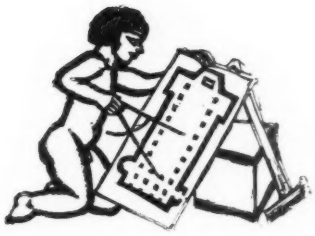
NEARING COMPLETION

CHEVIOT HOUSE, 227 Commercial Road, E. The architect is G. G. Winbourne.

STADIUM ENTRANCE

A recently-erected entrance to a sports ground outside a small town in Germany, which achieves its effect by extremely economical means. The arch is constructed of a rough timber framework with light unstripped fir poles nailed on to form the outside covering. The eagle and swastika lozenge are of wood, painted.



TROUBLE AT PARIS

IN *The Times* of August 5 the report of Professor John Hilton's speech at the Liberal Summer School contains these words on those who occupy the reserved stalls of life :—

> In the present Cabinet there were 21 Ministers. Of that total 20 went to public schools, 17 went to a university, and 13 to Oxford or Cambridge. . . . Too much Eton, Harrow and Winchester in high places gave us a set of people at the top who legislated and dominated in terms of Eton, Harrow and Winchester.

In the *Daily Express*, August 6, a staff reporter writes of the British Pavilion at Paris :—

> . . . a one-class exhibition. The first thing which faces the visitor on entering is a huge sports display. It includes 20 squash rackets, 5 sporting guns, 89 golf clubs, 8 fishing rods . . . archery equipment, gloves, leg pads. . . .
>
> The assistant commissioner-general of the exhibition . . . said . . . this exhibition is a second category exhibition . . . which is not supposed to be a competitive or industrial one.

News items like these give a fresh and piquant flavour to the press of a great democracy. In a heat wave almost anything can happen ; and the appearance of these two items where they did would no doubt explain to the perfectly reasonable man most aspects of British life and character—as well as all the trouble about the Pavilion at Paris and its contents.

A press in the dog days is fortunately not reasonable. M.P.'s, trade interests, the British public and serious critics are nearly all taxpayers ; £35,000 of their money has been spent ; and according to the *Daily Express* they consider the British exhibit cheap, ugly, class-conscious, expensive, silly, badly arranged and tawdry, and they have the right to daily express their views on how they have been represented to the foreigner.

The British are supposed to abide by the rules ; and this "second category" exhibition of the Arts and Technics of Modern Times was supposed to be non-competitive and non-industrial. "Very well," one assumes that the Council for Art and Industry said : "the others can break all the rules, but we will be dignified, quiet and good. And since we are not too hot on modern arts we will go all out on modern technics. Non-competitive technics, shovel-and-rake technics, fishing-rod technics, the kind of technics the Danes showed us we excelled in at Copenhagen a year or two ago. We can make a big feature of the week-end, national sport and so on." And that is what they have done.

If heavy industrial manufactures are really ineligible at Paris the idea doesn't really seem bad. We might have chosen the British Scene, the Mother of Parliaments, the Social Services or Social Stability ; but we didn't. In an entertaining composition to interest, and if possible to please, foreigners the Council for Art and Industry plumped for Sport and the Week-end as the big feature.

A smallish building, not massive enough to satisfy the British, with a Græcian motif of fluting and murals around two sides only, the British Pavilion is still externally amongst the best we have yet done. In plan and internally, save for its fundamental neglect of the river, it is ready to be a rival to all others.

Against this background we set out to show something of ourselves to the foreigners ; and public opinion thinks that sport and the week-end have got seriously out of hand.

The British public are all for a bit of tradition. Providing football, cricket and Hampstead Heath get a look in somewhere they don't mind polo and fox-hunting ; after all there are seventeen Oxford and Cambridge men in the Cabinet. But this time some of them think Eton and New College have been ungentlemanly—they have forgotten the electorate altogether.

"Huntin' Shootin' and Fishin' make English Smile" runs a *Daily Express* headline. This is a serious charge—but it is somewhat beside the point. Does the foreigner smile? This is the question.

Little stories, in English only, about grouse ; a 16-ft. photograph (anonymous) of Mr. Neville Chamberlain salmon fishing may not mean much to the foreigner, but he is not likely to miss the message of a lavish display of the beautifully-made unimportant in times like these.

The average British visitor does not seem to like this subtlety. He resents a big feature of Britain as a world's sports stadium, recreational park, luxury goods manufactory and sublimely self-satisfied paradise for four-figure incomes. Even the good things, pottery, glass, some furniture, and especially the book section (expensive) cannot enable him to see himself. There is little he could buy to be seen and he cannot afford to have lunch.

But what prevents our full sympathy with this average fellow countryman is the suspicion that what he objects to most strongly is what is best in the Pavilion—that what he wants is not really less class-consciousness but a Tudor Lounge and a Shakespeare Tavern and all the wares that go along with them. We suspect that our average fellow-countryman will turn out on analysis to be something very like a disappointed manufacturer whose goods have not been exhibited because they are not well enough designed. These—and the half-timbering—we have escaped ; and for this we owe much to the Council for Art and Industry and their architect, as well as to the twelve—or is it twenty ?—Old Etonian Cabinet Ministers.

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
9212-7
Telegrams
Buildable
Parl
London

NOTES & TOPICS

OUR NATIONAL THEATRE

NOW that a site has at last been bought it looks as though we may cease to be the only considerable European country still left without a National Theatre. The fact that no State grant has been made is probably all to the good, for it does much to dispel the possibility of a stultified dreariness both in choice and presentation; nor does the fact that the site isn't in the West End matter very much, for the journey to South Kensington is child's play compared with the effort of getting to the Old Vic or Sadler's Wells.

*

But "plans have been prepared and have already been submitted to the L.C.C. and other bodies." This part of the announcement is important.

*

For thirty years money has been collected for this theatre. Three weeks ago the purchase of a site was announced, and a fortnight later "plans have been prepared."

*

The architect or architects concerned may be the ideal selection for the job; they *may* have been working on the plans long before the site was finally purchased—on the other hand they may not. But the attitude of the promoters seems very odd. We are all being asked to contribute, yet the promoters just order plans to be prepared—the scheme is not published, the architect's name is not announced; the public is naturally not a bit interested in what they are getting for their money. Who cares what the building is going to be like?

£350,000 is still wanted. And with the precedent of the Shakespeare Theatre in everyone's mind an open competition for a building which is to be a *National* Theatre might seem appropriate. It would only take six months—after thirty years.

*

This, I think, is a case where the R.I.B.A. ought to put its foot down—with an offer towards the cost of a competition and a half-column letter in *The Times* which will bring home to the Committee its architectural responsibilities.

"HULLO, HIGH STREET"

Those of us who live in towns pride ourselves, perhaps, on the mental armour which we have learnt to assume against the more insidious forms of commercial publicity. If we imagine that we alone are in need of this armour we are wrong, for a new horror has been added to rural life. It was in Moreton-in-the-Marsh at 9.30 p.m.—there were a few idlers loafing round the door of the pub. and the bobby was leaning on his bicycle chatting, when a terrific roar went from one end of the street to the other.

*

"Hullo, High Street, we hope you haven't gone to bed yet because we have some interesting announcements to make . . . " and there followed a string of verbal advertisements concerning local "sales," cinema shows, etc., with half a gramophone record of crooning to finish with, as jam on the powder. It all came from the top of a Ford van, and was, I gathered, a weekly event. As a rival to sky-writing it probably wins on points.

AN EARLY BLOMFIELD

I wonder how many of my readers know the water-tower at Lincoln. I discovered it yesterday; it is a bold, simple, well-designed structure, almost worthy of the Normans and also, as seen from the north, it groups well with the cathedral. Americans probably think it is all part of the mediæval scene. Actually it is an early work of Sir Reginald Blomfield, but being, I suppose, a purely "utilitarian" structure, it has more or less escaped notice.

*

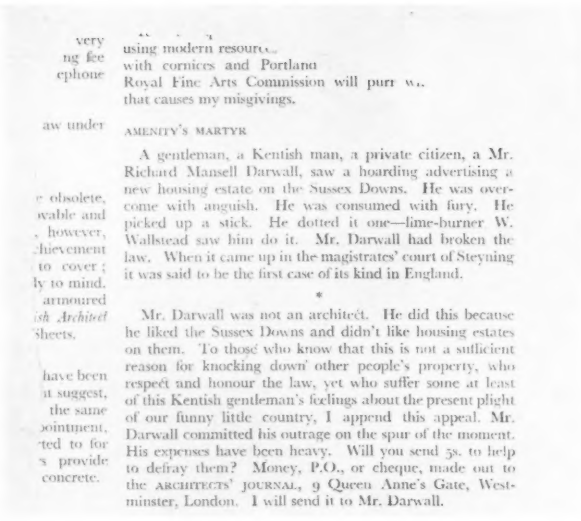
It gives me the greatest pleasure to say how good I thought this building. But more about Sir Reginald below.

BRIGHTENING THE NEWS

All sorts of unexpected things have been happening during the eight days which the English summer has so far lasted. Particularly amongst the Olympians.

*

Frank Brangwyn would be a safe win in any round game for a famous British artist in eight letters and one vowel. But not in August, 1937: he has been planning a perfect house for young married couples, price £837 and now being built near Brighton. "I ought to make it clear," said one of his advisers, "that in doing what he is, Mr. Brangwyn is working without a fee." I don't see why he ought—it seems to be to make it much worse.



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AMENITY'S MARTYR

A gentleman, a Kentish man, a private citizen, a Mr. Richard Mansell Darwall, saw a hoarding advertising a new housing estate on the Sussex Downs. He was overcome with anguish. He was consumed with fury. He picked up a stick. He dotted it one—lime-burner W. Wallstead saw him do it. Mr. Darwall had broken the law. When it came up in the magistrates' court of Steyning it was said to be the first case of its kind in England.

*

Mr. Darwall was not an architect. He did this because he liked the Sussex Downs and didn't like housing estates on them. To those who know that this is not a sufficient reason for knocking down other people's property, who respect and honour the law, yet who suffer some at least of this Kentish gentleman's feelings about the present plight of our funny little country, I append this appeal. Mr. Darwall committed his outrage on the spur of the moment. His expenses have been heavy. Will you send 5s. to help to defray them? Money, P.O., or cheque, made out to the ARCHITECTS' JOURNAL, 9 Queen Anne's Gate, Westminster, London. I will send it to Mr. Darwall.

And Field-Marshal Sir Philip Chetwode? This active and pugnacious man (*The Evening Standard*) has become president of a new, extremely conservative local ratepayers' association in Hampstead, which intends to run a candidate in November; the Field-Marshal's residential qualification being apparently a house which Mr. Frederick Etchells has just designed for him in St. John's Wood.

*

Nor is this all—sufficiently involved though it may sound for a hot August. The gallant gentleman's happy band of reformers are opposed by a similar association, not quite so diehard, and of the second association, Sir Reginald Blomfield is president.

*

Between the two parties it is possible that the Conservative vote may be split and Labour win Hampstead for the first time. This may be distressing enough for Hampstead, but considering everything, I shall think we are lucky if the matter stops there.

AMENITY'S MARTYR

It is with regret that I have to mention that the Darwall Appeal still lacks 20 five-shillings. Rarely have appeals been made in this column and never for a plainer, more warmingly impetuous cause.

*

Come, gentlemen; come, ladies: it is the holiday season, holidays are always expensive and a dollar to the Darwall Appeal is a dollar saved from Blackpool Pier.

*

The cause? One of those who did not hesitate has sent it back to me—in words I cannot better. It is reproduced above.

SAVING WALES

Mr. Clough Williams-Ellis has produced a plan for "delivering Wales from destructive insanity": here are his proposals:

*

A Ministry of Planning and Design, to be responsible for the towns as well as the countryside.

Land not to be held privately in areas of less size than an agreed unit which would allow of cohesive planning.

A generous National Park policy.

The teaching in all schools of "such branches of civics or citizenship as concerned the departments of planning and design."

Architects to be employed for all public layout and architectural work.

Legislation to discourage jerry building.

"Planning and design" attachés at foreign embassies to keep the Ministry in touch with developments abroad.

The Town and Country Planning Act to be extended, amended, and universally applied.

*

Quite: But why for Wales only? Surely this is what quite a lot of architects have been wanting applied everywhere for years and years.

LINCOLN

Lincoln always interests me—it is not behind the times—would that it were—but it somehow manages to retain the atmosphere of an eighteenth-century county town of the north; not in its architecture, but in its self-contained social life. I suppose it would be annoyed if I said it was more Yorkshire than York, but it is true, nevertheless, and the same is true to some extent of Norwich.

*

There is a great town moor on which horses are always grazing, except at race meeting times, and there is an air of horse fairs, bruisers, Lavengro and the flaming tinman; just as there is in the town itself an air of Assemblies, routs and ensigns in regimentals. This, no doubt, is great nonsense concerning a town that is full of August motorists and cinemas, but it was a feeling that I could not escape.

*

At any rate the antique shops seemed just a little bit more genuine than they do elsewhere, and the cathedral on its precipice above the racecourse still seemed (*pace* Durham) to be the most dramatic group of buildings in the country.

HEALTHIER HOPPING

Every year the great hopping exodus from London ends up in slightly healthier lodgings, and now Sir Kingsley Wood has issued a booklet for the growers so that they can see exactly how much they ought to do. But 20 sq. ft. of floor space per person doesn't seem over-generous, 6 ft. 6 ins. by a shade over 3 ft. will make sleeping rather a tight fit, and straw bedding "to be renewed from time to time as necessary" sounds as though one lot will be made to do indefinitely for no matter how many families.

BRIGHTER TENDERING

Mr. R. M. Finch, Nottingham's City Engineer, has produced a Guildhall extension design which looks, from the published perspectives, as though it might be the work of one of our most distinguished traditionalists. The tender suggested for the Council's acceptance is £265,184, to which should be added various sums, including a peculiar "Variations to elevations—£13,500."

*

This is a new one on me, but perhaps it's only a way of disguising contingencies if the Committee changes its mind.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

NEW YORK NOTE

The Museum of Modern Art, that vigorous protagonist of modern architecture in the United States, is constructing an appropriate building for its activities on West 53rd Street, New York. The new museum, a five-storey steel and reinforced concrete structure, faced with white marble, is to cost £200,000 and will be opened in about 12 months' time. Plate glass windows on the street front give a view through to a garden at the back, a display space for sculpture obtained by the demolition of the town house of Mr. J. D. Rockefeller, who presented the land to the Museum. On the upper floors are offices and accommodation for the museum's film library. In the basement is a lecture room with accommodation for 500 people. The architects are Philip Goodwin and Edward Stone.

BUILDING CENTRE STATISTICS

During the year ending May 31, 1937, the Building Centre, 158 New Bond Street, admitted 68,776 visitors. Technical enquiries numbered 97,000 and 84,807 information sheets were issued to applicants on behalf of manufacturers.

GLASGOW EXHIBITION

It is announced that Major A. A. Longden, D.S.O., O.B.E., has been appointed Director of Art at next year's Empire Exhibition. He takes up his new duties in Glasgow next week. Major Longden, who has recently retired from the position of Art Adviser to the Department of Overseas Trade, was responsible for the exhibitions of Dutch, Italian, Persian and Chinese Art at Burlington House. He has himself exhibited at the Royal Academy and at many other exhibitions, and has organized the art sections of British displays at international exhibitions all over the world.

A link with an earlier Glasgow Exhibition is provided in the retirement of Mr. John Keppie, R.S.A., architect of numerous prominent buildings in Glasgow. As assistant architect to the Glasgow International Exhibition of 1888 he was largely responsible for the adoption of the Moorish style in the Exhibition buildings.

THE ARCHITECTS' DIARY

Thursday, August 12

EXHIBITION OF THE WORK OF VAN GOGH. *At the Phœnix Gallery. 10 a.m. to 7 p.m. Mondays and Thursdays until 10 p.m. Until August 22.*

Wednesday, August 18

LONDON SOCIETY. *Visit to Broadwood's Pianos, Kingsbury Works, The Hyde, Hendon, N.W.9. 3 p.m.*

Thursday, August 26

LONDON SOCIETY. *Visit to Modern Churches in the Diocese of London. The coach will leave Lancaster House at 2 p.m., visiting: The John Keble Church, Mill Hill; St. Mary the Virgin, Kenton; St. Alban's, North Harrow; St. Paul's, Ruislip Manor.*

Sunday, September 26

BRITISH COMMERCIAL GAS ASSOCIATION. *Annual Conference. At Manchester, Sunday: Evening, programme of gas publicity films: Monday: Tour of Blackpool or the Lake District; Evening, reception: Tuesday: Morning, business session, followed by luncheon and afternoon session which includes a visit to Wythenshawe: Evening, dinner; Wednesday: Business session, followed by luncheon: Afternoon, Ship Canal tour or visit to Trafford Park. Until September 29.*

A BRISTOL ARCHITECTURAL APPOINTMENT

Mr. F. R. Steele, A.R.I.B.A., P.A.S.I., A.M.I.STRUCT.E., of the Borough Engineer's Dept., Huddersfield, has been appointed Architect to the Education Committee of the City of Bristol.

GOVERNMENT BUILDINGS, WHITEHALL

The new Government buildings in Whitehall, the construction of which was postponed early this year, are to be proceeded with. We understand that the decision was made at the last meeting of the Cabinet before the recess.

CHANGE OF ADDRESS

Mr. Victor Bain, F.R.I.B.A., has removed his office to 3 Queen Square, Leeds 2. The telephone number (Leeds 25145) will remain unchanged.

FAIR WAGES INQUIRY: COMMITTEE APPOINTED

Last week the Minister of Labour announced that, in accordance with the announcement made in the House of Commons last March by Mr. Ernest Brown, Minister of Labour, a committee has been appointed to consider the working of the fair wages resolution of the House of Commons of March 10, 1909, as embodied in Government contracts, and to advise whether any changes are desirable and practicable. The committee is constituted of representatives of Government departments, trade unions, and employers' organisations, with an independent chairman.

RENTS OF COUNCIL HOUSES

The Minister of Health, Sir Kingsley Wood, issued last week a White Paper* showing the numbers and the exclusive rents of dwellings included in the Housing Revenue Accounts of Local Authorities at June 30, 1936. The return relates to 866,277 houses and flats, and shows separately the figures for London, Greater London, and the County Boroughs. Other urban areas and rural areas are shown as groups in their appropriate counties.

A prefatory note to the White Paper summarizes the figures and states that the variations in Local Authority rent levels reflect the general rent levels in the different types of area. This is in accord with the provisions of the Housing Acts which enable the Local Authorities to pool all their houses irrespective of the particular Act under which they were provided, and require them, in fixing the rents, to take into consideration the rents ordinarily payable by persons of the working class in the locality.

The return shows, for instance, that the percentage of houses let at exclusive rents up to 5s. a week varies from 1·1 per cent. in London to 29 per cent. in rural areas. At the other extreme, the percentage of houses let at rents above 10s. a week varies from 1·9 per cent. in rural districts to 58 per cent. in London. Except in the neighbourhood of London, more than half the houses in each of the various types of area fall within the rent range of 5s. to 8s. a week.

Rents, in fact, follow density of population. The average rural rent is 6s., the average county borough rent is 7s. 2d., and the average rent in other urban areas is 6s. 11d. In Greater London, just over a quarter of the houses are let at rents over 12s., the average rent of the remainder being 9s. 2d.

Approximately 450,000 houses are let at inclusive rents up to 10s. a week.

* *Rents of Houses and Flats owned by Local Authorities.* Published by the Stationery Office. Price 4d.

ARCHITECTURAL ASSISTANT, BARROW-IN-FURNESS

In the note on the vacancy for an architectural assistant in the Borough Engineer's Department of the County Borough of Barrow-in-Furness (on page xxxiii of last week's issue) it was stated that the salary scale offered was £175 per annum, rising, subject to satisfactory service, to a maximum of £225 per annum. The note should have read: "... £175 per annum, rising ... to a maximum of **£255** per annum."

NATIONAL HOUSE-BUILDERS' REGISTRATION COUNCIL

The National House-Builders' Registration Council has just issued a Progress Report dealing with its work to July 31.

The scheme inaugurated by this Council and comprising the registration of house-builders with a view to the independent certification of houses was publicly launched on January 14, 1937. Applications for registration began to be received almost immediately. During February, March and April meetings of house-builders were held in London and in many provincial centres, at which the proposals were fully explained, and answers were given to questions that arose in the minds of those who wished to become registered.

Simultaneously, meetings were being held of the Specification Committee. It is the intention of this committee that the Model Specification adopted by the Council may be varied to suit local requirements. Such variations will be suggested by local committees of house-builders, assisted, where possible and desirable, by architects and others interested, co-opted for this purpose. In order to ensure that modification of the specification to suit local requirements will not result in lowering the standard prescribed by the Council all local modifications must be considered and approved by the Specification Committee of the Registration Council.

The first meeting of the Registration Committee was held on May 10, 1937. With a view to assisting the committee to consider the applications, a questionnaire had been addressed to each applicant firm asking for information to show the length of time the firm had been in existence, the

approximate number of houses erected speculatively between 1919 and 1937, and the Building Societies principally interested. The questionnaire asked also for particulars concerning other building works undertaken by the firm in recent years (e.g. schools, local authority housing, factories, public buildings, etc.) showing the class of work, the approximate value and the names of the architects concerned.

The result of the committee's consideration of these applications was that 1,068 applicants were admitted to the register.

WILLIAM HOFFMAN WOOD SCHOLARSHIP

Fourth and fifth year students in architecture are invited to apply for a grant to be awarded by the Trustees for post-graduate research by study or travel in ancient or modern cities.

The amount of grant to be awarded according to the programme of studies to be undertaken, but shall not normally exceed £250 in 12 months commencing September, 1937.

Applicants must be under 21 years of age, and must have been born within the County of York, of one or both Yorkshire parents; a native of Leeds or one who has studied or lived in the city in all cases to have preference.

