounds. Nevertheless,we must not allow this fact to blind us to the vast amount of State-aided housing which is of such poor quality in design and lay-out, that it ought never to have been allowed to be erected, and probably would not have been had planning control effectively extended to municipal housing.

Local Authorities are prone to regard the approval of the Minister of Health as a seal of quality. From a planning standpoint this "approval" has very little significance. as it is understood that in the majority of cases lay-outs are not examined by the Ministry, and seldom do the elevations rank for criticism except on grounds of excessive expenditure. In urban areas the provisions of planning schemes relating to street widths, building lines, service roads, open space reservations, density and use zoning, and external appearance, and in rural areas provisions relating to means of access to houses, external appearance, service roads and sewerage, are consistently violated by housing schemes promoted by local authorities. In most cases it is these very authorities who are, as the Interim Development Authority, the authority for imposing planning standards upon development by private enterprise. This is a matter which, particularly in rural areas, needs closely looking into.

FLATS

This is a matter which is troubling many planners at the present time, and seems to warrant special mention, apart from the general questions connected with ordinary residential zoning. What ought we to do about flats? The tendency, already maturely developed around London, to erect blocks of residential flats, small and large, in place of houses, is fast invading the provinces. The seaside resorts have the problem of control or regulation presented to them in its acutest form. Bournemouth, Poole, Eastbourne, Worthing and other places have been wrestling with it for years. Former low-density residential zones, whose houses have outlived their usefulness, as judged by modern standards, are a ready prey for the speculator who sees a site of an acre or so with one dilapidated house occupying only a small proportion of the curtilage. The result is that the local authority is soon presented with a scheme for 40 or 50 flats occupying the major portion of the curtilage and rising to four or five storeys. What is to be done about it? A number of the neighbouring owners have already sub-let their houses in three or four flats each, and others, even more enterprising, have re-designed their houses to comprise three or four completely self-contained flats with separate entrances. In the face of this, it is useless to seek to retain the existing low density in the hope of a continuance of the existing predominant type of residence. It is equally true that an arbitrator appointed by the Reference Committee under Section 84 of the Law of Property Act, 1925, would have difficulty in supporting a contention that the character of the locality had not changed sufficiently to warrant him quashing the existing restrictive covenants in this regard (if any). Where, however, an initial attempt is being made to alter the character of an established residential zone, it is an entirely different matter, but there are many areas where the change to flats is definitely a change for the better in view of the dilapidated condition of many of the existing houses.

Many will contend that flat dwelling is a modern craze which will pass as quickly as it has developed. At all events, there is a strong demand at the moment in favour of flats, and I personally feel that in the case of towns of over approximately 100,000 inhabitants it will persist. The amenities of town life in such places are increasing to such an extent that those without family ties find that the occupation of a flat near the centre of the town makes life easier, or at least, a fuller life is possible at less expense than is incurred in maintaining a self-contained establishment far out in the suburbs, from and to which the daily racket of travel, even under improved modern conditions, quickly contributes to boredom. The economic aspect has become emphasized recently owing to the much lower rents at which luxury flats are now available. A flat which used to cost £400 per annum can now be rented for upwards of £100 per annum. What now emerges is not a question of whether or not flats ought to be allowed to intrude into certain areas, but a question of where ought we to encourage an intensive flat development which will contribute something of abiding merit to the town plan, rather than the reverse. We have in the past been bold enough to schedule existing residential areas as future shopping zones (thus increasing the site values by anything up to 1,000 per cent.). Why not a definite zoning for flats? —leaving the much discussed question of density of flats to settle itself on the basis of maximum height and maximum coverage of site, i.e. maximum cubic content, with an over-riding clause to limit minimum superficial content of individual flats in

certain cases—varying according to circumstances. We are planners, and it should not greatly tax our skill to find in any area suitable groups of streets whose houses are of no æsthetic merit, and have both externally and internally outlived their usefulness apart from wholesale re-conditioning. Would it not be logical to zone such a group of streets as a " flat area," care being taken to avoid too drastic a clash of types, as between the class of flats to be erected, and the class of house in the residential zones immediately adjacent, if this is possible? If this were done it would be desirable to fix a minimum and maximum limit of height, minimum and maximum superficial area per flat in each block, and maximum cubic content would be regulated by the usual proportion of site to be covered by buildings clause. The next step would be to increase the width of the streets to a minimum of 60 ft.

The question of external design and materials would also have to be carefully regulated if the best results are expected. Regulation of elevational design and materials would need to be based upon a competently designed scheme for the treatment of the whole area in the broad essentials of mass, height, storey levels, colour, and general style.

An attempt, on the lines I have briefly outlined, to deal with the flat question would, in the result, achieve a permanent twentieth-century contribution to our complex urban civilization, instead of a mere dissipation of these incongruities in places where they are neither wanted nor appreciated. Furthermore, it is submitted that this is a case where betterment on site value could be reasonably recovered on realization. This would not be long deferred, if the areas allocated for this type of development were sufficiently confined. From the developer's standpoint, the zoning of an area for flat purposes would be an overwhelming argument with which to confront any arbitrator dealing with such a matter under Section 84 of the Law of Property Act, 1925. Developers already know to their cost how exasperating opposition to an application under this Section can be in certain circumstances.

RESERVATIONS

Assuming that not more than 50 per cent. of the area devoted to flats (excluding roads) is normally allowed to be covered by buildings, it is suggested that the remaining 50 per cent. might, by agreement with the owners, be scheduled as permanent open space. It may not be difficult to persuade the owners to accept a public open space reservation (excluding compensation), on the local authority undertaking maintenance in perpetuity. The owners themselves would be acquiring in this way a co-operative right to the enjoyment by their tenants of the combined half-curtilages of the whole flat area, and if this were maintained by the local authority as a public pleasure garden it would become a much valued amenity. A feature of this kind, together with spacious and well-planted streets, would combine to make the flat areas among the most attractive of residential districts.

On the question of the provision of open spaces generally, some of us find great difficulty in persuading local authorities that they are doing right in assuming increased liabilities in connection with the provision of further open spaces. A comparison between the acreage of existing open spaces and the requisite proportion according to established modern standards is, however, of considerable assistance in the matter. An average of the open spaces possessed by 16 American cities works out at five acres per 1,000 population. This compares rather unfavourably with the figure of 16¾ acres given us by Sir Raymond Unwin as the proportion which has been taken voluntarily, largely by sports clubs, etc., at Letchworth. The figure worked upon by the National Playing Fields Association (seven acres per 1,000), is nearer to the American Town Planners' model figure of 10 acres per 1,000 population, whilst Mr. Lanchester has a formula which is related to density zoning. This is 8 per cent. of the appropriate residential zone plus ·1·5 times the density, and at eight per acre gives us a figure of approximately 10 acres per 1,000 population (calculation excludes roads). From these varying figures it would seem that something between 5 and 10 acres per 1,000 is the standard to be aimed at—the nearer 10 the better. Private open space is a useful form of reservation for preserving privately-owned playing fields, golf courses, private parks, etc., not likely to become public property. I have, however, formed the opinion that agreements under Section 34 of the Town and Country Planning Act are not well adapted for use in the cases of other forms of reservation, owing to the cumbersome importations of clauses from the scheme which have to be included in such an agreement where any restricted building right is retained. Otherwise, it appears that the property becomes " de-controlled " for planning purposes by reason of the agreement.

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CHARTERED SURVEYORS' INSTITUTION

Following are some extracts from a paper entitled " Surveyors and the Law," read by Sir Lynden Macassey, K.B.E., K.C., at a meeting of the Chartered Surveyors' Institution on Monday last.

WHILE I am on the question of arbitration I would like to address an appeal to this powerful Institution, which has a great section of its members—the quantity surveyors—involved in the administration of important engineering and building contracts. The time has surely come when, if your Institution and the Institution of Civil Engineers, the Association of Consulting Engineers and the Royal Institute of British Architects took a united and determined stand, it could put an end to the objectionable practice of the engineer or architect, the agent of the " building owner " for the design and carrying out of the contract work, also acting in a judicial capacity as arbitrator, to settle disputes between his employer, the " building owner " and the contractor. I am fully aware that the Association of Consulting Engineers and the R.I.B.A. have published forms of contract which provide for the settlement of disputes between the contractor and the building owner by an independent arbitrator, and that such forms are, in many cases, adopted by the building owner. But in these days of keen competition and cut prices some contractors will sign almost any contract to get a job. Companies and local authorities know and take advantage of this, and many insist on the contract providing for their own engineer and architect acting as the arbitrator. I am satisfied from my own experience that this is generally done with the deliberate intention of restricting the probability of a contractor getting any payment over and above the contract amount, even on a measure and value contract. In such a case the arbitrator, whether engineer or architect under the contract, if he is a whole-time official of the company or local authority carrying out the work, is placed in a most difficult and invidious position, one which I have no hesitation in saying prevents him from doing justice as an arbitrator. Assuming the contractor is entitled to payment in respect of " extra claims," such an arbitrator knows that if he does his duty and allows such payment, it will be regarded by his company or local authority as a mark of his incompetence as an architect or engineer in the design of the works and may seriously weigh against him in connection with any increase of his salary. No arbitrator ought to be placed in that invidious position. In some cases, as I also know from my own experience, the company or local authority of which the arbitrator is an official, has not hesitated to control his freedom of discretion as arbitrator. This control can be exercised in many subtle subterranean ways, too intangible to provide any evidence for legal proceedings, but, nevertheless, most effective for their purpose.

The law says that if a contractor is foolish enough to sign a contract providing that the building owner's agent—the engineer or architect—is also to act in the judicial position as arbitrator, the contractor has done it with his eyes open, and that unless he can show, to put it shortly, that the arbitrator is acting corruptly or improperly, or is submitting himself to the control of his employers, or that certain special circumstances have arisen, the contractors must accept his decision, having known before the contract was signed what his " honest " bias was likely to be. That is good law, but bad business. Contractors will inevitably load their prices in such circumstances—the works will cost more. And, moreover, the whole procedure is against the public interest. If the eminent professional Institutions whose members are concerned decided to exert both directly their great public influence, and through their members by way of corporate control their full disciplinary power, they could put a summary end to the procedure, and public opinion would rally to their assistance. It seems a strange thing that in a number of foreign countries whose legal concepts are immeasurably inferior to those of England, and whose codes of law are crude as compared with ours, the practice of appointing an engineer or architect to act as arbitrator under a contract which he is carrying out as the agent of the building

owner is not merely unknown but, if attempted, would be unenforceable. So, also, should it be in this country.

