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THE ARCHITECTS' JOURNAL

THE ARCHITECTS' JOURNAL
WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER, IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 9 QUEEN ANNE'S GATE, WESTMINSTER, S.W.1

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TELEGRAPHIC ADDRESS : BUILDABLE, PARL., LONDON

The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

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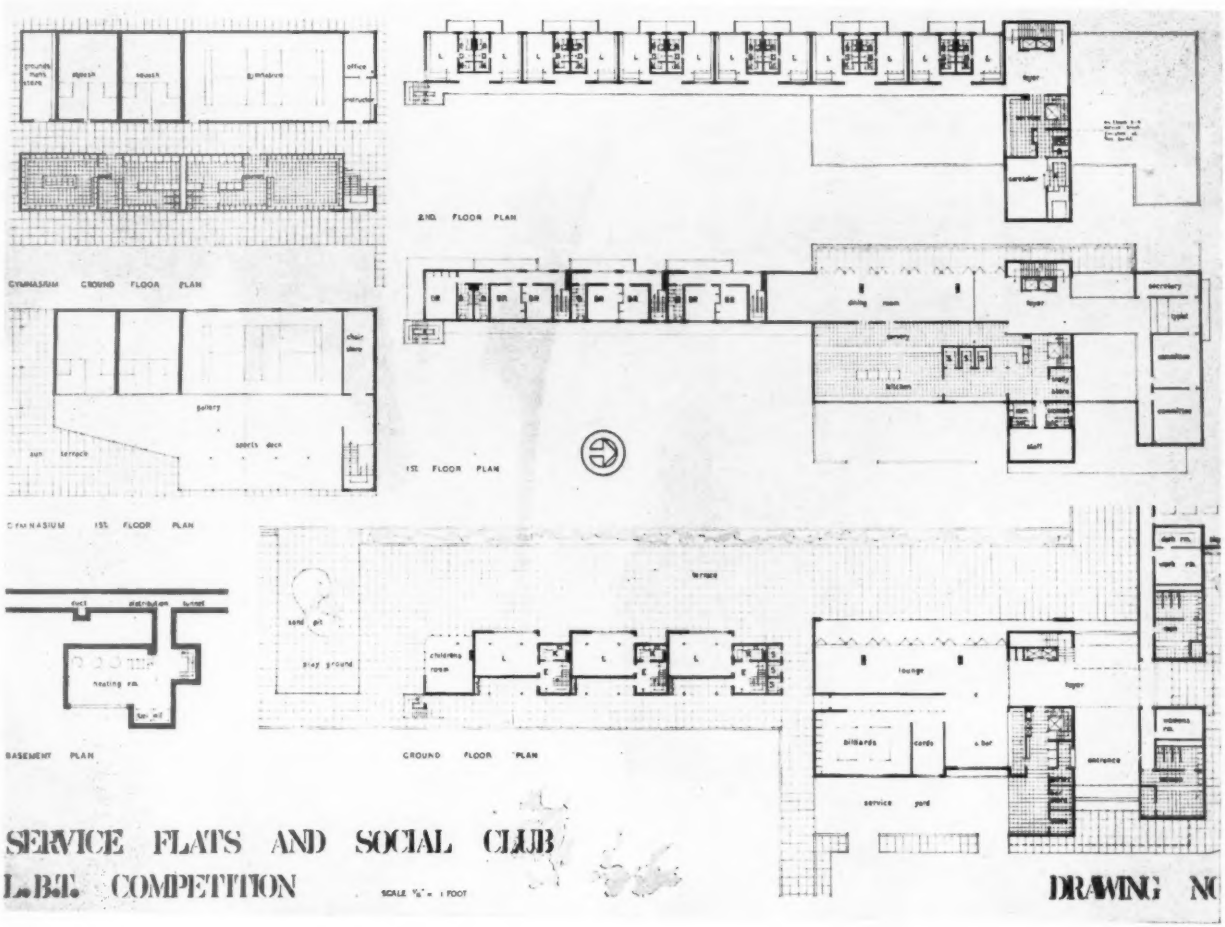
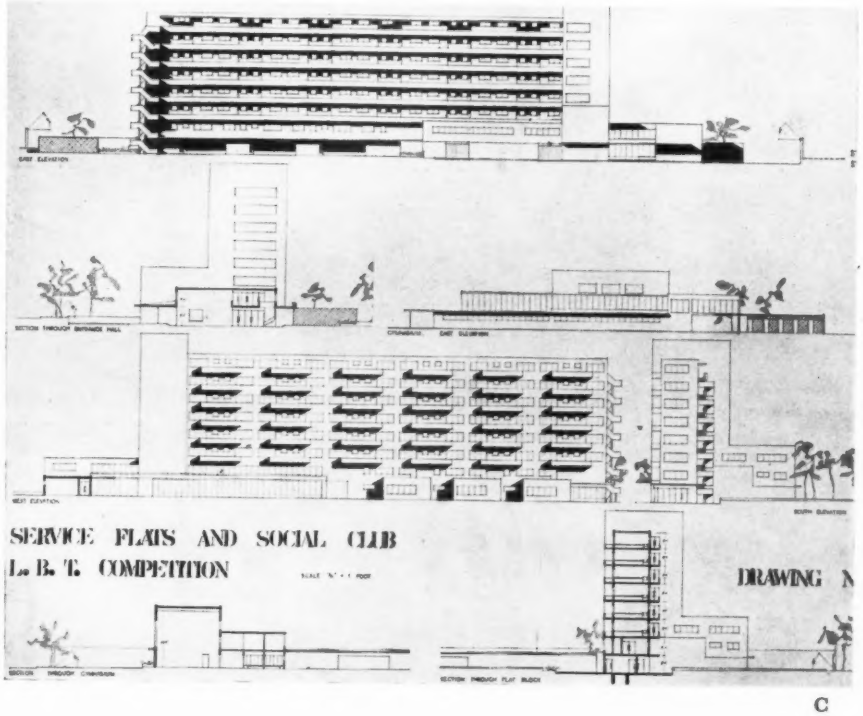
COMPETITION FOR FLATS AND SOCIAL CLUB, LIVERPOOL

DESIGN BRACKETED FIRST: BY P. W. MacIVER AND R. WALTERS



IN the competition promoted by the management of the Building Trades Exhibition, Liverpool, for service-flats combined with a social club, the designs submitted by Messrs. P. W. MacIver and R. Walters, of Liverpool, and Messrs. K. L. Dod and A. C. Dewey, of New Malden, Surrey, tied for first prize and the assessors therefore divided the first and second premiums equally (£50 each) between the two entries. On this page we reproduce the design submitted by Messrs. P. W. MacIver and R. Walters; the design by Messrs. Dod and Dewey is given on pages 571–572.

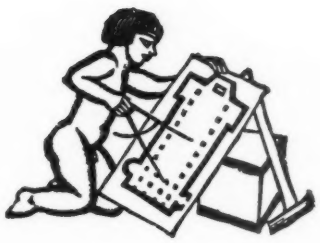
The schemes submitted—19—will remain on view at the exhibition in Renshaw Hall, Liverpool, until October 23.



C

A NEW BUS SHELTER

This experimental bus shelter at King's Cross is one of a series of signs and shelters which have recently been built by London Transport. The construction is steel-channel and steel tube reinforced terrazzo. The umbrella and shank are made separately and bolted together on the job. Terrazzo is white Carrara and slightly darkened Portland cement, fairly smoothly polished. Glazing is ¼-in. Georgian wired, sand-blasted on the underside. Rainwater drains down the central tube of the upright, with outfall 1 in. above ground. Poster frame is bronze. The shelter was designed by the Publicity Department of London Transport. Other shelters and signs are illustrated on pages 578–579.



GERMANY'S WORKING MODEL

ROADS and road casualties, as subjects of conversation or newspaper articles, have exhausted their market with the public. Go-getting Ministers of Transport, beacons, traffic police, by-pass roads, safety weeks, graphs of the monthly death roll and stories of the man who cut in—everybody has heard them all, tried most of them, seen the results and is bored to the point of putting up with anything in preference to hearing more of them.

That this should happen over any problem on a large scale is just something democracy has to put up with. For only when nineteen out of twenty of the population have become exhausted to the point of anger can it be hoped that the objections of the remaining one will disappear. Roads and road accidents are just another, perhaps a little grimmer, example of the same process.

The JOURNAL has taken care to have a good excuse for mentioning roads again. It is that it appears probable that resistance to the obvious, the only effective solution, for road casualties is coming near its end. For *The Times*, in a special article by Lord Wolmer, has given vicarious support to a real trunk road system in Britain.

For quite a time now, for several years, the JOURNAL has supported those who believed that the roads needed dividing into access roads, local roads and main roads. Within two or three miles of the centres of large towns, and even of small towns, it is clear that such a division cannot be made clearcut for a generation. It is equally clear that outside these areas there has been nothing at all to prevent such divisions being imposed, with a very large saving to the Treasury and a similar saving in life, except private profit and the pressure it has been able to exert in the House of Commons.

This month a deputation of British roads experts and M.P.s has been inspecting the German motor roads. As a result, Lord Wolmer has decided that we can learn something from Germany ; that there is hardly an aspect of the motor roads which, from the point of view of the public, is not properly solved.

The catalogue of Lord Wolmer's impressions reads strangely to those who travel much on our roads.

The German roads are of 10 ins. of reinforced concrete laid by machinery on the rammed earth. They are designed in accordance with American experience and therefore call in question our far more elaborate road building. They are laid in two 25-ft. strips, with a 15-ft. grass verge between. No cyclists, pedestrians or horse vehicles are allowed on them and no motorist may stop on the tracks ; frequent parking bays are provided, and in an emergency he can drive onto the grass verge. All road crossings are by bridge and access at important points is on the clover-leaf principle, with all responsibility laid on the entering motorist. The roads skirt all towns, run through agricultural country only, and are being completed at an inclusive price of £30,000 a mile. A British authority reckons the comparable cost here at £40,000, against our present average of £60,000 for road widening.

So much for the practical aspects. Lord Wolmer has been almost as much impressed, however, by finding that a well-designed road does not spoil the country. He is full of praise for the sweeps of the roads around hills and on " graceful bridges " across the rivers. Woods have not been slashed through, but carefully cut in groups and bays, and no houses are allowed to gain access from the roads. Finally, no roadside advertisements are permitted, and filling-pumps are concealed and all signs are standardized.

It all seems to read like Heaven.

And to such an unusual view of Germany, there is added the charm that the roads work. So far, in spite of much higher speeds there has been an 82 per cent. reduction of accidents per car on the motor roads as compared with other roads.

Lord Wolmer, at any rate, has been convinced and he appealed to the Minister of Transport to leave other roads—ribbon development, advertisements frontages and all—to stew in their own juice, and, by developing long-distance traffic roads in agricultural land (at agricultural prices), to tackle properly at least a large portion of our traffic problem.

He appealed in this way on October 7. On October 8 *The Times* contained a report of Mr. Leslie Burgin's speech at the National Safety First Congress. Mr. Burgin follows as Minister of Transport a man who was conspicuously energetic in trying minor ways of making roads safer. Those ways were not successful. Mr. Burgin has now had some time to examine the problem, and his speech at the Safety First Congress, in the light of Lord Wolmer's appeal, may possibly be considered an indication of the Ministry of Transport's attitude of mind.

Mr. Burgin said :—

> . . . I drove considerable distances and was troubled not only by statistics of fatalities, injuries, and accidents, but by the enormous number of " just avoided " calamities.
>
> Many visitors to this country were struck by the excellence of our road system. Those who talked of our roads as being back numbers did a disservice to the whole question of transport organization. . . . I want to dispel the notion that roads are treated as a piecemeal operation. . . . Improvements shown to be necessary, desirable, and practical would be carried out.
>
> Big inroads into the accident figures were not brought about by regulations regarding vehicles ; by far the greatest contribution could be made by co-operation and by increased skill and thought on the part of road users.
>
> In taking particular care at a bend I have heard a blatant hooter from behind because someone wanted to get round in a hurry. Such things are bad manners, and their elimination would help in solving the problem of accidents.

The Architects' Journal
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NOTES & TOPICS

OCTOBER EXHIBITION

THE opening of the R.I.B.A. "Modern Schools" Exhibition was, for me, almost too popular. Three minutes before the right time is not late; but by then standing, and some dodging round Mr. Wornum's columns, was the order of the day.

*

The President spoke shortly. Mentioning some of the big periods of school building, he added that, at the moment, we had fallen behind other countries; and with the hope that the R.I.B.A.'s compact touring exhibition would be looked at in the way it deserved, he made way for Professor Hilton.

*

Thin, dark, and looking much younger than he implied he was, "the Professor of common sense and industrial relations at Cambridge" produced this time no fireworks about reserved stalls. He spoke of his own school at Bolton, of its paved yards and gloom, of the thousand schools still on the black list, and of the need for the architects, who already exist, to be given proper opportunities.

*

His views were familiar to architects—they were so much the same as their own. That they were also Professor Hilton's was what made, and one hopes will make, all the difference.

CATALOGUES

One day someone will publish an annotated catalogue of catalogues. I don't refer to those many and commonplace leaflets and "brochures" which help us to fill in p.c. sums for baths, but to those tomes which serve a great need. One could start with such monumental institutions as the British Museum catalogue, catalogues on great subjects as Shakesperiana, or of great collections, such as that of Mr. Eumorfopoulos—one of the major achievements of the House of Benn.

*

I am inspired to write of catalogues because I hear that the R.I.B.A. library is to have one of its very own. The first of the two-volumes will soon be available to members of the Institute at the price of one guinea and to non-members at the price of two guineas. There will be 30,000 author entries and the whole thing, under Mr. Carter's guiding hand is sure to be a model of its kind. The catalogue could not be issued at such a low rate if it had to be self-supporting and it is only through the help of Sir Banister Fletcher, announced some months ago, that the huge enterprise has been made possible.

R.I.B.A. COUNCIL

Mr. G. B. J. Athoe claims to have discovered a flaw in the constitution of the R.I.B.A. Council. He writes as follows :—

> According to the Kalendar, page 19, the Chairman of the Architects' Registration Council of the United Kingdom, as such, is a member of the R.I.B.A. Council, the inference being that whoever might be Chairman of the Registration Council, even though he were not a member of the R.I.B.A., would automatically be a member of the R.I.B.A.'s Council. But the bye-laws make no such provision. On the other hand, a bye-law does make provision for the Chairman of the *R.I.B.A.'s* Registration Committee (which is a totally different thing) to be automatically a member of the R.I.B.A. Council. The Kalendar, however, does not print that worthy's name (under the appropriate heading) in the Council List.
>
> It so happens that the Chairman of the Registration Council and the Chairman of the R.I.B.A.'s Registration Committee are two different persons, so in whichever way one looks at the Council List it seems to be incorrect.

*

Well, well, my respect for Mr. Athoe is so profound that I am sure he would not have worked it all out if it had not been terribly important. It leaves a simple mind like mine, however, slightly dazed.

*

Very regretfully I have to reprimand Mr. Athoe for his journalese—"that worthy" really won't do, you know. Mr. Athoe once accused me and so he can't blame me for taking the *second* chance which he has given me.

WELWYN

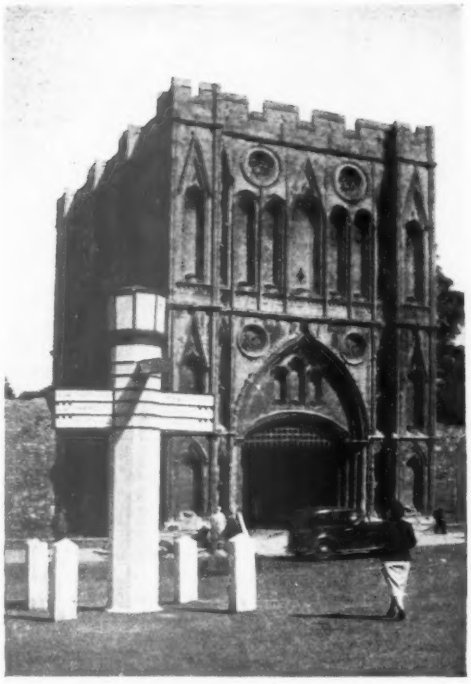
The Garden City and Town Planning Association has been holding a conference on decentralization at Welwyn Garden City. Miss Cicely Hamilton has achieved a good deal of publicity by her remarks about the "Snobbery of the Townsman" and his contempt of country people and things. Is not the boot on the other leg?

*

I believe that nine-tenths of the troubles to-day are due to the fact that nine-tenths of our town-planners are *rural*-minded and regard the town as a necessary evil. They would, I am sure, sooner have the half-in-half character of the garden-city (good enough in its way) than the honest-to-goodness town. Whether you prefer the compact unit of the country town clustered round the focal point of cupola or tower—the country sweeping up to its very walls; or whether you prefer the great communal buildings of Corbusier—parkland around and even under them—seems to me to be immaterial. Either view can be supported, but until we realize that the town as such can be a lovely thing we shall not get beyond covering England with Welwyns. Better than nothing, of course, but you can, after all, have too much of even the best things.

*

That is only a tenth of the story. Industry, transport, agriculture—there are only a dozen people in this country who realize the scale on which we have ultimately got to



A reinforced concrete signpost which has been erected in front of the Abbey Gate at St. Edmunds. The lamp and arms are framed in bronze.

plan. Take the "Hundred New Towns," for instance. I have seen no evidence that transport in relationship to agriculture has been seriously considered. Presumably their inhabitants will subsist on the same quaint diet—synthetic and preserved—as ninety per cent. of the country does at present. The "æsthetic" view dies hard and it can be an enemy of beauty, as any serious study of the economic town and landscape development in the past will quickly prove.

*

At the same Welwyn Conference Mr. Towndrow said that he had prepared an imaginary plan for London "by breaking through a little here and there."

SCOOP FOR THE "ARCHITECT'S WEEKLY"

Mr. Gloag's new book* is about the building—or rebuilding—of a cathedral. There is an architect with dark blue eyes called Quiller Tompion and a fearful blackguard called Martin Purfleet who is the Editor of a paper called the *Architect's Weekly*.

*

When I say that Martin Purfleet is a blackguard I mean it. He is a man of absolutely no scruples. You would think that his wife Margaret who had met Martin in the Architecture School of the Imperial College of Art when he was taking his R.I.B.A. Prelims, and who sat there in the library while he telephoned his sub-editor in London, her deep blue eyes lazily regarding him, her corn-coloured hair in boyish disorder, her lithe slip of a body lax and lazy in the armchair—you would think a woman like that would mean something to the editor of the *Architect's Weekly*.

Not a bit of it. Martin is one of those modern cads to whom the sacred edifice of family life means nothing, and though Margaret is the daughter of the Dean of the Cathedral, he goes off with a girl called Sally and rings up the deanery at Christmas to say how much he is enjoying it.

*

The result is of course that Margaret and Quiller Tompion get more or less catapulted into each other's arms, and but for the ennobling influence of the Cathedral upon their lives, the architectural world would have rung with another domestic scandal. What a scoop that would have been for the *Architect's Weekly*.

*

However, the Cathedral wins and the news-hawks are disappointed. Mr. Gloag's capacity for making steel and concrete the stuff lyceum dreams are made of will not be belittled by one at least of his readers who realizes the service he does architects—and editors—by making them seem interesting.

ST. GEORGE'S HOSPITAL

The House Governor of St. George's must have pretty good reason for wishing that architects had never existed. After a long story, he must have learnt to dislike our profession pretty thoroughly, but now it is his own fault. Presumably, he authorized the ***R.I.B.A. Journal*** to print the announcement that "conditions of the competition may be obtained on application" in the issue dated September 11, and it must, therefore, be rather galling for him to be unable to issue them.

*

This is not, of course, terribly serious if it were not for the fact that the date for sending in designs was fixed for May 10, 1938, at a time when it was thought that the conditions would be available in the middle of September. Presumably the Assessors considered, on some sort of scientific basis, that eight months was the time required for the production of a design. If so, then seven months, as a period of gestation, seems unlikely to produce the best results. An extension of time seems called for.

SO NEAR AND YET SO FAR

Somewhere in Somerset there is a main road crossing one not-so-main, and local motorists on the minor one resent the Halt at Major Road Ahead signs and have demanded traffic lights. Far from maintaining a detached silence, the Council pointed out in the local paper that the crossing was miles from anywhere and there wasn't any electricity anyway.

*

A final and conclusive excuse? Democracy (personified by the Honourable Member for ——) says "Rubbish, the Grid runs slap over the junction of the two roads and, God bless my soul, what more do you want, Sir?"

*

The Council have not as yet said they don't want anything more and would like a good deal less, but the suggestion raises the thought of a nice little clause in a specification :—

Include for stepping down from adjoining grid for lights in gate piers at end of drive, P.C. £25,000, and add for profit.

ASTRAGAL

* *Sacred Edifice*. By John Gloag. Cassell: price 7s. 6d.