Applications to be made in the candidate's own handwriting to the undersigned on or before September 30, 1937. W. H. Clarke & Co., Solicitors, 12 South Parade, Leeds 1.

A.A.S.T.A. AND SCALE OF SALARIES

In the JOURNAL for July 29, page 179, we published the R.I.B.A. Scale of Salaries for Architects and Architectural Assistants. Following are some extracts from a statement on the Scale issued by the Association of Architects, Surveyors and Technical Assistants:

After eighteen years of effort and propaganda by the A.A.S.T.A., the R.I.B.A. has at last produced a scale of recommended salaries for its salaried members in public, commercial and private offices.

The A.A.S.T.A. welcomes the scale in so far as it directs attention to assistants' salaries, but in its present form it will be of little use to anyone except architects with over £500 a year. Does the R.I.B.A. really place such a low value on its salaried associates that they "might reasonably be placed" as low as £210 a year in normal times in London? If this is so, presumably £3 10s. a week would be their low limit in normal times in the Provinces, and in bad times Heaven only knows! The contrast between the salaries for architects and the salaries for assistants is remarkable, and shows a bias on the part of the R.I.B.A. which should raise a storm of protest from its assistant members all over the country.

Again, the scale is so vague and indefinite that it could be used by an unscrupulous employer to justify almost any salary, however poor. An assistant in London is to receive from £210 to £325—but there is hardly an assistant in the country who is not at the moment receiving a salary between these figures! No attempt is made to explain the variation between these figures, nor to correlate age with salary (except for a student at 19 years) in the case of young men, in order to guarantee them on entering the profession a certain minimum standard of living.

The A.A.S.T.A. representatives on the Salaried Members' Committee of the R.I.B.A., which drew up this scale, fought strongly—and will continue to do so—for the adoption by the R.I.B.A. of certain *minimum* salaries which should be imposed by the R.I.B.A. on its members in the same way as its scale of fees is imposed for private architects. The figures in the present scale mean almost nothing, and may even lead to serious abuse.

In short, the adoption of this scale by the R.I.B.A. will mean precisely nothing to the assistant, except in so far as it draws attention to the question of his remuneration. The A.A.S.T.A. representatives, however, will continue to urge on the Salaried Members' Committee the need for fixing certain minimum standards of remuneration, according to age in the case of young assistants, and according to certain broad definitions of the work and responsibility undertaken in the case of older assistants.

These principles are embodied in the revised A.A.S.T.A. Scale which the Council of the Association approved on June 9, 1937, and which was drawn up by the A.A.S.T.A. Salaries Committee after consideration of the returned salary questionnaire forms sent out to members earlier this year. The Scale, as set out below, will be used by the A.A.S.T.A. in future negotiations, and is recommended to members as indicative of reasonable minimum standards of remuneration which good offices pay to-day.

A.A.S.T.A. Recommended Annual Minimum Salaries:

Juniors (at age 21 years)..	London £182	Provinces £156
Assistants (at age 25 years)	London £286	Provinces £260
First Class Assistants	London £375	Provinces £350
Senior Assistants	London £475	Provinces £450

Descriptions of Grades: Assistants.—An assistant is a man normally undertaking general drawing office work under supervision and without special responsibility.

First Class Assistants.—A first class assistant is one undertaking special responsibility or work which places him higher than other assistants in an office.

Senior Assistants.—A senior assistant is a man normally supervising major work, administering contracts and/or in charge of staff.

Increments.—The salaries of all staffs should be reviewed at least once annually.

Regular minimum increments should be given to assistants between the ages of 21 and 25 years, as follows.

Age	Minimum (Provinces)	Minimum (London)
	£	£
21 years	156	182
22 ,, ...	182	208
23 ,, ...	208	234
24 ,, ...	234	260
25 ,, ...	260	286

For men over 25 years regular increments should also be given between the grades.

London Differential.—The difference in rates between London and the Provinces is justified by the difference in the cost of living, particularly with regard to rents, cost of transport and of obtaining lunches out. "London" includes any office within a ten miles radius of Charing Cross.

Hours.—The above salaries are based on a normal working week of 38 hours excluding lunch times. Overtime is discouraged, but when necessary should be paid at a minimum rate of 1¼ times.

Holidays.—Assistants and juniors should receive a minimum holiday with pay of a fortnight annually. First-class and senior assistants should receive a minimum of three weeks.

The R.I.B.A. bronze medal for the best designed building erected within the Leicester area during the last three years has been awarded for the new building in East Park Road, Leicester, erected for the Imperial Typewriter Co., and designed by Messrs. Pick, Everard, Keay and Gimson. Above is a view of the main front.

R. I. B. A.

COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the Institute:—

The Honorary Fellowship: It was reported to the Council that H.R.H. The Duke of Gloucester and the Earl of Harewood had been pleased to accept nomination for election as Hon. Fellows.

The Architects' Ordinance, Straits Settlements: On the recommendation of the R.I.B.A. Registration Committee it was agreed to support the action of the Institute

of Architects of Malaya in asking the Straits Settlements Government to amend chapter 64 of the Architects' Ordinance, Straits Settlements.

Alterations to the Rules of the Devon and Cornwall Architectural Society: Alterations to the rules of the Devon and Cornwall Architectural Society were formally approved by the Council.

Alterations to the Rules of the Birmingham and Five Counties Architectural Association: Alterations to the rules of the Birmingham and Five Counties Architectural Association were formally approved by the Council.

Suggested Census of Members: On the recommendation of the Executive Committee it was decided not to undertake a census of members, as it was felt, in view of the previous experience in this matter, that the replies would be insufficient to be of any value.

Reinstatements: The following ex-members were reinstated :—As Associates : W. G. L. Cheriton, A. E. Habershon, and Doris H. Robertson. As Licentiate : F. C. Ellis.

Resignations: The following resignations were accepted with regret : Oliver Gaunt (F.), Henry Joseph Bissaker Hoskins (A.), Percy Lingwood (A.), Richard Holden Riley (A.), Frank Alfred Tugwell (A.), Helen Alma Newton Turner (A.), Harold Scott Dalby (L.), Roland Young Mayell (L.), and Francis David Strong (L.).

Transfer to the Retired Members Class: The following member was transferred to the Retired Members Class : As Retired Fellow : George Farquhar Pennington.

COMPETITION NEWS

FLATS, ETC.

THE second Liverpool Building Trades Exhibition is to be held in Renshaw Hall, Renshaw Street, Liverpool, 1, from October 13 to 23. In connection with the exhibition, the promoters (in conjunction with the Liverpool Architectural Society) have organized a competition for bachelor flats combined with a recreation and social club. The competition is open to all British subjects, and the following premiums are offered : £70, £30 and £10. The assessors are Mr. B. M. Ward, F.R.I.B.A., Mr. Leonard Barnish, F.R.I.B.A., and Lt.-Col. Ernest Gee, F.R.I.B.A. The latest date for submission of designs is 12 noon, Monday, September 20, 1937. Conditions are obtainable (free of charge) on application to Provincial Exhibitions, Ltd., Renshaw Hall, Renshaw Street, Liverpool, 1.

EXHIBITIONS

[BY D. COSENS]

THAT conception of pure form which we call abstract art is comparatively new in painting, and had its origin in Cézanne's emphasis of geometric planes, and his interpretation of form in terms of colour. Geometric and conventionalized shapes have always been used as recurring pattern, and were probably the earliest art forms, but the preoccupation with the balance of superimposed planes and spatial relationships, free from any emotive or literary significance, is the really important contribution of this generation of painters to art.

Broadly speaking, until very recently, all painting can be said to have been based on naturalism and an individual interpretation of such easily observable phenomena as human and organic shapes. A great deal of it still is. But Surrealism, by Freud out of Realism, and the detached objective relating of pure forms in space that we call Abstract Art, are new developments. The abstract painter does not look for inspiration to nature, or in the depths of his subconscious, but to the hard surfaces, the textures and reflections of a machine age. He expresses a generation that, in reacting against pictorial overstatement, finds harmony in a balanced composition of mechanical shapes. Ultimately this cold, logical painting may defeat itself, and a mathematical formula succeed the pictorial one—but not yet.

Ashley Havinden is probably more widely known for his advertising work than as an abstract painter, but his present exhibition at the London Gallery is one of the best of its kind that there has been for a very long time. From time to time one sees outstandingly good constructions, but the whole of this exhibition is first-rate. To architects it is of more than ordinary interest, for the problem of the interaction between space and volume and the recession of planes is also the architect's problem.

So good are these paintings that, personal preferences apart, it is not easy to say that one is better than another. All show remarkable vision in design, and an unfailing colour sense. With this exhibition Mr. Havinden contradicts the popular belief that commercial art is the work of a painter of limited sensibility.

Paintings by Ashley Havinden. The London Gallery, 28 Cork Street. Until August 28.

JOHN C. TICKLE

DEMOCRAT

LETTERS *FROM* READERS

Salaried Architects

SIR,—May I suggest another angle of approach to this very vexed question of assistants' salaries ?

By far the largest building employer is the public authorities (government and municipal) — the architectural work being done by either their own salaried staff or through a private architect paid as per R.I.B.A. scale.

Now all, or nearly all, authorities incorporate a " fair wage clause " in their building contracts which ensures that everyone on the job receives trade union rates. Now I maintain that the assistant engaged on public work, whether directly or indirectly, is just as much entitled to a standard minimum wage as the bricklayer is, and it is difficult to see how such elementary justice can be refused if it is put forward by the proper bodies. Why should the unfortunate architect's assistant be the only man working on the building who is not paid a standard wage?

JOHN C. TICKLE

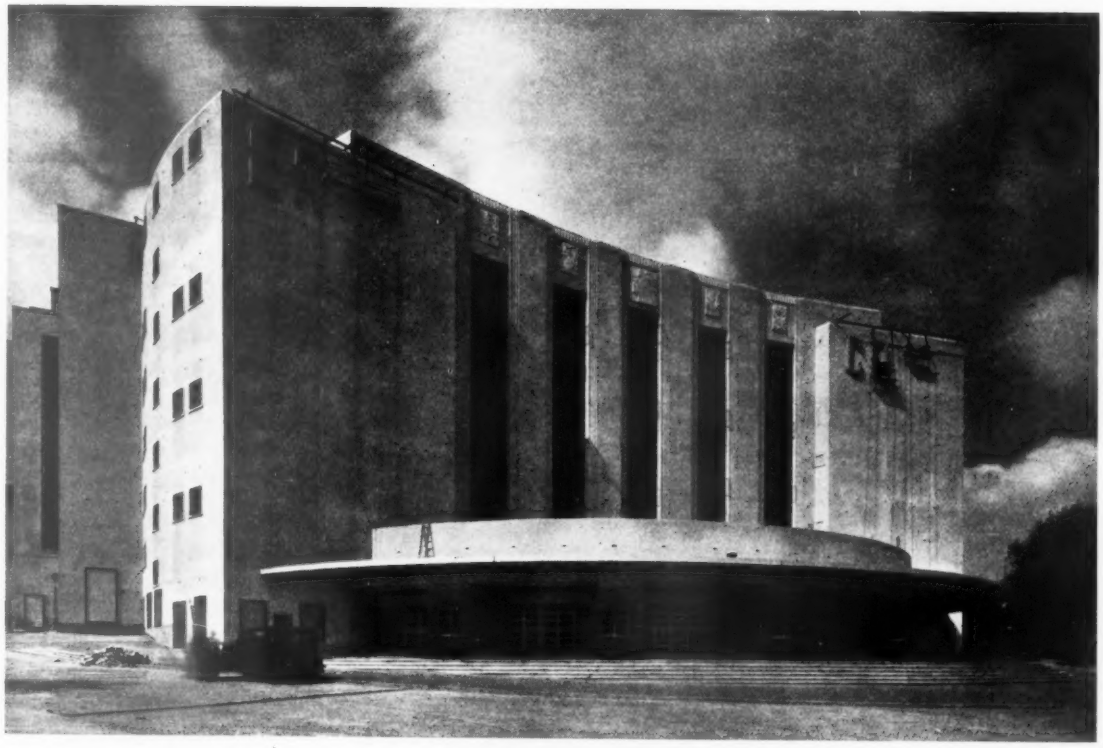
SIR,—" Chartered Architect and Surveyor," in his letter appearing in your issue dated July 29, agrees with me that the interest (typically a " boss " interest) of Fellows (a minority of members) is at variance with the interest (typically a " non-boss " interest) of Associates and Licentiates (the bulk of members), and yet maintains the possibility that the control of the R.I.B.A. by Fellows (inevitable under the present constitution of the Council) may be in the interest of the whole profession.

What that means is that if the present " non-boss " interest were to control its destiny by a representative vote, it might make a worse mess of things for itself than the present non-representative control by " boss " interest is making for it. I agree, it might. Equally, it might not. " Chartered Architect and Surveyor " may care to tell me, since he considers my attitude unfair, by whom and by what constitutional method is the issue to be decided.

He tells me that good architecture creates demand. I did not know that any generally acceptable way had yet been found of distinguishing good from not-so-good architecture. But leaving that aside, I still do not see that any reason exists for supposing that architecture, good, or not-so-good, creates demand. An astute architect may, upon occasion, by convincing some financial interest that building might turn out a good investment, attract money into building that otherwise would have been used in some other direction. But that is about as far as it goes. The consequence that no one architect can claim to *give* another a job he has not first, directly or indirectly, taken from him, appears to me to be true. The *giving* of jobs in architecture is largely a matter of forgetting that an architect in common with the rest of his species, has only two hands and one head, and that other architects have the same. The fact is that the problem of how architects are to co-operate has hardly yet been considered at all. I don't pretend to know the answer. But it needs little imagination to see that the present sanctity of the private economic objective can be no solution of it.

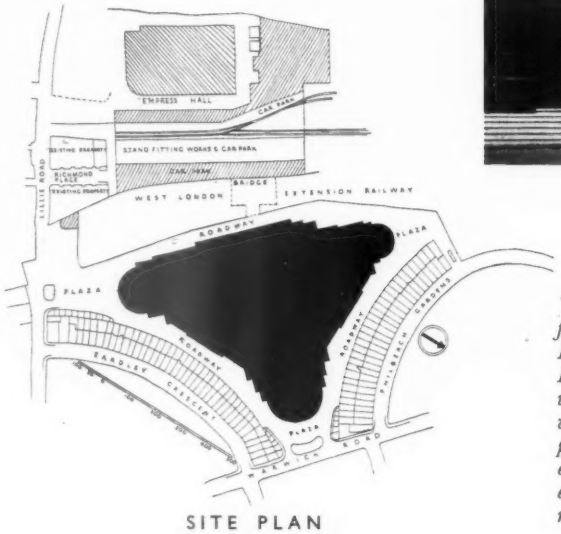
DEMOCRAT

EARL'S COURT EXHIBITION



DESIGNED BY

C. HOWARD CRANE



SITE PLAN

The new Earl's Court Exhibition building is now complete, fifty years after the opening of John Robinson Whitley's original Earl's Court. The triangular site to the east of the West London Extension Railway has an area of 12 acres of which 9 are built upon, and there are a further 6 acres on the Empress Hall site, which is used as a car park and stand fitting works. On this page are two views of the exterior, top the Warwick Road entrance, facing Earl's Court station, below the Lillie Road entrance, looking towards Earl's Court Station along the private road which runs right round the building.

EARL'S COURT EXHIBITION:

SITE—*The triangular site had six lines of railway track running through it and converging on Earl's Court station, and these tracks all had to be covered in before any structural work could be started, the main reinforced concrete portal frames spanning the tracks being shown in the basement plan on page 257.*

BASEMENT—*It was decided that six railway tunnels would cut the basement area into too many isolated sections, and the main floor of the building has therefore been raised some 15 ft. above the general ground level of the site, this procedure having the great advantage of linking the two parts of the site and making it possible for cars to pass straight over the bridge into the park (2,000 cars) on the other side of the West London Extension Railway.*

MAIN FLOOR—*The main exhibition area covers nearly the whole of the main floor and there is a central arena of 350 ft. by 200 ft., this latter containing a swimming pool 200 ft. by 100 ft. (see page 258). Outside this main arena the columns are spaced at 50 ft. centres so that gangways between stands may be arranged at right angles or diagonally to the column pattern; each column contains gas, water, electricity and telephone services, and there are also flues and drains.*

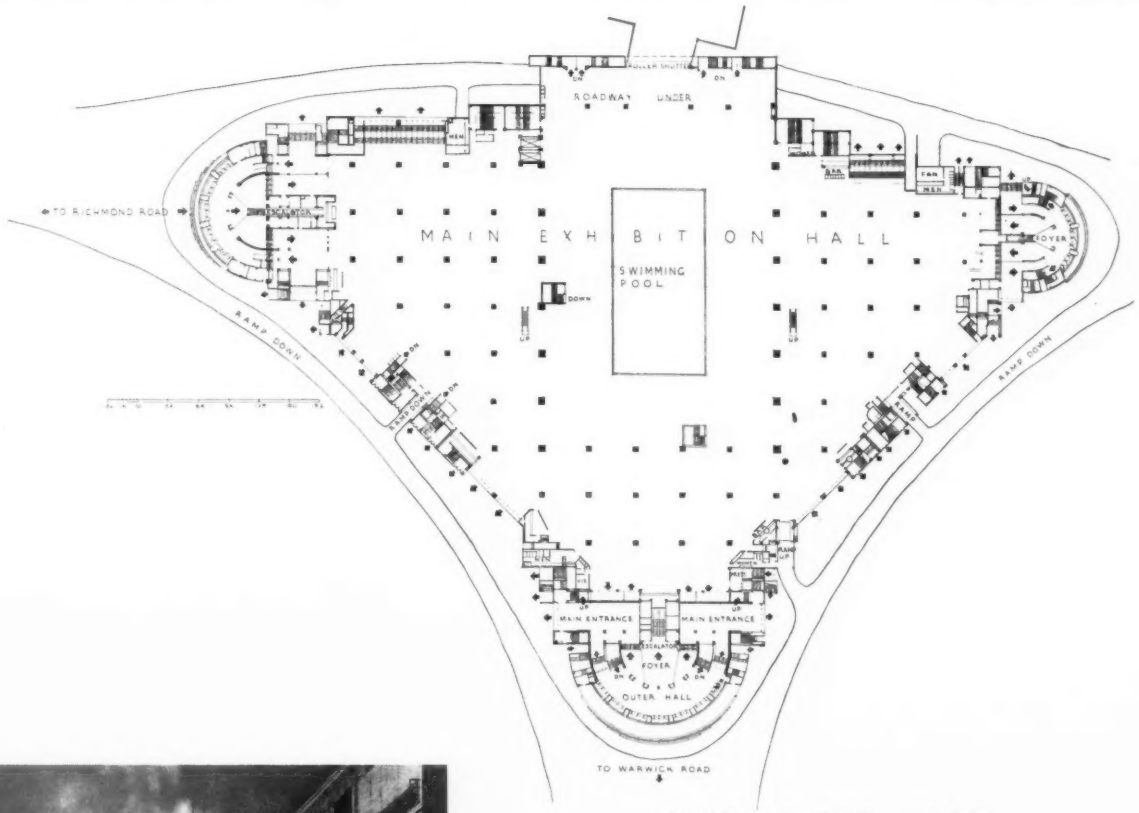
MEZZANINE—*The mezzanine floor is comparatively small in area and contains four restaurants seating 4,000 people, offices and three convention or banqueting halls, one at each of the entrances, seating 1,700, 750 and 600 people.*

UPPER FLOOR—*This floor (see section on the facing page and the plan on page 256) contains further exhibition space and two subsidiary halls (D and E on section) which can be divided off from the main arena by rolling shutters between the columns.*

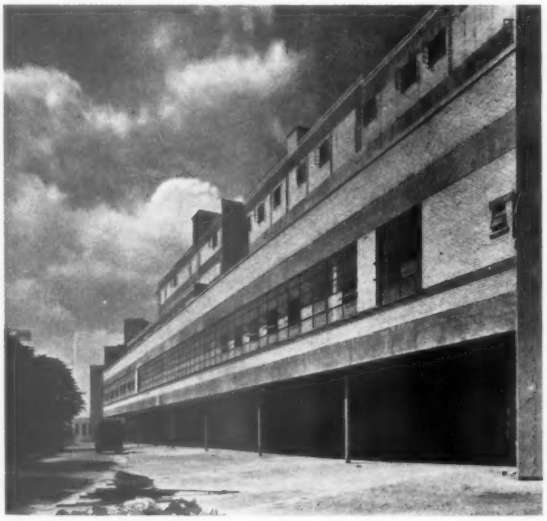
SEATING—*The seating in the gallery is permanent, but movable seating is arranged so that the line of seats can be continued in a straight line from the front of the gallery down to the edge of the pool, when the total seating capacity is 20,000. This movable seating is on wheels, and is stored above the railway bridge.*

The photographs on this page show: top, the Warwick Road entrance; the projecting bosses on the face of the building are for the easy attachment of any necessary lettering or special illuminated signs: left, the building from the Lillie Road bridge over the West London Extension Railway; on the left is the seating garage and the bridge to the car park; heavy exhibits can be delivered straight to the goods lifts from the private railway siding below the elevated roadway running along the side of the building.