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INSTITUTE OF BUILDERS

Sir Kingsley Wood, the Minister of Health, speaking last week at the annual dinner of the Institute of Builders at Carpenters' Hall, London, said the private builder had deserved well of the country in the contribution he had already made towards the better housing of the people. Of the 2,900,000 houses built in England and Wales since the Armistice nearly 2,000,000 had been provided by private enterprise—a record without parallel. More than three-quarters of these two millions had been built without any kind of public subsidy. Beginning with comparatively large houses, private enterprise had turned, with the invaluable help of the Building Societies, to houses for the middle-class black-coated workers. The point had now been reached when anyone able to buy a house on easy conditions of repayment could obtain a house built by private enterprise. In the year ended September last, over 275,000 houses were built by unassisted private enterprise. Only 12 per cent. of these had a larger rateable value than £26–£35 in Greater London—and no fewer than 102,000 had a rateable value of not more than £13–£20 in Greater London.

A number of houses were also being produced by private firms for letting at rents within the means of the better paid members of the working-class. Last year over 34,000 houses were built of this category.

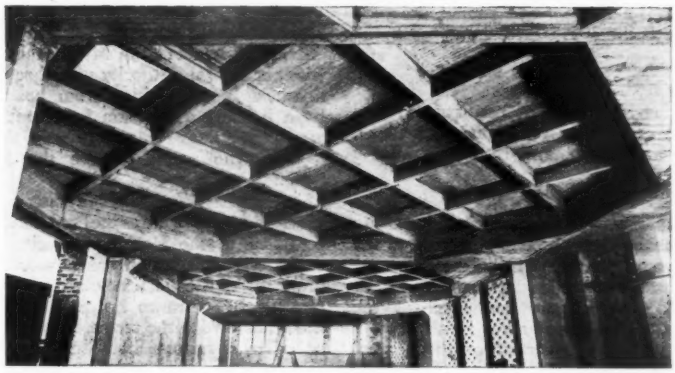
He believed that so far as private enterprise was concerned, it would continue to supply for a considerable time to come a substantial number of houses. So far as building construction generally was concerned, there was every prospect of steady building and continued employment. But it depended upon cheap money and reasonable prices.

These were vital factors both in the production of houses provided by the industry without assistance for sale to the black-coated worker or the better-paid working man, and of the municipal houses for the slum dweller, which needed to be assisted from the rates and taxes. The housing needs of both groups could only be met by the provision of houses on terms within their paying capacity, and it was essential that the pressure of demand upon the industry, which was apparent under present conditions, should not result in any inflation of prices. We all knew the disastrous results which attended our earliest attempts at housing after the War, and he was sure that he would have the agreement of the Institute in his view that the price of the product was the main determining factor in the success of our housing schemes.

Houses to let, suitable for the lower paid workers, were a real and pressing need.

ROYAL SOCIETY OF BRITISH SCULPTORS

At the last general meeting of the above Society, Messrs. Eric J. Doudney and Massey Rhind were elected associate members.



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

New Aga Equipment

SOME years ago the Aga people introduced a small water-storage tank, run from the standard Aga cooker and giving about two baths in 24 hours, in addition to the usual supply for odds and ends. This was probably done to meet the demands of the public, and against their own better judgment, for Agas have always maintained firmly that it is not possible to combine cooking and water-heating efficiency in one and the same stove.

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And now a new Aga boiler is available, and was shown for the first time at the Ideal Home Exhibition. Arranged to marry up with any one of the range of cookers, as shown in the illustration below, it can, of course, equally well be left free standing. Control is by thermostat working in conjunction with an automatic draught control, and, like the cooker, it is only necessary to keep a reasonable supply in the fuel magazine.

The boiler is equally suitable for central heating, and should prove remarkably economical in practice, for it is virtually foolproof, and should easily survive the notoriously inefficient firing and lack of attention from which the ordinary domestic boiler suffers.

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The price is £22 10s., and there is also an open-fire model, with a pair of hinged doors, at £5 less, though I imagine this must be less efficient from a water-heating point of view.

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There is also a new "82" model cooker, with four large ovens (one for plate warming) and an additional hot plate—this model is also shown in the illustration below.

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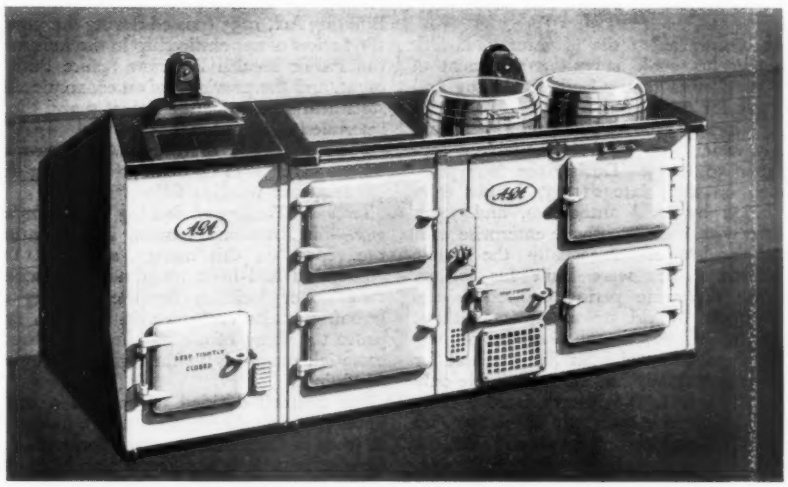
Two other new models are also available, one with two fire units, three large hot-plates and an extra large oven 18 in. by 18 in. by 20 in.; this is intended for large-scale cooking in restaurants and country



Two new Aga models: on the left, the boiler; right, a new four-oven cooker. (*See note on this page.*)

houses, as is also the " 25 " model, designed for extra boiling and grilling.

Diagrid

The Diagrid system of construction was originally evolved by a Hungarian engineer, Dr. Stephan Szegö, and is now available in this country.

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The floors and roofs comprise essentially a diagonal system of beams or ribs which are arranged in two parallel sets equally spaced and intersecting at 90 degrees, or nearly so, and rigidly connected at the junctions. This layout gives in all cases a corner beam (the shortest of the several diagonal beams), the rigidity of which gives great relief to the bending moments in the centre of the span. Also, as the panels formed by the beam intersections are equal, a considerable measure of standardization is achieved.

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Compared with the standard design of main beam and secondary beam, the reduction in bending moments obtained in Diagrid design has the result that :—

(*a*) The structural depth required for given conditions is greatly reduced.
(*b*) For equal cost, spans can be greatly increased.
(*c*) For equal conditions, cost can be reduced by as much as 30 per cent.; and
(*d*) By a combination of these three a more useful design can be obtained.

The headpiece to these notes shows the soffite of a typical Diagrid floor and the layout of the diagonal beams. The system is equally applicable to structural steelwork.

Addresses

Aga Heat, Ltd., 20 North Audley Street, London, W.1.

Diagrid Structures, Ltd., Horseferry House, Westminster, London, S.W.1.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

Housing

Mr. Barnes asked the Minister of Health whether he would submit a statement of the number of houses built for letting and for sale for the period 1932-36.

Sir Kingsley Wood said that the latest date up to which statistics were available is September 30, 1935. During the four years ended on that date 211,937 houses were provided by local authorities, and 7,923 houses were built by private enterprise with State assistance. Practically the whole of these houses were built for letting. During the same period 830,222 houses were built by private enterprise without State assistance. Statistics of the proportion of such houses built for sale and for letting respectively had been available only since October 1, 1933, and related only to houses of rateable value not exceeding £26 (£21-£35 in Greater London). Of the 532,748 houses built between October 1, 1933 and September 30, 1935, 469,453 were houses of a rateable value not exceeding the figures mentioned, and of these 104,987 were in the occupation of persons other than their owners.

Mr. Sexton asked the Minister of Health whether a local authority would receive the financial benefit arising from houses built by a housing association in a special area after the houses built were paid for; and, if not, who would receive the financial benefit.

Sir Kingsley Wood said the answer was in the negative. So long as the houses in question belonged to the Housing Association, any excess of rents over outgoings would be the property of the Association, and would be devoted by them to housing purposes, in accordance with the terms of the trust deed or other document constituting the Association.

West Wittering

Lieutenant-Commander Fletcher asked the Minister of Health if he had considered protests submitted to him concerning proposed developments at West Wittering, Sussex; and what action he proposed to take.

Mr. Shakespeare, who replied, said that the Minister was aware that there was some anxiety about the development proposed at West Wittering, but this was primarily a matter for the West Sussex County Council, who were preparing a planning scheme for the area, and the Chichester Rural District Council, who were the interim development authority, and the Minister understands that both these authorities had had the proposals for the development under consideration. The Minister's only jurisdiction in such a case arose on a refusal of planning consent by the interim development authority.

Building Industries National Council

The work carried out during the past year by the three main Committees dealing respectively with the technical, economic and legal aspects of the building industries was reviewed and approved by the Council at the fourth annual meeting on April 29. In particular, reference was made to the work in connection with the development of standardization in the industry, the Bill now before Parliament to regulate the sale by measure of sand and ballast, the London Building Act, 1935 (passed during the year), the review of apprenticeship in the industry, the Public Health Bill now before Parliament, and the provision of an economic and statistical service for the industry and those interested in its fortunes.

The main objects of future policy approved by the Council to be dealt with during the coming year were as follows :—

Technical Training of Building Trades Craftsmen.—Sir Raymond Unwin, in submitting the report on this matter, said that the conclusion had been unanimously reached that better facilities for the training of building trades craftsmen in order to improve the status of the building crafts were essential, especially in the light of changed conditions.

The Council decided to appoint a committee, representative of the entire industry, to work in the closest co-operation with the Government departments and local authorities to achieve this end. The maintenance of the highest possible standard of building trade craftsmanship was necessary in the interest, not only of the national architecture, but also of the general public.

