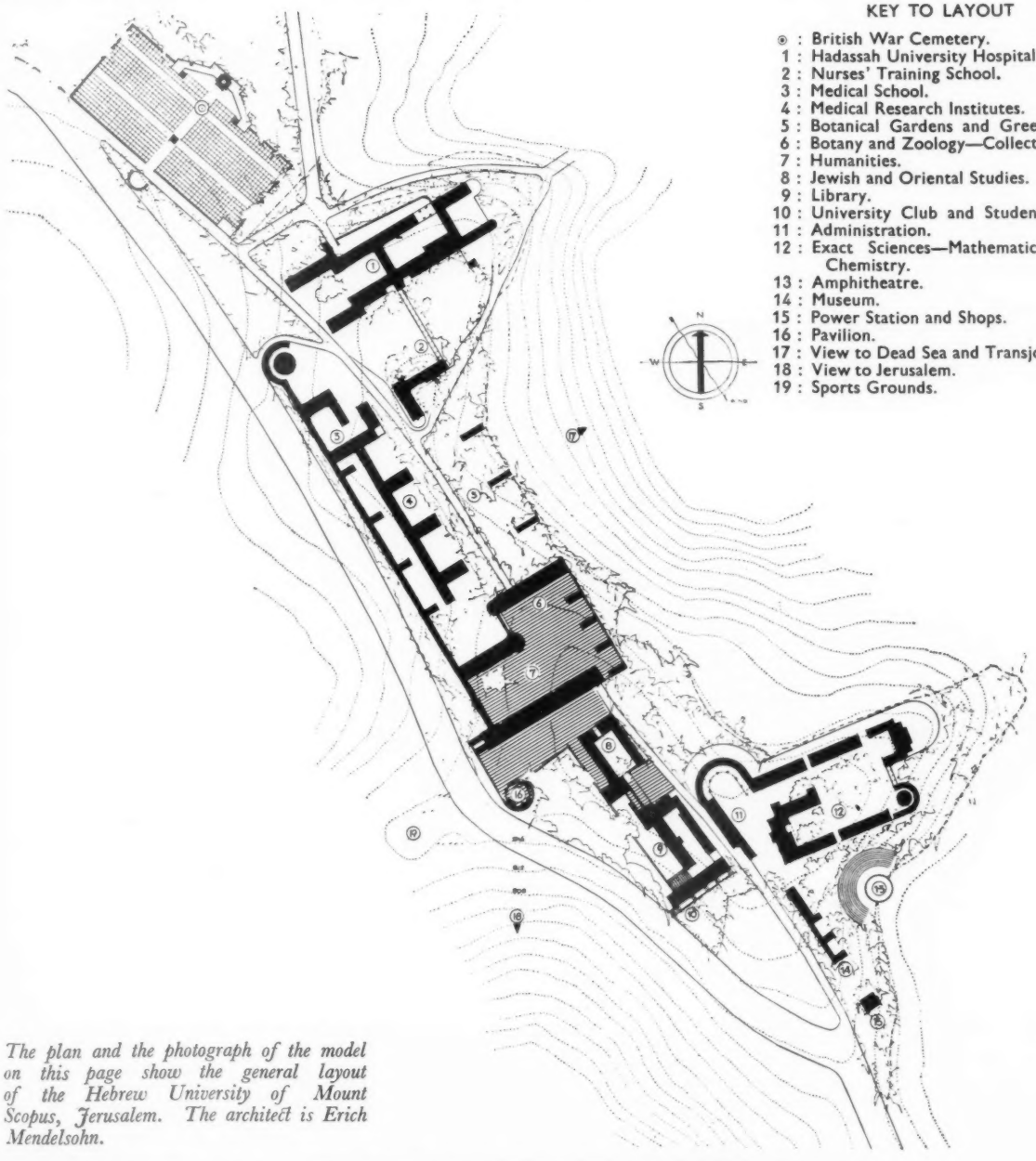
HEBREW UNIVERSITY: JERUSALEM



KEY TO LAYOUT

⊙ : British War Cemetery.
1 : Hadassah University Hospital.
2 : Nurses' Training School.
3 : Medical School.
4 : Medical Research Institutes.
5 : Botanical Gardens and Greenhouses.
6 : Botany and Zoology—Collections.
7 : Humanities.
8 : Jewish and Oriental Studies.
9 : Library.
10 : University Club and Students' Hostel.
11 : Administration.
12 : Exact Sciences—Mathematics, Physics, Chemistry.
13 : Amphitheatre.
14 : Museum.
15 : Power Station and Shops.
16 : Pavilion.
17 : View to Dead Sea and Transjordan.
18 : View to Jerusalem.
19 : Sports Grounds.

The plan and the photograph of the model on this page show the general layout of the Hebrew University of Mount Scopus, Jerusalem. The architect is Erich Mendelsohn.

THE PARIS EXHIBITION

A detail of the Museum of Modern Art, one of the buildings of the Paris Exhibition which will be permanently retained. Now housing a representative collection of French painting from primitives to impressionists, it will later contain the collections from the Luxembourg and Petit Palais. The building consists of two wings and a connecting loggia. The architects were MM. Dondel, Aubert, Viard, and Dastugue.

THE PROGRESS OF PRESERVATION

THE famous organization of the Council for the Preservation of Rural England has available at its offices a small brochure in which it explains its aims.

" The C.P.R.E.," runs the first paragraph, " has been formed to co-ordinate the efforts of many National Associations, Institutions and Societies each of which is interested in preserving rural scenery from some special danger or in protecting the artistic and historic features of country towns and villages. . . . (It aims) to arouse, form and educate public opinion in order to ensure the promotion of these objects. . . . and the Council, too, watches Town and Regional Planning Schemes in order to encourage Local Authorities responsible for those schemes to get them designed on artistic lines and to take the fullest advantage of their powers to protect amenities."

It is doubtful whether these quotations, or even the whole booklet, do justice to the C.P.R.E. The Council's intention is to be the general staff of those who see that the nineteenth century has made a mess of our larger towns in a way that will take another century to clear up ; who believe that nothing should be left untried to prevent the motor car making an equal mess of everything outside the large towns ; and who hold that until our methods of treating our surroundings are enormously improved the individual's freedom to do what he likes on land he owns must be suitably modified.

Everyone who has any interest in his country's appearance supports these intentions. And therefore the C.P.R.E. was able to assemble, in the societies affiliated to it, a volume of influence of enormous potential effect.

It was only when the C.P.R.E. had been in existence for some little time that it was discovered that those interested in what happened to the surface of Britain had three different views on the question of the best kind of " development " ; and with nearly a thousand houses a day being built in Britain this problem was easily the largest of those the Council hoped to solve rightly.

There were those who wanted no building development of any kind. There were those who admitted there must be new development, despaired of any grouping of such development in compact and logical units, and concentrated all their efforts on making the new buildings imitate older buildings as closely as possible. And there were those who believed that the placing of new buildings was the main problem ; and that it was as absurd as it was impossible, either practically or æsthetically, to try to twist modern building expenditure and materials into partial or exact reproductions of former building methods.

In a country which likes the old and the romantic when they do not clash too sharply with making money it was soon obvious which was the winner among these three attitudes of mind. Prevention of development might be impossible, effective planning too difficult, but the success of the second attitude of mind was more than sufficient to wipe out any disappointments to the first. Here was something that all could understand—and interpret according to their lights. The well-educated and cultured members of the C.P.R.E. did see that carefully designed and well placed variations on a traditional architectural theme could take place without destroying the homogeneity of a landscape, and local materials and ancient motifs sugared their dislike of any new development at all. Less gifted inhabitants and local officials were charmed to have a knotty problem so simplified—for everyone can tell Tudor from modernism at a glance. Even the builders were not too upset ; buyers appreciated an old-world flavour and once the manufacturers had come into line a traditional effect sufficient to pass muster and the local surveyor could be done remarkably cheaply.

And so, in ten years, the architecture of imitation has become a vested interest. In all development the difficult things—the planning of the region and the group—have been forgotten. Officials, residents and landlords alike have been encouraged to apply one test and one only : " Does it look old-world ? " The affirmative answers are to be seen in their hundreds and thousands in rural England.

The C.P.R.E. cannot escape blame for this. It has upon its Executive Committee an array of enormous talent ; and, rightly, it welcomed to its ranks men and women of influence throughout England. But, in welcoming them, it made no effort to instruct them, or to encourage their study of the problems of good development. Anyone, however fatuous or ignorant their views might be, was welcome — providing they were interested in rural England : and who is not ?

The result of such a policy has been the spreading, with the ostensible approval of the C.P.R.E., of some remarkable propaganda.

Lord Brocket, for instance, the Chairman of the Hertfordshire Branch of the C.P.R.E., in a speech on July 28, in opening a new hotel, said :

He was proud of the Tudor design, which, he thought, was far better than the modern cubist designs. If you had a good design, Tudor or Georgian, why not copy it, instead of trying to invent some horrible 1937 design ? On his persuasion they had copied the Tudor architecture and tried to model a hotel somewhat on the form of the old Dee, and he was very glad they did that. He believed that people in the future would praise them for doing that, instead of adopting some contemporary design which happened to be the design for 1937.

The *Hoylake and West Kirby Advertiser* naturally took its cue from Lord Brocket. Who can blame it ?—Lord Brocket is a highly educated man.

Its impressive architecture—a modern interpretation of the Elizabethan-Tudor period—adds a new dignity to Grange Road. . . . Careful planning has achieved a happy blend of cosiness, dignity and refinement. . . . It is an asset of which West Kirby, and indeed the whole of Wirral, may well be proud.

In ways such as this the influence of the C.P.R.E. has become a great force in England.

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

EDINBURGH

HOWEVER many times one visits Edinburgh and however familiar one may become with those grey legal streets it always leaves a civilized impression. It seems to have most of the virtues and only some of the vices of Scotland, and if the present generation are doing their best to ruin it (as the School of Architecture proved by its recent survey) there is a core to Edinburgh dependent on contours and history and other more or less unalterable things which will always remain . . .

*

. . . or almost always. The steelwork of Messrs. Tait and Lorne's job on the Calton Gaol site is progressing rapidly and that, at any rate, is an alteration to the heart of Edinburgh on a new scale. Fortunately Messrs. Tait and Lorne may be trusted to remember that form is not enough in Edinburgh—even a form which seems to be well moulded to the tremendous opportunities of the site. Edinburgh above all cities has a colour scheme of grey, grey-green and Indian summer sunshine that makes facing materials a terrifying problem.

PRINCE'S STREET

Praise of Edinburgh must not be thought to include praise for its most famous street. Prince's Street is a tragic failure. Its site is perfect, its proportions are perfect, the prospect is perfect—and there is not a decent building in it. Prince's Street has retreated steadily before the massed forces of commercialism; the chain stores leading the attack, well supported by Bond Street. It was in Prince's Street, was it not, that a cash store put up its fascia in mahogany or some other hardwood in order to satisfy the rather mild regulations—and then painted it the usual gilt and plum.

GEORGE STREET

Prince's Street is crowded always, whilst seventy yards away, comparatively empty, is what I think the finest street in Britain. Neither London nor Bath has anything quite so good as George Street. On a ridge with the dome of the Church and Charlotte Square at one end it has St. Andrew's column at the other. Southwards, each cross street has its axis closed by some monument or tower of the Old Town, and northwards is open to the Forth. There is only one bad building and one piece of doubtful lettering the whole way. It is not monotonous, for "Greek" Thompson's lovely little spire breaks the line of Georgian cornices. The product of an unimaginative race, it is magnificent; and is worth all the "Royal Miles," Holyroods, Memorials and Thistle Chapels rolled into one.

DECORATIONS AGAIN

I really thought that I had finished with street decorations for a long time to come, but just as in August one follows the strawberries and peas northwards so I found the masts and garlands of Prince's Street being dismantled. It was a shock, but interesting, to find that the white lion-topped poles from the Mail, complete with banners, had been used all over again. This is the kind of economy I like.

HOLIDAY

Scotland in August sounds obvious; and if one does the obvious things it can become a ghastly game between the Scylla of guns and tweeds and the Charybdis of white heather and Prince Charlie. The English can be seen in this, their most doubtful phase, at the Paris Exhibition; and as for that romantic idol of a Presbyterian people, he died of drink, a bit of a cad to the end, and was buried as they so often forget, in St. Peter's in Rome.

*

But there are other Scotlands. Who, for instance, knows of Loch Mabree? It is a little loch set in an almost Irish bog and dotted over with green fairy islets—away to the east are Black Hill of Dee and the mountains of Dumfries, and to the south the line of Solway. Six hours I spent there and no one did I see in all that time.

*

At Kirkcudbright I came back to "Art" with a bump, but it was a pleasant bump. The Kirkcudbright Art Society were having their annual show. I have seen exhibitions in Bond Street which were hung no better and I have seen exhibitions which in themselves were no better in towns a hundred times the size. The pictures, if they did not pretend to be anything cleverer than just pictures, were very well painted. I was glad I went in.

THE ESTATE BEAUTIFUL

I went into Essex just before my holiday to talk over ideas for a small house with a client. He was one of the really nice men that one meets quite often amongst those who have had to do everything for themselves; quiet, perfectly at ease, one felt sure, in any surroundings, he wanted to do things properly; and naturally he wanted the most he could get for about £1,200.

*

We looked at several sites on several estates; and at length went to the local agents to look into the two most promising.

*

On the way my client mentioned that he had two relatives he helped and asked whether it was possible to build an attached, but separate, block for them adjoining the house. He was quite ready to have a house of "a simple

TELLING THE WORLD

A feature of the Blackpool seascape by night is this ship with the illuminated sign. There have been many conjectures as to the sizes of the letters. Here they are: Hugon's 5ft., Atora 12ft., The Good Beef Suet 7ft. The letters are mounted on tubular steel. The sign is about 100ft. long and 30ft. high, and is worked by special engines and a generator operating three rotary convertors.

shape"—he rather liked them. We talked of the possibilities of timber.

*

The agent was very ready to talk about sites and costs and services. After a little the discussion became more general; and then, gradually, that agent's expression changed. From the eager it became judicial, from judicial it merged into the contemptuous—contempt was succeeded by something not very far from horror.

*

"A separate wing?—You mean semi-detached. I am afraid not, sir. No semi-detached houses are allowed on either of our estates."

*

"A cottage nearby? No, sir, I fear that would not be possible. No house may cost less than £750 net on these estates."

*

"Appearance of houses? Very strict control. All houses must be passed by the Estate Surveyor. Yes, the Blank Lane houses are ours; in fact, our Estate Surveyor designed them."

*

"*One floor?* You mean a bungalow? No chance at all. I am afraid if you can only afford a bungalow we can't help you at all. No—I am afraid timber houses would not be allowed either. *Two*-floored, *detached* houses, costing £750 minimum, walls of brick or brick and stone and plain tiled roofs—that's all we allow, gentlemen. Good afternoon—*good* afternoon."

*

It was a wonderful lesson in how seriously we are all taking town planning, amenities and design. An interesting little item was that the Estate Surveyor had not supplied the agent with a plan of the layout; the latter was working from crudely pencilled oblongs on an ordinary ordnance map.

HEADS OR TAILS?

Drastic treatment is being meted out to the Epstein figures on Rhodesia House. Experts having failed to find a means of dislodging them without "damaging" the building, a solution has been found in simply lopping off the heads and limbs of the offending statuary.

*

And not without poignancy is the fact that directing in person the dismembering operations is none other than the President of the Royal Society of British Sculptors: Sir William Reid Dick.

*

One need not dwell on the poetic justice of the situation nor underline too severely the moral to others who have strayed from the academic fold. Neither is there yet sufficient cause for the dreams of young architects to be disturbed by the nightmare vision of Sir —— —— lovingly fingering his pneumatic drill, his eye bright with anticipation at the prospect of having at the "dangerous" balconies of Highpoint.

"TOPSY" TURVY

Whatever our individual convictions may be in the higher realms of economic justice or racial purity, the respect with which the Italian Fascist authorities treat their ancient monuments cannot fail to arouse *our* respect. The care expended in considering the remodelling of the surroundings of St. Peter's and the construction of full-size models to judge final architectural effects might be quoted as an example.

*

In Venice, too, where considerable reconstruction is soon to take place, the special Bill passed by the Fascist Cabinet shows that the greatest care has been taken to reconcile the preservation of architecturally valuable buildings with the constructive demands of a modern city.

*

But one is not without justification in ascribing this attitude to a humbler, more democratic origin, and it is only appropriate that in this, the year of its Jubilee, credit should go to the S.P.A.B. for what was one of its earliest and most spectacular achievements. Ruskin, with what was under the circumstances commendable caution, saw to it that Count Zorzi got the credit, but it was William Morris and "Anti-Scrape" which saved the West front of St. Mark's from demolition.

AMENITY'S MARTYR

Not an appeal—just in explanation of the illustration of this page from the *West Lancashire Evening Gazette*.

*

In sending his dollar for the Darwall Appeal a Blackpool builder and contractor wrote:

*

"Here is another job for a Darwall—one of the few good things on this coast are the sunsets and now we have this competition. Please get Mr. Darwall to torpedo same."

*

Despite my sympathy with Mr. D.'s original activities I deplored his breaking of the law; I must therefore recoil in horror at the suggestion that he should be equipped with torpedoes.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

FEDERAL EXPENDITURE IN NEW YORK

Within the past two years $409,195,154 (£80,000,000) of Federal funds has been spent in New York carrying out the mandate of Congress to "put people to work on useful projects as a means of ameliorating the worst effects of the depression and to promote recovery."

A report made recently to the national administrator by Colonel Brehon Somervell, the New York City administrator of the W.P.A., explains how the Federal funds were spent.

The most notable activities of the local W.P.A. were the work it did at a cost of $113,000,000 to improve the city's park system, and the permanent improvements it carried out at a cost of $109,000,000 in highways, sewers, and public buildings. During the past two years, largely because of the work of the W.P.A., park playgrounds in the city have increased in numbers from 164 to 313, and swimming pools from two to 12. Big areas of city property—many of them eyesores—have been made into extensive and well-equipped parks. Over 430 miles of highway have been paved or repaired, and 67 miles of abandoned tramway tracks have been removed. Fifty-eight new buildings have been erected.

GLASGOW EXPANDS

Glasgow is now greater by 10,000 acres, following on the decision by the Government-appointed Commission of Inquiry which has been considering the city's extension plan.

The city required 12,000 acres for housing expansion from the adjoining counties of Lanarkshire, Renfrewshire, and Dumbartonshire. Lanarkshire ceded 6,000 acres. Strenuous opposition was forthcoming from the other counties, and from landowners and ratepayers. Glasgow, however, got 4,000 of the remaining 6,000 acres, including Drumchapel, Linn Park, part of Renfrewshire, including part of the mineral area, and a large part of Dumbartonshire north of Killermont to the Stirlingshire boundary. The opposition, however, were successful in retaining Rouken Glen, Deaconsbank golf course, Killermont golf course, Gorbals Waterworks, Westerton and Thornliebank.

The additional acreage will provide accommodation for 40,000 new houses, and Glasgow, in consequence, will become the third largest city in the British Isles.

