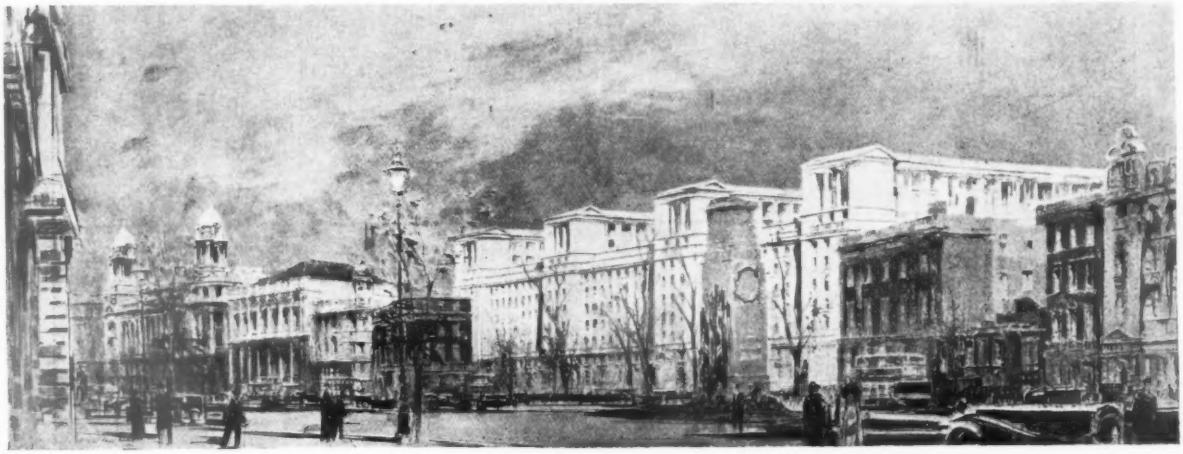
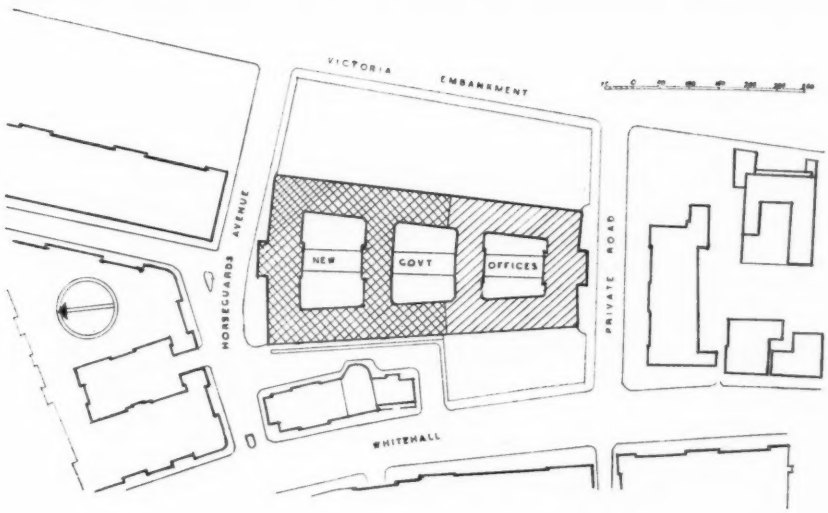
GOVERNMENT BUILDINGS, WHITEHALL

TO BE COMPLETED IN 1946





ABOVE are reproduced a perspective view from Whitehall and a site plan of the new Government buildings to be erected in Whitehall from the designs of Mr. E. Vincent Harris. The cross hatching on the plan indicates the first portion of the building to be erected.

Following are some extracts from the official report :—

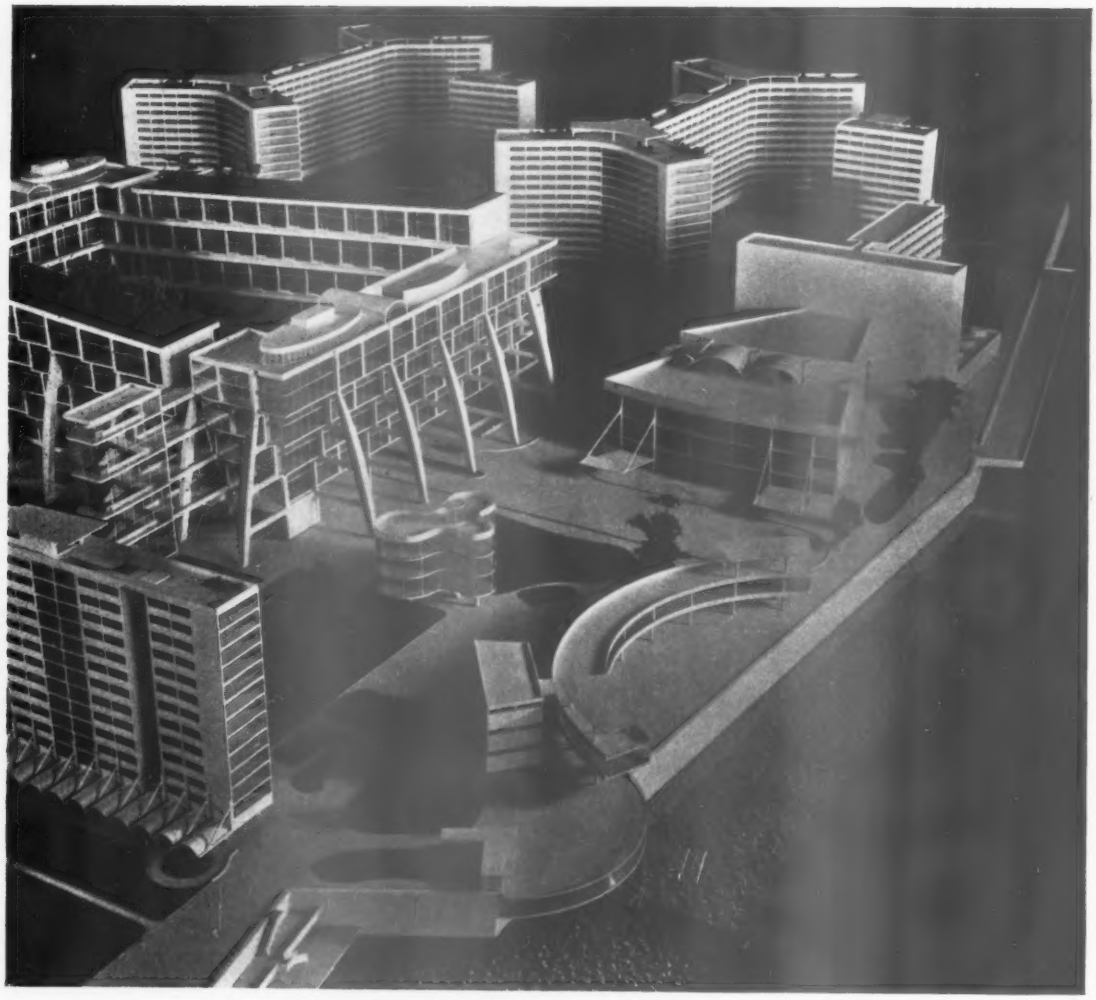
"General.—The Government has decided that it is essential, if ease and efficiency of administration and economy in organization and staff are to be achieved, that the Air Ministry, the Board of Trade, the Ministry of Labour and the Ministry of Transport, whose staffs at present number some 5,250 in all, should be rehoused in compact and modern offices in a central position. The only way in which this can be done is the erection of a new block of Government Offices. It is hoped that this will be large enough to contain these four large departments and possibly a smaller one, but the final allocation of accommodation must depend upon the accommodation problems existing when the building is finished.

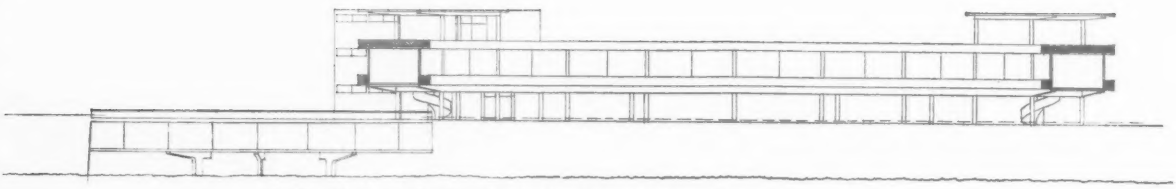
"The Site.—The site chosen for the erection of the new offices comprises Whitehall Gardens and Montagu House. Before the war, the intention of the Government was to erect a block of offices on the Whitehall Gardens part of the site only, Montagu House being then in the personal occupation of the Duke of Buccleuch. During the war, the house was requisitioned for Government offices, and the Crown lease was subsequently bought by the Office of Works. The need for new offices has now grown to such an extent that it is necessary to build over the site of Montagu House as well as that of Whitehall Gardens.

"The Public Offices (Sites) Act, 1912, laid down a building line on the Embankment side of the Whitehall Gardens site roughly continuing the line of Whitehall Court, and this building line has been adopted for the whole of the site. The Embankment front of the offices will be parallel with the Embankment wall, though on the line of the existing buildings of Whitehall Court, and the ground between the building and the Embankment road will eventually be laid out as gardens. On the Whitehall front, the building will be roughly parallel with the main front of the Treasury, but will be set back some distance from the street so that the Banqueting House, the Royal United Services Institution and Gwydyr House will not be affected. On the Horse Guards Avenue front, the new building will be set back, and the roadway widened throughout its length, the minimum width being 76 ft., including pavements. On the Richmond Terrace front a new road will be formed opposite Downing Street, leading from Whitehall to the Embankment. This will be a private road, not a public thoroughfare, and will be used solely for access to the new offices and Richmond Terrace.

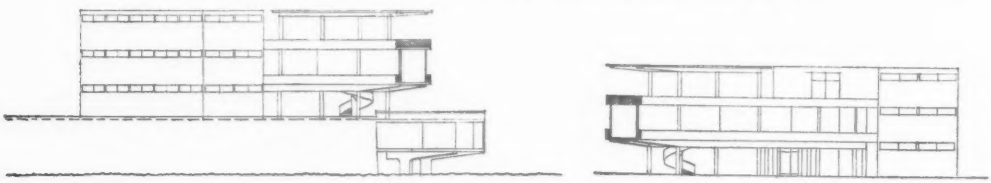
"The Erection of the Building.—The building will be erected in two sections, the first section covering Whitehall Gardens and the second section, which will be started when the first part is finished, extending over the Montagu House site. Provision will be taken in the Estimates for 1936, with the object of starting the demolition of the buildings in Whitehall Gardens during the financial year 1936. The first half of the building should be completed about 1940-41, and the whole building about 1945 or 1946."

Elevations are reproduced on page 500 of this issue.





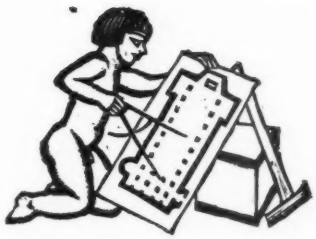
Café : above, main elevation to the river ; below, end elevation and section.



A GARDEN CITY OF THE FUTURE

At the Ideal Home Exhibition, opened at Olympia on Tuesday last, this model of part of a modern garden city, designed by F. R. S. Yorke and Marcel Breuer, is exhibited by the Cement and Concrete Association. In the foreground, on the river front, are gardens, cafés and recreation spaces. On the right is a theatre, and, in the middle a shopping centre, built above the road, with ramped approaches to the shops.

Further illustrations of this scheme are reproduced on pages 477-482.



HOMES AND THE PUBLIC

ANOTHER exhibition of homes is now with us : for the most part truly representative of the houses of the more economically fortunate of the public, but spiced here and there with the flavours of prophecy.

There is a city of the future to prove that architecture is not going to allow authors and film producers to have it all their own way ; and though it is a city in miniature it is none the less enough to stimulate or horrify quite profoundly according to the spectator's convictions. Then there is a timber house, this time to full size and just a little toned down from its uncompromising parent which won a recent competition. And throughout the many homes of England gathered at Olympia there are others whose authors seem yet to struggle with convictions, but, perhaps naturally, they are not the majority.

Many details of the homes there assembled, and indeed many complete houses, are finely done, for this country's habit of good craftsmanship will keep breaking out. It is in convictions that there is something lacking. A conviction which is not widely held, those houses seem to say, is a poor conviction : and we, as houses and good servants of the people, should hold the convictions of the people, and these, alas! are many and not all that they might be.

Grouped together more closely than twelve to an acre, jostling brick with colour-wash and tiles with sunshine casements, the homes of England seem vaguely unhappy about it all, as though they feel that one of the richest, and in many ways the most civilized, of urban democracies should by now have developed some urban convictions that do not sharply call each other's bluff.

But, conscious though they may be of a situation somewhat *infra dig.*, the homes of England look prepared to answer back. A model flat, in the strong position of having an inside unhampered by anything much of an outside susceptible to attack, looks proud of its real labour-saving value. It, at least, is not prepared to be lightly put upon.

Its views are plainly audible : well—what of it? You may not like my fireplace, you may not like those two houses arguing opposite. But what are you going to do about it? I know that there was a better urban conviction in Regency times ; but the long and short of it is that people won't live in terrace houses any longer ; maids don't like the stairs, and people like a bit of room round them. And, what's more, people won't live in houses all alike, whatever you say : they think they look like council houses. And if you tell me that many council schemes are an example to the whole country of how to redevelop town and suburb, I can only say that the public doesn't agree with you. The public wants something a little different and is prepared to pay for it. So that is that.

And indeed it is. That " what of it ? " impoverishes criticism, for criticism should be constructive, and not only international politics but architecture as well is today at a period of crisis. It is a sad time for those with convictions throughout the world.

Germany, whose architects refused for years to allow progress in structure and materials to be hampered by associative ideas, has disconcertingly discovered that concrete, save when used for military purposes, possesses properties subversive of the Third Reich, and that flats and the flat roofs above them are equally suspect.

And Russia, too, is undergoing an odd sea-change. The published designs for the redevelopment of Moscow display clustered columns, chariots and cornices massed in a frenzy of Hellenistic triumphalism. Italy clings closely to the dried classicism and careful modernity of the last ten years ; America passionately rediscovers her Colonial heritage ; and Sweden, helped by the universal good taste of her surprising public, chooses, tries and assimilates the fruits of the whole earth.

Only Holland seems fortunate in having convictions in architecture which the public shares with her architects.

In Britain we have a lot of architectural convictions, but they are mostly amongst architects. The public's views are less cut and dried, save that it doesn't care very much for what it hasn't met often before, and usually disagrees with the views of all architects.

It is in its emphasis of the public's views on architecture that the Ideal Home Exhibition has a great value. There is a legend still quite widely believed that the dreary chaos of the average building development in Britain is the achievement and responsibility of the speculative builder. This is quite untrue.

The average dwelling, flat or house, is laid out and built to suit the taste and pocket of its eventual occupant. Within these limits the British builders have shown themselves able, resourceful and more than ready to be progressive. The only thing they won't do is to lose money by building what the public won't buy. One cannot, in fairness, demand more from them.

The good points of the houses at Olympia are the virtues of the builders, the faults are those of the public. To eradicate those faults will take a long time. The contentment with a mockery of imitation ; the dread of anything approaching uniformity ; the complete blindness to qualities of materials until they have been carved, twisted and broken up into restlessness ; the almost total absence of a sense of colour—all these must be changed before architects and the public share the general architectural conviction which alone can make an age of good architecture.

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

A WITHERED NOSEGAY FOR THE L.C.C.

MONDAY'S annual dinner of the Structural Engineers was a pretty cheerful show, largely as a result of a more than usually outspoken speech by Dr. Faber, who has been tilting at the lethargy of the L.C.C. off and on for some time now.

*

This time he explained exactly how much effort engineers and architects spend in producing revised codes of building practice, and then outlined briefly (with dates) the even greater time taken by the L.C.C. to do exactly nothing with the result. He then suggested that it was unfair to the engineer, the architect, and, of course, the unfortunate client, that there should be a delay of five weeks or so while the necessary permissions to use the various codes were obtained.

*

And his remarks were all the more effective because he produced mere facts without any of the vehement denunciations which many people seem unable to avoid. A very pleasant change from the pat on the back all round that so many presidents produce at this sort of show.

HOUSING

Sir Kingsley Wood was also present and, in a brief speech, told us all about the Government's housing and slum-clearance campaigns.

*

The slum-clearance campaign, he said, was well under way. "The rate of clearance has increased to twenty times what it was some three years ago, and the survey enjoined by the Housing Act, 1935, will soon be completed."

*

Good news, indeed. It is to be hoped, however, that the number of architects employed by the local authorities and others for rehousing will also be increased to twenty times what it was three years ago.

OLYMPIA AGAIN

This year the Ideal Home Exhibition is officially the "City of Beautiful Night," the result being achieved by hanging acres of blue-black velvet inside the whole of Olympia's roof. And it's really all rather impressive, with the black vault and the white brightly lit stands below. Mr. Jeffcott does his job better every year, particularly with the general lay-out and circulations.

*

And the stunts? Mildly amusing, but they left me a little cold. "How the other half lives" is a good enough idea, but it only convinced me that there's not half enough room in a submarine; a fact I'd suspected before.

*

But see the Post Office show, an admirable display of lots of exciting stuff, including TIM, the new talking clock and the Film Unit's *Night Mail*. Another bouquet here for Sir Stephen Tallents, who gave the initial publicity urge to a department of immense possibilities.

THE HIGHLANDS

The recently published *Plan for the Highlands*, in which Mr. Hugh Quigley advocates the setting up of a Highland Development Board, has tended to bring rather sharply to the southerner's notice his own ignorance of that vague romanticism which he has been accustomed to call "The Highlands."

*

Once the usual jokes about the Census returns, Cabinet Ministers and the high road to England are forgotten, the southerner can, if he reads this booklet, see exactly what bad results can be brought about by a luxury industry. Most people have heard, vaguely, of deer forests and even of the hardships suffered by crofters when they were formed. But few have realized that the area covered by the forests is 2½ million acres, with a former economic return in grouse and deer of about 1½d. an acre.

*

While deer forests flourished, of course, quite an army of retainers and dependents at least gained a livelihood as well. But what is their position now—when fewer and fewer people can afford to stalk deer?

*

It is to deal with this position that Mr. Quigley suggests a Highland Development Board which could take up, logically and sensibly, the "reconditioning" of the whole area—an area which, excluding main centres of population and special industries, could probably be purchased outright for the cost of one battleship.

*

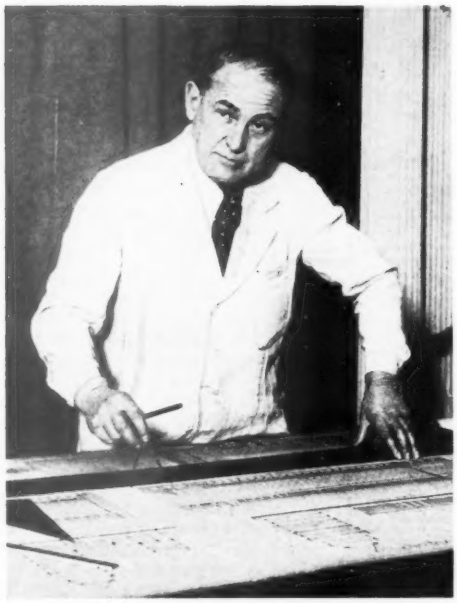
At a time when most people know that a central territorial planning board is bound to come in time, the Highlands would seem to offer a wonderful opportunity for a trial run; with the tourist industry, communications, water power, agriculture and afforestation as its methods. Its *planned* methods.

SCHOOL OF BUILDING

One of the major events of last week was the ceremonial opening of the new buildings at the L.C.C. School of Building at Brixton.

*

There was an exhibition of work, too. The main hall was surrounded, almost fortified, by the works of the old



E. Vincent Harris, architect for the new Government Buildings in Whitehall.

building crafts—plain and fancy brickwork, dead architectural scenery in stone and plaster and wood, and sufficient plumbing in lead and copper and iron to overcome every difficulty due to badly planned fittings.

*

There is an apparently opposed outlook, though, between a School of Building and a School of Architecture. Most architectural students nowadays seem to gain a quick knowledge of the old building trades, as a sort of historical background, and then think almost entirely in terms of steel and reinforced concrete, using brick and stone not in the old craftsmanship ways, but merely as an alternative to a decorative coat of paint.