Legislative Control of Building Development.—The Council agreed that the committee dealing with this matter should investigate the steps which might be taken to lighten the present load of legislative and administrative requirements controlling building activity and to bring the essential legislation more into consonance with modern building technique with a view to making submissions to the Government. It was decided that, in the interests of the economic position of the industry and the predominant part which it plays in the development of the internal economy of the country, the strongest possible submission be made to the Government that in future only the very minimum of legislative regulation be imposed.

Rating Assessment of Building.—It was decided that evidence with respect to the effect of the present system of rating upon building activity should be obtained as early as possible and, as a first step, that leading experts be asked to express their views to the Council. The view was very strongly expressed that the present weight of local taxation which falls almost entirely upon the products of the industry, and especially on houses, had a direct retarding influence on the trade of the building industry, and hence upon the activity of its many ancillary industries. It was estimated that the annual charge levied on the products of the building industry in the form of local rates approached £300,000,000 and that a thorough investigation of the position was essential both in the national and the industry's interests. The existence of obsolete property—much of which, as the President of the Federation of British Industries had recently pointed out, was of an industrial and commercial character—necessitated considerable expenditure on local public services which not only led to an undue rate burden being placed on new buildings, but also to higher assessments.

The Dissemination of Building Information.—It was decided that the Council's economic and statistical information service should be extended to meet the needs of potential building owners as well as of the industry. The publication of *The Building Industries Survey* had proved of real benefit, and had met with an encouraging response but, at the moment, there were no facilities available at one centre for providing information as to localities suitable or possessing special advantages for particular industries. It was realised that to develop such a body of information and to provide such a service would involve a considerable amount of research, but the subject was felt to be of sufficient importance for an effort to be made. The Council thus continues to pursue its policy of establishing for the country as a whole a recognized centre of economic and statistical information relating to the building industries and to all matters affecting them.

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New Swimming Bath, Victoria Park

Mr. Herbert Morrison, M.P., will, on May 16, open the new open-air swimming bath at Victoria Park, E., which has been built by the London County Council.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15 MILES RADIUS)

ALPERTON. *School.* The Middlesex Education Committee has purchased a site in Lily Gardens, Alperton, for the erection of an elementary school.

BARKING. *Shops, etc.* Plans passed by the Corporation : Five shops, Porters Avenue, for Mr. E. Meredith; factory, River Road, for Messrs. Potter & Clarke, Ltd.; rebuilding premises, Abbey Road, for Messrs. Wm. Warne & Co., Ltd.; works extensions, 28–30 Ripple Road, for Messrs. E. Glenny and Son, Ltd.; 80 houses, Becontree estate, for L.C.C.; church and hall, Cavendish Gardens, for London Baptist Property, Ltd.; houses, Manor Farm estate, for Messrs. Leftley Bros., Ltd.; shops, 92–8 Longbridge Road, for Mr. Smith; works extensions, River Road, for Messrs. F. McNeill & Co., Ltd.

BERMONDSEY. *Flats and Shops.* The B.C. is to erect 124 flats and seven shops in the Prospect Street area, at a cost of £72,550.

BERMONDSEY. *Extensions, etc.* Plans passed by the B.C. : Factory extensions, 136-156 Drummond Road, for Messrs. Wallis, Gilbert and Partners; rebuilding, Crown P.H., Southwark Park Road, for Messrs. Mayell and Cole; shops, Weston Street, for Royal Arsenal Co-operative Society, Ltd.; extensions, Fisher's Wharf, Swan Lane, for Messrs. Purvis and Purvis; conversion, 21-5 Galleywall Road, to offices, for Messrs. W. J. Dixon and Sons; factory extension, Queen Elizabeth Street, for Messrs. G. Payne & Co.; offices, Barnards Wharf, Rotherhithe Street, for Mr. H. Munson; extensions, Lavender Wharf, Rotherhithe Street, for Messrs. W. B. Dick & Co., Ltd.

CHELSEA. *Shops and Flats.* Mr. L. E. Ward, of 19 Devereux Court, Strand, has prepared a scheme for the erection of shops and flats at the corner of Sloane Street and Harriet Street, Chelsea.

CHELSEA. *Flats.* Messrs. Wilson and Smith, of Windsor House, Victoria Street, have prepared a scheme for the erection of 100 flats at the corner of College Place and Norman Street, Chelsea.

CROYDON. *Crematorium.* The Corporation is to erect a chapel and crematorium at the cemetery in Mitcham Road.

CROYDON. *Factory and Offices.* Messrs. Bryce, Ltd., Kelvin Works, Hackbridge, Surrey, are to erect a factory and offices in Purley Way.

CROYDON. *Additions.* Alterations and additions are to be made to the administrative block of the Borough Fever Hospital for the Corporation.

CROYDON. *Shops, etc.* Plans submitted by the Liverpool Victoria Friendly Society for shops with offices and rooms over, at High Street, at Meadow Stile, have been approved.

CROYDON. *Factories.* Plans have been prepared by Croydon Factory Estate, Ltd., Staffa Road, E.10, for the proposed erection of two factories at Commerce Way, Waddon.

FINCHLEY. *Houses.* Plans passed by the Corporation : Six houses, Grosvenor Road, for Mr. C. Straus; two houses, Linden Lea, for W. L. M. Estates, Ltd.; 12 flats and lodge, High Road, for Torrington Estates, Ltd.; four houses, Vivian Way, for Mr. H. E. Brown; extensions, 1-2 Park Parade, for Messrs. F. W. Woolworth & Co., Ltd.; four houses, Norrice Lea, for Messrs. Buckley, Ltd.; six shops and flats, High Road, for Messrs. Dewis, Ltd.; six houses, Highview Gardens, for Messrs. Golders, Ltd.; two houses, Spencer Drive, for Coombs Construction Co., Ltd.; four flats, Fallowcourt Avenue, for Mr. A. J. Hooper.

HACKNEY. *Buildings.* The B.C. is seeking sanction to borrow £15,750 for the erection of buildings at the Homerton Wharf.

HARROW. *Development.* The Artizans' and General Dwellings Co., Ltd., are developing an estate at Pinner Wood Park, Harrow.

HESTON. *School.* The Heston - Isleworth Borough Education Committee has received approval from the Board of Education to the purchase of a site of 8.14 acres for a school site in Vicarage Farm Road.

MARYLEBONE. *Buildings, etc.* Plans passed by the B.C. : Buildings in Winsley Street, for Messrs. Yates, Cook and Darbyshire; buildings, 40-1 Berners Mews, for Messrs. Slater and Moberly; restaurant, 44-5 Maida Vale, for Mr F. Scarlett; buildings, 52-4 High Street, and 29-37 Beaumont Street, for Messrs. Banister Fletcher and Sons; block of flats, 53-7 Portland Place, for Messrs. J. Stanley Beard and Bennett; rebuilding, 34 Finchley Road, for Mr. P. W. Davis; two houses, Carlton Hill, for Messrs. Wimperis, Simpson and Guthrie; alterations, 256 Edgware Road, for Messrs. Haskins; flats, Henry Street, for Mr. H. K. Dyson.

PADDINGTON. *Houses.* Plans passed by the B.C. : 12 houses, Connaught Square Mews, for Mr. A. Blomfield; buildings, site of 8, 9 and 10 Paddington Green, for Mr. A. L. Abbott; shops and flats, 353-7 Edgware Road, for Mr. H. Alexander; houses, site of 29-30 Sussex Square, and 8 Stanhope Street, for Messrs. Lovelace and Venton.

SOUTHGATE. *Alterations, etc.* Plans passed by the Corporation : Alterations, 446 Green Lane, for Mr. R. G. Hewitt; 30 houses, Prince George Avenue, for Mr. F. F. Tomlin; 16 houses, Crown Lane, for Messrs. Brown and Warman; two houses, Kenwood Avenue, for Messrs. J. Charles & Co.; seven houses, Prince George Avenue, for Messrs. Vernon Smith, Ltd.; 18 flats, Palmers Road, for Mr. H. A. Nash; six houses, Westpole Avenue, for Mr. C. E. Ward; two houses, Arnos Grove, for Messrs. Vine and Vine; two houses, Houndsden Road, for Mr. W. J. Mitchell; 26 houses, Sussex Way, Cockfosters, for Messrs. H. S. Couchman and Sons; 24 houses, Sussex Way, Cockfosters, for Mr. G. Turner; 17 shops and flats, 846-8 Green Lanes, for Mr. M. B. Locke; 18 flats, Salisbury Road, for Mr. H. G. Harper.

TWICKENHAM. *Factory.* The Metal Trim, Ltd., have secured consent of the B.C. to the erection of a factory in Denton Road.

WESTMINSTER. *Flats, etc.* Plans passed by the City Council : Flats, 30 Curzon Street, for Mr. R. J. Hugh Minty; flats, 9-10 Upper Brook Street, for Mr. D. Stokes; flats, 14-5 Grosvenor Square, for Mr. C. E. Peczenik; shops and 300 flats, Wilton Road and Vauxhall Bridge Road, for Sir John Brown and Mr. A. E. Henson; offices, Horseferry Road and Marsham Street, for Messrs. T. P. Bennett and Son; flats, 19-28 Ennismore Gardens, for Mr. G. Jeeves; bakery and warehouse extensions, 20-38 Montpelier Street, for Messrs. D. and J. D. Wood; alterations and additions, 1 Grosvenor Place, for Sir Aston Webb and Son; conversion, 21 Culross Street, to flats, for Mr. Gerald Lacoste; extensions, 33 Old Bond Street, and 2 Stafford Street, for Messrs. Wimperis, Simpson and Guthrie; flats, 3-4 Rutland Mews, for Mr. E. Goldfinger; extensions, Romney House, Tufton Street, for Mr. M. Rosenauer; rebuilding, 1-11 Princes Gate, for Mr. S. Warwick; development, of 14-5 Great Stanhope Street, for cinema and flats, for Messrs. Erica Beale, Ltd.

WESTMINSTER. *Re-housing.* The City Council is to prepare schemes for the erection of 492 flats and the reconditioning of 50 houses to relieve overcrowding.