THE ARCHITECTS' DIARY

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.*

Monday, August 30

LONDON SOCIETY. *Visit to Old Walthamstow including the Church, Grammar School and 16th century Almshouses. Meet at the Parish Church of St. Mary the Virgin, 3 p.m.*

SANITARY INSPECTORS' ASSOCIATION. *Jubilee Conference. At Brighton. Until September 3. Monday: Meeting of the Defence League, 10 a.m.; Meeting of the Mutual Provident Society, 11.30 a.m.; Annual General Meeting, 4 p.m.; Reception, 7.30 p.m. Tuesday: Official Welcome of Members and Delegates by the Mayor, Presidential Address by Sir Leonard Hill, and Official Photograph, 10 a.m.; Discussion on "Public Health Act," 2.30 p.m.; Conference Dinner, the Grand Hotel, 7 p.m. Wednesday: Discussions on "Factories Legislation" and "Public Cleansing, with special reference to the Salvage of Waste Products," 10 a.m. Thursday: Discussions on "Meat Inspection with special reference to Memo. 62 (Foods)," and "Milk Supply from the Aspect of the Consumer," 10 a.m.; Discussion on "Housing" (a) Legal Aspect, and (b) Social Aspect, 2.30 p.m. Friday: Discussion on "Grit Emission" and Lecture on "Air Raids Precautions and the Public Health Services," 10 a.m.*

Saturday, September 4

PUBLIC SCHOOLS ART EXHIBITION. *At the Imperial Institute, South Kensington, S.W.7. Until September 30.*

BUILDING STATISTICS

Recently published statistics in the "Ministry of Labour Gazette" show a further decline in building plans approved.

The total estimated cost of the plans for July last taken from returns received from 139 authorities of the 146 local authorities which supply such information to the department, was £9,501,700, against £10,500,200 in the same month of last year, or 9.5 per cent. lower. In June last the total was £8,588,000.

Factories and workshops accounted for the largest decline, the figure at £710,700 being £546,700 lower than in the same month of last year.

Dwelling-houses fell by £492,800 to £5,871,100, but an increase from £658,900 to £883,700 occurred in the estimated cost of plans for churches, schools and public buildings.

The total estimated cost for the first seven months of this year was £66,090,000, or £3,936,000 less than the figure for the corresponding period of last year.

This is equivalent to a fall of 6 per cent. so far in 1937 compared with a year ago.

CITY OF LONDON SERVICES

The Corporation of London's accounts relating to income and expenditure of the general rate have recently been issued from Guildhall.

For the year ended March 31 last the general rate produced £975,092, compared with £897,908 in 1935-36. Adding the Exchequer grant of £54,877, the total money dealt with for 1936-37 amounted to £1,029,970, against £952,785 last year.

The expenditure of the Public Health department was £377,098; sewerage and drainage cost £36,477; and housing absorbed £36,495.

OBITUARY

Frank T. Verity

It is with deep regret we record the death of Mr. Frank Thomas Verity, F.R.I.B.A. He was responsible for the design of a large number of cinemas, theatres and flats, first of all on his own account and latterly in partnership with his son-in-law, Mr. S. Beverley, F.R.I.B.A.

Mr. Verity was articled to his father, the late Thomas Verity, and was also a pupil of R. Phené Spiers. He studied at the Royal College of Art, Kensington; University College; the A.A. and the R. A. Schools; and in Paris. He was the R.I.B.A. Tite Prizeman in 1889, in which year he was elected an Associate of the R.I.B.A. Seven years later he became a Fellow. Mr. Verity held the appointment of Architect to the Lord Chamberlain's Department, was corresponding member to the Société Archéologique de France and also served on the Council of the R.I.B.A. In 1923 he won the R.I.B.A. London Architecture Medal with the Shepherd's Bush Pavilion.

The cinemas and theatres designed by Mr. Verity include: Imperial Theatre, Westminster (now demolished); old Empire, Leicester Square; Scala, Charlotte Street; Carlton Theatre, Haymarket; Pavilion, Marble Arch; Theatre Royal, Bath; Theatre Royal, Windsor; and the Vaudeville Theatre, Paris. Mr. Verity acted as European architect for the Paramount Film Company, for whom he built the Plaza, Regent Street; the cinema recently completed in Tottenham Court Road, and a number of cinemas in provincial towns. Some of these were designed in collaboration with Mr. S. Beverley, F.R.I.B.A.

Other work executed by Mr. Verity included: new façade, Polytechnic, Regent Street; Junior Naval and Military Club, Piccadilly; Civil Service Co-operative Society's building, Haymarket; annexe to French Hospital, Shaftesbury Avenue; and flats in several parts of London.

L. Maggs

It is with deep regret we record the death of Mr. L. Maggs, F.R.I.B.A., F.S.I., in his sixty-third year, after completing thirty years' service with the Notts County Council.

EXHIBITIONS

[BY D. COSENS]

CONSIDERING the resources of the Tate Gallery the choice of sculpture for the new Duveen wing is to be deplored. There are two outstanding exceptions, Maillol's magnificent torso, and his bronze. About 50 per cent. of the remaining work seems to be in pretty equal proportions by either Epstein, Rodin, or Mestrovic. A large share, but so far good enough. The bronzes are very good Epstein, and the Rodins what you would expect. Mestrovic, at any time a rather over-rated sculptor, is usually

happier in low relief than in the three dimensional works by which he is here represented.

The remaining half of the sculpture—again with some exceptions—is of the highly pictorial type, supercharged with the politer emotions, and one wonders whether it was given such prominence because the authorities, delighted with their new gallery, hoped to give us what they think we really like. For, while many fine bronzes and carvings presumably lie unseen in the basement, it is difficult to think of a better reason for quite half of the present choice—and surely it is a misguided one. Admittedly sculpture is not looked on with any great enthusiasm in this country, but its few followers expect a national exhibition of this sort, arranged to inaugurate the opening of a new gallery, to be a reliable reference, not necessarily only to the work of to-day, or to contemporary trends in art, but to that appreciation of form which, translated into the idiom of any time, has those qualities which survive for all time; in fact that it should equal the Tate Gallery's magnificent and well arranged collection of paintings which represent many approaches to art but overstress none.

Much of the sculpture is placed nearer to the walls than seems necessary in so large a gallery, and is not always too happy on its newly-designed bases, and a figure such as Maurice Lambert's, though charming and well composed in the round, is far too slight for its dominating axial position.

It is unfortunate that a building, designed for sculpture, dwarfs, instead of displaying, and that the classical enrichments of column and entablature inevitably lead the eye, on the long axis of the gallery, up and away from the comparatively small and isolated accents of sculpture. The scale and simplicity of the side galleries make a far better background, for here each work is not compelled to compete with its surroundings.

•

Apparently concentration is difficult in August, and art not too popular. Many galleries have shut down. Those that remain open have nearly all concentrated on miscellaneous collections of easily comprehended and comparatively recent work. There are good collections at the Leicester Galleries and at the Leger. Tooth's exhibition is notable for two remarkably fine Stanley Spencers, both of which, "St. Ives, Low Tide," and "St. Ives Harbour," are extremely interesting in composition.

But the most cheerful of these collections is at the Redfern Gallery. Here there is a good deal of very lively and competent contemporary work. Amongst it, Christopher Wood's painting, in its variety and draughtsmanship, shines more brightly than ever. He had no set manner, and no formula, but painted and drew as his subject demanded. He is represented by seven paintings and drawings, each utterly different in type of subject and in treatment. There are two recent paintings by Paul Nash, both typical of his present preoccupation with the qualities of inanimate things in relation to landscape, and both surreal in feeling. Ethelbert White's "Farm near Flaxted" is less familiar in manner than his "Townhurst Wood," and is very successful in its broader treatment. There are two fine Sickerts, and Richard Eurich's "Full-rigged Barque," a contemporary interpretation of traditional ship painting, is interesting. Jonzen's painting has not survived transplanting to the English landscape too well. He understands the strong light of the south better than the indeterminate colours of this country. Edward Wadsworth's "Still Life, Dungeness," an arrangement of maritime objects against a background of sea, is very nostalgic on a hot summer's day in London. It is one of the most interesting paintings in the exhibition.

Summer Exhibitions

Tooth's Galleries, 155 New Bond Street. Until September.

The Leger Galleries, 13 Old Bond Street. Until September.

The Leicester Galleries. Until September 30.

The Redfern Gallery, 29 Cork Street. Until September 25.

LETTERS *FROM* READERS

Salaried Architects

SIR,—I am sorry to trouble you (and myself) again, but "Democrat," in your issue for August 12, says that I agree with him that the interest of the Fellows is at variance with the interest of Associates and Licentiates, and yet maintain the possibility that the control of the R.I.B.A. by Fellows may be in the interest of the whole profession.

If "Democrat" will refer to my letter of July 29 last, he will see that what I said was :—

1 : The Council should be *representative* of the whole body of members.

2 : The *conditions of Fellowship* are not drawn up in the *interest of the Associates and Licentiates.*

I still maintain that it is possible to draw up conditions of Fellowship which shall be for the benefit of the *whole profession ;* but this will not be by making them in the interest of Associates and Licentiates only. I think it is quite likely that a Council of Associates and Licentiates, without Fellows, might make for themselves worse conditions than those existing for salaried architects.

"Democrat" is mistaken in supposing that (when I wrote that his second question was not fairly put for a direct answer "Yes" or "No") I consider his attitude unfair. I meant only that an unqualified answer was difficult.

Suppose it were put another way—"Are the conditions of Fellowship deliberately drawn up to oppose the interest of the Associates and Licentiates?" The answer is the same. Does "Democrat" expect to find the conditions of Fellowship drawn up *in the interest of Associates*, and the conditions of Associateship *in the interest of Licentiates ;* and of Licentiateship *in the interest of Fellows ?*

I am now asked by whom and by what constitutional method issues are to be decided? My reply, as a democrat, is, by the majority (in this case, salaried men), and the constitutional method is by voting for the right men, instead of throwing voting papers into the wastepaper basket. Whenever an architect, by the results, shows that his employment has been justified, he is creating a demand for the employment of architects.

Suppose I have more work than I can do without assistance and I pay one, two, three, or more men to help me. Would "Democrat" say that I do not give those individual men a job? They will not agree They know perfectly well that, without me, they would never have heard of the job ; even if they knew all about it before I did, they knew they would not have stood an earthly chance of getting it, and if I die, they know they will lose a job. I give the job ; they give service, and we are a very happy family. They know that so long as they do not let me down, I am as pleased as they are if and when they can do better by a change, or if and when they can enter into private practice.

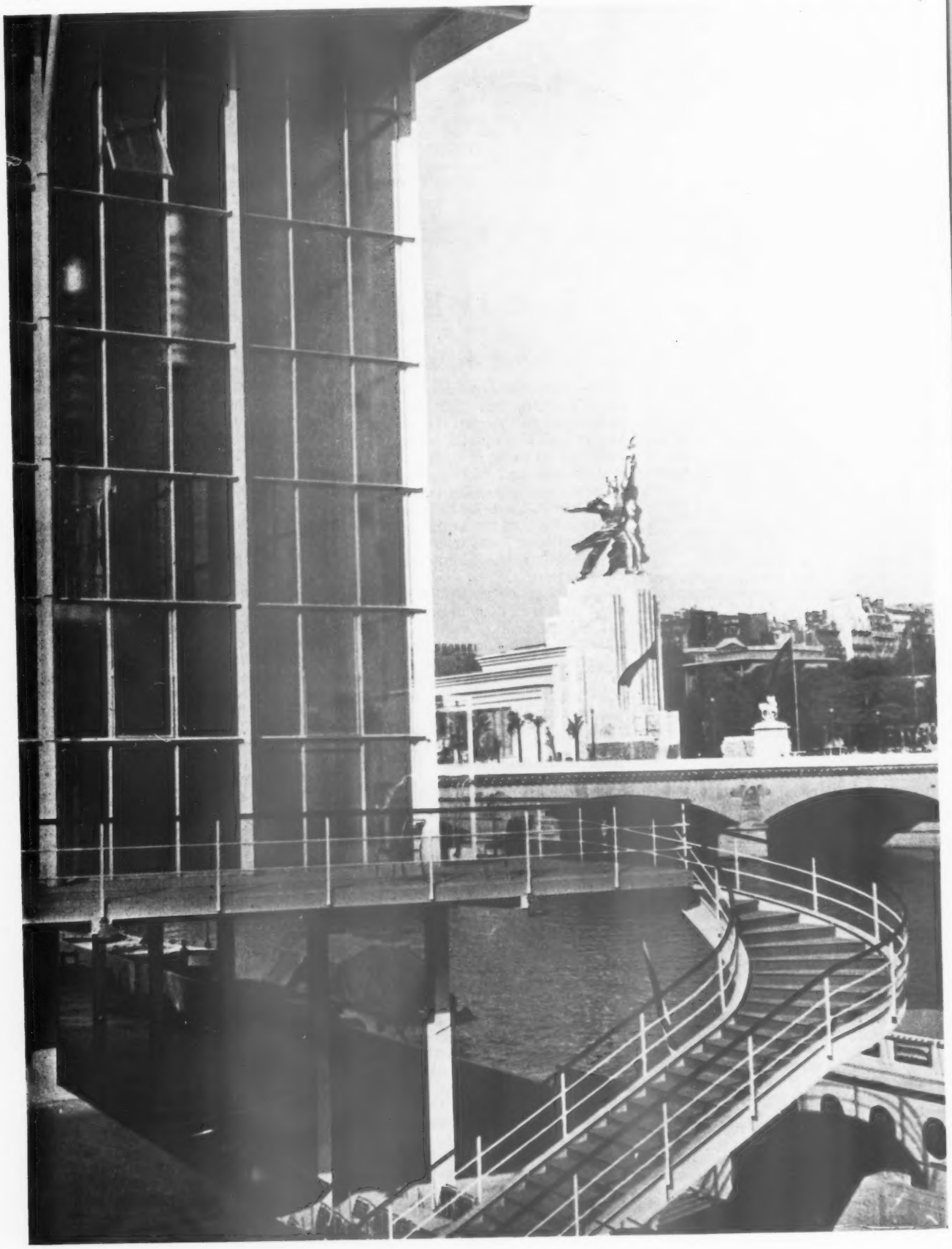
Until the day comes when all sections of society co-operate, architects will, like their fellows in other walks of life, have to make the best of what is, rather than kick against the pricks and argue theoretic economic conditions which can only be effective when applied by the State ; and Great Britain is a long way off the spiritual conditions necessary for national co-operation. When all assistants and all employers equal the best, "the sanctity of the private economic objective" will not need solution.

If "Democrat" and all other young men throw away their wastepaper baskets and set to work through the A.A.S.T.A. and the R.I.B.A. to work for architecture and the profession as a whole, in God's good time they will achieve something.

Too many of those who desire much are not willing to give anything ; they look up to the light—for amusement—and expect the reward of good work.

CHARTERED ARCHITECT AND SURVEYOR

CHARTERED ARCHITECT AND SURVEYOR



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THE PARIS EXHIBITION

A REVIEW

[*By HOWARD ROBERTSON, S.A.D.G.*]

"YOU'VE seen the Exhibition! What do you think of it?" That is a stock question. But unfortunately, there is no stock reply. The Exhibition is not finished, and probably will not be quite complete till autumn. But anyone who saw it in the making will not be surprised. For the scale and extent of it are so vast as to make complete realization a little theoretical; its plan is a project which, one feels, it is hardly decent to expect to see in full execution. As though it were not enough to cover both banks of the Seine from the Pont de la Concorde to the Pont de Passy, the planners have roped in the Ile des Cygnes as a complete Colonial Section, and then have vomited up a few more buildings in an annex, way up by the Porte Maillot; a section which takes one by complete surprise in its serene detachment from the rest of the composition.

The physical extent of the Exhibition is relatively immense; and the ready absorption of this temporary city built in the kernel of Paris is an object lesson in the elasticity which a generous civic conception can provide. Looking at these avenues of buildings, and at the façades which crowd—though not uncomfortably—along the quays of the Seine, one inevitably compares Paris with London, and thinks in the words of Sinclair Lewis that "It can't happen here."

In Paris, the governing factor in the Exhibition's popularity is its situation on the Seine. On a bright day the river runs through the pavilions like a lane of mirrored sky. White painted vedettes supplement the still existing "bateaux mouches"; ferocious-looking rafts blossom at night into liquid bonfires with the ugliness of their projectors buried beneath illuminated spray; and

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1: *The Pont d'Iena and the U.S.S.R. pavilion behind it; in the foreground is part of the Swiss pavilion.* **2**: *the main axis of the Exhibition from the Eiffel Tower; the main avenue is flanked by the U.S.S.R. and German pavilions and the horseshoe of the new Trocadéro is in the background.* **3**: *the Italian pavilion and the Eiffel Tower.*

along the banks the wisest of the pavilions stretch out terraces, balconies, umbrellas and restaurants towards this flowing and refreshing avenue. The river is the friend in the summer months, and the French authorities ought to have stressed that fact to all architects who, building in the winter, may not have realised it.

Apart from the Seine, which forms the main axis, there are two elements which help to create a cross axis ; the new Trocadéro and the Eiffel Tower. And besides these aids to grand composition, there are the differences of level, expressed by the mound of the Trocadéro—which dominates ideally—and, to complete the sense of a Beaux-Arts plan, those secondary " centres of interest " provided by the Grand and Petit Palais, the bridges, and the inevitable " incident amusant," in this case the Ile des Cygnes. The whole thing is quite " en règle " from a text-book standpoint, and yet the result is by no means boring in spite of a slight yawn over the triteness in execution of the plan at the end of the Exhibition over by the Ecole Militaire. One should begin, and not end, one's visit at this point ; for it has a faint suggestion of the sort of aridity which used to overhang Wembley, and is not a place to linger over.

Most of the big foreign exhibitions carve their date on a capital city by means of a permanent building, and sometimes more than one. The Grand Palais, fruits of Paris, 1900 ; the Art Museum in Stockholm ; the Musée des Colonies at the Paris Colonial ; the Palace of Industry at Brussels ; all of them steadying elements in a sea of impermanence. But none of these Exhibitions has benefited as hugely as has Paris, 1937, from the presence of the new Trocadéro and its approaches, not to mention the Musée d'Art Moderne, which is outside the Exhibition, in fact, but is spiritually within it.

The Trocadéro is behind the Gate of Honour, and is bold in its conception because its centre is virtually a void. The fact that it is on a commanding elevation makes this solution successful ; for the building itself, cramped perhaps by the foundations of the existing wings, is architecturally a little pinched, its end pavilions betraying a fault of crowding of elements which is more familiar in English than in French modern classic renderings. The attractive Musée d'Art Moderne adopts a similar solution, with a slender open portico forming two separate wings. But here the result is not so good, for the building is a flankwise one, and there is no central bridge or approach to explain the void, with the result that the Musée tends to " fold up " from most viewpoints.