NEWS

POINTS FROM THIS ISSUE

"*A fearful blackguard . . . who is the Editor of a paper called the 'Architect's Weekly'*" 569

"*Seven months seems unlikely to produce the best results in the competition for the rebuilding of St. George's Hospital. An extension of time is called for*" .. 569

Competition Result 571

"*There is a large and ever-increasing day population in the City of London; at a special day census taken in 1866, it was 170 thousand; in 1911, 360 thousand; in 1921, 437 thousand; and the present estimated figure exceeds 500,000*" 596

PLANNING THE ISLE OF WIGHT

Sir Kingsley Wood, Minister of Health, last week approved a resolution for the preparation of a planning scheme for the whole of the Isle of Wight. The resolution was passed by the Isle of Wight Planning and Development Committee, comprising all the local authorities in the island, including the county council. The committee is also responsible for the administration of the Restriction of Ribbon Development Act. This is the first case of the co-ordination of these two activities by a joint committee.

ARCHITECTS' REGISTRATION COUNCIL

Steps will be taken on behalf of the Architects' Registration Council to reintroduce the Architects' Registration Bill in Parliament during the first days of the new Session which is expected to commence at the end of this month. It will be recalled that the Bill, which passed through the House of Lords in the Spring, only failed to secure the assent of the House of Commons owing to lack of Parliamentary time.

Following are some extracts from a memorandum just issued by the Architects' Registration Council, giving a brief explanation of the effects of the Bill and setting out the bodies in support of it :—

"The object of this Bill is to restrict the use of the title 'Architect' to Registered Architects. Under the Architects (Registration) Act, 1931, registration was merely permissive.

"Under clause 2 any person now practising as an architect is allowed two years from the passing of the Bill in which to register. Future entrants to the profession will be required to pass one of the qualifying examinations approved by the Architects' Registration Council on the recommendation of the Board of Architectural Education set up under the Architects (Registration) Act, 1931.

"The Bill is supported by the following bodies : R.I.B.A., 67 provincial associations allied to the R.I.B.A.; Faculty of Architects and Surveyors; Architectural Association, London; Association of Architects, Surveyors and Technical Assistants; Association of Representatives of 'Unattached' Architects; Incorporated Society of Auctioneers and Landed Property Agents; National Federation of Building Trades Employers; Executive Committee of The National Federation of Building Trades Operatives; Council of the London Master Builders' Association.

"The following bodies have signified that they have no objection to the measure : Chartered Surveyors' Institution; Institution of Civil Engineers; and the Institution of Structural Engineers.

"The Bill was introduced in the House of Lords in January, 1937, and passed through that House without amendment and without a division. The Bill was held up in the House of Commons for want of time to complete the debate on Second Reading."

THE ARCHITECTS' DIARY

Thursday, October 14

R.I.B.A., 66 *Portland Place, W.1. Exhibition entitled "Modern Schools." Until October 19. 10 a.m. and 8 p.m. (Saturday, 10 a.m. and 6 p.m.).*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C. Exhibition of Photographs taken by A.A. Students on a motor tour in Central Europe. Until October 16.*

UNIVERSITY EXTENSION LECTURES. *At 66 Portland Place, W.1. Fourth of the series: "Architecture: Its place in Human Society." By Basil Ward. 6.30 p.m.*

INSTITUTE OF HOUSING ADMINISTRATION. *At Carlisle. Fifth Annual Conference.*

COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND. *At Leamington. Tenth Annual Conference. Until October 17.*

LONDON SOCIETY. *Visit to the Town Hall, Islington, N.1. 3 p.m.*

Friday, October 15

LONDON SOCIETY. *At the Royal Society of Arts, John Street, Adelphi, W.C. "London Hospitals: Past, Present and Future." By C. E. A. Bedwell. 5 p.m.*

INSTITUTION OF SANITARY ENGINEERS. *At Caxton Hall, Caxton Street, S.W. "The Duties and Difficulties of a District Surveyor." By T. Bordett. 6 p.m.*

Saturday, October 16

R.I.B.A., 66 *Portland Place, W.1. Exhibition of designs of Students of Schools of Architecture recognized for exemption from the R.I.B.A. Final Examination. Until October 19. 10 a.m. and 6 p.m. (Saturday, 10 a.m. and 5 p.m.).*

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. *Visit to the National Maritime Museum, Queen's House, Greenwich. 2.30 p.m.*

Wednesday, October 20

INSTITUTION OF STRUCTURAL ENGINEERS. *Scottish Branch. At 129 Bath Street, Glasgow. "The San Francisco–Oakland Bay Bridge." By Professor J. Husband. 7.15 p.m.*

Thursday, October 21

INSTITUTION OF STRUCTURAL ENGINEERS. *Yorkshire Branch. At the Hotel Metropole, Leeds. Chairman's Address, by Captain G. Maddock. 7 p.m.*

OFFICIAL OPENING

The new nurses' home at Hackney Hospital, High Street, Homerton, is to be opened to-morrow by Mr. Herbert Morrison, M.P.

THE BUILDING CENTRE

For the special benefit of those employed in architects' and builders' offices, and others engaged in the building industry, the Building Centre will in future remain open on Saturday afternoons until 6 p.m. from October to the end of April.

The practice of keeping the Building Centre open on Wednesday evenings until 9 p.m. during the winter months will be discontinued, as it is felt that Saturday afternoon opening will be more convenient to those interested.

TIMBER HOUSES

The Management Committee of the Timber Development Association announced last week that it is taking immediate steps to secure the building of a number of timber houses in different parts of Great Britain as examples of what can be done with the timbers available to-day and by modern methods of construction. The houses will range in price from £800 to £2,000. The first house built under the scheme will be on the Dome Hill Estate, Caterham.

PROFESSIONAL ANNOUNCEMENT

Messrs. H. V. Ashley and Winton Newman, FF.R.I.B.A., have taken into partnership Mr. W. Naseby Adams, A.R.I.B.A., who has been associated with them in the recent competition for the Birmingham Colleges. The name of the firm will remain unchanged, and the address is as heretofore at No. 14 Gray's Inn Square, London, W.C.1. Mr. Adams has vacated his office at No. 6 Bryanston Street, London, W.1, and his practice will be continued at the above address.

ON THE AIR

Monday, October 18. National Programme. 8 to 8.30 p.m. : "Design in Every-day Things : In the House—Living Rooms and Kitchens." By Anthony Bertram.

CORRECTION

In the note on the change of address of Mr. E. C. Kaufmann, published in last week's issue, the telephone number should have read : Holborn 5400.

EXHIBITIONS

[*BY D. COSENS*]

THE work of Bonnard and Vuillard has become so associated in most people's minds that their joint exhibition at Rosenberg and Helft's is almost inevitable. Certainly at one time they painted together and influenced each other considerably, and both have always preferred to paint domestic interiors. But while Vuillard has continued, for almost a lifetime, to paint in the same quiet way, Bonnard has become much stronger and bolder. Compare Vuillard's "La Parisienne" with Bonnard's "Le Bol de Lait" and this development is apparent. Both have always been preoccupied with the effect of indirect lighting, and both still use this device with great success in their pictures. But it is Vuillard who is the master of that diffused light that reveals not only a character but its whole environment. Of living painters only he and Sickert, who owes much to his influence, have, in the dim interiors they are both so fond of painting, the power of giving that astonishing feeling of what is happening outside the picture.

All the painting in this exhibition is easily comprehended, but all can give a great deal more on a careful analysis of colour and composition.

•

Czechoslovak painting is not very well known in this country, and the names in the catalogue of the exhibition at the Mayor Gallery are probably unfamiliar to most people—except, in a different medium, that of Josef Capek. This, one might almost call it anonymity, is a very good thing, and it is extremely probable that in many an exhibition new talent might be recognized, and the complacent pot-boilers of the successful debunked, if the name in the

catalogue meant nothing at all. Emil Filla, the most accomplished painter, is obviously strongly influenced by both Picasso and Braque. His admiration sometimes amounts almost to plagiarism. Capek's rather naïve painting reflects his country's folk-lore, and is charming, but it cannot be considered very seriously. "Slovak Plains" and "After the Storm" by Sedlacek have a freer quality in their suggestion of space, and though slight, are extremely good paintings.

•

It is invariably dangerous to limit one's vision to a definite type of object in painting. The great painter is much likelier to find his inspiration in whatever comes to hand than in trundling round the world specializing in this or that. Mr. Stuart-Hill unfortunately finds the bridges of London irresistible—and it is unfortunate, for without this specialization his competent and lively painting might have taken a different twist, and the personal character of places which he catches so well in "The Thames at Vauxhall" have defeated the more consciously created atmosphere of much of his other work.

The mixed collection by contemporary artists, also at the Redfern Gallery, is very good. And as a comparison with "The Bridges of London" Nadia Benois's "Chiswick" achieved far more simply and successfully both the character of the place and the atmosphere of a particular day. "Boats, Lyme Regis," is one of Eurich's best paintings, and most interesting both in colour and composition. With very representative works by about fifty artists it is difficult to pick and choose, and to suggest that Christopher Wood's "Flowers in a Jug," Sickert's "Jenny," and David Jones's "Sea at Hythe," are among the high-water marks by no means implies that the rest are nowhere.

•

Bonnard and Vuillard. Rosenberg and Helft, 31 Bruton Street. *Until October 23.*

London Bridges, and Portraits, by A. Stuart-Hill. Redfern Gallery, 20 Cork Street. *Until October 23.*

Modern Czechoslovak Paintings. Mayor Gallery, 19 Cork Street. *Until October 30.*

COMPETITION NEWS

LIVERPOOL COMPETITION RESULT

Messrs. B. M. Ward, Leonard Barnish and Lt.-Col. Ernest Gee, assessors of the competition (promoted by the management of the Building Trades Exhibition, Liverpool), for service flats combined with a recreation and social club have made their award as follows :—

Designs bracketed first (£50 each): No. 6: Messrs. K. L. Dod, of Tangier Road, East Sheen, and A. C. Dewey, of Lawrence Avenue, New Malden, Surrey. No. 17: Messrs. Peter W. MacIver, and Roger Walters, of Abercromby Square, Liverpool.

Design placed third (£10) : No. 10 : Mr. John A. Ashworth, of Chester Avenue, Bury Road, Rochdale.

THE ASSESSORS' REPORT

Following are some extracts from the assessors' report :—

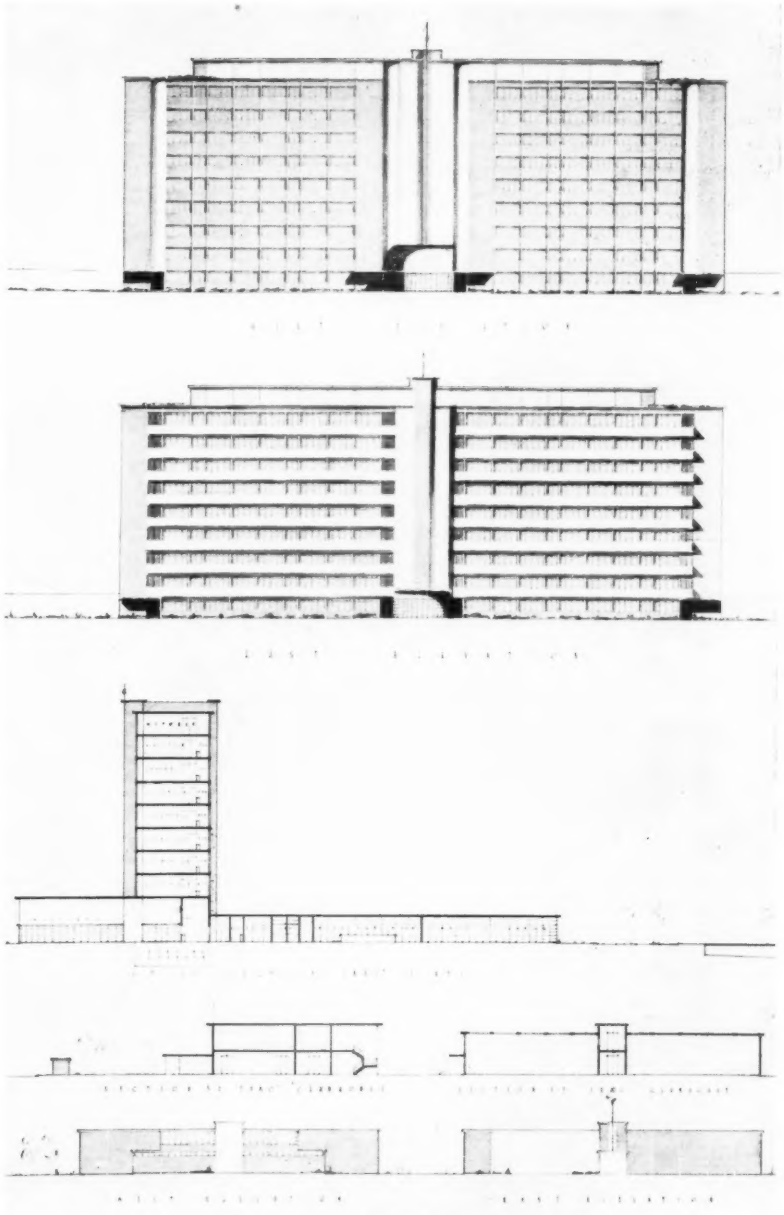
Nineteen schemes were submitted showing a very good average of ability. The three premiated schemes, particularly, are excellent in their planning and representation and in their appreciation of the problem. We make our award on considerations of general handling of the scheme rather than on constructional details or the minor points of planning.

We recommend that the first and second prizes be merged and divided between the authors of designs No. 6 and 17, and that the third prize be awarded to the author of design No. 10. The authors of the two schemes tying for first place have submitted very interesting schemes. They provide 80 flats and 66 flats respectively on the six-acre site, in addition to a social and recreational club, including gymnasium. No. 6 also suggests a swimming pool, which would certainly be an attraction. The root of the problem actually is to show how schemes of flats, combined with social and recreational facilities, could be placed within our old built-up suburbs where the large old house is becoming *passe*. Such schemes of well-designed flats would restore the youth to many of the out-of-date areas which surround our parks. Regulations governing the amenities were strictly enforced in the conditions and the entries show that they have had good effect on the schemes.

Most of the designs avoid the usual commercial greediness in attempting to put too much building on the site. There is no doubt that these schemes, if built, would prevent the present migration from the towns and have a marked influence in increasing rateable values in suburban areas, as well as providing the social and recreational advantages with which our suburbs are at present so scantily served. Pleasant buildings are needed with outlook on pleasant surroundings.

THE LIVERPOOL COMPETITION

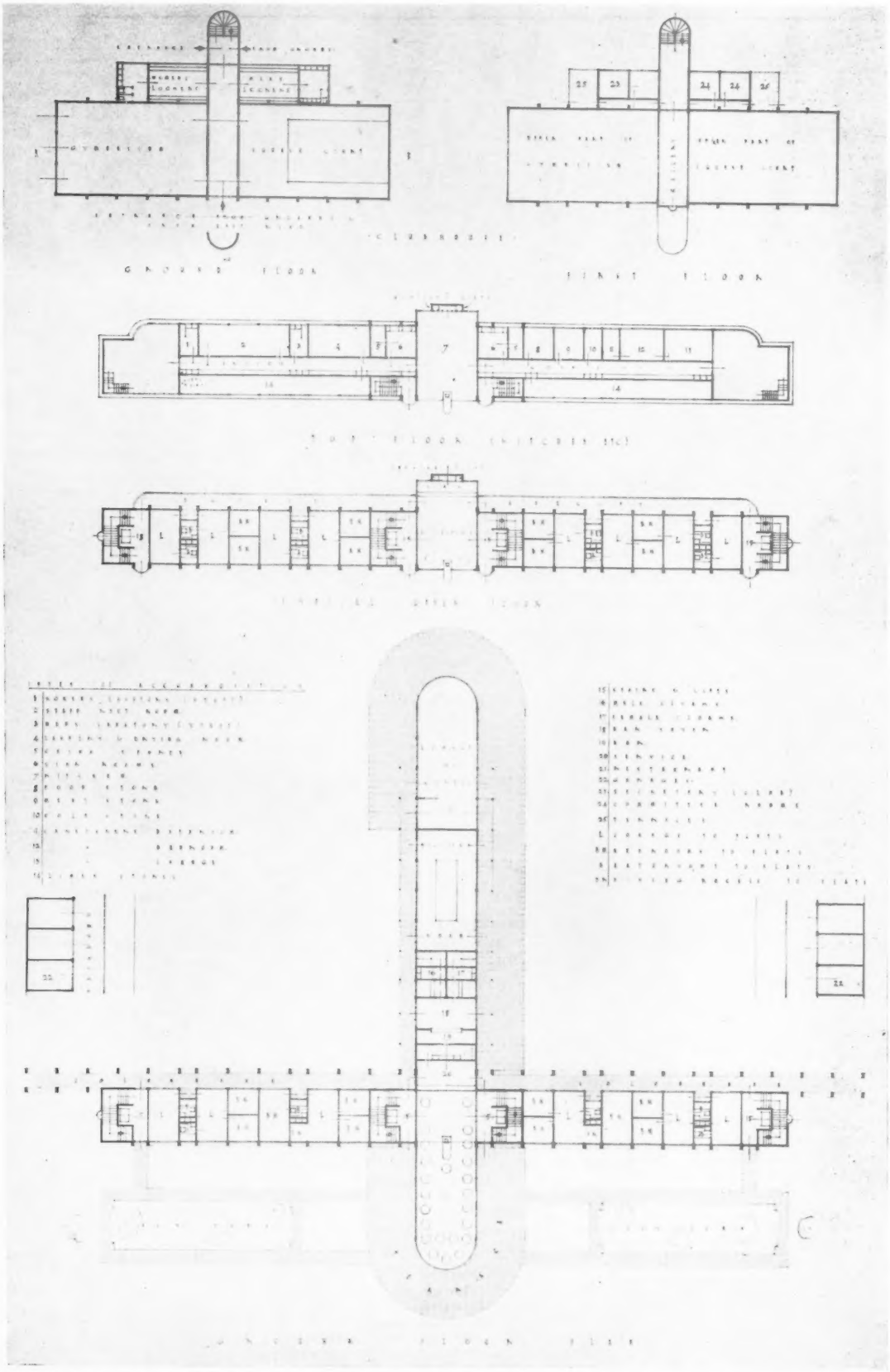
SERVICE FLATS AND SOCIAL CLUB



The plans of this scheme are reproduced overleaf.

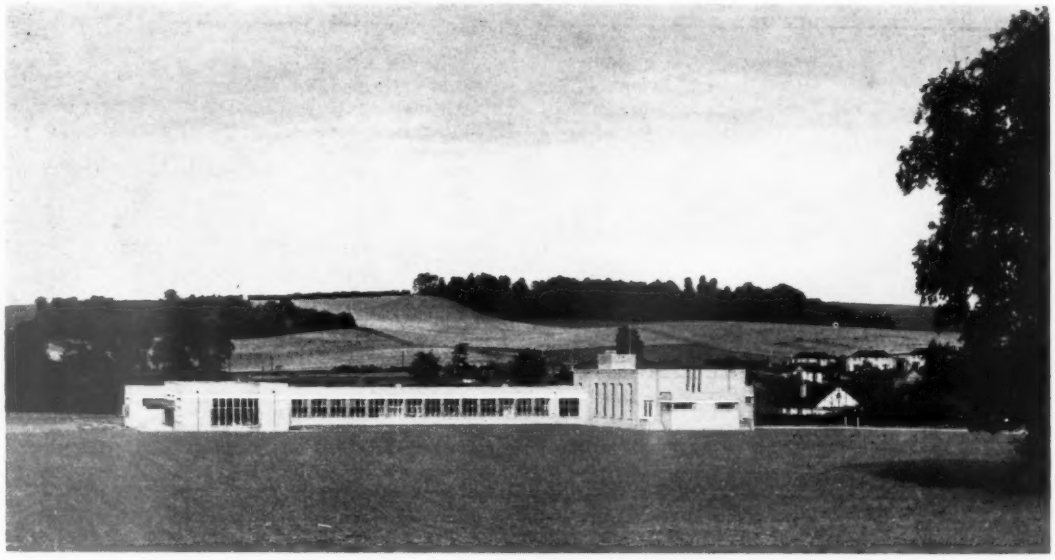
DESIGN BRACKETED FIRST: BY K. L. DOD AND A. C. DEWEY

COMPETITION FOR FLATS AND SOCIAL CLUB



DESIGN BRACKETED FIRST: BY K. L. DOD AND A. C. DEWEY

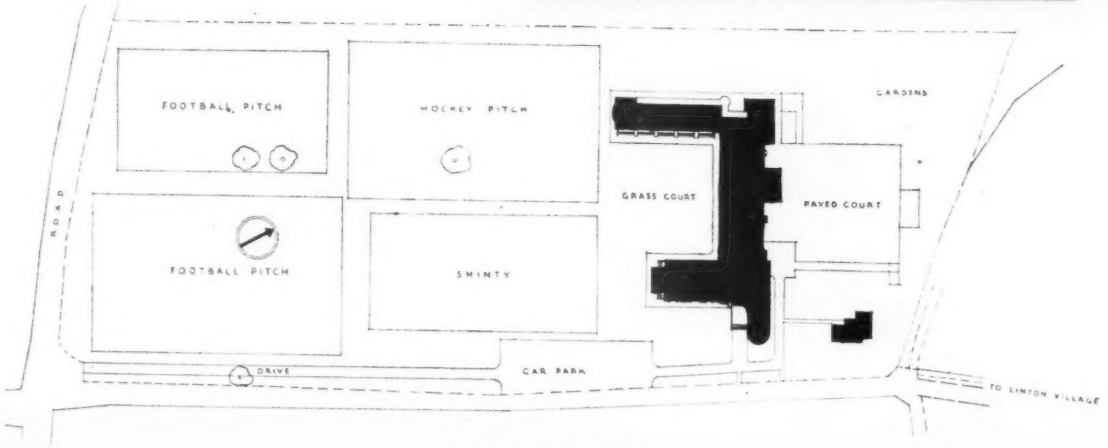
VILLAGE COLLEGE, LINTON, CAMBS.