SOUTHERN COUNTIES

BOURNEMOUTH. *Flats, etc.* Plans passed by the Corporation : Two flats, Surrey Road, for Mr. H. C. Payne; shop and flats, Linden Road, for Messrs. A. C. Barnes & Co.; four houses, Haverstock Road, for Mr. H. Bower; four flats, Castle Lane, for Mrs. F. M. Pollard; four flats, Rushmere Road, for Mr. S. W. J. Warde; block of flats, Boscombe Cliff Road, for Mr. S. Kermode; two houses, Richmond Park Avenue, for Banning Estates, Ltd.; four houses, Malvern Road, for Mrs. R. Ward; shops, flats and offices, St. Peters Road, for Meyrick Settled Estate trustees; additions, Hotel Merriville, Exeter Road, for Commander H. R. Munro; 16 bungalows, Walliscott Road, for Mr. W. J. Clapcott; two houses, Poole Lane, for Mr. F. J. Wraighte; two houses, Delamere Gardens, for Mr. F. F. Hawkins; squash court, Linden Hall Hydro, Christchurch Road, for Exton Hotels, Ltd.

Manufacturers' Items

On page xxxviii of our advertisement pages this week special attention is drawn to an important point in connection with the hinging of Bakelite seats. Screw-in hinges have been found unsatisfactory, but the Associated Builders' Merchants, Ltd., have solved the problem with their registered design, which has nothing in the way of a screw-in hinge, and of which details are given on the page referred to. The seats, it will be noticed, are far from expensive. Another point which should be noted in connection with the prices of these seats is that, whereas the cutaway pattern is somewhat cheaper in the case of Bakelite, the reverse applies with wood seats.

THE BUILDINGS ILLUSTRATED

HOUSE AT ESHER CLOSE (pages 699 to 701). The general contractors were, plumbing and joinery, Mardon Ball & Co., Ltd. Sub-contractors and suppliers included :—Lawford Asphalte Co., Ltd., asphalt; Oxshott Brickworks, bricks; Tarmac Ltd., artificial stone; Redpath Brown & Co., Ltd., structural steel; Frazzi Ltd., "Paropa" special roofings; Guildford Glass Company, glass; W. Opperman & Sons, glass; British Challenge Glazing Co., Ltd., patent glazing; Hollis Bros. & Co., Ltd., central heating; Bratt Colbran & Co., Ltd., grates; Wandsworth and District Gas Co., gas-fitting; Johnson and Tanner, Ltd., electric wiring; Osler and Faraday, Ltd., Troughton and Young, Ltd., Best and Lloyd, Ltd., electric light fixtures; Doulton & Co., Ltd., sanitary fittings; F. Knight & Co., Ltd., door furniture; Crittall Mfng. Co., Ltd., casements and window furniture; Johnson and Tanner, bells; Cement Marketing Co., Ltd., "Cullamix" external rendering; The Carron Company, metalwork; Henry Hope & Sons, Ltd., metalwork; D. Burkle & Son, Ltd., joinery; Easiwork, Ltd., joinery; Walter W. Jenkins & Co., Ltd., marble; Carter & Co., Ltd., tiling; Bratt Colbran, mantels; William Woods, shrubs and trees; Smith's English Clocks, Ltd., clocks; United Water Softeners, Ltd., water-softening plant; Comyn Ching & Co. (London), Ltd., central heating.

SHOWROOMS, CAVENDISH PLACE, W.1 (page 702). The general contractors were C. H. Boyd and Son, Ltd.; the principal sub-contractors and suppliers included :—Leeds Fireclay Co., Ltd., wall tiles, sanitary fittings, tiling; Pilkington Bros., Ltd., and British Vitrolite Co., Ltd., mirror glass; North British Rubber Co., Ltd., rubber flooring; Troughton and Young, Ltd., and Harcourts, Ltd., electric light fixtures; Hotpoint Electric Appliance Co., Ltd., electric heating; D. Burkle and Son, Ltd., joinery.