*

Instead imagine that hall at Brixton with fine examples of reinforced-concrete work down one side and well-designed welded steelwork suitably clothed down the other —probably with some small alcoves where brickwork, masonry and plasterwork, used in a strictly traditional way, would show us some of the historical precedent of construction.

PROFESSOR RICHARDSON

I should like to congratulate Professor A. E. Richardson upon his election as an Associate of the Royal Academy. He is undoubtedly one of the most scholarly of present-day architects and well merits the distinction conferred on him; but, much as I admire his work, I always think of him first as one of the most stimulating of talkers.

*

I remember, just after the war, a Sunday afternoon at his house when a friend of mine was so carried away by his enthusiasm that he decided to abandon commerce for architecture. I don't think Professor Richardson ever knew of this conversion.

WATERLOO BRIDGE

A good deal of interest has been aroused by the piles upon which Waterloo Bridge was built. Each pier, one gathers, stood on 200 to 300 very mixed piles of beech, elm, and even Scotch pine. They are apparently all sorts of shapes, sizes and qualities, and surprise has been expressed that the bridge lasted as long on such foundations.

*

It sounds as though the supervision, in the preliminary stages at least, wasn't quite as thorough as it might have been.

CHECK FOR RADIO

The B.B.C. is casting about for some means or other to find out exactly what the public wants in its radio programmes, and at what times. No satisfactory means has apparently yet been found.

*

This seems to be a case for a reversal of the usual procedure. Why not give the public a respite and spend all the research money in discovering the best available music in every country, in collaborating with learned and other societies in discovering new talkers on new subjects, or on new points of view on old subjects, and so forth.

*

Something of the interest in the talks of a few years ago seems to have been lost. For instance, that Art and Architecture have not appeared in the talks index for some considerable time.

SWEET RACKET

"This is David Mello, the architect," said Plander, introducing a rather priggish young man in the late twenties, with dark eager eyes, a high forehead, and a shock of golliwog hair. "We've walked over from Uffington."

*

"Dear me, why?" asked Lady Wych-Ryssington.

*

Mr. Gloag proceeds to tell you in *Sweet Racket* (Cassell, 7s. 6d.), wherein Mello, the architect, and Oliver Spire, the interior decorator, do for Mr. Gloag what Dartmoor, Dark Horses and Darkest Africa did for Edgar Wallace.

*

It is what the reviewers call a breathless yarn, which reveals Mr. Gloag as a master of the art of the thriller. A master, too, of transatlantic idiom—for the action (and action is the operative word) takes place in the United States. Spire is kidnapped, Mello puts out a gangster (by ju-jitsu); but the charm (to readers of this JOURNAL anyway) lies in the substitution of interior decoration for diamond merchants as the backcloth of the plot.

*

There are, as one might expect, many charming touches. Mello grew a beard and Oliver had to be asked by Everything's-Organized Mester to get the architect to shave it off as the beard interfered with the latest racket.

*

"He'll take a lot of persuading to part with that beard," Oliver sighed; "he'll say its functional or something. You know, 'a face is a site for building a beard on' or 'a beard is a machine for keeping warm in.'"

*

But Mello shaved. He had only grown it because, like so many architects, he could not bear to look at his reflection in the early morning.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

THE NEW ST. GEORGE'S HOSPITAL

The Rebuilding Committee of St. George's Hospital, Hyde Park Corner, is now considering plans for a new and larger building on the same site. The cost will be about £1,000,000. The architect is Mr. Howard Elcock, F.R.I.B.A., of Messrs. Elcock and Sutcliffe.

Rebuilding is expected to begin this year. The plans provide for 500 beds, in place of the existing 334, a pay-bed unit of 50 beds, and accommodation for the medical and nursing staffs.

ARCHITECTS' REGISTRATION COUNCIL

At the last meeting of the Architects' Registration Council of the United Kingdom, Mr. Sydney Tatchell, F.R.I.B.A., was re-elected chairman and Mr. W. H. Ansell, F.R.I.B.A., as vice-chairman.

It was stated during the meeting that, at March 20, 1936, the total number of registrations was 11,845; there had been 617 removals from the register on account of deaths, resignations and other causes, and the total number of applicants rejected was 1,190.

FIGHT FOR RANELAGH

Members of the Ranelagh Club have decided to open a "defence fund" as part of the effort to prevent the sale of a large acreage of the grounds for building.

INDUSTRY AND EDUCATION

The closer the link that existed between industry and technical education the clearer would become the aims of the technical schools and the more efficient would be measures to carry out those aims, said Mr. Oliver Stanley, president of the Board of Education, at the opening, on Friday last, of the extensions to the L.C.C. School of Building, Brixton, S.W.

THE ARCHITECTS' DIARY

Thursday, March 16

IDEAL HOME EXHIBITION. *At Olympia. Until April 18.* 10 *a.m. to* 10 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.1.* "*The Effect of Coarse Aggregate and other Factors in the Properties of Concrete.*" *By H. W. Coultas.* 6.30 *p.m.*

SOCIETY OF ANTIQUARIES, *Burlington House, Piccadilly, W.1.* "*Northern Irish Long Cairns.*" *By E. Evans and O. Davies.* "*Cashtal-yn-Ard, Isle of Man.*" *By Professor H. J. Fleure and G. J. Neely.* 8.30 *p.m.*

GEFFRYE MUSEUM, *Kingsland Road, Shoreditch, E.2.* "*Queen Anne and Georgian Houses and Furniture.*" *By Ingleson C. Goodison.* 7.30 *p.m.*

ROYAL SOCIETY OF PAINTERS IN WATER-COLOURS. *Summer Exhibition. At 5a Pall Mall East, S.W.1.*

Friday, March 27

INSTITUTION OF STRUCTURAL ENGINEERS. *Midland Counties Branch. At the James Watt Memorial Institute, Birmingham.* "*The Effect of Coarse Aggregate and other Factors in the Properties of Concrete.*" *By H. W. Coultas.* 6 *p.m.*

ROYAL SANITARY INSTITUTE. *At the Town Hall, Birkenhead.* "*Snags in Housing Schemes.*" *By B. Robinson.* 4.30 *p.m.*

Saturday, March 28

ST. PAUL'S ECCLESIOLOGICAL SOCIETY. *Visit to Hampton Court Palace.* 2.30 *p.m.*

INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS. *Visit to Fishmongers' Hall, E.C.*

Tuesday, March 31

INTERNATIONAL TIMBER CONFERENCE. *Until April 3. Opening session at the London Chamber of Commerce, Cannon Street, E.C. Also, Banquet in the Carpenters' Hall.*

SOUTH-EASTERN SOCIETY OF ARCHITECTS. *At 1 Eldridge Road, Croydon.* "*Modern Architecture and the Craftsman.*" *By G. Grey Wornum.* 8 *p.m.*

Wednesday, April 1

INTERNATIONAL TIMBER CONFERENCE. *Visit to the Forest Products Research Laboratory, Princes Risborough.*

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, E.C.2.* "*The Fitment and Decoration of Ships.*" *By John de La Vallette.* 8 *p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. *At the London School of Hygiene and Tropical Medicine, Gower Street, S.W.1.* "*Some Miscellaneous Test Results.*" *By A. C. Pallot and E. H. Nash.* 7 *p.m.*

ELECTRICITY

The annual luncheon of the Electrical Development Association was held at the Savoy Hotel, London, on March 20, under the chairmanship of Lord Falmouth, president of the association.

Sir Harry Britain said that today this country led the world in the development of the basic household uses, such as cooking and heating. Last year more than 200,000 electric cookers went on to the electricity supply mains in Great Britain, an increase greater than that for the whole of Europe combined. In the past few years 500,000 more consumers had been added each year; by the end of this year there would be 1,000,000 new consumers; and at the end of 1937 80 per cent. of the houses in Great Britain would enjoy the possible service of electricity.

EXHIBITION AT THE BUILDING CENTRE

On Monday next, March 30, Professor Walter Gropius will open, at the Building Centre, 158 New Bond Street, W.1, an exhibition entitled "Architects in the Making," organized by the Liverpool School of Architecture.

The exhibition will remain open until April 11.

ST. PAUL'S CATHEDRAL

Monuments such as St. Paul's Cathedral, erected with an imagination and a sense of responsibility, were the emotional centres of a nation, said Mr. W. Godfrey Allen, in a lecture entitled "Some Recent Investigations at St. Paul's," at a meeting of the Royal Society of Arts last week. To veil or hide them was to destroy national dignity and civic pride. Today we found ourselves constantly threatened with the loss of the uninterrupted view of our great historic buildings.

The future, he continued, was perhaps not without hope, for the City authorities were discussing proposals for putting into effect their town planning powers, and he understood very close consideration was being given to the question of preserving the views of St. Paul's.

R. I. B. A.

EDUCATION

Following are some extracts from a paper entitled "Architectural Education," read by Mr. W. H. Ansell, F.R.I.B.A., at a general meeting of the R.I.B.A. on Monday last.

THE culmination of the concern of the R.I.B.A. with architectural education came with the Conference of 1924. This was a genuine conference. Papers were read and speeches made by delegates from all over the world.

There is no need to stress here the influence on architectural education of the great French school, L'Ecole Nationale Superieure des Beaux-Arts in Paris. It is the progenitor of collegiate systems of training all over the world.

America organized her architectural education on a system inspired by the French School; her first Collegiate School was formed as long ago as 1865.

The convenience of ready-made programmes and the value of the judgments upon the finished designs—for the Beaux-Arts Institute not only sets the programmes, but judges the results—has resulted in the majority of American Collegiate schools making the Institute competitions an integral part of their curriculum.

It is certain that the tremendous development of civic life in America in the years before and after the turn of the century would have found the American architects ill-prepared for the opportunities it provided, had it not been for the Beaux-Arts trained men. They, by reason of that training, were fully capable of tackling the big, new problems in a big imaginative way.

The English system, it will not surprise you to hear, was something of a compromise. It began with the provision in various institutions, such as schools of art and technical colleges, of design and construction classes in the evening for the benefit of those already working in offices in the daytime.

In 1902 both the Architectural Association and the Liverpool School had so developed their full-time three-year courses that they received the exemption of the R.I.B.A. from the Intermediate examination. It was not

until 1920, owing of course to the war, that the same two schools with five-year courses qualified for the exemption from the R.I.B.A. final examination, which carried with it the Associateship of the Institute.

The three- and five-year system of courses continues at the present day, and in the United Kingdom there are now 20 schools, providing both three-year and five-year courses, and eight providing three-year courses only.

The English system drew inspiration from both France and America. It may have suffered a little from inexperience, but in no way from lack of enthusiasm, and I cannot refrain here from acknowledging the debt which architectural education owes to those two great leaders, Robert Atkinson and Charles Reilly. Atkinson's visit to America in 1919, combined with his previous knowledge of the Beaux-Arts, resulted in valuable modifications of English procedure, which, nevertheless, developed on national lines, and in a few years was in no way inferior to the American.

The one thing now common to all is the importance of "design"—as a subject, the "problem" method, involving a carefully thought-out programme and demanding from the student a preliminary sketch and a more or less fully worked out scheme, being universally followed.

Much the largest part of the student's time is taken up by these exercises. His powers of thinking and of doing are developed together. The accumulated experience of all the schools has but served to confirm the belief that this system, combined with judicious lecture courses, and with the study of existing buildings old and new, is still the best method of architectural education that has yet been evolved.

Nothing is static, however, least of all a system of architectural education.

Today there is a great increase in the number of official architects, and in the amount of work done by those in salaried positions.

Government departments, county and town councils, great commercial combines, banks, breweries, are setting up architectural departments of their own, which are undoubtedly taking and doing work which formerly came to the private practitioner.

In my opinion this state of things is likely to grow. Are we, then, to train some men as specialists for official positions? I hope not. Yet it is certain that many of the men in our schools must inevitably become official architects as the number of these increases, and as improving conditions of employment tempt the best men into that branch of the profession.

The public, as a client, is of right entitled to demand that the quality of its buildings shall in every way be of the finest standard obtainable. This can be ensured if the ranks of salaried and official architects are replenished only by highly trained and qualified men.

Education in architecture must concern itself with the imparting of facts as to materials, constructional principles and practice, the cultivation of the power of judgment of the student by the study of buildings, old and new, and the development of his powers of planning and designing buildings.

I suggest that a general scheme of education such as I have outlined, having trained a man in planning and in building science, having also created in his mind by the analysis of good buildings, large and small, old and new, a standard by which he will inevitably judge his own work, having given him scholarship and a full rather than an empty mind, must leave to him the ultimate expression in his buildings of his conception of architectural values. We, in short, of one generation have no right to impose upon sincere and conscientious younger men our preferences as to the way to build, but teachers must, nevertheless, inculcate and foster in the students that sturdy personal discipline that will discriminate between a fine team co-operation in the approach to architectural design and the mere running with the herd.

COMPETITION NEWS

ELEMENTARY SCHOOLS, FOLKESTONE

THE CONDITIONS REVIEWED

Scheme : Proposed Public Elementary Schools, to be called Harcourt Schools, at Surrenden Road, Folkestone.
Sending-in Day : May 1, 1936.
Competitors' Questions : March 31, 1936.
Promoters : The Corporation of Folkestone.
Assessor : Mr. Verner O. Rees, F.R.I.B.A.
Expenditure Contemplated : £25,000.
Premiums : £200, £125 and £75.

ONE of the most interesting points about this competition is that it is the second of its kind within a fortnight. Hitherto the design of schools for local education authorities has been almost entirely carried out by the salaried architects employed by those various authorities. Now, in the case of two of them, any architect is enabled to prove, if he can, that such a system has not been entirely a good one.

That one feels there is room for improvement is no condemnation of education architects in general. Their difficulties are many and the work that some of them have done is excellent. But their committees are always with them, and committees are conservative things. The fact that a particular committee has known its architect for a long time is hampering to start with : they are the less likely to think him a genius, or to look with favour on any radical change in planning which he may suggest. So the mixture has usually been as before.

A few competitions for State-aided schools, therefore, should do a world of good to everyone. Competitors can try out their theories, promoters will have a much wider range of ideas to think about, and, if the new ideas prove sound, energetic education architects will be able to bring pressure on their committees as never before.

In setting about this competition, as well as its companion at Luton, architects should bear in mind one or two developments in educational policy since the war. The first is that the "book-learnt and teacher-taught" conception of education has gone. Education now aims at guiding the child in its education of itself, an

The Folkestone Competition : site plan.

education in which practice is as important as theory, and developing the child's perceptions more important than either. In fact, Mr. Squeers with his "W—I—N—D—E—R, winder; now go and clean it," seems to be nearer the truth than Dickens ever thought.

The implications for the architect are immediate and important. They mean that health, with its accompanying fresh air, and contact with flowers and trees, is the equal of irregular verbs; that the laboratories, craft rooms and cookery schools are no longer refuges for the obtuse, but training grounds for all; and that libraries and assembly halls should be equipped for use as they would be used by adults—for reading widely, for plays, concerts and debates. These things are worth pondering.

A cursory study of modern school plans abroad would seem to emphasize two other points which the architect should not miss. They emphasize that compact and close circulation in school buildings is not a very vital point (for each class has its own supervision); that each room should not be occupied *all the time* if this is avoidable; and that in or near towns, where natural surroundings are scarce, every effort should be made by means of window boxes, lawns, trees and shrubs and outdoor classes to bring children into close contact with them. To reconcile these requirements with cheap cost is the most urgent task in modern school planning.

The second point is the design and colour of surroundings. It would seem obvious that unless children are trained to appreciate good design and colour when they are children, they are never likely to develop such an appreciation afterwards. It is equally obvious that the value of having everything within a school well and simply designed and well coloured cannot be over-estimated—an attitude of mind which is being finely developed abroad, but not yet to any noticeable extent in Britain.

The reasons for this grave defect in our schools may be many and valid, but that is no reason for its continuing. Education committees may have already far too little money for their needs, and may hold up their hands in horror at the thought of the cost involved by fine architecture, assisted by sculptors, painters and craftsmen. Fine architecture, in the imaginations of local education committees is apt to be a vista of marble columns and brazen doors. Or is it possible that the majority of education committee members, having been brought up in pre-war schools, are not themselves susceptible to good design in anything, far less to good colour?

Such speculations are unprofitable save in the hope of future changes in the surroundings of the school child, and this competition provides architects with an opportunity.

The conditions generally are simple and clearly expressed, the preliminary clauses being those normally present in competitions approved by the R.I.B.A., but the fees are to include for attendance on the Council and at any local enquiries, and for the preparation of any reports needed.

THE SITE

The site (shown on the accompanying plan) is almost entirely screened from roads by surrounding houses and gardens, and is divided into two halves. The southern and slightly lower half, forming roughly an oblong measuring 450 ft. by 400 ft., is that available for the new buildings. The northern portion will be laid out as playing fields, and forms no part of the competition.

The site is concave along its greater dimension, the valley being occupied by a stream which is to be piped and covered, and by a sewer roughly seven feet below ground level. Competitors may divert the stream (but presumably only to a moderate extent) and should show its desired line on their plans. The cost of this work will not form part of competitors' estimates. The 24 in. sewer apparently is to be left in peace. A small portion of the site is made ground dating from 1919.

The site will be approached from Harcourt Road on the west and from Surrenden Road on the east.

PLAN

Economy in planning, construction and upkeep are recommended for careful consideration, open corridors are not desired, and good cross-ventilation must be provided in all rooms used by children. A good deal of cupboard and storage accommodation is requested, which must be covered by competitors' estimates. The regulations of the Board of Education should be adhered to.

ELEVATIONS

Simple and efficient, relying for architectural effect on good massing and proportion.

ACCOMMODATION

The accommodation required falls into two groups; that for 300 senior girls and that for 350 infants and juniors of both sexes.

SCHEDULES

(i) Senior Girls:

	Sup. ft.
5 Classrooms .. .. (each)	520
5 Special Rooms (Science, etc.)	4,110
2 Staff Rooms	640
Library and Medical Inspection	440
Hall (equipped with proscenium)	2,100

With stores, lavatories and cycle sheds.

(ii) Infants and Juniors:

	Sup. ft.
8 Classrooms	4,200
Staff	600
Medical Inspection ..	180
Hall	1,500

Stores, lavatories, etc.

There is a little ambiguity present in the schedules e.g., 2 Domestic Economy Rooms each for 20 . . . 750 sup. ft. Presumably this means that *each* room is to have an area of 750 square feet, but the fact might be stated. Secondly: "Additional access should be provided at the platform end of the Assembly Halls, which should preferably open on to a classroom or main corridor." Does this mean *the platform end* or that the *Assembly Hall* (*main entrance*) should open on to a classroom or main corridor? In any case opening an assembly hall on to a classroom is thoroughly bad practice and was condemned in the Board of Education's Regulations as long ago as 1914.

DRAWINGS REQUIRED

(i) Block plan showing lay-out of approaches, playgrounds, etc., to scale of plan supplied, 40 ft. to one inch.

(ii) Ground plan and first-floor plan (if any) to sixteenth scale.

(iii) Elevations and sufficient sections to sixteenth scale.

All drawings to be in pencil or ink on white paper mounted on uniform cards, 31 in. by 23 in., walls and sections blacked in, and areas and heights of rooms shown. No rendering save an optional yellow wash on the ground floor plan may be used.

The usual report and cubing calculations are to be submitted.

Conditions are obtainable from Mr. C. F. Nicholson, Clerk to the Council, 11 Church Street, Folkestone. Deposit, one guinea.