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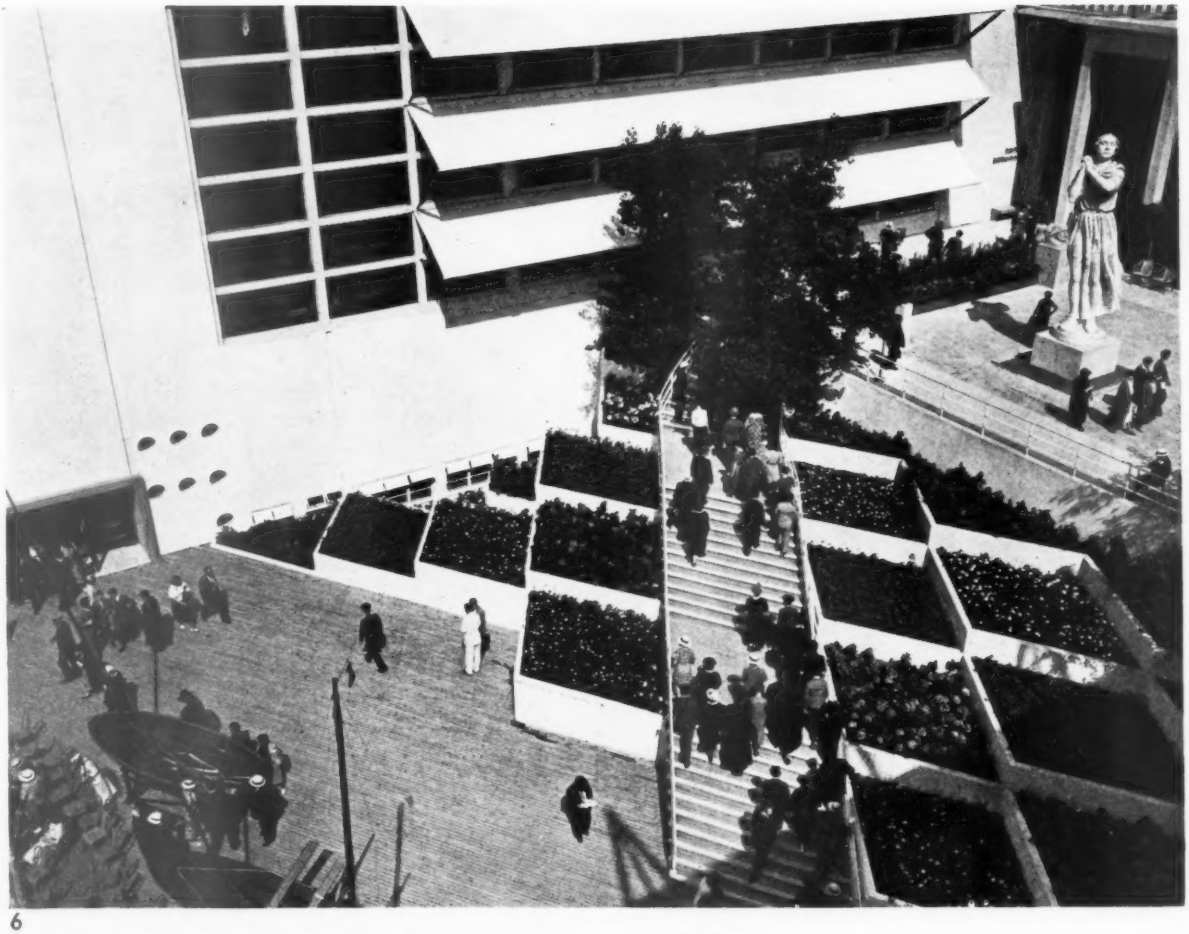
4 : The permanent Museum of Modern Art and its sculpture garden. After the exhibition the building is to be used to house the national and municipal collections now in the Luxembourg and the Petit Palais : architects, Dondel, Aubert, Viard and Dastugue. **5** *: The interior of the German pavilion : architect, Albert Speer.*

Coming down from the Trocadéro are cascades, steps and terraces ; and at the foot of these, rightly placed for drama, are the two most piquant oppositions of the Exhibition, the pavilions of Germany and the U.S.S.R. Each offers a pylon to the Trocadéro approach, Germany in the form of a very Fascist Tower, which springs from modern feeling, and yet seems to suppress it with a stern frown, and the U.S.S.R. by means of a gloriously 1900 statuary



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6 : *The secondary approach to the British pavilion, showing the steps from the riverside terrace : architect, Oliver Hill.* 7 : *Entrance hall of the Belgian pavilion : Van der Velde, Eggerick and Verwilghem, architects.* 8 : *The display windows of the British pavilion.*

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9 : *The tower of the German pavilion formed of eight steel pillars faced with slabs of channelled stone : architect, Albert Speer.* **10** : *Entrance and stairway, the Swedish pavilion.* **11**: *Façade of the Austrian pavilion, showing the huge photo mural around the main hall : architect, Oswald Haertdl.* **12** : *The Danish pavilion with its ntrance staircase of Greenland marble : architect, Hvass.* **13**: *The Jugo-Slav pavilion : architect, Sarssel.* **14**: *Decorative art display in the Norwegian pavilion.*

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group, gigantic and histrionic, darting from the end of a great slab of building conceived as a vast directional plinth.

Set between these two pavilions and the Trocadéro are many of the foreign pavilions, ranged in an informal but reasonably balanced order. On the other side is the bridge, its approach flanked by Great Britain and Canada, Belgium and Belgian Congo ; and then one passes under the Eiffel Tower—really spectacular at night—and so to the Art and Technical Exhibits, culminating in Mallet-Stevens' well studied Pavilion of Light.

The glares of publicity and criticism beat most fiercely on the foreign pavilions. And here, as in most international exhibitions, it is safe to say that no country is safe from the public reaction that its pavilion is un-national. We hear that in Finland, Sweden, Czecho-Slovakia—to mention but a few—both the buildings and their contents are under fire. And we have all read that the same thing has happened in this country. The fact is that no one to-day can truly present, in a single exhibition building, a symbol of national architecture ; firstly because the modern movement is largely international, and secondly because architecture still remains largely a matter of personal expression.

So the task of a governmental architect is nearly hopeless from the start. If his design is pompous enough to look official, the intellectuals ooze with scorn ; if he designs with a " purely functional simplicity " he is accused of producing " boxes " ; if he goes half and half, he earns the opprobrium of all parties. No architect can please everybody ; it generally takes a few years for a really good building to come into its own ; and exhibitions last but six months in a year. So the problem is nigh insoluble, and only the designer with talent, luck, a first rate committee, and reasonably ample funds, can hope to come through the task of national pavilion representation with a nearly whole skin.

Mr. Oliver Hill's British pavilion is, we can rest assured, the product of a great deal of study, and consideration, of his programme. Inside, it is very good, with a great sense of space, and plenty of interest of form. Externally, it suffers from the proximity of Canada, which confuses its composition ; but in its simplicity it really conforms to a national characteristic, for the English tradition is always that of an external reticence. To criticize this building fairly, or any other of the national pavilions, one should know intimately the programme and the circumstances, and that is impossible for most critics.

Judging by results, however, it is easy to find good points in the stalwart clean form of Belgium, clothed with terra-

cot ta ; in the fantasy and charm of Poland, which is outstanding in its sympathy with its site ; in the sophisticated orientalism of Japan as influenced by the idiom of Le Corbusier; in the clarity of Austria, Denmark, and Norway, and the competence of Italy and Switzerland. All these buildings, including also Sweden and Jugo-Slavia, contain some charming effects of detail, and many exhibits of quality.

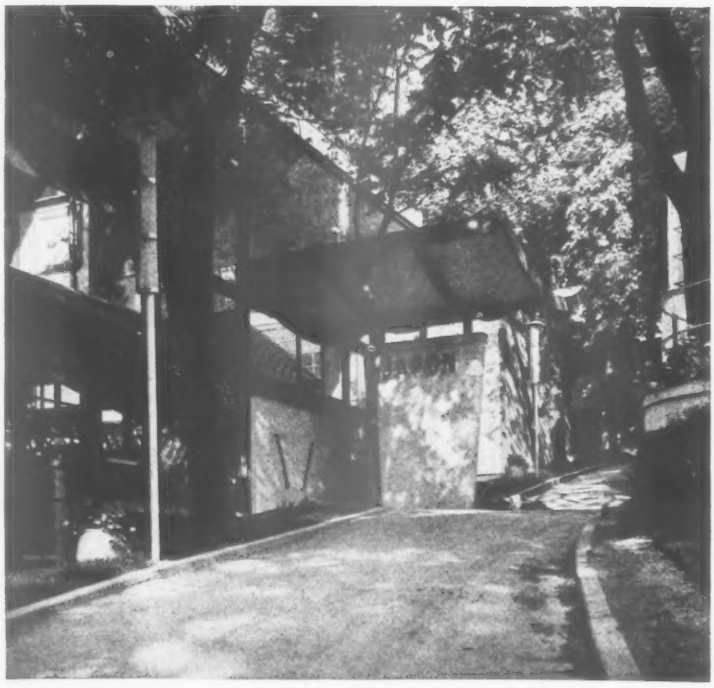
A comparison of building methods leaves one without very definite conclusions. The simple structural buildings, such as the Swedish pavilion, gain by comparison with, say, the full-blooded German treatment ; but, from the public standpoint, the converse is also true, and variety is certainly an exhibition spice. On the whole, halls filled with daylight are an advantage in such an atmosphere as that of Paris, with the provision of a few darkened rooms for the drama of precious artificially-lit exhibits. One point, however, is generally overlooked, and that is the question of ventilation. On hot days it is mostly defective, and only one or two of the buildings, notably Belgium, have artificially induced washed air.

The vast number of general purpose buildings in the Exhibition are entirely in a modern expression. Compared with previous shows, it is a case largely of " the mixture as before," but with a more assured touch. Individuality is more striven for than naturalness, and style in its finest sense is not a marked feature ; one has the feeling that this Exhibition is still very much the expression of our transitional phase. Purely as a personal reaction, the prize goes to Poland. But no doubt the Polish public find their building utterly un-Polish, in the same way that a section of the French public will hold that the thoroughly naughty " Pavillon de l'Elégance " is completely inelegant.

Someone said, apropos of Wembley, that all Exhibitions are conglomerations of the shoddy. Paris, 1937, gives the lie to this belief, if it still exists. For in spite of its lack of finish, the Exhibition wears an air of quality ; and neither in layout nor in detail does it appear the product of tired minds. And apart from the Exhibition, no city could offer more generously than does Paris at this moment a feast of " artistic manifestations," ranging from concerts, the shows of ancient and modern art at the new Museum and the Petit Palais, to the wonderful collection of El Greco in the Galleries at 140 Faubourg St. Honoré.

Having tasted the sensations of Paris, 1937, one asks oneself " what trend does it indicate ? " It certainly reflects the fact that politics influence architecture, as witness the reaction in the German pavilion away from that advanced school of design which has so helped to stimulate all modern architecture. It indicates a halt in pure invention and a consolidation of the freedom already gained by past effort. It reveals a certain poverty in design, and an adherence to formula, and seems to show that in architecture to-day there are more clever people but fewer distinguished ones. It shows the adherence of Great Britain to what has become a quasi-tradition, namely, the policy of remaining modest, and restricting her exhibit to a symbol. This may prove, from the standpoint of the average British visitor, a disappointment. But it helps to make the British show always different from the others. And one way of revealing good showmanship in an Exhibition is to be different.

It is easy to criticize an exhibit but difficult to make one. And those in charge of British policy on this matter certainly know a great deal more about their business than the hue and cry in the daily press would lead one to believe.



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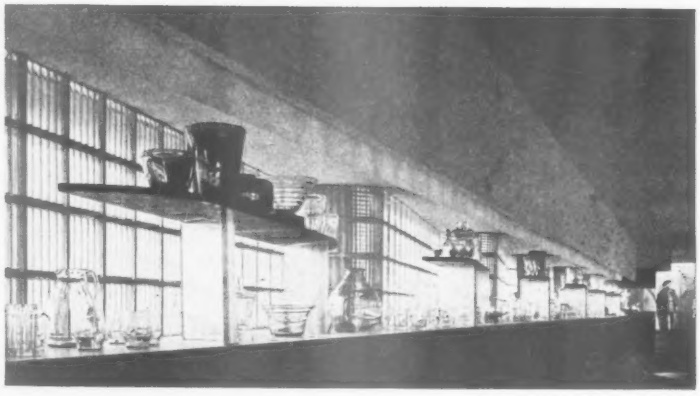

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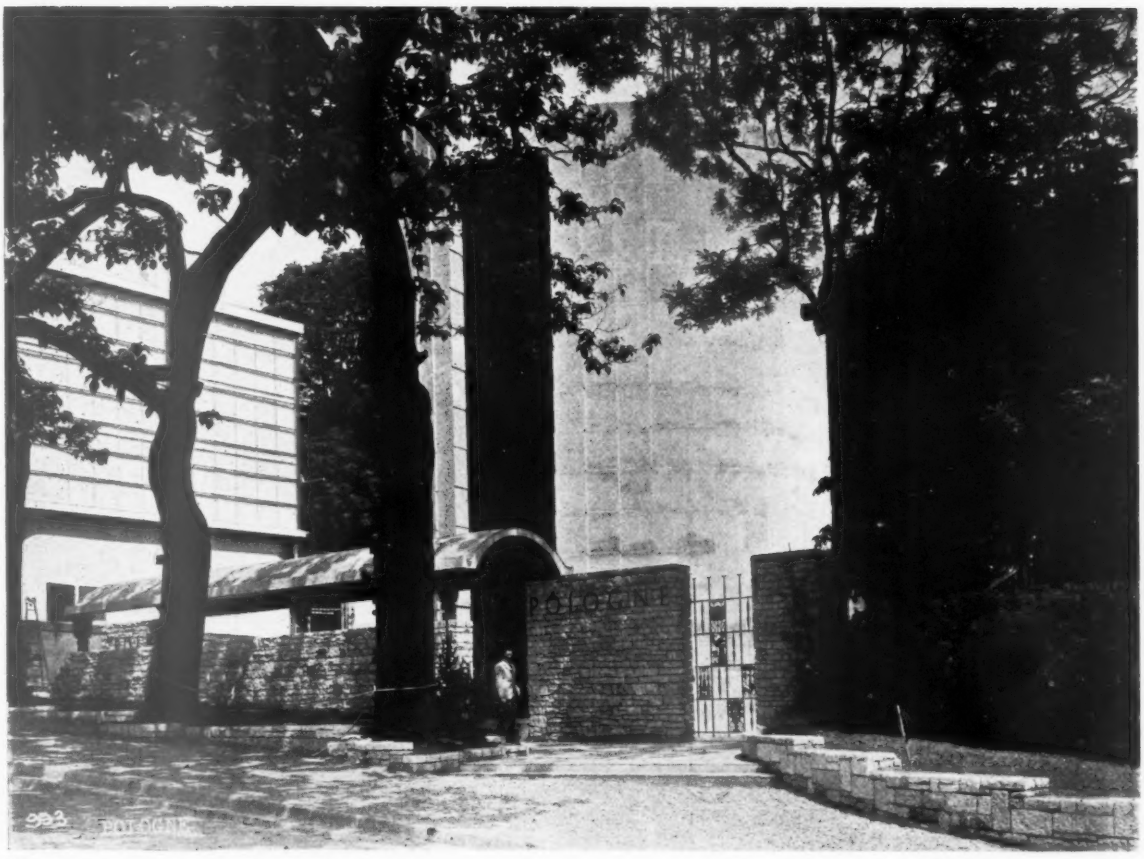
15 : *The façade of the Japanese pavilion, a design particularly happy in the combination of materials—steel, wood trellis and paving units : architect, Sakakura.* **16 :** *The display of glass craftsmanship in the British pavilion.*



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17 *and* **18** : *External and internal views of the Polish pavilion: architects, Pniewski, Lachert, Brukalski and Szanajca.*

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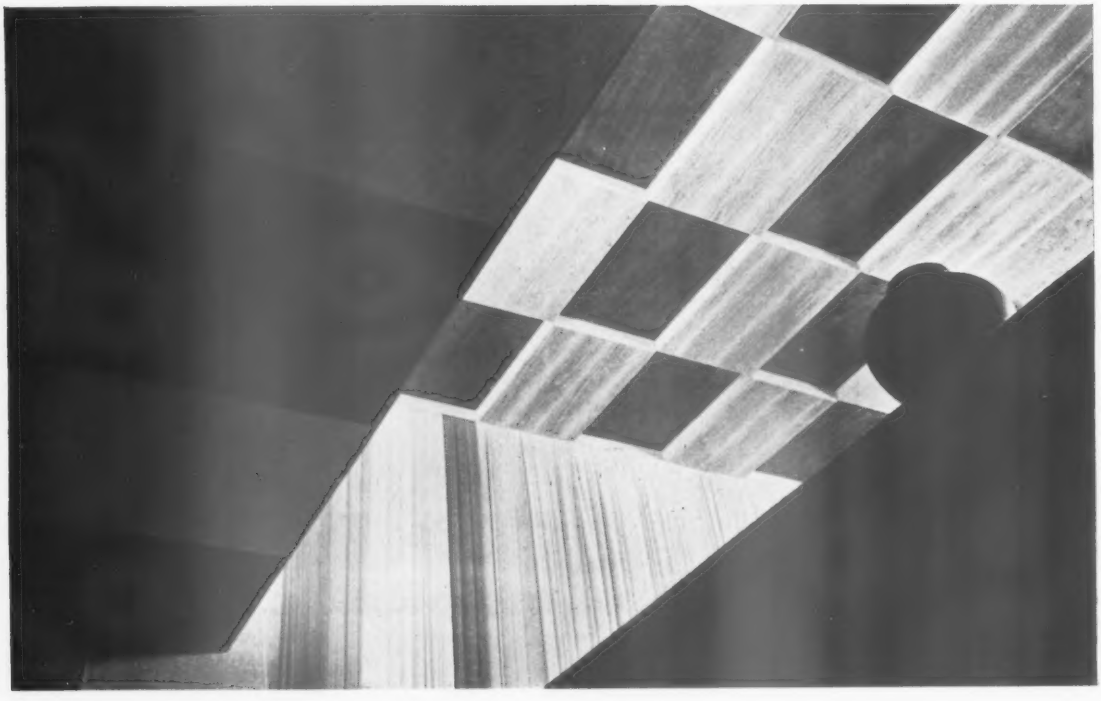
19 : *The architects' club, left, and the Refrigeration pavilion on the left bank of the Seine.* **20** : *Stairway in the Swedish pavilion : architect, S. I. Lind. The photograph also shows the lightness of the welded steel structural members.* **21** : *Ceiling in the Norwegian pavilion, panelled in various plywoods : architects, Knut, Knutsen, Korsmo and Schrstad.* **22** : *A group in the Pavillon d'Elégance.* **23** : *The secondary focal point of the Exhibition : the mast on the axis of the Pont Alexandre III.* **24** : *The glass façade and courtyard of the Dutch pavilion : architect, Van den Broel.*



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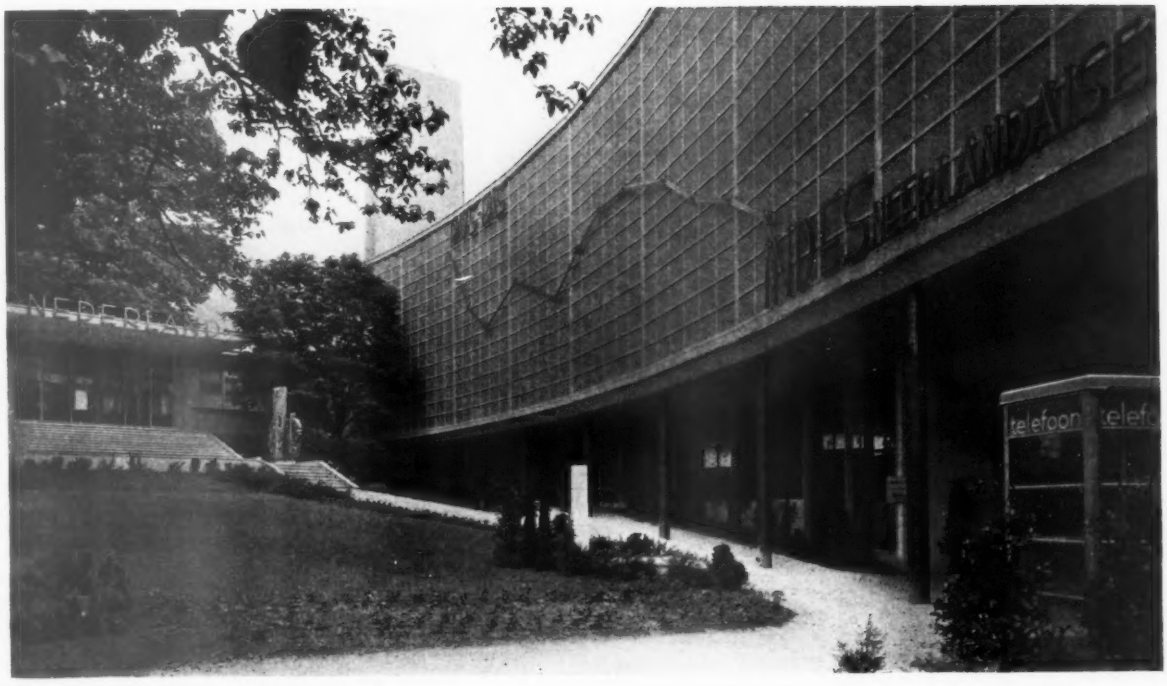