RATES OF WAGES

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

			I s. d.	II s. d.
A_1	ABERDARE ...	S. Wales & M.	1 5½	1 1½
A	Aberdeen ...	Scotland	1 6½	1 2
A_1	Abergavenny ...	S. Wales & M.	1 6	1 1½
A_2	Abingdon ...	S. Counties	1 5	1 0¾
A	Accrington ...	N.W. Counties	1 6½	1 2
A_2	Addlestone ...	S. Counties	1 5	1 0¾
A	Adlington ...	N.W. Counties	1 6½	1 2
A	Airdrie ...	Scotland	*1 6½	1 2
C	Aldeburgh ...	E. Counties	1 2½	11
A	Altrincham ...	N.W. Counties	1 6½	1 2
B_3	Appleby ...	N.W. Counties	1 3	11¼
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ...	S. Counties	1 4	1 0
B_1	BANBURY ...	S. Counties	1 4	1 0
B_1	Bangor ...	N.W. Counties	1 4	1 0
A_3	Barnard Castle	N.E. Coast	1 5	1 0¾
A	Barnsley ...	Yorkshire	1 6½	1 2
B	Barnstaple ...	S.W. Counties	1 4½	1 0½
A	Barrow ...	N.W. Counties	1 6½	1 2
A	Barry	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ...	S.W. Counties	1 4	1 0
A_2	Bath	S.W. Counties	1 5½	1 1¼
A	Batley ...	Yorkshire	1 6½	1 2
A_2	Bedford ...	E. Counties	1 5½	1 1¼
A_2	Berwick-on-Tweed	N.E. Coast	1 5½	1 1¼
A_2	Bewdley ...	Mid. Counties	1 5½	1 1¼
B_3	Bicester ...	S. Counties	1 3	11¼
	Birkenhead ...	N.W. Counties	*1 7½	1 2¾
A	Birmingham ...	Mid. Counties	1 6½	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ...	N.W. Counties	1 6½	1 2
A	Blackpool ...	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor ...	S. Counties	1 4	1 0
A	Bolton ...	N.W. Counties	1 6½	1 2
A_3	Boston ...	Mid. Counties	1 5	1 0¾
A_2	Bournemouth...	S. Counties	1 5½	1 1¼
B_3	Bovey Tracey	S.W. Counties	1 3	11¼
A	Bradford ...	Yorkshire	1 6½	1 2
A_1	Brentwood ...	E. Counties	1 6	1 1½
A	Bridgend ...	S. Wales & M.	1 6½	1 2
B	Bridgwater ...	S.W. Counties	1 4½	1 0½
A_1	Bridlington ...	Yorkshire	1 6	1 1½
A	Brighouse ...	Yorkshire	1 6½	1 2
A_2	Brighton ...	S. Counties	1 5½	1 1¼
A	Bristol ...	S.W. Counties	1 6½	1 2
B	Brixham ...	S.W. Counties	1 3½	11¾
A	Bromsgrove ...	Mid. Counties	1 5½	1 1¼
B	Bromyard ...	Mid. Counties	1 3	11¼
A	Burnley ...	N.W. Counties	1 6½	1 2
A	Bursiem ...	Mid. Counties	1 6½	1 2
A	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ...	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE	E. Counties	1 6	1 1½
B_1	Canterbury ...	S. Counties	1 4	1 0
A	Cardiff ...	S. Wales & M.	1 6½	1 2
A	Carlisle ...	N.W. Counties	1 6½	1 2
B	Carmarthen ...	S. Wales & M.	1 4½	1 0½
B	Carnarvon ...	N.W. Counties	1 4½	1 0½
A	Carnforth ...	N.W. Counties	1 6½	1 2
A	Castleford ...	Yorkshire	1 6½	1 2
A_3	Chatham ...	S. Counties	1 5	1 0¾
A	Chelmsford ...	E. Counties	1 5	1 0¾
A	Cheltenham ...	S.W. Counties	1 5	1 0¾
A	Chester ...	N.W. Counties	1 6½	1 2
A	Chesterfield ...	Mid. Counties	1 6½	1 2
B_1	Chichester ...	S. Counties	1 4	1 0
A	Chorley ...	N.W. Counties	1 6½	1 2
B_1	Cirencester ...	S. Counties	1 4	1 0
A	Clitheroe ...	N.W. Counties	1 6½	1 2
A	Clydebank ...	Scotland	1 6½	1 2
A	Coalville ...	Mid. Counties	1 6½	1 2
A_2	Colchester ...	E. Counties	1 5½	1 1¼
A	Colne	N.W. Counties	1 6	1 1½
A_2	Colwyn Bay ...	N.W. Counties	1 5½	1 1¼
A_1	Consett ...	N.E. Coast	1 6	1 1½
A_2	Conway ...	N.W. Counties	1 5½	1 1¼
A	Coventry ...	Mid. Counties	1 6½	1 2
A_2	Crewe	N.W. Counties	1 5½	1 1¼
A	Cumberland ...	N.W. Counties	1 5	1 0¾
A	DARLINGTON	N.E. Coast	1 6½	1 2
A	Darwen ...	N.W. Counties	1 6½	1 2
B	Deal	S. Counties	1 4	1 0
A_2	Denbigh ...	N.W. Counties	1 5	1 0¾
A	Derby	Mid. Counties	1 6½	1 2
A	Dewsbury ...	Yorkshire	1 6½	1 2
B	Didcot ...	S. Counties	1 4½	1 0½
A	Doncaster ...	Yorkshire	1 6½	1 2
B_1	Dorchester ...	S.W. Counties	1 4	1 0
A	Driffield ...	Yorkshire	1 5	1 0¾
A_2	Droitwich ...	Mid. Counties	1 5½	1 1¼
A	Dudley ...	Mid. Counties	1 6½	1 2
A_2	Dumfries ...	Scotland	1 6	1 1½
A	Dundee ...	Scotland	1 6½	1 2
A	Durham ...	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE	S. Counties	1 5½	1 1¼
A_1	Ebbw Vale ...	S. Wales & M.	1 6	1 1½
A	Edinburgh ...	Scotland	1 6½	1 2
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6	1 1½
A_2	Exeter ...	S.W. Counties	*1 5½	1 1¼
B	Exmouth ...	S.W. Counties	1 4½	1 0½
A_3	FELIXSTOWE	E. Counties	1 5	1 0¾
A	Filey	Yorkshire	1 5	1 0¾
A	Fleetwood ...	N.W. Counties	1 6½	1 2
B_1	Folkestone ...	S. Counties	1 4	1 0
A	Frodsham ...	N.W. Counties	1 6½	1 2
B_2	Frome ...	S.W. Counties	1 3½	11¾
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ...	S. Counties	1 4½	1 0½
A	Glasgow ...	Scotland	1 7	1 2½
A_2	Gloucester ...	S.W. Counties	1 5½	1 1¼
A_2	Goole ...	Yorkshire	1 5½	1 1¼
A_2	Gosport ...	S. Counties	1 5½	1 1¼
A_3	Grantham ...	Mid. Counties	1 5	1 0¾
A_1	Gravesend ...	S. Counties	1 6	1 1½
A	Greenock ...	Scotland	*1 6½	1 2
A	Grimsby ...	Mid. Counties	1 6½	1 2
B	Guildford ...	S. Counties	4½	1 0½
A	HALIFAX ...	Yorkshire	1 6½	1 2
A	Hanley ...	Mid. Counties	1 6½	1 2
A	Harrogate ...	Yorkshire	1 6½	1 2
A	Hartlepools ...	N.E. Coast	1 6½	1 2
B	Harwich ...	E. Counties	1 4½	1 0½
B_1	Hastings ...	S. Counties	1 4	1 0
A_2	Hatfield ...	S. Counties	1 5½	1 1¼
B	Hereford ...	S.W. Counties	1 4½	1 0½
A_2	Hertford ...	E. Counties	1 5½	1 1¼
A	Heysham ...	N.W. Counties	1 6½	1 2
A	Howden ...	N.E. Coast	1 6½	1 2
A	Huddersfield ...	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ...	Yorkshire	1 6½	1 2
A	Immingham ...	Mid. Counties	1 6½	1 2
A_2	Ipswich ...	E. Counties	1 5½	1 1¼
B_2	Isle of Wight ...	S. Counties	1 4½	1 0½
A	JARROW ...	N.E. Coast	1 6½	1 2
A	KEIGHLEY ...	Yorkshire	1 6½	1 2
A_2	Kendal ...	N.W. Counties	1 5	1 0¾
A_2	Keswick ...	N.W. Counties	1 5	1 0¾
A_1	Kettering ...	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 5½	1 1¼
B_1	King's Lynn ...	E. Counties	1 4	1 0
A	LANCASTER ...	N.W. Counties	1 6½	1 2
A_1	Leamington ...	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ...	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11¼
A_2	Lichfield ...	Mid. Counties	1 5½	1 1¼
A	Lincoln ...	Mid. Counties	1 6½	1 2
	Liverpool ...	N.W. Counties	*1 8	1 3
A_2	Llandudno ...	N.W. Counties	1 5½	1 1¼
A	Llanelly ...	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2¾
A	Long Eaton ...	Mid. Counties	1 6½	1 2
A	Loughborough	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ...	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A_3	Maidstone ...	S. Counties	1 5	1 0¾
A_3	Malvern ...	Mid. Counties	1 5	1 0¾
A	Manchester ...	N.W. Counties	1 6½	1 2
A	Mansfield ...	Mid. Counties	1 6½	1 2
B_1	Margate ...	S. Counties	1 4	1 0
A	Matlock ...	Mid. Counties	1 5	1 0¾
A_1	Merthyr ...	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N.E. Coast	1 6½	1 2
A_2	Middlewich ...	N.W. Counties	1 5½	1 1¼
B_2	Minehead ...	S.W. Counties	1 3½	11¾
B_2	Monmouth ... & S. and E. Glamorganshire	S. Wales & M.	1 3½	11¾
A	Morecambe ...	N.W. Counties	1 6½	1 2
A_2	NANTWICH ...	N.W. Counties	1 5½	1 1¼
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ...	N.W. Counties	1 6½	1 2
A	Newcastle ...	N.E. Coast	1 6½	1 2
A	Newport ...	S. Wales & M.	1 6½	1 2
A	Normanton ...	Yorkshire	1 6½	1 2
A	Northampton	Mid. Counties	1 6½	1 2
A	North Shields...	N.E. Coast	1 6½	1 2
A	North Staffs ...	Mid. Counties	1 6½	1 2
A_1	Norwich ...	E. Counties	1 6	1 1½
A	Nottingham ...	Mid. Counties	1 6½	1 2
A	Nuneaton ...	Mid. Counties	1 6½	1 2
A	OAKHAM ...	Mid. Counties	1 5	1 0¾
A	Oldham ...	N.W. Counties	1 6½	1 2
A_2	Oswestry ...	N.W. Counties	1 5	1 0¾
A_1	Oxford ...	S. Counties	1 6	1 1½
A	PAISLEY ...	Scotland	*1 6½	1 2
B_3	Pembroke ...	S. Wales & M.	1 3	11¼
A	Perth	Scotland	*1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ...	S.W. Counties	*1 6½	1 2
A	Pontefract ...	Yorkshire	1 6½	1 2
A_1	Pontypridd ...	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ...	S. Counties	1 5½	1 1¼
A	Preston ...	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ...	S. Counties	1 5½	1 1¼
B	Reigate ...	S. Counties	1 4½	1 0½
A	Retford ...	Mid. Counties	1 5	1 0¾
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	Yorkshire	1 5	1 0¾
A	Rochdale ...	N.W. Counties	1 6½	1 2
B	Rochester ...	S. Counties	1 4½	1 0½
A_1	Ruabon ...	N.W. Counties	1 6	1 1½
A	Rugby ...	Mid. Counties	1 6½	1 2
A_2	Rugeley ...	Mid. Counties	1 5½	1 1¼
A	Runcorn ...	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ...	E. Counties	1 6	1 1½
A	St. Helens ...	N.W. Counties	1 6½	1 2
B_3	Salisbury ...	S.W. Counties	1 3½	11¾
A_1	Scarborough ...	Yorkshire	1 6	1 1½
A	Scunthorpe ...	Mid. Counties	1 6½	1 2
A	Sheffield ...	Yorkshire	1 6½	1 2
A	Shipley ...	Yorkshire	1 6½	1 2
A_2	Shrewsbury ...	Mid. Counties	1 5½	1 1¼
A_2	Skipton ...	Yorkshire	1 5½	1 1¼
A_2	Slough ...	S. Counties	1 5½	1 1¼
A_1	Solihull ...	Mid. Counties	1 6	1 1½
A_2	Southampton	S. Counties	1 5½	1 1¼
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ...	N.W. Counties	1 6½	1 2
A	S. Shields ...	N.E. Coast	1 6½	1 2
A_1	Stafford ...	Mid. Counties	1 6	1 1½
A	Stirling ...	Scotland	1 7	1 2½
A	Stockport ...	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud ...	S.W. Counties	1 4½	1 0½
A	Sunderland ...	N.E. Coast	1 6½	1 2
A	Swansea ...	S. Wales & M.	1 6½	1 2
A	Swindon ...	S.W. Counties	1 5	1 0¾
A_1	TAMWORTH ...	N.W. Counties	1 6	1 1½
B	Taunton ...	S.W. Counties	1 4½	1 0½
A	Teesside Dist....	N.E. Counties	1 6½	1 2
A_2	Teignmouth ...	S.W. Coast	1 5½	1 1¼
A	Todmorden ...	Yorkshire	1 6½	1 2
A_1	Torquay ...	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11¾
A_3	Tunbridge Wells	S. Counties	1 5	1 0¾
A	Tunstall ...	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ...	Mid. Counties	1 6½	1 2
A	Warrington ...	N.W. Counties	1 6½	1 2
A_1	Warwick ...	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1¼
A_2	Whitby ...	Yorkshire	1 5½	1 1¼
A	Widnes ...	N.W. Counties	1 6½	1 2
A	Wigan ...	N.W. Counties	1 6½	1 2
B	Winchester ...	S. Counties	1 4½	1 0½
A_2	Windsor ...	S. Counties	1 5½	1 0¾
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ...	Mid. Counties	1 5½	1 1¼
A_3	Worksop ...	Yorkshire	1 5	1 0¾
A_1	Wrexham ...	N.W. Counties	1 6	1 1½
A	Wycombe ...	S. Counties	1 5	1 0¾
B	YARMOUTH ...	E. Counties	1 4½	1 0½
B	Yeovil ...	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

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

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

CURRENT PRICES

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

WAGES

		s.	d.
Bricklayer	per hour	1	8
Carpenter	"	1	8
Joiner	"	1	8
Machinist	"	1	8
Mason (Banker)	"	1	8
" (Fixer)	"	1	9
Plumber	"	1	8
Painter	"	1	7
Paperhanger	"	1	7
Glazier	"	1	7
Slater	"	1	8
Scaffolder	"	1	4
Timberman	"	1	4
Navvy	"	1	3
General Labourer	"	1	3
Lorryman	"	1	5½
Crane Driver	"	1	7
Watchman	per week	2	10

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	"	1	16	6
Hydrated Lime	"	3	0	9
Portland Cement, in 4 ton lots (d/d site, including Paper Bags)	"	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	"	2	5	0
White Portland Cement, in 1-ton lots	"	8	15	0
Thames Ballast	per Y.C.		6	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.	4" d.	6" s.	6" d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	"	3	6	5	3
Rest Bends	"	4	3	6	3
Single Junctions	"	3	6	5	3
Double "	"	4	9	6	6
Straight channels	per F.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.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	"	9	0	15	0
Single junctions	"	8	9	18	0
Double junctions	"	13	6	30	0
Lead Wool	lb.		6		—
Gaskin	"		5		—

BRICKLAYER

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

MASON

		s.	d.
The following d/d F.O.R. at Nine Elms :			
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	each			9
" hand-made	"			9½
Nails, compo	lb.		1	4
" copper	"		1	6

CARPENTER AND JOINER

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

Plywood, per ft. sup.