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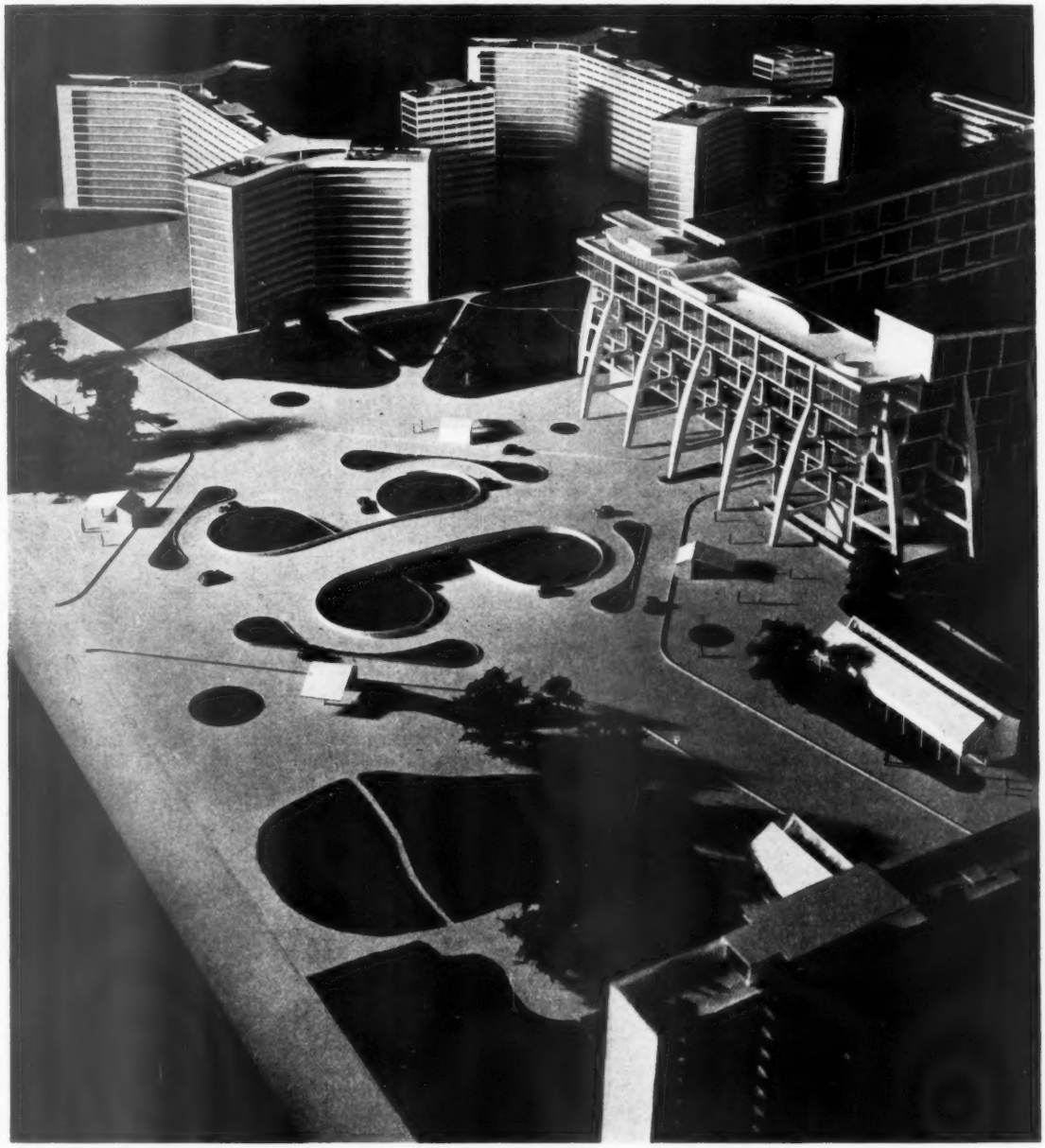
Municipal Buildings, Barking

The Barking Corporation invites architects practising in the United Kingdom to submit designs for the proposed new town hall and municipal buildings at a cost not exceeding £160,000. The Assessor is Mr. H. V. Lanchester, F.R.I.B.A.; and the following premiums are offered: £500, £250; and £200 for distribution as recommended by the assessor.

The last day for questions is May 1, 1936; and the last day for submission of designs is September 14, 1936.

The conditions and particulars of the competition can be obtained upon application to Mr. S. A. Jewers, Town Clerk, Town Hall, Barking. Deposit £2 2s.

A GARDEN CITY OF THE FUTURE



Model executed by Twinings

DESIGNED BY F. R. S. YORKE AND MARCEL BREUER

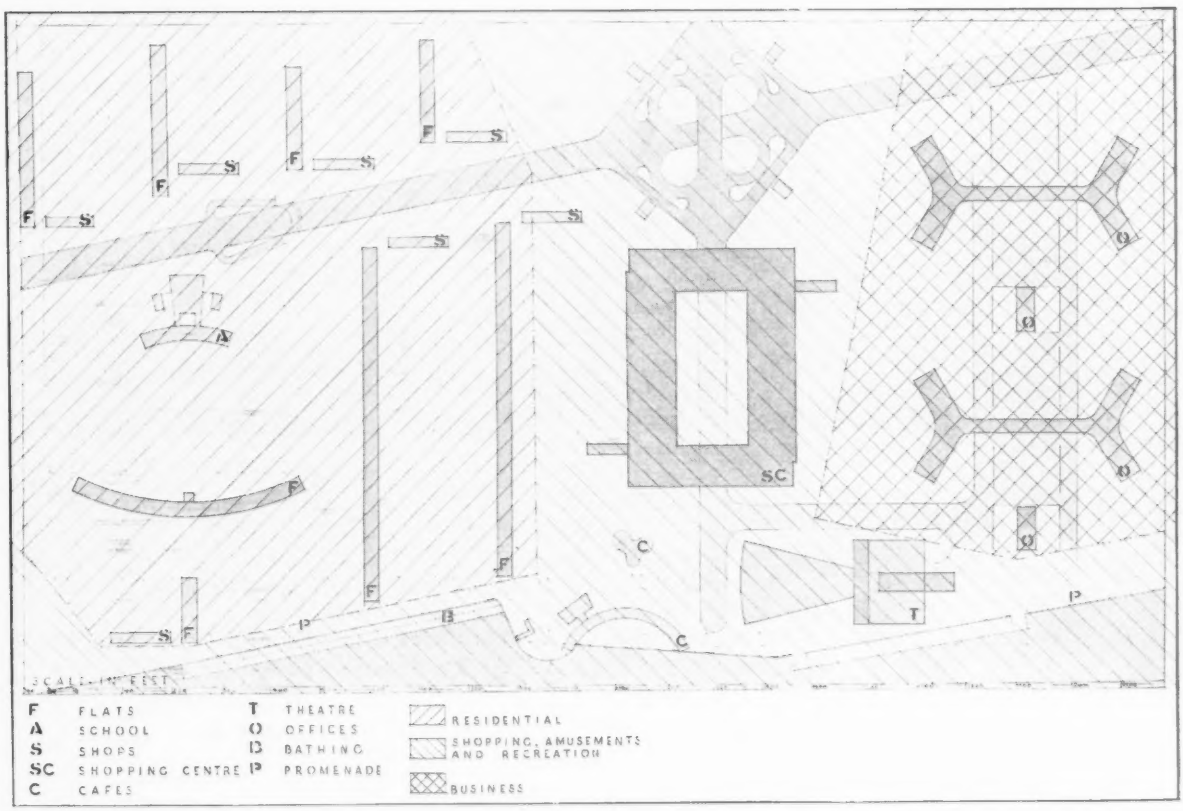
PROBLEM.—*The architects were invited by the Cement and Concrete Association to make drawings for a model of a modern city, on a flat unobstructed site, with a river or sea to the south. The size of the base of the model to be 9 ft. 6 ins. by 5 ft. 6 ins., and the scale of the model to be 1-20th in. to one foot.*

The dimensions and scale give a frontage of 2,300 feet (nearly half a mile), and a depth of about a quarter of a mile. It was therefore necessary to take a part only of the centre of a city, and in this to show where and how concrete provides the solution to a number of modern problems.

The photograph shows a view of the main road, with under and over traffic crossings, flats in the foreground, shopping centre beyond, and offices in the distance.

A GARDEN CITY OF THE FUTURE: BY

Flats and school, "A" on plan reproduced below.



Diagrammatic plan showing main divisions of the various functions of the town.

F. R. S. YORKE AND MARCEL BREUER

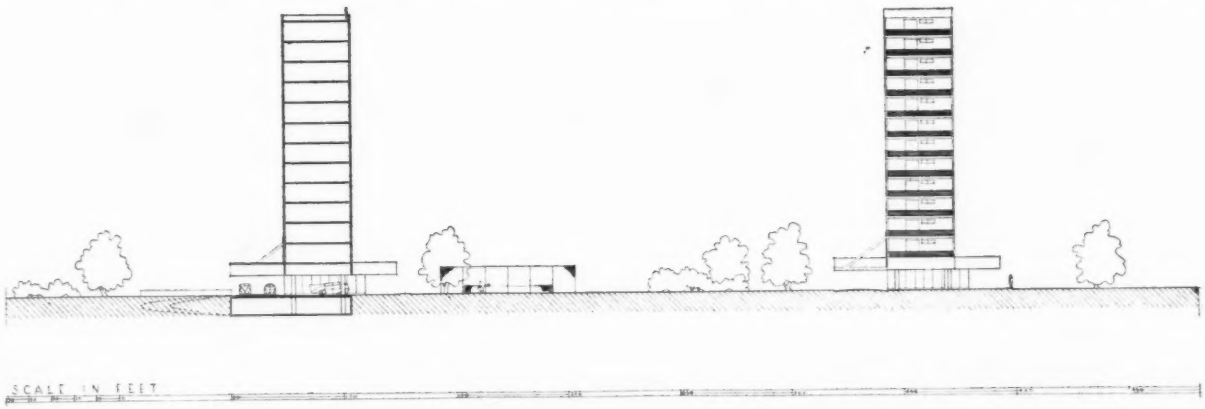


DIAGRAM SHOWING SPACING OF BLOCKS OF FLATS

SOLUTION.—*The architects wished first to demonstrate the inter-relation of the several parts of the town—residential, shopping, recreation, commercial, etc., and to do this within the limits of the space of the model it was necessary to compress the "west end," shops, theatre and amusement centre; so that the model gives an impression of a principle, rather than an exact arrangement for this particular part. The "west end" is made to run from the water front, northwards, and beyond the traffic centre at the extreme north of the model it would spread a little, fan-wise.*

This arrangement enables the beginning of the residential quarter, on the west, and the beginning of the governmental or commercial quarter, on the east, to be shown in the relatively confined space of the model. Dwellings would extend westwards towards open country, where there would be a group of lower flat buildings, and some individual houses. The commercial quarter would extend eastwards to docks and factories. It is, of course, impossible to show here the many buildings such as factories, museums, technical centres, and aerodromes that are part of modern urban areas.

In this project for a new city, an attempt is made :—

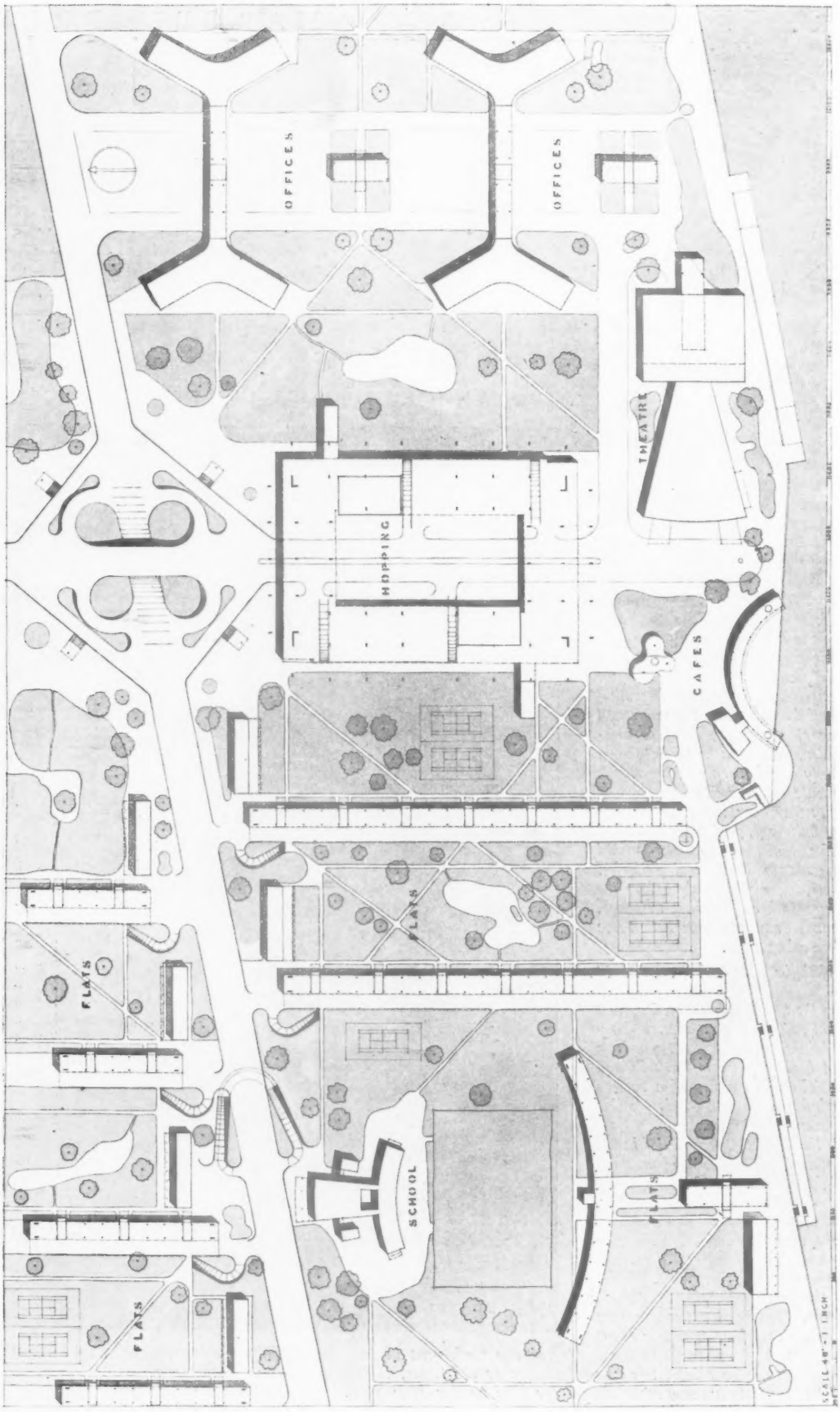
1: To free the town from congestion, and to let sunlight and clean air penetrate freely between buildings, so that the town is a pleasant and healthy place to work in and to live in. Through the use of a modern material—reinforced concrete—it is possible to plan and construct with freedom.

Those who live in this city are housed in tall buildings, spaced at sufficient distance to allow sunlight to penetrate between them, so that the dwellings are in a garden, with rooms that have sun from the east and from the west, and an extensive view into open space. The flats that are planned with gallery-approaches face south. The majority of the flats have their own private terrace gardens. In the new town, a man can spend, in the open air, at rest or sport, the hours he must at present waste in travel to or from his work. To achieve this new freedom, it is essential to use new materials and new structural systems in the light of present-day needs—not in imitation of old buildings or old towns, to provide nothing better than another New York.

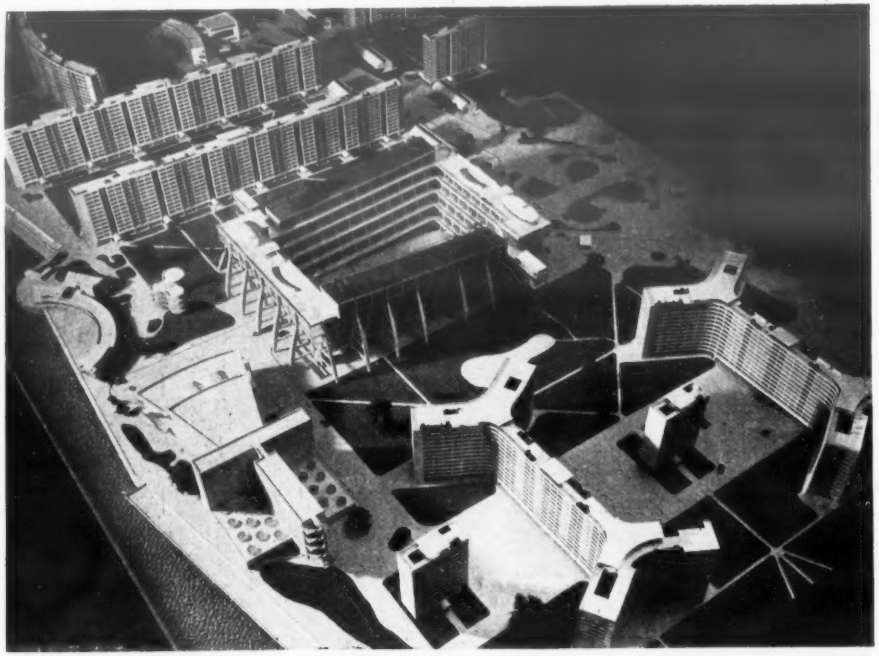
2: To define clearly, and to make possible exact organization of the various functions of the town.

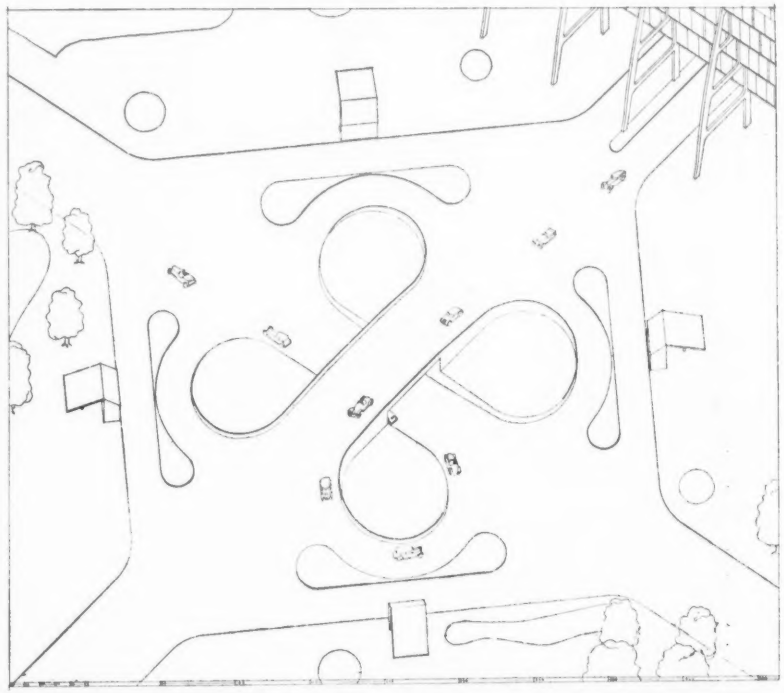
The photograph shows a view from west to east along the main road.

A GARDEN CITY OF THE FUTURE



Lay-out plan of part of the centre of the city on a half-mile frontage.





SOLUTION (*cont.*)

3: To provide a free traffic system, with traffic ways at a distance from buildings, so that the buildings are in park land, with minor traffic approaches to connect them with the main roads. Traffic congestion is avoided by making under-and-over crossings, so that it is possible, when beginning on the left, to drive only on the left-hand side of the road. At intervals, between the main traffic crossings, secondary subways are provided, to enable cars to double back, without holding up fast traffic on the road. In this way no limit is imposed upon speed, but safety is assured, particularly for pedestrians, because paths for walking are separate from car traffic. All trains are below ground.