DESIGNED BY C. HOWARD CRANE



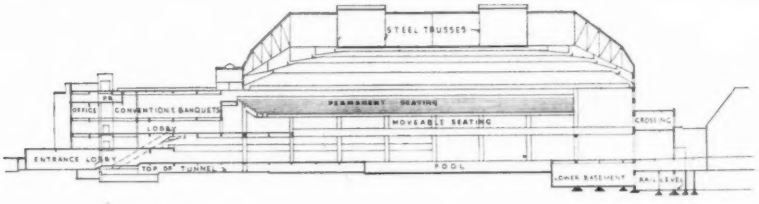
MAIN FLOOR PLAN



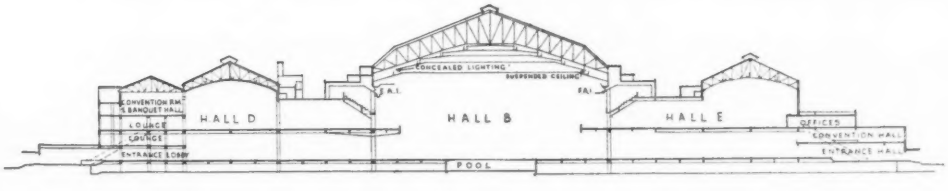
SWIMMING POOL—*In order that the swimming pool area should be made available for other purposes in the winter, the provision of suitable flooring had to be considered, and it was established that it would take eight days to remove, and eight days to re-install a temporary floor, and that a storage space of 200,000 cubic feet would be required for the flooring. It was decided to install a rising platform comprising three hydraulically operated sections, which together would cover the whole of the pool. It was further arranged that the platform could be raised 5 ft. above floor level so as to form an elevated stage and by providing independent operation for each section the area could then be adapted as a sunken arena with varying depths below the main floor : by fitting tilting devices to the centre and one of the end sections a sloping bottom could be made available, leaving the other end section in the lowest position and thus providing for deep diving. The three sections of the floor are controlled independently by means of hydraulic rams and the pool is normally not emptied, for the floor sinks through the water when it forms the bottom of the pool.*

On the left is the elevation to Eardley Crescent, with the long restaurant windows on the mezzanine floor.

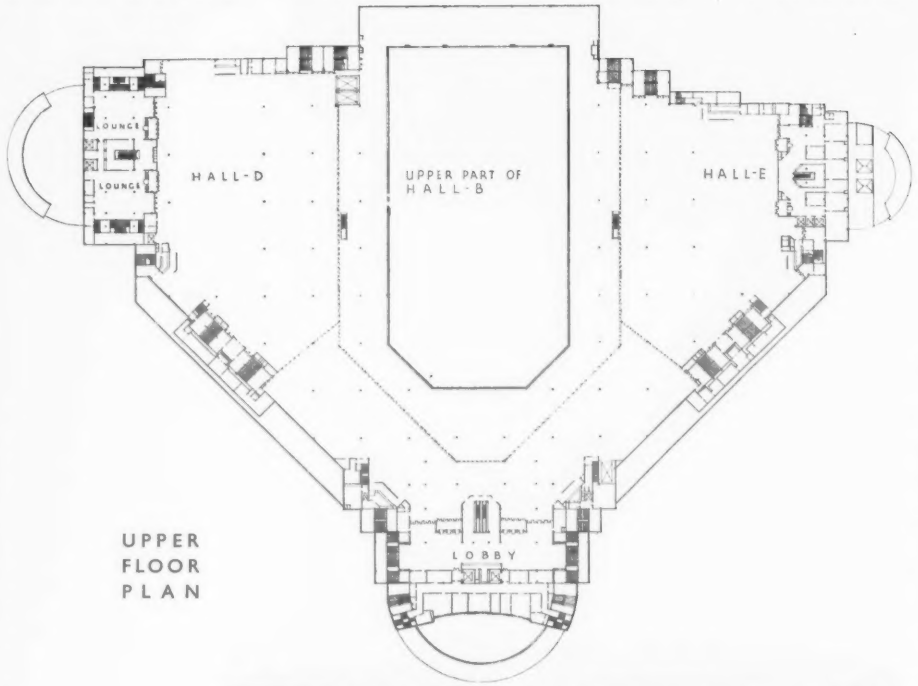
LONGITUDINAL SECTION THROUGH MAIN HALL



SECTION THROUGH THREE HALLS



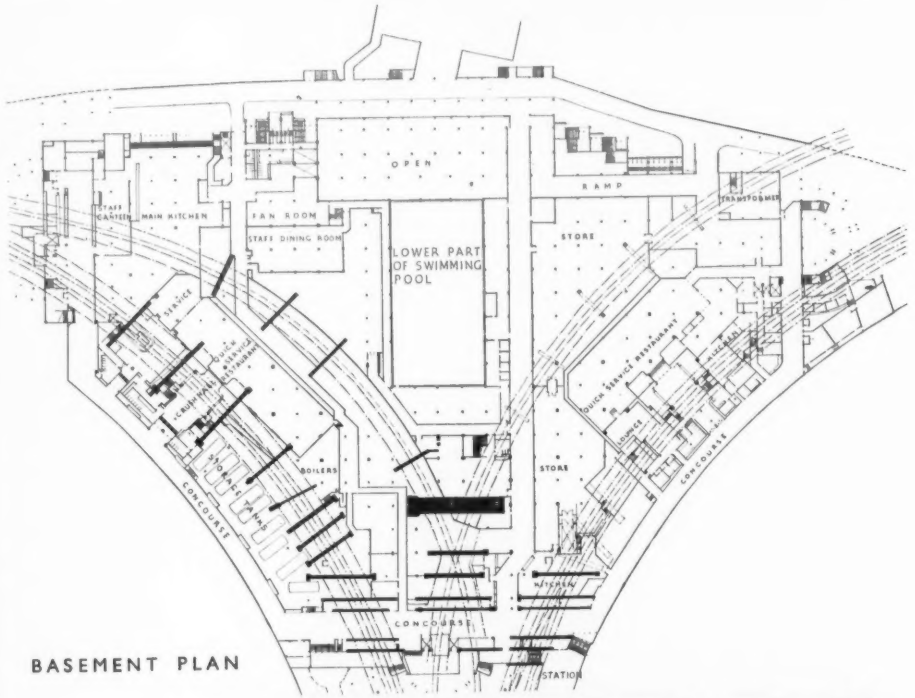
EARL'S COURT EXHIBITION: DESIGNED BY C. HOWARD CRANE



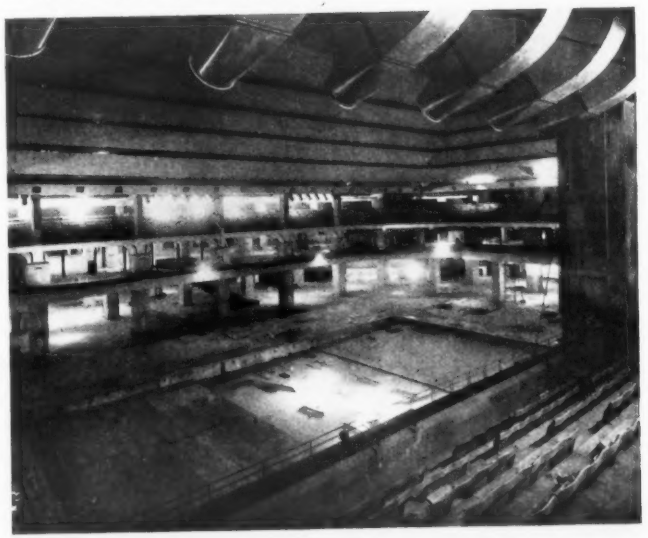
UPPER FLOOR PLAN

Left, a view on the upper floor looking towards the main arena and showing the rolling shutters for closing off the smaller hall. Right, a detail of the gallery seating.

a detail of the gallery seating.

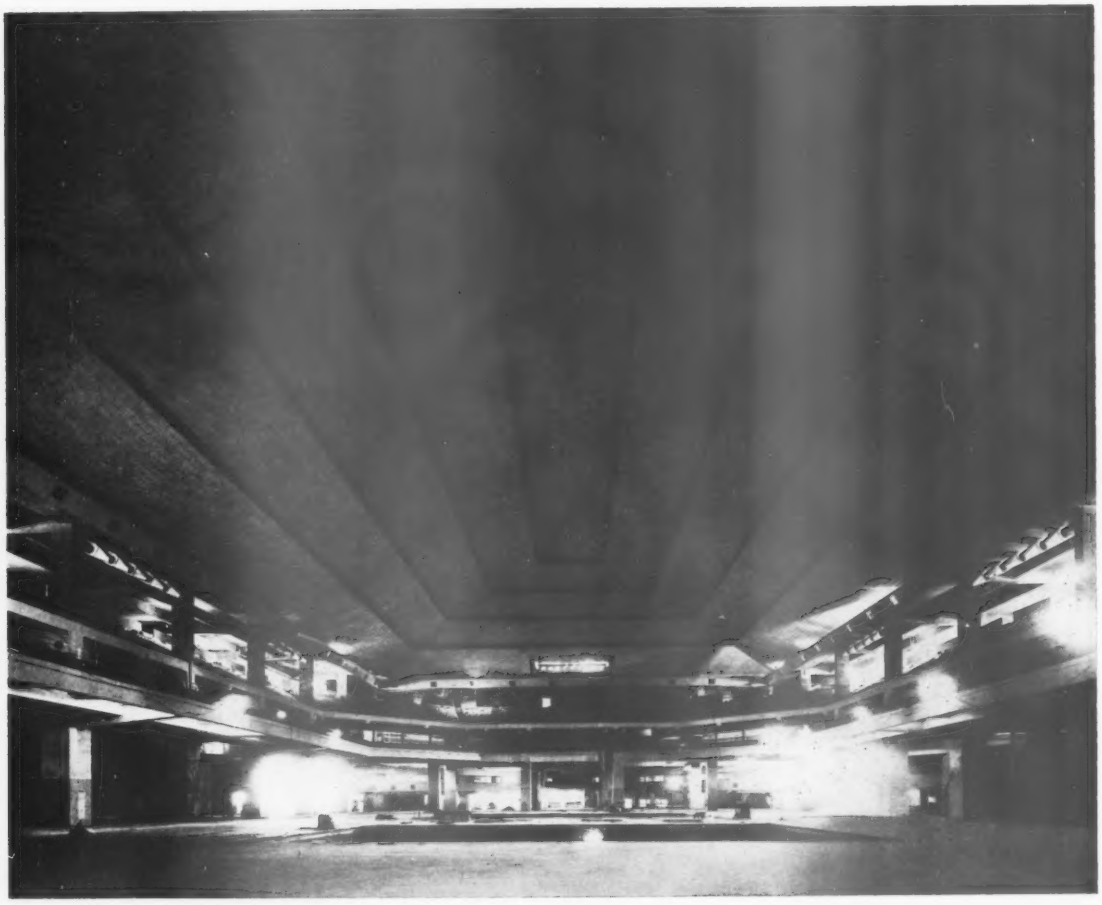


BASEMENT PLAN



Left, a view taken on the upper floor looking across into one of the smaller halls ; above the gallery are the fresh air inlets. Right, a general view of the main arena from the gallery ; the movable swimming bath floor is in the half-raised position.

EARL'S COURT EXHIBITION



DESIGNED BY C. HOWARD CRANE

ROOF AND LIGHTING — *The whole of the exhibition area is artificially lit, since heating costs are saved, first of all by the asbestos cement sheet covering of the roof and, second, by the suspended insulating ceiling. This method does away with the upkeep and cleaning of a large area of glass and exhibitors have the advantage of constant lighting conditions. Lighting is on the three-colour system in each of the four ceiling troughs seen in the photograph above.*

SERVICES—*The building is electrically heated on the thermal storage system : fire protection is by sprinklers and hydrants ; ventilation is by thermostatically controlled fresh air.*

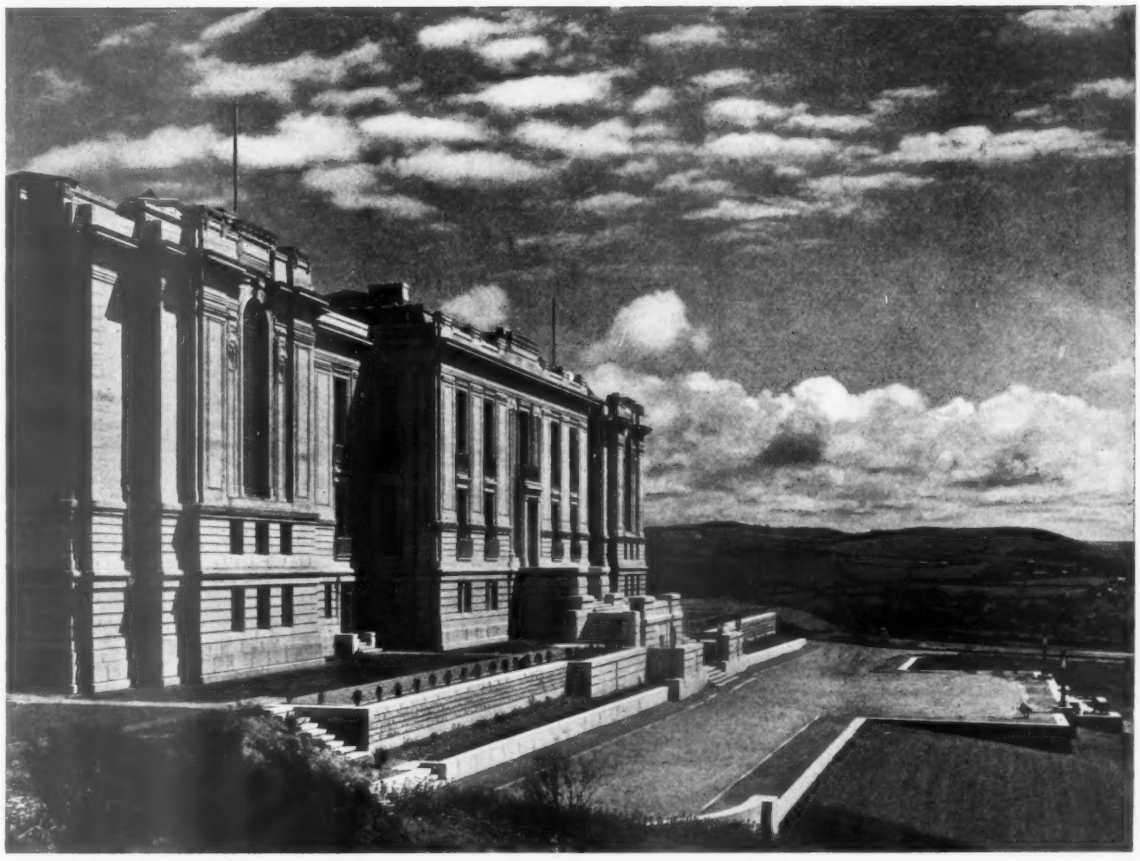
CUBE—*47,000,000 cubic feet.*

COST—*£1,500,000, of which about £900,000 was accounted for by wages.*

The photographs on this page show, top, the insulating ceiling with its lighting troughs : the centre section of the swimming pool is at general floor level, the two end sections dropped. Left, a detail of the turnstiles and payboxes.

For list of general and subcontractors see page 274.

NATIONAL LIBRARY OF WALES, ABERYSTWYTH



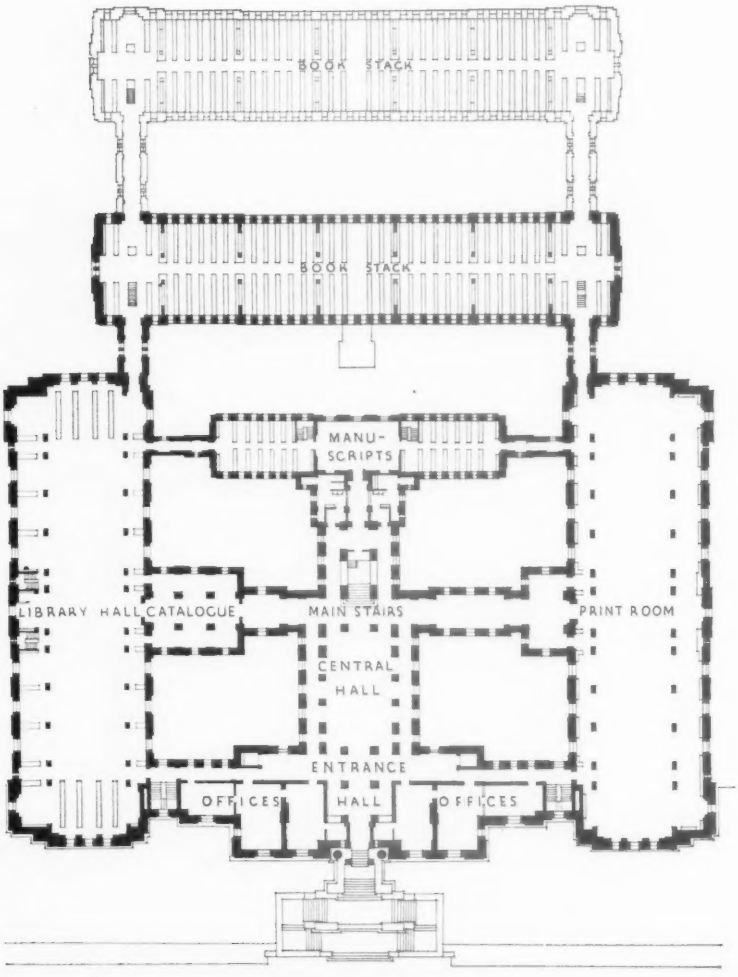
DESIGNED BY SIDNEY K. GREENSLADE AND ADAMS, HOLDEN AND PEARSON, ARCHITECTS

EXTERNAL TREATMENT—*The elevations are faced on the lower part with granite, and on the upper part with Portland stone, except in the courtyards, where the facing is in brown and grey Ruabon bricks with Portland stone dressings. Roofs are lead, with grey slates on the mansards.*

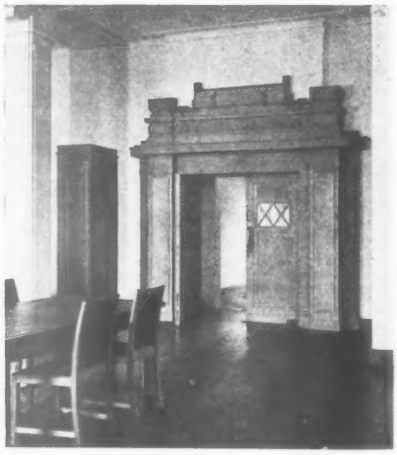
The photographs show : top, a general view of the building and the site, which overlooks Aberystwyth and Cardigan Bay ; above, the main front.

C

NATIONAL LIBRARY OF WALES, ABERYSTWYTH



GROUND FLOOR PLAN



DESIGNED BY SIDNEY K. GREENSLADE AND ADAMS, HOLDEN AND PEARSON, ARCHITECTS

GENERAL — *The National Library of Wales was first begun in 1911 when the foundation-stones on the west end of the library hall were laid by King George V and Queen Mary. A limited competition, of which Sir Reginald Blomfield was the assessor, had been won by Mr. Sidney K. Greenslade in 1909, and the first sections, consisting of the north and south wings and the manuscript block were carried out immediately before the war. Mr. Greenslade's design for the whole building has been generally followed with slight modifications only in the further additions recently carried out by Messrs. Adams, Holden and Pearson, comprising a part of the bookstack at the rear and the administrative block on the main front. To complete the main building there remains to be erected the central hall and additional bookstack accommodation, but the original scheme had also a monumental layout of terraces and subsidiary buildings, which has been as yet only partially realized.*

COST—*Approximately £260,000, including terraces and permanent equipment.*

The photographs show : above, doorway in council chamber ; left, a night view of the main front.

For list of general and sub-contractors see page 274.

LITERATURE

"RIPE FOR DEVELOPMENT"

[*BY DENIS DOBSON*]

Britain and the Beast. By Twenty-six Authors. Edited by Clough Williams-Ellis. Dent. 10s. 6d. net.

IN describing this book as a "reconnaissance," or no more than a preliminary survey, Mr. Williams-Ellis does less than justice to his previous efforts to warn the public of the speed with which the rape of England could be carried out. Since "England and the Octopus" was published eight years ago, bad has become worse at a pace and in a manner which would have been barely credible in an earlier age. So, in one more effort to focus public attention, this book sets out to survey England as it is today and as it will be a few years hence if present activities continue unchecked. It is introduced by words of praise from the Minister of Health and other notabilities, and once more one hopes for action and something more than the decorous sympathy of the undertaker's man.

It is hard to write in moderate terms of the stupidity, the greed and the political ineptitude which, despite the horrid example of nineteenth century industrialism, have in the few brief years since the war given us Peacehaven, the Great West Road and a thousand others. Most lamentable of all is the attitude of a Government which dares claim to be National, yet takes no effective interest in that most national of all problems, the kind of country we are to hand on to our successors. The pretence that other problems are more pressing is false as well as threadbare, and preoccupation with yet another war to end war too recent a pretext for conviction.

There would seem to be two general reasons for the politician's attitude, or lack of one: first, that the state of the countryside is not, like unemployment or the international situation, a "live political issue" (pray heaven this book makes it one), and secondly, that, as Mr. J. M. Keynes points out in his article, the sub-human Treasury attitude has prevailed that "it is positively wicked for the State to spend a halfpenny on non-economic purposes." (If the public *must* have bread, see to it that it has no circuses.) Conservatism, in addition, founds itself on the sacred private right to do public wrong, though the rugged individualism of the traditional doctrine may be regretfully tempered by political necessity. One aspect of the sorry compromise is well summed up by Professor Trevelyan when he says that the State is Socialist enough to destroy by taxation the classes that used to preserve rural amenity, but it is still too Conservative to interfere in the purposes to which land is put by the speculators to whom it is sold. The Restriction of Ribbon Development Act, again, provides one with overwhelming evidence of fatuity translated into statutory terms: enforced recognition of an evil, coupled with determination to have nothing to do with what is considered to be the ballyhoo of planning, leads to the problem being dealt with piecemeal by local authorities, who have neither the ability nor the desire to find the requisite compensation.