DESIGNED BY S. E. URWIN

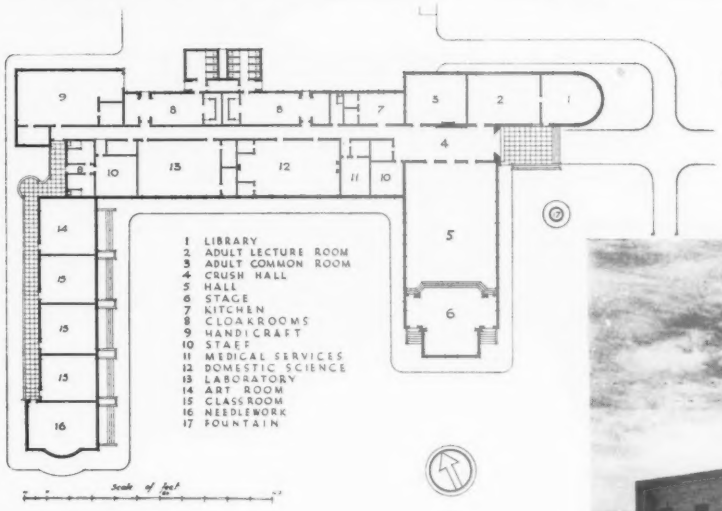
GENERAL PROBLEM—*Built by the Cambridgeshire County Council, the village college is intended to serve as a centre of education, recreation and social life for a group of 12 villages. During the day the building houses the senior scholars of 11 to 15 years of age who come from the villages served, some on foot, others by bicycle or by motor omnibus. The college is being opened today by the Earl of Feversham, M.P. (Parliamentary Secretary to the Ministry of Agriculture and Fisheries).*

The photographs show: Above, a general view from the south; right, the main entrance on the east front.



LAY-OUT PLAN

VILLAGE COLLEGE, LINTON, CAMBS.:



GROUND FLOOR PLAN

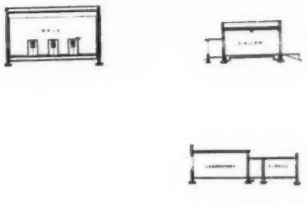
The photographs show : above, the classrooms on the south-east side facing the grass court ; right, part of the east front.

DESIGNED BY S. E. URWIN

PLAN—*The assembly hall, library, adult rooms, kitchen and lavatories will be used in the evenings for adult lectures and social functions. It was therefore essential that they should be kept together and near the main entrance. The classrooms are arranged to get the sun from the S.E., sliding doors enabling each classroom to be thrown wide open when required.*

The practical instruction room and cloakrooms will be used by adult classes in the evening as well as the children in the daytime, and are arranged in a central position. The woodwork room is placed so that noise will not disturb other rooms. The medical inspection room to be used as a maternity welfare centre and for other medical services is placed reasonably near the entrance.

The photograph is of the west corridor to the classrooms in the south-west wing.



SECTIONS

VILLAGE COLLEGE, LINTON, CAMBS.:

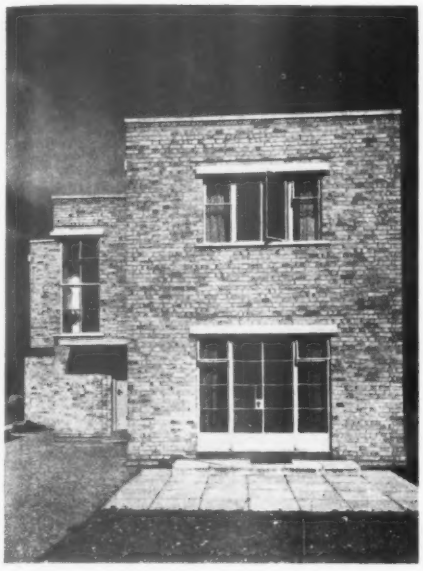
CONSTRUCTION—*Walls are brick. The assembly hall is steel framed with brick filling; and roofs are timber, covered with asphalt roofing. Underfloor heating has been adopted for the class rooms, library and adult rooms, and wood block floors. Composition tiles are used in the corridor and main entrance hall. The cookery room floor is blue linoleum on concrete; the assembly hall floor Columbian pine boarding.*

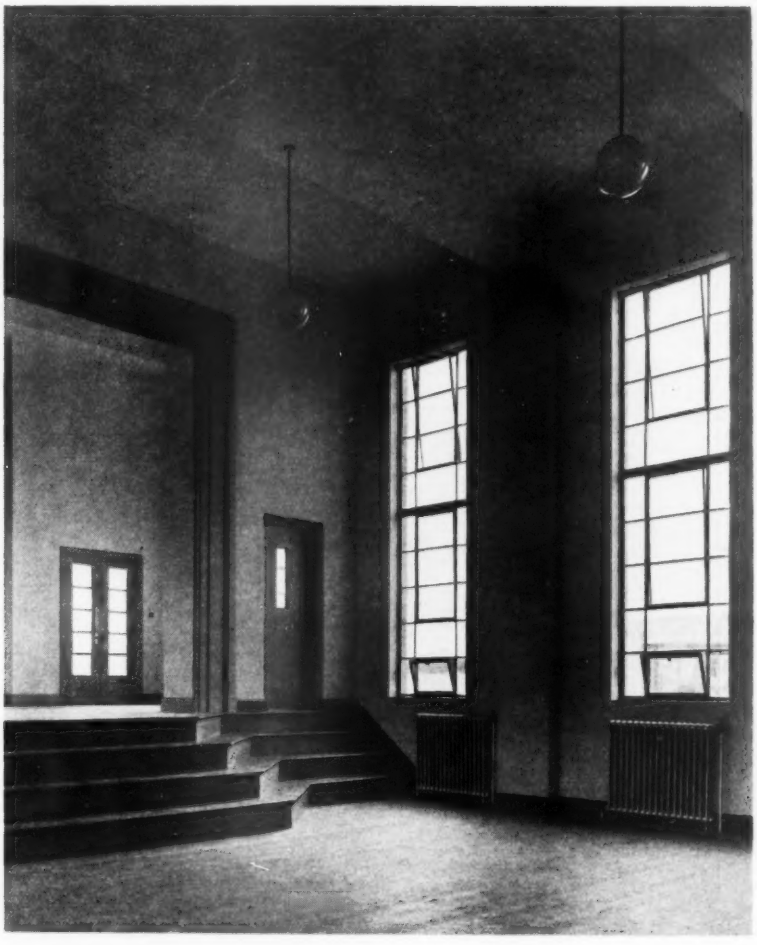
EXTERNAL FINISHES—*The elevations are in hand-made bricks, with rich blue eggshell tiles at the main entrance.*

EQUIPMENT—*The class rooms have built-in cupboards in front of the class for the storage of books, etc. At the side of the class there are built-in cupboards providing pigeon-hole accommodation for each scholar instead of locker desks or locker tables. The whole of the furniture has been designed by the architect in collaboration with the Director of Education, Mr. H. Morris, and advisory teachers.*

The photographs show: Above, the domestic science room; below, a typical classroom and the library.

DESIGNED BY S. E. URWIN





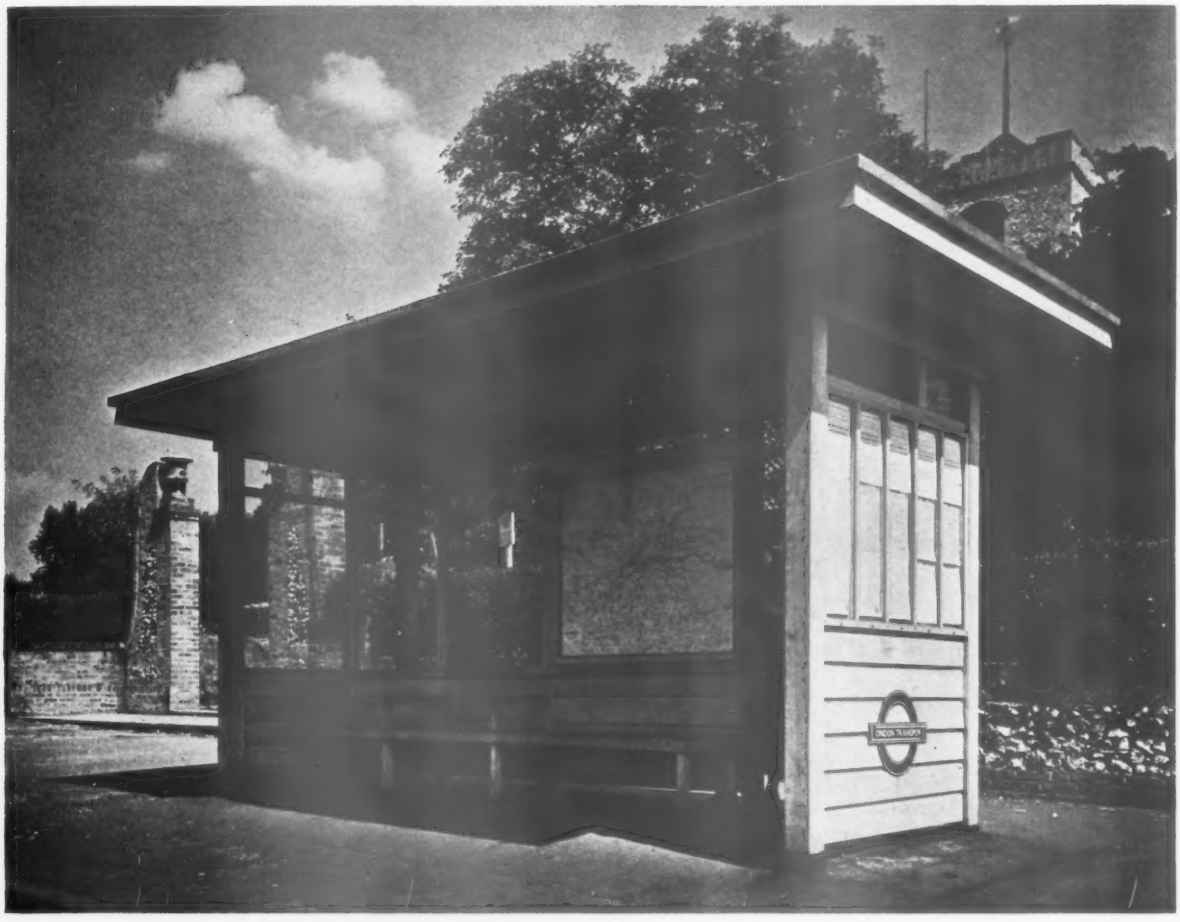
SERVICES—*Dinners are prepared in the canteen kitchen and served to about 230 scholars in the assembly hall at mid-day. The kitchen is also available in the evenings for social gatherings. Cooking is by slow combustion range.*

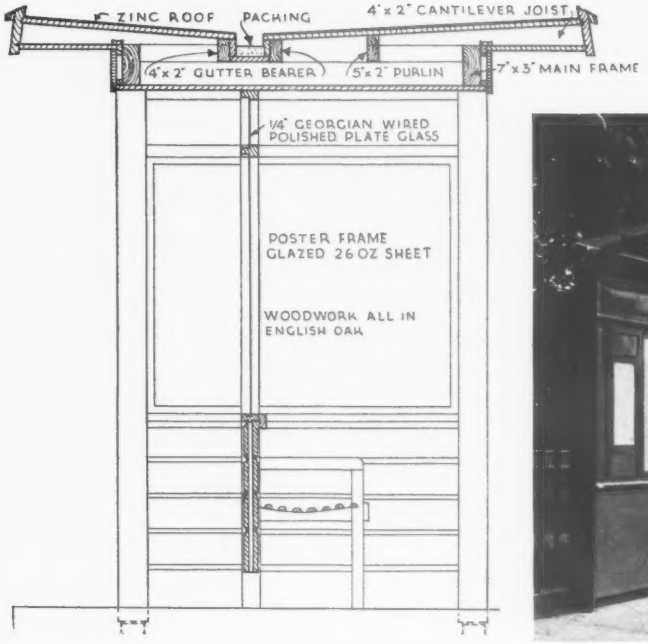
CONTRACT PRICE—*£18,381. Price per ft. cube, 1s. 1·7d.*

The photographs show: above, the warden's house; below, the main entrance hall; right, a corner of the stage end of the assembly hall; and the adult lecture room.

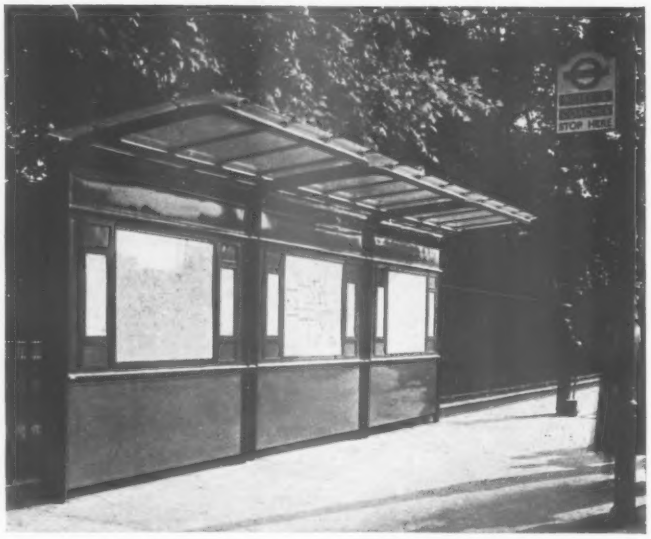
For list of general and sub-contractors, see page 598.

BUS SHELTERS AND SIGNS FOR THE

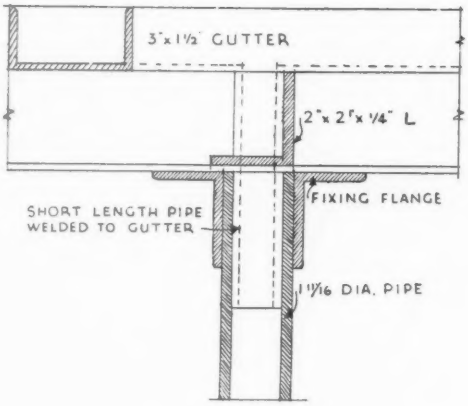


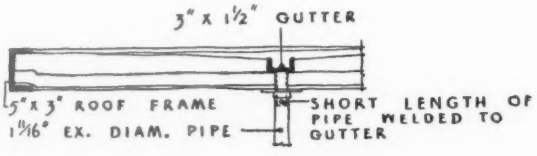


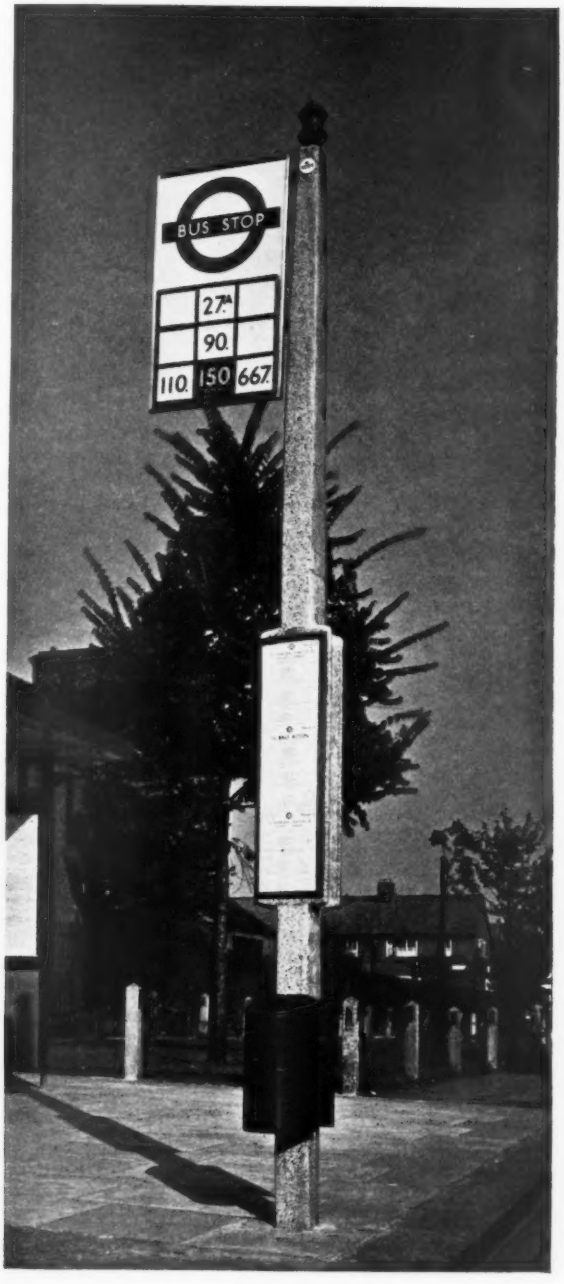
Above bus shelter at Leatherhead of a type which is being standardized in semi-rural and rural areas. Below, canopy type steel shelter at Hyde Park Corner : of tubular steel, enamelled sheet and Georgian wired glass. Poster frames in bronze.

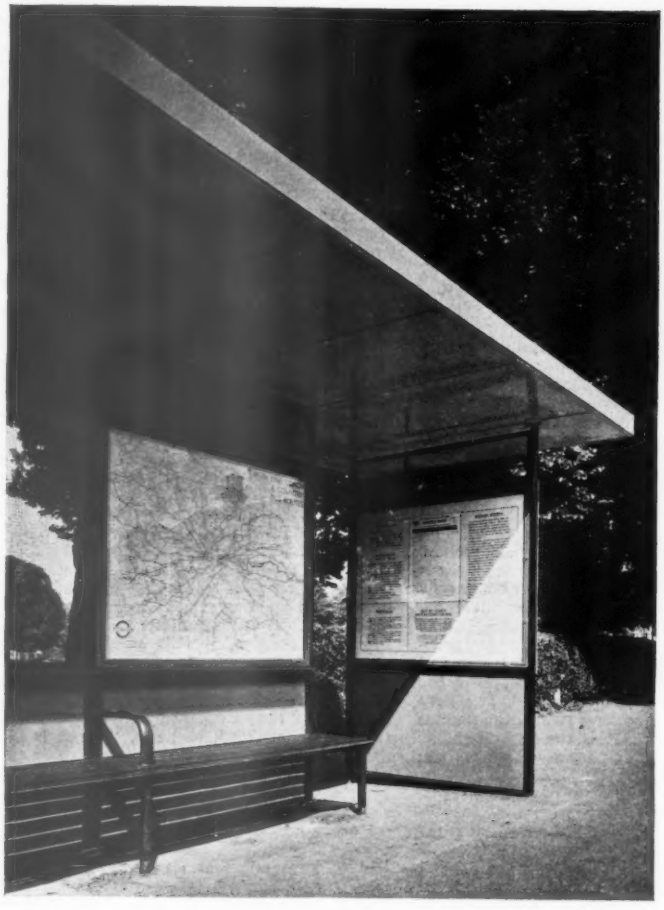


LONDON PASSENGER TRANSPORT BOARD









Above, sign in reinforced terrazzo, Carrara marble and darkened Portland cement, socketed over steel tube 2 ft. 6 ins. above and below ground. Sign of enamelled iron, bronze-framed; poster frame of bronze, litter basket of sheet iron. Left, standard all-metal shelter, with ¼-in. Georgian wired glass. Of steel angles, tubes and steel sheet, draining to central gutter and through centre supports to ground. Seats of metal slats. Shelter with 4 by 2 channel foundation frame is built and painted complete in shops and only concreted-in on site. Sketches of roof drainage are shown above.

From the R.I.B.A. Exhibition, "Modern Schools" : John Adams Junior High School (1935), Santa Monica, California, designed by Marsh, Smith and Powell.

MODERN SCHOOLS

On Tuesday last, Professor John Hilton, M.A., opened an exhibition entitled "Modern Schools" at the R.I.B.A. The exhibition, which has been arranged by a special committee of architects, shows education authorities, educationalists and the general public the newest ideas in the planning, equipment and design of school buildings. It will run until October 19. Following are some extracts from the speech by Professor Hilton :

I am rather overwhelmed already by what I have seen at this Exhibition. I am, of course, not a specialist in these matters, and count myself a largely ignorant man in the street, and I had no idea of the advance that has been made in recent years in school architecture as illustrated by what I have seen or what you will see during the present Exhibition. For myself, my own mind goes back to the new Council School in Lancashire which I attended about the age of six or seven, and that is getting on for half a century ago ; the school with its hard, harsh outlines, with its concrete playground devoid of any very pleasant surroundings and equipped with its shiny furniture.