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HOUSE AT BOARS HILL, OXFORD

DESIGNED BY

THOMAS RAYSON

CONSTRUCTION—*External walls are brick, with a 2-in. cavity filled with waterproofed concrete; internal walls, brick; and the roof is covered with hand-made plain tiles.*

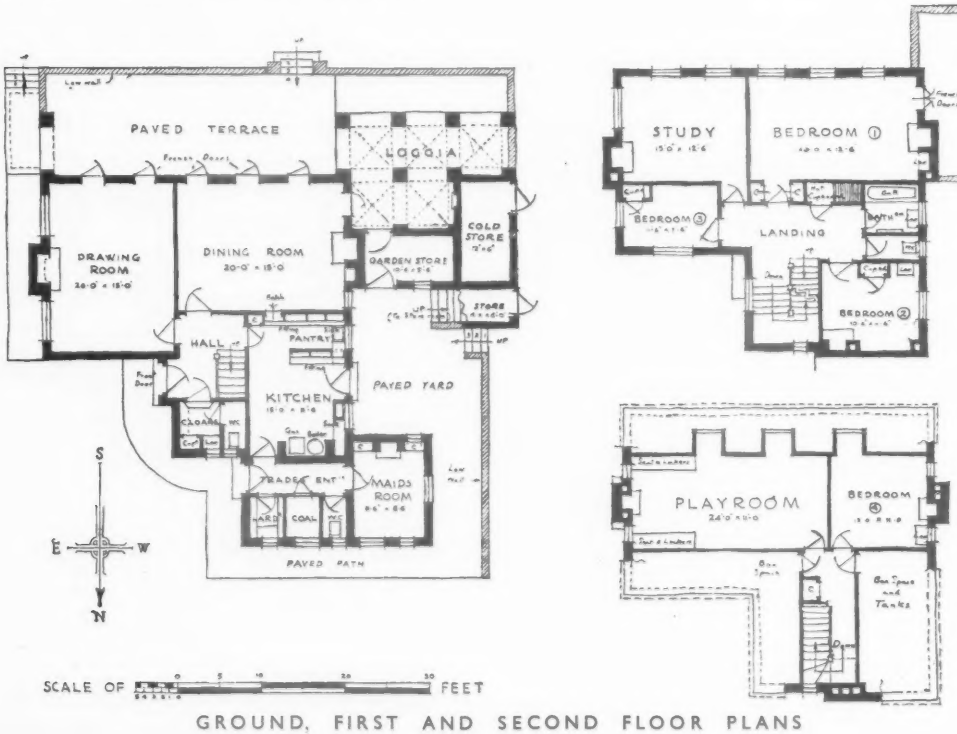
PLAN—*All the principal rooms have windows facing south to take advantage of the view over the Berkshire Downs.*

INTERNAL FINISH—*The walls of the principal rooms are finished in a light tone to form a background for pictures of delicate colouring. Fireplaces are Hopton Wood stone; joinery is Columbian pine, stained and polished a sepia tint; and floors are Jarrah boards, wax polished. Steel casements open on to the terrace and loggia.*

SERVICES—*The house is supplied by main electricity and gas, but sewage is disposed of by an independent plant on the site. Hot water system, with calorifier, is from an independent boiler. Heating points for electricity are provided.*

The photographs show: Above, the south front; right, the loggia.

For list of general and sub-contractors see page 351.



GROUND, FIRST AND SECOND FLOOR PLANS

IN THAT CONTINGENCY

[The following are abstracts of inquiries recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry and are not necessarily suitable for general application to all similar problems. Crown Copyright Reserved.]

Building Limes

¶ *AN inquiry was received for information regarding the properties of, and appropriate treatment for, the various types of limes used for building purposes. (The reply has been amplified in the following note in order to assist users generally to appreciate the differences in the various types of lime and in the forms in which they are now marketed.)*

The raw material from which all building limes are derived is either limestone or chalk which, after burning, becomes quicklime. The composition of the raw material used for lime burning varies considerably, however, and this necessitates different burning treatment and leads to the production of a series of limes differing in properties; the methods of slaking must also be suited to the particular lime.

Some limestones are practically pure and yield a white quicklime which when slaked to putty gives a "fat" lime putty—or one of high workability. In practice the slaking, or hydration (both terms have the same meaning) is carried out in various ways to produce either lime putty, dry slaked lime or powdered dry hydrated limes sold under proprietary names. These forms of lime belong to the simplest type, and an important point to remember is that these harden only in contact with air. Other limestones contain earthy substances which during the burning process produce compounds like those in Portland cement responsible for hardening. These limes are termed "hydraulic," because under moist conditions they can set out of contact with air, rather like Portland cement, though they are much weaker than cement. For this reason some of these limes, as indicated later, are not usually employed in the manufacture of lime putty. Limestones containing only a small proportion of earthy substances are also used for lime-burning; the quicklime obtained is called "lean" lime, and yields a smaller proportion of putty. The earthy material is not present in sufficient proportions to confer useful hydraulic properties on the slaked lime produced.

This brief introduction will suffice to indicate the characteristics of the various types of lime and the reasons underlying the classification into four main types, as below, which is convenient for the purposes of describing and discussing them. It must be realized that there is no clear cut distinction between the various classes, each of which merges continuously into the next.

Class I.—Non-hydraulic Lime

The non-hydraulic limes set only by drying-out and hardening subsequently by slow carbonation, i.e. by combination with the carbon dioxide in the atmosphere. Under moist conditions they never set and should not therefore be used in damp situations unless a "gauging" of Portland cement be added. The kind of hardening which depends on carbonation can only occur when the lime is accessible to the air.

Slaking of this class of lime is carried out on the job almost invariably by "running to putty." This consists of mixing quicklime and water in a tub and stirring. Considerable heat is usually generated. The lime is then passed through a fine sieve into a tank or pit and allowed to settle and drain. It is usually matured for a few days when it is to be used for ungauged building mortar, or for at least three weeks for plastering purposes and "gauged mortar." While it is in the form of a stiff moist putty the material improves rather than deteriorates by storage.

These facts are, of course, common knowledge, and are included for the sake of completeness, but it is evident that the characteristics of the forms of lime described later are not so well understood, and various difficulties arise in building work for this reason.

Non-hydraulic limes marketed as white hydrated limes are prepared by slaking the quicklime in a factory by a carefully controlled process, and if the processes are properly conducted the lime should be quite sound when delivered to the job. Unsoundness is a term used when a lime contains slow-slaking material which may subsequently hydrate slowly in the finished work with a certain amount of expansion. An assurance of the soundness of the lime may be obtained by requiring a guarantee that it has passed the soundness test recommended by the Building Research Station. If sound, hydrated lime may be mixed in mortars straight from the bag.

A slight improvement in workability may be obtained by soaking overnight, which also reduces any risk of unsoundness. A soaked dry hydrate, however, is never quite as plastic as lime putty prepared from a similar lime. Soaking is especially desirable when lime is to be used for plastering because of the value of the extra plasticity and assurance of soundness.

"Lean" non-hydraulic limes containing a small proportion of substances other than lime are not commonly used outside their own districts. They usually slake more slowly and yield a relatively smaller quantity of lime putty than "fatter" limes. Special care is needed to avoid the inclusion of unsound material in the mortar; the putty should be carefully screened and matured for some weeks.

Class II.—Moderately Hydraulic Lime

The moderately hydraulic limes comprise mainly the "greystone" limes which yield a putty as plastic as white chalk lime. They may also be purchased as dry hydrated lime or may be dry slaked on the job.

Greystone quicklime is usually slaked in a tub or bunker or in a ring of sand. It should be passed through a fine screen before use to remove slow-slaking particles and preferably be used up within a few days of slaking.

The dry hydrate and the slaked quicklime possess definite hydraulic properties if the mortar is used up within a short period, about eight hours, of mixing. Prolonged soaking or storing as lime putty will almost entirely destroy hydraulicity.

Matured lime putty for plastering should be used for similar purposes and in the same way as ordinary white lime putty, and no dependence should be placed on its hydraulic strength.

Dry hydrates should, as with non-hydraulic limes, be purchased under a guarantee of soundness.

Class III.—Eminently Hydraulic Limes

The most common type of British eminently hydraulic lime is the blue lias variety, though other limestone deposits yield limes possessing equal hydraulicity. Some may need a slightly different technique in slaking and use, but such minor differences need not be discussed here.

The usual method of slaking these limes is to make a pile of the lump quicklime and to add the quantity of water necessary for slaking (as known by experience of the particular lime); then to cover the lime with sand and leave for from 24–48 hours, according to the type of lime. The heat evolved by the "slaking" generates sufficient steam to penetrate and slake the whole of the lime. The sand and lime are then passed through a fine sieve to remove large slow-slaking particles, the requisite additional sand and water added and mixed to produce a workable mortar, in accordance with the proportions specified.

Mortar thus prepared should be used up within a few hours of mixing or it will commence to set. Knocking up and retempering will considerably reduce its hydraulic properties.

Eminently hydraulic limes are not usually employed in the manufacture of lime putty. Even when this is possible, their hydraulic properties will be largely destroyed. Owing to the possibility of the presence of slow slaking particles they are rarely used for plastering purposes and, for the same reason, they should not be gauged with Portland cement or gypsum plaster, as when so gauged the effects of any unsoundness will be markedly accentuated. The addition of Portland cement is not advisable, and if properly handled their strength development should be sufficient to render such addition unnecessary for ordinary building purposes. Where greater strength is necessary Portland cement and sand mortars should be used with or without the addition of non-hydraulic or moderately hydraulic lime.

Class IV.—Magnesian Lime or High Magnesium Lime

A note on the use of magnesian lime has previously appeared in this series*.

Ground Limes

It should be noted that some limes, particularly eminently hydraulic limes, are marketed as ground quicklime. Lime in this form must not be confused with dry hydrated lime and must be slaked before use. A special technique is required in

* (Issued from the Station in August, 1935.)

slaking ground hydraulic quicklime to avoid risk of unsoundness. The instructions of the makers should be followed carefully, particularly as regards the period of maturing which is suggested.

Classification of Limes used in Building

Class	I. Non-Hydraulic	II. Moderately Hydraulic	III. Eminently Hydraulic	IV. Magnesian
Descriptive Terms	Mountain limestone White chalk Oolitic	Greystone	(*a*) Blue lias (*b*) Chalk marl (*c*) Scotch (shaly) carboniferous	High magnesian (Dolomitic)
Forms in which obtainable or employed	Lump quicklime Dry hydrate (proprietary) Lime putty	Lump quicklime Dry hydrate (proprietary) Lime putty	Lump quicklime Ground quicklime As dry hydrate (proprietary)	Lump quicklime Lime putty

Wall Plate in Load-Bearing Wall

¶ *A BUILDER asked if a deal wall plate to support the ground floor joists of a house could be safely built into a load-bearing partition wall.*

The plate was to be fixed upon a damp-proof course and the floor space was to be ventilated in the usual way. It was suggested that the house should have a life of sixty years.

The compressive strength of the wood to be used as a plate is no doubt sufficient to bear the load to which it is to be subjected, and the loading itself would not adversely affect the timber.

However, the useful life of timber depends upon other factors ; chiefly its resistance to attack by fungal growths, e.g. " dry-rot " fungus. If the ventilation of the floor space is adequate and the damp-proof course continuous there is no reason to anticipate fungal attack, but during sixty years conditions may so change as to increase the risk of decay, e.g. the ventilators may become choked. The decay of the plate might, of course, lead to serious structural damage. On the whole, the construction cannot be considered good. A load bearing wall should be continuous from the foundation, and separate sleeper walls provided to support the floor joists.

The construction could only be considered satisfactory if the plate were impregnated with creosote under pressure or otherwise adequately treated with wood preservative.

Decay of Painted Roof Boarding

¶ *AN architect inquired as to the causes of the decay of roof boarding and woodwork forming the roofs of a verandah. The roof was of tongued and grooved boarding, painted on the underside, with a built-up bituminous covering. The roof was almost flat and abutted against the main walls of the building. A boxed eave, which was painted externally, supported the rainwater gutter. The roof covering was dressed over the edge of the boarding to discharge into the gutter. Samples of wood taken from various parts of the roof were sent for examination.*

An examination of the wood samples by the Forest Products Research Laboratory indicated that decay had been caused by the attack of two types of fungus, viz. *Poria Vaillantii* and *Coniophora*. There was no trace of infection by *Merulius Lacrymans*, the fungus which is responsible for the most common and most serious type of " dry-rot."

The fungi which caused decay can only develop in the presence of large quantities of moisture, i.e. in wet rather than damp conditions. It is therefore inferred that some weakness in the roof has allowed the timbers to become saturated with water which is unable to dry out through the paint film and bituminous covering. It appeared that sufficient moisture to cause this type of decay could gain access to the boarding only through the roof covering or at its finish against the walls and to the rainwater gutter. A careful examination of the covering and the joints was advised.

After penetration has been prevented and the woodwork is reasonably dry, a recurrence of the trouble need not be anticipated as the fungi cannot develop except under wet conditions. It would, however, be wise to remove the whole of the decayed timber and treat all timber used in repairs or timber adjacent to the decayed work with a good wood preservative.

BUILDING RESEARCH

The Building Research Board, in presenting its Annual Report* for 1936, issued recently by the Department of Scientific and Industrial Research, invites special attention to a review of the work of the Building Research Station since its establishment eleven years ago, prepared by Dr. R. E. Stradling, the Director of Research. " In this short period," the Board states, " the Station has become a real factor in the building industry. Of this, the increase in the number of inquiries received annually, from 190 in 1927 to 2,862 in 1936, with an increase of nearly 500 in 1936 over the figure in 1935, is significant. . . ."

Dr. Stradling's retrospect shows that in the past eleven years the Building Research Station has made substantial progress towards the solution of problems involved in the use of practically every building material, both traditional and new. One investigation is likely to lead to specification testing of cement being placed on an entirely new footing and, in another, methods have been evolved by which the considerable variations in the strength of concrete as produced on a job can be reduced. The gradual application of these methods in the industry is, it is stated, having a steady effect in improving the quality of concrete structures. Chemical studies have led to the discovery of substances from British sources which render concrete more resistant to chemical attack. In some cases the work has resulted in new industries being started. For instance, the production of bricks by a steam-curing process from spent oil shale and lime has been investigated and the commercial production of this type of brick has been started in Scotland. Commercial production of materials for making good light-weight concrete from blast furnace slags has also been begun.

Studies have been made of the properties of building stones and the causes of their weathering and decay. This work has now made it possible to help the building industry in the selection of materials and in the maintenance of masonry. The Building Research Station has also devoted attention to those properties of bricks which may give cause for dissatisfaction. The presence of a small percentage of bricks of unsatisfactory quality in an otherwise good consignment mar the appearance of any building. It is now possible to examine samples of clay and indicate the best firing temperature for bricks made from it. It is also possible to estimate the risks involved if this temperature is not obtained. The importance of particular firing temperatures in eliminating the salts which by crystallizing out may cause unsightly stains or even the disintegration of bricks has also been clearly brought out.

A considerable amount of work has been carried out on plaster, mortars and rendering.

Valuable work has also been carried out on the painting of plaster, waterproofing materials for brickwork, on the successful laying of composition floors, on the vibration of buildings, on the foundations of buildings, on the driving of concrete piles, on structural steel, on the heating of rooms and on the exclusion of the heat of the sun from buildings of various kinds. An instrument has been designed for use with model buildings by which the amount of sunlight which can enter any room in the building at any time of day or season of the year can be immediately deduced. Investigations have also been made which indicate the conditions under which ultra-violet window glasses may be profitably used. Measurements have been made of the rate of heat transmission through single and double glazing and of the mechanical strength of sheet and plate glass. Recently the Station has been asked to investigate the properties of glass walling blocks now being produced in this country. Finally, very important work has been done on architectural acoustics and the fire resistance of buildings.

* Report of the Building Research Board for the year 1936, published by H.M. Stationery Office, 4s. net.

FILING REFERENCE:

WORKING DETAILS : 585

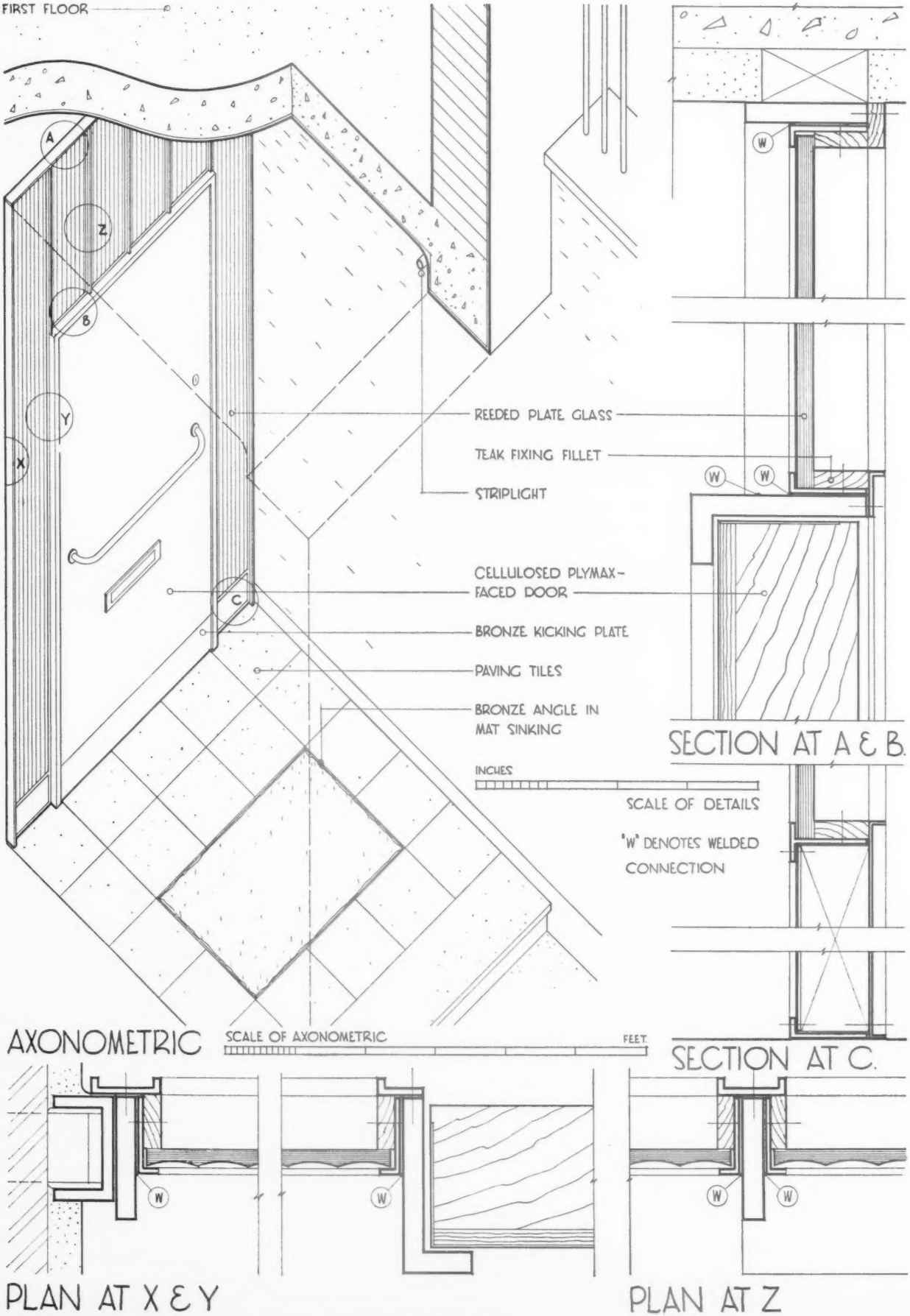
ENTRANCE DOOR • HOUSE IN CHELSEA, S.W. • WALTER GROPIUS AND E. MAXWELL FRY

The entrance door is set back in a deep recess ; it is finished with yellow cellulosed metal-faced plywood. The door has a surround of panels of reeded plate glass, and the side walls of the entrance have a rendered finish. Door furniture and kicking plates are in bronze, and the sides of the mat sinking are also finished in bronze. The entrance is paved with buff-coloured tiles.