Thickness	¼" A	¼" B	¼" BB	⅜" A	⅜" B	⅜" BB	½" A	½" B	½" BB	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	2¾	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2¾	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5¾	–	10	8	–	1/-	9	–

			d.
Scotch glue	lb.		8

SMITH AND FOUNDER

Tubes and Fittings

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

		¼"	½"	1"	1¼"	2"
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–1½" long	"	8	10	1/5	1/11	3/6
Bends	"	8	11	1/7½	2/7½	5/2
Springs not socketed	"	5	7	1/1½	1/11½	3/11
Socket unions	"	2/–	3/–	5/6	6/9	10/–
Elbows, square	"	10	1/1	1/6	2/2	4/3
Tees	"	1/–	1/3	1/10	2/6	5/1
Crosses	"	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	"	3	4	6	8	1/3
Diminished sockets	"	4	6	9	1/–	2/–
Flanges	"	9	1/–	1/4	1/9	2/9
Caps	"	3½	5	8	1/–	2/–
Backnuts	"	2	3	5	6	1/1
Iron main cocks	"	1/6	2/3	4/2	5/4	11/6
" with brass plugs	"	—	4/–	7/6	10/–	21/–

Discounts	Per cent.		Per cent.
TUBES.			
Gas	65	Galvanized gas	52½
Water	61½	" water	47½
Steam	57½	" steam	42½
FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	" water	42½
Steam	47½	" steam	37½

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ¾"	"	10	6
" " ½"	"	10	3
" " ⅜"	"	10	0

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, ¾"	cwt.	9	6
" " ½"	"	9	6
" " 1"	"	9	6
" " 1¼"	"	9	6
" " 1½"	"	9	6

		¾" s.	¾" d.	4" s.	4" d.
Cast-iron rain-water pipes of ordinary thickness metal	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

		s.	d.
Lead, milled sheets	cwt.	24	6
" drawn pipes	"	24	6
" soil pipe	"	30	0
" scrap	"	16	0
Solder, plumbers'	lb.		9½
" fine do.	"	1	0
Copper, sheet	"		8½
" tubes	"		11

L.C.C. soil and waste pipes :	3"	4"	6"
Plain cast	F.R. 1 0	1 2	2 6
Coated	" 1 1	1 3	2 8
Galvanized	" 2 6	2 6	4 6
Holderbats	each 3 10	4 0	4 9
Bends	" 3 9	5 3	10 3
Shoes	" 2 10	4 4	9 6
Heads	" 4 8	8 5	12 9

PLASTERER

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

GLAZIER

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

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

PAINTER

		£	s.	d.
White lead in 1 cwt. casks	cwt.	2	8	6
Linseed oil	gall.		2	3
Boiled oil	"		2	9
Turpentine	"		4	1½
Patent knotting	"		14	0
Distemper, washable	cwt.	2	6	0
" ordinary	"	2	0	0
Whitening	"		4	0
Size, double	firkin		3	0
Copal varnish	gall.	13	0	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	9
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.	d.	6" s.	d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	9
" junctions	"	3	9	4	6
Gullies and gratings	"	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	4	9	6	9
Extra, only for bends	Each	10	6	15	6

BRICKLAYER

		£	s.	d.
Brickwork, Flettons in lime mortar	Per Rod	26	10	0
" " in cement	"	27	12	6
" Stocks in cement	"	34	0	0
" Blues in cement	"	50	0	0
Extra only for circular on plan	"	2	0	0
" backing to masonry	"	1	10	0
" raising on old walls	"	2	0	0
" underpinning	"	5	10	0½
Fair Face and pointing internally	F.S.			1½
Extra over 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
¾" 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 labours hoisting, fixing and cleaning down, complete	F.C.		17	9
Bath stone and do., all as last	"		13	6
Artificial stone and do.	"		13	0
York stone templates, fixed complete	"		10	6
" thresholds	"		13	6
" sills	"	1	0	6

SLATER AND TILER

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

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	2	6
Shuttering to sides and soffits of beams	F.S.			7
" to stanchions	"			7
" to staircases	"		1	6
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	"		4	6
" " roofs	"		6	6
" " trusses	"		7	6
" " partitions	"		8	6
¾" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" " " " " "	"	1	17	6
1¼" " " " " "	"	2	3	0
2" × 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
1¼" " " "	"		1	6
2" deal wrought rounded roll	F.R.			8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2	1	0
1¼" do.	"	2	10	0
1½" do.	"	2	17	0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.		1	6
1¼" do.	"		1	9

CARPENTER AND JOINER—*continued*

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

SMITH AND FOUNDER

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

PLUMBER

		£	s.	d.
Milled lead and labour in flats	cwt.	1	18	6
Do. in flashings	"	2	2	0
Do. in covering to turrets	"	2	7	6
Do. in soakers	"	1	13	3
Labour to welted edge	F.R.			3½
Open copper nailing	"			3
Close " "	"			4

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

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

PLASTERER AND TILING

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

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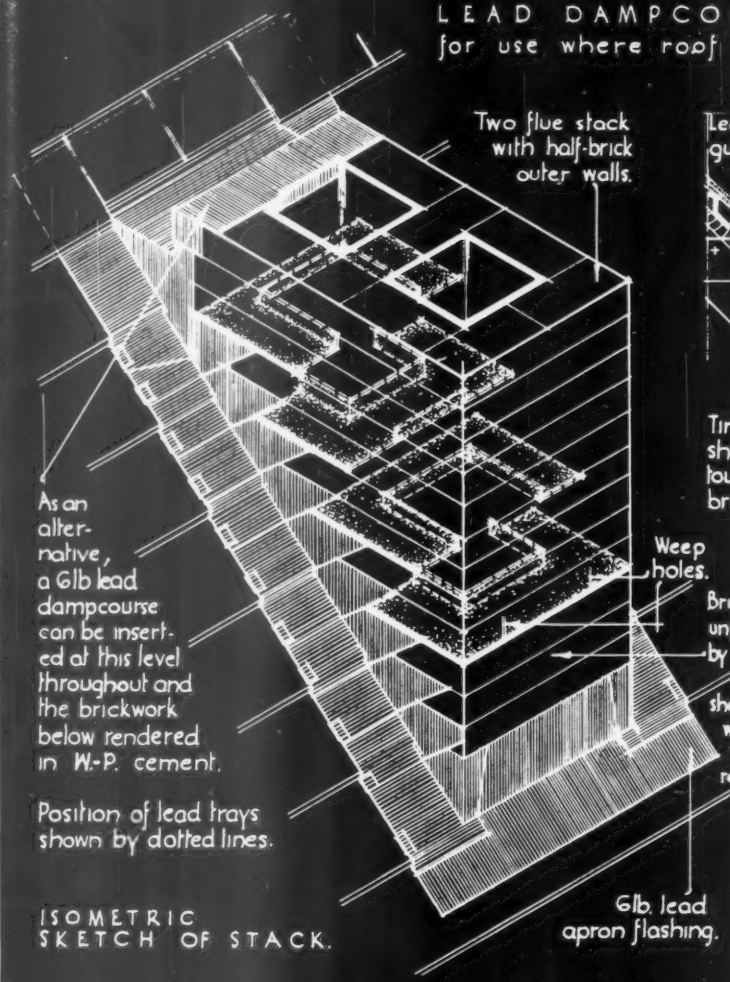
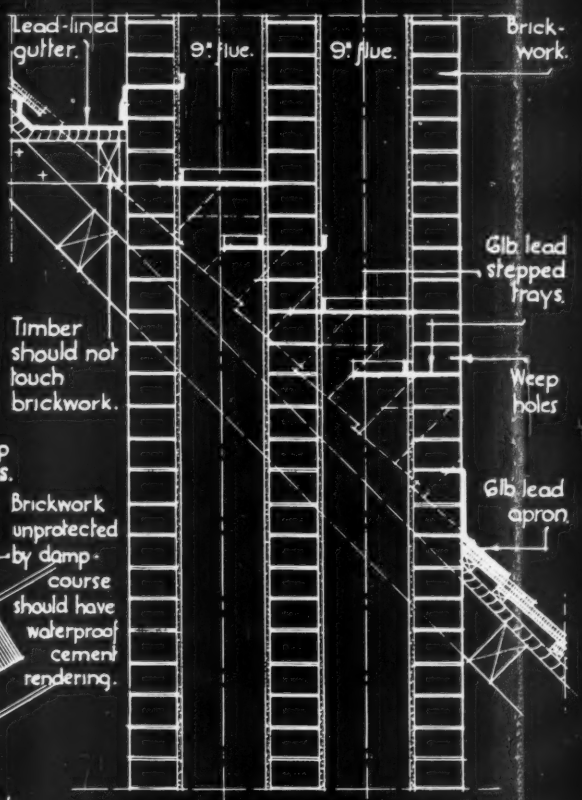
LEAD DAMPCOURSE TO CHIMNEY STACK, for use where roof space is to be occupied.



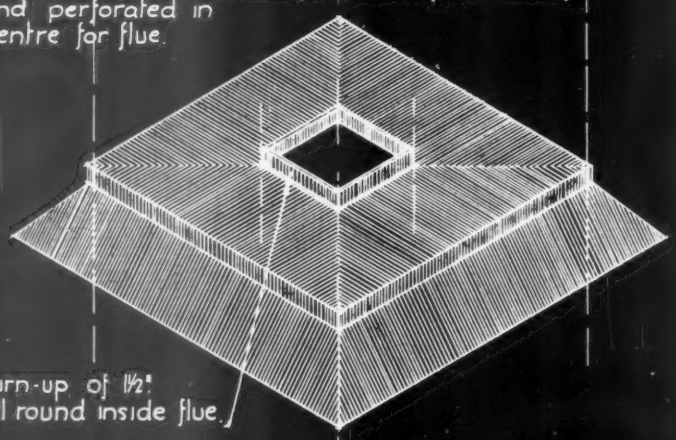
ISOMETRIC SKETCH OF STACK.



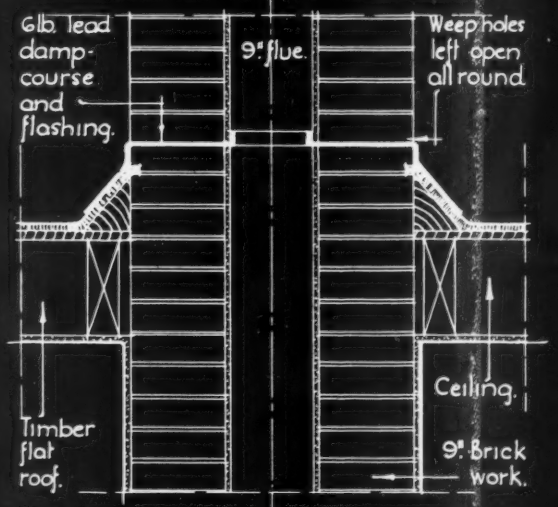
SECTION THROUGH CHIMNEY STACK.