Now, it isn't my purpose to speak at all of the technical qualities of the things that are on display here. Those you will see for yourself.

But let me say this, you will see examples of schools already extant. What is on display here are not only dreams ; they are but also accomplishments. You will see the things that have been done. Let me say that you will also be able to follow from this Exhibition not only what has been done in our own country by our own architects, but you will be able to compare this with what has been done in other countries by their authorities. It seems to me to be an almost ideal time for the opening of the Exhibition, for the purpose of this is to show what architects can do in the matter of school buildings. For, of course, all you specialists here know that not very long ago there were published in an official booklet some of the ideal qualities which modern school buildings should show, and it is only just now that the time is ripe for giving a kind of concrete official lead to the recommendations that are put forward now in the Exhibition here. This Exhibition has the cordial and enthusiastic support of the Education Authorities.

There is more to be done than building new schools. I am told that there are a thousand schools in this country that are on the black list ; many are insanitary, and even dangerous—schools with the walls not mended, schools with the roofs shored up, schools with no provision for washing and without many other amenities o school life. Well these are due to go ; in time some of them can be repaired. Here, in the Exhibition you will soon see, will be found guidance for those who have that task before them. Now, of course, the teachers, the school authorities and all other enthusiasts are anxious for new schools, or would be if they could only see what a really beautiful and convenient school can be. This Exhibition, I hope, will determine what kind of schools we will have in the immediate future. It will be seen by teachers and will help them to determine. It is not partly the architects who will determine this, but very much more it is the general public, the parents and the ratepayers. It is the general public who will determine the pace at which we can improve.

Now, and I am quite clear as to this, school architecture is beginning to be a highly-specialized branch of architecture. That is the difficulty. We meet it, of course, in every walk of life. The difficulty of getting the general public and those who represent the general public to realize that if they want a job done they must get a man who is technically competent to do it. The larger Local Authorities recognize the fact I have just been stating, and they have set up an architectural staff under the leadership of fully qualified architects or consulting architects who are experienced in school design. They are the more advanced or the more progressive.

But there are others who think that a good school can be designed not only by an architect but by an engineer or surveyor. And with the guidance that is provided here, there is some temptation for a young gentleman who is in the drawing office of the Municipal Engineer or Surveyor to come here and think : " Well, if I look round, I can find something here that is exactly what would suit us and then I can ask whether I can get the plans or a photograph and I can go back and draw it out." That kind of thing is called in schoolboy parlance a " crib." It is called in the acting profession also a " crib." A crib is something that has already been done on perfect lines for its own purpose, and if used again is always second-rate, and I would like to do what I can here to discourage this.

The architecture portrayed here is an indication of the very best practice, and it cannot be lifted precisely as it stands and dumped down as a perfect building suitable to any site in any neighbourhood in any part of the country. I hope that the municipal officers who come here or see this Exhibition on tour will not say : " this is the school we want ; now we will copy it." I hope they will see the kind of quality displayed, the kind of taste displayed that they need in their neighbourhood, and say, " What is the name of the architect ? "

I think that many schools even today are being built which are not what they might be, as regards getting the maximum of utility value or every pound spent ; that is an important thing. I come from Lancashire, and I always like to keep one foot on the ground. The maximum of utility value for every pound spent, coupled with a maximum of convenience and a maximum of visual delight. That is what we want. We need also very much more pioneering in school design. And the Board of Education is frankly sympathetic to new ideas in building

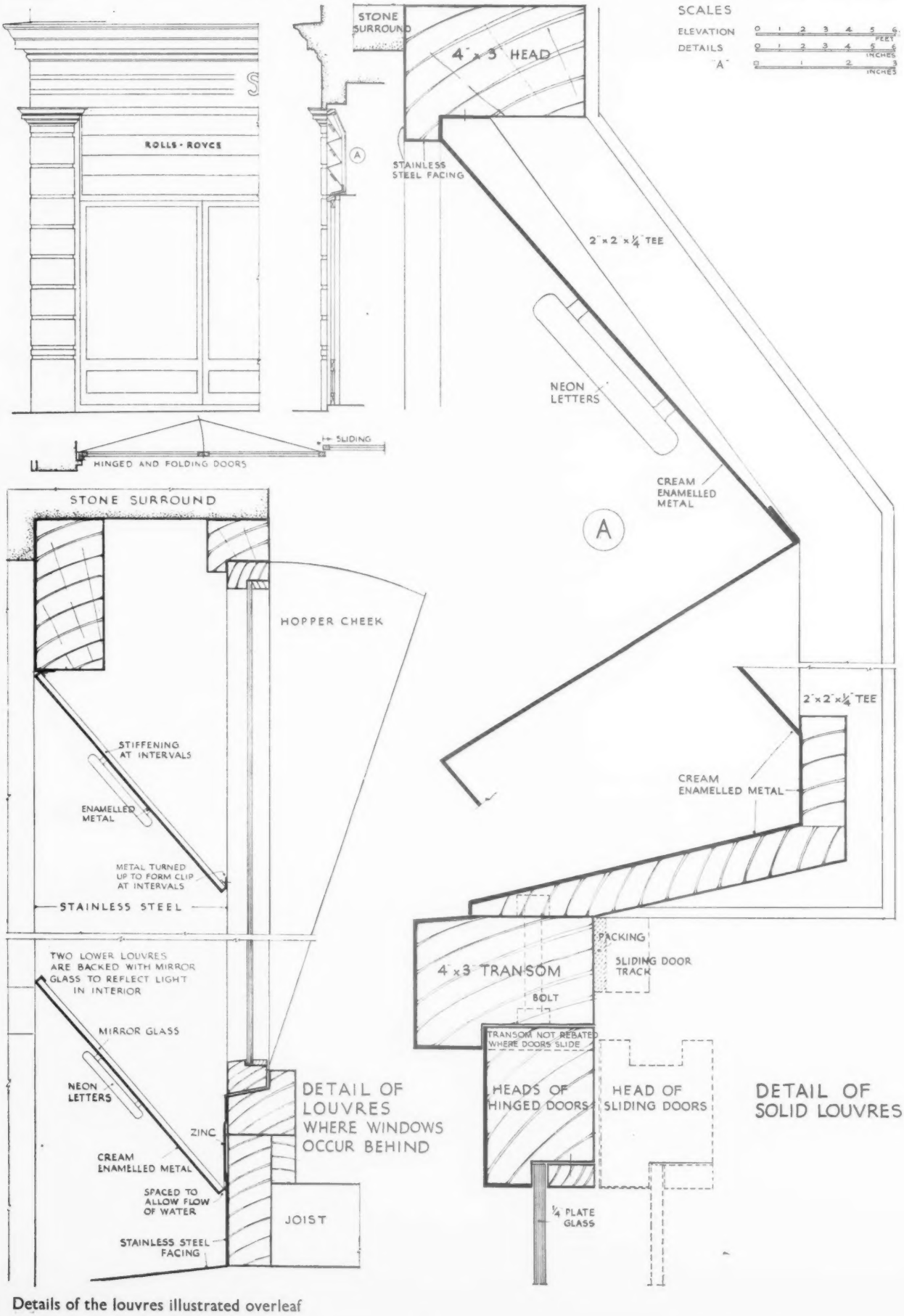
WORKING DETAILS : 599

LOUVRES • MOTOR SHOWROOMS, STRATTON STREET, W. • ROBERT LUTYENS

There are two types of louvres, solid and ventilating. Windows occur behind the latter. Both are constructed of metal, enamelled cream, with neon lettering attached. The two lower ventilating louvres are backed with mirror glass to reflect light into the interior. The reveals to the openings between columns are faced with stainless steel.
Details are shown overleaf.

WORKING DETAILS : 600

LOUVRES • MOTOR SHOWROOMS, STRATTON STREET, W. • ROBERT LUTYENS



Details of the louvres illustrated overleaf

The Architects' Journal Library of Planned Information

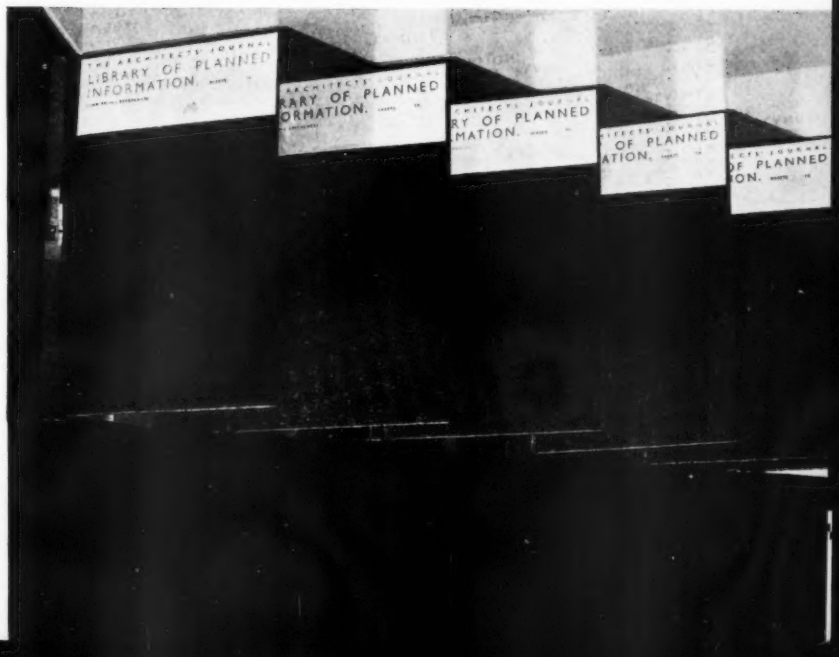
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

564 The Equipment of Buildings

565 Air Conditioning



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503 : Approximate Estimating—XII
504 : Aluminium
505 : Aluminium
506 : Approximate Estimating—XIII
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525 : Metal Reinforced Asbestos Cement
526 : Leadwork to Photographic Developing Tanks
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555 : A.B.M. Draining Boards
556 : Kitchen Equipment
557 : Asbestos Cement Roofing
558 : A.B.M. Rainwater Pipes
559 : Flashing
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561 : Asbestos Cement Roofing
562 : A.B.M. Rainwater Gutters and Fittings
563 : Asbestos-Cement Roofing

629.

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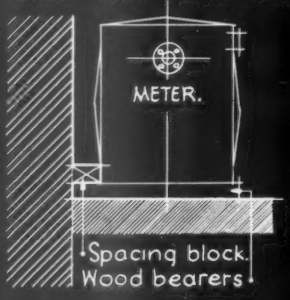
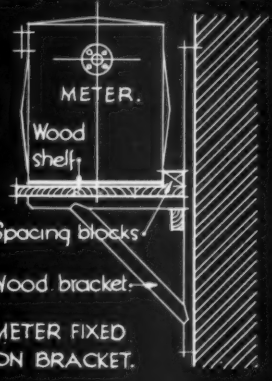
GAS METERS: FIXING, SIZES, CAPACITIES, AND CUPBOARDS FOR METERS.



SKETCH SHOWING A METER FIXED ON FLOOR.

POSITIONS FOR FIXING METERS.

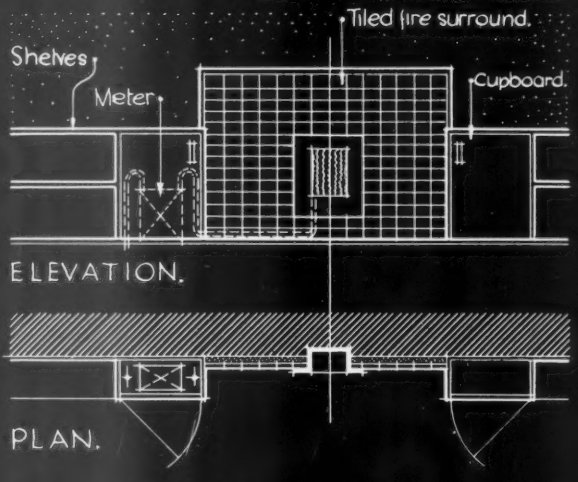
The site should not be exposed to extremes of temperature, nor where the meter may be liable to suffer damage.
If possible the meter should be securely fixed on a wall at such a height that it can be read easily and is immune from damage, and also so that the meter is at a higher level than the main.
Meters should be spaced away from the walls by wood blocks screwed to the bearers.
Bearers or shelves should be of wood to avoid corrosion or possible electrolysis.
For notes on sizes, etc, see the back of this Sheet.



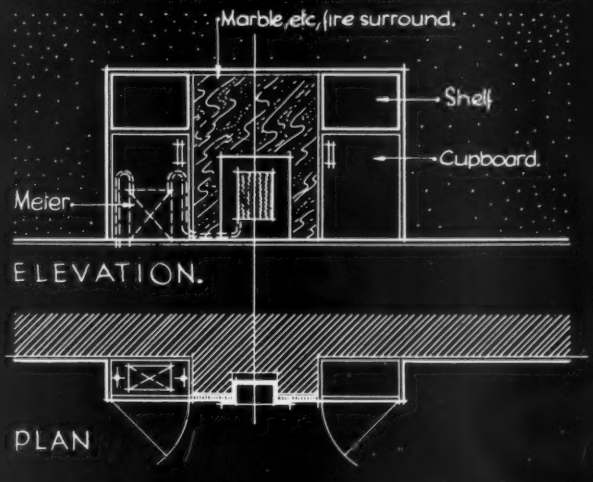
METER FIXED ON BRACKET.

SKETCHES SHOWING SUGGESTED POSITIONS FOR PREPAYMENT SLOT METERS

METER IN BUILT-IN CUPBOARD AT SIDE OF FIRE, WITH A RECESSED FIRE PANEL

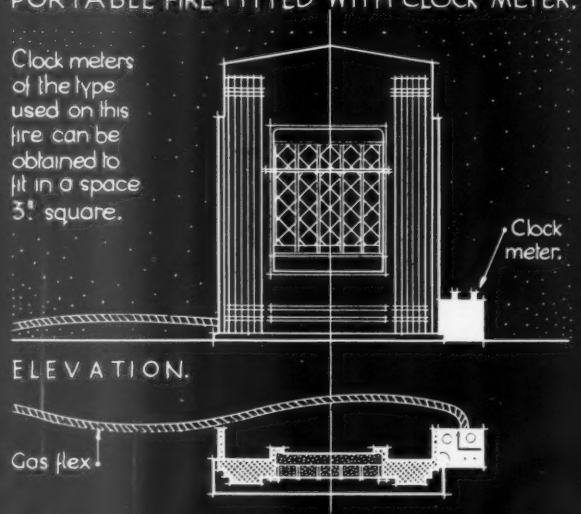


METER IN BUILT-IN CUPBOARD AT SIDE OF FIRE WITH A PROJECTING FIRE PANEL.



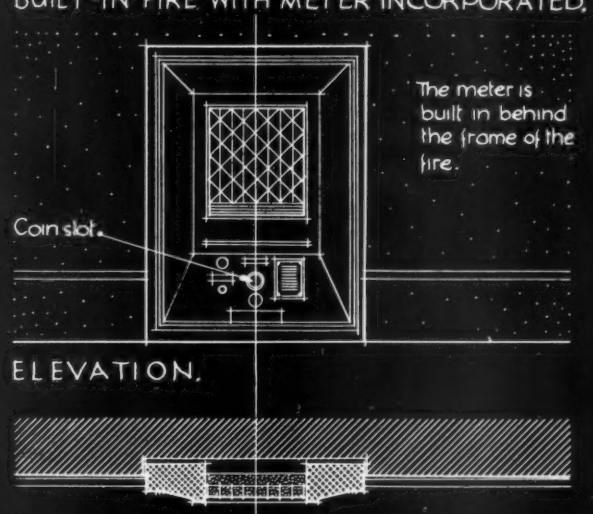
PORTABLE FIRE FITTED WITH CLOCK METER.

Clock meters of the type used on this fire can be obtained to fit in a space 3' square.



BUILT-IN FIRE WITH METER INCORPORATED.

The meter is built in behind the frame of the fire.



Information from the British Commercial Gas Association.

INFORMATION SHEET: THE EQUIPMENT OF BUILDINGS: GAS METERS: No 4.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Edna A. Bayne.

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET
• 564 •
THE EQUIPMENT OF BUILDINGS

Subject : Gas Installations. Gas Meters

This is the fourth of the series of Sheets dealing with the installation of gas services in buildings, and gives information on the fixing and sizes of gas meters.

Fixing :

On the front of this Sheet are two details showing recommended methods of fixing gas meters. It is essential that the meter should be kept from contact with walls or floors, owing to the risk of corrosion. This spacing is best obtained by means of wooden bearers or a wooden shelf, and wooden blocks screwed to the bearers to keep the meter away from the wall. Meter spikes and metal shelves should not be used unless sheathed with rubber or equipped with rubber studs, as there is danger of electrolysis occurring. Meters must be kept absolutely upright ; if the floor is not level, packing should be inserted under the meter bearers until a level base is secured.

In a future Information Sheet full details of several alternative methods of supporting meters will be given.

Where wooden shelves are used they may be protected by a layer of rubber or rubber studs or asbestos sheeting. In buildings where it is necessary to sluice down floors for cleaning, or where very wet conditions are customary, it is essential that the meter be kept well clear of the floor.

It is desirable wherever possible to build the meters on an outer wall so that all services can be carried direct to their respective positions.

Meters should not be placed in any position where they are likely to suffer damage, or be exposed to adverse conditions likely to affect their accuracy or safety. They should not be placed directly above any heating or cooking appliance ; and should not be placed in the open, or under draining boards, or against any damp walls.

Meter Types :

Two main types of meter are available, dry and wet. The dry type is the more common, wet meters usually being used for very large installations.

Dry meters are of four forms known as "Lights," "Standard," "High Capacity," and "Super High Capacity." The latter two types differ from the former two types in that for a given size of outer case they will measure a larger volume of gas and can therefore be used for a larger installation. Or, again, if a gas installation supplied from a "lights" meter is enlarged by the use of additional appliances, the lights meter can be replaced by a "high capacity" meter of the same external dimensions which is often a great convenience if space for the meter is limited.

Connection :

Up to a capacity of 700 cubic feet per hour, the connection to the meter is by means of a union and brass lining for a blown lead joint ; above this capacity connection is by means of flanges on the side of the meter, allowing the connection to be made in iron tubing throughout. Care should be taken to see that no stress is carried by the meter connection.

Prepayment Meters :

The quantity of gas delivered by a prepayment meter on the insertion of a coin may be varied at the discretion of the Supply Undertaking, and sometimes at the discretion of the owner of the property.

When installing prepayment meters, care should be taken to place them in an accessible position, as they may have to be operated by aged or infirm people. It should be possible to operate and read them easily without using a ladder or chair.

Neat metal cases can be supplied as integral parts of small Super High Capacity meters.

On the front of this Sheet are four suggestions for the installation of prepayment gas meters connected to a gas fire.

The first two details show positions in which the meters may be built in so that they are easily accessible yet hidden from view.

The details at the bottom of the Sheet show two gas fires which are controlled by prepayment clock meters.

This type of meter may be used where a large number of rooms in flats or offices are to be heated ; and are controlled by a master meter. By the insertion of a coin the clock can be set for a certain length of time of running as desired.

The first type is attached to a portable gas fire, which is easily fixed, and connected to main by means of a flex. The clock in this case is very compact and only requires a space of 3 ins. square.

The second type is concealed in a built-in gas-fire heater, well below the fire and with the time switch coin operation as previously described.

Where required space should be allowed for the insertion of the coins from either the top or the front of the meter, and also for removal of the cash box. Care should also be taken to leave room for the supply and service pipes at the sides or back of the meter.

For very large installations a separate well-ventilated room with an even temperature should be provided, large enough to allow access to all sides of the meter in fitting and reading. The door to the room should be large enough to pass the meter in the event of renewal, as meters cannot be dismantled.