Details are shown overleaf.

WORKING DETAILS : 586

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



Axonometric and details of the entrance door illustrated overleaf.

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INFORMATION SHEET

SUPPLEMENT

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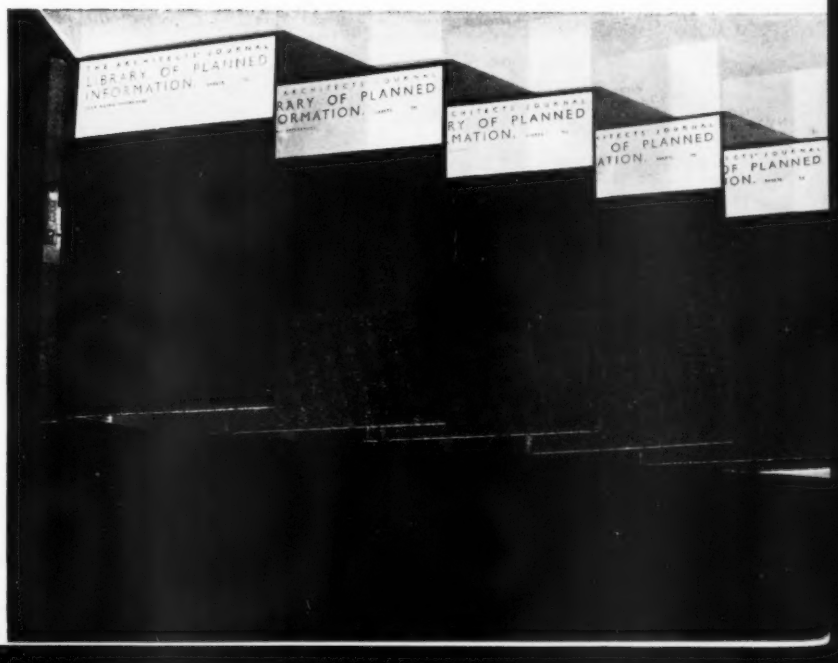
551 U.S.A. Plumbing—IV



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501 : Aluminium
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503 : Approximate Estimating—XII
504 : Aluminium
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506 : Approximate Estimating—XIII
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508 : Roofing—Valley Flashings
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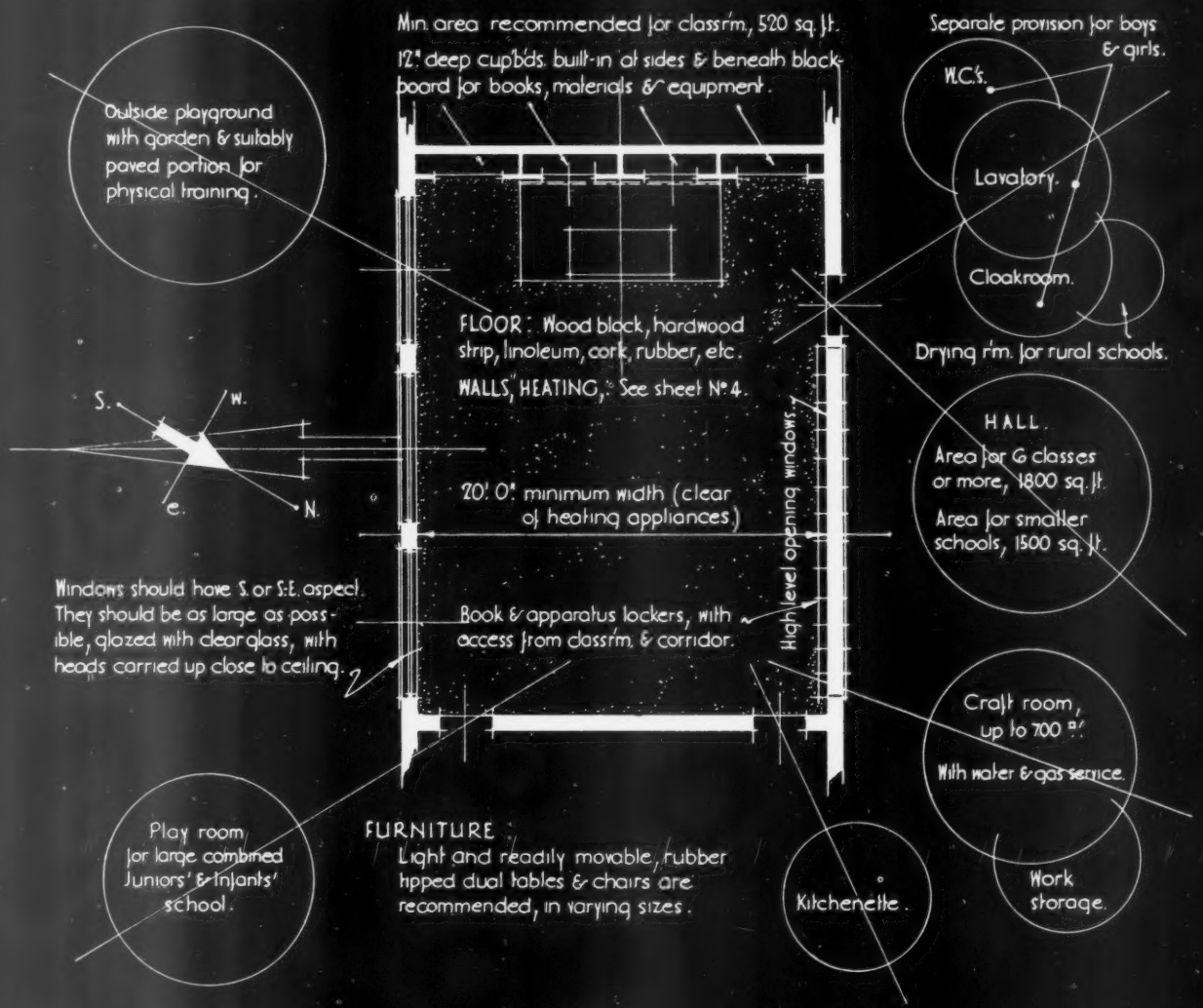
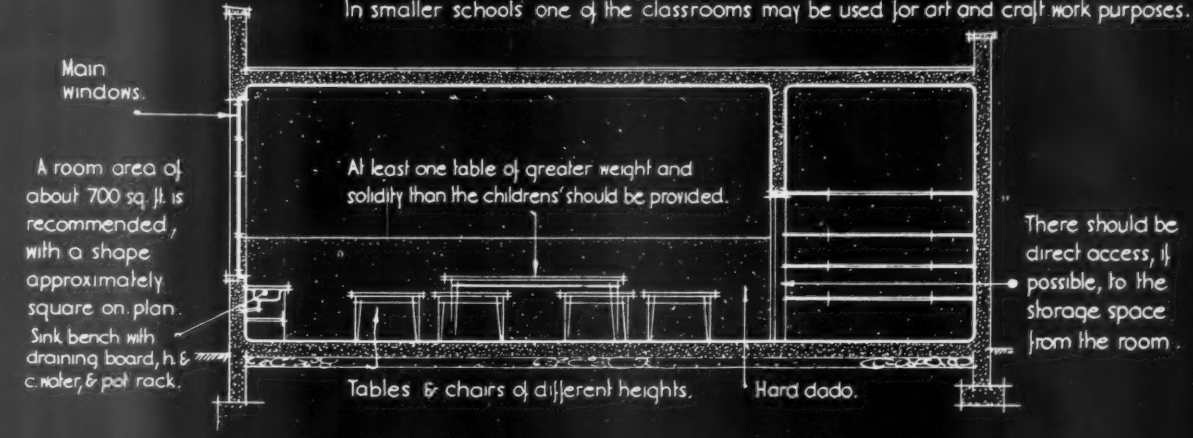
DIAGRAMMATIC SCHEDULE OF JUNIOR SCHOOLS ACCOMMODATION:

For recommendations regarding Nursery and Infants' Classes accommodation, see Information Sheets Nos. 4 & 5 of this series.



DIAGRAMMATIC CROSS SECTION OF ELEMENTARY ART AND CRAFT ROOM:

In large Junior Schools there should be 1 craft room to every 4 classrooms.
In smaller schools one of the classrooms may be used for art and craft work purposes.



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

INFORMATION SHEET: ELEMENTARY SCHOOL BUILDINGS: No. G.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 550 •

ELEMENTARY SCHOOLS—VI

Subject : Junior Schools Accommodation

The information on this Sheet is a summary of the recommendations regarding the accommodation of junior 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 suggests that as the junior school, as a separate entity, is still in process of development, any dogmatic statements as to its character and requirements are inadvisable. In the classroom itself, however, a large group of children will carry out a considerable variety of activities, and will need accommodation for books, materials and equipment. For these purposes no classroom of less area than 520 sq. ft. will be fully serviceable, and ample cupboard space will be required.

Lockers :

The substitution of tables for the traditional desks in the classroom brings into prominence the importance of a satisfactory provision of additional lockers or cupboards to house the children's own books and apparatus. The Board considers that the need for keeping the furniture of the room sufficiently light, to admit of easy re-arrangement, suggests that some form of wall locker is preferable to locker tables or desks.

Where lockers are provided in the corridors, they may be made accessible both from the classroom and the corridor, but it is important that they should not encroach upon the general settled width of the corridor, and if necessary, they should be fitted in recesses.

Cloakrooms :

Where cloakrooms (which would contain the lockers) are attached to classrooms, they need not be more than nine feet wide and, like the ordinary cloakrooms, can be fitted with collapsible gates or open-wire-panelled doors at the end next the corridor. The centre part of the cloakroom can be occupied by the stand for book lockers, containing in three or four tiers the necessary number of lockers for a class, the lockers opening alternately to different sides of the stack. The space beneath the lockers might be used for hanging towels. All cloakrooms should be amply lighted, ventilated and heated.

Lavatories :

The junior school lavatories should have basins or troughs at convenient heights for the children, and hot water control taps should be provided. Lavatory basins should not be placed in cloakrooms, except in small schools, and they should also be separate from the w.c.s. A minimum of 12 basins should be provided for the first 100 pupils, and each additional 100 will need four extra basins.

An adequate supply of drinking water is essential.

W.C.s :

These have been described and illustrated on the fourth Information Sheet of this series. For junior schools, however, they should be provided with doors having a fastening on the inside, and should be on the scale of four w.c.s for the first hundred pupils and three for each succeeding hundred, with urinals in the proportion of at least 10 ft. run per hundred boys. For girls, six closets should be provided for the first hundred and four for each succeeding hundred, all designed to suit the ages of the children concerned.

Hall :

In the larger junior schools it will normally be found desirable to provide for dramatic work some kind of stage or platform, in addition to the body of the hall. Provision for the exhibition of silent or talking films should also be considered.

TABLE SHOWING THE FREQUENCY OF RECURRENCE OF PEAK LOADS ON WASTE SYSTEMS.

The table below is based on the findings of the U.S.A. Department of Commerce Sub-committee on Plumbing, and was evolved in order to establish a standard by which the sizes of waste stacks might be criticised. A similar table relating to waste systems in public conveniences, etc., will be given in a later sheet of this series.

PRIVATE SYSTEMS.

The table given here deals with private systems, which are defined as comprising private dwelling-houses, blocks of flats, private baths, etc., in hotels and such installations, where a number of fittings are in one room or compartments are not ordinarily accessible to more than one person at a time.

APPLICATION OF THE TABLE TO MIXED INSTALLATIONS.

The water-closet is taken as a typical unit throughout the table for the purpose of simplifying the calculations, but the figures are equally valid for systems carrying a variety of fittings.

To apply the tables to a mixed installation, the fixture unit value for the desired combination of fittings should be found, and referred to the nearest corresponding figure in the column which shows the fixture unit values of the various combinations of water-closets. The peak load recurrence figures will correspond with those given for the W.C. installation of the same total fixture unit value.

PROBABLE RECURRENCE OF OVERLAPPING DISCHARGES OF WATER-CLOSETS IN PRIVATE SYSTEMS.

Average duration of flush 10. seconds. Interval between flushes 10. minutes. Overlap of discharges 4 secs. min.

NO. OF CLOSETS IN ONE SYSTEM.	EQUIVALENT FIXTURE UNIT VALUE.	No. of closets discharged.	Equivalent Fixture Units.	RUSH PERIOD OF 1. HOUR PER DAY.		RUSH PERIOD OF 2. HOURS PER DAY.		RUSH PERIOD OF 3. HOURS PER DAY.	
				Overlap once in. (Days.)	Overlap once in. (Years.)	Overlap once in. (Days.)	Overlap once in. (Years.)	Overlap once in. (Days.)	Overlap once in. (Years.)
3	18	2	12	5·6	·	2·8	·	1·8	·
		3	18	1,666	4·5	833	2	555	1·5
4	24	3	18	416	1·1	208	·	138	·
		4	24	·	456	·	228	·	152
5	30	3	18	166	·	83	·	55	·
		4	24	·	90	·	45	·	30
		5	30	·	45,600	·	22,800	·	15,200
6	36	4	24	·	30	·	15	·	10
		5	30	·	7,600	·	3,800	·	2,520
8	48	4	24	·	6	·	3	·	2
		5	30	·	816	·	408	·	272
10	60	4	24	792	2	396	1	264	·
		5	30	·	180	·	90	·	60
12	72	4	24	336	·	168	·	112	·
		5	30	·	56	·	28	·	19
25	150	6	36	·	25	·	·	·	·
		7	42	·	949	·	·	·	·
50	300	8	48	·	95	·	·	·	·
		9	54	·	1,822	·	·	·	·
120	720	11	66	·	39	·	·	·	·
		12	72	·	424	·	·	·	·

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.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET
• 551 •
U.S.A. PLUMBING — IV

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 summarises certain conclusions of the committee with regard to the peak load liable to be carried by any waste plumbing systems.

Determination of Peak Loads :

The tables on this Sheet and the next Sheet of the series show the probable frequency of recurrence of the maximum or probable highest working loads on waste systems, in order to establish a standard by which the sizes of waste stacks may be criticised scientifically. This Sheet deals with private systems, and the next Sheet will deal with public systems. (A definition of private systems is given on the front of the Sheet.)

Mixed Systems :

Although the water-closet has been chosen as the typical unit for the purpose of simplifying the calculations, the tables are also valid for installations comprising a variety of fittings (such as baths, sinks, shower-baths, etc.). While it would have been possible to have made separate calculations relating to these other fittings this was considered unnecessary as it was found that for two systems having the same total combined rate of discharge, one composed entirely of water-closets, and the other a mixed system of water-closets and smaller fittings, the probability of a given volume discharge is greater for the system composed entirely of water-closets than for the mixed systems.

When mixed systems are under consideration, the total fixture unit value of any given combination of fittings should be ascertained (Sheet No. 2 of this series deals with the theory and application of the fixture unit system), and the figures that apply to the group of water-closets having the same or next higher total fixture unit rating can be taken to apply to the mixed system in question.

Analysis of Determining Factors

The chief factors determining the frequency of recurrence of high loads on water-closet waste systems are the duration of the flush, and the interval between flushes.

In practice these two factors show wide individual variations, depending on conditions such as location, the kind and condition of the apparatus, the supply system, etc. ; but a certain average was established by observation of many separate installations which is considered to give a good working basis for calculations regarding any normal private installation. These are as follows :—

(*a*) Average duration of flush 10 seconds.

(*b*) Interval between flushes 10 minutes, with a daily rush period averaging 1, 2 or 3 hours per day.

An overlap of discharge of two fittings is also taken into consideration wherever the period of coincidence equals or exceeds 4 seconds.

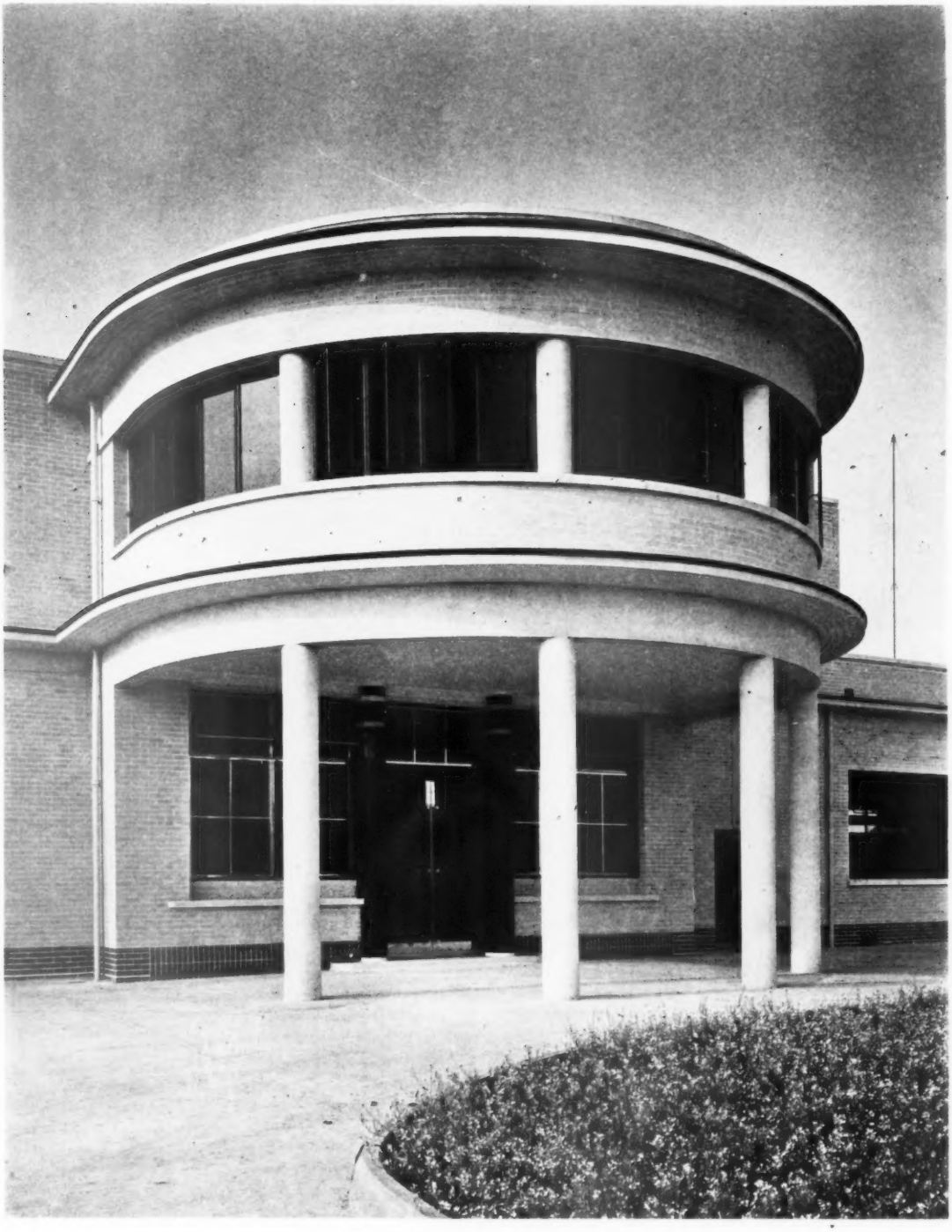
Method of Probabilities

The tables were worked out on a system based on a study of the theory of probabilities. The variable factors are so many, and in themselves so little amenable to standardisation that the tables are to be taken rather as indications than as rigidly determined facts, and they are considered more applicable to large installations than to small ones. They do, however, it is considered, provide a criterion more reliable than the custom of establishing the probable peak load by arbitrarily taking a given fraction of the combined discharge of all the fixtures on a system.