Against this background, it is hardly surprising if planning schemes are mildly ineffective, and their influence on the quality of our civilization (if, like Mr. Boumphrey, one may be allowed the euphemism) quite negligible. No doubt, within the framework of the existing system, the Ministry of Health does all that is humanly possible, and it is no criticism of the Department to suggest that planning is not a purely negative, or restrictive, conception. Yet in the official "Notes on Town and Country Planning" one reads that "the preparation of a Scheme does not imply any intention to promote active building development . . . or any anticipation that development will necessarily occur in the near future. Its objects are to control and guide development *when* it occurs. . . . Provision has to be made for the possible migration of population as a result of the development of new industries or of other causes and the fact that land has been zoned residential (*sic*) does nothing to force development or to lead to the provision of unwanted houses. In fact, all the land in a Scheme not zoned for industry or commerce, or reserved for some special purpose, will normally be 'residential,' but some of this 'residential' land may be subject to temporary restrictions against development."

In other words, sit down and wait for the builder, but have some rules ready to make sure that the villas are bijou. It is little wonder that planning is regarded as so unimportant a function that the recent Royal Commission on Tyneside, which envisaged the creation of a large regional authority to include the whole of Northumberland and part of Durham, proposed to allow the municipal boroughs, though stripped of their major functions (such as fire-fighting), to retain this minor power!

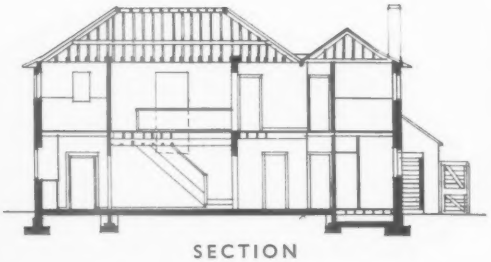
"Town *and Country*." Well, the Ministry admits that in an "extensive rural area," when development can do no more, it *may* be desirable to consider some reservation for agriculture. Who said we were becoming a nation of townsmen? Indignantly is it denied by those who have tasted the joys of twelve to the acre. If, unfortunately, the countryside happens to get lost between the garden cities, that, they tell us, is the price we must pay for progress and the opportunity to escape from the crowded city in which our fathers lived. Even Mr. A. G. Street, with his godlike contempt for the townsman, even he "who consider(s) the barren slope of a down to be more beautiful than any work of man's hands, recognise(s) that the most hideous bungalow set down in the midst of the loveliest of rural landscapes is the sign of a desire for something better than a house in a town street."

One has a horrid suspicion that Mr. Street is not, out of all the contributors to the present volume, alone in his view. The title is "Britain and the Beast," not "The British Countryside and the Beast," yet no one is concerned to defend our civilized towns (there are few of them, it would not have been a long task) from the animal. But perhaps Mr. Boumphrey does so by implication in his admirable article, which I hope Mr. Street has read.

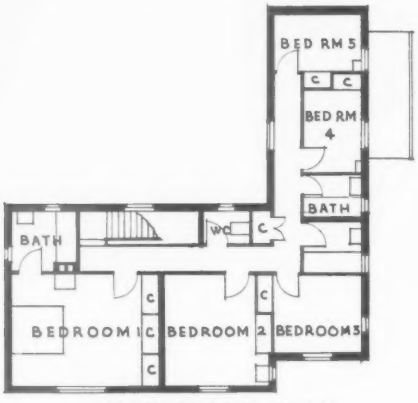
In asking "Shall the Towns kill or save the Country?" Mr. Boumphrey makes it pretty clear what the answer will be if Mr. Street's view continues to be shared by a population which has, as it were, become urban against its will, born into a tradition which had forgotten that "urban" and "urbane" spring from the same root. If we are to save the countryside from conversion into garden and not-so-garden suburb, we can do so in the long run *only* by recreating that pride in the towns which was civilized man's normal attitude until the Industrial Revolution. Obviously, this is not to deny, but to support the claims of those other contributors to this book, such as Mr. Joad and Professor Stapledon, who urge the necessity of free access to the open countryside as a necessary part of intelligent living. One could not, even if one would, revive the eighteenth century's horror of wild nature. But surely it is time we learnt to strike the balance?

That this clearly involves the planned creation of towns which will be communities instead of mere agglomerations of population is well put by Mrs. Tatton Brown, whose "Notes for a Lecture on Territorial Planning Fifty Years Hence" was originally published in THE ARCHITECTS' JOURNAL and is reprinted here. One wishes that the London Transport Board had (or could act upon) her clear recognition of the vitally important part played by it in this affair, instead of plunging across country with new extensions and leaving the local authorities with their planning schemes to follow in the wake.

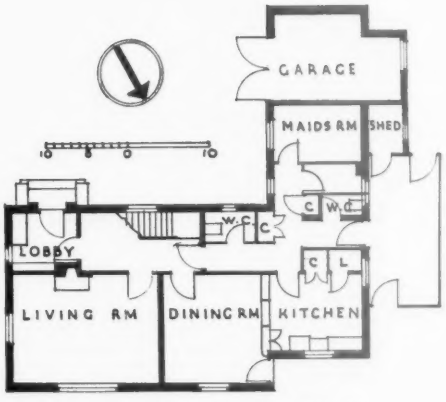
HOUSE AT WEYBRIDGE, SURREY



SECTION



FIRST FLOOR PLAN



GROUND FLOOR PLAN

DESIGNED BY D. H. BEATY-POWNALL

PROBLEM—*The client desired three bathrooms, an automatic heating and hot-water system, and a house requiring the minimum cost of upkeep.*

SITE—*Wooded, and running north and south, and rising sharply at north end. Access to site from north. The house is built at the north end, with a terraced lawn on the south side, and the remainder of the site left as woodland.*

CONSTRUCTION—*11-in. hollow walls, outer skin in stretcher bond with every fourth course alternate headers and stretchers.*

INTERNAL FINISHES—*Flush doors, principally in wax polished Canadian birch, and staircase in birch, polished, with solid flush balustrade. The kitchen and bathrooms are tiled to a height of 4 ft., and all bedrooms have built-in cupboards, and flush birch polished doors. The fitting between the kitchen and the dining-room, with drawers and cupboards opening on to both rooms, is in polished birch.*

SERVICES—*Gas-fired heating and hot water, thermostatically controlled.*

COST—*£2,300, including gravel forecourt and paths, gates, fencing round site, terracing and dwarf wall to garden, etc. Contract price, £2,169, excluding garden work, fencing, etc.*

The photographs show : above, the south front ; left, the north front.

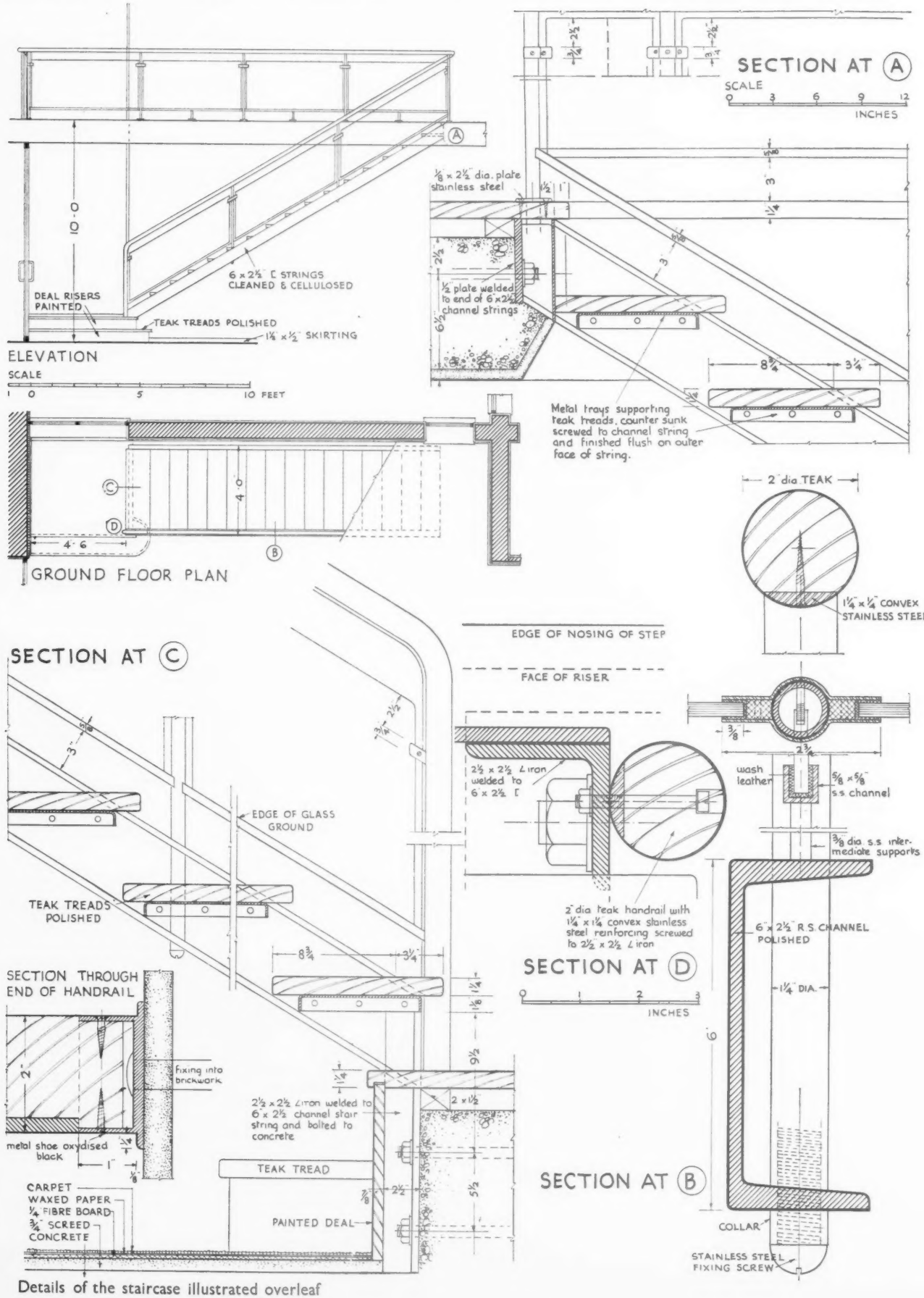
WORKING DETAILS : 581

STAIRCASE • HOUSE IN CHELSEA, S.W. • WALTER GROPIUS AND E. MAXWELL FRY

The staircase consists of a series of polished teak treads, supported on metal trays, screwed to the steel channel strings. The balustrade has a polished teak handrail with glass panels carried in a steel channel between steel supports. Details are shown overleaf.

WORKING DETAILS : 582

STAIRCASE • HOUSE IN CHELSEA, S.W. • WALTER GROPIUS AND E. MAXWELL FRY



Details of the staircase illustrated overleaf

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

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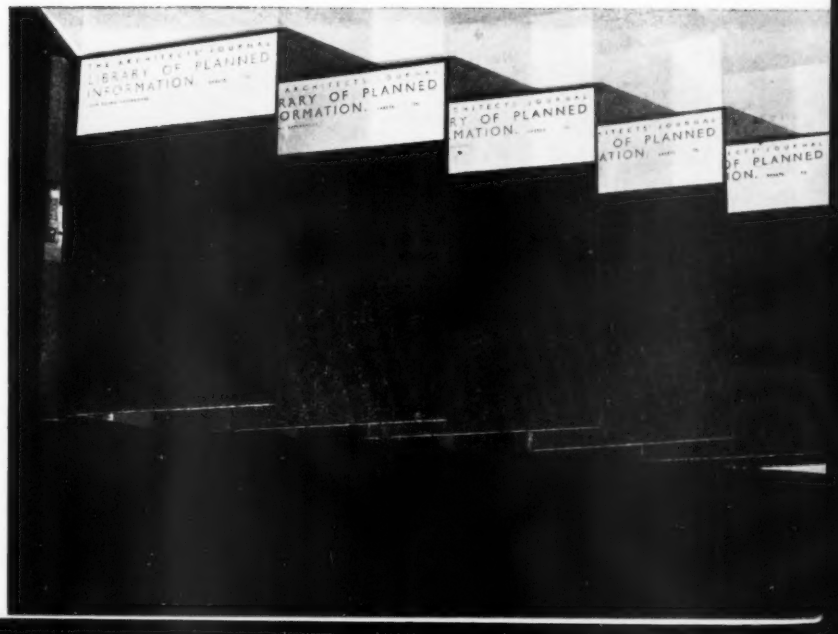
547 U.S.A. Plumbing—III



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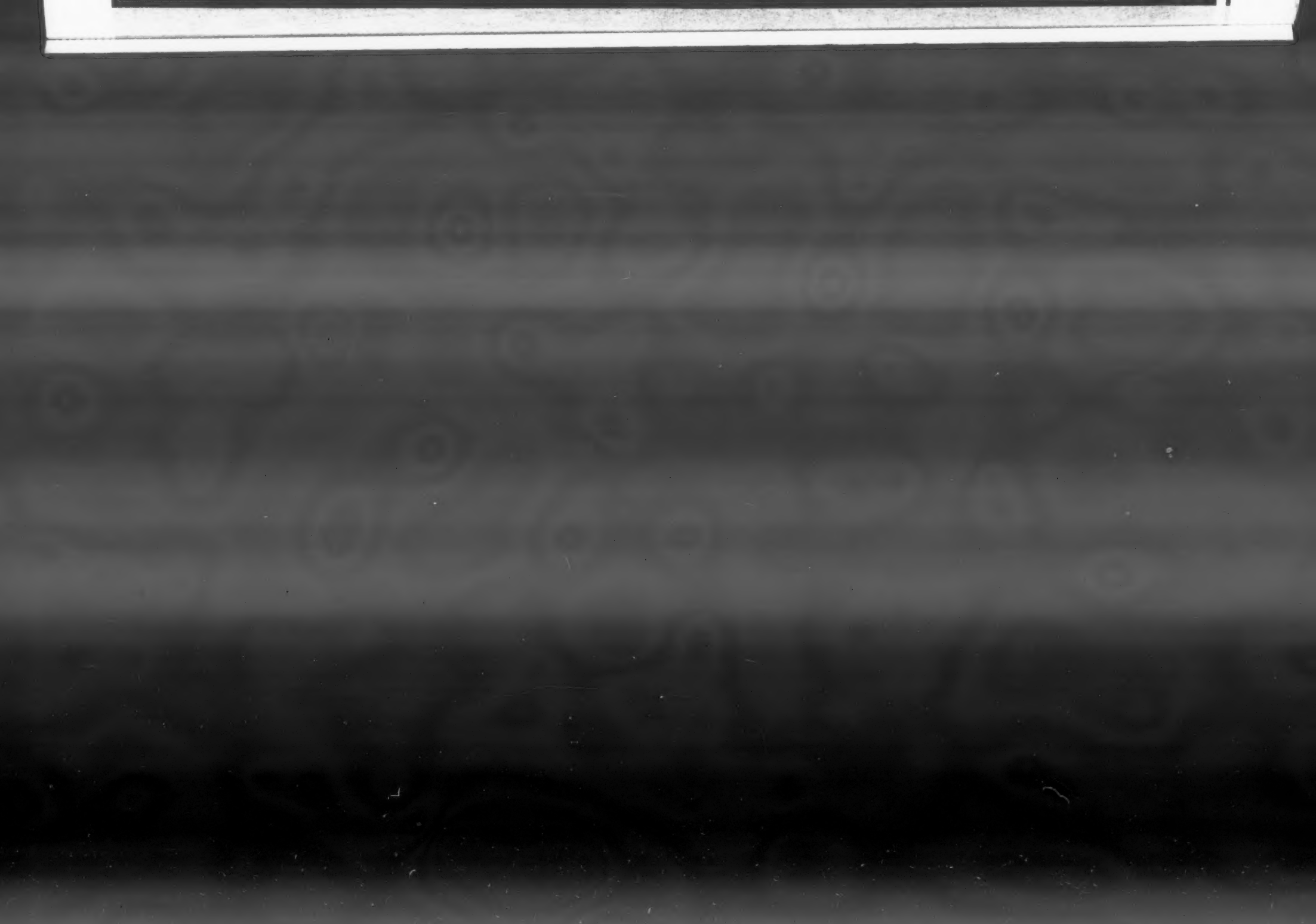
534 : Insulation of Buildings
535 : The Equipment of Buildings
536 : Asbestos-Cement Ventilators
537 : Slate Window Cills, etc.
538 : Petroleum Storage
539 : Linoleum
540 : Plumbing
541 : Linoleum
542 : Garage Equipment
543 : The Equipment of Buildings
544 : Sheet Leadwork
545 : Elementary Schools—III



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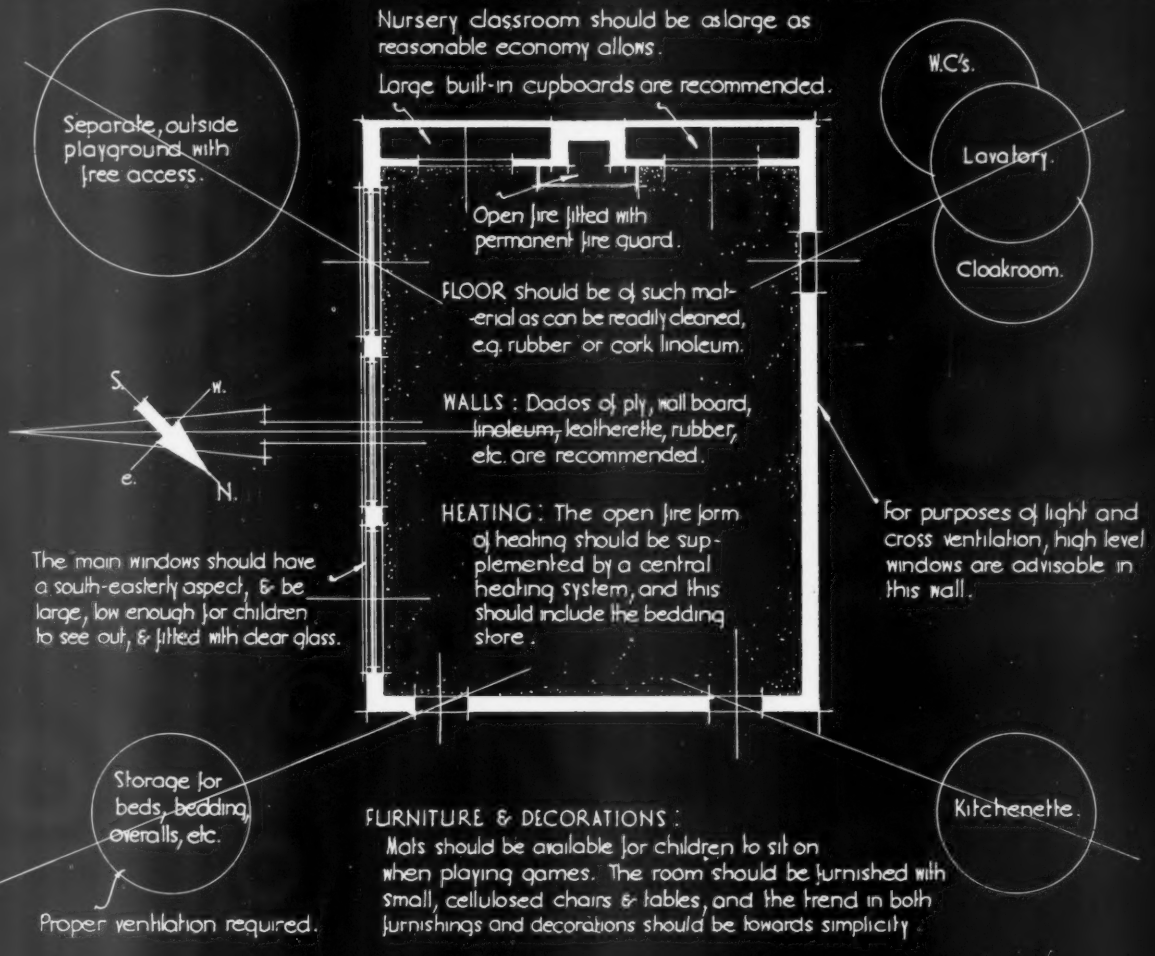
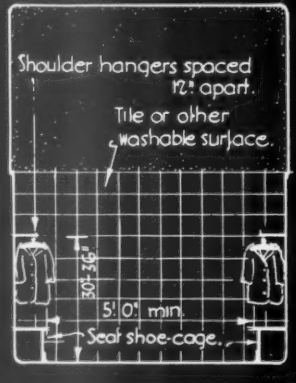
DIAGRAMMATIC SCHEDULE OF INFANTS' SCHOOLS ACCOMMODATION : (A.) THE NURSERY CLASS.

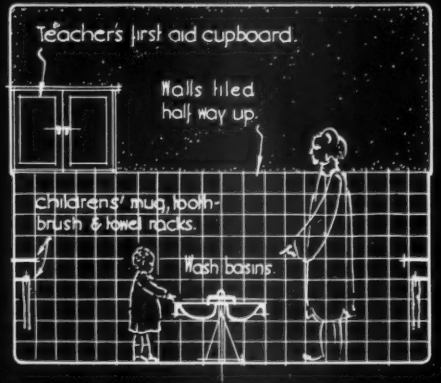


FURNITURE & DECORATIONS : Mats should be available for children to sit on when playing games. The room should be furnished with small, cellulosed chairs & tables, and the trend in both furnishings and decorations should be towards simplicity.

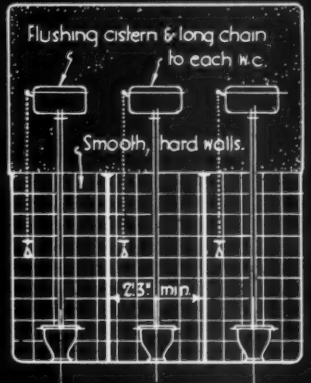
SECTIONAL DIAGRAMS SHOWING RECOMMENDED LAYOUT OF CLOAKROOM, LAVATORY, & W.C's.