Table showing the Principal Sizes of Dry Meters in Order of Capacities with Union Connections
(This includes the new Super High Capacity (S.H.C.) Meters)

Maximum Capacity per Hour	Size of Case	Classification	Size of Caps, Linings or Bosses	Size of Lead	Height to Top of Unions	Width Outside Caps	Depth Back to Front
Ft.				Ins.	Ins.	Ins.	Ins.
25	3-lt.	3 Light	3-lt.	$\frac{5}{8}$	$15\frac{1}{2}$	$11\frac{1}{4}$	$8\frac{1}{2}$
40	3-lt.	No. 2 S.D.	3-lt.	$\frac{5}{8}$	$15\frac{1}{2}$	$11\frac{1}{4}$	$8\frac{1}{2}$
45	5-lt.	5 Light	5-lt.	$\frac{3}{4}$	17	13	$9\frac{3}{8}$
50	1-lt.	50 ft. S.H.C.	5-lt.	$\frac{3}{4}$	12	9	6
60	5-lt.	No. 3 S.D.	5-lt.	$\frac{3}{4}$	17	13	$9\frac{3}{8}$
80	3-lt.	80 ft. p.h. H.C.	5-lt.	$\frac{3}{4}$	$15\frac{1}{2}$	$11\frac{1}{4}$	$8\frac{1}{2}$
80	10-lt.	10 Light	10-lt.	1	$19\frac{3}{8}$	$14\frac{5}{8}$	$11\frac{1}{4}$
100	2-lt.	100 ft. S.H.C.	10-lt.	1	$13\frac{1}{2}$	$10\frac{1}{2}$	$7\frac{1}{2}$
120	10-lt.	No. 4 S.D.	10-lt.	1	$19\frac{3}{8}$	$14\frac{5}{8}$	$11\frac{1}{4}$
120	5-lt.	120 ft. p.h. H.C.	10-lt.	1	$17\frac{3}{8}$	$13\frac{1}{2}$	9
150	20-lt.	20 Light	20-lt.	$1\frac{1}{4}$	24	$18\frac{1}{2}$	$14\frac{3}{8}$
200	3-lt.	200 ft. S.H.C.	20-lt.	$1\frac{1}{4}$	17	$13\frac{1}{2}$	9
210	30-lt.	30 Light	30-lt.	$1\frac{1}{2}$	$27\frac{1}{2}$	$21\frac{1}{4}$	$16\frac{3}{8}$
210	20-lt.	No. 5 S.D.	20-lt.	$1\frac{1}{4}$	24	$18\frac{1}{2}$	$14\frac{3}{8}$
210	30-lt.	No. 5 S.D.	20-lt.	$1\frac{1}{4}$	$27\frac{3}{8}$	$21\frac{1}{4}$	$16\frac{3}{8}$
240	10-lt.	240 ft. p.h. H.C.	20-lt.	$1\frac{1}{4}$	$20\frac{1}{4}$	$15\frac{1}{2}$	$10\frac{3}{4}$
300	50-lt.	50 Light	50-lt.	$1\frac{1}{2}$	33	$25\frac{1}{2}$	$20\frac{3}{4}$
360	60-lt.	60 Light	60-lt.	$1\frac{1}{2}$	34	$27\frac{1}{2}$	$21\frac{3}{8}$
375	50-lt.	No. 5a S.D.	50-lt.	$1\frac{1}{2}$	33	$25\frac{1}{2}$	$20\frac{3}{4}$
400	10-lt.	400 ft. S.H.C.	50-lt.	$1\frac{1}{2}$	21	$17\frac{1}{2}$	11
420	60-lt.	No. 6 S.D.	50-lt.	$1\frac{1}{2}$	34	$27\frac{1}{4}$	$20\frac{1}{2}$
420	20-lt.	420 ft. p.h. H.C.	50-lt.	$1\frac{1}{2}$	24	19	$13\frac{1}{2}$
480	80-lt.	80 Light	80-lt.	2	$39\frac{1}{2}$	$31\frac{3}{8}$	$24\frac{3}{4}$
600	100-lt.	100 Light	100-lt.	2	$42\frac{1}{4}$	$32\frac{3}{4}$	26
700	30-lt.	700 ft. p.h. H.C.	100-lt.	2	28	$22\frac{1}{8}$	15

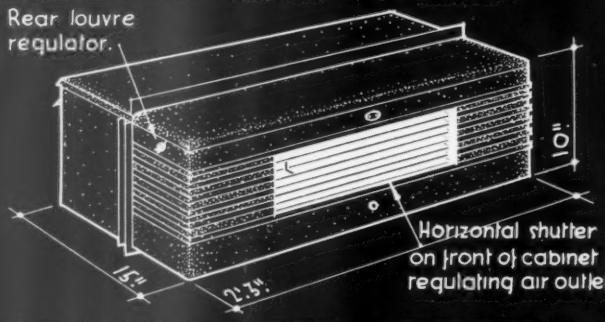
Issued by : British Commercial Gas Association.
Address : Gas Industry House, Grosvenor Place, S.W.1.
Telephone : Sloane 4554.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

ARRANGEMENT & INSTALLATION OF FILTERAIRE CABINET AIR-CONDITIONING UNIT:

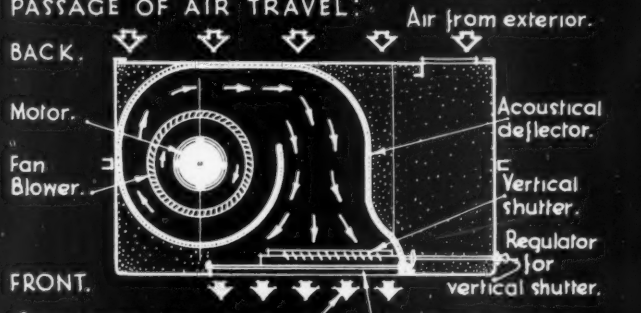
The Model H·H·34, illustrated is electrically operated, automatically air-cooled and noiseless.

PERSPECTIVE SKETCH OF CABINET:

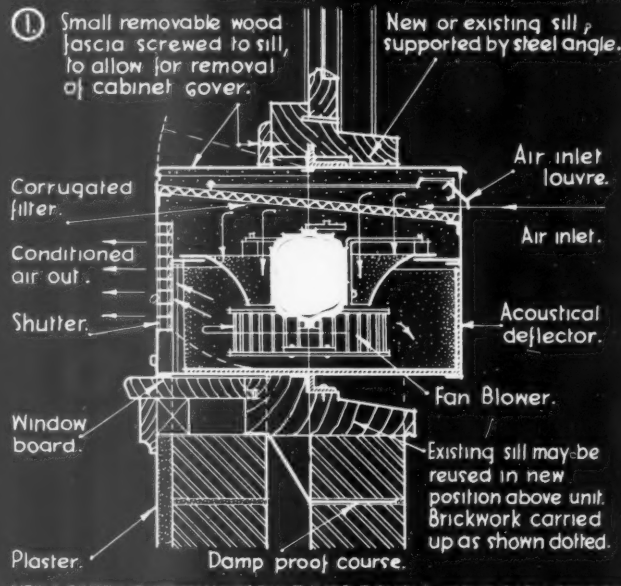


Cabinet fitted with removable two piece cover.

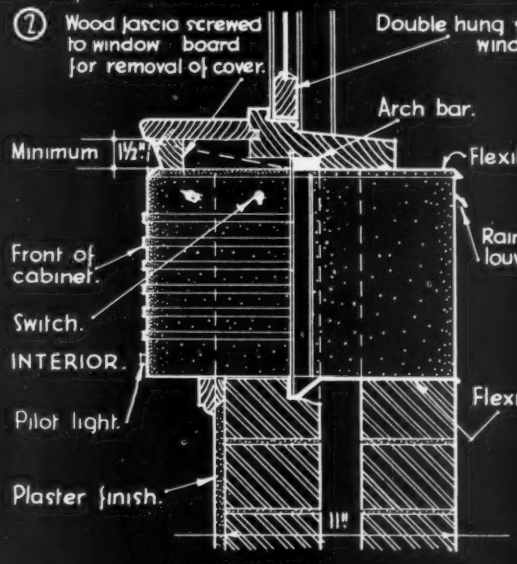
TYPICAL DIAGRAMMATIC PLAN SHOWING PASSAGE OF AIR TRAVEL:



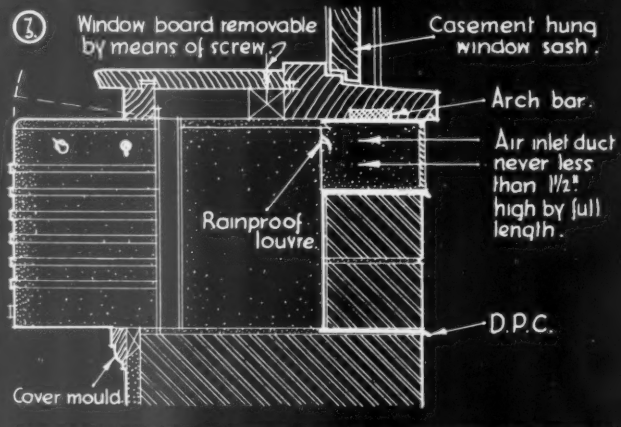
DETAILS SHOWING METHODS OF INSTALLING THE CABINET IN NEW AND EXISTING WORK: Scale. 1½" to 1'0"



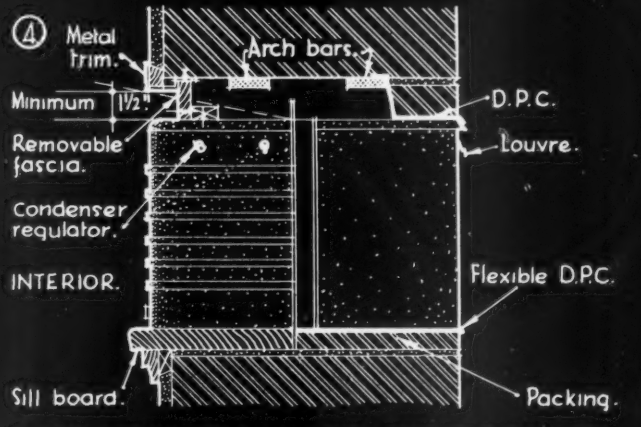
NEW & EXISTING WORK: UNIT BUILT INTO DOUBLE HUNG SASH WINDOW IN CAVITY WALL, SHOWING CROSS SECTION OF CABINET.



NEW WORK: UNIT BUILT UNDER DOUBLE HUNG SASH WINDOW IN CAVITY WALL WITH OUTER FACE FLUSH WITH WALL.



NEW WORK: UNIT BUILT UNDER CASEMENT WINDOW IN SOLID WALL WITH CABINET PROJECTING INTO ROOM, WITH VENT TO EXTERIOR.



NEW OR EXISTING WORK: UNIT BUILT INTO SOLID WALL WITH BOTH FRONT & BACK FACES FLUSH WITH BRICKWORK.

Information from Filteraire Ltd.

INFORMATION SHEET: BUILT-IN ELECTRIC AIR-CONDITIONING MACHINES: SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 565 •

AIR CONDITIONING

Product : Built-in electrically driven air-conditioning machines

General :

"Filteraire" air-conditioning machines are manufactured in the form of portable self-contained cabinets for installation under ordinary window openings in new or in existing buildings. They can also be installed in exterior walls where no window opening occurs above.

These machines are run by electricity and can be worked by plugging a lead into any power point.

The "Filteraire" are noiseless running machines and can be fixed into position very quickly and easily.

Model :

This model, the H. H. 34, measures 27 ins. long by 10 ins. high by 15 ins. wide. The cabinet is constructed of pressed steel with all jointing properly welded together. The cover is made up in two removable pieces ; with a weather strip between the two.

The model is fitted with one vertical and one horizontal air exhaust shutter, operated by finger regulators, as shown on the perspective detail at the front of the cabinet, and in close section, in detail (1).

The incoming air can be cut off by a rainproof louvre at the rear of cabinet extending for the full width ; other operating devices for regulating the speed of the fan blower and regulating the condenser are incorporated in this model.

(a) *Motor*

The model has a specially designed motor with wool packed bearings and variable speed control, and may be plugged to either existing A.C. or D.C. power points of normal voltage. The motor is supported on three resilient armed mountings.

(b) *Fan blower*

The fan blower is an 8-in. diameter centrifugal type balanced aluminium wheel with a capacity of 500 C.F.M., especially designed to be soundproof.

(c) *Filter*

The filter for this model has a filtering surface of 8 sq. ft., and is made of specially treated reinforced and corrugated material containing innumerous tiny interlacing air cells.

(d) *Silencing*

Noise in operation is practically eliminated by the introduction of an acoustically treated blower chamber, labyrinthic ducts and air passages, all lined with patented sound-deadening and iron-resonating materials.

Operation :

(a) *Air circulation*

The primary air flow for ventilation is drawn through the louvred opening at the rear of the cabinet by means of the fan blower ; the air is sucked into the blower chamber through the corrugated filter, down past the motor (as shown in detailed section, Fig. 1), and is then propelled by the fan blower in a clockwise direction and ejected into the room in its conditioned state through the two regulated shutters. (See diagrammatic plan.) A constant supply of conditioned air can be ejected into a room at a rate of approximately 450 cub. ft. per minute.

Installation :

As previously mentioned, these machines are primarily designed for installation beneath any window in either new or existing work. The four details on this Sheet show different methods of fixing and securing the cabinet in positions under varying conditions.

Fig. 1

This detail shows the cabinet built into the lower part of a double hung sash window in an existing building, or under a similar type of window in new work.

In an alteration job the existing cill may be either left in position or re-used above the cabinet.

The cill above the cabinet should be supported by an arch bar or small angle so that all pressure is relieved from the metal cover, and the cill built into the masonry walls at the ends. The cill should have the underside cut and grooved to take the weather strip on top of cabinet as shown, so that a good weatherproof joint is made.

A small removable wood fascia, screwed to back of cill, is necessary so that the cabinet cover can be lifted off and the mechanism inspected.

If the existing cill and window board is to be dispensed with and the cabinet set directly on to the masonry wall, it is advisable to form a seating for the unit of a flexible damp-proof course, as shown in

Fig. 2

This detail shows an alternative method of building the cabinet under a double-hung sash window in new work with back of the cabinet set flush with the wall on the exterior. The bottom of the cabinet is fixed directly on the masonry wall as previously described.

The cill is shown similar to that in Fig. 1, with a window board rebated to the cill. A removable wood fascia is screwed to the window board to facilitate the removal of the cabinet cover.

Where the window board projects well out over the cabinet a minimum depth of 1½ ins. should be left for the operation of removing the cover.

Fig. 3

This detail shows the cabinet installed on a very thick wall with the front of the cabinet projecting into the room, or where the back of the cabinet is protected from the weather by a skin of masonry.

The inlet for the air is preserved by means of forming a metal duct running the full length of the cabinet by a minimum depth of 1½ ins. An added protection against the effects of the weather and dirt can be obtained by fixing a metal mesh grille at the mouth of the duct.

This drawing shows another method of fixing the cill and in this case a removable window board.

Fig. 4

This detail shows how the machine can be built into a solid wall without any window opening immediately adjacent with the external faces flush.

The cabinet is shown set on a window board on the inner portion of the masonry wall ; the flange on the bottom of the cabinet forms a weather break which allows the cabinet to be set on to a flexible damp-proof course ; any packing necessary can be done in masonry, etc.

The masonry above the cabinet should be well supported, not neglecting to allow a minimum space of 1½ ins. above cabinet top (to allow for removal of the front cover).

This detail shows the masonry supported on two arch bars, the outer bar supporting a D.P.C., laid as shown. Again, packing will occur at this point to keep the damp-proof course in position, and to stop unnecessary water seepage.

A metal trim is shown around the opening, with a removable fascia screwed to a batten, which in turn is fixed to the front cabinet cover.

In all cases where these cabinets are installed it is important to see that a space of at least 3 ins. wide is left at each end for the operation by hand, of the height, and various regulators.

Where the cabinet is built into a solid wall as described, as shown in Fig. 4, a space at each end should be left measuring 3 ins. wide by the full depth to side flanges of cabinet.

Where the cabinets are set into position under a window, the portions left open, between the ends of the cabinets and the jambs of the masonry walls and between the underside of the cill and the top of the window boards, may be vertically lined with boarding, or metal-faced plywoods, etc., to form a neat finish, with the side flanges to the cabinet providing a finish to the angles.

Finish :

The "Filteraire" cabinet is finished in one coat of baked enamel in either grained or old ivory colours.

Price :

Price of machine with cabinet, 25 guineas.
Cost of filters 24s. and 15s. per box of six.

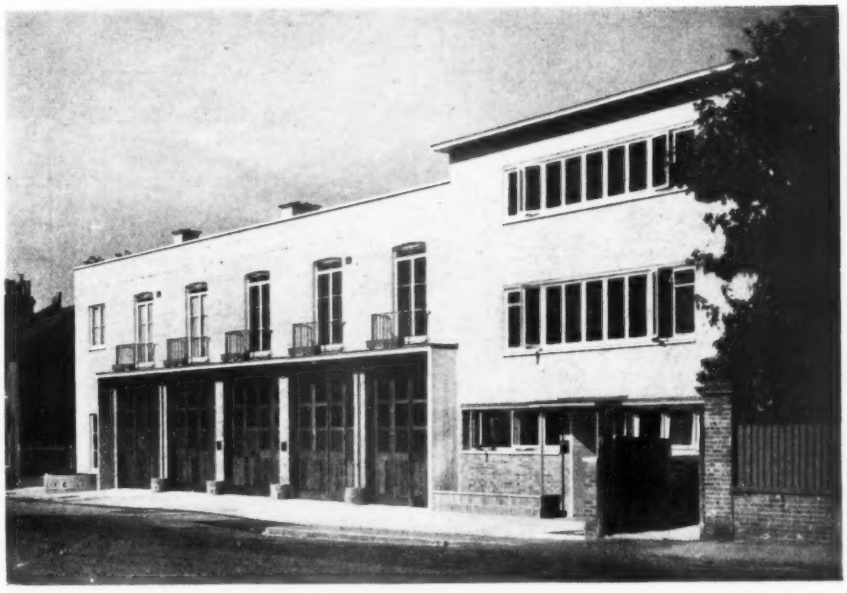
Manufacturers : Filteraire, Ltd.

Address : 33 Jameson Street, London, W.8

Telephone : Park 7817

FIRE STATION AND FLATS, EPSOM

DESIGNED BY WILLIAM A. PITE, SON AND FAIRWEATHER



GENERAL PROBLEM—*The new building replaces the old fire station, which was on the same site. The old station had become completely inadequate to serve the growing community. The accommodation required was, briefly: space for 4 appliances and 2 ambulances; recreation and service rooms for firemen, and flats for 2 officers and 9 men.*

SITE—*It was considered desirable that the firemen should have separate quarters at the rear of the site; and the main fire station building was restricted in its main block to two storeys. The position of the appliance room was dictated by the necessity of a quick and easy turn into Church Street. At no time was the alarm apparatus of the district switched off and it was necessary, therefore, to retain the old watch room and alarm room within the space of the new appliance room until the complicated electrical equipment could be moved "alive" into its new accommodation.*

PLAN—*The position of the appliance room was the key to the plan of the fire station—good access was also required for the machines from the yard and wash space. The main entrance to the station is east of the appliance room; the entrance to the officers' flats at west.*

CONSTRUCTION—*Brick structure with steel columns and beams for appliance room, and cantilever over wash space. Roofs are hollow tile, finished with asbestos-cement tile roofing; partitions, 4½-in. brick.*

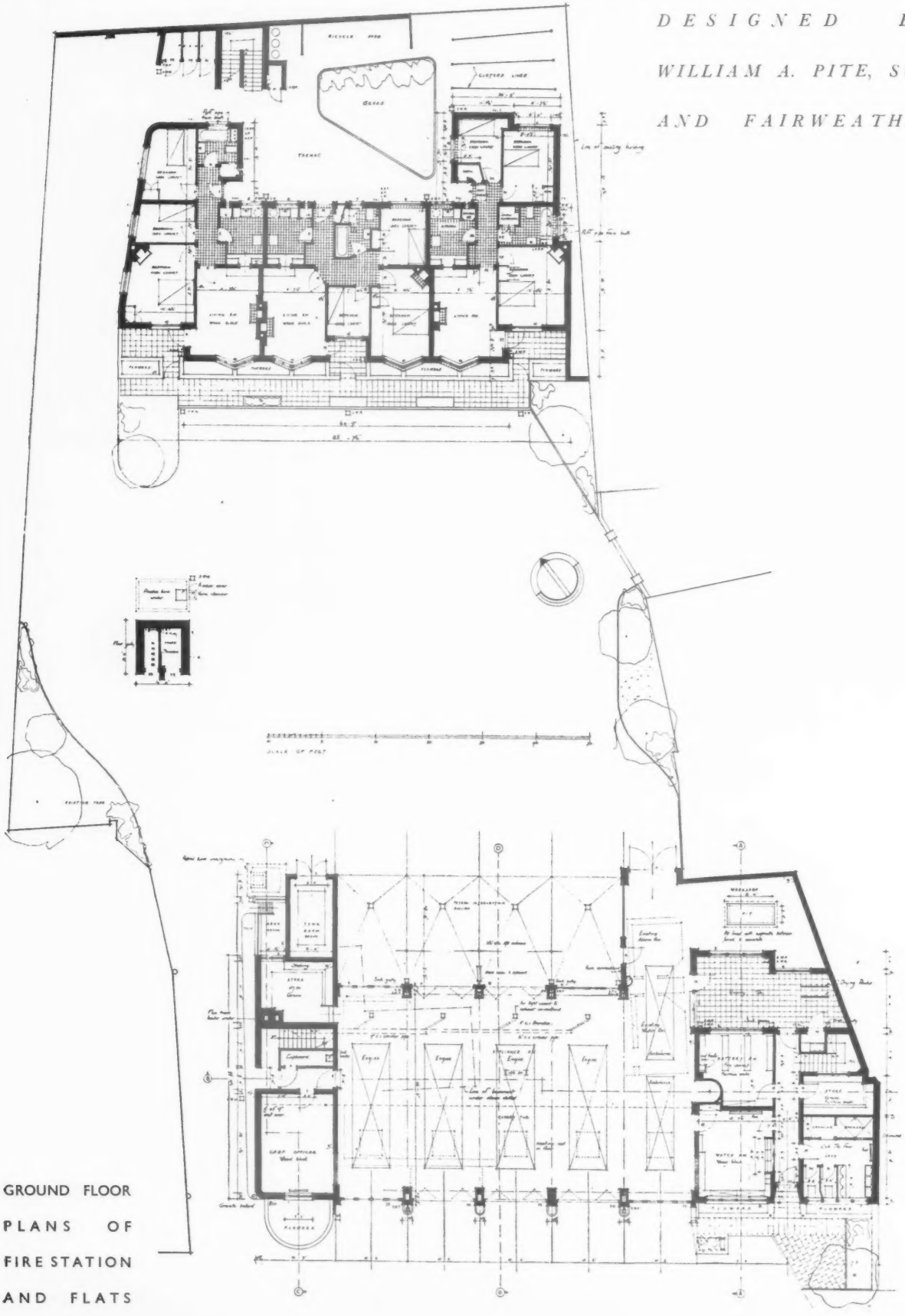
ELEVATIONAL TREATMENT — *The elevations are finished in two colours of facing brick—the plinth in orange and the remainder in a greyish-buff.*

The photographs show: Above, the main front; left, the main entrance doors to the appliance room.