Previous Sheets :

The first three sheets in this series are Nos. 484, 518 and 547.

POLICE WIRELESS STATION, WEST WICKHAM



PROBLEM — *Wireless transmitting station for the Metropolitan Police and connected with Scotland Yard and the receiving station at Denmark Hill by direct telephone line. Workshops are provided for experimental purposes and for fitting up police cars with wireless receiving equipment.*

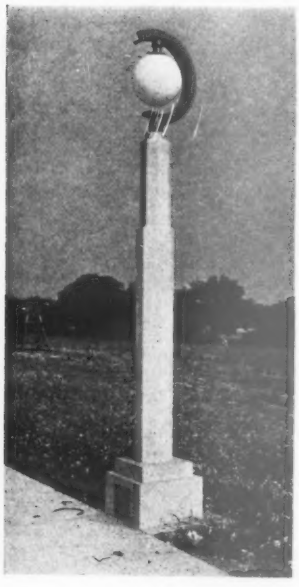
The architect is Mr. G. Mackenzie Trench, O.B.E., F.R.I.B.A., F.S.I., architect to the Metropolitan Police.

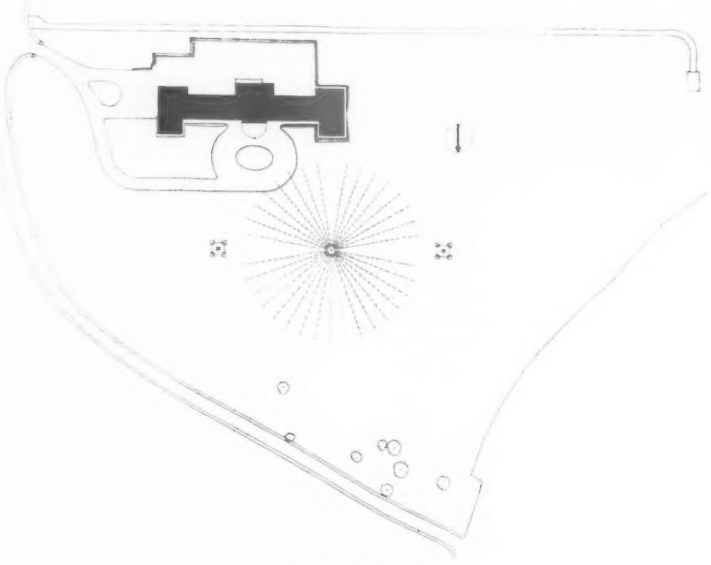
The photograph is of the main entrance on the north front.

DESIGNED BY

G. MACKENZIE TRENCH

POLICE WIRELESS STATION, WEST WICKHAM:





SITE PLAN

SITE—*On high ground off Layhams Road, West Wickham, Kent.*

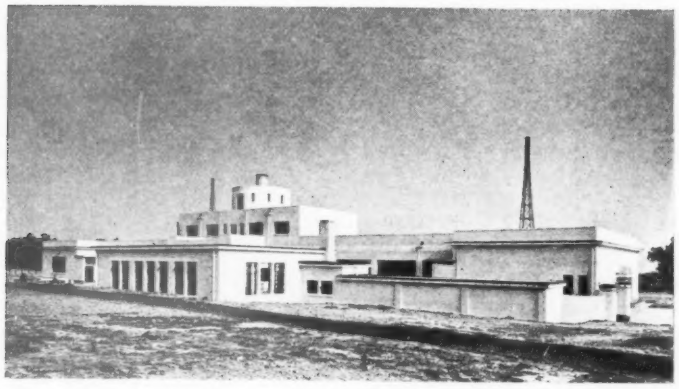
CONSTRUCTION—*Steel frame with external 11 ins. hollow walls in sand lime bricks, finished with a blue plinth and cream above. Floors, roofs and staircase, the basement and the stanchion bases to the basement are of reinforced concrete. Roofs are bituminous compound tiling. Ducting in the floors carries the wiring to the wireless transmitting apparatus, both for leads and power, electric light wiring and the heating and hot water services. Windows are steel.*

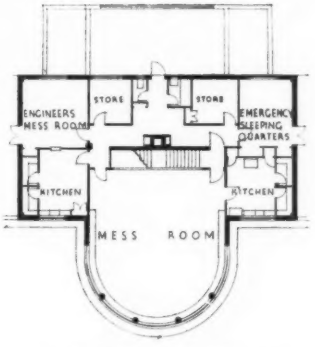
The photographs show : above, a view from the north-east ; left, an electric light standard.

DESIGNED BY G. MACKENZIE TRENCH

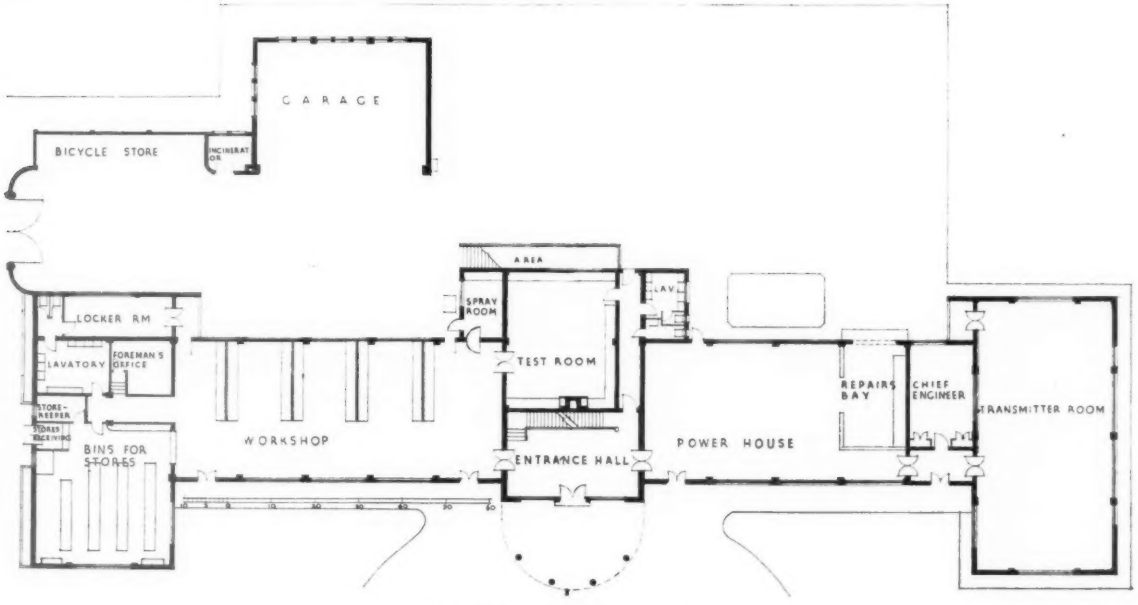
PLAN—*The planning of the building and its position on the site were determined by the main wireless aerial which had to run true east and west and be as near the centre of the site as possible. From the centre and at right angles to the aerial an axial line was arranged for the centre of the transmitting room, the main axis of the building then being kept parallel with the masts. The engineers' office and a corridor were placed between the transmitting and power rooms to cut off the noise from the engines. The test and spray rooms are planned at the rear of the workshop to form a proper circulation for fittings to be installed in the cars. The garage to accommodate cars to be fitted with wireless equipment is more in the nature of a workshop and has good natural lighting. Sleeping quarters for four men are provided for use during emergency. The tank room for the storage of water on the second floor forms a central feature with the boiler flue passing through the centre. Electrical power is generated for wireless work and lighting by Diesel engines in the power house, which also drive the automatic stokers to the boilers.*

The photographs show : right, the entrance gates to the Yard on the east elevation ; below, a view from the south-east.



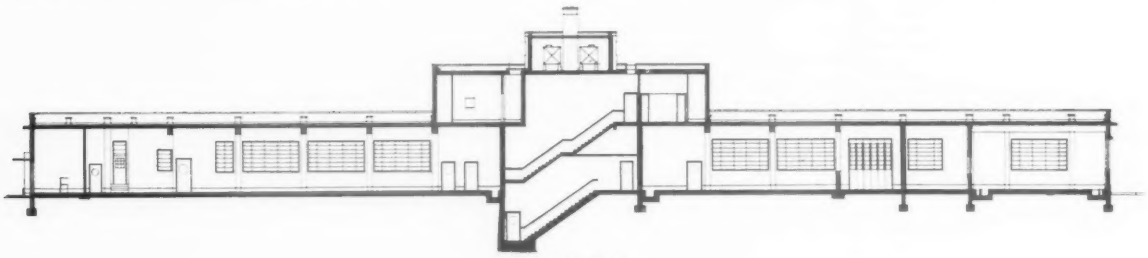


FIRST FLOOR PLAN



GROUND FLOOR PLAN

POLICE WIRELESS STATION, WEST WICKHAM



SECTION

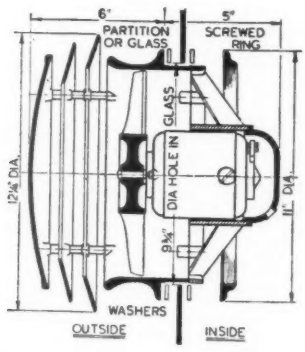
INTERNAL FINISHES—*Walls generally are fair face brickwork, with the exception of the transmitting room, engineers' office, and test room; and walls on first floor which are plastered. The mess rooms, kitchens, etc., have tile dados. Lavatories are tile lined with terrazzo tile floors; kitchen floors are red plastic tiles. The entrance hall and staircase have terrazzo tile floors and skirtings. The handrail to the staircase and the windows in the hall are anodium. Joinery generally is teak. Doors are flush.*

The photographs show: right, a workshop, and the mess room; below, the staircase and entrance hall.

For list of general and sub-contractors, see page 350.

DESIGNED BY

G. MACKENZIE TRENCH



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

A Larger Vent-Axia

EXTREME simplicity in fixing, whether on new buildings or here and there in existing jobs, is probably the chief reason why the Vent-Axia fan has become so popular, for, apart from wiring, there is nothing to do except cut a 6-in. hole in any convenient window pane and then screw the two halves of the fan unit together. Nor is the built-in model much more difficult, for it consists of a box 9 ins. square which tucks neatly into two courses of brickwork, and the depth from front to back is adjustable to any reasonable thickness of wall.

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The recently introduced new model, a section of which is shown at the head of these notes, is designed on very much the same lines, but is rather larger and shifts 22,000 cubic feet of air an hour, against the 10,000 of the smaller model. Fixing is the same, except that the hole in the window must be 9¾ ins. diameter, as against 6⅝ ins., and there is also a two-speed control from an ordinary rotary switch. Current consumption is 30 watts and there are two types available, either for extract or input purposes. Price is £8 8s., including two-speed switch and 2 yds. of three-core cab-tyre for wiring.—(*Vent-Axia, Ltd., 9 Victoria Street, London, S.W.1.*)

Hire-Purchase for Coal-Burning Appliances

A new booklet from the Coal-Burning Appliances Joint Consultative Board gives full details of their hire-purchase terms, which they have organized in conjunction with the United Dominions Trust. Just why we should have had to wait so long remains a mystery, for the booklet admits that "under modern trading and social conditions it has become the custom to dispose of certain kinds of goods on long-term credit," but one may suspect that the gas and electricity companies, who have long made a habit of supplying almost any type of apparatus on hire-purchase terms up to three or four years, have had a good deal to do with this new scheme on the part of the coal people. But whatever the reason it would seem that coal has a great deal to gain by an arrangement of this kind, for, while there are quite a number of people who can easily pay from twenty to thirty pounds for a refrigerator, the seventy pounds odd needed for even quite a small automatic stoker add quite a lot to the cost of the average house, and clients just may not have the extra money to spend, even though they know that a stoker will show a good economic return on their outlay.

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Under this new scheme the customer is expected to put up not less than 10 per cent. of the money required and the merchant or ironmonger then receives the total cash price from the Trust, after which the customer makes his payments direct to the Trust. Both the typical examples shown give twelve months as the time for repayment, but since "the customer enjoys the advantage of spreading the cost over a suitable period of time," it is not unreasonable to assume that a longer period could be arranged if necessary, though the booklet says nothing definite about this, so perhaps it may be left to the architect to make legal play over the word "suitable" and get what his client wants.

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From the merchant's point of view there is a lot to be said for this scheme, for the Trust is organizing an insurance fund, setting aside 1 per cent. of the total amount financed, and from this sum paying 75 per cent. of any irrecoverable debts, and there is also a service fund, to be credited with 3 per cent. of the cost of the appliance and to be used if, owing to circumstances over which the supplier has no control, such as faulty chimneys or flues, there are expensive complaints at a later date. This latter fund does not pay a flat rate on all claims, but is administered by a Claims Committee who will make their awards on each individual complaint.

•

All of which seems perfectly fair and reasonable and, although captious criticism may wonder why it was not done before, it has, in its final form, been done with some thoroughness, providing adequate safeguards both for the supplier and the customer. A piece of highly commendable enterprise which shows that the coal interests are really trying to give the public what it wants. The booklet, incidentally, contains a list of agents in some fourteen provincial towns through whom these credit arrangements can be made, so most architects with a small house practice will want to keep it handy if they ever have to convince a client that a stoker need not be as expensive as it seems.—(*The Coal-Burning Appliances Joint Consultative Board, 54 Victoria Street, London, S.W.1.*)

Sink and Cupboard Units

From time to time efforts have been made to clean up the awkward spaces under sinks and draining-boards, one of the more successful firms being Benham's, who have got some very nice-looking cupboard units which fit neatly under the draining-board. There is an illustration of one of their larger models at the foot of this page, from which it will be seen that there are two alternatives, one with drawers only and one with a single drawer and a cupboard below it. The units are well made and the drawers slide easily and quietly; some people would doubtless prefer the whole thing to be made in stainless steel, which admittedly has many advantages, but which tends to be rather noisy unless used in a fairly heavy gauge. Apart altogther from the extra expense, there is quite enough noise already in most kitchens without putting a series of sounding boards all over the place, so Benham's are probably right to make their units in wood. The standard height is 3 ft., and the projection from the wall is 1 ft. 6 ins., prices being round about £5 for each unit, to which must be added the cost of the sink itself.

•

Good though these units are, we are still left with the problem of what to do with the even more awkward space under the sink. Nowadays nearly every small house has one of those drum-shaped objects, so revoltingly named binettes, in which a hinged foot-operated lid swings up to give

Drawer and cupboard units arranged to fit under the draining board. (*See note above.*)

access to the separate rubbish bin inside. But put one of these under the sink and the lid almost immediately hits the underside of the trap, leaving a narrow grinning slit through which rubbish must be posted one tea leaf at a time. Could we not therefore have a square bin with the lid in two halves hinged at the sides so as to clear the trap? I present the idea gratis to Messrs. Benham and await their rude comments, for I have no doubt that they thought of it for themselves long ago and have plenty of reasons why it isn't worth doing.—(*Benham and Sons, Ltd., 66 Wigmore Street, London, W.1.*)

LAW REPORTS

HEIGHT OF NEW BUILDINGS ON WESTMINSTER HOSPITAL SITE

Laings Properties, Ltd. v. *H.M. Commissioners of Works and the President, etc., of Westminster Hospital.—Chancery Division. Before Mr. Justice Luxmoore.*

THIS case raised an interesting point as to the height of the new buildings to be erected on the Westminster Hospital site.

The plaintiffs, Laings Properties, Ltd., sought a declaration that upon the true construction of certain sections of the Westminster Hospital Act, 1913, the permitted heights shown on the signed plans referred to in such sections, of any new building to be erected on the site, referred only to the respective heights of the external walls, and did not include the height of the roof of the building, with the two additional storeys permitted under the London Building Act, 1913.

Mr. Fergus Morton, K.C., for the plaintiffs, said his clients claimed that the Commissioners of Works were not entitled to refuse to approve any plans, sections and elevations submitted by his clients under the Hospital Act for the erection of a new building proposed to be set up by them upon the site, on the ground that no part of the proposed new building should exceed the height of 75 ft. from the level of the street.

Counsel said his clients were proposing to purchase the site, and the question was whether they were limited only as to the height of the external walls, the rest of the matter being left to be determined under the London Building Acts, or did the sections impose an all-over limit as to the height of the building. The plaintiffs' contention was that only the external walls were limited as to height, because in the case of a new building what the section did was to lay down the height of external walls, leaving the other matters to be dealt with under the London Building Act. Counsel understood that the Commissioners' contention was that no part of the building should exceed 75 ft.

Mr. Trustram Eve, K.C., who appeared for the President and Governors of the Hospital, supported the plaintiffs' application. His clients had contracted to sell the site, and if a higher building could be erected they would get a great deal more money.

Sir Donald Somervell, K.C., the Attorney-General, for the Commissioners of Works, submitted that the Commissioners had a complete discretion to approve or disapprove the plans. Having regard to the site, Parliament might well desire to impose restrictions which would not be applicable to other parts of London. According to the plans, the old hospital buildings were 83 ft. high, and he did not think that it would be restricting the use of the site if Parliament said that no new building should exceed 75 ft. high.

His lordship made a declaration that the Commissioners were not precluded from approving the plans of the new building which provided, subject to the London Building Act, 1930, for an overall height of more than 75 ft., so long as the external wall did not exceed the heights of 75 ft. and 32 ft. mentioned on the plan.

His lordship, in giving judgment, said he had here to deal with the construction of section 7 of the Westminster Hospital Act. That section provided that no new building within certain limits on the signed plan should exceed the heights marked. What did that mean? Did it mean that the overall height was not to exceed those figures, or did it refer to the height from the road to the parapet or from the road to the eaves in one particular part of any proposed new buildings? It appeared to his lordship that there was no limit fixed by the plan to the building within a certain green line, and therefore so far as they were concerned there could be no question that they could be in excess of the 75 ft. and 32 ft. mentioned. It followed that the provisions of the London Building Act would apply, and the restrictions imposed by that Act would govern the height to which the new buildings could be erected by the plaintiffs.

NUISANCE FROM BUILDING OPERATIONS.—QUANTUM OF DAMAGES

Andreae v. *Selfridge & Co., Ltd.—Court of Appeal. Before the Master of the Rolls and Lords Justices Romer and Scott.*

THIS appeal was mainly on the question of liability for damages and alternatively against the amount of damages awarded the plaintiff, Mrs. E. Andreae, formerly proprietress of the Wigmore Hotel, Wigmore Street, in her action against the defendants, Selfridge & Co., of Oxford Street.

Mrs. Andreae brought her action in the Chancery Division against Selfridges for damages on the ground of injury to her business and nuisance caused by Selfridges' contractors during reconstruction work carried out by them at the rear of their premises.

Selfridges denied the nuisance alleged and pleaded that they carried out the work with reasonable skill. They further pleaded that all the plaintiff suffered was temporary inconvenience.

Mr. Justice Bennett awarded Mrs. Andreae £4,500 damages, holding that the modern methods of construction employed by defendants could not be regarded as done in the ordinary use and occupation of land and houses. Mrs. Andreae had suffered pecuniary loss from noise and dust, and he considered she was entitled to £4,500 compensation.

It was from this award of damages that Selfridges appealed.

After hearing the legal arguments of Mr. Fergus Morton, K.C., for Selfridges, and Mr. Voisey, K.C., for Mrs. Andreae, the Court held that the fair measure of loss which Mrs. Andreae had suffered was £1,000, and the judgment of Mr. Justice Bennett was varied by reducing the damages awarded to that amount.