Cloakroom should be near entrance & adjacent to Nursery. Floor should be impervious, & room amply lighted, ventilated & heated. Alternative to hangers, wall pegs, or pegs on stand.



Lavatory should be adjacent to Nursery, & have 5 or 6 wash basins of suitable size & height provided with hot & cold running water and controlled mixing valve. Floors should be suitably paved, & a drinking fountain provided.



W.C.s. should be near the Nursery, indoors, & on the scale of one to twelve children. Each should be separate, with low, unfastened door opening in, with handle inside. Doors 3" short at bottom.

Extracts from "Elementary School Buildings" issued by the Board of Education, 1936.

INFORMATION SHEET : ELEMENTARY SCHOOL BUILDINGS : No 4.

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THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 546 •

ELEMENTARY SCHOOLS—IV

Subject : Nursery Class Accommodation

The information on this Sheet is a summary of the recommendations regarding the accommodation of nursery classes for infants' schools, contained in the Board of Education's Pamphlet No. 107, "Suggestions for the Planning of Buildings for Public Elementary Schools," published in 1936, by His Majesty's Stationery Office, and reproduced here by permission of the Controller.

General :

The Board states that the earliest admissions to an elementary school require specially designed accommodation, and a nursery class is the method often adopted as the first introduction of these very young children to an elementary school. Children are usually admitted to a nursery class from the age of three years and upwards. Such a class, although it would be smaller than the usual infants' class, should nevertheless be housed in a large room, for the advantage of space cannot be over-estimated. In addition to adequate space, the essentials of the nursery class, so far as buildings are concerned, are suitable provision of indoor sanitation and lavatory accommodation, so placed that their use can be supervised by the teacher, and free access to an outside playground.

The Nursery :

French windows are acceptable, provided that the fittings are sufficiently secure to eliminate the possibility of draughts. Some part of the space allotted to the teacher's storage cupboards should be low enough to be accessible to the children.

Beds :

The type of bed which has a tubular metal frame will be found most suitable ; in any case the beds should be sufficiently light to ensure easy handling, but strong enough to be safe and durable.

Kitchenette :

A kitchenette, or some simple means of heating water or milk, will be needed. The provision of milk during the morning is particularly valuable. Apart from the nourishment which it affords, the mid-morning lunch offers an excellent opportunity for training in social habits.

Lavatory :

Where a separate lavatory is not practicable, and the nursery is sufficiently large, provision for washing may be made in the room itself by means of portable basins, but this arrangement deprives the children of opportunities of learning to manipulate taps, which is a useful and normal accomplishment. Where portable basins are used, it is an advantage to provide, if possible, one fixed lavatory basin as well. A sink should be provided, and this may take the form of a sink bath, which would undoubtedly be useful.

W.C.s :

It is necessary to see that the flushing chains are long enough for the children to use, and, for purpose of instruction, the flush and refill of the cistern should be as rapid as possible. Where it is impracticable to provide exclusively indoor sanitation, at least one indoor closet should be available for the nursery class.

The closets are best divided by partitions carried up 6 ft. only, while the height of the seats and the size of the openings should always be regulated to suit the ages of the children. Generally speaking, chemical closets are unsuitable for use in schools.

Playground :

A separate playground for the children is highly desirable, not only on the grounds of safety, but as affording the opportunity for constant and ready access to the open air. It is, therefore, suggested that, even if the space available is not very extensive, it is an advantage to reserve it for the use of the nursery class children, and to ensure for them easy access to it at any time of the day. It is more important that the children should have uninterrupted access to the playground than that it should be large. If there is a separate playground it will be possible to give it a special character, and, in the larger playgrounds, to provide certain irregularities of surface, little paths, flowerbeds and grass plots which will serve as a constant source of interest to the children. If there are trees in the playground the nursery class may be regarded as having the best claim to their retention. In suitable areas and under careful supervision there are great educational advantages in a sand pit. This will normally have to be covered and protected when not in use ; where possible, it should be filled with sea-shore sand, which is cleaner and easier to dig than river sand.

Previous Sheets :

The first three Sheets in this series are Nos. 486, 511 and 545.

5.

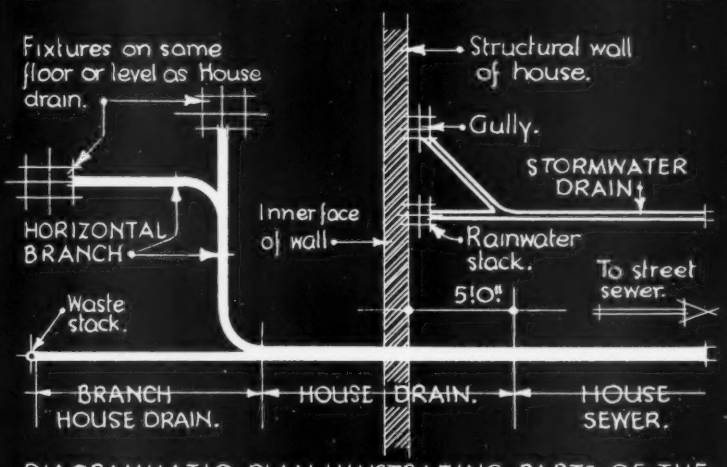
5. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION.

U.S.A. DEPT. OF COMMERCE, RECOMMENDATIONS REGARDING WASTE PIPE SIZES.

HOUSE DRAIN: That part of the lowest horizontal piping which receives the discharge from soil, waste or other drainage pipes inside the walls of any building & conveys it to the house sewer beginning 5'.0" outside the walls.

HOUSE SEWER: That part of the horizontal piping of a house drainage system extending from the house drain 5'.0" outside of the inner face of the building wall to its connection with the main sewer or cesspool, & conveying the drainage of 1 site only.

HORIZONTAL BRANCH: A branch of the house drain or house sewer which receives the discharge from fixtures on the same level as the drain.



DIAGRAMMATIC PLAN ILLUSTRATING PARTS OF THE SYSTEM DESIGNATED HOUSE DRAIN, HOUSE SEWER, ETC.

TABLES FOR CALCULATING PIPE SIZES FOR HOUSE DRAINS & SEWERS, STORMWATER DRAINS ETC.

DIAMETER OF PIPE IN INCHES.	HOUSE DRAINS, HOUSE SEWERS, & BRANCH DRAINS & SEWERS. Maximum no. of Fixture Units.			HORIZONTAL BRANCHES (Sanitary, not Stormwater.) Maximum no. of Fixture Units.			STORMWATER ONLY. Maximum drained area. (In sq. ft.)		
	⅛" fall per foot.	¼" fall per foot.	½" fall per foot.	⅛" fall per foot.	¼" fall per foot.	½" fall per foot.	⅛" fall per foot.	¼" fall per foot.	½" fall per foot.
1 ¼	1	1	1	1	1	1	90	130	185
1 ½	2	2½	3½	2	2	3	140	210	290
2	7	9	12	5	6	8	300	440	620
2 ½	17	21	27	12	15	18	545	790	1,100
3 (No W.C.s)	33	45	72	24	27	36	865	1,250	1,790
3 (Max: of 2 W.C.s)	27	36	48	15	18	21	—	—	—
4	114	150	210	84	96	114	1,860	2,650	3,800
5	270	370	540	180	234	280	3,300	4,700	6,650
6	510	720	1,050	330	440	580	5,250	7,500	10,700
8	1,290	1,860	2,640	870	1,150	1,680	11,000	16,000	22,200
10	2,520	3,600	5,250	1,740	2,500	3,600	19,500	27,500	40,000
12	4,390	6,300	9,300	3,000	4,200	6,500	32,500	45,500	65,500
15	8,300	11,600	16,800	6,000	8,500	13,500	58,000	81,000	115,000

No W.C. shall discharge into a drain less than 3" in diameter, and no main house drain or house sewer receiving discharges from W.C.s shall be less than 4" in diameter.

The table for sanitary drains is based on gravity flow in drains half full, it having been found that full practical capacity is reached at approximately that point on account of air trapped in sanitary house drains.

The table for storm drains only is based on gravity flow in a full pipe, & a max. rate of rainfall of 4" per hour. This table may be modified to suit local conditions by multiplying each given roof area by 4/x. Where x = local rainfall in inches per hour.

For notes and tables relating to the Fixture Unit System and its application see the 2ND sheet of this series.

Extracted from a report made by a sub-committee on Plumbing, U.S.A. Dept of Commerce.

INFORMATION SHEET: EXPERIMENTS ON THE EFFICIENCY OF WASTE PLUMBING: 3

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INFORMATION SHEET
• 547 •
U.S.A. PLUMBING—III

Subject : Plumbing Systems

This series of Sheets is based on extracts from a report, "Recommended Minimum Requirements for Plumbing" issued by the Sub-committee on Plumbing of the United States of America Department of Commerce, which carried out a series of tests on plumbing systems specially erected for experimental purposes.

This Sheet summarizes certain of the conclusions of the committee with regard to house drains, house sewers, horizontal branches, stormwater drains, etc., and tables are given on the other side of this Sheet by means of which suitable pipe sizes can be chosen for these parts of the system.

House Drains, House Sewers, etc. :

In order to make use of the tables, the discharge rate into any house drain, house sewer, branch house drain, or sewer or horizontal branch, should be assessed in terms of Fixture units. (The Fixture Unit system and its application is described in the second Sheet of this series.)

Stormwater Drains :

These are classified in terms of the maximum drained area served by the pipe (in horizontal projection). The table given here is based on a rate of rainfall of 4 ins. an hour, a figure which is considered to represent the average intensity of storm conditions throughout the United States. This table may be modified to suit conditions where the rainfall rate is different by multiplying each given roof area by 4/x, where x equals the local rainfall rate in inches per hour.

Combined Storm and Sanitary Systems :

The tables given on the other side of this Sheet apply only to separate systems, and cannot be used in cases where the storm and sanitary systems are combined.

The following tables, based on a rainfall rate of 4 ins. per hour and pipe falls of $\frac{1}{8}$ in. per foot, $\frac{1}{4}$ in. per foot, and $\frac{1}{2}$ in. per foot, respectively, give in condensed form the figures necessary for calculating the pipe sizes for a combined system. (For more detailed figures the tables given in the Committee's publication should be referred to.)

In order to ascertain the pipe size necessary under any given conditions, the horizontal projection of the drained area (for stormwater) and the number of fixture units to be carried by the sanitary branches of the system should be determined.

In the table appropriate to the pipe fall of the system ($\frac{1}{8}$ in., $\frac{1}{4}$ in. or $\frac{1}{2}$ in. per foot run) the required minimum diameter of the combined drain will be found in the intersection of the line and column corresponding to, or next greater than, the actual drained area and number of fixture units.

(It is suggested that the table can be modified to suit conditions other than those where the stormwater rate is 4 ins. per hour, by multiplying the figures in the column indicating the area of roof to be drained by 4/x, where x is the local rainfall rate, in inches per hour.)

Combined Storm and Sanitary System
1. For falls of $\frac{1}{8}$ in. per foot.

Drained Area in sq. ft.	Minimum diameters (in inches) for various fixture units									
	1–5	6–10	11–17	18–33	34–114	115–270	271–510	511–1,290	1,291–2,520	2,521–4,390
Min.	2	2½	2½	3	4	5	6	8	10	12
Up to 545 ...	3	4	4	4	5	6	8	8	10	12
Up to 865 ...	4	4	4	4	5	6	8	10	10	12
Up to 1,860 ...	5	5	5	5	6	6	8	10	12	12
Up to 3,300 ...	6	6	6	6	6	8	8	10	12	15
Up to 5,250 ...	8	8	8	8	8	8	8	10	12	15
Up to 11,000...	10	10	10	10	10	10	10	12	12	15
Up to 19,500...	12	12	12	12	12	12	12	12	15	15
Up to 32,500...	15	15	15	15	15	15	15	15	15	15

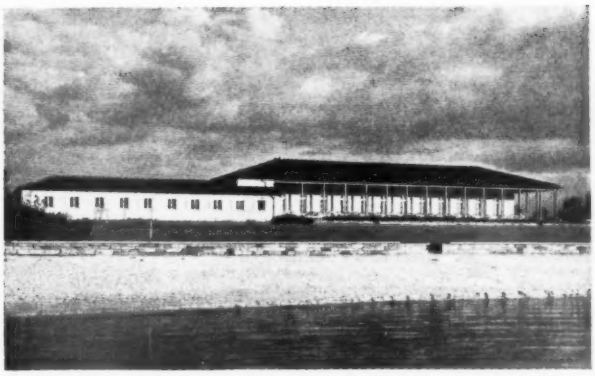
Combined Storm and Sanitary System
2. For falls of $\frac{1}{4}$ in. per foot

Drained Area in sq. ft.	Minimum diameters (in inches) for various fixture units									
	1–5	6–11	12–24	25–60	61–180	181–430	431–840	841–2,160	2,161–3,990	3,991–6,300
Min.	2	2½	3	4	5	6	8	10	12	12
Up to 790 ...	3	4	4	4	5	6	8	10	12	12
Up to 1,250 ...	4	4	4	5	5	6	8	10	12	12
Up to 2,650 ...	5	5	5	5	6	6	8	10	12	12
Up to 4,700 ...	6	6	6	6	6	8	8	10	12	15
Up to 7,500 ...	8	8	8	8	8	8	8	10	12	15
Up to 16,000...	10	10	10	10	10	10	10	12	12	15
Up to 27,500...	12	12	12	12	12	12	12	12	15	15
Up to 45,500...	15	15	15	15	15	15	15	15	15	15

Combined Storm and Sanitary System
3. For falls of $\frac{1}{2}$ in. per foot

Drained Area in sq. ft.	Minimum diameters (in inches) for various fixture units									
	Up to 5	6–12	13–27	28–72	73–210	211–540	541–1,050	1,051–2,640	2,641–5,250	5,251–9,300
Min.	2	2	2½	3	4	5	6	8	10	12
Up to 1,100 ...	3	4	4	4	5	6	8	8	10	12
Up to 1,750 ...	4	4	4	4	5	6	8	10	10	12
Up to 3,800 ...	5	5	5	5	6	6	8	10	12	12
Up to 6,650 ...	6	6	6	6	6	8	8	10	12	15
Up to 10,700...	8	8	8	8	8	8	8	10	12	15
Up to 22,200...	10	10	10	10	10	10	10	12	12	15
Up to 40,000...	12	12	12	12	12	12	12	12	15	15
Up to 65,500...	15	15	15	15	15	15	15	15	15	15

Previous sheets : The first two Sheets in this series are Nos. 484 and 518.



Left: the interior of a wholesale showroom for the Susquehanna Silk Mills, a re-modelling scheme by Joseph Aronson and Helen Plimpton. [From the "Architectural Forum."] Above: the Aero Club of Germany; a view of the club-house building by Ernst Sagebiel. [From "Baukunst und Städtebau."]

PERIODICALS

JUNE ANTHOLOGY

AMERICA

Architectural Forum

(Monthly, $1. 135 East 42nd Street, New York)

JUNE. Re-settlement administration—the planning and construction of houses in rural and semi-rural areas—organized by the U.S. Department of Agriculture; the re-modelling section deals this month with wholesale showrooms, which seem to get far more money spent on them than in this country (*see* illustration); a race club in California, by Gordon B. Kaufmann, grandstand fairly good, club-house much less so; a Chicago hotel re-modelling, by Holabird and Root, a good-looking job, though the waiters walk a maximum distance to the kitchen.

Architectural Record

(Monthly, 50 cents. 115 West 40th Street, New York)

June. A method of procedure in Architectural Design—an article by Paul Nelson, illustrated with his Suez Canal Hospital scheme; an open-air theatre in Havana, by Eugenio Batista and Aquiles Maza—a pleasant, simple job, though one may doubt the acoustics; St. Johanneskirche at Basle, by Egruder and Burckhardt; a large warehouse for a Washington department store, built largely of glass bricks; Community Recreation—a 39-page supplement with plenty of data on existing jobs from bandstands and small cabins to Mr. Emberton's club-house at Burnham-on-Crouch.

Pencil Points

(Monthly, 50 cents. 330 West 42nd Street, New York)

June. A well illustrated article on the work of H. Ross Wiggs—a capable architect and a magnificent draughtsman; results of a medium-sized (44,000 cu. ft.) house competition—ten designs are reproduced from forty-three entries, very gentlemanly, with not a flat roof to be seen; 14 pages on San Francisco's 1939 Pageant of the Pacific Exhibition.

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FRANCE

L'Architecture

(Monthly, 8 fr. 51 Rue des Ecoles, Paris 5e)

June. Architecture and interior decoration at the 1937 Salon; town-planning and street-widening schemes at Lyons.

La Technique des Travaux

(Monthly, 10 fr. 54 Rue de Clichy, Paris 9e)

June. A municipal swimming bath at Pantin (Seine), simple and competent; an office block in Copenhagen, by A. Cock-Clausen; a cottage hospital in Morocco, by Roussin and Marmey; recent harbour works at Marseilles; notes on T-beam calculations by M. Adler.

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GERMANY

Baukunst und Städtebau

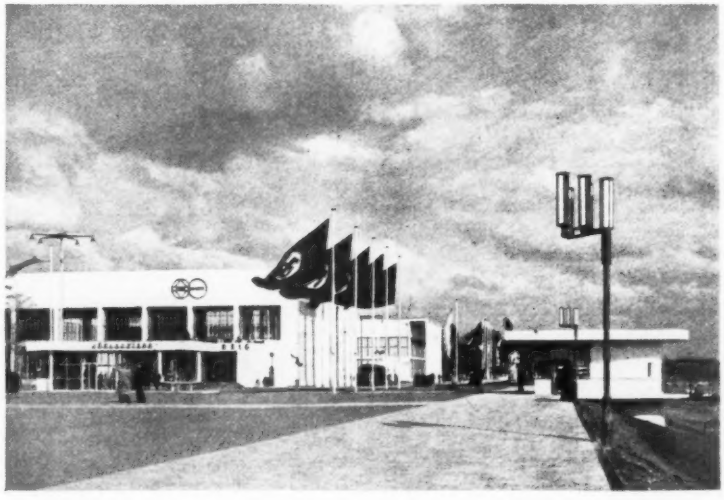
(Monthly, 1 m. 90. Bauwelt Verlag, Berlin, S.W.68)

June. The Aero Club of Germany, a large scheme, by Ernst Sagebiel, involving an aerodrome with hangars and subsidiary buildings and a large club-house with bars, restaurants and a certain amount of sleeping accommodation (*see* illustration). The Next Four Years exhibition in Berlin and the Düsseldorf "Creative People" exhibition—the illustration (below) shows how much regard is paid to the Führer's remarks on art; country houses near Berlin, by Wilhelm Doll.

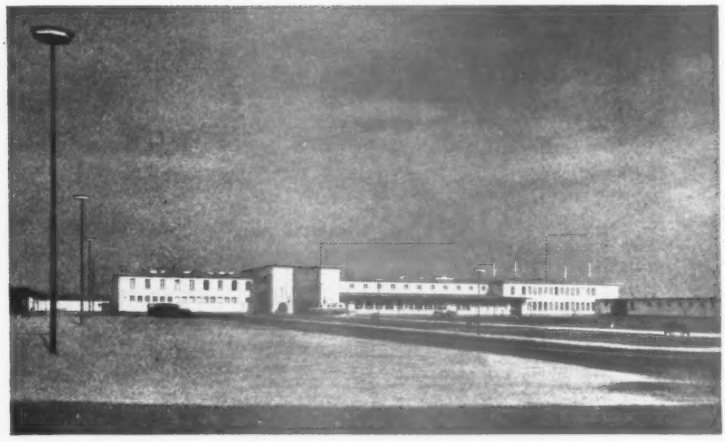
Baumeister

(Monthly, 3 m. Georg Callwey, Munich)

June. New work by Hanns Ostler at Garmish Partenkirchen—a fire station, sundry hostels, a private house and hotel



The "Creative People" Exhibition at Düsseldorf. Architect, Emil Fahrenkamp. [From "Baukunst und Städtebau."]



The new Cologne airport by Professor Mehrtens. [From "Moderne Bauformen."]

bars, all of traditional construction sympathetically handled; some recent and very good dinner services by the Staatliche Porzellanmanufaktur, the best by Trude Petri; good working details of Ostler's traditional stone and timber construction.

Bauwelt

(Weekly, 90 pf. Ullstein Verlag, Berlin, S.W.68)

June 3. New materials at the Düsseldorf Exhibition, with notes on the exhibition itself; photographs and plans of the Wilhelm Gustloff working-class housing estate.

June 10. The first three designs in the Oldenburg Town Hall competition, won by Wilhelm Fricke; a school at Ober-Weistritz, by Ernst Pietrusky, and another at Schön-Ellguth.

June 17. More schemes in the Oldenburg competition, including one by Fritz Höger, a pair of semi-detached houses, by Werner Harting, one of which is a small studio with living quarters for the architect himself.

June 24. Swimming pools in the country, constructional notes on two jobs; two new airport schemes at Stuttgart and Munich, both by Ernst Sagebiel.

Deutsche Bauzeitung

(Weekly, 3 m. 40 per month. Beuthstrasse 6-8, Berlin, S.W.19)

June 2. The Oldenburg Town Hall competition, an 8-page review of the designs submitted.

June 9. A housing scheme in Hannover, by Professor Elkart—layout only, no plan: a competition scheme for the Eutin Hospital, by Meffert and Weber.

June 16. The winning design in the competition for the layout of a working-class housing estate in Brandenburg; a history of Heidelberg Castle gardens, with reproductions of three magnificent drawings.

June 23. A flat block in Berlin-Halensee, by Abicht and Ruppert—photographs, plans and layouts; additions to the Avus motor track.