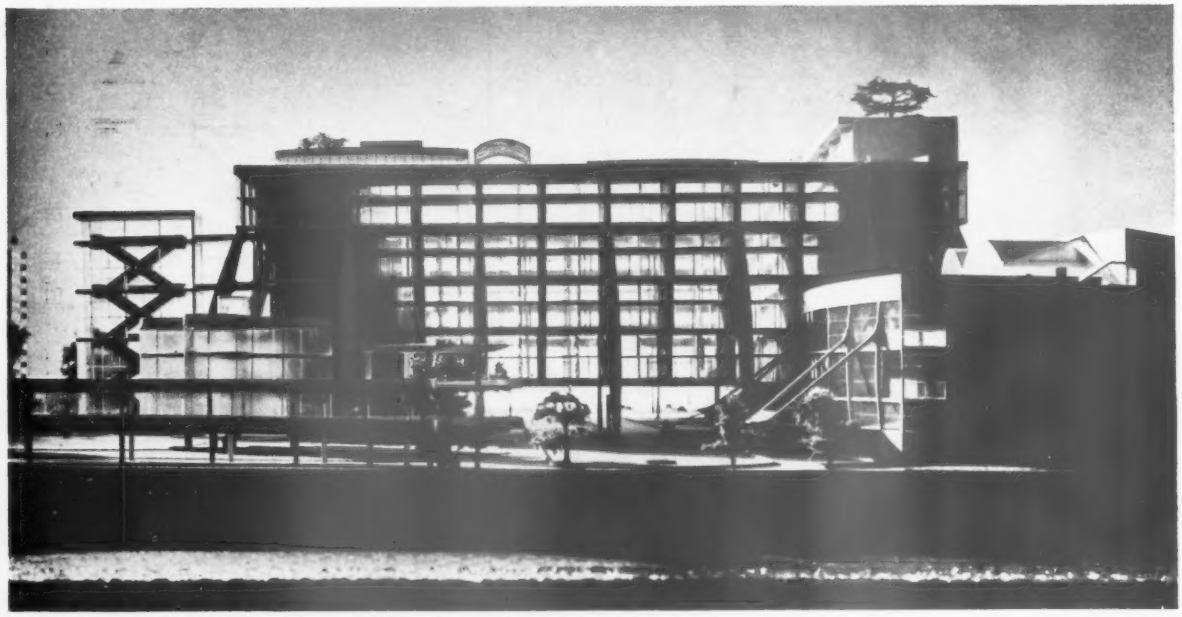
PARKING.—*The blocks of flats are carried on columns, so the ground space under them is free. Cars are parked on the ground under the flats and are garaged in underground garages, approached by concrete ramps. Secondary roads give access to the flats and offices. Projecting canopies avoid road noises in the rooms above. All garages are below ground, and under this shopping centre is a garage provided for repairs, etc.*

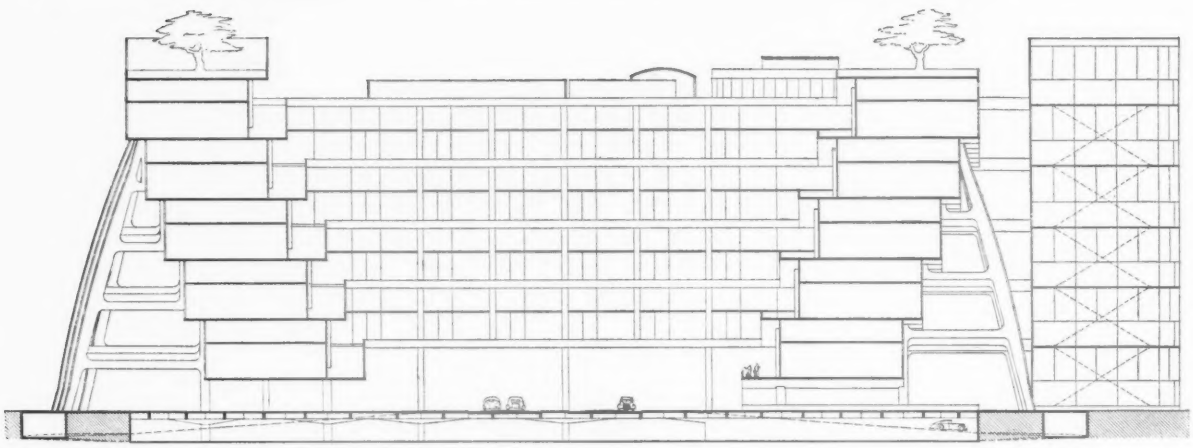
WATERSIDE.—*The continuous promenade and parkland on the north side of the river is free from traffic routes, and is reserved for pleasure and sport. It is directly connected with the "west end," and it has theatre, cafés, and swimming accommodation, and to the west more cafés, sports grounds, etc.*

The illustrations show : above, a general view near the city centre ; right, flats. Above, right, a drawing of the under and over traffic crossing.

DESIGNED BY F. R. S. YORKE AND MARCEL BREUER

A GARDEN CITY OF THE FUTURE





Cross Section of Shopping Centre and Underground Garage

DESIGNED BY

F. R. S. YORKE

AND

MARCEL BREUER

SHOPPING.—*The shopping centre, which is limited here in size, gives many shops in one large building with continuous ramped approaches, so that the act of shopping and window gazing is generally as at present, but raised above and segregated from traffic, and the shopper is safe from traffic danger and noise, whilst being still in the open air. Escalators provide speedy access to all floors. There are garden cafés on the roofs of the building. This system is supplementary to stores (to north, not shown) and to smaller shops for everyday requirements that are built in close proximity to the flats ("S" on plan on p. 478).*

SCHOOLS.—*Schools are planned, with sports grounds, centrally in groups of dwellings. A typical instance is illustrated in the model. Children use subways when crossing the road.*

AERODROMES.—*The aerodrome (not shown) to the north, is connected with the town by non-stop underground trains.*

OFFICES.—*The offices—and the factories—like the flats, have air and light and unobstructed outlook, because it is here that a man spends a large proportion of his waking hours.*

The photograph shows the shopping centre with escalator, cafés on the left and theatre on the right.

SCHOOL OF GEOGRAPHY, CAMBRIDGE

DESIGNED BY

STANLEY HALL

AND

EASTON

AND

ROBERTSON

GENERAL PROBLEM.—*To extend the former Forestry School to provide adequate accommodation for the Department of Geography. It was desired to retain the old Forestry building, which had recently been taken over by the School of Geography for its present purpose, with minor alterations to some of the rooms; and in the new building mainly to provide additional accommodation for lecture rooms, library, map-and-reading room and laboratory. A flat roof with observation pillars was required for astronomical use, with accommodation for an observatory. It was also desired to use the roof over the observatory and install there an anemometer instrument and observation pillar.*

SITE.—*In the "Museums" area, off Downing Street. The site is somewhat restricted to the south by the boundary wall of Downing College and on the west by the Low Temperature Station.*

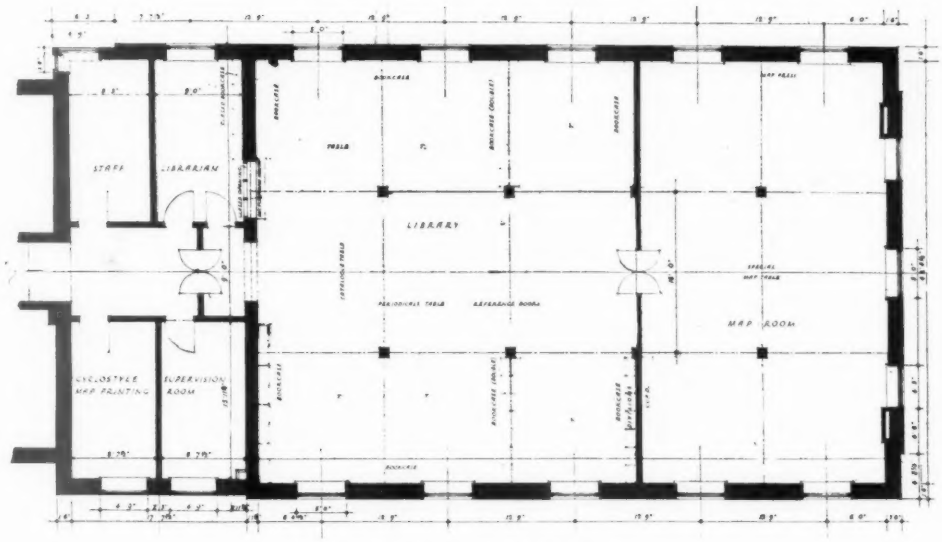
CONSTRUCTION.—*Weight-bearing brick walls are used to comply with the local bye-laws for public buildings. The school is, however, semi-steel framed to facilitate the construction of the large spans to the upper floors. Internal partitions are chiefly 4½ ins. brick and in a few cases 3 ins. hollow-tile blocks. The upper floors and roofs are hollow tile, the roofs being insulated with cork.*

ELEVATIONAL TREATMENT.—*Sand-faced bricks with red bricks for the dressings and arches, and Bath stone for the string courses, keystones and copings. It was decided to make the new school harmonize as far as possible with the existing Forestry building and similar materials were used, an exception being made by substituting Bath stone for the dressings instead of the Clipsham stone used on the old building. This was done on account of cost. The windows are metal casements, painted a light cream, fixed in teak frames, painted a warmer cream. Over the first floor windows in the north elevation the lintols are faced with lead panels, enriched with astronomical symbols.*

The photographs show: above, the north front; left, a detail view of the west elevation.

SCHOOL OF GEOGRAPHY, CAMBRIDGE: BY STANLEY

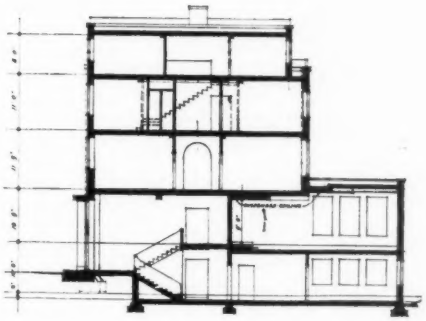
HALL AND EASTON AND ROBERTSON

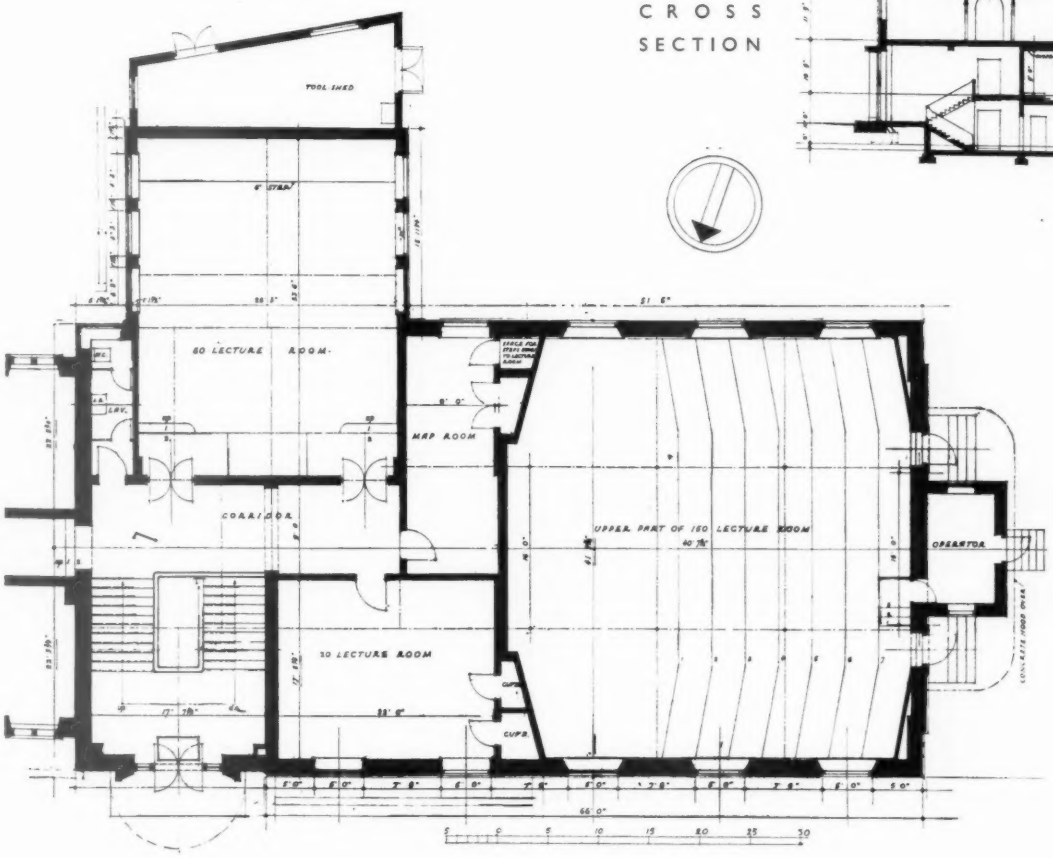


FIRST FLOOR PLAN

The photograph on the facing page is of the main entrance. The doors are of oak, with the name of the School cut in incised gilded lettering on the transome. Splayed and panelled stone jambs contain the signs of the zodiac, carved in symbolic form with a low sinking and gilded. The reinforced concrete canopy is faced with lead, enriched with gilded symbols typifying the studies carried on in the School.

CROSS SECTION

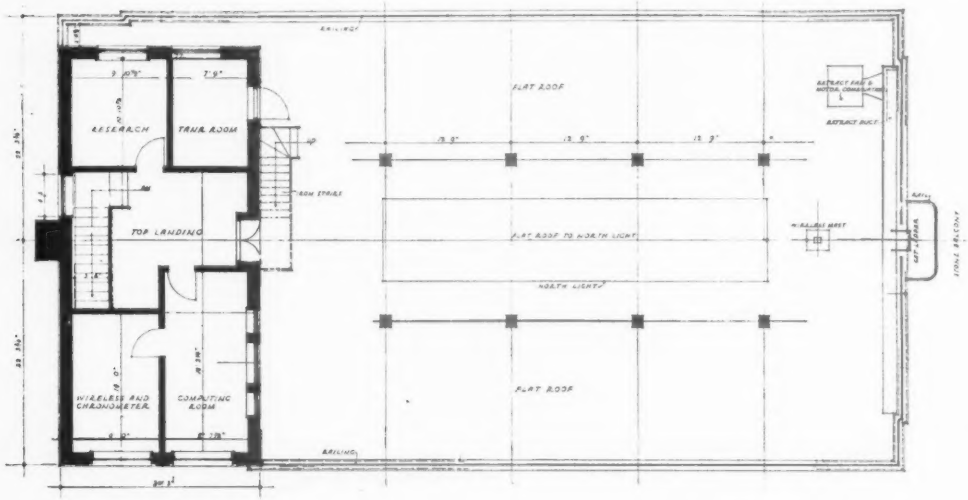




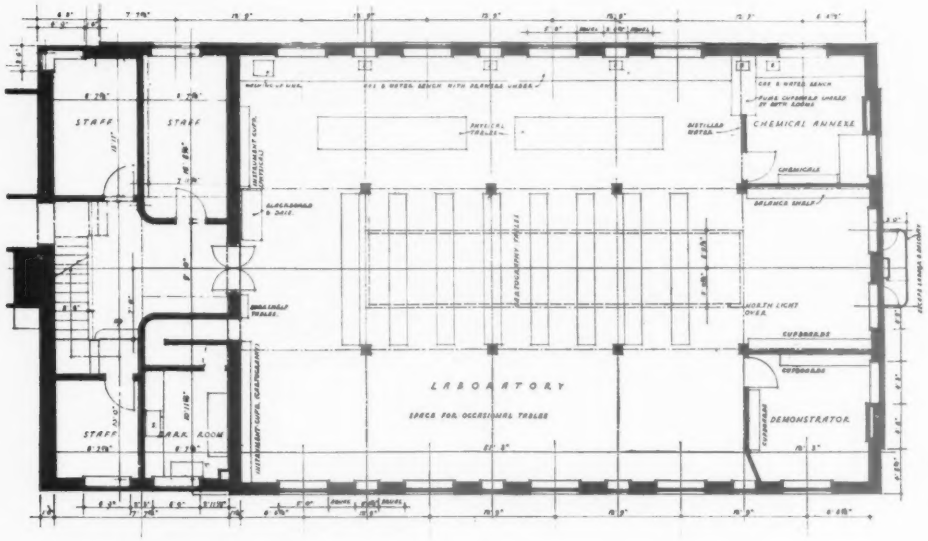
GROUND FLOOR PLAN

D

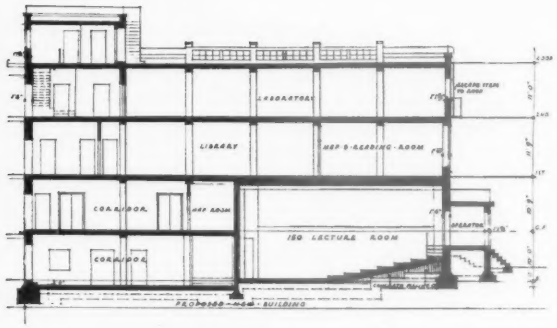
SCHOOL OF GEOGRAPHY, CAMBRIDGE: BY STANLEY



THIRD FLOOR PLAN



SECOND FLOOR PLAN



LONGITUDINAL SECTION

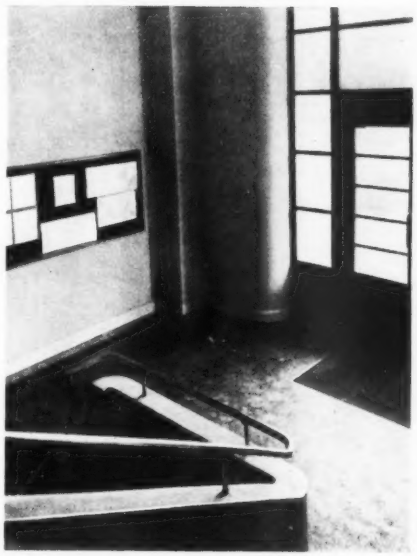
PLAN.—*The building consists of basement, ground, first and second floors, with a third floor over the east end, containing the observatory, tank room, etc. The main entrance, with its staircase, leads to the basement and to the ground floor only, as it was desired to maintain the staircase in the old building for access to the upper floors. In the basement are a lecture room, with seating for 150 persons and with a projection room attached; the Geodesy room; printing and dark rooms; instrument room; and men's lavatory and cloaks. Lavatory accommodation for women is in the old building. Two more lecture rooms, for 60 and 20 persons respectively, are provided on the ground floor. Wireless masts are erected at the east end of the observatory roof and at the west end of the main roof, giving an aerial over 70 ft. long.*

HALL AND EASTON AND ROBERTSON

INTERNAL FINISHES.—*In the lecture rooms acoustical absorption has been obtained by the use of sprayed asbestos on the ceilings and by covering the back walls with felt. The felt is stretched on wood frames and covered with rep of a deep blue colour. The ceilings of the staircase landings are treated with ½ in. sprayed asbestos in the basement and on the ground, first and second floors, to give quiet conditions and to reduce the amount of noise caused by traffic up and down the staircases. In the lecture hall in the basement sprayed asbestos ¾ in. thick was applied to the back wall and ½ in. thick on the centre ceiling panels and in the window recess. In addition, a thin skim of sprayed asbestos was applied to the centre heating panel. In the larger lecture hall on the ground floor sprayed asbestos ½ in. thick was applied to the ceiling.*

Linoleum, laid on cork, covers the floors of the corridors, library and map room on the first floor. The large lecture room in the basement has an oak wood block floor on the low level, and oak strip flooring on the stepped part of the room. An oak wood block floor is also laid in the laboratory on the second floor. The floor of the entrance vestibule and the stairs from basement to ground floor level are covered with rubber. To avoid marking by cleaners, etc., the lavatory and cloaks have buff quarry tile floors and white wall tiles taken to a height of 5 ft. 6 ins.

The internal joinery work, including the two-panel doors used throughout the building, is in deal, painted a light cream. Where indicating names are required on the doors, synthetic ivory letters, coloured blue, have been applied.



The photographs show : Above, the larger of the two lecture rooms, seating 60 persons, on the ground floor ; bottom, left, a corner of the entrance hall : right, looking from the library through the folding doors into the map room.

SCHOOL OF GEOGRAPHY, CAMBRIDGE

DESIGNED BY STANLEY HALL AND EASTON AND ROBERTSON

FITTINGS.—*The library bookcases and the map-room fittings are in waxed oak, cream synthetic ivory letters being used for labelling the various sections of the bookcases. The blackboard framings in the basement lecture room, and in the larger of the two lecture rooms on the ground floor are of oak, the screens for the lanterns being formed with a laminated board behind the blackboards. In the remainder of the building the fittings are of Columbian pine, stained to a dark tone and wax polished.*

The photographs show . above, the library looking towards the map room ; left, the back wall of the larger lecture room on the ground floor, showing the acoustical covering of felt.

For list of general and sub-contractors see page 500.

25 TOWN HALLS

The Architects' Journal Library o Planning

Municipal Offices (Cont.)

THE COUNCIL SUITE

Artificial Lighting

SPECIAL precautions must be taken when fixing the positions of artificial lighting points, in order that they should not cause annoyance to a member who is speaking. A good even flood of light from an arrangement of pendant points high up in the ceiling or, where a top light is used, from a system of indirect lighting concealed behind lay lights seems the best solution. Concentrated top lighting just over the councillors' and the mayor's dais, with local lighting for the press table, has been used in large rooms, but the result seems to be dramatic and confusing. A good rule to use for such lighting is to keep the lights either very high or very low. Some architects like to control the lights in the chamber by dimmer switches, so that as daylight passes the artificial light can be increased.

The Mayor's Dais

The mayor's dais and table must have a commanding position. In a council chamber where there are a considerable number of tiers the dais can be on much the same level as the lowest floor. In small chambers the dais should be raised up until it has a dominating position. The mayor, deputy mayor and town clerk share the same table, which should be of adequate size and able to accommodate the collection of papers which accumulate during a meeting. A red and green light is sometimes provided on the table to enable the mayor to control the length of speeches.