LEAD DAMPCOURSE AND FLASHING TO A STACK ABOVE A FLAT ROOF:

The dampcourse is in one piece of 6lb lead large enough to include for flashing all round, and perforated in centre for flue.



ISOMETRIC SKETCH OF LEAD DAMPCOURSE.



SECTION THROUGH CHIMNEY STACK.

Information from the Lead Sheet & Pipe Development Council.

INFORMATION SHEET: THE USES OF LEAD IN BUILDING CONSTRUCTION. 20.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1. Oscar P. Bayes.

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INFORMATION SHEET

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CHIMNEY FLASHINGS

This is the fourth of a series of Sheets which have been devoted to the flashing and dampcoursing of chimneys.

It shows a method of building into a chimney stack lead dampcourses at different levels, and a method of flashing a chimney above a flat roof which has been recommended by Messrs. Jones and Seward, Ltd., of Bournemouth.

Stepped Dampcourses :

This arrangement of dampcourses is of value in cases where it is essential that the course should be kept above the line of the roof. (See alternative method using dampcourse on one level as shown in Information Sheet No. 324.)

Theoretically, the arrangement leaves a certain area of brickwork unprotected by a dampcourse, especially for the three courses above the apron flashing on the low side of the chimney. It is essential that even this small amount of brickwork should be protected by waterproofed cement rendering.

Lapping of Courses :

It is essential that each dampcourse should overlap on plan the course below it, preferably by at least 4½ ins., this overlapping being one of the main protective features.

Weight of Lead :

It is recommended that lead of 6 lbs. per square foot should be used for the dampcourses wherever possible, although sheet as light as 4 lbs. per square foot has been used without unsatisfactory results.

Flashing :

The flashing shown on this drawing is an alternative method to that shown on Sheets Nos. 288 and 324. In this case the flashing is applied in pieces in the manner of soakers, each piece overlapping the one before it, being tucked into the brickwork at the top and carried well over the tiles at the bottom. It is essential that the vertical edges should be well pointed on completion.

This method of flashing is not generally considered to be as good as that shown on previous Information Sheets. It is, however, practised in some districts.

Chimneys in Flat Roofs :

The lower detail on this Sheet shows the method of dampcoursing and flashing a chimney stack above a flat roof.

The dampcourse and apron flashing are in one piece, with a hole cut in the centre and the inner edges turned up the flue.

Manufacturer : The Lead Sheet and Pipe Development Council.
Address : Golden Cross House, Duncannon Street, W.C.2.
Telephone : Whitehall 3715.

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GENERAL RULES FOR OBSTRUCTIONS:

AIR MINISTRY RULE:

Any object in the line of flight beyond the perimeter and within half a mile of the aerodrome which subtends a vertical angle of more than 5° 30' measured from the nearest point on the perimeter. (Approx. 1 in 10.)

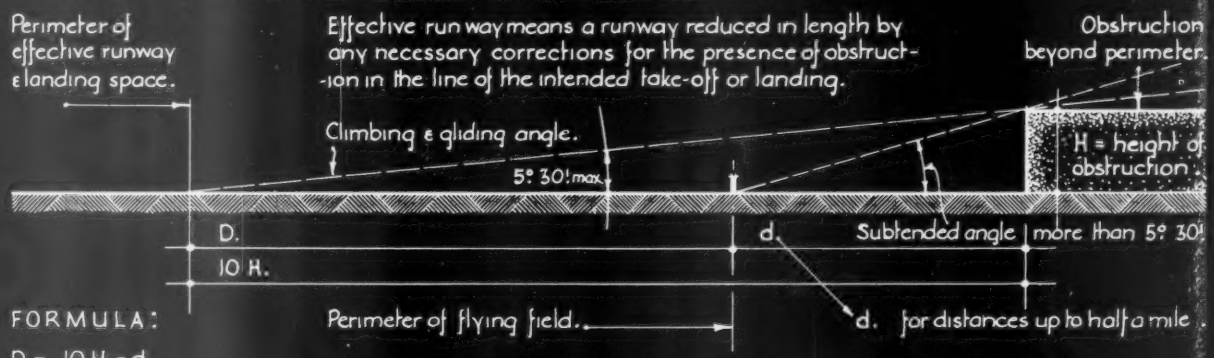
Any object in the line of flight on or near the perimeter of the aerodrome which subtends a greater angle than 1°30' at the starting point of the take-off run of the aircraft. (Approximately 1 in 35.)

BRITISH STANDARD SPECIFICATION RULE:

Any object within a distance of 500 yards of the aerodrome boundary, the height of which exceeds one twentieth of its distance from the airport, and those obstructions between 500 and 1000 yards from the boundary of the airport the height of which exceeds 75 ft.

Gliding & climbing angle, max. 1 in 10, = 5° 30' approx.
Working rule of Air Ministry, 1 in 15, = 3° 45' approx.

DECREASE OF EFFECTIVE RUNWAY BY AN OBSTRUCTION:



FORMULA:

D = 10H - d.

D. = The distance in feet by which the runway is decreased.

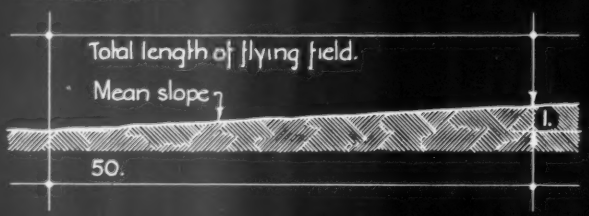
H. = Height in feet of obstruction above ground level.

d. = Distance in feet of obstruction from perimeter of landing area.

GRADIENT OF FLYING FIELD AND SURFACE OBSTRUCTIONS:

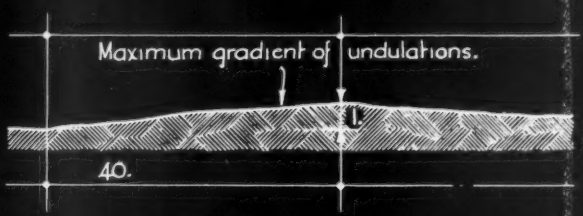
OVERALL GRADIENT:

Not to exceed 1 in 50. Mean slope not to exceed 2% in any direction.



INCIDENTAL UNDULATIONS:

Maximum gradient not to exceed 1 in 40.



GENERAL NOTES ON SURFACE OBSTRUCTIONS:

The surface of a flying field must be smooth and even enough to allow a motor car to be driven over it at 20 m. p. h. without inconvenience to the occupants.

The surface is to be composed of turf or other natural or artificial substance strong and firm enough to withstand a pressure of 2½ tons per sq. foot without permanent damage.

Culverts & bridges within the landing area to be capable of taking an impact load of 5 tons per sq. ft.

The landing area should be well drained and be practicable for the operation of aircraft under ordinary weather conditions.

The surface must be free from mole hills, rabbit holes, ridges, ruts furrows, wheel ruts or any impediment of any nature which might cause damage to any type of aircraft.

Grass on surface of the landing area must not be allowed to grow long. At no time may the length of the grass be such as to endanger even the lightest type of aircraft.

The presence of overhead electric cables within one mile of any aerodrome is highly undesirable, and may make it necessary for the licence to be withheld or special conditions be attached to it.

POSITION OF BUILDINGS TO AVOID OBSTRUCTION TO FLIGHTWAYS.

The main mass of the buildings should be placed parallel to and not across the prevailing wind.

Buildings should be placed in the gaps, between flightways (200 yds in width), at intervals round the field.

Extracted from Air Ministry Pamphlet No. 55, August 1935. Licensing & Classification of Civil Aerodromes.

INFORMATION SHEET: AERODROMES: OBSTRUCTIONS:

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

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AERODROMES—3

Subject : Obstructions

This is the third of a series of sheets dealing with the recommendations of various authorities and with the general planning of aerodromes.

The material given on this sheet has been extracted from an Air Ministry Pamphlet, No. 55, August, 1935, "Licensing and Classification of Civil Aerodromes."

Other points from this publication are :—

I. *Physical and other requirements for a site intended to be used permanently as a land aerodrome.*

1. The location of an aerodrome must be suitable and safe from the aviation point of view.

2. The landing area must be sufficient to allow of an effective runway of at least 300 yards long by 150 yards wide for any wind direction.

(The publication does not define precisely the maximum angle permissible between the direction of the landing strip and the direction of the wind.)

3. (*b*) The surface of an aerodrome is to be composed of either turf or some artificial or natural substance strong and firm enough to withstand without permanent damage a pressure of 2½ tons per square foot.

Any culvert or bridge within the landing area is to be capable of taking without permanent damage to the surface an impact load of five tons per square foot.

(*c*) The landing area must be well drained and be practicable for the operation of aircraft under ordinary weather conditions.

(*d*) The surface must be free from mole hills, rabbit holes, ridge and furrow, wheel ruts, or any impediment of any nature whatsoever which may cause damage to any type of aircraft.

(*e*) Grass on the surface of a landing area must not be allowed to grow long. At no time may the length of the grass be such as to endanger even the lightest type of aircraft.

Conditions governing the issue and renewal of licences for sites intended to be used permanently as land aerodromes.

10. (*a*) An aerodrome may be used as a regular place of landing or departure by any aircraft carrying passengers for hire or reward, provided that, under the conditions prevailing at the time and at the weight at which such aircraft is being operated :

(i) The runway in the line of flight is at least twice the length of run to unstick,

(ii) no obstruction in the line of flight on or near the perimeter of the aerodrome subtends a greater angle than 1° 30′ (approximately 1 in 35) at the starting point of the take-off run of the aircraft,

(iii) no obstruction in the line of flight beyond the perimeter and within half a mile of the aerodrome subtends at the nearest point of the perimeter a greater angle than 5° 30′ (approximately 1 in 10).

(*b*) An aerodrome may not be used regularly for night flying unless

(ii) all obstacles within the perimeter of the aerodrome which are dangerous to flying shall be provided with adequate obstruction lights.

(*Note.*—All obstructions beyond the perimeter and within 1,000 yards of the aerodrome which are dangerous to flying should be provided so far as possible with adequate obstruction lights.)