E

FIRE STATION AND FIREMEN'S FLATS

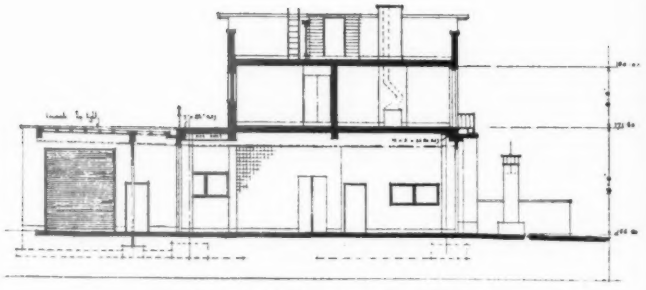
DESIGNED BY WILLIAM A. PITE, SON AND FAIRWEATHER



GROUND FLOOR PLANS OF FIRE STATION AND FLATS

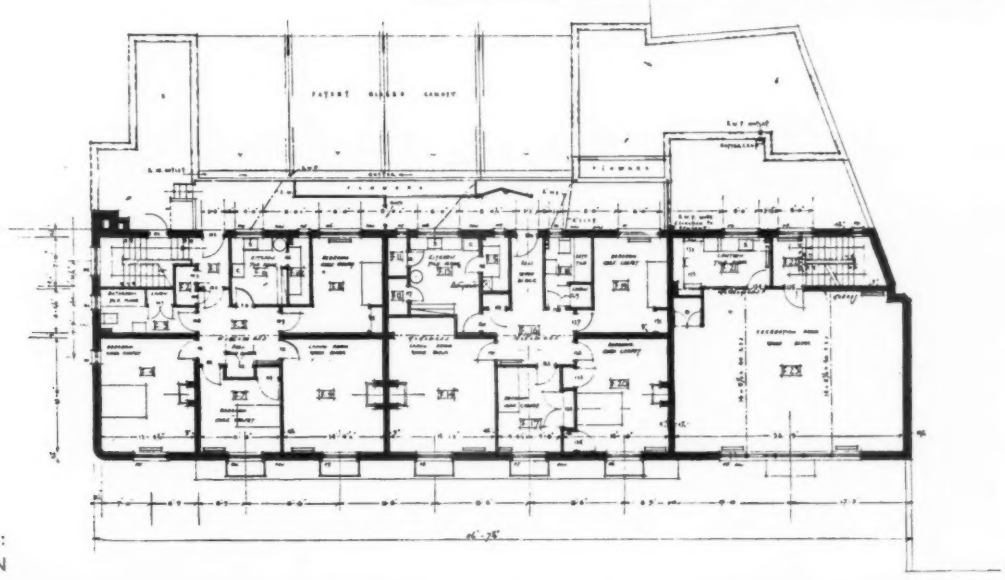
FOR THE EPSOM AND EWELL U.D.C.

FIREMEN'S FLATS: FIRST FLOOR PLAN



FIRE STATION: SECTION

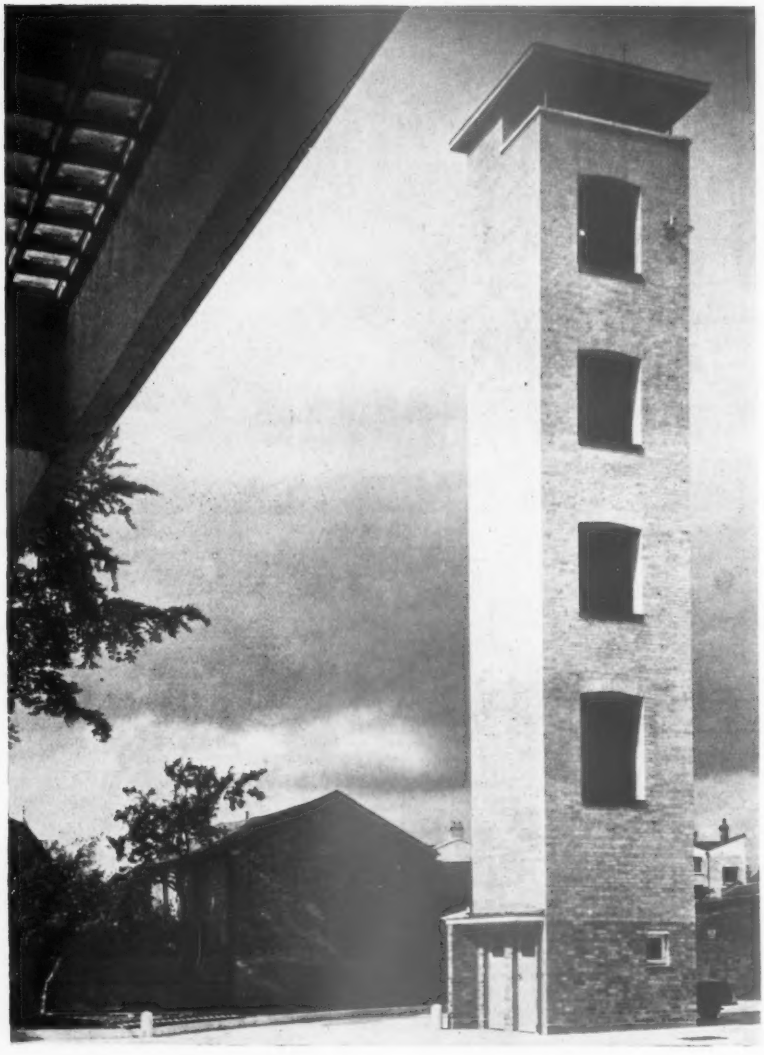
On the right is a detail of the east entrance to the fire station.



FIRE STATION: FIRST FLOOR PLAN

FIRE STATION AND FLATS, EPSOM

DESIGNED BY WILLIAM A. PITE, SON AND FAIRWEATHER



INTERNAL FINISHES—*The appliance room has a tiled floor and glazed tile dado, with enamelled plaster over. Other floors are : recreation room and living rooms, pine ; bedrooms, cork composition ; kitchens and bathrooms, red tiles.*

CONTRACT PRICE—*Approximately £21,000.*

The photographs show : top, left, the firemen's flats ; above, the west balcony to the firemen's flats ; left, the hose tower, taken from the wash space.

For list of general and sub-contractors, see page 598.

Flats in Myrtle Gardens, Liverpool, opened by Sir Kingsley Wood on October 5. The architect is Mr. L. H. Keay.

LITERATURE

HOUSING

City of Liverpool Housing, 1937. Issued by the Liverpool Corporation.

THIS report records that the Liverpool Corporation since it began housing operations in 1869 has completed or contracted for 37,407 dwellings and shops. Of these, 2,895 were pre-war. Since the war, the highest activity has been under the 1924 Act—the total running to 19,379 houses—but housing and rehousing will continue for many years yet to swell the totals.

Of the major schemes at present being carried out under Mr. L. H. Keay, the most impressive are the Central Redevelopment Area and Beau Street Re-Housing Scheme—together covering 61·29 acres—and the Speke Estate. The former represents the first re-development plan in the country to be submitted to and approved by the Minister of Health under the Housing Act, 1935. The whole of the 61·29 acres are to be re-planned, and in addition to re-housing a population of 6,000 persons in buildings of modern standard, the equipment and buildings for civic and community services are to be brought up to date, with the provision of playgrounds, clinics, a meals centre and clubs. Comparatively few of the buildings at present in the area, indeed, will remain, and in the redevelopment about four miles of existing roads covering 14 acres will be absorbed into the redevelopment scheme, involving considerable alteration in the general drainage system and the relaying of service mains and other incidental works. Some 1,395 houses are to be demolished, 1,689 families displaced, and 2,190 new flats and families will be accommodated in the area on the completion of the scheme. The total expenditure on buildings is estimated at £1,007,400. Considerable progress has already been made in parts of the scheme, and 178 flats are occupied.

Another large scheme in the centre of the city—the Pitt Street and Kent Square Redevelopment Area—lies in the neighbourhood of the new Anglican Cathedral and covers an area of 44·1 acres. At the present time, excluding flats erected by the Corporation, there are 581 dwellings in the area, occupied by 1,046 families, with a total estimated population of 3,661 persons. Approximately 1,025 flats are to be built here, giving accommodation for some 3,600 people.

The Speke Estate is being developed as a self-contained community unit. The scheme for this as it was originally prepared had to be considerably altered owing to the sale by the Corporation of about 100 acres of land adjoining the Airport, part of the site of the projected housing development, for use instead of the aircraft factory site that it had been proposed to use near Maidenhead. Here 500 houses, of which 200 are of the non-parlour type, are in course of erection.

The scheme shows a departure from previous estate developments by the Housing Committee. The estate has been planned so as to accommodate all classes of the community, thus avoiding the segregation of one class. The plans are therefore for a self-contained community unit rather than for a dormitory estate for occupation only by the lower-paid workers. There will be in all some 5,380 dwellings in a variety of types, as well as recreation grounds and such amenities. A proportion of "single houses" is included which are to be larger than the normal type erected by the Corporation, and which can be erected under powers contained in the Liverpool Corporation Act, 1936. Besides church and school sites, there is provision for a training centre and a technical school, and a community centre provided as one of the amenities of the estate will have its cost included in the expenditure upon which rent calculations are based. Strict architectural control will be imposed on all buildings erected by others than the Corporation. It is hoped that the housing accommodation provided will be let at a range of inclusive rents of from 4s. and 5s. 9d. for cottage flats for aged persons, up to about 30s. per week for the single houses for the better paid workers, without it being necessary to make any call upon the housing rate in respect to this development.

Industrial development is already taking place in this district—the Corporation offers industrialists definite advantages in the acquisition of land and buildings—and it is anticipated that it will increase when it is realized that an adequate supply of labour is available and will be suitably housed in the immediate vicinity of the trading estate. The Housing Committee has had control of the land since April, 1936, when the City Council transferred to it an area of about 650 acres, forming part of the Speke Estate. Recently the Council agreed to buy 351 acres of land to the eastward of the estate, outside the existing boundary of the city.

The booklet, handsomely produced, is very fully illustrated.

HOUSE IN BROOKLAND RISE, N.W.:

GENERAL PROBLEM — *Three-bedroom house. A balcony instead of a fourth bedroom was provided to comply with the client's wishes.*

SITE—*In Brookland Rise, N.W.11, on a site with a slight fall towards the south. The entrance to the site was at the south-east corner, and it was decided to put the house as far north as possible. The plot forms the most north-westerly point of the Hampstead Garden Suburb.*

PLAN—*The plan takes full advantage of the southern aspect, with east light in addition to the dining room and bedroom No. 1. There is a recessed fireplace in the living room to give the maximum floor space.*

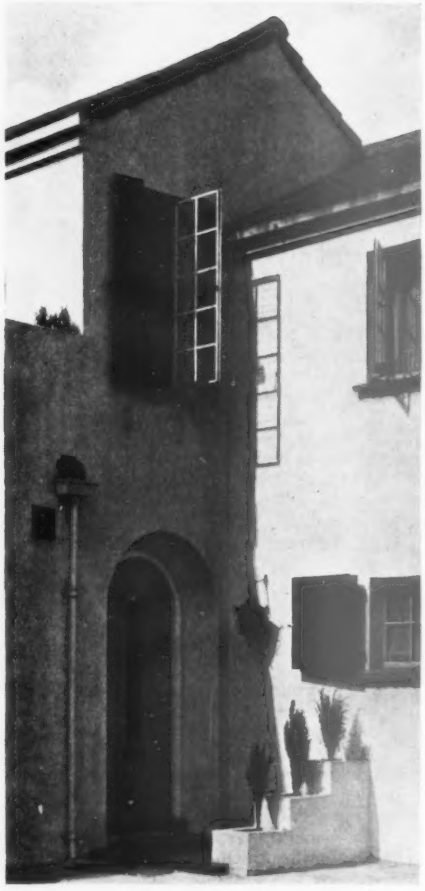
CONSTRUCTION — *13½-in. brick walls to ground floor; 9-in. to first floor, treated externally with white cement stucco. Floors are concrete ground floor; wood joists first floor. Partitions are breeze.*

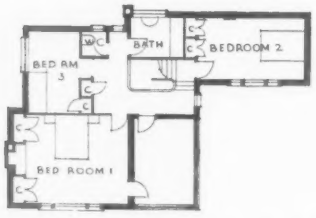
ELEVATIONAL TREATMENT — *As the Hampstead Garden Suburb authorities have banned the flat roof, the client expressed the wish that the house should be Spanish in feeling.*

INTERNAL FINISHES—*All walls are finished in special plaster and are distempered, except in the kitchen and bathroom. The kitchen is in honey-coloured tiles, with paint to match; the bathroom in green tiles, paint to match. The kitchen floor is finished in cork tiles; the ground floor, beech blocks in brick pattern. There are no ceiling lights except on the staircase landing.*

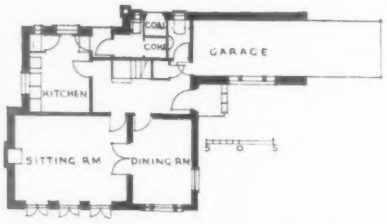
SERVICES — *Hot water is by instantaneous gas-heater, and central heating by coke boiler. There are coal fires in the living room and in bedroom No. 1; and wall gas fires in bedrooms Nos. 2 and 3 and the dining room.*

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

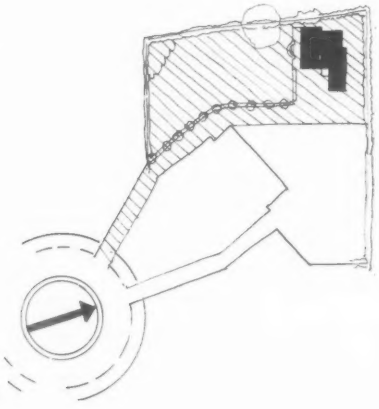




FIRST FLOOR PLAN

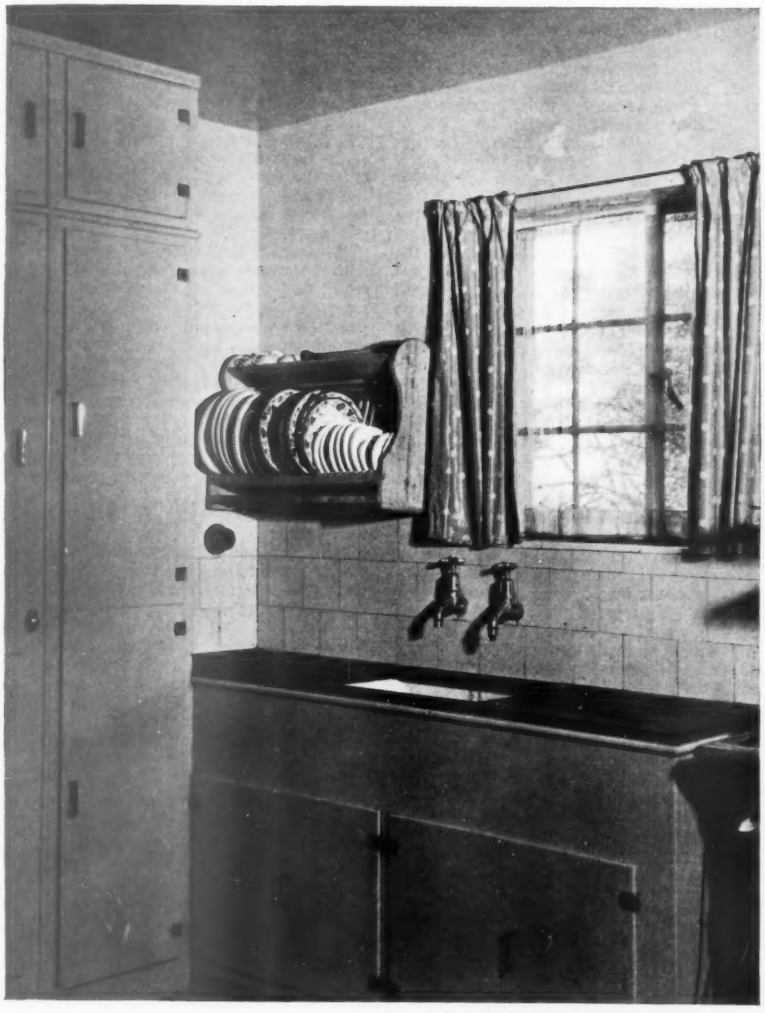


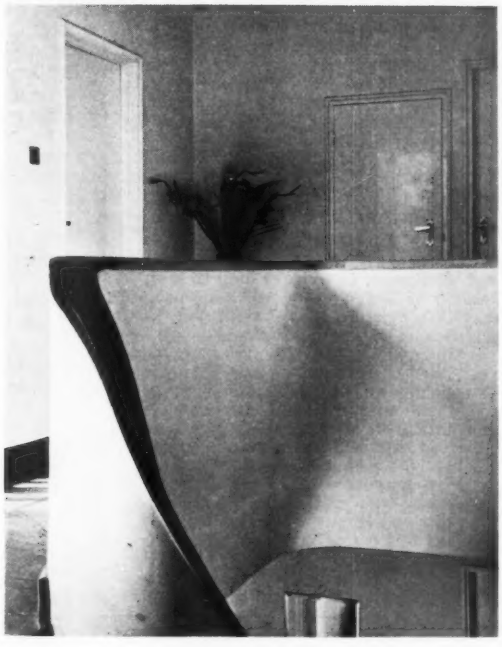
GROUND FLOOR PLAN



SITE PLAN

BY G. BRIAN HERBERT





The photographs show : above, the built-in fitments in the kitchen ; right, staircase detail.

For list of general and sub-contractors, see page 598.

LAW REPORT

LIABILITY FOR UNLIGHTED STAIRCASE

Posner v. *Oldschool.—King's Bench Division. —Before Mr. Justice Lewis*

THIS action raised an important question as to the liability of a landlord on premises used for business purposes, for damages for injuries which the plaintiff sustained through the alleged defective condition of the building, when calling on a firm having offices there.

Mr. Posner's case was that in the course of his business he called at 153 Whitechapel Road and had to proceed to the second floor, where the firm he wanted had offices. When he arrived at the first floor landing he found it unlighted and in proceeding suddenly fell through a doorway. He sustained a broken leg.

Mr. Roberts, for the plaintiff, contended that the door was in the nature of a concealed trap, and that the landlord, the defendant, should have taken steps to have lighted the landing.

Mr. Beney, for the defendant, Mr. Samuel Oldschool, the landlord of the premises, submitted that there was negligence on the part of the defendant. Plaintiff failed to take proper precautions, and walked about the landing in the dark. The door through which he fell had been nailed up, but he had pushed it open, with the result that he had fallen through. Counsel further argued that defendant owed no duty to the plaintiff, neither had he made any arrangement to lighting landings with or for his tenants.

His lordship in giving judgment, said, it appeared that certain alterations were made to the building by the landlord, and he had taken the precaution to nail up the door in question, and took off the handle. His lordship had had evidence which showed that some person had removed the nails and had left the door ajar. When the plaintiff arrived on the landing he pulled the door open and fell downstairs. The question that arose was whether there was any obligation on the defendant to his tenants to light the landing and whether the defendant owed a greater duty to the plaintiff than to his tenants. It appeared that the rooms in each floor were lighted independently of each other, each having a separate meter, with a flex extending to the landing, to which a bulb could be attached, if the tenant so desired. As it happened the first floor was untenanted at the time of the accident. His lordship found that there was no settled arrangement between the landlord and his tenants as to the lighting of the landings. It was for the plaintiff to satisfy his lordship that in law a duty was owed to him by the landlord to warn him against concealed danger of which the defendant ought to have known. In his lordship's opinion the plaintiff had failed to do this. Here the landlord owed no greater duty to the plaintiff than to his tenants and the landlord was under no obligation to the tenants to light the landings. As the plaintiff used the landing in the dark he did so at his own risk. He dismissed the action with costs.

Change of Address

Mr. L. Scott White, M.INST.C.E., M.I.STRUCT.E., consulting and chartered civil engineer, has removed his offices to Buckingham House, 1 Catherine Place, Westminster, S.W.1. Telephone No. : Victoria 2780.