The Master of the Rolls, in the course of his judgment, said he had no doubt that the complaint by Mrs. Andreae was a substantial one. Here some of the operations were conducted at night and it was idle to say that if persons, for their own profit and convenience, chose to destroy even one night's rest of their neighbours, they were doing something that was excusable. This was not a trivial matter and it was a misconception that the law would not take notice of it. Here the Court had to deal with temporary operations, and in that case, persons would have to put up with a certain amount of discomfort, provided the operations were carried out reasonably and caused no undue inconvenience to one's neighbours. His lordship was of opinion that Mr. Justice Bennett had not approached this matter from the proper angle. Modern methods were now adopted, enabling land to be more profitably used, and it was now part of the normal use of land to take down, excavate and build up. Under these circumstances he could not take the view that the whole of Selfridges' operations were of such an abnormal character as to justify the whole of the disturbance created being constituted as an actionable nuisance. Mrs. Andreae had established her case that she had suffered nuisance during the first part of Selfridges' operations, and she was entitled to compensation, but not to the extent of Mr. Justice Bennett's award. He came to the conclusion that the amount of damages should be reduced to £1,000.

Lords Justices Romer and Scott concurred.

THE BUILDINGS ILLUSTRATED

POLICE WIRELESS STATION, WEST WICKHAM (pages 345–348). Architect: G. Mackenzie Trench. The general contractors were Walter Lawrence and Son, Ltd., and the principal sub-contractors and suppliers included: Trussed Concrete Steel Co., Ltd., foundations and reinforced concrete; Permanite, Ltd., asphalt; Ryarsh Brick & Sand Co., Ltd., bricks (cream and blue); F. Bradford & Co., Ltd., artificial stone; Tuke and Bell, Ltd., septic tank; Redpath Brown & Co., Ltd., structural steel; Frazzi, Ltd., Paropa special roofings; Dover Engineering Works, Ltd., duct covers; Service Glass Works, Ltd., glass; Williams Gamon & Co., Ltd., patent glazings, casements and window furniture; Granwood Flooring Co., Ltd., patent flooring; Braithwaite & Co., Ltd., storage tanks; Chas. P. Kinnell & Co., Ltd., central heating; Unicolor, Binns and Speight, Ltd., automatic stokers; Beeston Boiler Co., Ltd., boilers; Leonard G. Tate & Co., Ltd., electric wiring; Troughton and Young, Ltd., and Benjamin Electric, Ltd., electric light fixtures; Marconi Wireless Telegraph Co., Ltd., wireless; Tangyes, Ltd., and Allen & Co., engines; Builders' Copper Tube Supply Co., Ltd., plumbing; Dent and Hellyer, Ltd., sanitary fittings; Yannedis & Co., Ltd., and Jas. Gibbons, Ltd., door furniture; Shipton and Co., Ltd., house telephones; Haskins, Ltd., rolling shutters; Burn Bros., Ltd., manhole covers and fittings, etc.; Plastering, Ltd., plaster; Geo. Wright & Co., Ltd., gates and railings and metalwork; R. Cattle & Co., Ltd., joinery; Bryon & Co., Ltd., terrazzo marble and tiling; Mander Bros., Ltd., paint and distemper; Brown and Aitken,

Ltd., cranes ; Gillett and Johnson, Ltd., clocks ; Johnson and Phillips, electric cables.

HOUSE AT BOARS HILL, NEAR OXFORD (page 334). Architect : Thomas Rayson. The general contractors were Aubrey Capel, who were also responsible for the excavation, foundations, reinforced concrete, partitions, glass, plumbing, plaster, joinery and tiling. The principal sub-contractors and suppliers included : Engert and Rolfe, asphalt ; Colesford, bricks ; W. H. Axtell, stone ; Well, electrical automatic pumping and water supply; Fred Alden & Co., central heating ; Bratt Colbran & Co., grates and masonry ; Beeston Boiler Co., boilers ; Fred Alden, electric wiring, electric heating and bells ; Shanks & Co., sanitary fittings ; Messrs. Brown (Birmingham), door furniture ; Edgehill, casements and window furniture ; Norman Jewson, decorative plaster ; Permutit, water-softening plant.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 MILES RADIUS)

BARKING. *Employment Exchange.* H.M. Office of Works is to erect an employment exchange in Ripple Road, Barking.

BARNET. *School Alterations.* The Herts Education Committee is to enlarge the Queen Elizabeth Grammar School, Barnet, at a cost of £16,995.

BROMLEY. *School.* The Bromley Education Committee is to erect an elementary school in Southborough Park, at a cost of £17,579.

ENFIELD. *Fire Station.* Enfield U.D.C. is to seek a site in Cockfoster Road for the erection of a fire station.

FINCHLEY. *Flats.* Mr. E. C. Skuce is to erect flats on the Ellerton Lodge Site, East End Road, Finchley.

FINCHLEY. *Flats.* Mr. F. J. Willis is to erect 14 flats on the site of "Fairmead," Woodside Avenue, Finchley.

FINCHLEY. *Houses.* Mr. I. Schultz, A.R.I.B.A., is to erect seven houses in North Circular Road, Finchley.

HORNSEY. *School Enlargements.* The Middlesex Education Committee is to enlarge the Stationers' Company's School, Hornsey, at a cost of £41,553.

ILFORD. *Flats, etc.* Mr. E. Meredith, architect, on behalf of Messrs. Robinson, Ltd., is to erect eight flats and two houses, between Wanstead Lane and Studley Drive, Ilford.

MIDDLESEX. *Schools.* The Middlesex Education Committee is to proceed with the erection of new schools at the Minet Estate, Hayes, for 880; Frogmore Farm Estate, Hayes, for 1,000; Cherry Lane, West Drayton, for 800 ; Oakwood Crescent, Southgate, for 480 ; Lindsay Park Estate, Kenton, for 500 ; Bacon Lane, Kingsbury, for 1,000 ; Queensbury Estate, Little Stanmore, for 1,000, and the enlargement of Sudbury Council School, Wembley, and Feltham Hill School.

WALTHAMSTOW. *School Alterations.* The Walthamstow Education Committee is to reconstruct the Morris central school, at a cost of £27,130.

EASTERN COUNTIES

CHELMSFORD. *School.* The Chelmsford Education Committee is to acquire a school site in Waterhouse Lane.

ISLE OF ELY. *Houses, etc.* Plans passed by Isle of Ely C.C. : Ten houses, Peterborough Road, Thorney Toll, Wisbech, Ward and Woolnough ; eight houses, Guyhirn, Mr. C. A. E. Woolnough ; 26 bungalows, Christchurch, for Wisbech R.D.C.

SOUTHERN COUNTIES

BERKS. *Schools.* The Berks Education Committee has approved the following programme for new schools : Abingdon, £20,900 ; Ascot–Sunninghill, £21,400 ; Bracknell, £20,500 ; Charney, £8,800 ; Crowthorne–Sandhurst, £20,000 ; Downs, £15,700 ; Milton, £15,760 ; Newbury North, £15,700 ; Swallowfield, £9,540 ; Thatcham, £20,340 ; Theale–Englefield, £23,050 ; Wallingford, £18,500 ; Wantage, £20,340, and Wokingham, £25,550.

BEXHILL. *Houses.* Plans passed by the Bexhill Corporation : Eight houses, Uplands Gardens, Mr. Moore ; eight bungalows, Newlands Avenue, Mr. Larkin.

BOURNEMOUTH. *Flats.* Messrs. Rowley and Partners have prepared a scheme for the erection of 63 flats on The Steyne, East Overcliff Drive, Bournemouth.

COOKHAM RISE. *School Enlargements.* The Berks. Education Committee is to enlarge the Cookham Rise School at a cost of £3,620.

KENT. *Alterations to Police Buildings, etc.* The Kent C.C. has obtained sanction to borrow £5,272 for alterations and additions at Canterbury Police Station, and £2,712 at Hythe Police Station.

PAIGNTON. *Bungalows.* Plans passed by the Paignton U.D.C. : 12 bungalows, Barton Avenue, for Mr. A. J. Proctor ; 16 bungalows Edenvale Road, for Messrs. L. J. Boyce, Ltd.; 10 bungalows, Eden Grove, for Mr. P. D. Cavanna.

PLYMOUTH. *Nursery School.* The Plymouth Education Committee has approved plans for the erection of a nursery school at Water Lane, Stonehouse.

PURLEY. *Shops.* Plans have been prepared by Mr. Hugh Macintosh, F.R.I.B.A., for the erection of shops in Banstead Road, Purley.

WOODLEY. *School.* The Berks Education Committee has prepared plans for the erection of a senior mixed school at Woodley, at a cost of £19,700.

WORTHING : *Houses.* Plans have been prepared by Mr. M. R. Fletcher, architect, on behalf of West Park Estate (Worthing), Ltd., for the erection of 25 houses at Goring Road, Worthing.

MIDLAND COUNTIES

BUCKNALL. *School.* The Stoke-on-Trent Education Committee is to erect a senior school at Bucknall, at a cost of £37,000.

BUCKNALL. *Houses.* Mr. J. Beresford is to erect 30 houses in Fenton Road, Bucknall, Staffs.

BURSLEM. *Houses.* Mr. G. Talbot is to erect 14 houses in Steele Avenue, Burslem.

GRIMSBY. *Aerodrome.* The Grimsby Corporation is to develop the aerodrome at a cost of £7,120.

LEICESTERSHIRE. *Schools.* The Leicestershire Education Committee has approved the following school programme : Soar Valley, two schools, each for 360 ; Hinckley (Holywell), modern school for 480 girls ; Kirby Muxloe (Wolfdale), modern schools for 720 ; Ashby-de-la-Zouch, two modern schools, each for 360.

NORTHAMPTON. *Children's Homes.* The Northampton Corporation is to erect children's homes on the St David's Housing Estate, at a cost of £3,145.

NORTHAMPTON. *Houses, etc.* Plans passed by Northampton Corporation : Five houses, Pinelands Estate, Abington, and six houses, Mayfield Road, Mr. H. W. Rainbow ; 12 houses, Greenfield Road, Mr. A. Atkins.

NOTTINGHAM. *County Offices.* The Notts C.C. has obtained sanction for a loan of £15,600 for the Trent Bridge site at Nottingham for the new county offices, plans for which are in preparation by Mr. E. Vincent Harris.

RANSOM. *Extension to Sanatorium.* The Notts C.C. has obtained sanction to borrow £27,720 for extensions at Ransom Sanatorium.

RUGELEY. *School.* The Staffordshire Education Committee is to erect an elementary school at Rugeley, at a cost of £38,365.

SOLIHULL. *School.* The Warwickshire Education Committee is to erect in Lode Lane, Solihull, a school of light construction to accommodate about 200 children, at a cost of £4,000.

STOKE-ON-TRENT. *Civic Centre.* The Stoke-on-Trent Corporation has appointed a sub-committee to consider the proposed civic centre and is to employ a town-planning expert.

STOKE-ON-TRENT. *Houses, etc.* Plans passed by the Stoke-on-Trent Corporation : Offices and shops, Stafford Street, for Cardigan Estates, Ltd. ; 13 houses off Hartshill Road, for Messrs. Cooper and Jones ; 10 houses, Hunter Avenue, for Mr. H. Leese ; 12 houses, Blurton Road, for Mr. A. Rushton ; 22 houses, Sandhurst Avenue, Normacot, for Hillside Estate Co., Ltd.

STOKE-ON-TRENT. *School.* The Stoke-on-Trent Education Committee is to erect a senior school at Chell at a cost of £40,500.

STRATFORD-ON-AVON. *School.* The Warwickshire Education Committee has obtained sanction to borrow £49,360 for the erection of a senior school at Stratford-on-Avon.

WORCESTER. *School Alterations.* The Worcester Education Committee is to reconstruct the Whitehead school, at a cost of £34,539.

WORKSOP. *Tuberculosis Dispensary School Clinic.* The Notts C.C. is to erect a combined tuberculosis dispensary school clinic at Worksop.

NORTHERN COUNTIES

BLACKPOOL. *Houses, etc.* Plans passed by Blackpool Corporation : 20 houses, Waller Avenue, etc., Mr. J. Ridyard ; 10 houses, Warbreck Hill Road, G. Hodgson and Sons, Ltd. ; eight houses, North Avenue, Mr. R. Hollis ; eight houses, Lakeway Avenue, Mr. D. C. Taylor ; eight houses, Benson Road, Mr. H. Grimbledeston ; eight houses, Faringdon Avenue, I. Fletcher, Ltd.

CHADDERTON. *School Enlargement.* The Lancashire Education Committee is to enlarge the Chadderton Grammar School, at a cost of £13,213.

CHEADLE. *Cinema, etc.* Plans have been submitted by Mr. W. W. Stansby to the Cheadle and Gatley U.D.C., for the erection of a cinema and shops in Northenden Road, Gatley.

CHESHIRE. *Houses.* Mr. A. P. Wood is to erect 38 houses in Congleton Road, Scholar Green, Cheshire.

CHESTERFIELD. *Central baths.* Chesterfield Corporation has approved detailed plans and estimates in connection with the scheme for erection of central baths.

CHESTERFIELD. *Fire Station.* Chesterfield Corporation has purchased land for the housing of the fire brigade.

CREWE. *Aerodrome.* The Cheshire C.C. is to contribute £13,000 towards the estimated purchase price (£45,000) of the proposed aerodrome at Crewe. The Corporation Surveyor reports the cost of the layout is estimated at £62,000.

GRAPPENHALL. *Houses.* Messrs. A. H. Leece and Son are to erect 10 houses in Camsley Lane, Grappenhall, Cheshire.

LEEDS. *Occupation Centre.* The Leeds Corporation has approved plans of the proposed occupation centre in Harehills Lane.

LEEDS. *School.* The Leeds Education Committee is to erect a school in Outgang Lane, on the Sandford House Housing Estate.

NELSON. *Technical College.* The Lancashire Education Committee has purchased a site at Nelson for a technical college.

POYNTON. *Houses.* Messrs. P. Clayton and Son are to erect 30 houses in Lower Park Road, Poynton, Cheshire.

PRESTWICH. *School.* The Lancashire Education Committee is to convert Hope Park School, Prestwich, into a school for senior girls, at a cost of £16,397.

STANNINGTON. *Houses.* The Northumberland C.C. is to provide a group of homes for the aged and infirm at North Moor Farm, Stannington.

SCOTLAND

GLASGOW. *Schools.* The Glasgow Education Committee has approved a capital expenditure of £403,000 for new schools and improvements.

GLASGOW. *Sanatorium, etc.* Glasgow Corporation has approved plans of the proposed new sanatorium and reception house blocks at Woodilee.