June 30. An 8-page review of further schemes submitted in the Brandenburg competition (*see* June 16 above).

Innen-Dekoration

(Monthly, 2 m. 50. Alexander Koch, Neckarstrasse 121, Stuttgart)

June. Two houses in the Grünewald, by Fritz Breuhaus—plenty of photographs, but only one plan; Gio Ponti's own house in Milan—no plans at all.

Moderne Bauformen

(Monthly, 3 m. Julius Hoffmann, Paulinenstrasse 44, Stuttgart)

June. Flat building in Copenhagen from 1914 to 1936, a well illustrated 22-page article, by Kay Fiske; the new Cologne airport buildings, by Professor Mehrtens, a magnificent scheme only ten minutes from the centre of the town—plans and good photographs, but no general layout; shops in Vienna and two houses near Berlin, by Rambald von Steinbüchel.

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HOLLAND

Bouwkundig Weekblad Architectura

(Weekly, 15 florins per annum. Weteringshaus 102, Amsterdam)

June 5. Insulation and its effect on internal temperatures, an article by B. J. Max.

June 12. A high school at Rotterdam, by A. van de Steur, photographs and plans; book reviews.

June 19. The Dutch pavilion at the Paris Exhibition.

de 8 en opbouw

(Fortnightly, 30 cents. Amstil 22, Amsterdam, C.)

June 5. Theatre sets and costumes.

June 19. Exhibitions, an introductory article by Siegfried Giedion, leading up to a few notes on the current Paris show.

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ITALY

Architettura

(Monthly, 18 lire. Via Palermo 10, Milan 1)

May. Sixteen pages of photographs of the Italian pavilion in Paris; a good new railway station at Viareggio, by Roberto Narducci; a town-planning competition for Belluno.

SWEDEN

Byggmästaren

(Weekly, 20 kr. per annum. Kungsgatan 32, Stockholm)

No. 16. The Bellevue plage near Copenhagen, an illustrated article by Arne Jakobsen.

No. 17. Current regional planning in England—an article by C. F. Ahlberg.

No. 18. The cement industry in Sweden—an article by Ernst Wehtje; a continuation of Mr. Ahlberg's article.

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SWITZERLAND

Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 5, Zürich)

June 5. Schemes by Hans Hofmann for the Zürich exhibition of 1939.

June 12. Results of a competition for additions to the cantonal hospital at St. Galle, won by Fritz Engler.

June 19. Further schemes for the hospital competition referred to above.

June 26. Constructional details of the Basle Art Museum.

Werk

(Monthly, 3 m. 50. Muhlebachstrasse 59, Zürich)

June. Country houses near Geneva—Geneva's parks—town planning in Geneva—a series of articles dealing with "Suisse romande."

LAW REPORT

HOUSING ACTS, 1925–30.—APPEAL AGAINST CLEARANCE ORDER

In re Hammersmith (Bergham Mews) Clearance Order.—Appeals of Wilmot and Perryman.—King's Bench Division. Before Mr. Justice Swift.

THESE were two appeals by Mr. Thomas David Wilmot and Mr. Charles Perryman against the confirmation by the Minister of Health of a clearance order, known as the Hammersmith (Bergham Mews) Clearance Order, 1936, by the Hammersmith Borough Council on May 27, 1936, after the holding of a public inquiry in respect of Nos. 1 to 9 (consecutively) of Bergham Mews, West Kensington, and Nos. 11 to 19 (consecutively) of the Mews owned by Mr. Perryman. The appellants asked that the clearance order as confirmed by the Minister might be quashed or varied so far as their properties were concerned, or that the same might be suspended generally, or in such manner and to such extent as the Court might direct.

The grounds of the appeal were: (1) that the order in question was not within the powers of the Housing Act, 1930; (2) that the interest of the appellants had been substantially prejudiced by the requirements of the Act not being complied with; (3) that the Council were wrong in law in making the order for the demolition of the whole of the premises consisting of garages or stables with dwelling rooms over, the said dwellings not being let, occupied or used in connection with the garages or stables, and not being in connection therewith; (4) that the garages or stables were not nor are dwelling houses, nor part, or parts as such; (5) that the Council should have made a closing order of the dwellings only, instead of a clearance order; and (6) that the Council should

have accepted the undertaking of the appellants to remove the said dwellings and cover the garages or stables with flat roofs and so remove objection or obstruction (if any) of access of air to dwellings at the rear.

Mr. Henn Collins, K.C., and Mr. Heathcote Williams appeared for the appellants, and Mr. Valentine Holmes represented the Minister of Health.

Mr. Henn Collins said that the garages in question were formerly stables, and there was no direct access from the garages to the dwelling houses. There was a side door leading to the premises. The appellants' contention was that they were aggrieved persons within the meaning of section 11, sub-section 3, of the Housing Act, 1930, by the clearance order, as they had offered to take down the dwelling houses and cover the garages with flat roofs, but the Council, having received a report from their surveyor, proceeded to make the order, excluding from the order such buildings in the area as were not unfit for habitation.

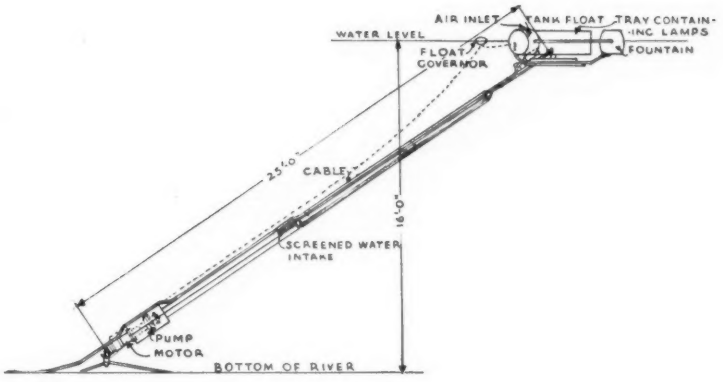
Proceeding, counsel said that having got rid of the inhabitants, there could be no question that what remained was of no danger to the inhabitants. Some of the premises were used as workshops, and these, as well as the garages, were separate from the dwelling houses. The occupation of the dwellings was altogether separate from the ground floors. When the stables were built, they were built as separate from the dwelling houses. The living accommodation over the garages and workshops was an entity separate from the garages or workshops.

His lordship: No doubt, but in the same building. If you had pulled down the dwelling houses before the order was made there might have been nothing for the Borough Council to go on with.

Mr. Henn Collins said the Council had not decided that the buildings, otherwise than the dwelling houses, in this area were unfit for habitation and once the dwelling-houses were gone there was nothing to show that the rest of the buildings were unfit for habitation.

Mr. Valentine Holmes supported the order of the Minister.

His lordship, in giving judgment dismissing both appeals, said the Minister's order was made after the public inquiry was held, the Minister having acted on the report of the Inspector. Mr. Henn Collins argued that although the Minister had the right to demolish the dwelling houses, he ought not in the circumstances to have ordered the demolishing of the workshops or the garages, because they did not come within the Act of 1930. His lordship was not able to agree with that contention. These properties were all one building, the dwelling houses above being all part of the same building, and when the local authority had come to the conclusion that they were insanitary, they had the right to have a clearance order. In his opinion, they were all part of one building, and the Council were perfectly right in saying that the building, as a whole, must go. The Council had properly complied with the obligations imposed upon them by the statutes. The structures were all one building, and it was impossible to say that they must be bisected horizontally as had been suggested. In his opinion, the Council were well within their powers in doing what they had done, and both appeals would be dismissed with costs.



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

A Revised Steelwork Specification

ABOUT five years ago the British Standards Institution issued a specification on the use of structural steel in building, and after a period of two years or so a questionnaire was widely circulated to users, after which the specification was revised and re-issued in December, 1935. It is somewhat unfortunate, therefore, that a further revision* should have been necessary after so short a period, but there is some justification for so doing as, if these specifications are to fulfil their primary object of co-ordinating building practice throughout the country, it is essential that the wording of them shall be modified if direct reference is to be made to them in the various new building byelaws that are now being prepared.

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When the specification was reviewed by the legal authorities it was found that sundry dates of other specifications and cross-references to appendices had been omitted. These have now been filled in and the opportunity has been taken to make a few alterations in some of the clauses where there might have been a certain amount of ambiguity. The principal modifications, apart from these editorial amendments, are as follows:—

The definitions have been re-cast and, where possible, co-ordinated with corresponding statutory definitions.

The concentrated loading clause, as drafted, was open to the interpretation that the calculation for a concentrated load was an alternative method of calculating the superimposed load; this clause has therefore been incorporated in the major clause on loading and reworded so as to remove any doubt about its meaning.

The filler floor beam clause has been amplified to include an alternative method of calculation.

References to the appropriate B.S. specification for welding have been included where necessary, and, since the Ministry of Health's new Model Byelaws make specific reference to this new specification, it looks as though most steelwork draughtsmen will need a copy.

* *The Use of Structural Steel in Building.* B.S.S. No. 449-1937. The British Standards Institution, 28 Victoria Street, S.W.1. Price 2s. 2d. post free.

Fountains in the Seine

While a few of our more distinguished publicists are busy deciding whether Mr. Oliver Hill's pavilion is or is not a fitting presentation of their particular version of the British Empire, it is still possible that one or two miserably practical people might like to know how the fountains in the Seine work. While the general credit for these "luminous festivals" should, I believe, go to MM. Beaudouin and Lods, some very ingenious submersible fountains have been designed by M. Noel of the Jeumont company. The drawing at the head of this page shows the general arrangement of these fountains, which are anchored to the bed of the river, but are free to swing on a 25-ft. pipe so that they always float on the surface of the river. Simple enough so far, but their real ingenuity consists of the methods used to allow them to sink to the bottom of the river during the day. The three floats are, in effect, water ballast tanks which are controlled by the fountain supply delivered by the pump and electric motor at the bottom of the pipe. When the motor stops the tanks fill with water and the fountain sinks, but as soon as the motor is started the water on its way to the fountain jets also acts as an ejector and empties the ballast tanks so that the fountain rises to the surface. Simple enough, with nothing very much to go wrong, though the screen for the water intake might, I think, be placed nearer the surface of the water so that it could be cleaned without lifting the fountain bodily.

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The lamps for illuminating the fountains in colour have been specially produced by the Mazda people for use with waterproof fittings; the back of the glass bulb is silvered internally so as to act as a reflector, and the colour filters are clipped over the fronts. The total load of these fountains, by the way, is about 4,000 kilowatts.

Service from Manufacturers

Glancing through the advertisements of the American architectural papers can be

an amusing enough way of spending ten minutes or so, but a recent effort seems too good to go unchronicled. Headed "Jim Harper Makes Talk Pay," it is the story of an unfortunate roofing merchant inveigled by his son and a roofing salesman (Jim Harper) into promising to address a local business club on the subject of roofing, but with a week to go he gets cold feet about it all, so the son has to get hold of Jim Harper who is "swinging around through his territory" miles away. But Jim Harper "was used to all sorts of appeals from his customers, and this one didn't stump him," so he got on the long-distance to his firm and "two days later the speech reached Mr. Ruffer, all ready to be delivered, complete even down to the funny stories. And with it, in the same envelope, a newspaper story about the speech and about Mr. Ruffer, all written and ready to be turned over to the local newspaper." And Service, you see, brings its own reward, for two days later there's a wire from young Master Ruffer. "NEVER KNEW THE ROOFING BUSINESS HAD SO MUCH ROMANCE STOP TALK WENT OVER WITH A BANG STOP FATHER DID YOUR SPEECH PROUD STOP AFTER THE MEETING FOUR MEN CAME UP AND ASKED FATHER TO COME OVER AND LOOK AT THEIR FACTORY ROOFS STOP NEWSPAPER CARRIED HALF A COLUMN AND A PICTURE OF FATHER STOP LOOKS AS THOUGH WE SHALL GET BUSINESS FROM IT FAST THANKS TO YOU.

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Have our unenterprising English firms been wasting their time all these years? Several publicity organizations, I know, arrange lectures on their own materials, and very excellent they often are, with just enough reference to rival materials to leave the impression that the whole thing is quite, *quite* impartial, but this is amateurish beside Mr. Harper and the Koppers Roofing Company. How long will it be before someone starts a bureau for supplying lectures on any type of commercial building (speech, funny stories, write-up and all) for architects to read to the local Rotarians?

Safer Handlamps

The maximum safe voltage for alternating current is something quite low—25 volts being the Home Office recommendation for such things as portable lamps and drills, and, ideally, a voltage about as low as this would be best for private houses all over the country, for most users are criminally careless, and many cut-price shops sell fittings which cannot possibly be looked upon as safe unless they are handled by people who know what they are doing. But cable sizes to carry the heavy currents involved and the cost of the necessary transformer gear make such a state of affairs quite impossible. The tendency is, in fact, to go the other way, for the supply companies tend to use balanced circuits if there is much cooking and heating so that with only a little carelessness you can easily get 440 volts across phases, but against this at least one big bank steps the voltage down to 25 for all portable lamps and even for fixed lamps over typists' and cashiers' desks.

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All of which is rather beside the point, which is that the B.T.-H. people have recently introduced a transformer which steps the a.c. mains voltage down to 12. It measures about 6 ins. by 6 ins. on plan and is about 8½ ins. high. Mounted on the wall it takes up very little space, and the price is 45s. Not that I expect a great many people to buy it, for they will almost certainly prefer to go on in the same old way, but for garages or anywhere else where people are always using hand inspection lamps (generally not earthed) it seems to be a very useful fitting. (*British Thomson-Houston Co., Ltd., Rugby.*)

THE BUILDINGS ILLUSTRATED

EARL'S COURT EXHIBITION BUILDING (pages 253–258). Architect: Howard Crane. The general contractors were Hageman-Harris Co., Inc., and the principal sub-contractors and suppliers included: Baffrey-Hannebique Construction Co., foundations and concrete superstructure; Robert Bowran & Co., painting; Braithwaite & Co., constructional steel; British Magnesite Flooring Co., Ltd., and A. D. Wire & Co., magnesite flooring; D. Burkle & Son, joinery work; Carbo Plaster, Ltd., plastering; Carter & Co., tilework; Christiani and Nielson, concrete work (Empress Hall); Clark, Hunt & Co., miscellaneous ironwork and oil heaters; T. Clarke & Co., electrical installations (Empress Hall); George Cohen, Sons & Co., demolition; Constructors, Ltd., and Flexo Plywood Industries, toilet partitions; R. C. Cutting & Co., lightning conductors; Dawnays, Ltd., structural steel (Empress Hall); Dennison, Kett & Co., Ltd., rolling shutters; Dent and Hellyer, Ltd., plumbing; Electrical Installations, Ltd., electrical installations; Excel Asphalte Co., asphalt roofing; Haywards, Ltd., Garton and Thorne, Ltd., S. W. Farmer and Son, Estler Bros., and T. W. Palmer & Co., miscellaneous ironwork; F. R. Freeman, Ltd., concrete and brickwork (car park); Gas Light and Coke Co., Ltd., gas installation; J. Gerrard and Sons, foundations and concrete superstructure (brickwork); A. Goldstein & Co., glass and glazing; Gray's Ferro-Concrete Co., and Willment Bros., foundations and concrete superstructure; Matthew Hall & Co., temporary plumbing; Haslam Foundry and Engineering Co., skating rink refrigerating plant (Empress Hall); The Incinerator Co., incinerators; Jeffreys & Co., heating and ventilation (Empress Hall); Key-Zed, Ltd., painting; Kendell's Paving Co., granolithic paving; London Hydraulic Power Co., hydraulic piping for swimming pool platform; Mather and Platt, Ltd., sprinklers and rolling shutters; Metarock, Ltd., car park cement paving; J. Mowlem & Co., general builders' work (Empress Hall); Norris Warming Co., heating and ventilation; Paterson Engineering Co., purification plant; Ragusa Asphalte Paving Co., asphalting of swimming pool; Wm. F. Rees, Ltd., roadways (tarmac paving); Rigg and Remington, Ltd., electrical sub-station (Empress Hall); Rom River Co., metal furring and lathing; Sharp Bros. and Knight, joinery work; Stitson White & Co., plumbing (Empress Hall); W. W. Turner & Co., seating; Turner's Asbestos Cement Co., asbestos cement roofing; W. S. Tyler & Co., turnstiles; Waddington and Son, brickwork; Waygood-Otis, Ltd., lifts (Empress Hall); Williams and Williams, Ltd., metal windows; Benham and Sons, Ltd., kitchen plant and equipment; Art Metal Construction Co., metal cupboards and shelving; Hickman (1928), Ltd., builders' work; Kelvinator, Ltd., refrigerators; National Gas Water Heater Co., Ltd., gas water heaters; Peerless Electrical Manufacturing Co., labour-saving machines; Pressed Steel Co., Ltd., wind cooling cabinets; Thomas Collins & Co., Ltd., bakery equipment; Jackson Boilers, Ltd., tea and coffee apparatus; Brighton and Preston Relay Station, Ltd., public address equipment; J. B. Brooks & Co., swimming pool lockers for main building; Evenlite Tube Lamp Development, Ltd., Evenlite fittings in entrance halls; Frederick Sage & Co., Ltd., bar fittings; Fulham Borough Council, electrical and heating plant; Bastian and Allen, Ltd., in co-operation with Sulzer Bros. (London), Ltd., thermal electric storage central heating installation; Crompton Parkinson, Ltd., and General Electric Co., Ltd., electrical equipment; Express Lift Co., Ltd., lifts and escalators; Fraser and Chalmers Engineering Works, swimming pool platform; Hampton and Sons, Ltd., staff accommodation; Highways Construction Co., Ltd., forecourt and surrounds (Empress Hall); London Spray and Brush Painting Co., Ltd., painting in restaurants and lounges; Sign Construction Co., Ltd., decorative neon lighting; Synchronome Co., Ltd., clocks; Acme Metal Works (1921), Ltd., gates; Air Ducts, Ltd., floor anchor boxes; Arctic Fuse and Elect. Mfg. Co., ironclad switch gear and fuse boards; Armstrong Cork Co., cork insulation; Art Metal Construction Co., lockers (Empress Hall); Automaticket, Ltd., ticket machines; A. Beale, flagstaffs (Empress Hall); W. G. Beaumont and Son, painting; Chance Brothers, Ltd., sheet metal duct; Collingridge, Ltd., temporary offices; Comyn Ching & Co., ironmongery (Empress Hall); Consolidated Pneumatic Tool Co., electric hammer, drills and bits; Crabtree & Co., local control switches; Crompton Parkinson, ironclad oil switch gear and weighbridge; Falk, Stadelmann & Co., restaurants, tea lounges, etc., lighting fixtures; W. F. Ferne and Sons, rainwater drainage; A. Foulds, Ltd., and Hickman (1928), Ltd., joinery work; Fraser and Ellis, Ltd., manhole covers; W. J. Furse & Co., lightning conductors (Empress Hall); General Electric Co., temporary electric supply, electric conduits and ironclad switchgear; Gent & Co., fire alarm equipment; Grierson, Ltd., temporary electric supply; Hackbridge Cable Co., V.I.R. electric cables; Hoyle, Robson and Barnett, paint, varnish, distemper and cement glazing; Huntley and Sparks, miscellaneous inserts, exhibition fittings; Ideal Boilers and Radiators, Ltd., radiators; M. Keenan & Co., insulation of air ducts; Keith Blackman & Co., Ltd., air washers; Kelco, Ltd., sheet metal duct work; Kingfisher, Ltd., seating; Le Grand Sutcliffe and Gell, turnstiles (Empress Hall); P. Lind & Co., trial piles; Lindsay's Paddington Ironworks, miscellaneous ironwork and steelwork; H. and J. Lonsdale, Ltd., steel metal duct work; W. Lusty and Sons, seating; Matthews and Yates, Ltd., fans; Merryweather and Sons, fire alarm equipment (Empress Hall); Metropolitan Construction Co., miscellaneous cutting of concrete; Metropolitan Water Board, water supply; Nettlefold and Sons, ironmongery, hardware; Parmiter Hope and Sugden, switchgear and fuseboards; Pirelli Cable Co., electric armoured cables; Pryke and Palmer, Ltd., stoves (Empress Hall); Ratner Safe Co., vault doors; Rheostatic Co., Ltd., thermostatic control; Ryarsh Brick and Sand Co., and West London Brick Co., sandlime bricks; Scaffolding (Gt. B.), Ltd., tubular scaffolding; S. and F. Contracting Co., painting; D. R. Smart and Son, Thermacoust column casing; R. E. Smart, repairs to pumps; Stuarts and Lloyds, piping; Tucker and Edgar, flue fittings and accessories; Universal Metal Furring and Lathing Co., metal furring and lathing; Watford Electrical and Manufacturing Co., contractors with remote control; Thermacoust Products, Ltd., "Thermacoust" slabs; Alpha Cement, Ltd., Alpha cement.

NATIONAL LIBRARY OF WALES (pages 259–260). Architects: Adams, Holden and Pearson. The general contractors were Henry Willcock & Co., Ltd., who were also responsible for the

furnishings, and the principal sub-contractors and suppliers included: A. E. R. Broadbent, stone carving; Joseph Armitage, stone carving and wood carving; Wm. Aumonier and Sons, wood carving; Ashwell and Nesbit, Ltd., heating; Coxwalker, Ltd., electric lighting and fittings; General Electric Co., Ltd., electric fittings; Troughton and Young, Ltd., electric fittings; Waygood-Otis, Ltd., lifts; Roneo, Ltd., bookstack steel shelving; Birmingham Guild, Ltd., bronze doors; H. H. Martyn & Co., Ltd., iron balconies and lamp standards; Saml. Elliott and Sons, Ltd., revolving doors; Postmaster-General, telephones; Henry Hope and Sons, Ltd., window casements; Fenning & Co., Ltd., marble mantelpieces; James Gibbons, Ltd., bronze door furniture, floor springs; Colville Constructional Co., Ltd., steelwork; Marble Mosaic Co., Ltd., terrazzo; Libraco, Ltd., print room fittings; Bratt Colbran & Co., Ltd., electric fires; J. W. Gray and Son, Ltd., flagstaffs and lightning conductors; J. C. Edwards, Ltd., facing bricks; Shanks & Co., Ltd., sanitary fittings; Chubb and Son's Lock and Safe Co., Ltd., strong-room door; Kingsmill Metal Co., bronze louvre vents; A. Scull and Sons, plumbing; Williams Smith and Evans, slates; Freeman and McLeod, Ltd., granite; Heal and Son, Ltd., furnishing.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 miles radius)

BARKING. *Town Hall.* The Barking Corporation has approved revised plans for the new town hall, at a cost of £164,500. It is proposed to let separate contracts for the municipal offices and public assembly hall, with a view to the erection of the municipal offices block first.