The licensee should without delay bring to the notice of the Air Ministry any proposal for the erection of buildings or other obstructions external to the perimeter of the aerodrome which are likely to affect the safety of aircraft using the site.

For general guidance for the purpose of interpreting this paragraph, any object, situated within 1,000 yards of the periphery of the landing area and exceeding 75 feet in height above the ground level of the nearest point of the landing area, or if situated within 500 yards of the periphery subtending a vertical angle of more than 2° 50′ measured from the nearest point of the landing area, should be considered to be an obstruction of potential danger to aircraft and reported accordingly. Whenever possible, if the aerodrome is to be used for night flying, such objects should be provided with obstruction lights.

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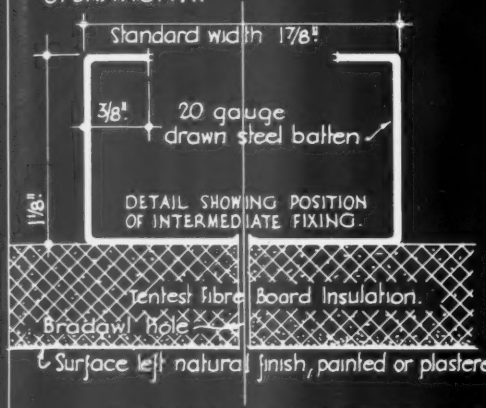
ADJUSTABLE METAL FIXING FOR TENTEST FIBRE BOARD INSULATION :

DETAILS SHOWING METHOD OF ATTACHING INSULATING BOARD TO DRAWN STEEL BATTENS :

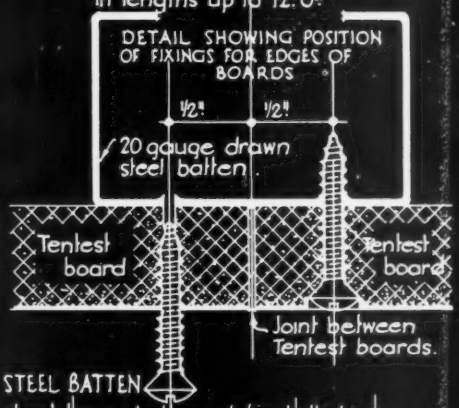
OPERATION . 1.



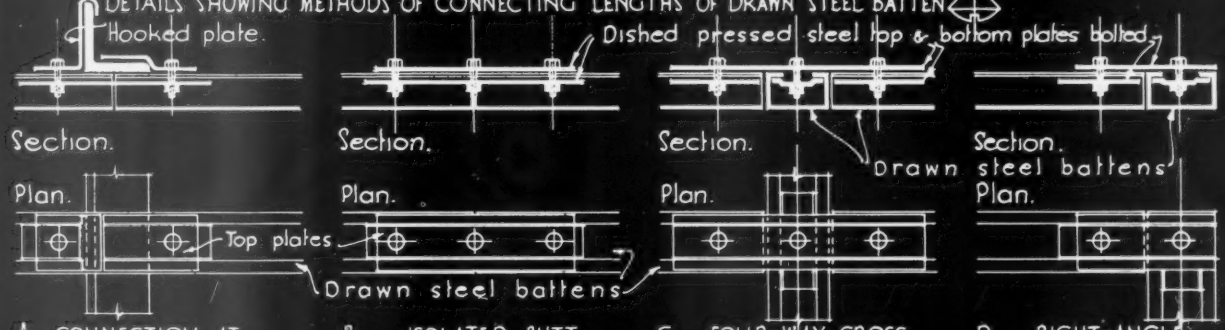
FIXING OPERATIONS :
1. (See detail at left) The Tentest sheets are first fitted in place and the galvanized Parker Kalon screws started by driving a sharp pointed bradawl through the Tentest to penetrate the special metal section as shown.
2 & 3. The screw is inserted & driven in the ordinary manner. The thread will pick up the metal of the batten and form a strong undetachable connection.

OPERATION . 2. OPERATION . 3.

Drawn steel battens are supplied in lengths up to 12' 0"



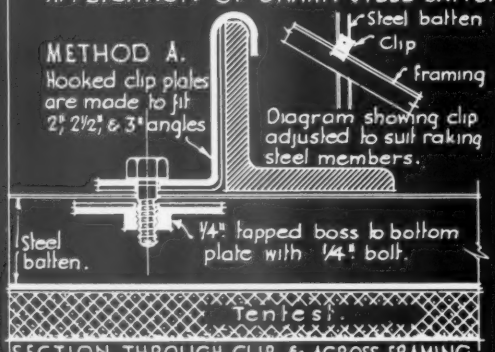
DETAILS SHOWING METHODS OF CONNECTING LENGTHS OF DRAWN STEEL BATTEN

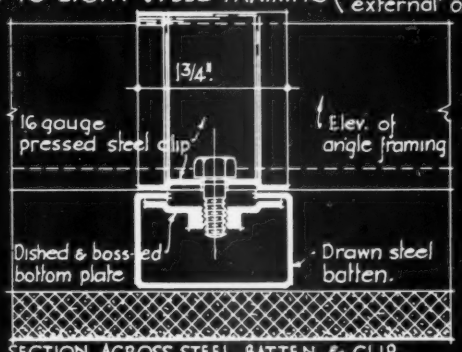


A. CONNECTION AT ANGLE MEMBERS B. ISOLATED BUTT CONNECTION. C. FOUR-WAY CROSS CONNECTION. D. RIGHT-ANGLE CONNECTION.

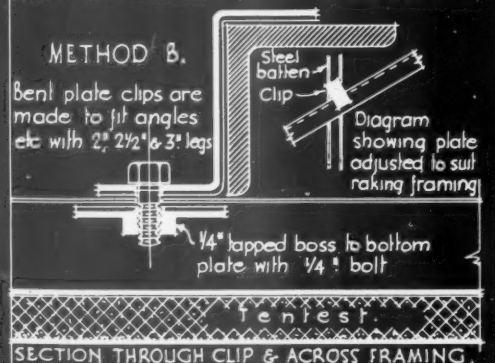
NOTE : Battens can be supplied bent to any specified radius or angle. Clips can be supplied to fit tubular or special shaped framing.

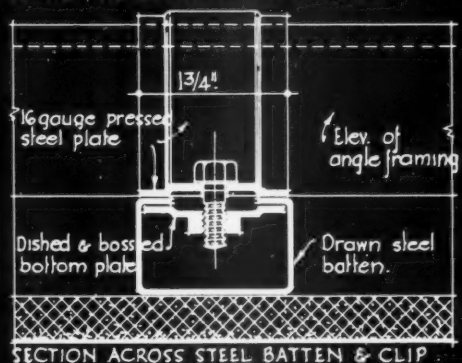
APPLICATION OF DRAWN STEEL BATTENS TO LIGHT STEEL FRAMING (Walls, roofs or ceilings, external or internal.)





METHOD A.
The details given show a standard 16 gauge dished & hooked pressed steel clip for fixing the drawn steel batten to the framing. The clip is made to fit square tipped plates or the legs of angles, channels etc. Both clip & bottom plate are dished 1/16" for strength & for spring grip when bolted.





METHOD B.
The details given show a standard 16 gauge pressed steel bent plate for fixing drawn steel battens to backs of angles, channels etc. When required for special purposes to support heavy loads, the drawn steel batten may be filled with timber & the hooked or bent clips fixed with wood screws instead of the dished bottom plates.

Information from The Tentest Fibre Board Co. Ltd.

INFORMATION SHEET : ADJUSTABLE DRAWN STEEL FIXING BATTENS

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

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TENTEST ADJUSTABLE METAL FIXING

Generally :

The purpose of the Tentest adjustable metal fixing is to provide exterior or interior linings to roofs and walls of steel-framed buildings with a means of attachment requiring no drilling on the site. The attachment is designed to be adjustable to meet the edges of the Tentest sheets, either by opening up or closing in, and so carry the sheets where the framework is not necessarily in alignment but in the same plane.

Drawn Steel Fixing Battens :

The fixing framework is built up of special $1\frac{7}{8}$ ins. × $1\frac{1}{8}$ ins. × 20 gauge drawn-steel battens obtainable in lengths up to 12 feet for standard purposes, designed to be supported at approximately 6 ft. centres on straight work.

Adjustable Clips :

The battens are held in place by steel clips which, whilst forming a frictional grip on suitable grounds or principals, allow for directional adjustment in one plane before the final tightening of the holding bolt. The clip for attaching the battens to the leg of angle irons or to square-lipped plates, consists of a hooked 16-gauge plate to fit 2 ins., $2\frac{1}{2}$ ins. or 3 ins. members, as shown in the application details, method A, overleaf. For attaching battens to the backs of angle purlins, channels, etc., the clip consists of a similar gauge bent plate, as shown in Method B.

These plates are dished to a depth of $\frac{1}{16}$ in. to increase the strength, and form with a bottom plate similarly dished and containing a threaded nut, a means of gripping the flanged edges of the battens to the principals or angle iron grounds.

Jointing of Battens :

For the purpose of jointing two lengths of the steel batten, special length bottom plates are provided, as shown in the jointing details overleaf. The joint should take place preferably at the centre of the principal or angle iron, adjoining battens being clipped through one bottom plate, with a hooked plate on one side and a shallow flanged plate on the other side, as illustrated in (A) (see jointing details).

Methods of isolated butt, cross and right-angle connections are also shown, the top and separate bottom dished plates varying in length to suit particular cases.

Curved Work :

For special purpose work the steel battens can be supplied bent to specific radii or angles. Clips for attaching the battens to tubular or other shaped framing are also available.

Fixing Tentest Insulating Sheets :

The Tentest sheets are first fitted in place and the galvanized Parker Kalon screws started by driving a sharp-pointed bradawl through the Tentest to penetrate the steel batten. The screw will then pick up and pull itself into position in the ordinary manner.

Wood Filling :

When required for special purposes or to support heavy loads, the drawn-steel battens can be filled with timber and the clips fixed with wood screws instead of bottom plates.

Manufacturers : The Tentest Fibre Board Co., Ltd.
Address : Astor House, Aldwych, London, W.C.2
Telephone : Holborn 8018, 8019, 3365, 4430