Seating

The aldermen's and councillors' seats should be comfortably arranged since members may have to sit in council for long periods. There are two types of seat: (1) the fixed seat (2) the moveable armchair, both types usually having desks fixed in front of them. Where the fixed seat is used at least 4 ft. should be allowed back to back to provide easy entrance and exit, and about 2 ft. 3 in. centre to centre. Where movable chairs are used 5 ft. back to back and 3 ft. centre to centre should be used. Not more than five seats of either type should be placed in a row without a gangway. The writing desk should be about 2 ft. 4½ in. high, slightly sloped and containing an ink well. Sometimes drawers are provided (in which case the desk would necessarily be higher). This furniture should be designed to take hard wear. The tiering on which the seats are placed varies in height from 7 in. to 1 ft. 2 in. Gangways between the seats should be approximately 2 ft. 3 ins. wide.

Other Tables

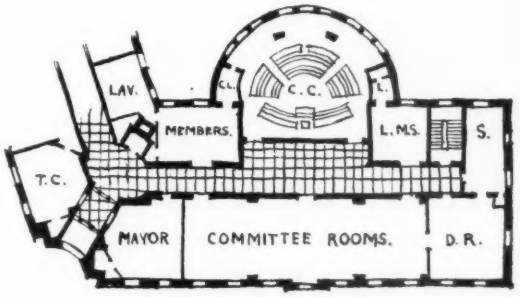
The Press and officials' tables should not be fixed and should be big enough to hold a fair amount of papers and books.

The following is a schedule of sizes of various council chambers showing the space allowed per person :—

	No. of Persons.	Approx. sup. area.	Approx. height.
Swansea ..	96	2,400 sq. ft.	30 ft.
Southampton ..	84	2,400 ,,	26 ,,
Hornsey ..	60	2,000 ,,	25 ,,
Worthing ..	50	1,250 ,,	20 ,,

The Public Gallery

In planning the gallery it is essential to ensure that the public are able to see and hear the proceedings of the council, and come and go without causing disturbance. The gallery should normally be placed opposite the mayor's table and, if possible, should be raised on a mezzanine floor high enough to be out of the level view of the councillors. The distances between the floor of the council chamber and the underside of the gallery should not be more than ten feet. Access to the gallery must be separate from the grand staircase or any main circulation, and should be from the main entrance, where it can be controlled, or from a special door from the street or courtyard; where the gallery is large or is placed in an isolated position there should be ample exits. A small lavatory may be provided to a large gallery.



Stretford

The gallery is usually stepped down and does not contain more than three rows of seats. The seats are generally fixed benches placed about 2 ft. 9 in. back to back (1 ft. 6 in. run per person can be allowed). There should not be more than 10 seats in a row between gangways, and a space of about 5 ft. between the back row and the wall should be left for supervision purposes.

Gangways should be about 2 ft. 6 in. wide; the height of the stepping of the seats depends upon the position of the gallery. The floor, doors, etc., should be constructed to eliminate as much

noise as possible; care should be taken not to illuminate the gallery with dazzling or distracting lights.

Council Chamber Anteroom

The anteroom requires no special remark except that it is an important piece of circulation, and if it is not cut off from the main circulation by doors it should be planned and treated so that it has a semi-private feeling. A great deal is discussed between members in the lobby and every effort should be made to make it an ample and dignified room.

Telephone boxes should be provided adjoining the anteroom for the use of the press.

Robing Room, Cloakrooms and Lavatories

These rooms are usually planned *en suite* and connected with the members' lobby.

Very few councils require members to robe, and robing rooms are either omitted or used as cloakrooms. Provision should be made for a commodious locker (2 ft. by 2 ft. by 6 ft. 3 in. high) for each member, and the cloakrooms should be comparatively large with a table in the centre.

In economical schemes, the members' room is sometimes omitted and the cloakrooms are used as members' rooms. Swansea, for instance, has no members' room, and only one robing room for both men and women, while Norwich has members' rooms for each sex, but no robing rooms.

The members' rooms should be designed and furnished on the lines of a comfortable club.

Lavatories

It is fair to estimate that one-sixth of the Council will be women, and about one w.c. (with a minimum of two) should be provided for every 10 women members, and the same ratio of lavatory basins. An allowance of one w.c., one urinal, and one lavatory basin for every 20 men members is sufficient, but it is better to be on the generous side with this accommodation.

Library

The library need not be large, and is used for keeping minute books, standard references and Acts of Parliament.

The room should not be larger than 250 sq. ft., unless it is used for other purposes besides being a library.

Waiting Room

The waiting room should not be larger than 250 sq. ft. The size depends largely on the size and customs of the town.

A small kitchen and service should be provided near this suite for supplying tea and light refreshments to the members' room. In normal circumstances the kitchen should only be about 100 sq. ft., and should contain a gas ring, sink, and cupboards for storage of china.

The Committee Rooms

In planning committee rooms it is highly necessary to find out how the particular town selects and forms its committees. Some departments will be run by committees of over 25 people, including two clerks and the town clerk, and require very big rooms. The general lay-out should be such that everyone can hear and speak without strain, and if possible the chairman should have his back to the window. For normal purposes committee rooms should be at least as wide as an office bay, and if possible wider. A small committee can be accommodated at a table 4 ft. 6 in. wide with a row of chairs down each side of the table, but where big committees are used some kind of horseshoe or "T" shape table will be needed. Committee rooms planned *en suite* with a folding partition between have the advantage of providing enough space for large committees—or of being used for ceremonial purposes. The movable partitions between the rooms must be substantial, i.e., about 4 in. solid, so that it is impossible to hear what is going on in a committee room.

It is desirable that tables should be made in sections for easy handling and for adjustment for large and small committees.

The conditions of the recently completed competition for Bury include a very much bigger accommodation for the mayor's rooms than is usual in most modern competitions, and brings the possibility that perhaps entertaining and civic ceremony will begin again on a pre-war scale.

Almost every city or town has different views on the use of ceremonial rooms, and naturally each design must be suited to local requirements. This is why a visit to the site and town is so important during the early days of a competition.

But, despite this great variation of method, there is a basis from which all ceremonial planning must be begun. Circulation must be easy, and crowds must be naturally led to their objective without instructions either verbal or in writing. It is a good idea when planning to regard the guests as moving blocks rather than as individuals.

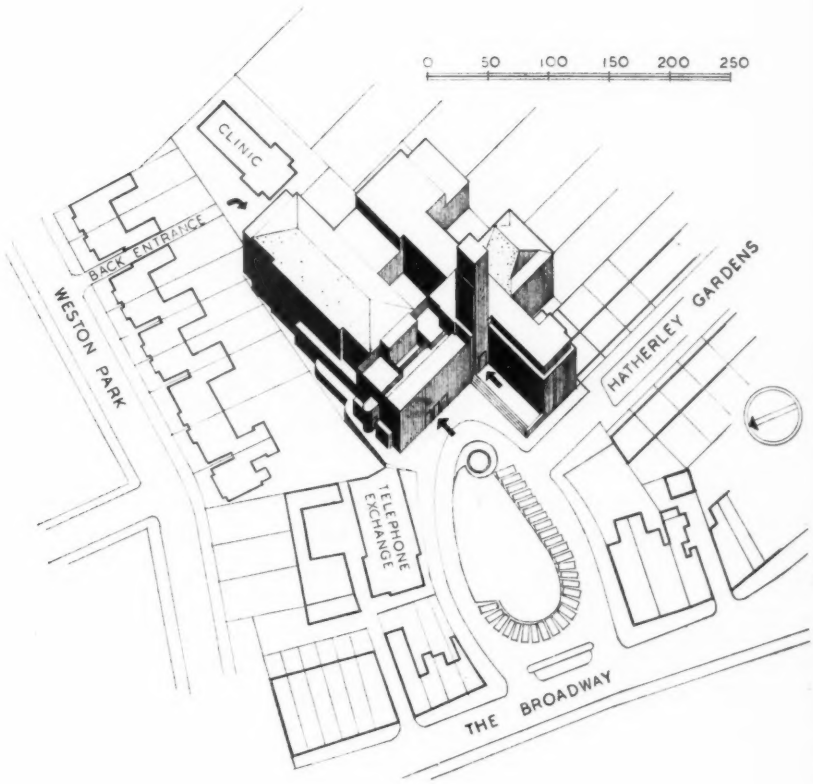
It is very important to remember that mayors do not like to have strangers or even councillors trespassing in the mayor's parlour and other private rooms. The mayor's parlour is a private room provided for the mayor, so that he may rest and entertain his friends to tea or luncheon. The parlour is sometimes used for official purposes, distinguished strangers to the town may use it as a rest room before a reception, and small official parties are entertained, but the mayor's suite should be kept apart, so that the mayor can have complete privacy when he so desires.

In a city which is inclined to ceremony and where, for example, on Armistice Day there is a procession from the town hall of the judges, clergymen, and civic officials, a large entrance hall is required with ample lavatory accommodation, so that the officials partaking in the procession may robe and form part of the procession before leaving the building. Mr. Vincent Harris has a good arrangement of the assembly hall, mayor's rooms and ceremonial preparation of plan at Leeds.

For ceremonial planning the circulation should be kept easy and ample, and next move made obvious to any stranger to the town hall.

27 TOWN HALLS

HORNSEY • By Reginald H. Uren



HORNSEY

Municipal Borough in Middlesex, immediately outside the Administrative County of London.

POPULATION

1921 Census	*87,659*
1931 Census	*95,523*
1934 (estimated resident population)	*95,306*

RATEABLE VALUE AND RATES

Rateable value (April 1934) £1,017,260
Local rates (1934-35) .. 8s. 8d. in the £

SIZE OF HOUSES

Average size of occupied dwelling (1931)	*6.73 rooms*

PRINCIPAL OCCUPATIONS

N.B.—Persons "Out of work" are included in the occupied. "Unoccupied and Retired" are shown separately.

Figures are from 1931 Census returns and relate to males and females aged fourteen years and over.

Only those occupation-orders in which more than a thousand males or more than a thousand females were placed are shown separately below, and the order "Other and Undefined Workers" has been ignored.

The total of occupied persons of each sex is, however, indicated above the figure for "Unoccupied and Retired."

MALES

Metal workers	*1,593*
Builders, etc.	*1,054*
Transport and communication ..	*3,297*
Commercial, etc. (excl. clerks) ..	*6,271*
Professional (excl. clerical staff)	*1,910*
Personal service	*1,057*
Clerks, draughtsmen, typists ..	*6,184*
Occupied	*29,936*
Unoccupied and retired ..	*3,694*

FEMALES

Makers of textile goods and articles of dress	*1,406*
Commercial, etc. (excl. clerks) ..	*1,836*
Professional (excl. clerical staff)	*1,731*
Personal service	*6,160*
Clerks, draughtsmen, typists ..	*5,353*
Occupied	*18,278*
Unoccupied and retired ..	*28,452*

28 TOWN HALLS

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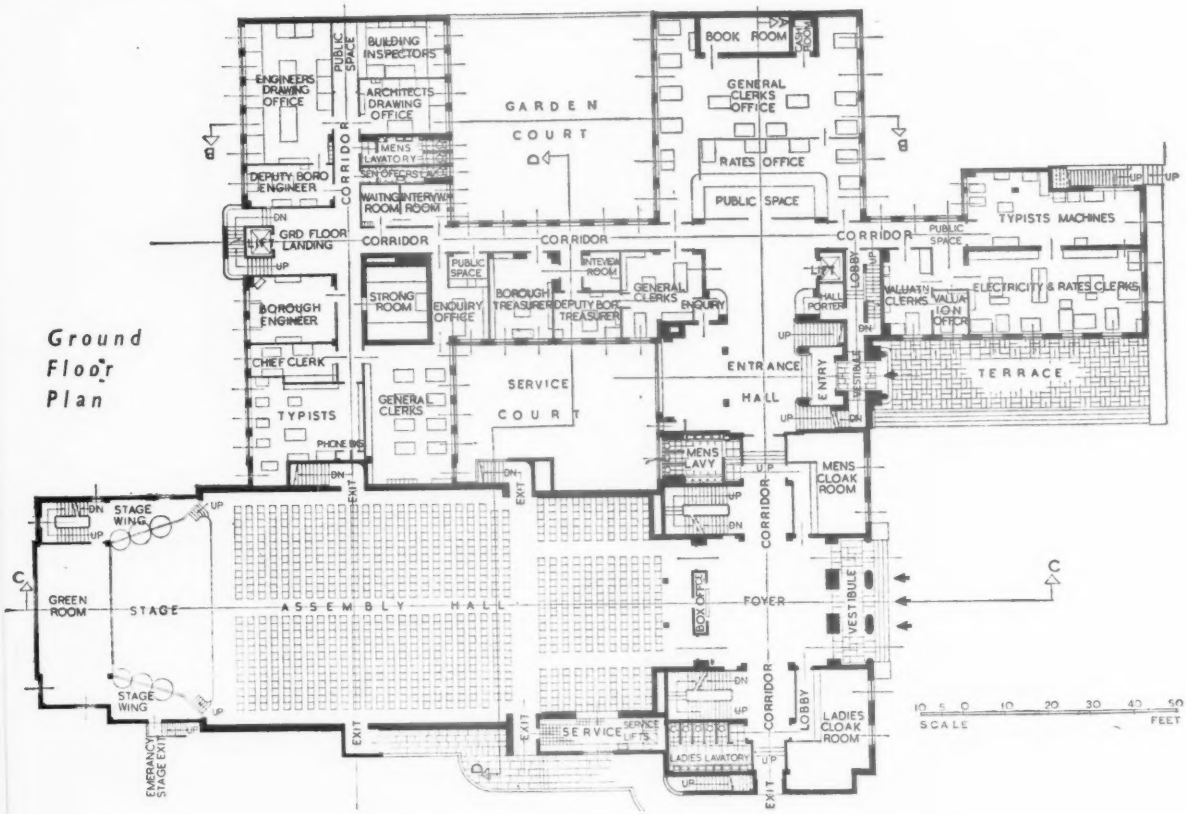
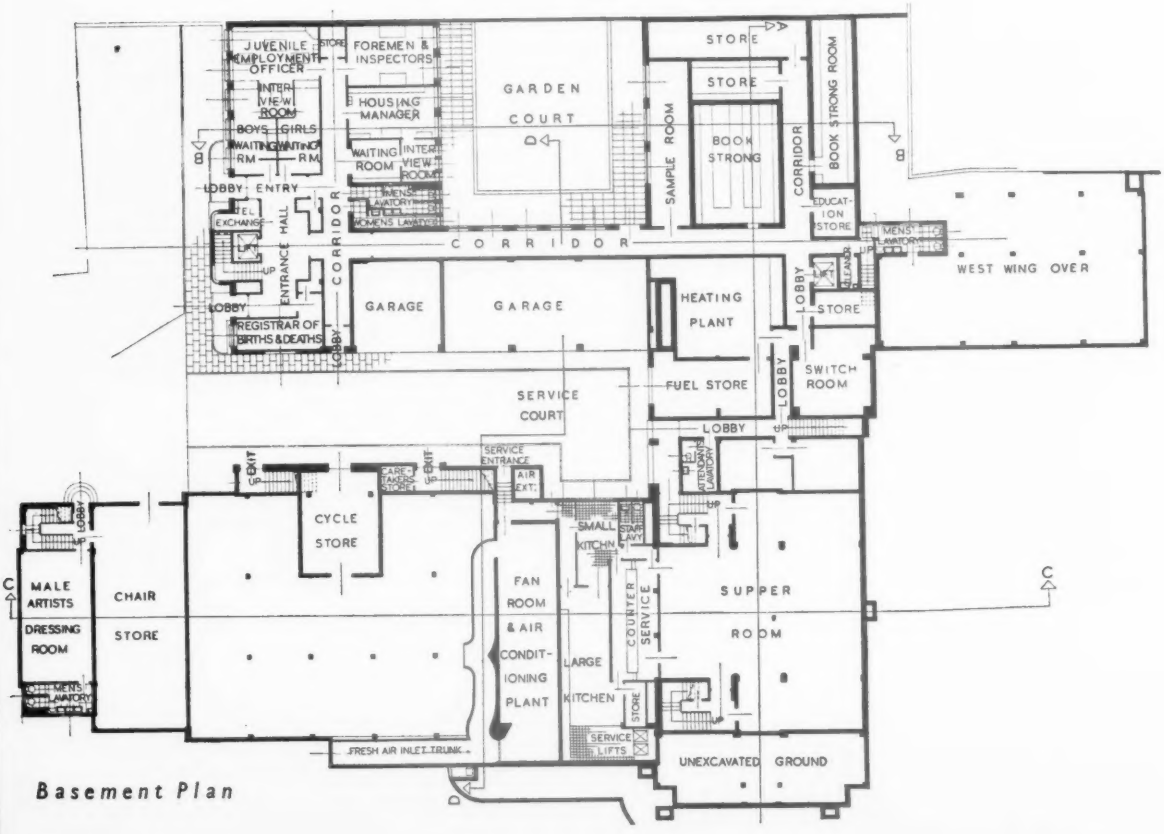


Ground Floor Plan



Basement Plan

29

TOWN HALLS

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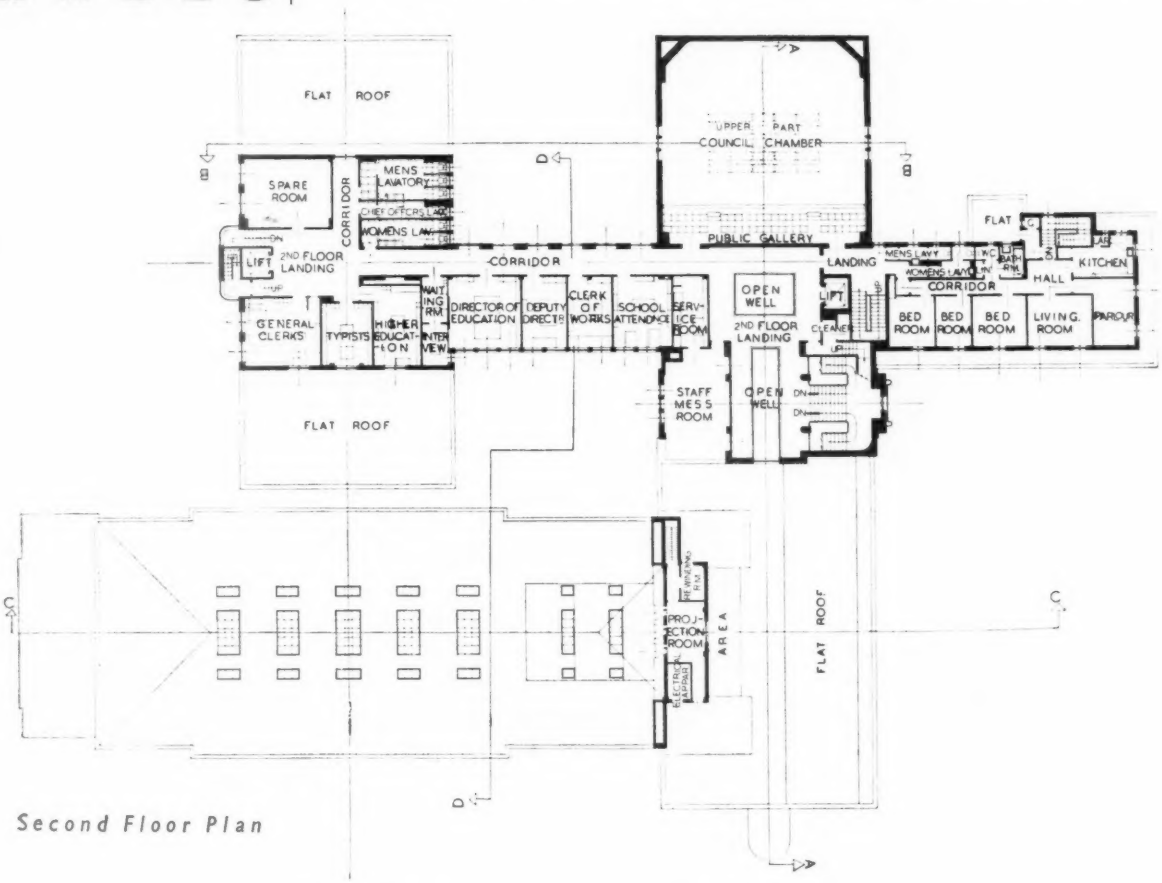
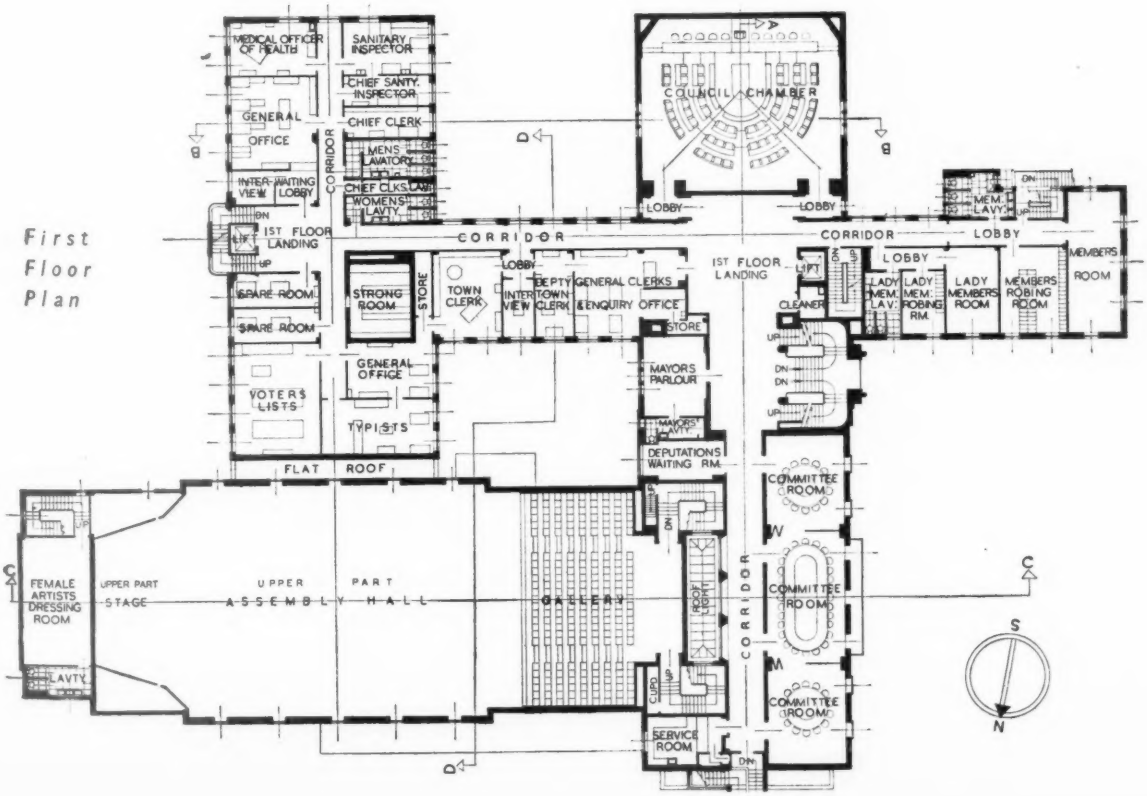