SOCIETIES AND INSTITUTIONS

TOWN PLANNING INSTITUTE

Following are some extracts from a paper entitled "The Town Planning of the City of London," read by Mr. E. E. Finch, M.INST.C.E., at the nineteenth autumn meeting of the Town Planning Institute held in London recently.

The vast bulk of the work in the City is, of course, done by workers who travel in from the suburbs, so that, while the resident population is small, there is a large and ever-increasing day population; at a special day census taken in 1866, it was 170 thousand; in 1911, 360 thousand; in 1921, 437 thousand; and the present estimated figure exceeds half a million.

DEVELOPMENT

To provide accommodation for this growing day population, buildings are constantly being rebuilt and enlarged. From maps which I have had prepared, it appears that with the exception of historical buildings and churches, there are few buildings more than 80 years old, while the property which has been rebuilt since 1905 forms 42 per cent. of the total rateable value.

Although building activity is sensitive to economic conditions, and thus takes place in waves, in view of the very high site values, the life of buildings tends to be comparatively short, and it is generally true to say that anything more than 60 years old is liable to be replaced by a modern structure in the near future.

In this connection, it is interesting to observe the frequency with which some sites have been redeveloped several times within the last fifty years. Outstanding instances of this are the sites at present occupied by Unilever House (formerly the de Keyser Royal Hotel), the old *Daily Chronicle* building in Fleet Street, and the National Provincial Bank in Princes Street.

During the last quarter of a century, there has been a decline in the number of small firms and a corresponding increase in the number of large companies. Consequently, there is a tendency in certain cases for redevelopment to take the form of the demolition of a number of small premises, used for a variety of enterprises, and their replacement by one large edifice devoted exclusively to one company's business. Nevertheless, the City is still remarkable for the number of comparatively small concerns that carry on a thriving business, and generally the sites, even when several small existing buildings are replaced by one large one, are smaller than in other parts of London.

HEIGHT OF BUILDINGS

The high value of land in the City, as well as resulting in a rapid rate of redevelopment, leads to a constant increase in the heights of new buildings. Yet, from a map which I have had prepared, showing the existing heights of buildings in the City, it seems that the general height is a good deal less than one would expect from a cursory view of the main streets. Comparatively few buildings exceed 70 feet in height, and there are many buildings less than 35 feet high; but, as most of the side streets are very narrow, and as the sites are so closely built up at the back, too often the existing light and air are inadequate, and the traffic on the streets has become unduly congested. The control of height and angular limits is therefore a matter of very great importance.

It has been suggested that in those parts of the City which adjoin the boundaries of the neighbouring Metropolitan Boroughs where the London County Council is the Town Planning Authority, the limitation of height should be effected by restrictions similar to those which are being proposed for the London County Council's Scheme, so that the basis would be angular limits drawn from the opposite side of a street at an angle of 56°, no building being allowed a sheer height of more than 80 feet and a maximum height of more than 100 feet.

In the central business area, however, property values are so high and existing light angles so steep that it would appear to be impracticable to make developers keep within an angle of 56°, and the suggestion is therefore that the angle should here be increased to $63\frac{1}{2}$°.

Apart from the general problem of securing adequate light and air about new buildings, the limitation of height is necessary over part of the City to preserve the architectural domination and distinction of St. Paul's Cathedral in the panorama of Central London. Every capital city has a characteristic silhouette, punctuated by features of precious value in sentiment to its people. The march of progress and the growth of business inevitably remodel this, yet certain landmarks survive. Such a landmark is the Dome of St. Paul's. Mr. W. Godfrey Allen, Surveyor to the Fabric, in 1934 published a survey of views of the Cathedral, taken from various well-known points of vantage, setting out in photographic form the possible effect on existing views of rebuilding in certain areas to the maximum height (80 feet with two storeys in the roof) permitted by the only measure of control then in operation—the London Building Act—and it was clear that, if no further limitations be imposed in some parts, a disastrous and lamentable result would eventually arise.

Mr. Allen has prepared plans of the area, in which it is considered it is essential that some attempt should be made to prevent the views of the Cathedral from being obstructed by fixing the maximum heights within which buildings must be kept, and it is suggested that the Town Planning Scheme should provide for maximum heights in accordance with these plans. In most cases they would allow of a reasonable increase of existing heights, and it is hoped that the Minister of Health will approve this measure on the same basis as the height control in the other parts of the City, in order that it may be possible to preserve the view of the Dome of St. Paul's as a feature of the skyline.

BUILDINGS OF HISTORIC AND ARTISTIC INTEREST

As the core of the capital through many centuries, the City has become richly endowed with buildings of great beauty, within and about whose walls have taken place many historic events. A large number of them are examples of architecture that have set the keynote to a whole period of building and might, by virtue of their age, have outlived their purpose; but they are today actually forming the background to both local and national life as suitably and effectively as at the time they were erected. Under the 1932 Act, it will be possible to ensure the preservation of these buildings, and to control the elevations of new buildings on adjoining sites.

DESIGN AND INDUSTRIES ASSOCIATION

Mr. J. E. Barton, in a paper entitled "The Enjoyment of Design at School," read at the recent D.I.A. Conference at Bexhill, said that schools today were emerging from the stage in which all æsthetics had been viewed with suspicion, and the arts regarded as little more than enlightened hobbies. Conscious art propagandism after the industrial revolution had emphasized the ornamental side of design—the side on which it was least necessary and most dangerous. So long as men's minds had divorced the machinery of everyday life from visual pleasure and nobility, society and the schools alike had forgotten the old truth that good design was a root need, which must be satisfied everywhere if civilization was to be unified. Problems of design could be approached from two ends, the formal and the practical. A practical approach was the sound beginning for immature understandings. Intelligent children could soon be taught to connect design with utility; the nature of "the sublime and beautiful" was a question that could safely be left over till they had grasped the sort of essentials that were taken for granted by every trained joiner or blacksmith of the Georgian age. Much in present-day teaching of design had to be destructive, or at any rate purgative. The nineteenth-century diseases of sentimentalism and the picturesque were still everywhere a barrier to æsthetic progress in the homes of the people. Forced economy and new notions of hygiene had been valuable allies in true art education.

The word "art," a fruitful source of superstition, was now being comprehended in a wider sense, and school art classes were learning to associate all necessary human activities and products with good design. The love of mechanism, innate in the new generation, had elements that were truly æsthetic. Children felt for themselves that beauty was being created in new materials and by applied science, with an orderly intelligence to guide it. The historic arts, such as architecture, mainly appealed to young people in their constructive and socially symbolic aspects, and should be expounded accordingly.

School buildings and furniture, as a whole, were gradually coming into line with the new spirit. Collegiate Gothic and ecclesiastical pitch-pine were yielding to functional common sense and a restored classical severity, though the incubus of Victorianism was still heavy on many of the better-known foundations. Many of the more recent popular schools were feeling their way in the right direction, and even in our more privileged classes the younger generation was beginning to suspect that architectural pretences were not indispensable as a background to the higher culture.

RIBBON DEVELOPMENT RESTRICTION

An interesting sidelight is thrown on the working of the Restriction of Ribbon Development Act, 1935, by the recent publication, in the form of a blue book, of a review of the decisions given by the Minister of Transport on appeals under section 7 of the Act.

Appeals may be made to the Minister in any cases where applications for consent to development are either refused by the local highway authorities or granted subject to conditions.

Up to June 30 of this year, 105 such appeals had been made and the Minister's decisions in these cases will undoubtedly tend to influence local action in subsequent cases.

Fifteen of the appeals related to petrol-filling stations and seven to licensed premises. The remainder were concerned with development of every kind, new building estates, factories, shops, erection or reconstruction of individual houses, bungalows, roadside cafés and village halls.

On forty appeals the Minister made orders modifying the decisions of the councils concerned. Four were allowed on the ground that the conditions imposed by councils were *ultra vires*. The review recites the facts of each of the 105 cases and the Minister's reasons for modifying or upholding the council's decision.

The Minister, it is stated, has had no hesitation in supporting highway authorities in their efforts to prohibit development

which would obviously conflict with conspicuous natural beauties of the countryside. Four cases are cited in which the proposed development would have been injurious to the amenities of the locality—two in the Chilterns, one in the Peak District at Tideswell, and the fourth at Clifford Moor in the West Riding. In each case the appeal was dismissed.

Another section of the review emphasizes the desirability of securing "group development" as opposed to "ribbon development." It is stated that: "The Minister on appeal has unhesitatingly endorsed a highway authority's insistence on the principle that ordinarily there is no justification for 'ribbon' building along the frontages to important roads notwithstanding that the prospective developer may be prepared to set back the buildings behind the limits of future road widening and in other respects observe road and traffic requirements."

In one instance the Minister suggested to the developers, in this case a local authority, "the desirability of securing another site nearer an existing housing estate and of laying it out in such a way that buildings would be erected in groups rather than in ribbon form along traffic routes."

Where an application for consent has been made in connection with the proposed erection of a number of houses or shops each with direct access to an important road and the highway authority has either refused the application or given consent subject to the condition that a service road be provided as an integral part of the layout, the Minister has invariably supported the authority in its decision. In his view, apart from the difficulties and dangers which are created by the existence of numerous points of direct access to an important traffic road, it is essential that frontage development along such a road should be accompanied by the provision of waiting accommodation off the road for the vehicles of tradesmen and others who will have occasion to call at the buildings.

The Minister, on appeal, has strongly emphasized the importance of ensuring that any means of access to a road shall be designed and sited in such a way that its use will not prejudice road safety. Accordingly, in the following sets of circumstances he has supported decisions of highway authorities refusing consent to the formation of new means of access:—

(*a*) Where the proposed new means of access would be at or adjacent to a road junction.

(*b*) Where visibility is seriously restricted at the proposed point of access.

(*c*) Where the use of the means of access would involve vehicles entering or leaving the premises in reverse gear owing to inadequate turning space within the premises.

Copies of the review, entitled the "Restriction of Ribbon Development Act, 1935, Review of Decisions given by the Minister of Transport up to June 30, 1937, on appeals made to him under Section 7 (4)," may be obtained from H.M. Stationery Office or through any bookseller. Price 2s. net.

TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Heating Stoves

FOR some years now one of the most efficient slow-combustion stoves on the market has found favour with architects, who have installed it in many a private house in spite of its really deplorable appearance. About a year ago another stove had a certain amount of face-lifting done to it by one of our more successful furniture designers. And now Mr. Charles Scott and Mr. Raymond Loewy have supplied the engineering and the art for a new stove which is being marketed by Allied Ironfounders. There is a photograph of it at the head of these notes, but there is a good deal more in it than mere appearance, for there are several mechanical features not to be found, so far as I know, in any other stove. From the user's point of view probably the most important is that the top panel of the fire door, instead of swinging open in the usual way, is suspended on chains and slides up inside the body of the stove so that it is quite invisible, the result being just about as near to the normal open fire as it is possible to get with a stove of this type. Nor are there any of the usual knobs and whatnots and twiddly bits for doing this and that; riddling, damper, ashpan and fire door are all operated by a single detachable handle which does all four jobs, so that there is no need for the hearth to look like a scrap heap, all cluttered up with hooks, levers and spanners for pulling and twisting different knobs.

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Any kind of fuel from anthracite to peat can be used, a total weekly cost of 2s. 10d. for anthracite and 2s. 6d. for coke or household coal being claimed by the manufacturers, who also give 20 by 18 by 10 ft. as the volume which the stove will effectively heat. The warm air outlet is at the front of the stove, so that the air tends to be thrown forward into the room, and this should tend to stop staining of the walls. Finish is in vitreous enamel and two colours are available—black and buff, the price being £10 for either finish.

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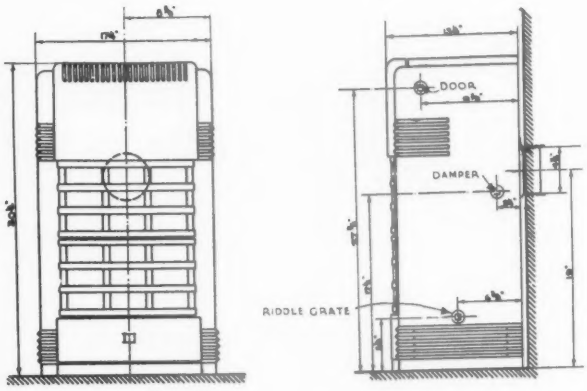
There remains one point of criticism which applies equally to all other stoves of this type. The windows in the door are made of mica, too delicate a material, I think, to be cleaned with any ease. With bituminous fuels these windows soon get covered with a sticky film, the mica gets brittle and tends to flake with heat and age, and sooner or later you put your thumb through cleaning it. Now why not Armourplate for a job like this? One sees samples of it at exhibitions with an electric heater underneath and water dripping on the other side, and several cooker manufacturers use it for oven doors, so it seems quite possible that it would stand up to a job like this. If so, it should be a considerable improvement over mica, for the surface is smoother and would be firm enough to be given a good hard scrub or even scraped with a knife, and, as a secondary consideration, is more transparent than mica. I offer the suggestion to all the stove people and to Pilkingtons, in the hope that they will tell me whether or not it can be done. And why. (*Allied Ironfounders Limited, Mortimer House, Mortimer Street, London, W.1.*)

Electric Fires and Cookers

A new '37–'38 catalogue from Bellings lists every kind of electric fire that one can imagine, from the simple parabolic type to the most realistic logs and the ever-popular artificial coal with flickering effect. Most interesting to me, however, is a new type of combined convector and radiant fire, which consists of the bar type element and parabolic reflector that one associates rightly or wrongly with Ferranti, and an air heating element behind the reflector



The essential dimensions of the Otto stove. (*See note on previous page.*)

arranged to circulate warmed air through the room generally, so that you get a certain amount of warmth wherever you are, and a concentrated beam directly in front of the fire. The Converta fire, a flat sheet unit arranged to slip into any ordinary fireplace opening with no fixing of any kind, seems a handy fitting for bedrooms or dressing rooms where a certain amount of heat may be necessary every now and then, but not enough to make it worth while lighting a coal fire.

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This firm also makes a large range of boiling rings and a whole series of cookers from the breakfast unit consisting of a boiling ring and a grilling chamber to a large luxury model at £31 10s. This latter has been given the now fashionable name of Streamline, but it is none the less a very sensible and straightforward design, with a commendable absence of nonsense and frills, and there is a large hinged cover plate over the top of the cooker which swings up to form a splash back. The price is, of course, fairly heavy, but there is a smaller vertical model, quite large enough for most families, which sells at £14 10s., much nearer the price that people are prepared to pay, while most of the features of the more expensive model are retained, with the addition of pedal operation for the oven doors, after the fashion of some refrigerators. (*Belling and Company Limited, 313 Regent Street, W.1.*)

Cable Prices

During the last month I have noted two firms who have increased the price of lead and rubber sheathed cables by some 25 per cent., and a correspondent inquires whether the prices of copper or lead have really gone up as much as all that. I do not know if the cable manufacturers buy their lead and copper at the current market prices, but I have checked up on these and they are tabulated below :—

	Copper	Lead
	£	£ s. d.
1931	38	13 0 6
1932	31	12 0 9
1933	32	11 16 1
1934	30	11 1 0
1935	31	14 5 7
1936	38	17 12 6

From which it can be seen that both copper and lead vary more or less in step with each other. Copper started this year at £46 and reached a peak of £70 in April, while it is now back again at about £46 to £47. Lead started at £27, peaked with copper in April, and is now down again to about £18. Having no figures whatsoever to show how far cable prices are dependent on the price of raw materials I can make no comment that would mean anything at all, so all we can do is to look at the figures and draw our own conclusions.

Correction

The address of the Electrav Company, to whom I referred in these Notes on September 16 as the manufacturers of a very useful fitting for movable lamps over drawing boards and the like, should have been given as 54 Campo Lane, Sheffield.

THE BUILDINGS ILLUSTRATED

VILLAGE COLLEGE, LINTON, CAMBS. (pages 573–577). Architect : S. E. Urwin. The general contractors were Kerridge (Cambridge), Ltd., and the sub-contractors and suppliers included : Permanite, Ltd., asphalt ; Collier & Co., Ltd., facing bricks ; Stonehenge Brick Co., Ltd., bricks ; Cambridge Artificial Stone Co., artificial stone ; Dawnays, Ltd., structural steel ; Acme Flooring and Paving Co., Ltd., woodblock flooring ; Wontner Smith, Grey & Co., Ltd., central heating ; R. Crittall & Co., Ltd., and Smith and Wellstood, Ltd., ranges ; Beeston Boiler Co., Ltd., boilers ; P. H. Allin and Sons, electric wiring ; Hume Atkins & Co., electric light fixtures ; Kerridge (Cambridge), Ltd., plumbing and furniture ; Dent and Hellyer, Ltd., W. E. Farrer & Co., Ltd., and Adamsez, Ltd., sanitary fittings ; J. Gibbons, Ltd., door furniture ; H. Hope and Sons, Ltd., casements ; Kerridge (Cambridge), Ltd., plaster and joinery ; Carter & Co., Ltd., tiling ; Howland (High Wycombe), Ltd., chairs ; Pel, Ltd., steel furniture ; Sayle & Co., Ltd., furniture ; Fountains, Ltd., fountains ; Alfred Brown & Co., Ltd., cloakroom fittings.

EPSOM FIRE STATION (pages 589–592). Architects : William A. Pite, Son and Fairweather. Quantity Surveyor, A. J. Willis, F.S.I. The general contractors were Henry Taylor and Son (Epsom), Ltd., and the principal sub-contractors and suppliers included : D. Anderson and Son, Ltd., thermotile patent roofing ; S. F. Bowser & Co., Ltd., petrol pump and tank ; Alfred Brown & Co., quick release door operating gear ; Brown Brothers, Ltd., hoist in workshop ; Candy & Co., fireback interiors ; Clark, Hunt & Co., Ltd., balcony railings ; Dawnays, Ltd., steelwork ; Dent and Hellyer, Ltd., sanitary fittings ; Diespeker & Co., Ltd., hollowtile floors and roofs and reinforced concrete work ; S. Dixson and Sons, Ltd., hose reel ; Flexo Plywood, Ltd., internal doors ; W. H. Gaze and Sons, Ltd., electrical work ; G. N. Haden and Sons, Ltd., heating and hot water installations ; James Gibbons, Ltd., ironmongery ; J. W. Gray and Son, Ltd., lightning conductor ; Haskins, steel roller shutter ; P. C. Henderson & Co., Ltd., sliding door gear ; Johnson Reinforced Concrete Engineering Co., reinforced concrete foundations ; Lenscrete, Ltd., glass lights ; Meadow Foundry Co., Ltd., duct "access trays" ; Morbrow Equipment Co., refuse shoot ; T. W. Palmer & Co., balcony railings and other ironwork ; Stoner and Saunders, Ltd., rainwater heads ; Stuart's Granolithic Co., granolithic to stairs ; Ivo Co., brick interiors to boilers ; Thos. Try & Co., sliding poles ; Wandsworth Gas Co., gas services ; C. E. Welstead, Ltd., metal vents in windows ; Williamson Cliff, Ltd., facing bricks ; Yannedis & Co., automatic bolts to sliding pole enclosures ; Automatic Electric Co., electric alarm equipment in watch room.

HOUSE, BROOKLAND RISE, N.W.11 (pages 594–595). Architect : G. Brian Herbert. The general contractor was F. J. Henry and the sub-contractors and suppliers included : S. E. Lamming, asphalt ; Colthurst, Symons & Co., Ltd., tiles ; Hollis Brothers & Co., Ltd., woodblock flooring ; North Middlesex Gas Co., gas fixtures ; Ideal Boilers and Radiators, Ltd., boilers ; Conner and Ribbans, electric wiring ; Rownson, Drew and Clydesdale, Ltd., sanitary fittings ; Parker, Winder and Achurch, Ltd., door furniture ; Henry Hope and Sons, casements ; Hitchins Flush Woodwork, Ltd., flush doors ; Wallis Bainbridge & Co., pressed steel gutters ; Peerless Kitchen Equipment, furniture.

Manufacturers' Items

We learn that Messrs. Lloyd Boards, Ltd., of Shell Mex House, London, W.C.2, are holding the first of their annual golf tournaments at a venue near London on Wednesday, October 20.

The competition is for Lloyd Board distributors, both principals and employees.

Trophies are being presented by the company's chairman and vice-chairman, in addition to various other prizes for the main contest, which will be held in the morning ; after lunch impromptu matches will be held.

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In the list of contractors for Stoke Newington Municipal Buildings, published in our last issue, we omitted to state that Messrs. J. Starkie Gardner, Ltd., were responsible for the main staircase balustrade in silver bronze and wrought iron, the balustrade to assembly hall stairs with silver bronze handrail, the mail boundary railings and gates, and other metalwork.

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The annual meeting of Holophane, Ltd., was held at Holophane House on September 28. It was announced that the financial year just ended had been one of the most successful in the history of the company. The increase was largely due to the new developments in architectural, colour and street lighting. The success of the Holophane "built-in" units for modern interior lighting had resulted in many new designs, all of which incorporated the "Controlens" prismatic plates.