RATES OF WAGES

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

			I. s.	I. d.	II. s.	II. d.
A	ABERDARE ...	S. Wales & M.	1	7	1	2½
A	Aberdeen ...	Scotland	1	7	1	2½
A_1	Abergavenny ...	S. Wales & M.	1	6½	1	2
A_2	Abingdon ...	S. Counties	1	5½	1	1½
A	Accrington ...	N.W. Counties	1	7	1	2½
A_2	Addlestone ...	S. Counties	1	6	1	1½
A	Adlington ...	N.W. Counties	1	7	1	2½
A	Airdrie ...	Scotland	*1	7	1	2½
C	Aldeburgh ...	E. Counties	1	3	0	11½
A	Altrincham ...	N.W. Counties	1	7	1	2½
B_3	Appleby ...	N.W. Counties	1	3½	0	11½
A	Ashton-under-Lyne	N.W. Counties	1	7	1	2½
B	Aylesbury ...	S. Counties	1	5	1	0½
B	BANBURY ...	S. Counties	1	5	1	0½
B_1	Bangor ...	N.W. Counties	1	4½	1	0½
A_2	Barnard Castle	N.E. Coast	1	5½	1	1½
A	Barnsley ...	Yorkshire	1	7	1	2½
B	Barnstaple ...	S.W. Counties	1	5	1	0½
A	Barrow ...	N.W. Counties	1	7	1	2½
A	Barry ...	S. Wales & M.	1	7	1	2½
B	Basingstoke ...	S.W. Counties	1	5	1	0½
A_2	Bath	S.W. Counties	1	6	1	1½
A	Batley ...	Yorkshire	1	7	1	2½
A_2	Bedford ...	E. Counties	1	6	1	1½
A_2	Berwick-on-Tweed	N.E. Coast	1	6	1	1½
A_2	Bewdley ...	Mid. Counties	1	6	1	1½
B	Bicester ...	S. Counties	1	5	1	0½
	Birkenhead ...	N.W. Counties	*1	8	1	3
A	Birmingham ...	Mid. Counties	1	7	1	2½
A_1	Bishop Auckland	N.E. Coast	1	6½	1	2
A	Blackburn ...	N.W. Counties	1	7	1	2½
A	Blackpool ...	N.W. Counties	1	7	1	2½
A	Blyth	N.E. Coast	1	7	1	2½
B	Bognor ...	S. Counties	1	5	1	0½
A	Bolton ...	N.W. Counties	1	7	1	2½
A_2	Boston ...	Mid. Counties	1	5½	1	1½
A_2	Bournemouth...	S. Counties	1	6	1	1½
B_2	Bovey Tracey ...	S.W. Counties	1	4	1	0
A	Bradford ...	Yorkshire	1	7	1	2½
A_1	Brentwood ...	E. Counties	1	6½	1	2
A	Bridgend ...	S. Wales & M.	1	7	1	2½
B	Bridgwater ...	S.W. Counties	1	5	1	0½
A_2	Bridlington ...	Yorkshire	1	6½	1	2
A	Brighouse ...	Yorkshire	1	7	1	2½
A	Brighton ...	S. Counties	1	6	1	1½
A	Bristol ...	S.W. Counties	1	7	1	2½
B	Brixham ...	S.W. Counties	1	5	1	0½
A	Bromsgrove ...	Mid. Counties	1	7	1	2½
B	Bromyard ...	Mid. Counties	1	5	1	0½
A	Burnley ...	N.W. Counties	1	7	1	2½
A	Burslem ...	Mid. Counties	1	7	1	2½
A	Burton-on-Trent	Mid. Counties	1	7	1	2½
A	Bury	N.W. Counties	1	7	1	2½
A_1	Buxton ...	N.W. Counties	1	6½	1	2
A_2	CAMBRIDGE	E. Counties	1	6½	1	2
B_1	Canterbury ...	S. Counties	1	4½	1	0½
A	Cardiff ...	S. Wales & M.	1	7	1	2½
A	Carlisle ...	N.W. Counties	1	7	1	2½
B	Carmarthen ...	S. Wales & M.	1	5	1	0½
B	Carnarvon ...	N.W. Counties	1	5	1	0½
A_1	Carnforth ...	N.W. Counties	1	7	1	2½
A	Castleford ...	Yorkshire	1	7	1	2½
A_2	Chatham ...	S. Counties	1	5½	1	1½
A_2	Chelmsford ...	E. Counties	1	5½	1	1½
A_2	Cheltenham ...	S.W. Counties	1	5½	1	1½
A	Chester ...	N.W. Counties	1	7	1	2½
A	Chesterfield ...	Mid. Counties	1	7	1	2½
B	Chichester ...	S. Counties	1	5	1	0½
A	Chorley ...	N.W. Counties	1	7	1	2½
B_1	Cirencester ...	S. Counties	1	4½	1	0½
A	Clitheroe ...	N.W. Counties	1	7	1	2½
A	Clydebank ...	Scotland	1	7	1	2½
A	Coalville ...	Mid. Counties	1	7	1	2½
A_2	Colchester ...	E. Counties	1	6	1	1½
A_1	Colne	N.W. Counties	1	6½	1	2
A_1	Colwyn Bay ...	N.W. Counties	1	6	1	1½
A_1	Consett ...	N.E. Coast	1	6½	1	2
A_2	Conway ...	N.W. Counties	1	6	1	1½
A	Coventry ...	Mid. Counties	1	7	1	2½
A_2	Crewe	N.W. Counties	1	6	1	1½
A_2	Cumberland ...	N.W. Counties	1	5½	1	1½
A	DARLINGTON	N.E. Coast	1	7	1	2½
A	Darwen ...	N.W. Counties	1	7	1	2½
B_1	Deal	S. Counties	1	4½	1	0½
A_2	Denbigh ...	N.W. Counties	1	5½	1	1½
A	Derby	Mid. Counties	1	7	1	2½
A	Dewsbury ...	Yorkshire	1	7	1	2½
B	Didcot ...	S. Counties	1	5	1	0½
A	Doncaster ...	Yorkshire	1	7	1	2½
B_1	Dorchester ...	S.W. Counties	1	4½	1	0½
A_2	Driffield ...	Yorkshire	1	5½	1	1½
A_2	Droitwich ...	Mid. Counties	1	6	1	1½
A	Dudley ...	Mid. Counties	1	7	1	2½
A_2	Dumfries ...	Scotland	1	6	1	1½
A	Dundee ...	Scotland	1	7	1	2½
A	Durham ...	N.E. Coast	1	7	1	2½
A_1	EASTBOURNE	S. Counties	1	6	1	1½
A_1	Ebbw Vale ...	S. Wales & M.	1	6½	1	2
A	Edinburgh ...	Scotland	1	7	1	2½
A_2	Exeter ...	S.W. Counties	*1	6	1	1½
B	Exmouth ...	S.W. Counties	1	5	1	0½
A_2	FELIXSTOWE	E. Counties	1	5½	1	1½
A_2	Filey	Yorkshire	1	5½	1	1½
A	Fleetwood ...	N.W. Counties	1	7	1	2½
B_1	Folkestone ...	S. Counties	1	4½	1	0½
A	Frodsham ...	N.W. Counties	1	7	1	2
B_2	Frome ...	S.W. Counties	1	4	1	0
A	GATESHEAD	N.E. Coast	1	7	1	2½
B	Gillingham ...	S. Counties	1	5	1	0½
A_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1	6½	1	2
A	Glasgow ...	Scotland	1	7	1	2½
A_2	Gloucester ...	S.W. Counties	1	6	1	1½
A_2	Goole	Yorkshire	1	6	1	1½
A_2	Gosport ...	S. Counties	1	6	1	1½
A_3	Grantham ..	Mid. Counties	1	5½	1	1
A_1	Gravesend ...	S. Counties	1	6½	1	2
A	Greenock ...	Scotland	*1	7	1	2
A	Grimsby ...	Mid. Counties	1	7	1	2
B	Guildford ...	S. Counties	1	5	1	0
A	HALIFAX ...	Yorkshire	1	7	1	2½
A	Hanley ...	Mid. Counties	1	7	1	2½
A	Harrogate ...	Yorkshire	1	7	1	2½
A	Hartlepools ...	N.E. Coast	1	7	1	2½
B	Harwich ...	E. Counties	1	5	1	0½
B	Hastings ...	S. Counties	1	5	1	0½
A_2	Hatfield ...	S. Counties	1	6	1	1½
B	Hereford ...	S.W. Counties	1	5	1	0½
A_2	Hertford ...	E. Counties	1	6	1	1½
A	Heysham ...	N.W. Counties	1	7	1	2½
A	Howden ...	N.E. Coast	1	7	1	2½
A	Huddersfield ...	Yorkshire	1	7	1	2½
A	Hull	Yorkshire	1	7	1	2½
A	ILKLEY ...	Yorkshire	1	7	1	2½
A	Immingham ...	Mid. Counties	1	7	1	2½
A_2	Ipswich ...	E. Counties	1	6	1	1½
B_2	Isle of Wight ...	S. Counties	1	4	1	0
A	JARROW ...	N.E. Coast	1	7	1	2½
A	KEIGHLEY ...	Yorkshire	1	7	1	2½
	Kendal ...	N.W. Counties	1	5½	1	1½
A_2	Keswick ...	N.W. Counties	1	5½	1	1½
A_1	Kettering ...	Mid. Counties	1	6½	1	2
A_2	Kidderminster	Mid. Counties	1	6	1	1½
B_1	King's Lynn ...	E. Counties	1	4½	1	0½
A	LANCASTER ...	N.W. Counties	1	7	1	2½
A_1	Leamington ...	Mid. Counties	1	6½	1	2
A	Leeds	Yorkshire	1	7	1	2½
A	Leek	Mid. Counties	1	7	1	2½
A	Leicester ...	Mid. Counties	1	7	1	2½
A	Leigh	N.W. Counties	1	7	1	2½
B	Lewes	S. Counties	1	5	1	0½
A_2	Lichfield ...	Mid. Counties	1	6	1	1½
A	Lincoln ...	Mid. Counties	1	7	1	2½
	Liverpool ...	N.W. Counties	*1	8½	1	3½
A_2	Llandudno ...	N.W. Counties	1	6	1	1½
A	Llanelly ...	S. Wales & M.	1	7	1	2½
	London (12-miles radius)		1	8½	1	3½
	Do. (12-15 miles radius)		1	8	1	3
A	Long Eaton ...	Mid. Counties	1	7	1	2½
A	Loughborough ...	Mid. Counties	1	7	1	2½
A_1	Luton	E. Counties	1	6½	1	2
A	Lytham ...	N.W. Counties	1	7	1	2½
A_1	MACCLESFIELD	N.W. Counties	1	6½	1	2
A_2	Maidstone ...	S. Counties	1	5½	1	1½
A_2	Malvern ...	Mid. Counties	1	5½	1	1½
A	Manchester ...	N.W. Counties	1	7	1	2½
A	Mansfield ...	Mid. Counties	1	7	1	2½
B_1	Margate ...	S. Counties	1	4½	1	0½
A_2	Matlock ...	Mid. Counties	1	5½	1	1½
A_1	Merthyr ...	S. Wales & M.	1	6½	1	2
A	Middlesbrough	N.E. Coast	1	7	1	2½
A_2	Middlewich ...	N.W. Counties	1	6	1	1½
B_2	Minehead ...	S.W. Counties	1	4	1	0
B_2	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1	4	1	0
A	Morecambe ...	N.W. Counties	1	7	1	2½
A_2	NANTWICH ...	N.W. Counties	1	6	1	1½
A	Neath	S. Wales & M.	1	7	1	2½
A	Nelson ...	N.W. Counties	1	7	1	2½
A	Newcastle ...	N.E. Coast	1	7	1	2½
A	Newport ...	S. Wales & M.	1	7	1	2½
A	Normanton ...	Yorkshire	1	7	1	2½
A	Northampton	Mid. Counties	1	7	1	2½
A	North Shields...	N.E. Coast	1	7	1	2½
A	North Staffs ...	Mid. Counties	1	7	1	2½
A_1	Norwich ...	E. Counties	1	6½	1	2
A	Nottingham ...	Mid. Counties	1	7	1	2½
A	Nuneaton ...	Mid. Counties	1	7	1	2½
A_2	OAKHAM ...	Mid. Counties	1	5½	1	1½
A	Oldham ...	N.W. Counties	1	7	1	2½
A_2	Oswestry ...	N.W. Counties	1	5½	1	1½
A_1	Oxford ...	S. Counties	1	6½	1	2
A	PAISLEY ...	Scotland	*1	7	1	2
B_2	Pembroke ...	S. Wales & M.	1	3½	0	11½
A	Perth	Scotland	*1	7	1	2½
	Peterborough....	E. Counties	1	6½	1	2
A	Plymouth ...	S.W. Counties	*1	7	1	2½
A	Pontefract ...	Yorkshire	1	7	1	2½
A_1	Pontypridd ...	S. Wales & M.	1	6½	1	2
A_2	Portsmouth ...	S. Counties	1	6	1	1½
A	Preston ...	N.W. Counties	1	7	1	2½
A	QUEENSFERRY	N.W. Counties	1	7	1	2½
A_2	READING ...	S. Counties	1	6½	1	2
B	Reigate ...	S. Counties	1	5½	1	1½
A_2	Retford ...	Mid. Counties	1	5½	1	1½
A_1	Rhondda Valley	S. Wales & M.	1	6½	1	2
A_2	Ripon	Yorkshire	1	5½	1	1½
A	Rochdale ...	N.W. Counties	1	7	1	2½
B	Rochester ...	S. Counties	1	5	1	0½
A_1	Ruabon ...	N.W. Counties	1	6½	1	2
A	Rugby ...	Mid. Counties	1	7	1	2½
A_2	Rugeley ...	Mid. Counties	1	6	1	1½
A	Runcorn ...	N.W. Counties	1	7	1	2½
A_1	ST. ALBANS ...	E. Counties	1	6½	1	2
A	St. Helens ...	N.W. Counties	1	7	1	2½
B_2	Salisbury ...	S.W. Counties	1	3½	0	11½
A_1	Scarborough ...	Yorkshire	1	6½	1	2
A	Scunthorpe ...	Mid. Counties	1	7	1	2½
A	Sheffield ...	Yorkshire	1	7	1	2½
A	Shipley ...	Yorkshire	1	7	1	2½
A_2	Shrewsbury ...	Mid. Counties	1	6	1	1½
A_2	Skipton ...	Yorkshire	1	6	1	1½
A_2	Slough ...	S. Counties	1	6	1	1½
A_1	Solihull ...	Mid. Counties	1	6½	1	2
A_2	Southampton...	S. Counties	1	6	1	1½
A_1	Southend-on-Sea	E. Counties	1	6½	1	2
A	Southport ...	N.W. Counties	1	7	1	2½
A	S. Shields ...	N.E. Coast	1	7	1	2½
A_1	Stafford ...	Mid. Counties	1	6½	1	2
A	Stirling ...	Scotland	1	7½	1	2½
A	Stockport ...	N.W. Counties	1	7	1	2½
A	Stockton-on-Tees	N.E. Coast	1	7	1	2½
A	Stoke-on-Trent	Mid. Counties	1	7	1	2½
B	Stroud ...	S.W. Counties	1	5	1	0½
A	Sunderland ...	N.E. Coast	1	7	1	2½
A	Swansea ...	S. Wales & M.	1	7	1	2½
A_2	Swindon ...	S.W. Counties	1	5½	1	1½
A_1	TAMWORTH ...	N.W. Counties	1	6½	1	2
B	Taunton ...	S.W. Counties	1	5	1	0½
A	Teesside Dist....	N.E. Counties	1	7	1	2½
A_2	Teignmouth ...	S.W. Coast	1	6	1	1½
A	Todmorden ...	Yorkshire	1	7	1	2½
A_1	Torquay ...	S.W. Counties	1	6½	1	2
B_2	Truro	S.W. Counties	1	4	1	0
A_2	Tunbridge Wells	S. Counties	1	5½	1	1½
A	Tunstall ...	Mid. Counties	1	7	1	2½
A	Tyne District....	N.E. Coast	1	7	1	2½
A	WAKEFIELD	Yorkshire	1	7	1	2½
A	Walsall ...	Mid. Counties	1	7	1	2½
A	Warrington ...	N.W. Counties	1	7	1	2½
A_1	Warwick ...	Mid. Counties	1	6½	1	2
A_1	Wellingborough	Mid. Counties	1	6½	1	2
A	West Bromwich	Mid. Counties	1	7	1	2½
A_2	Weston-s.-Mare	S.W. Counties	1	6	1	1½
A_2	Whitby ...	Yorkshire	1	6	1	1½
A	Widnes ...	N.W. Counties	1	7	1	2½
A	Wigan ...	N.W. Counties	1	7	1	2½
B	Winchester ...	S. Counties	1	5	1	0½
A_2	Windsor ...	S. Counties	1	6	1	1½
A	Wolverhampton	Mid. Counties	1	7	1	2½
A_2	Worcester ...	Mid. Counties	1	6	1	1½
A_2	Worksop ...	Yorkshire	1	5½	1	1½
A_1	Wrexham ...	N.W. Counties	1	6½	1	2
A_2	Wycombe ...	S. Counties	1	5½	1	1½
B	YARMOUTH ...	E. Counties	1	5	1	0½
B	Yeovil ...	S.W. Counties	1	5	1	0½
A	York	Yorkshire	1	7	1	2½

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

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

CURRENT PRICES

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

WAGES

	£ s. d.
Bricklayer . . . . . per hour	1 8½
Carpenter . . . . . „	1 8½
Joiner . . . . . „	1 8½
Machinist . . . . . „	1 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
¼" 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

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

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

Thickness	¼"			⅜"			½"			¾"		
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	2½	7	5	4	8	6	5
Cheap Alder .	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine .	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak .	6½	5	–	7½	5½	–	10	8	–	1/–	9	–

	£ s. d.
Scotch glue . . . . . lb	8

SMITH AND FOUNDER

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

		¼"	⅜"	½"	¾"	1"
Tubes 2'–14' long	per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long	each	10	1/1	1/11	2/8	4/9
„ 3"–11½" long	„	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long	„	11	1/3	2/2	2/10	5/3
„ „ 3" M–½" long	„	8	10	1/5	1/11	3/6
Bends	„	8	11	1/7½	2/7½	5/2
Springs not socketed	„	5	7	1/1½	1/11½	3/11
Socket unions	„	2/–	3/–	5/6	6/9	10/–
Elbows, square	„	10	1/1	1/6	2/2	4/3
Tees	„	1/–	1/3	1/10	2/6	5/1
Crosses	„	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	„	3	4	6	8	1/3
Diminished sockets	„	4	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/–

		1¼"	1½"	2"
Tubes 2'–14' long	per ft. run	1/10	2/–	3/–
Pieces, 12"–23" long	each	2/8	4/9	6/–
„ 3"–11½" long	„	1/8	3/–	4/–
Long screws, 12"–23½" long	„	2/10	5/3	7/–
„ „ 3" M–½" long	„	1/11	3/6	4/6
Bends	„	2/7½	5/2	7/–
Springs not socketed	„	1/11½	3/11	5/–
Socket unions	„	5/6	6/9	10/–
Elbows, square	„	2/2	4/3	6/–
Tees	„	2/10	5/1	7/–
Crosses	„	5/6	10/6	14/–
Plain sockets and nipples	„	1/3	2/–	2/6
Diminished sockets	„	2/–	2/9	3/6
Flanges . . .	„	2/9	5/3	7/–
Caps	„	2/–	3/9	5/–
Backnuts . . .	„	1/1	2/–	2/6
Iron main cocks	„	3/11	7/6	10/–
„ with brass plugs	„	5/–	9/–	12/–

Discounts	TUBES Per cent.		Per cent.
Gas . . .	66⅔	Galvanized gas .	56⅔
Water . . .	61⅔	„ water .	51⅔
Steam . . .	58⅔	„ steam .	46⅔
	FITTINGS		
Gas . . .	57⅔	Galvanized gas .	48⅔
Water . . .	53⅔	„ water .	46⅔
Steam . . .	48⅔	„ steam .	41⅔

	s. d.
Rolled steel joists cut to length . . cwt.	15 6
Mild steel reinforcing rods, ¾" . . . „	16 0
„ „ „ „ ½" . . . „	15 9
„ „ „ „ ⅜" . . . „	15 3

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ¾" . . . cwt.	15 3
„ „ „ „ ⅝" . . . „	15 3
„ „ „ „ 1" . . . „	15 3
„ „ „ „ 1¼" . . . „	15 3
„ „ „ „ 1½" . . . „	15 3

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

PLUMBER

	3"	4"	6"
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 0*
„ tubes . . . „			1 2½
L.C.C. soil and waste pipes:			
Plain cast . . . F.R.	1 0	1 2	2 6
Coated . . . „	1 1	1 3	2 8
Galvanized . . „	2 0	2 6	4 6
Holderbats . . . each	3 10	4 0	4 9
Bends . . . „	3 9	5 3	10 3
Shoes . . . „	2 10	4 4	9 6
Heads . . . „	4 8	8 5	12 9

PLASTERER

	£ s. d.
Lime, chalk . . . . per ton	2 0 0
Plaster, coarse . . . „	2 15 0
„ fine . . . „	4 7 6
Hydrated lime . . . „	3 0 9
Sirapite . . . . „	3 6 0
Keene's cement . . . „	5 0 0
Gothite plaster . . . „	3 6 0
Pioneer plaster . . . „	3 5 0
Thistle plaster . . . „	3 6 0
Sand, washed . . . Y.C.	11 6
Hair . . . . . lb.	6
Laths, sawn . . . . bundle	2 4
„ rent . . . . „	3 9
Lath nails . . . . lb.	3

GLAZIER

	s. d.	s. d.
Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.		2½
„ „ 26 oz. „ „ „ „		3½
Flemish, Arctic, Figures (white)* . „		7½
Blazoned glasses . . . „		2 6
Reeded: Cross Reeded . . „		11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite „		6
Crown sheet glass (n/e 12" × 10") . „		2 0
Flashed opals (white and coloured) . „	1 0 and	2 0
¼" rough cast; rolled plate . „		8
¼" wired cast; wired rolled . „		10½
¼" Georgian wired cast . . „		11½
¼" Polished plate, n/e 1 ft. . „	†10 to	‡1 1
„ „ 2 . . „	†1 2 „	‡1 4
„ „ 4 . . „	†2 3 „	‡2 6
„ „ 8 . . „	†2 9 „	‡3 2
„ „ 20 . . „	†3 1 „	‡3 9
„ „ 45 . . „	†3 3 „	‡4 0
„ „ 100 . . „	†4 0 „	‡4 10
Vita glass, sheet, n/e 1 ft. . „		1 0
„ „ 2 ft. . „		1 3
„ „ over 2 ft. . „		1 9
„ plate, n/e 1 ft. . „		1 6
„ „ 2 ft. . „		3 0
„ „ 5 ft. . „		4 0
„ „ 7 ft. . „		5 0
„ „ 15 ft. . „		8 0
„ „ over 15 ft. . „		7 6
"Calorex" sheet 21 oz., and 32 oz. „	2 6 and	3 6
„ rough cast ¼" and ½" . „	8½ „	1 0
Putty, linseed oil . . . lb.		3

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

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

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

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

DRAINLAYER		4" s.	4" d.	6" s.	6" d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	8	2	3
Extra, only for bends	Each	2	8	3	9
" junctions	"	3	9	4	6
Gullies and gratings	"	16	8	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
⅛" deal sawn boarding and fixing to joists	Sqr.	1	14	6
1" " " " " "	"	1	17	6
1½" " " " " "	"	2	3	0
3" × 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
1½" 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, 1½" heads, 1" inside and outside linings, ⅝" parting beads, and with brass faced axle pulleys, etc., fixed complete	"	3	7
2" " " " " "	"	3	10
Extra only for moulded horns	Each		6
1½" deal four-panel square, both sides, door	F.S.	2	0
2" " " " " "	"	2	8
1½" " but moulded both sides	"	2	4
2" " " " " "	"	3	0
4" × 3" deal, rebated and moulded frames	F.R.	1	0
4½" × 3½" " " " "	"	1	4
1½" deal tongued and moulded window board, on and including deal bearers	F.S.	1	9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2	6
1½" deal moulded wall strings	"	2	1
1½" " outer strings	"	2	4
Ends of treads and risers housed to string	Each	1	9
3" × 2" deal moulded handrail	F.R.	1	3
1" × 1" deal balusters and housing each end	Each	2	0
1½" × 1½" " " " "	"	2	9
3" × 3" deal wrought framed newels	F.R.	1	3
Extra only for newel caps	Each	6	0
Do., pendants	"	6	0

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

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

Lead service pipe and fixing with pipe hooks	F.R.	½" s.	½" d.	¾" s.	¾" d.	1" s.	1" d.	1½" s.	1½" d.	2" s.	2" d.	4" s.	4" d.
		1	2	1	4	1	8½	2	7	3	6	—	
Do. soil pipe and fixing with cast lead tacks	"	—		—		—		—		—		7	3
Extra, only to bends	Each	—		—		—		—		2	3	7	6
Do. to stop ends	"	6½		8		9		11		1	0	—	
Boiler screws and unions		3	3	3	9	5	0	8	0	—		—	
Lead traps		—		—		—		8	0	11	6	—	
Screw down bib valves	"	6	9	9	6	11	8	—		—		—	
Do. stop cocks	"	7	0	9	6	12	6	—		—		—	

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

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

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

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