Second Floor Plan



First Floor Plan

30 TOWN HALLS

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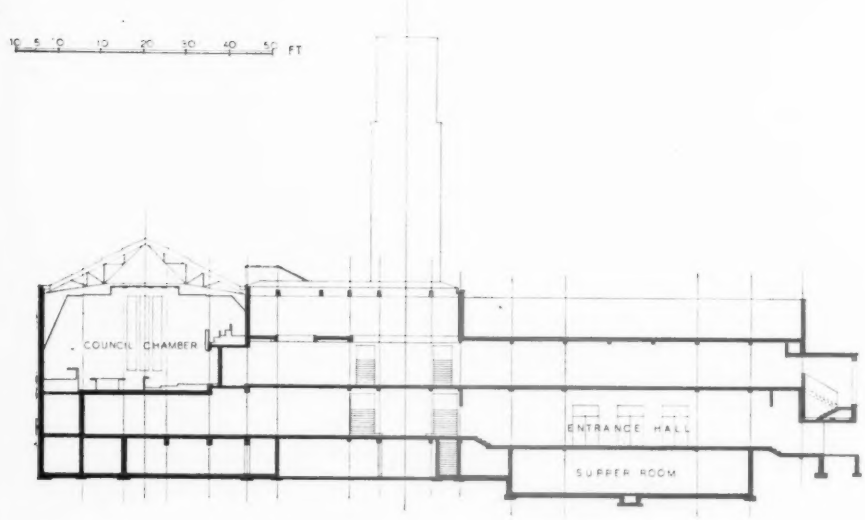

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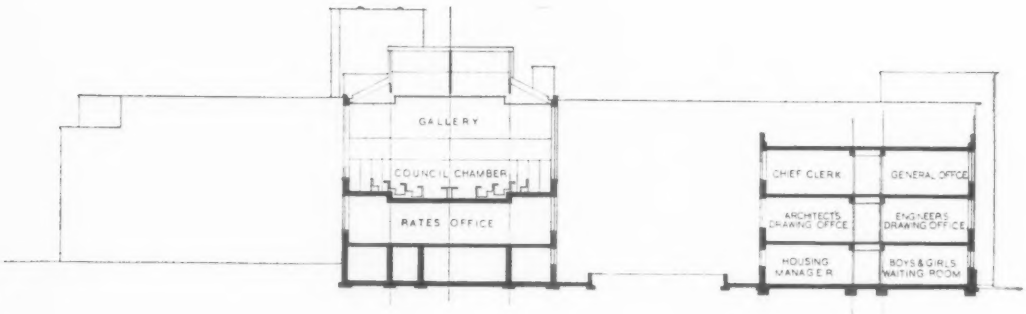
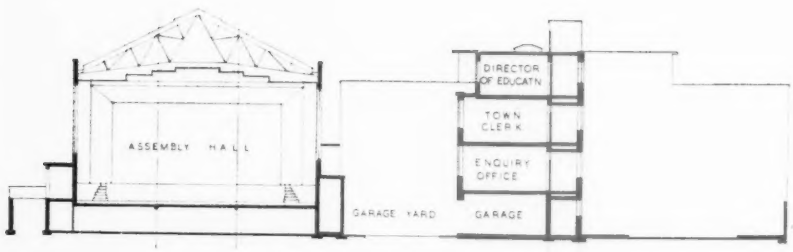
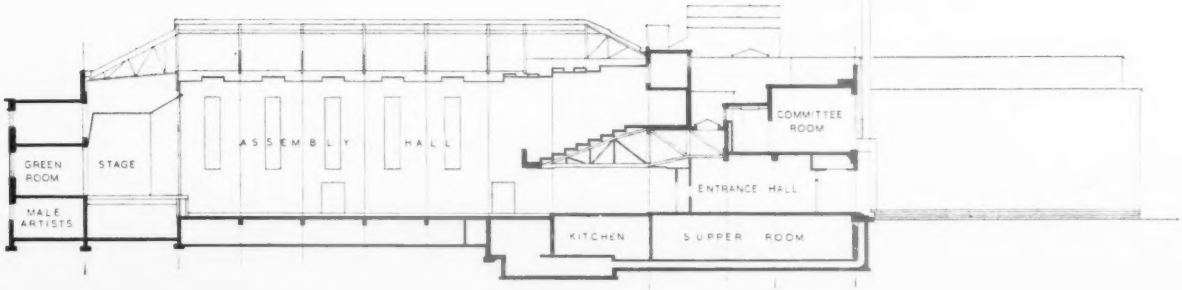


Section B—B



Section D—D

Section C—C



This is the second of a series of technical articles which will deal with various aspects of building technique, both theoretical and practical. The first of the series, published in our issue for February 13, was devoted to the Uniformity of Air Conditions. Each article in the series will be complete in itself; future subjects to be dealt with include refrigerators, country house lighting plants, architectural model-making and vibrated concrete.

BATHROOMS

PLANNING AND FINISHES

[*BY R. H. SHEPPARD*]

THE bathroom is rapidly becoming the focus of domestic planning. Civilized man appears to be developing a passion for hygiene: whatever barbarity he may commit in the name of progress, he at least does it with a clean neck.

Manufacturers have not been slow to profit by this, and the complexity of bathroom equipment and furnishing materials becomes greater almost from hour to hour, and in the allocation of comparative costs in houses and flats bathroom equipment has similary increased.

The scope of this article has thus been necessarily limited: firstly, to suggest methods of easy and economical planning, and secondly, to classify rather than to enumerate the various types of finish available; to mention every product, every finish, would be as impossible as it would be confusing. There is, however, a steady tendency towards standardization: sizes of bathrooms and fittings are approaching a norm—the International Bath Association are attempting to standardize the 800 or so available sizes of baths into a few types. There is a prospect that this procedure will be followed in other fittings.

PLANNING OF BATHROOMS

Obviously no general rules can be made: but a standardization of shape and size in housing schemes will make for a saving both in erection and upkeep. In any scheme, whether for house or flat, the main structural and social conditions must be satisfied first. The equipment of a bathroom in a luxury flat or hotel will be necessarily different from a working-class flat. Moreover, a bathroom for general use by a family will be different from that designed as an adjunct to one bedroom. The following list of considerations affecting the planning of bathrooms is not exhaustive, nor the various points mutually exclusive.

(1) *Convenience of use.*

Single bathroom to family unit—minimum space not main consideration. Light washing will probably be done, or where there are children usually an adult is with them.

Where there are two or more bathrooms they may be of minimum size if space is valuable, particularly if there are hand-basins in bedrooms.

W.C. (particularly in working- and middle-class dwellings where there is only one) should be separate from bathroom.

Both w.c. and bath should be screened by the door opening where possible. Windows should not be along the length of the bath, and some form of permanent ventilation is desirable. (For space see Equipment.)

Window should be on left of the hand-basin.

(2) *Selection and type of fittings.* (See also Equipment.)

Here again principal considerations are cost and use. Fittings should be selected before chases or ducts are made and before wall finishes decided upon.

Bath: Type will depend upon cost and type of h.w. heating.

The type of bath and w.c. will depend upon whether it is possible for the trap to project through the floor.

Wash-Basin: In the one-bathroom dwelling unit the hand-basin should be as large as possible, with ample space at back and sides.

W.C.: Partition material will govern the fixing. The pedestal type often depends upon the strength of the connections to hold it in position. Where the trap is enclosed access panels should be provided.

Bidets are becoming standard in better-class lay-outs, and are most desirable.

Dirty-linen Store should be in every type of bathroom, and should be lined with impervious material and ventilated. (See Equipment.)

Clean-linen Store and a cupboard for spare toilet necessities also an advantage.

STANDARDIZATION must be considered in relation to partition sizes, floor and wall surfaces, connections to fittings, to accessories, ducts, inspection panels, soap dishes, shelves, etc.

WALLS AND FLOOR SURFACES should be designed to fit standard facing units and the fittings placed to avoid unnecessary cutting and jointing. In large schemes, a standardization of pipe runs allows for pre-fabrication of pipes and outgoes, particularly where screwed joints are being used.

Bathroom lay-out varies widely from country to country; standards of living and building regulations affect design. In this country planning has been hampered by obsolete regulations, i.e., external ventilation of w.c.s, and in this respect we are often behind American and continental practice. A comparison between English and American hotels shows this very clearly.

The following lay-outs only indicate diagrammatically the points raised in the texts. The dimensions given are not minimum, but it will be clear from the reasons already given that a minimum bathroom is false economy. Particularly is this so in speculative housing, whether houses or flats, for the equipment and design of the bathroom is a great letting asset.

No. 1. Planning around three sides is clearly uneconomical. The waste must always travel round two walls to meet the others. Space between fittings limited. Door opening depends upon position of w.c. No cupboard or stool space.

No. 2. Compact and accessible, but shares faults of *1*. Ample wall space for fittings.

No. 3. Ideal lay-out. Connections and branches minimum and direct with space in front. Affords room for children or for clothes washing and space for equipment, such as soiled-linen containers. This lay-out works equally well with either local or centralized heating.

No. 4. Lay-out does not cut off lavatory basin or w.c. while bathroom in use. The two-way door should be equipped with an electric contact, rendering it impossible to open door unless the first door is open, although this is not essential. Lay-out gives good

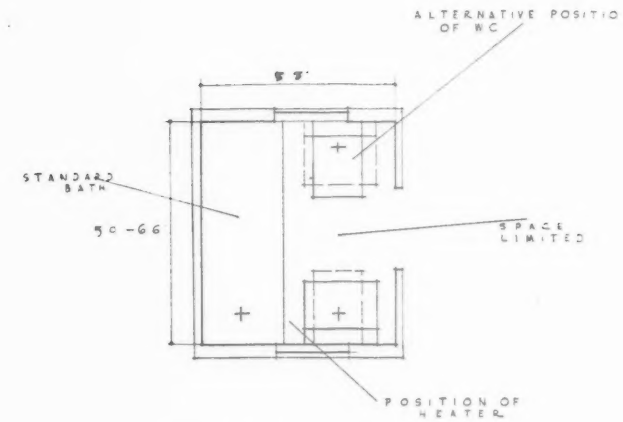


Fig. 1. MINIMUM BATHROOM

connection either for local or centralized heating.

ACCESSORIES such as soap dishes, towel rails, are now usually manufactured in standard sizes to fit tiling, etc.

No lists of minimum dimensions are given either for bath and basin or bath and basin and w.c., since this is governed by sizes of fittings. For Fittings see Information Sheet s 252, 254, 260 and 264.

DRAINAGE

Fittings should be for minimum branch soil connections. When the soil pipe is in either a horizontal or vertical duct the outgo of the w.c. should connect up directly with it.

Arranging the fittings along one wall minimizes connections and saves floor area, since there is only one pipe casing. Ducts: Access panels placed every four feet.

MATERIALS

A facing for either the walls or floor of a bathroom should have the following qualities: impervious to and unaffected by moisture; acid and stain resisting; easily cleaned; light in weight; warm to the touch and smooth in texture. It should be capable of being cut without fracture and easily fixed.

No one material entirely satisfies all these conditions: a further consideration is the type of use a bathroom is likely to get: for family bathrooms a facing material easily fractured by the edges of buckets and so on, and expensive to replace is obviously unsuitable. In mimimum flats and houses the great demand is for a partition material in which the finish, and the partition are built up in one operation. Such a material should have a facing with the qualities stated above. At present there are few such partitions available, the best known being the Attoc block, glazed on one or both sides.

The type of partition adopted will also govern the facing material, e.g., a heavy facing such as terrazzo, requiring three-quarter cement screed, will be unsuitable in a light timber-framed partition.

Partitions in common use are:—

(1) Timber-framed partition plastered both sides. About 7s. 6d. per sq. yd.

(2) Timber-framed partition with fibre board. About 7s. 6d. per sq. yd.

(3) 4½″ brick partition plastered both sides. About 9s. 6d. per sq. yd.

(4) 2½″ breeze slab partition plastered in. About 7s. per sq. yd.

(5) Hollow clay partition blocks plastered both sides. About 8s. per sq. yd.

(6) 2½″ concrete partition blocks plastered both sides. About 7s. per sq. yd.

(7) Structural partitions. Where ordinary plaster is applied direct it will inevitably crack, since the two materials are not in key. A plaster wallboard or other facing should be used. Prices depend on structure.

The amount of cutting for pipe chases or for ducts must also be considered in this connection.

WALL FINISHINGS

Bathroom facings may be roughly divided into two categories: (*a*) Those with a homogeneous surface; (*b*) built up from small or large units. In either case the maker's specifications in regard to fixing, etc., should be followed. All prices per sq. ft. inclusive of fixing wall facings.

Homogeneous Faces. — The following finishes are of their entirety permanent, and in flats particularly the more durable material will repay its initial cost in upkeep.

(1) *Painting on Plaster.*—Cellulose, various proprietary brands. Enamel, inexpensive, but easily damaged. Lacquer, more suitable if used above dado. Spraying is more expensive than brush application over small areas. Cost, 1s. 6d. to 3s. sq. yd.

(2) *Paper.*—Sprayed or varnished. Where time is important a thick durable paper may be laid direct to smooth finished block, but preferably to one coat of plaster. A good Dextrine non-reversible glue should be laid on. Cost, 3s. 6d. to 4s. upwards.

(3) *Canvas.*—Sprayed or painted. Application as for paper, but more durable. Gives a good texture and is easily laid. Cost, 8s. 6d. sq. yd. up wards.

The above materials are all suitable for doors and cupboards where a uniform facing is required.

(4) *Plastic Paints and Compounds.*—Usually on cement backing, e.g., colour pigmentation not always uniform; e.g., Linotile should only be used where heavy wear is not anticipated. As name implies, may be worked in all types of finish. Floating with celluloid trowel gives close, smooth finish. Cost, 6s. to 8s. sq. yd.

(5) *Coloured Cement Renderings.*—Variety of colour effects with little or no variation. Finishes—smooth stipple glaze—permanent, durable and impervious. Inspection panels easily formed. Cost, 4s. 6d. to 10s. 6d., including backing, according to finish.

Rubberized Fabrics.—E.g., Neatolin—cheap, durable, easily cleaned, impervious. Laid as wallpaper on special glue. Variety of colours and patterns. Joints butted or lapped. Supplied in rolls 21″ or 46″ to 48″ wide. Cost, 6s. sq. yd. upwards.

Terrazzo is considered under the headings of non-homogeneous materials, as its cost and chemical nature dictate.

Non-homogeneous Facings. — Can be fixed to all types of partition, either on screed mastic or battens. Maker's instructions should be followed on fixing.

Hardboards can be had in large sizes, minimizing joints; are easily cut and fixed; sound absorbent fixing should be carefully considered. Sizes from 6 × 3 to 12 × 4, according to facing treatments. Fixing and thickness should be considered in relation to size of panel in order to minimize warping.

(1) Smooth faced plaster board—Anaglypta or composition filled butt joints. Sprayed or painted. Cost, 8s. 6d. upwards, according to finish.

(2) Hardboards — Masonite, Insulite, etc. Spray painted or enamelled. Cost, 5s. to 6s. sq. yd.

(3) Decorated hardboards — impervious durable facings in variety of colours and patterns—Lacotile, Stovolac, 6 × 2 to 8 × 4. Cost, 3s. 6d. upwards, according to finish.

(4) ⅜″ copper-faced ply, lacquered. Cost, 68s. sq. yd.

(5) Plywood veneered and inter-

leaved with bakelite. Warps unless bakelite on both sides, owing to different expansion coefficients. Variety of permanent colours and marble finishes. Cost, 60s. sq. yd. Or Beatle—greater colour range. Cost, 90s. sq. yd.

(6) Composition boards, e.g., asbestos boards, glazed asbestos sheets, flexible glazed sheets, "Poilite" asbestos cement sheets.

Sizes, 4″ × 4″ to 8″ × 4″, according to thickness. A great variety of these boards marketed in a wide range of colours and textures. Non-porous, warm to touch, easily cut and fixed and puttied. Easily cleaned, but abrasives should not be used with glazed finish. These boards have a tendency to warp, and should be fixed in accordance with the maker's instructions. Prices vary, 6s. and upwards.

Linoleum.—Polished linoleum in rolls more suitable for walls. Warm, smooth and impermeable. Cost varies with colour. Owing to tendency of material to rise, maker's directions regarding mastic and screed should be followed. Rolls 36″ wide, 5s. to 8s. sq. yd., according to colour and thickness.

Linoleum Tiles.—More suitable for floors.

Cork: Compressed cork tiles.

Bleached cork tiles: Colours, natural tints from fawn to dark brown. May be polished. Sizes up to 36″ × 12″. Highly dependable, warm, hygienic, facing extremely resistant to wear. Easily cut. Cost, 16s. 6d. sq. yd.

Ceramics: Tiles.—Durable and impervious, but require careful planning to eliminate cutting. Variety of colours, but certain tints only available in small sizes. All coves and angles are available, and soap dishes, towel rails, etc., available in standard tile sizes. Many designs, patterns and textures. Sizes 4″ × 4″ up to 12″ × 8″.

Terra-cotta facing slabs are available in larger sizes, 24″ × 12″, but require a good key. Cost, 8s. to 20s. sq. yd.

Terrazzo:

In Situ.—Permanent, impervious, hygienic. Cost, 11s. to 16s. 6d.

Slabs.—Sizes up to 6′ × 3′, reinforced with expanded metal. Panels, etc., 30s. to 40s.

Mosaics:

Marble, as for terrazzo. Cost, 27s.

Glass, as for marble, but with a wider range of colours and better appearance. Cost, 22s. sq. yd.

Glass, Opaline, Vitrolite, etc.—Sizes up to 6′ × 3′, and in certain cases larger. Variety of colours and textiles, from acid stippling to coarse sand-blasting. Screwed or bedded in mastic.

Prices: Glass (opaque on screed), 32s. Vitrolite, 34s.