The colour lighting department had also had a very successful year with the new system of Holophane moulded contour lighting for cinemas and large halls.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICT (15 MILES RADIUS)

BARKING. *Baths.* The Barking Corporation is to prepare a scheme for the erection of baths in Mayesbrook Park, at an estimated cost of £47,000.

CAMBERWELL. *Crematorium.* The Camberwell B.C. has obtained sanction to borrow £24,284 for the erection of a crematorium.

CHINGFORD. *Schools.* The Essex Education Committee has approved amended plans for the erection of a junior school with accommodation for 450–500 pupils at Yardley Lane, Chingford, at an estimated cost of £21,578.

CROYDON. *Premises.* The Croydon Corporation is to acquire further land at Fairfield from the Southern Railway and to replace various premises at a cost of £9,350.

HAMMERSMITH. *Cinema, etc.* Plans passed by the Hammersmith B.C.: News cinema, shops, etc., Hammersmith Bridge Road, Mr. Ernest S. Barr; block of flats, Crisp Road, Mr. D. Hamilton; flats, Uxbridge Road, Mr. R. T. Read.

ILFORD. *Houses, etc.* Plans passed by the Ilford Corporation: 14 houses, Atherton Road, G. Long & Co.; 16 houses, Wells Gardens and Wanstead Park Road, A. P. Griggs; 84 flats, Fullwell Avenue and Mossford Lane, and shops, etc., Fullwell Avenue, New Ideal Homesteads, Ltd.; 63 houses, Dryden Close, Davis Estates, Ltd.; 32 houses, Norbury Gardens, Mr. J. Giles; 74 houses, Brownlea Gardens, etc., Mr. J. T. Perrin; eight shops and maisonettes, Claybury Broadway, Mr. D. E. Nightingale; 21 houses, Somerville Road, Mr. J. H. Mason.

PADDINGTON. *Cinema, etc.* The Paddington B.C. reports that new shops, flats, restaurants, cinema, petrol-filling station and underground garage, are to be erected in Edgware Road and on the sites of Nos. 51–79 (inclusive) Edgware Road, Nos. 57–61 (inclusive) Cambridge Street, No. 16 Connaught Square, Nos. 1–13 and 23 Portsea Place.

PADDINGTON. *Shops, etc.* Plans passed by the Paddington B.C.: Flats, 100–103 Lancaster Gate, Messrs. Howard; block of shops and flats, 114–134 Praed Street, Sir John Brown and Mr. A. E. Henson; shops, flats, 21 and 23 Bishop's Road, 108–136 Westbourne Terrace, 134–138 Gloucester Terrace; shops and flats 13, 15 and 17 Bishop's Road, 10–20 Sheldon Street, 10–12 James Street, and 121–141 Westbourne Terrace; 1–11 Bishop's Road, 1–7 Eastbourne Terrace, 2–8 James Street, and 2–9 Sheldon Street; 72–86 Bishop's Road, 2–42 Porchester Road, 32–46 Porchester Square; 129–163 Edgware Road, 2–5 Burwood Place, 1–13, and St. John's Schools, Titchbourne St., Toms and Partners; Underground garages.

SOUTHALL. *Houses.* Plans passed by the Southall Corporation: 151 houses, The Towers Estate, between Allenby Road and Lady Margaret Road, R. Fielding and Son;

TOTTENHAM. *Flats.* The Tottenham Corporation is to erect 184 flats on the Allington estate.

SOUTHERN COUNTIES

CHISLEHURST AND SIDCUP. *Schools.* The Kent Education Committee has obtained sanction for a loan of £76,538 for the erection of central schools at Chislehurst and Sidcup.

EASTBOURNE. *Houses, etc.* Plans passed by Eastbourne Corporation: Two houses, Cherry Garden Road, W. J. Cole and Sons; house, Freeman Avenue, Mr. J. Bowley; lock-up shops and flats over, 188–190 Seaside, Mr. H. C. Ford.

SOUTH-WESTERN COUNTIES

PLYMOUTH. *Pavilion.* The Plymouth Corporation has prepared a scheme for the erection of a pavilion at the cricket club ground, Central Park, at a cost of £5,750.

PLYMOUTH. *Houses, etc.* Plans passed by the Plymouth Corporation: Eight houses, Coombe Park Lane, for Messrs. Thos. H. Mitchell, Ltd.; eight houses, Clynton Avenue, for Mr. F. W. Powlesland; 13 houses, Dovedale Road, for Mr. F. Westcott; 12 shops and houses, Victoria Road, for Mr. W. Andrew; 46 houses, Saltburn Road, for Mr. C. Jope; 10 houses, Little Dock Lane, for Mr. J. H. Waddling; 88 houses, Colebrook Road, for Taylor Woodrow Estates, Ltd.

TORQUAY. *Hospital Extension.* Torquay Corporation has approved plans for extensions at the Isolation Hospital, at a cost of £11,575.

TORQUAY. *Cinema.* Plans passed by the Torquay Corporation: Cinema, Albert Road, Mr. L. Morris.

EASTERN COUNTIES

BROOMFIELD. *School.* The Essex Education Committee has approved plans for the erection of a senior school at Broomfield, at a cost of £26,500.

ESSEX. *Workshops.* The Essex Education Committee has approved plans for the extension of the workshops of the South-East Essex Technical College, at an estimated cost of £6,395.

ROMFORD. *Housing.* The Essex Education Committee reports that a large building development is planned in Collier Row, Romford, on an estate of 700 acres with the eventual erection of some 8,000 houses, and is to procure a site for a senior school.

UPMINSTER. *School Enlargements.* The Essex Education Committee is to enlarge the senior school, Upminster, at a cost of £2,823.

MIDLAND COUNTIES

BIRMINGHAM. *Fire Station.* The Birmingham Corporation has approved a revised estimate of £28,012 for the erection of a fire station at Erdington.

BIRMINGHAM. *Police Station Enlargement.* The Birmingham Corporation is to enlarge the Washwood Heath police station at a cost of £5,518.

BIRMINGHAM. *Police Science Laboratory.* The Birmingham Corporation has approved a revised estimate of £8,840 for the erection of a police science laboratory.

NORTHAMPTON. *Houses.* Plans passed by the Northampton Corporation: 15 houses, Upland Road, T. Wilson and Son, Ltd.; 20 houses, Malcolm Drive, Chowns, Ltd.

NORTHERN COUNTIES

BARROW-IN-FURNESS. *Houses.* The Barrow-in-Furness Corporation is to erect 124 houses on the Vulcan Works site.

BARROW-IN-FURNESS. *Houses.* Plans passed by the Barrow-in-Furness Corporation: 28 houses, Schneider Road, and 72 houses off Schneider Road, J. H. Sharp, Ltd.

BRADFORD. *Housing.* The Bradford Corporation has approved plans by the city architect for the erection of 13 houses and 24 single room dwellings on the Wapping area.

KEIGHLEY. *School, etc.* The managers of St. Anne's R.C. School, Keighley, are to build a new junior and infants' school at Guard House, and to make alterations to the existing senior school.

KEIGHLEY. *Offices.* The Keighley Corporation is to erect office extensions at the junction of College Street and Queen Street, at an estimated cost of £5,350.

LEEDS. *Hospital Improvements.* The Leeds Corporation has approved a scheme for effecting alterations to modernize a section of the St. James's Hospital, at an estimated cost of £6,000.

LEEDS. *Baths.* The Leeds Corporation has approved plans for the new central baths.

MANCHESTER. *Schools.* The Manchester Education Committee has approved the following plans: St. Margaret Mary's proposed R.C. school, New Moston; St. Margaret's C. of E. Central School, new premises; Old Hall Drive Council School, senior mixed department.

MANCHESTER. *Housing.* The Manchester Corporation has purchased land in the Hulme Clearance Area for rehousing at a cost of £48,471.

MANCHESTER. *Flats.* The Manchester Corporation is to obtain land at Red Bank, Cheetham, for the erection of 49 residential flats.

NORTHUMBERLAND. *School Enlargement.* The Northumberland Education Committee is to enlarge the senior school, Forest Hill, at a cost of £25,535.

OLDBURY. *Houses.* Plans passed by the Oldbury Corporation: 151 houses, off Clay Lane, Mr. Wm. Tilt; 162 houses, Salop Road and Perry Hill Estate, Smethwick Corporation.

SALFORD. *Library.* The Salford Corporation is to erect a library in Langworthy Road at a cost of £10,000.

SHEFFIELD. *Art School, etc.* The Sheffield Education Committee is to acquire a site in Arundel Street for technical, art, domestic and commercial education.

SHEFFIELD. *Schools.* The Sheffield Education Committee is to acquire sites for schools and school playing fields at Hurlfield Road and Gleadless Common, Ringinglowe Road and Spa Lane, Woodhouse.

SHEFFIELD. *Cinema, etc.* Plans passed by the Sheffield Corporation: 32 houses, Grimesthorpe Road, Mr. J. Samuel; flats, Millhouses Lane, Eadon, Lockwood and Riddle; 236 houses, Parson Cross Estate, Estates Committee; cinema, Herries Road, Mr. M. J. Gleeson; 28 houses, and house and shop, between Brooklands Avenue and Whiteley Lane, T. W. Knowles, Ltd.

SHEFFIELD. *Aerodrome.* The Air Ministry has agreed to the site at Todwick suggested by the Sheffield Corporation for the provision of a civic aerodrome.

SHEFFIELD. *Shops, etc.* The Sheffield Corporation has leased land in Herries Road to Mr. M. J. Gleeson, as sites for shops with flats over and a parking ground.

SUTTON COLDFIELD. *Houses.* Plans passed by the Sutton Coldfield Corporation: 10 houses, Grange Estate, for Ideal Benefit Society; 12 houses, Sutton Oak Road, for Home Constructors, Ltd.; 20 houses off Grange Lane for Mr. H. Allen; 16 houses, Eachelhurst Road, for Mr. A. P. Johnson; eight houses, George Frederick Road, for Mrs. M. M. Cook; 11 houses, Westwood Road, for Messrs. Shute and Adams; 12 houses, Clarendon Road, for Mr. H. J. Marks; six houses, Reddicap Heath Road, for Messrs. Shaw & Co.

WARLEY. *School.* The Oldbury Education Committee is to erect a school to accommodate 450 infant and junior children at Warley.

YORK. *Central Heating Improvement.* The York Corporation is to improve the central heating of the wards at the infirmary by low pressure hot water type system, at an estimated cost of £2,300.

YORK. *Houses, etc.* Plans passed by the York Corporation: Eight houses, Water End, R. J. Pulleyn and Sons; 25 houses, Heworth Cottage Estate, Heworth, H. Williamson and Sons; 16 houses, Rosedale Avenue, Simpson Bros. (York), Ltd.; six houses, Green Lane Estate, Mr. J. Greenwood; six houses, Broadway, Mr. T. Gledhill; 12 houses, Chudleigh Road, Mr. J. N. Dunn; flats, Queen Anne's Road, Mr. J. Hetherton.

SCOTLAND

GLASGOW. *Housing.* The Glasgow Corporation is considering the development of 737 acres on the Pollok Estate, provision being made for the erection of 5,654 houses and sites for churches and schools.

RATES OF WAGES

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

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

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

The rates for every trade in any given area will be sent on request. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorised 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 6 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
½" ,, ,, ... ,,	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 . ,,	4 0 0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:	
Stretchers . . . . ,,	21 0 0
Headers . . . . ,,	20 10 0
Bullnose . . . . ,,	27 10 0
Double Stretchers . . ,,	29 10 0
Double Headers . . ,,	26 10 0
Glazed Second Quality, *Less* . ,,	1 0 0
,, Buffs and Creams, *Add* . ,,	2 0 0
,, Other Colours . . ,,	5 10 0
2" Breeze Partition Blocks . per Y.S.	1 7
2½" ,, ,, ,, . . ,,	1 10
3" ,, ,, ,, . . ,,	2 1
4" ,, ,, ,, . . ,,	2 6

MASON

	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 . . . . per lb.	1 4
,, copper . . . . ,,	1 6

CARPENTER AND JOINER

	£ s. d.
Good carcassing timber . . F.C. 25, 7d.–2 10	
Birch . . . . as 1" F.S.	9
Deal, Joiner's . . . ,, ,,	5
,, ,, 2nds . . ,, ,,	4
Mahogany, Honduras . . ,, ,,	1 3
,, African . . ,, ,,	1 1
,, Cuban . . ,, ,,	2 6
Oak, plain American . . ,, ,,	1 0
,, Figured ,, . . ,, ,,	1 3
,, plain Japanese . . ,, ,,	1 2
,, Figured ,, . . ,, ,,	1 5
,, Austrian wainscot . . ,, ,,	1 6
,, English . . . ,, ,,	1 11
Pine, Yellow . . . ,, ,,	1 0
,, Oregon . . . ,, ,,	4
,, British Columbian . . ,, ,,	4
Teak, Moulmein . . ,, ,,	1 3
,, Burma . . ,, ,,	1 2
Walnut, American . . ,, ,,	2 3
,, French . . ,, ,,	2 3
Whitewood, American . . ,, ,,	1 1
Deal floorings, ¾" . . Sq.	18 6
,, 1" . . ,,	1 1 6
,, 1¼" . . ,,	1 2 0
,, 1½" . . ,,	1 5 0
,, 1¾" . . ,,	1 10 0
Deal matchings, ¾" . . ,,	14 0
,, 1" . . ,,	15 6
,, 1¼" . . ,,	1 4 0
Rough boarding, ¾" . . ,,	16 0
,, 1" . . ,,	18 0
,, 1¼" . . ,,	1 6 0

Plywood, per ft. sup.:

Thickness	¼"			⅜"			½"			¾"			1"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5			
Cheap Alder .	–	2	1½	–	3½	2	–	–	–	–	–	–			
Oregon Pine .	–	2½	–	3	2½	–	4	3½	–	5	4½	–			
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–			
Figured Oak .	6½	5	–	7½	5½	–	10	8	–	11/–	9	–			

Scotch glue . . . . . lb. 8 d.

SMITH AND FOUNDER

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

	¼"	½"	1"	1½"	2"
Tubes 2'–14' long per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long . each	10	1/1	1/11	2/8	4/9
,, 3"–11½" long ,,	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long ,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M–½" long ,,	8	10	1/5	1/11	3/6
Bends . . . . ,,	8	11	1/7½	2/7½	5/2
Springs not socketed . ,,	5	7	1/1½	1/11½	3/11
Socket unions . . ,,	2/–	3/–	5/6	6/9	10/–
Elbows, square . . ,,	10	1/1	1/6	2/2	4/3
Tees . . . . ,,	1/–	1/3	1/10	2/6	5/1
Crosses . . . . ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets . ,,	4	6	9	1/–	2/–
Flanges . . . ,,	9	1/–	1/4	1/9	2/9
Caps . . . . ,,	3½	5	8	1/–	2/–
Backnuts . . . ,,	2	3	5	6	1/1
Iron main cocks . ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs . ,,	—	4/–	7/6	10/–	21/–

Discounts

TUBES	Per cent.		Per cent.
Gas . . .	66⅔	Galvanized gas .	56⅔
Water . . .	61⅔	,, water .	51⅔
Steam . . .	58⅓	,, steam .	46⅔

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

	s. d.
Rolled steel joists cut to length . . cwt.	15 6
Mild steel reinforcing rods, ¼" . . . ,,	18 0
,, ,, ,, ⅜" . . . ,,	17 9
,, ,, ,, ½" . . . ,,	17 6

SMITH AND FOUNDER—*continued*

	s. d.
Mild steel reinforcing rods, ⅝" . . . cwt.	17 6
,, ,, ,, ¾" . . . ,,	17 6
,, ,, ,, 1" . . . ,,	17 6
,, ,, ,, 1¼" . . . ,,	17 6
,, ,, ,, 1½" . . . ,,	17 6

	3" s. d.	4" s. d.
Cast-iron rain-water pipes of ordinary thickness metal . F.R.	1 0	1 3½
Shoes . . . . each	2 0	3 6
Anti-splash shoes . . ,,	4 6	8 0
Boots . . . . ,,	3 0	4 0
Bends . . . . ,,	2 7	3 9
,, with access door . ,,	—	6 3
Heads . . . . ,,	4 0	5 0
Swan-necks up to 9" offsets . ,,	3 9	6 0
Plinth bends, 4½" to 6" . ,,	3 9	5 3
Half-round rain-water gutters of ordinary thickness metal . F.R.	5	6
Stop ends . . . . each	6	6
Angles . . . . ,,	1 7	1 11
Obtuse angles . . . ,,	2 0	2 6
Outlets . . . . ,,	1 9	2 3

PLUMBER

	£ s. d.
Lead, milled sheets . . . cwt.	1 7 3
,, drawn pipes . . . ,,	1 6 9
,, soil pipes . . . ,,	1 9 9
,, scrap . . . . ,,	18 0
Solder, plumbers' . . . lb.	1 1½
,, fine do. . . . ,,	1 4
Copper, sheet . . . ,,	1 0½
,, tubes . . . ,,	1 2½

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

PLASTERER

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

GLAZIER

	s. d.	s. d.
Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.		2½
,, ,, 26 oz. ,, ,, ,,		3½
Flemish, Arctic, Figures (white)* . ,,		7½
Blazoned glasses . . . ,,		2 6
Reeded: Cross Reeded . . . ,,		11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite ,,		6½
Crown sheet glass (n/e 12" × 10") . ,,		2 0
Flashed opals (white and coloured) . ,,	1 0 and	2 0
¼" rough cast; rolled plate . ,,		6
¼" wired cast; wired rolled . ,,		10½
¼" Georgian wired cast . . ,,		11½
¼" Polished plate, n/e 1 ft. . ,,	†1 0 to	‡1 3
,, ,, 2 . . ,,	†1 4 ,,	‡1 6
,, ,, 4 . . ,,	†2 6 ,,	‡2 9
,, ,, 8 . . ,,	†2 11 ,,	‡3 4
,, ,, 20 . . ,,	†3 1 ,,	‡3 9
,, ,, 45 . . ,,	†3 3 ,,	‡4 0
,, ,, 100 . . ,,	†4 0 ,,	‡4 10
Vita glass, sheet, n/e 1 ft. . ,,		1 0
,, ,, ,, 2 ft. . ,,		1 3
,, ,, ,, over 2 ft. . ,,		1 9
,, ,, plate, n/e 1 ft. . ,,		1 6
,, ,, ,, 2 ft. . ,,		3 0
,, ,, ,, 5 ft. . ,,		4 0
,, ,, ,, 7 ft. . ,,		5 0
,, ,, ,, 15 ft. . ,,		6 0
,, ,, ,, over 15 ft. . ,,		7 6
"Calorex" sheet 21 oz., and 32 oz. ,,	2 6 and	3 6
,, rough cast ¼" and ½" . ,,	8½ ,,	1 0
Putty, linseed oil . . . lb.		3

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

PAINTER

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

CURRENT PRICES FOR MEASURED WORK

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

EXCAVATOR AND CONCRETOR

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

DRAINLAYER

		4″ s.	4″ d.	6″ s.	6″ d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1	6	2	3
Extra, only for bends	Each	2	8	3	0
,, junctions	,,	3	9	4	6
Gullies and gratings	,,	16	6	18	0
Cast iron drains, and laying and jointing	F.R.	5	9	8	3
Extra, only for bends (cast iron)	Each	12	3	18	4

BRICKLAYER

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

ASPHALTER

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

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

		£	s.	d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2	2	6
Shuttering to sides and soffits of beams	F.S.			7
,, to stanchions	,,			7
,, to staircases	,,		1	6
Fir and fixing in wall plates, lintols, etc.	F.C.		3	9
Fir framed in floors	,,		4	6
,, ,, roofs	,,		6	6
,, ,, trusses	,,		7	6
,, ,, partitions	,,		8	6
¾″ deal sawn boarding and fixing to joists	Sqr.	1	14	6
1″ ,, ,, ,, ,, ,,	,,	1	17	6
1¼″ ,, ,, ,, ,, ,,	,,	2	3	0
1″ × 2″ fir battening for Countess slating	,,		9	6
Do., for 4″ gauge tiling	,,		12	0
Stout feather-edged tilting fillet	F.R.			4½
Patent inodorous felt, 1 ply	Y.S.		2	3
,, ,, ,, 2 ,,	,,		2	9
,, ,, ,, 3 ,,	,,		3	3
Stout herringbone strutting to 9″ joists	F.R.			10½
1″ deal gutter boards and bearers	F.S.		1	2
1¼″ ,, ,, ,, ,, ,,	,,		1	5
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	0½
2″ ,, ,, ,, ,, ,,	,,	1	11½
1½″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ 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
1¼″ deal tongued and moulded window board, on and including deal bearers	F.S.	1	9
1¼″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2	6
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	6 6
Do., stanchions with riveted caps and bases and do.	,,	1	2
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	,,	1	4 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.		11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1	10 0

PLUMBER

		£	s.	d.
Milled lead and labour in flats	cwt.	1	18	0
Do. in flashings	,,		1	6
Do. in covering to turrets	,,	2	7	0
Do. in soakers	,,	1	12	9
Labour to welted edge	F.R.			3½
Open copper nailing	,,			3
Close ,, ,,	,,			3

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

		£	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	7
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	Y.S.		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