CATERHAM. *Flats.* Plans passed by the Caterham U.D.C.: 20 flats, Godstone Road, Whyteleafe, Mr. A. Graham.

COULSDON. *Houses.* Plans passed by the Coulsdon U.D.C.: Eight houses, Tollers Lane and Mead Way, Mr. P. D. Sullivan.

ENFIELD. *Houses, etc.* Plans passed by the Enfield U.D.C.: 36 flats, Myddleton Avenue, Mr. Geo. W. Newman; factory, Lockfield Avenue, Brimsdown, P. Bilton (Enfield), Ltd.; 226 houses, South Lodge estate, J. Laing and Son; 120 maisonettes, Glenloch Road, Bunting Construction Co.; 29 houses, Willow estate, Hilbery Chaplin, Ltd.; 58 houses, Baker Street, Mr. James Neilson; 176 houses, off Baker Street, Wates, Ltd.

FINCHLEY. *Housing.* The Finchley Corporation has purchased land at the junction of Lond Lane and Squires Lane for housing purposes.

FINCHLEY. *Flats, etc.* Plans passed by the Finchley Corporation: 102 flats and lodge, High Road, Mr. W. Quennell; shops and flats, High Road, A. Fairhead and Sons, Ltd.; six lock-up shops and 12 flats over, East End Road, Mr. S. Phillips; eight flats, rear of 32 and 34 Torrington Park, The London Investment and Mortgage Company; eight shops and eight maisonettes over, Lyttelton Road, The Greater London Properties, Ltd.

FINCHLEY. *School alterations, etc.* The Finchley Education Committee has obtained sanction to borrow £6,796 for alterations and additions to Manorside School.

ILFORD. *School.* The Ilford Education Committee has purchased a site in Dacre Avenue, for the erection of a school.

ILFORD. *Houses.* Plans passed by the Ilford Corporation: 18 houses, Norbury Gardens, P. G. Ashton and Sons; 33 houses, Walden Way and Merton Road, Mr. G. F. Siegerts; 16 houses, Craven Gardens, Mr. C. K. Stedman; 35 houses, Bede Road, Mr. J. H. Mason; 12 houses, Colvin Gardens, Mr. J. R. Crewes; 60 houses, Havering Gardens, Mr. J. T. Perrin; eight houses, Rosedene Gardens, Mr. J. N. Spyers; nine houses, Chadwell Heath Lane, Mr. J. Aldridge; seven houses, Marlborough Drive, Mr. L. E. Ansell; 48 houses, Thurlow Gardens, Davis Estates, Ltd.

EASTERN COUNTIES

CHELMSFORD. *Flats, etc.* Plans passed by Chelmsford Corporation: Four blocks of flats, off Coval Lane, J. C. Pryke and Sons; eight houses, St. Vincent's Road, W. and A. Pudney; 106 bungalows, Patching Hall estate, Mr. W. L. Allen.

IPSWICH. *School.* The Ipswich Education Committee has purchased a site in Cliff Lane for the erection of a school.

LOWESTOFT. *School Enlargement.* The Lowestoft Education Committee has approved plans for the enlargement of Dell Road school, at a cost of £7,500.

SOUTHERN COUNTIES

CUCKFIELD. *School.* The East Sussex Education Committee is to erect a senior school at Cuckfield, at a cost of £28,950.

GRAVESEND. *Paper Mills.* Plans passed by the Gravesend Corporation: Steel-framed building, I.P.M. Works, Bycliffes, Imperial Paper Mills.

HASTINGS. *Houses, etc.* Plans passed by the Hastings Corporation: 34 houses, Frederick Road, Jeffery and Wyatt, architects; seven houses, Priory Close, Mr. R. H. Robinson.

WORTHING. *Houses.* Plans passed by the Worthing Corporation: 22 houses, Becket Gardens and Roedean Road, Mr. G. C. Smith; 16 houses, Field Place estate, Yates, Cook and Darbyshire; eight houses, Burnham Road, Mr. A. Gutteridge; 22 houses, Crowborough Drive, Chatsmore Estates.

SOUTH-WESTERN COUNTIES

CHELTENHAM. *Flats, etc.* Plans passed by the Cheltenham Corporation: 68 flats, St. George's Nursery, Queen's Retreat, Mr. D. G. Melville; 12 houses, Gretton and Leckhampton Lane, Shurdington, Cheltenham R.D.C.

PAIGNTON. *Bungalows.* Plans passed by the Paignton U.D.C.: 21 bungalows, All Hallows Road, Mr. H. Proctor; 36 bungalows, Barton Avenue, and 18, Ailescombe Road, Mr. C. H. Drew.

TORQUAY. *Winter Garden.* The Torquay Corporation is to construct an ornamental winter garden at an estimated cost of £10,000 on a site to be selected.

WHADDON. *School.* The Cheltenham Education Committee has obtained sanction to borrow £13,035 for the erection of an elementary school at Whaddon.

MIDLAND COUNTIES

BOLSOVER. *School.* The Derbyshire Education Committee is to erect an elementary school at Bolsover, at a cost of £14,780.

ELY. *School.* The Isle of Ely Education Committee has purchased the land known as "Saffron Close," Littleport, for a site for a senior school.

ELY. *Municipal Institutions.* The Isle of Ely C.C. has approved revised plans by the county architect, in connection with the alterations, etc., to the County Poor Law Institutions, as follows: Doddington Institution, £5,912 16s. 6d.; Ely Institution, £7,834; Wisbech Institution (including central laundry and maternity accommodation for the county), £32,972 13s.

STOKE-ON-TRENT. *Mental Colony Extensions.* The Stoke-on-Trent Corporation has obtained sanction to borrow £96,558 and £5,395 in connection with the extensions of the mental colony.

STOURBRIDGE. *Enlargement of Municipal Offices.* The Stourbridge Corporation is to enlarge the municipal offices at a cost of £11,600.

NORTHERN COUNTIES

BARROW-IN-FURNESS. *Houses, etc.* The Barrow-in-Furness Corporation has approved plans for the erection of 230 houses, six shops, one store for a works department for the maintenance of property, a site for a public hall, and an open space about 2¾ acres in extent on the Rating Estate.

BARROW-IN-FURNESS. *Houses.* Plans passed by the Barrow-in-Furness Corporation: 90 houses, Black Butts Lane, J. Parkinson and Sons, Ltd.

BIRKENHEAD. *Golf Pavilion.* The Birkenhead Corporation has approved plans by the borough surveyor for the erection of a golf pavilion at Arrowe Park, at a cost of £6,870.

BIRKENHEAD. *Houses.* The Birkenhead Corporation is to erect 186 houses on the Woodchurch estate.

BOLTON. *Houses.* Plans passed by the Bolton Corporation: Eight houses, Kenwood Road, and bungalows, Garwick Road, Mr. F. Merrison; 10 houses, Abercorn Road, Reddy and Southern.

BOLTON: *Technical College.* The Bolton Education Committee is seeking sanction to borrow £264,000 for the erection of the new technical college.

BOLTON. *School.* The St. Augustine's Church trustees are to erect an elementary school for 350 children in Crompton Way, Bolton.

BOLTON. *School.* The Bolton Education Committee has purchased a site at Belmont Road for the erection of a senior school.

BURY. *Technical College.* The Bury Education Committee is to erect a technical college at a cost of £81,260.

CHESTER. *Telephone Exchange.* The Postmaster-General is to erect a telephone exchange in Little St. John Street, Chester.

CHESTER. *Schools.* The Chester Education Committee has asked the city surveyor to prepare plans for the erection of a senior school for boys on the Lache estate, and a senior school for girls at Blacon, each school to accommodate 320 pupils but to be capable of extension, so as to accommodate 480 pupils, and also for the conversion of Love Street Council School into a mixed senior department accommodating 320 pupils.

DURHAM. *Recreation Hall.* The Durham C.C. is to erect a recreation hall at Medomsley Cottage Homes, at an estimated cost of £7,000.

HULL. *School Accommodation.* The Hull Education Committee is to erect two senior departments on the Westcott Street site, for the accommodation of 520 boys and 520 girls, respectively.

HULL. *School Accommodation.* The Hull Education Committee is to erect a junior mixed department to accommodate 400 children on the Bricknell Avenue school site.

LANCASTER. *Bus Station.* The Lancaster Corporation is seeking sanction to borrow £13,950 for the erection of a central bus station in Damside Street.

MANCHESTER. *Cinemas, etc.* Plans passed by the Manchester Corporation: Cinema and café, Chepstow Street; cinema, Radnor Street, Hulme.

OLDBURY. *Houses.* The Oldbury Corporation has obtained sanction to borrow £29,550, for the erection, by direct labour, of 68 houses on the Holt Farm estate.

SHEFFIELD. *Cinema, etc.* Plans passed by the Sheffield Corporation: 14 houses, Blackstock Road, Newhouses (Builders), Ltd.; cinema and shops, Norfolk Street, Odeon (Sheffield), Ltd.; 16 houses, Bramley Avenue, E. and H. Oliver; 10 houses, Cuthbert Bank Terrace, Howe & Co.; 13 houses, Abbey Lane and Maidstone Road, Mr. W. H. Rowan; 24 houses, Audrey Road, J. H. Judge & Co. (Builders), Ltd.; cinema and shops, Crookes Road, Mr. H. J. Shepherd.

SOUTHPORT. *Cinema.* Plans passed by the Southport Corporation: Cinema, Wellington Road and Lord Street, Associated British Cinemas, Ltd.

SOUTH SHIELDS. *Houses.* The South Shields Corporation has approved revised estimates for the erection of 692 houses on Little Horsley Hill, at a cost of £275,670.

RATES OF WAGES

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

			I. s.	I. d.	II. s.	II. d.
A	ABERDARE ...	S. Wales & M.	1	7	1	2½
A	Aberdeen ...	Scotland	1	7	1	2½
A1	Abergavenny ...	S. Wales & M.	1	6½	1	2
A2	Abingdon ...	S. Counties	1	5½	1	1½
A	Accrington ...	N.W. Counties	1	7	1	2½
A2	Addlestone ...	S. Counties	1	6	1	1½
A	Adlington ...	N.W. Counties	1	7	1	2½
A	Airdrie ...	Scotland	*1	7	1	2½
C	Aldeburgh ...	E. Counties	1	3	0	11½
A	Altrincham ...	N.W. Counties	1	7	1	2½
B2	Appleby ...	N.W. Counties	1	3½	0	11½
A	Ashton-under-Lyne	N.W. Counties	1	7	1	2½
B	Aylesbury ...	S. Counties	1	5	1	0½
B	BANBURY ...	S. Counties	1	5	1	0½
B1	Bangor ...	N.W. Counties	1	4½	1	0½
A2	Barnard Castle	N.E. Coast	1	5½	1	1½
A	Barnsley ...	Yorkshire	1	7	1	2½
B	Barnstaple ...	S.W. Counties	1	5	1	0½
A	Barrow ...	N.W. Counties	1	7	1	2½
A	Barry ...	S. Wales & M.	1	7	1	2½
B	Basingstoke ...	S.W. Counties	1	5	1	0½
A2	Bath	S.W. Counties	1	6	1	1½
A	Batley ...	Yorkshire	1	7	1	2½
A2	Bedford ...	E. Counties	1	6	1	1½
A2	Berwick-on-Tweed	N.E. Coast	1	6	1	1½
A2	Bewdley ...	Mid. Counties	1	6	1	1½
B	Bicester ...	S. Counties	1	5	1	0½
	Birkenhead ...	N.W. Counties	*1	8	1	3
A	Birmingham ...	Mid. Counties	1	7	1	2½
A1	Bishop Auckland	N.E. Coast	1	6½	1	2
A	Blackburn ...	N.W. Counties	1	7	1	2½
A	Blackpool ...	N.W. Counties	1	7	1	2½
A	Blyth	N.E. Coast	1	7	1	2½
B	Bognor ...	S. Counties	1	5	1	0½
A	Bolton ...	N.W. Counties	1	7	1	2½
A2	Boston ...	Mid. Counties	1	5½	1	1½
A2	Bournemouth...	S. Counties	1	6	1	1½
B2	Bovey Tracey	S.W. Counties	1	4	1	0
A	Bradford ...	Yorkshire	1	7	1	2½
A1	Brentwood ...	E. Counties	1	6½	1	2
A	Bridgend ...	S. Wales & M.	1	7	1	2½
B	Bridgwater ...	S.W. Counties	1	5	1	0½
A1	Bridlington ...	Yorkshire	1	6½	1	2
A	Brighouse ...	Yorkshire	1	7	1	2½
A	Brighton ...	S. Counties	1	6	1	1½
A	Bristol ...	S.W. Counties	1	7	1	2½
B	Brixham ...	S.W. Counties	1	5	1	0½
A	Bromsgrove ...	Mid. Counties	1	7	1	2½
B	Bromyard ...	Mid. Counties	1	5	1	0½
A	Burnley ...	N.W. Counties	1	7	1	2½
A	Burslem ...	Mid. Counties	1	7	1	2½
A	Burton-on-Trent	Mid. Counties	1	7	1	2½
A	Bury	N.W. Counties	1	7	1	2½
A1	Buxton ...	N.W. Counties	1	6½	1	2
A1	CAMBRIDGE	E. Counties	1	6½	1	2
B1	Canterbury ...	S. Counties	1	4½	1	0½
A	Cardiff ...	S. Wales & M.	1	7	1	2½
A	Carlisle ...	N.W. Counties	1	7	1	2½
B	Carmarthen ...	S. Wales & M.	1	5	1	0½
B	Carnarvon ...	N.W. Counties	1	5	1	0½
A1	Carnforth ...	N.W. Counties	1	7	1	2½
A	Castleford ...	Yorkshire	1	7	1	2½
A2	Chatham ...	S. Counties	1	5½	1	1½
A2	Chelmsford ...	E. Counties	1	5½	1	1½
A2	Cheltenham ...	S.W. Counties	1	5½	1	1½
A	Chester ...	N.W. Counties	1	7	1	2½
A	Chesterfield ...	Mid. Counties	1	7	1	2½
B	Chichester ...	S. Counties	1	5	1	0½
A	Chorley ...	N.W. Counties	1	7	1	2½
B1	Cirencester ...	S. Counties	1	4½	1	0½
A	Clitheroe ...	N.W. Counties	1	7	1	2½
A	Clydebank ...	Scotland	1	7	1	2½
A	Coalville ...	Mid. Counties	1	7	1	2½
A2	Colchester ...	E. Counties	1	6	1	1½
A1	Colne	N.W. Counties	1	6½	1	2
A2	Colwyn Bay ...	N.W. Counties	1	6	1	1½
A1	Consett ...	N.E. Coast	1	6½	1	2
A2	Conway ...	N.W. Counties	1	6	1	1½
A	Coventry ...	Mid. Counties	1	7	1	2½
A2	Crewe	N.W. Counties	1	6	1	1½
A2	Cumberland ...	N.W. Counties	1	5½	1	1½
A	DARLINGTON	N.E. Coast	1	7	1	2½
A	Darwen ...	N.W. Counties	1	7	1	2½
B1	Deal	S. Counties	1	4½	1	0½
A2	Denbigh ...	N.W. Counties	1	5½	1	1½
A	Derby	Mid. Counties	1	7	1	2½
A	Dewsbury ...	Yorkshire	1	7	1	2½
B	Didcot ...	S. Counties	1	5	1	0½
A	Doncaster ...	Yorkshire	1	7	1	2½
B1	Dorchester ...	S.W. Counties	1	4½	1	0½
A2	Driffield ...	Yorkshire	1	5½	1	1½
A2	Droitwich ...	Mid. Counties	1	6	1	1½
A	Dudley ...	Mid. Counties	1	7	1	2½
A2	Dumfries ...	Scotland	1	6	1	1½
A	Dundee ...	Scotland	1	7	1	2½
A	Durham ...	N.E. Coast	1	7	1	2½
A2	EASTBOURNE ...	S. Counties	1	6	1	1½
A1	Ebbw Vale ...	S. Wales & M.	1	6½	1	2
A	Edinburgh ...	Scotland	1	7	1	2½
A2	Exeter ...	S.W. Counties	*1	6	1	1½
B	Exmouth ...	S.W. Counties	1	5	1	0½
A2	FELIXSTOWE	E. Counties	1	5½	1	1½
A2	Filey	Yorkshire	1	5½	1	1½
A	Fleetwood ...	N.W. Counties	1	7	1	2½
B1	Folkestone ...	S. Counties	1	4½	1	0½
A	Frodsham ...	N.W. Counties	1	7	1	2
B2	Frome ...	S.W. Counties	1	4	1	0
A	GATESHEAD	N.E. Coast	1	7	1	2½
B	Gillingham ...	S. Counties	1	5	1	0½
A1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1	6½	1	2
A	Glasgow ...	Scotland	1	7	1	2½
A2	Gloucester ...	S.W. Counties	1	6	1	1½
A2	Goole	Yorkshire	1	6	1	1½
A2	Gosport ...	S. Counties	1	6	1	1½
A2	Grantham ..	Mid. Counties	1	5½	1	1
A1	Gravesend ...	S. Counties	1	6½	1	2
A	Greenock ...	Scotland	*1	7	1	2
A	Grimsby ...	Mid. Counties	1	7	1	2
B	Guildford ...	S. Counties	1	5	1	0
A	HALIFAX ...	Yorkshire	1	7	1	2½
A	Hanley ...	Mid. Counties	1	7	1	2½
A	Harrogate ...	Yorkshire	1	7	1	2½
A	Hartlepools ...	N.E. Coast	1	7	1	2½
B	Harwich ...	E. Counties	1	5	1	0½
B	Hastings ...	S. Counties	1	5	1	0½
A2	Hatfield ...	S. Counties	1	6	1	1½
B	Hereford ...	S.W. Counties	1	5	1	0½
A2	Hertford ...	E. Counties	1	6	1	1½
A	Heysham ...	N.W. Counties	1	7	1	2½
A	Howden ...	N.E. Coast	1	7	1	2½
A	Huddersfield ...	Yorkshire	1	7	1	2½
A	Hull	Yorkshire	1	7	1	2½
A	ILKLEY ...	Yorkshire	1	7	1	2½
A	Immingham ...	Mid. Counties	1	7	1	2½
A2	Ipswich ...	E. Counties	1	6	1	1½
B2	Isle of Wight ...	S. Counties	1	4	1	0
A	JARROW ...	N.E. Coast	1	7	1	2½
A	KEIGHLEY ...	Yorkshire	1	7	1	2½
A2	Kendal ...	N.W. Counties	1	5½	1	1½
A2	Keswick ...	N.W. Counties	1	5½	1	1½
A1	Kettering ...	Mid. Counties	1	6½	1	2
A2	Kidderminster	Mid. Counties	1	6	1	1½
B1	King's Lynn ...	E. Counties	1	4½	1	0½
A	LANCASTER ...	N.W. Counties	1	7	1	2½
A1	Leamington ...	Mid. Counties	1	6½	1	2
A	Leeds	Yorkshire	1	7	1	2½
A	Leek	Mid. Counties	1	7	1	2½
A	Leicester ...	Mid. Counties	1	7	1	2½
A	Leigh	N.W. Counties	1	7	1	2½
B	Lewes	S. Counties	1	5	1	0½
A2	Lichfield ...	Mid. Counties	1	6	1	1½
A	Lincoln ...	Mid. Counties	1	7	1	2½
	Liverpool ...	N.W. Counties	*1	8½	1	3½
A2	Llandudno ...	N.W. Counties	1	6	1	1½
A	Llanelly ...	S. Wales & M.	1	7	1	2½
	London (12-miles radius)		1	8½	1	3½
	Do. (12-15 miles radius)		1	8	1	3
A	Long Eaton ...	Mid. Counties	1	7	1	2½
A	Loughborough	Mid. Counties	1	7	1	2½
A1	Luton	E. Counties	1	6½	1	2
A	Lytham ...	N.W. Counties	1	7	1	2½
A1	MACCLESFIELD	N.W. Counties	1	6½	1	2
A2	Maidstone ...	S. Counties	1	5½	1	1½
A2	Malvern ...	Mid. Counties	1	5½	1	1½
A	Manchester ...	N.W. Counties	1	7	1	2½
A	Mansfield ...	Mid. Counties	1	7	1	2½
B1	Margate ...	S. Counties	1	4½	1	0½
A2	Matlock ...	Mid. Counties	1	5½	1	1½
A1	Merthyr ...	S. Wales & M.	1	6½	1	2
A	Middlesbrough	N.E. Coast	1	7	1	2½
A2	Middlewich ...	N.W. Counties	1	6	1	1½
B2	Minehead ...	S.W. Counties	1	4	1	0
B2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1	4	1	0
A	Morecambe ...	N.W. Counties	1	7	1	2½
A2	NANTWICH ...	N.W. Counties	1	6	1	1½
A	Neath	S. Wales & M.	1	7	1	2½
A	Nelson ...	N.W. Counties	1	7	1	2½
A	Newcastle ...	N.E. Coast	1	7	1	2½
A	Newport ...	S. Wales & M.	1	7	1	2½
A	Normanton ...	Yorkshire	1	7	1	2½
A	Northampton ...	Mid. Counties	1	7	1	2½
A	North Shields...	N.E. Coast	1	7	1	2½
A	North Staffs ...	Mid. Counties	1	7	1	2½
A1	Norwich ...	E. Counties	1	6½	1	2
A	Nottingham ...	Mid. Counties	1	7	1	2½
A	Nuneaton ...	Mid. Counties	1	7	1	2½
A2	OAKHAM ...	Mid. Counties	1	5½	1	1½
A	Oldham ...	N.W. Counties	1	7	1	2½
A2	Oswestry ...	N.W. Counties	1	5½	1	1½
A1	Oxford ...	S. Counties	1	6½	1	2
A	PAISLEY ...	Scotland	*1	7	1	2
B3	Pembroke ...	S. Wales & M.	1	3½	0	11½
A	Perth	Scotland	*1	7	1	2½
A1	Peterborough....	E. Counties	1	6½	1	2
A	Plymouth ...	S.W. Counties	*1	7	1	2½
A	Pontefract ...	Yorkshire	1	7	1	2½
A1	Pontypridd ...	S. Wales & M.	1	6½	1	2
A2	Portsmouth ...	S. Counties	1	6	1	1½
A	Preston ...	N.W. Counties	1	7	1	2½
A	QUEENSFERRY	N.W. Counties	1	7	1	2
A2	READING ...	S. Counties	1	6½	1	2
B	Reigate ...	S. Counties	1	5½	1	1½
A2	Retford ...	Mid. Counties	1	5½	1	1½
A1	Rhondda Valley	S. Wales & M.	1	6½	1	2
A2	Ripon	Yorkshire	1	5½	1	1½
A	Rochdale ...	N.W. Counties	1	7	1	2½
B	Rochester ...	S. Counties	1	5	1	0½
A1	Ruabon ...	N.W. Counties	1	6½	1	2
A	Rugby ...	Mid. Counties	1	7	1	2½
A2	Rugeley ...	Mid. Counties	1	6	1	1½
A	Runcorn ...	N.W. Counties	1	7	1	2½
A1	ST. ALBANS ...	E. Counties	1	6½	1	2
A	St. Helens ...	N.W. Counties	1	7	1	2½
B2	Salisbury ...	S.W. Counties	1	3½	0	11½
A1	Scarborough ...	Yorkshire	1	6½	1	2
A	Scunthorpe ...	Mid. Counties	1	7	1	2½
A	Sheffield ...	Yorkshire	1	7	1	2½
A	Shipley ...	Yorkshire	1	7	1	2½
A2	Shrewsbury ...	Mid. Counties	1	6	1	1½
A2	Skipton ...	Yorkshire	1	6	1	1½
A2	Slough ...	S. Counties	1	6	1	1½
A1	Solihull ...	Mid. Counties	1	6½	1	2
A2	Southampton...	S. Counties	1	6	1	1½
A1	Southend-on-Sea	E. Counties	1	6½	1	2
A	Southport ...	N.W. Counties	1	7	1	2½
A	S. Shields ...	N.E. Coast	1	7	1	2½
A1	Stafford ...	Mid. Counties	1	6½	1	2
A	Stirling ...	Scotland	1	7½	1	2½
A	Stockport ...	N.W. Counties	1	7	1	2½
A	Stockton-on-Tees	N.E. Coast	1	7	1	2½
A	Stoke-on-Trent	Mid. Counties	1	7	1	2½
B	Stroud ...	S.W. Counties	1	5	1	0½
A	Sunderland ...	N.E. Coast	1	7	1	2½
A	Swansea ...	S. Wales & M.	1	7	1	2½
A2	Swindon ...	S.W. Counties	1	5½	1	1½
A1	TAMWORTH ...	N.W. Counties	1	6½	1	2
B	Taunton ...	S.W. Counties	1	5	1	0½
A	Teesside Dist....	N.E. Counties	1	7	1	2½
A2	Teignmouth ...	S.W. Coast	1	6	1	1½
A	Todmorden ...	Yorkshire	1	7	1	2½
A1	Torquay ...	S.W. Counties	1	6½	1	2
B2	Truro	S.W. Counties	1	4	1	0
A2	Tunbridge Wells	S. Counties	1	5½	1	1½
A	Tunstall ...	Mid. Counties	1	7	1	2½
A	Tyne District....	N.E. Coast	1	7	1	2½
A	WAKEFIELD	Yorkshire	1	7	1	2½
A	Walsall ...	Mid. Counties	1	7	1	2½
A	Warrington ...	N.W. Counties	1	7	1	2½
A1	Warwick ...	Mid. Counties	1	6½	1	2
A1	Wellingborough	Mid. Counties	1	6½	1	2
A	West Bromwich	Mid. Counties	1	7	1	2½
A2	Weston-s.-Mare	S.W. Counties	1	6	1	1½
A2	Whitby ...	Yorkshire	1	6	1	1½
A	Widnes ...	N.W. Counties	1	7	1	2½
A	Wigan ...	N.W. Counties	1	7	1	2½
B	Winchester ...	S. Counties	1	5	1	0½
A2	Windsor ...	S. Counties	1	6	1	1½
A	Wolverhampton	Mid. Counties	1	7	1	2½
A2	Worcester ...	Mid. Counties	1	6	1	1½
A2	Worksop ...	Yorkshire	1	5½	1	1½
A1	Wrexham ...	N.W. Counties	1	6½	1	2
A2	Wycombe ...	S. Counties	1	5½	1	1½
B	YARMOUTH ...	E. Counties	1	5	1	0½
B	Yeovil ...	S.W. Counties	1	5	1	0½
A	York	Yorkshire	1	7	1	2½