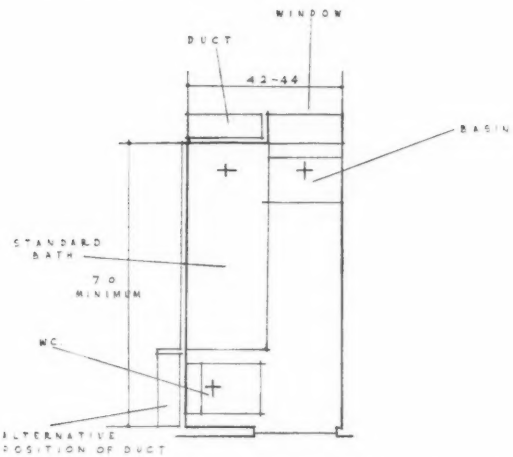


Fig. 2 LAY-OUT: SMALL HOUSE OR FLAT

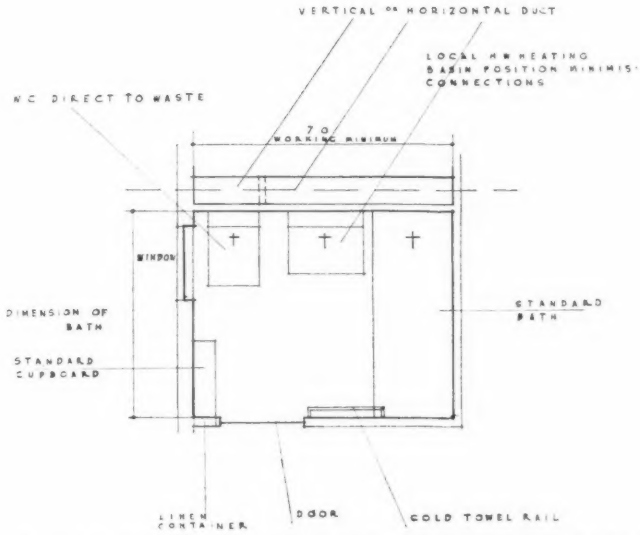


Fig. 3. LAY-OUT: SMALL HOUSE OR BLOCK OF FLATS

Vitroflex. — A highly flexible material recently introduced, combining the advantages of glass with great pliability, and in similar colours and textures. Cost, 70s. to 80s.

Stones. — Polished slabs of stone form a durable, but extremely expensive, facing material:

Hopton wood, Travertine, Roman stone, marble. Cost, 60s. and upwards.

FLOORS

The same qualities mentioned under wall finishes are required for flooring materials. Moreover, they should be absolutely waterproof, laid flat and non-curling. Impervious alike to acids and alkalis.

All require good sub-floors, but irregularities in the laying of these can be made up in the screed. Classified according to cost.

Granolithic.—Cold but impervious and durable floor. 1″ thick, 2s. 9d. Coves easily.

Cement Rendering.—See wall finishes for general qualities. 4s. sq. yd.

Composition Floors.—Many types available. The maker's specification should be followed. Warm, impermeable and extremely flexible. 8s. 9d. to 9s. per yd.

$\frac{1}{4}$″ *Birch Plywood* with heavy maintenance paint forms a tolerably impervious and warm floor where heavy wear is not anticipated. Will not rise or warp. Sizes 18″ × 9″. 3s. 6d. to 4s.

Cork Lino.—Wax polished on laying if it is to be impermeable. Forms a warm and fairly durable floor. 4s. 6d. sq. yd.

Cork Tiles.—36″ × 12″—4″ × 4″. Form a resilient, heavy wearing, im-

pervious floor. If properly laid will not warp or rise. Available with angles and cones. Laid on any type of sub-floor. 12s. 6d. and upwards.

Rubber Sheet.—May be laid on any sub-floor. Many varieties available. Good resilient and permanent floor. Wide varieties of colours. Not impervious to acids and alkali. Tiles $\frac{3}{16}$" thick, 12s. 6d. upwards. Many varieties available. Sheet $\frac{3}{16}$" upwards, 12s. 6d. upwards. Tiles on non-warping cement backing, 17s. upwards.

Linoleum.—$\frac{3}{16}$" and upwards. 24" widths. A durable, clean and warm floor. 5s. to 8s. 6d.

Asphalt Tiles.—Colours poor, otherwise form a good resilient, durable covering. Usual sizes 9" × 3" and 6" × 3". 12s. to 15s. sq. yd.

Terrazzo, *Mosaic*, *Marble*, *Stone*, as for walls.

Ceramic Tiles.—Various types and sizes of non-slip textures. Can be had in most colours and shapes for skirtings and coves. Planning should eliminate cutting. From 10s. 6d. and upwards.

EQUIPMENT

BATHS

Where cost permits should be of the type where the front and apron are cast in one piece.

Fronts must fit close yet be easy of removal. Various facings available. (See Materials.)

A hand shower is now often included in the tap fittings.

A large outlet, 1½", helps to prevent the deposit of grease, etc.

LAVATORY BASINS

For family use should be as large as possible to allow light clothes washing, and also since it may be used as bath for a young baby.

The pattern carried on brackets seems preferable to the pedestal type, especially where the services to the latter are not taken through the floor. Bottle P traps are a tidy and accessible fitting.

W.C.S

Those in which only the pedestal is visible are preferable. Flushing apparatus behind panel. In certain types of fitting the trap projects 6" to 10" below floor level. Seats in bakelite, hardwood, cellulose enamelled or polished.

DUCTS

Whether horizontal or vertical transmit noise, and in working-class flats form a natural passage for vermin.

Three methods available for sound insulation :

(1) The cheapest—slag wool packing.

(2) Case pipes at cuttings with rubber or other sleeve—insulates against structure-borne noises.

(3) If expense or construction allows line interior of flue with insulating material.

BATH AND BASIN FITTINGS

Taps.—A standard type is being evolved in which the spindle and all parts are enclosed in a rising casing.

This casing and the tap handle are now being made in bakelite—red for hot, black for cold—and form a non-tarnishable, non-conductant and easy clean fitting.

Where all-metal taps are preferred a white metal tap with a high percentage of nickel is practically non-tarnishable. Chromium plating tarnishes and requires constant cleaning.

Joint Inlets for hot and cold taps eliminate steam and are useful in keeping down condensation. Inlets at low level, thus quickly eliminating steam, are available, but at present are passed by few local authorities. The objection at present is that they retain a small quantity of water from bath to bath.

Soil Wastes.—The rubber plug and draw is preferable to the pillar type. It is hygienic and foolproof.

Sponge and Soap Holders, *Towel Rails*, *Hand Grips* are in standard tiling sizes and can be had to any desired colours. There is a certain risk of fracture with ceramic hand grips.

LIGHTING

Fittings should have a minimum of metal parts and should be watertight. Switches should be all bakelite and out of reach of anyone standing in the bath. Cord switch preferable.

Position : Where only one light, it should be to left of wash basin. Strip and tube lights are preferable in large schemes in this position.

Use of the Sunlight lamp is increasing and when fitted to ceiling can replace the usual ceiling light in family bathroom.

60 watt are generally ample for bathrooms.

HEATING

Some supplementary form of heating is desirable. One or two firms make special wall fittings for electric heaters. A wall panel, either electric or hot water, is the best solution.

TEXTILES

Fadeless cretonnes, rubberized fabrics, oiled silks and American cloth. The method of hanging fabrics needs consideration.

Generally the fitting and equipment of bathrooms will depend more on the client than the architect. But with the range of modern materials—fittings—and their sizes, there is no longer an excuse for inexact design.

CUPBOARDS

At least one cupboard should be provided. Part should be lined with impervious material and used for storage of toilet utensils in cases of sickness, etc. The upper part may be fitted up as a medicine and toilet store.

DOORS

Flush doors with maker's guarantee against warping employed. The lock should be of such a pattern that in cases of emergency the door should be capable of being opened. All fittings should be of non-corrosive metal.

The dirty linen container should be removable to obviate handling. It may be copper or galvanized iron in cheaper schemes. 21" × 15" × 9" is a useful size.

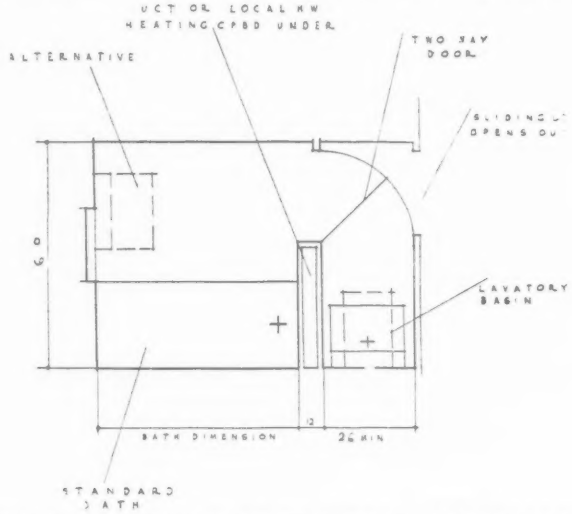
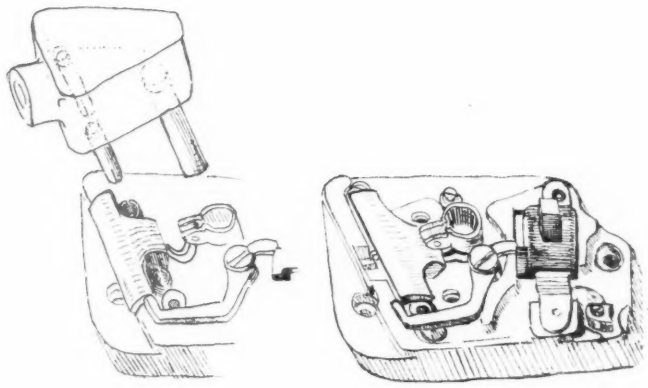


Fig. 4. MINIMUM FLAT OR HOTEL. ARCHITECTS: SIR JOHN BURNET, TAIT AND LORNE



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Safety Switch Sockets

THE spread of the electric grid system and the gradual change-over from direct to alternating current, with its increased danger from shock, has led to various amendments in wiring rules and the provision of standard specifications for the safety of switchgear.

•

Given intelligent use, the simple switch with a separate (or combined) plug socket is safe enough, but it is definitely *not* proof against stupidity or against experimentally minded children armed with knives or hatpins.

•

Switch sockets with interlocked plugs have, of course, been available for a good many years. On most of them the interlocking is carried out by a sliding bar or stirrup which engages with a transverse slot or a turned neck on the third (earth) pin of the plug. This method has two obvious disadvantages : although all plugs in the same house will presumably be of the same type, people have a habit of buying extra pieces of apparatus like toasters or hair-dryers, and the right type of plug must be bought or the interlock will fail to work.

•

The other disadvantage is that the plug is not always pushed right home and the switch is then forced over with the toe of a rather irritated boot, thus removing the switch dolly entirely.

•

The sketch at the head of these notes shows a new type of switch socket which was shown for the first time by William Sanders, of Wednesbury, at the British Industries Fair. The design is based on the plain socket without switch which I described in these notes some months ago. The socket tubes are shielded by a scarab shutter which is swung on one side by the third pin as the plug is pushed home. (Scarab, by the way, is a more highly resistant form of bakelite.)

•

There is also a second swinging arm operated by a cam on the switch dolly which prevents the shutter from moving sideways clear of the socket tubes unless the switch is in the off position. The result is that :

1. The switch can be moved whether the plug is in position or not.

2. The plug cannot be inserted when the switch is on.

3. The plug can be removed when the switch is on, but it cannot be replaced until the switch has been moved to "off."

•

Whether or not brute force would break the interlocking arm I do not know. So far I have been fairly firm with the sample sent to me and nothing has happened, and the sample is now serving a reading lamp in my own flat, where its behaviour in service will be watched and reported upon.

•

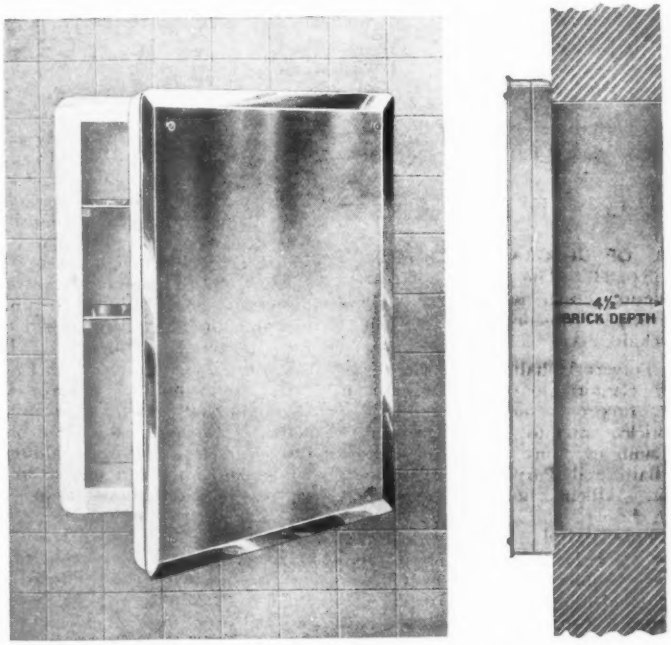
Five and 15 ampere sizes are available, in walnut and white finish and in surface and sunk patterns. Prices range from 5s. 3d. for the 5-amp. surface type in walnut to 11s. 1d. for the 15-amp. sunk pattern in white. The type is known as "Shutter-locked."

Door Closers in Service

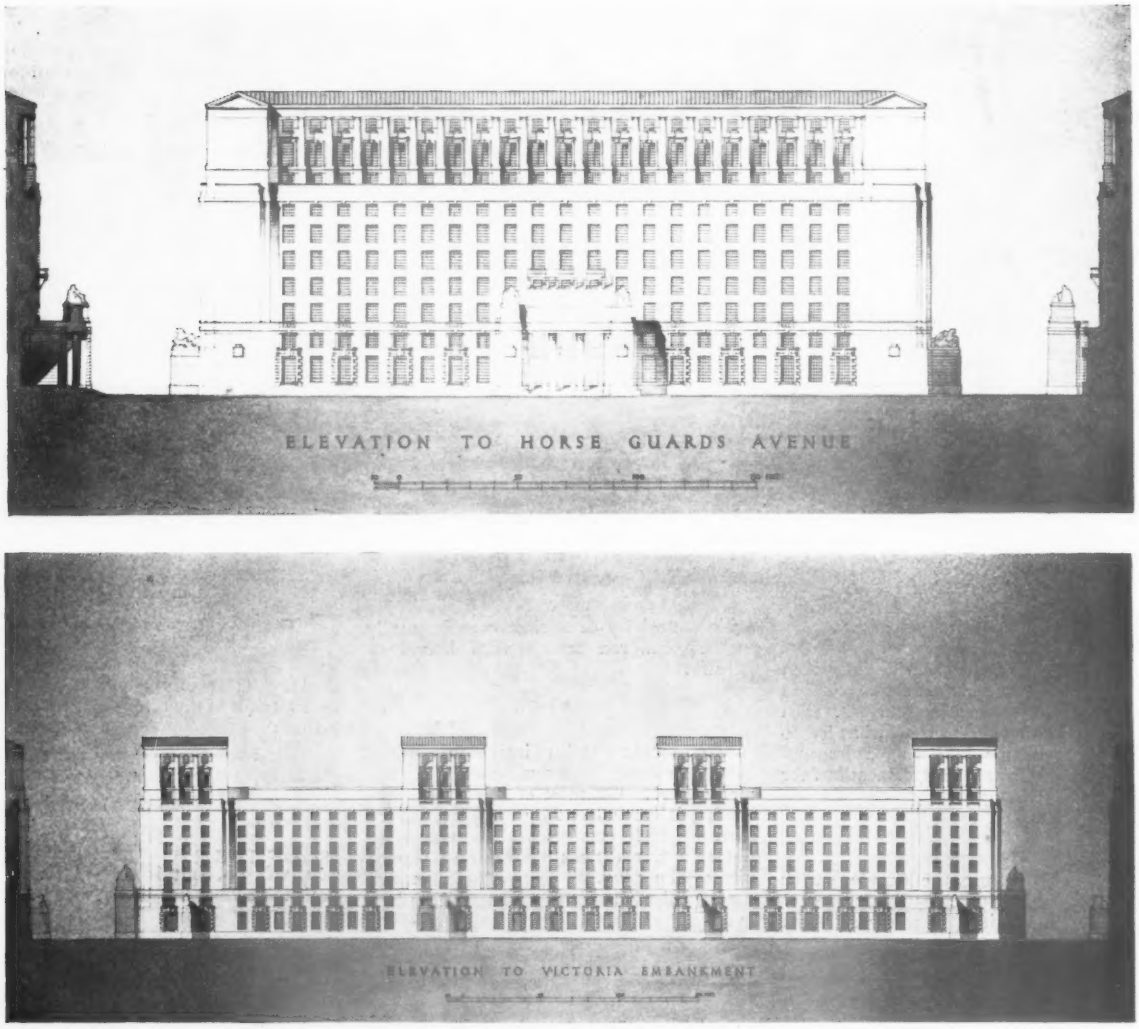
Mention of a report on Messrs. Sanders' switch reminds me that I promised further information about Nettlefold's Guardian door closer after it had been in use for a reasonable time. So far I have said nothing because nothing has happened to it : it just closes the door. No oil leaks, no apparent change in closing speed, no adjustments.

•

All that remains now is to decide on the neatest way of fixing it so that it will *open*



A recessed bathroom cupboard arranged for building-in. (*See note on bathroom fittings.*)



Elevations of the proposed Government Buildings, Whitehall. Architect: E. Vincent Harris.

the door again when polite visitors shut it during the hot weather.

Bathroom Fittings

I have recently come across a well-designed range of bathroom fittings for building in, manufactured by Downham & Co. On the previous page is illustrated a mirror-fronted cabinet, 20 in. by 14 in., with two plate-glass shelves: this sells at a price of 49s. 9d., and five other sizes are available.

•

Other fittings with a recessed mirror and cupboards at the side with mirror doors, with or without strip lighting, are also available, and there is a combined splash back and recessed cupboard, the mirror front of which slides upwards on counter weights like a sash window.

•

Other models are also made, again with or without strip lighting, and the designs in general are simple and good.

THE BUILDINGS ILLUSTRATED

SCHOOL OF GEOGRAPHY, CAMBRIDGE (pages 483-488). The general contractors were Messrs. Foster and Dicksee, Ltd. The principal sub-contractors and suppliers included:—

Val de Travers Asphalte Paving Co., Ltd., asphalt; Caxton Floors, Ltd., reinforced concrete, fireproof construction; Smithbrook Brickworks, Ltd., Cranleigh bricks; W. T. Lamb and Sons, Ltd., bricks—Essex reds; Bath and Portland Stone Firms, Ltd., St. Aldhelm Box Ground stone; Redpath Brown & Co., Ltd., structural steel; Frazzi, Ltd., special roofings—"Paropa"; J. H. Sankey and Son, Ltd., partitions—Cranham blocks; Matthew Hall & Co., Ltd., cast lead gasfitting; Hollis Bros. & Co., Ltd., woodblock flooring; Flexatex, Ltd., patent flooring to basement corridor in old building; Inlaid Ruboleum Tile Co., Ruboleum and lino; Richard Crittall & Co., Ltd., central heating ventilation; Davey Paxman & Co. (Colchester), Ltd., boilers; Dean & Co., Ltd., electric wiring, bells, telephones; Zeiss-Ikon, Ltd., electric light fixtures; Tucker and Edgar, Ltd., and Best and Lloyd, Ltd., electric light fixtures; Shanks & Co., Ltd., sanitary fittings; Thos. Foster and Sons, Ltd., stairtreads, Vitunda tiles to stairs; North British Rubber Co., Ltd., stairtreads—rubber; N. F. Ramsay & Co., Ltd., door furniture; C. E. Welstead, Ltd., casements and window furniture; Dennison Kett & Co., Ltd., iron staircases; North of England School Furnishing Co., Ltd., curtains, joinery, furniture; A. J. Shingleton, dark sun blinds, material for rep panelling and blinds; Imperial Chemical Industries, Ltd., Pioneer plaster for walls; Newalls Insulation Co., Ltd., acoustic plaster; Bromsgrove Guild, Ltd., metalwork—guard rails, staircase handrail; Roberts, Adlard & Co., Ltd., floor and wall tiling; Architectural Construction and Decoration, Ltd., chairs; Ramsays, Ltd., cloakroom fittings; Gillett and Johnston, Ltd., clocks; Daymonds, Ltd., signs; J. W. Gray and Sons, Ltd., lightning conductor.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICTS (15-MILES RADIUS)

BALHAM. *Hall.* Mr. H. H. Clarke has submitted plans for the erection of a large hall on the site of 48 Endlesham Road.