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

The rates for every trade in any given area will be sent on request. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorized annual regradings.

CURRENT PRICES

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

WAGES

	£ s. d.
Bricklayer . . . . . per hour	1 8½
Carpenter . . . . . ,,	1 8½
Joiner . . . . . ,,	1 8½
Machinist . . . . . ,,	1 9½
Mason (Banker) . . . . . ,,	1 8½
,, (Fixer) . . . . . ,,	1 9½
Plumber . . . . . ,,	1 8½
Painter . . . . . ,,	1 7½
Paperhanger . . . . . ,,	1 7½
Glazier . . . . . ,,	1 8½
Slater . . . . . ,,	1 8½
Scaffolder . . . . . ,,	1 4½
Timberman . . . . . ,,	1 4½
Navvy . . . . . ,,	1 3½
General Labourer . . . . . ,,	1 3½
Lorryman . . . . . ,,	1 6½
Crane Driver . . . . . ,,	1 7½
Watchman . . . . . per week	2 10 0

MATERIALS

EXCAVATOR AND CONCRETOR

	£ s. d.
Grey Stone Lime . . . . . per ton	2 2 0
Blue Lias Lime . . . . . ,,	1 18 6
Hydrated Lime . . . . . ,,	2 5 0
Portland Cement, in 4-ton lots (d/d site, including Paper Bags) . . . ,,	1 19 0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags) . ,,	2 5 0
White Portland Cement, in 1-ton lots ,,	8 15 0
Thames Ballast . . . . . per Y.C.	6 6
¾" Crushed Ballast . . . . . ,,	7 0
Building Sand . . . . . ,,	7 6
Washed Sand . . . . . ,,	8 6
2" Broken Brick . . . . . ,,	8 0
¾" ,, ,, ... ,,	10 3
Pan Breeze . . . . . ,,	6 6
Coke Breeze . . . . . ,,	8 9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

	4" s. d.	6" s. d.
Straight Pipes . . . per F.R.	0 9	1 1
Bends . . . . each	1 9	2 6
Taper Bends . . . ,,	3 6	5 3
Rest Bends . . . ,,	4 3	6 3
Single Junctions . . . ,,	3 6	5 3
Double . . . . ,,	4 9	6 6
Straight channels . . per F.R.	1 6	2 6
¾" Channel bends . . each	2 9	4 0
Channel junctions . . ,,	4 6	6 6
Channel tapers . . ,,	2 9	4 0
Yard gullies . . . ,,	6 9	8 9
Interceptors . . . ,,	16 0	19 6
IRON DRAINS:		
Iron drain pipe . . per F.R.	2 3	3 8
Bends . . . . each	6 4	13 1
Inspection bends . . ,,	11 5	14 4
Single junctions . . ,,	11 2	22 10
Double junctions . . ,,	17 2	30 9
Lead Wool . . . . lb.	6	—
Gaskin . . . . ,,	5	—

BRICKLAYER

	£ s. d.
Flettons . . . . . per M.	2 12 0
Grooved do. . . . . ,,	2 14 0
Phorpres bricks . . . . ,,	2 15 0
,, Cellular bricks . . ,,	2 15 0
Stocks, 1st quality . . . ,,	4 11 0
,, 2nd ,, . . . ,,	4 2 6
Blue Bricks, Pressed . . ,,	8 14 0
,, Wirecuts . . ,,	7 12 6
,, Brindles . . ,,	7 0 0
,, Bullnose . . ,,	9 0 0
Red Sand-faced Facings . . ,,	6 18 6
Red Rubbers for Arches . . ,,	12 0 0
Multicoloured Facings . . ,,	7 10 0
Luton Facings . . . ,,	7 10 0
Phorpres White Facings . . ,,	3 17 3
,, Rustic Facings . . ,,	3 12 3
Midhurst White Facings . . ,,	5 0 0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:	
Stretchers . . . . . ,,	21 0 0
Headers . . . . . ,,	20 10 0
Bullnose . . . . . ,,	27 10 0
Double Stretchers . . . ,,	29 10 0
Double Headers . . . . ,,	26 10 0
Glazed Second Quality, *Less* . . ,,	1 0 0
,, Buffs and Creams, *Add* . ,,	2 0 0
,, Other Colours . . . ,,	5 10 0
2" Breeze Partition Blocks . . per Y.S.	1 7
2½" ,, ,, ,, . . . ,,	1 10
3" ,, ,, ,, . . . ,,	2 1
4" ,, ,, ,, . . . ,,	2 6

MASON

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

SLATER AND TILER

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

	£ s. d.
24" × 12" Duchesses . . . per M.	28 17 6
22" × 12" Marchionesses . . ,,	24 10 0
20" × 10" Countesses . . ,,	19 5 0
18" × 10" Viscountesses . . ,,	15 10 0
18" × 9" Ladies . . . ,,	13 17 6
Westmorland green (random sizes) . per ton	8 10 0
Old Delabole slates d/d in full truck loads to Nine Elms Station:	
20" × 10" medium grey . per 1,000 (actual)	21 11 6
,, ,, green ,, ,,	24 7 4
Best machine roofing tiles . ,, ,,	4 5 0
Best hand-made do. . . ,, ,,	4 17 6
Hips and valleys . . . each	9
,, hand-made . . . ,,	9½
Nails, compo . . . . ,,	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 8
,, 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 9
,, 1¼" . . . ,,	1 2 0
,, 1½" . . . ,,	1 5 0
,, 1¾" . . . ,,	1 10 0
Deal matchings, ¾" . . . ,,	14 0
,, 1" . . . ,,	15 6
Rough boarding, ¾" . . . ,,	1 4 0
,, 1" . . . ,,	16 0
,, 1¼" . . . ,,	18 0
Plywood, per ft. sup.:	1 6 0

Thickness	⅛"			¼"			⅜"			½"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2⅜	7	5	4	8	6	5
Cheap Alder .	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine .	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3¼	–	5	4⅜	–	7	6½	–	8	7	–
Figured Oak .	6½	5	–	7½	5⅜	–	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"	⅜"	1"	1¼"	2"
	d.	d.	d.	d.	d.
Tubes 2'-14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"-23" long . each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long . ,,	7	9	1/3	1/8	3/–
Long screws, 12"-23½" long ,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M-½" long ,,	8	10	1/5	1/11	3/6
Bends . . . . ,,	8	11	1/7½	2/7½	5/2
Springs not socketed . ,,	5	7	1/1½	1/11½	3/11
Socket unions . . ,,	2/–	3/–	5/6	6/9	10/–
Elbows, square . . ,,	10	1/1	1/6	2/2	4/3
Tees . . . . ,,	1/–	1/3	1/10	2/6	5/1
Crosses . . . ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples .	3	4	6	8	1/3
Diminished sockets . ,,	4	6	9	1/–	2/–
Flanges . . . ,,	9	1/–	1/4	1/9	2/9
Caps . . . . ,,	3½	5	8	1/–	2/–
Backnuts . . . ,,	2	3	5	6	1/1
Iron main cocks . ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs . ,,	—	4/–	7/6	10/–	21/–

Discounts

TUBES

Per cent.		Per cent.
Gas . . . 66⅔	Galvanized gas .	56⅔
Water . . . 61⅔	,, water .	51⅔
Steam . . . 58⅔	,, steam .	46⅔

FITTINGS

Gas . . . 57½	Galvanized gas .	48½
Water . . . 53½	,, water .	46½
Steam . . . 48½	,, steam .	41½

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

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ½" . . . cwt.	15 3
,, ,, ,, ⅜" . . . ,,	15 3
,, ,, ,, 1" . . . ,,	15 3
,, ,, ,, 1¼" . . . ,,	15 3
,, ,, ,, 1½" . . . ,,	15 3

Cast-iron rain-water pipes of ordinary thickness metal . . F.R.	4" s. d. 8	4" s. d. 10
Shoes . . . . each	2 0	3 0
Anti-splash shoes . . ,,	4 6	8 ●
Boots . . . . ,,	3 0	4 0
Bends . . . . ,,	2 7	3 9
,, with access door . ,,	—	6 3
Heads . . . . ,,	4 0	5 ●
Swan-necks up to 9" offsets . ,,	3 9	6 ●
Plinth bends, 4½" to 6" . ,,	3 9	5 3
Half-round rain-water gutters of ordinary thickness metal . . F.R.	5	6
Stop ends . . . . each	6	6
Angles . . . . ,,	1 7	1 11
Obtuse angles . . . ,,	2 0	2 6
Outlets . . . . ,,	1 9	2 3

PLUMBER

	3"	4"	6"
	s. d.	s. d.	s. d.
Lead, milled sheets . . . cwt.			33 6
,, drawn pipes . . . ,,			33 0
,, soil pipes . . . ,,			36 0
,, scrap . . . ,,			21 0
Solder, plumbers' . . . lb.			1 1½
,, fine do. . . . ,,			1 4
Copper, sheet . . . ,,			1 0½
,, tubes . . . ,,			1 2½
L.C.C. soil and waste pipes:			
Plain cast . . F.R.	1 0	1 2	2 6
Coated . . . ,,	1 1	1 3	2 8
Galvanized . . ,,	2 ●	2 6	4 6
Holderbats . . each	3 10	4 0	4 9
Bends . . . ,,	3 9	5 3	10 3
Shoes . . . ,,	2 10	4 4	9 6
Heads . . . ,,	4 8	8 5	12 9

PLASTERER

	£ s. d.
Lime, chalk . . . . per ton	2 0 0
Plaster, coarse . . . ,,	2 15 0
,, fine . . . ,,	4 7 6
Hydrated lime . . . ,,	3 0 0
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 0
Lath nails . . . . lb.	3

GLAZIER

	s. d.	s. d.
Sheet glass, 24 oz., squares n/e 2 ft.		s. F.S. 2½
,, ,, 26 oz. ,, ,, ,,		3½
Flemish, Arctic, Figures (white)* .		,, 7½
Blazoned glasses . . .		,, 2 6
Reeded: Cross Reeded . . .		,, 11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite		,, 6
Crown sheet glass (n/e 12" × 10") .		,, 2 0
Flashed opals (white and coloured) .		,, 1 0 and 2 0
⅛" rough cast; rolled plate .		,, 6
⅛" wired cast; wired rolled .		,, 10½
⅛" Georgian wired cast .		,, 11½
⅛" 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 ⅛" and ¼"		,, 8½ ,, 1 0
Putty, linseed oil . . .		lb. 3

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

PAINTER

	£ s. d.
White lead in 1-cwt. casks . . . cwt.	2 17 9
Linseed oil . . . . . gall.	3 2
Boiled oil . . . . . ,,	3 5
Turpentine . . . . . ,,	3 9
Patent knotting . . . . . ,,	14 0
Distemper, washable . . . . cwt.	2 6 0
,, ordinary . . . . ,,	2 0 0
Whitening . . . . . ,,	4 0
Size, double . . . . . firkin	3 0
Copal varnish . . . . . gall.	13 0
Flat varnish . . . . . ,,	14 0
Outside varnish . . . . ,,	16 0
White enamel . . . . . ,,	1 15 0
Ready mixed paint . . . ,,	13 6
Brunswick black . . . . ,,	7 6

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

		£ s. d.
Digging over surface n/e 12" deep and cart away	Y.S.	8 9
" to reduce levels n/e 5' 0" deep and cart away	Y.C.	8 6
" to form basement n/e 5' 0" and cart away	"	9 0
" " 10' 0" deep and cart away	"	9 6
" " 15' 0" deep and cart away	"	10 0
If in stiff clay	add "	6
If in underpinning	" "	4 0
Planking and strutting to sides of excavation	F.S.	1 0
" " to pier holes	"	5
" " to trenches	"	5
" " extra, only if left in	"	3
Hardcore, filled in and rammed	Y.C.	10 0
Portland cement concrete in foundations (6–1)	"	1 8 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 8	2 3
Extra, only for bends	Each	2 8	3 9
" junctions	"	3 9	4 6
Gullies and gratings	"	16 6	18 0
Cast iron drains, and laying and jointing	F.R.	5 9	8 3
Extra, only for bends (cast iron)	Each	12 3	18 4

BRICKLAYER

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

ASPHALTER

		s. d.
½" Horizontal dampcourse	Y.S.	4 9
½" Vertical dampcourse	"	7 9
½" paving or flat	"	6 3
1" paving or flat	"	7 6
1" × 6" skirting	F.R.	1 0
Angle fillet	"	2½
Rounded angle	"	2½
Cesspools	Each	5 6

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

		£ s. d.
Flat boarded centering to concrete floors, including all 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
1½" " " " " "	"	2 3 0
¾" × 2" fir battening for Countess slating	"	9 6
Do., for 4" gauge tiling	"	12 0
Stout feather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
" " " 2 "	"	2 9
" " " 3 "	"	3 3
Stout herringbone strutting to 9" joists	F.R.	10½
1" deal gutter boards and bearers	F.S.	1 2
1½" " " " "	"	1 6
2" deal wrought rounded roll	F.R.	8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
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, 1½" pulley stiles, 1¼" heads, 1" inside and outside linings, ¾" parting beads, and with brass faced axle pulleys, etc., fixed complete	"	3 7
2" " " " " "	"	3 10
Extra only for moulded horns	Each	6
1½" deal four-panel square, both sides, door	F.S.	2 0
2" " " " " "	"	2 8
1½" " but moulded both sides	"	2 4
2" " " " " "	"	3 0
4" × 3" deal, rebated and moulded frames	F.R.	1 0
4½" × 3½" " " " "	"	1 4
1½" deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1¼" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2 6
1½" deal moulded wall strings	"	2 1
1½" " " outer strings	"	2 4
Ends of treads and risers housed to string	Each	1 9
3" × 2" deal moulded handrail	F.R.	1 3
1" × 1" deal balusters and housing each end	Each	2 0
1½" × 1½" " " " "	"	2 9
3" × 3" deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	"	6 0

SMITH AND FOUNDER

		s. d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	18 6
Riveted plate or compound girders, and hoisting and fixing in position	"	1 3 0
Do., stanchions with riveted caps and bases and do.	"	1 2 0
Mild steel bar reinforcement, ½" and up, bent and fixed complete	"	1 2 0
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

		£ s. d.
Milled lead and labour in flats	cwt.	2 4 0
Do. in flashings	"	2 7 6
Do. in covering to turrets	"	2 13 0
Do. in soakers	"	1 18 9
Labour to welted edge	F.R.	3½
Open copper nailing	"	3
Close " "	"	4

		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.	1 2	1 4	1 8½	2 7	3 6	—
Do. soil pipe and fixing with cast lead tacks		—	—	—	—	—	7 3
Extra, only to bends	Each	—	—	—	—	2 3	7 6
Do. to stop ends	"	6½	8	9	11	1 0	—
Boiler screws and unions		3 3	3 9	5 0	8 0	—	—
Lead traps		—	—	—	8 0	11 6	—
Screw down bib valves	"	6 9	9 6	11 0	—	—	—
Do. stop cocks	"	7 6	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 under on walls	"	1 2½
Render, refloat and set in lime and hair	"	1 9
Render and set in Sirapite	"	1 11
Render backing in cement and sand, and set in Keene's cement	"	2 9
Extra, only if on lathing	"	4
Keene's cement angle and arris	F.R.	6
Arris	"	1½
Rounded angle, small	"	3
Plain cornices in plaster, including dubbing out, per 1" girth	"	1½
1" granolithic pavings	Y.S.	3 6
1½" " " "	"	4 6
6" × 6" white glazed wall tiling and fixing on prepared screed	"	17 6
9" × 3" " " " "	"	1 2 6
Extra, only for small quadrant angle	F.R.	8

GLAZIER

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

PAINTER

		s. d.
Clearcolle and whiten ceilings	Y.S.	6
Do. and distemper walls	"	9
Do. with washable distemper	"	1 1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	"	3 3
Do. on woodwork	"	3 6
Do. on steelwork	"	3 0
Do. and brush grain and twice varnish	"	5 6
Stain and twice varnish woodwork	"	1 11
Stain and wax polish woodwork	"	4 6
French polishing	F.S.	1 2
Stripping off old paper	Piece	1 0
Hanging ordinary paper	from "	2 9