BETHNAL GREEN. *Schools.* The L.C.C. is to reconstruct two schools in Portman Place and Morpeth Street, Bethnal Green, at a cost of £92,171.

CHISWICK. *Extensions.* The Chiswick and Ealing Joint Hospital Committee is to enlarge the hospital and nurses' home, at a cost of £28,500.

CROYDON. *Houses.* Messrs. Paish, Tyler & Co., have prepared plans for the proposed erection of 26 houses and garages at Featherbed Lane.

CROYDON. *Extensions.* Alterations and additions are to be made to premises at 19-21 George Street, for Messrs. J. Barker & Co., Ltd., Kensington High Street, W.8.

EALING. *Church.* The Congregational Union propose to erect a church at Medway Drive, to plans by Mr. J. P. Blake, 24a Bath Road, Hounslow.

EALING. *Libraries.* The T.C. propose to acquire sites at Horsenden Lane, Perivale; the Rectory Estate, Northolt; and the Oldfields Estate, Wood End, for the future erection of public libraries.

EALING. *Estate Development.* The Warwick Dene Estate is to be developed by Messrs. Bloomfield Building Company, Ltd., lay-out plans for which have been approved. The architect is Mr. J. M. Wilson, Western Chambers, Station Approach, Hayes.

EALING. *Estate Development.* The Hillingdon Estate Co. are to proceed with the development of part 10 of the Oldfields Estate. Architects, Messrs. Swannell and Sly, High Street, Rickmansworth.

ENFIELD. *Stores, etc.* Plans passed by U.D.C.: Stores, Hertford Road, for Messrs. Bethall and Swannell; factory extensions, 166 Hertford Road, for Mr. J. Yeomans; 20 houses, Onslow Gardens, for New Ideal Homesteads, Ltd.; 14 houses, Park Nook Gardens, for Mr. F. C. Chillingworth; five houses, Clarence Road, for Mr. E. J. Kipps; 18 flats, Windmill Hill, and 23 houses, Carterhatch Lane, for Mr. E. W. Palmer.

GREENFORD. *Flats.* Twenty-five blocks, comprising 100 flats, are to be erected at Ruislip Road, Greenway Gardens, Beechwood Avenue and Crossmead Avenue for Mr. A. J. Howard, to plans by Messrs. George E. Clare and Son, 15 College Road, Harrow.

HACKNEY. *School Accommodation.* The L.C.C. is to provide additional school accommodation in Hackney for 1,200 scholars.

HOLBORN. *Nurses' Home.* The Governors of the National Hospital are to erect a nurses' home in Guilford Street, Holborn.

HOLBORN. *Reconstruction.* The L.C.C. is to reconstruct the Smithfield Meat Trades Institute, Holborn, at a cost of £45,450.

LEWISHAM. *Houses, etc.* Plans passed by the B.C.: 11 houses, Liphook Crescent, for Mr. H. Macintosh; 145 houses, Whitefoot Lane, for Messrs. Wates (Streatham), Ltd.; five houses, Horniman Drive, for Mr. John Lax; rebuilding, 24-26 Panmure Road, for Messrs. A. and A. Gammon; block of flats, 176 Devonshire Road, for Messrs. Furnsales, Ltd.; block of flats, Queen's Road, for Mr. A. Higuer; block of flats, adjoining River Ravensbourne, for Mr. A. J. Caney.

MALDEN. *Stores.* Messrs. F. W. Woolworth & Co. are to erect new up-to-date stores on a site in Malden and Blagden Roads.

NORBURY. *Cinema.* Mr. D. H. Harrington, 32 Craven Street, W.C.2, has prepared plans for the erection of a cinema in London Road.

NORTHOLT. *Extensions.* Mr. Charles Sykes, 161 New Bond Street, W.1, has prepared plans for extensions to the garage of West Green Garages, Ltd., at Western Avenue, plans for which have been approved.

NORTHOLT. *Church, etc.* The Ealing T.C. has agreed to raise no objection to the erection of a church, presbytery and schools on a site in Greenford Road. The architect is Mr. John E. Sterrett, 27 Buckingham Gate, S.W.1.

SOUTHERN COUNTIES

BOGNOR. *Police Station.* The West Sussex C.C. has approved plans for the erection of a police station and quarters at Bognor.

BOGNOR. *School.* The West Sussex Education Committee has approved plans for the erection of an elementary school in West Loats Lane, Bognor.

CHICHESTER. *Extensions.* The West Sussex Education Committee is to obtain tenders for extensions at Chichester secondary school, at an estimated cost of £13,375.

CHICHESTER. *Poor Law Institution.* The West Sussex C.C. has approved plans for the erection of a new poor law institution at Chichester.

DOVER. *School.* The Kent Education Committee is negotiating for a site at Dover for the erection of a secondary school.

HASTINGS. *Cinema.* Messrs. Verity and Beverley, architects, have prepared plans on behalf of the Union Cinematograph Co., Ltd., for the erection of a cinema in Cambridge Road, Hastings, and the Watch Committee has agreed to grant the licence.

HASTINGS. *Houses, etc.* Plans passed by the Corporation: 10 houses, Sedlescombe Road, for Mr. George Fryer; house, The Green, for Messrs. Ward, Son and Wray; six houses, Bexhill Road, for Bexleigh Estates, Ltd.; alterations, Hare and Hounds Inn, Old London Road, for Tamplins and Sons Brewery, Ltd.; four houses, Gillside Drive, for Mr. F. W. Southwell; alterations, 40 White Rock, for Mr. J. Simmonds.

LANCING. *School.* The West Sussex Education Committee has instructed the county architect to prepare plans for the erection of a junior school for 288 at Lancing.

SELSEY. *School.* The West Sussex Education Committee has purchased a site at Selsey for the erection of an elementary school.

SOUTH-WESTERN COUNTIES

TORQUAY. *Houses.* Mr. Nickels is to erect 65 houses at Maidenhead Cross, Torquay.

TORQUAY. *Houses, etc.* The Corporation is considering lay-out plans by the borough engineer for 428 houses at Watcombe and 414 at Sherwell Valley.

TORQUAY. *Houses, etc.* Plans passed by the Corporation: Four houses, Sherwell Valley Road, for Chelston Building Co.; four houses, Cadewell Crescent, for Messrs. R. H. Peeke and Son; Market alterations, Market Street, for Torquay Market Co., Ltd.; two houses, Foxhole Road, for Messrs Midgley and Hardy, Ltd.; eight houses, Audley Avenue, for Messrs. S. Hawkins and Son, Ltd.

EASTERN COUNTIES

LOWESTOFT. *Shops, etc.* Plans passed by the Corporation: Two shops and two houses, Yarmouth Road, for Mr. A. E. Ingles; four houses, Kirkley Run, for Mr. W. J. Woollard; two houses, Gunton Drive, for Messrs. D. Leighton and Son, Ltd.; two houses, Wellington Road, for Mr. F. Rushmere; 104 houses, St. Margarets estate, for Messrs. Warnes and Son.

YARMOUTH. *Bus Depot.* The Eastern Counties Omnibus Co., Ltd., is to erect a bus depot in St. Peters Road, Yarmouth.

YARMOUTH. *Extensions.* The governors of the Great Yarmouth Grammar School Foundation are to enlarge the High School for Girls, Trafalgar Road, Yarmouth, at a cost of £14,000.

YARMOUTH. *Houses.* The Corporation is obtaining land in Barnard Avenue for the erection of 250 houses.

NORTHERN COUNTIES

ALNWICK. *School.* The Northumberland Education Committee is to erect a senior school at Alnwick, at a cost of £18,550.

CARLISLE. *Flats.* The Carlisle Corporation has instructed the borough engineer to prepare a scheme for the erection of flats for re-housing displaced tenants.

CARLISLE. *Houses, etc.* Plans passed by the Corporation: Ten houses, Eldred Street, for Messrs. E. J. Hill and Sons; four houses, Lamb Street, for Messrs. Benwell and Slack; six houses, London Road, for Messrs. J. Laing and Son, Ltd.; two houses, Longlands Road, for Mr. H. Irving Graham; extensions Nestlé's Milk Depot, Currock Road, for Mr. F. R. Taylor; laundry, Nazareth House, Kingmoor Road, for Messrs. Pugin and Pugin; workshop, West Walls, for Messrs. Kettle Ltd.

HASWELL. *Durham.* H.M. Office of Works is to erect an employment exchange in Church Street, Haswell, Co. Durham.

LANGLEY PARK. *Cinema.* The Zymo Cinema Co., are to erect a cinema in Esh Terrace, Langley Park, Co. Durham.

NEWTON-ON-THE-MOOR. *School.* The Northumberland Education Committee is to erect an elementary school at Newton-on-the-Moor, at a cost of £14,000.

REDCAR. *Pavilion.* The Corporation has asked the borough engineer to prepare plans for the erection of a pavilion in Zetland Park.

ROTHERHAM. *Bus Station.* The Corporation Transport Committee is to extend the bus garage accommodation at a cost of £15,000.

ROTHERHAM. *Fire Station and Dwelling.* The Corporation has approved plans by the borough engineer for the erection of a new fire station and 26 dwellings for firemen.

RUDHEATH. *School.* The Cheshire Education Committee is to erect a senior school at Rudheath at a cost of £28,400.

SMETHWICK. *Hospital.* The Smethwick and Oldbury Joint Hospital Committee has obtained sanction to borrow £14,984 for hospital extensions.

SOUTH SHIELDS. *Isolation Hospital, etc.* The Corporation has approved plans by the borough engineer for the proposed isolation hospital at Cleadon Park; and the erection of a maternity hospital at the Harton Institution.

SOUTH SHIELDS. *School.* The South Shields Education Committee has appointed Messrs. Morton and Son as architects for the new school to be erected at Cleadon.

SOUTH SHIELDS. *Holiday Camp.* Messrs. J. H. Morton and Son have prepared a scheme, on behalf of the National Council of Social Service, for the construction of a holiday camp at Lizard Lane, South Shields.

WASHINGTON. *Employment Exchange.* H.M. Office of Works is to erect an employment exchange in Eden Terrace, Washington, Co. Durham.

SCOTLAND

GLASGOW. *Grandstand, etc.* Plans passed by the Corporation: Hall offices and grandstand, Hawthorn Street, for Ashfield Football Club; workshop, St. Rollox, for Messrs. Fleming Bros.; alterations and additions, Wellington Mills, Mary Street, Port Dundas, for Messrs. E. MacBean & Co., Ltd.; three houses, Wester Road, for Messrs. A. A. Stuart and Sons, Ltd.

GLASGOW. *Houses.* The Corporation has approved plans by the housing director for the erection of 163 houses on the Dalmarnock clearance area.

GLASGOW. *Telephone Exchange.* H.M. Office of Works is to enlarge the telephone exchange in Broomloan Road, Govan, Glasgow.

HELENSBURGH. *Houses.* The Town Council has decided to employ a firm of specially qualified architects to prepare a scheme for the development of sites at Alma Place and Gowanbank for housing purposes.

WALES

SWANSEA. *Houses.* The Corporation is to erect 234 houses on the Gelligrafog estate.

SWANSEA. *School.* The Swansea Education Committee has approved plans by the borough architect for the erection of the new grammar school.

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	II
			s. d.	s. d.
A_1	ABERDARE ..	S. Wales & M.	1 5½	1 1½
A	Aberdeen ..	Scotland	1 6½	1 2
A_1	Abergavenny	S. Wales & M.	1 6	1 1½
A_2	Abingdon ..	S. Counties	1 5	1 0½
A	Accrington ..	N.W. Counties	1 6½	1 2
A_2	Addlestone ..	S. Counties	1 5	1 0½
A	Adlington ..	N.W. Counties	1 6½	1 2
A	Airdrie ..	Scotland	*1 6½	1 2
C	Aldeburgh ..	E. Counties	1 2½	11
A	Altrincham ..	N.W. Counties	1 6½	1 2
B_2	Appleby ..	N.W. Counties	1 3	11½
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ..	S. Counties	1 4	1 0
B_1	BANBURY ..	S. Counties	1 4	1 0
B_1	Bangor ..	N.W. Counties	1 4	1 0
A_2	Barnard Castle	N.E. Coast	1 5	1 0½
A	Barnsley ..	Yorkshire	1 6½	1 2
B	Barnstaple ..	S.W. Counties	1 4½	1 0½
A	Barrow ..	N.W. Counties	1 6½	1 2
A	Barry ..	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ..	S.W. Counties	1 4	1 0
A_2	Bath	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 6½	1 2
A_2	Bedford ..	E. Counties	1 5½	1 1½
A_2	Berwick-on Tweed	N.E. Coast	1 5½	1 1½
A_2	Bewdley ..	Mid. Counties	1 5½	1 1½
B_2	Bicester ..	S. Counties	1 3	11½
	Birkenhead ..	N.W. Counties	*1 7½	1 2½
A	Birmingham ..	Mid. Counties	1 6½	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ..	N.W. Counties	1 6½	1 2
A	Blackpool ..	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 6½	1 2
A_2	Boston ..	Mid. Counties	1 5	1 0½
A_2	Bournemouth ..	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 3½	11½
A	Bradford ..	Yorkshire	1 6½	1 2
A_1	Brentwood ..	E. Counties	1 6	1 1½
A	Bridgend ..	S. Wales & M.	1 6½	1 2
B	Bridgwater ..	S.W. Counties	1 4½	1 0½
A_1	Bridlington ..	Yorkshire	1 6	1 1½
A	Brighouse ..	Yorkshire	1 6½	1 2
A_2	Brighton ..	S. Counties	1 5½	1 1½
A	Bristol ..	S.W. Counties	1 6½	1 2
B	Brixham ..	S.W. Counties	1 3½	11½
A	Bromsgrove ..	Mid. Counties	1 5½	1 1½
B	Bromyard ..	Mid. Counties	1 3	11½
A	Burnley ..	N.W. Counties	1 6½	1 2
A	Burslem ..	Mid. Counties	1 6½	1 2
A	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ..	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE	E. Counties	1 6	1 1½
B_1	Canterbury ..	S. Counties	1 4	1 0
A	Cardiff ..	S. Wales & M.	1 6½	1 2
A	Carlisle ..	N.W. Counties	1 6½	1 2
B	Carmarthen ..	S. Wales & M.	1 4½	1 0½
B	Carnarvon ..	N.W. Counties	1 4½	1 0½
A	Carnforth ..	N.W. Counties	1 6½	1 2
A	Castleford ..	Yorkshire	1 6½	1 2
A_2	Chatham ..	S. Counties	1 5	1 0½
A	Chelmsford ..	E. Counties	1 5	1 0½
A	Cheltenham ..	S.W. Counties	1 5	1 0½
A	Chester ..	N.W. Counties	1 6½	1 2
A	Chesterfield ..	Mid. Counties	1 6½	1 2
B_1	Chichester ..	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 6½	1 2
B_1	Cirencester ..	S. Counties	1 4	1 0
A	Clitheroe ..	N.W. Counties	1 6½	1 2
A	Clydebank ..	Scotland	1 6½	1 2
A	Coalville ..	Mid. Counties	1 6½	1 2
A_2	Colchester ..	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_2	Colwyn Bay	N.W. Counties	1 5½	1 1½
A_1	Consett ..	N.E. Coast	1 6	1 1½
A_2	Conway ..	N.W. Counties	1 5½	1 1½
A	Coventry ..	Mid. Counties	1 6½	1 2
A_2	Crewe ..	N.W. Counties	1 5½	1 1½
A	Cumberland	N.W. Counties	1 5	1 0½
A	DARLINGTON	N.E. Coast	1 6½	1 2
A	Darwen ..	N.W. Counties	1 6½	1 2
B_1	Deal	S. Counties	1 4	1 0
A_2	Denbigh ..	N.W. Counties	1 5	1 0½
A	Derby ..	Mid. Counties	1 6½	1 2
A	Dewsbury ..	Yorkshire	1 6½	1 2
B	Didcot ..	S. Counties	1 4½	1 0½
A	Doncaster ..	Yorkshire	1 6½	1 2
B_1	Dorchester ..	S.W. Counties	1 4	1 0
A	Driffield ..	Yorkshire	1 5	1 0½
A_2	Droitwich ..	Mid. Counties	1 5½	1 1½
A	Dudley ..	Mid. Counties	1 6½	1 2
A_2	Dumfries ..	Scotland	1 6	1 1½
A	Dundee ..	Scotland	1 6½	1 2
A	Durham ..	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale ..	S. Wales & M.	1 6	1 1½
A	Edinburgh ..	Scotland	1 6½	1 2
A_1	E. Glamorganshire, Rhondda Valley District	S. Wales & M.	1 6	1 1½
A_2	Exeter	S.W. Counties	*1 5½	1 1½
B	Exmouth ..	S.W. Counties	1 4½	1 0½
A_2	FELIXSTOWE	E. Counties	1 5	1 0½
A	Filey	Yorkshire	1 5	1 0½
A	Fleetwood ..	N.W. Counties	1 6½	1 2
B_1	Folkestone ..	S. Counties	1 4	1 0
A	Frodsham ..	N.W. Counties	1 6½	1 2
B_2	Frome ..	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ..	S. Counties	1 4½	1 0½
A	Glasgow ..	Scotland	1 7	1 2½
A_2	Gloucester ..	S.W. Counties	1 5½	1 1½
A_2	Goole	Yorkshire	1 5½	1 1½
A_2	Gosport ..	S. Counties	1 5½	1 1½
A_2	Grantham ..	Mid. Counties	1 5	1 0½
A_1	Gravesend ..	S. Counties	1 6	1 1½
A	Greenock ..	Scotland	*1 6½	1 2
A	Grimsby ..	Yorkshire	1 6½	1 2
B	Guildford ..	S. Counties	1 4½	1 0½
A	HALIFAX ..	Yorkshire	1 6½	1 2
A	Hanley ..	Mid. Counties	1 6½	1 2
A	Harrogate ..	Yorkshire	1 6½	1 2
A	Hartlepools ..	N.E. Coast	1 6½	1 2
B	Harwich ..	E. Counties	1 4½	1 0½
B_1	Hastings ..	S. Counties	1 4	1 0
A_2	Hatfield ..	S. Counties	1 5½	1 1½
B	Hereford ..	S.W. Counties	1 4½	1 0½
A	Hertford ..	E. Counties	1 5½	1 1½
A	Heysham ..	N.W. Counties	1 6½	1 2
A	Howden ..	N.E. Coast	1 6½	1 2
A	Huddersfield ..	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ..	Yorkshire	1 6½	1 2
A	Immingham ..	Mid. Counties	1 6½	1 2
A_2	Ipswich ..	E. Counties	1 5½	1 1½
B_2	Isle of Wight ..	S. Counties	1 4½	1 0½
A	JARROW ..	N.E. Coast	1 6½	1 2
A	KEIGHLEY ..	Yorkshire	1 6½	1 2
A_2	Kendal ..	N.W. Counties	1 5	1 0½
A_3	Keswick ..	N.W. Counties	1 5	1 0½
A_1	Kettering ..	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 5½	1 1½
B_1	King's Lynn ..	E. Counties	1 4	1 0
A	LANCASTER ..	N.W. Counties	1 6½	1 2
A_1	Leamington ..	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ..	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11½
A_2	Lichfield ..	Mid. Counties	1 5½	1 1½
A	Lincoln ..	Mid. Counties	1 6½	1 2
	Liverpool ..	N.W. Counties	*1 8	1 3
A_2	Llandudno ..	N.W. Counties	1 5½	1 1½
A	Llanelly ..	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2½
A	Long Eaton ..	Mid. Counties	1 6½	1 2
A	Loughborough	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A_2	Maidstone ..	S. Counties	1 5	1 0½
A_3	Malvern ..	Mid. Counties	1 5	1 0½
A	Manchester ..	N.W. Counties	1 6½	1 2
A	Mansfield ..	Mid. Counties	1 6½	1 2
B_1	Margate ..	S. Counties	1 4	1 0
A	Matlock ..	Mid. Counties	1 5	1 0½
A_1	Merthyr ..	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N.E. Coast	1 6½	1 2
A_2	Middlewich ..	N.W. Counties	1 5½	1 1½
B_2	Minehead ..	S.W. Counties	1 3½	11½
B_2	Monmouth .. & S. and E. Glamorganshire	S. Wales & M.	1 3½	11½
A	Morecambe ..	N.W. Counties	1 6½	1 2
A_2	NANTWICH ..	N.W. Counties	1 5½	1 1½
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ..	N.W. Counties	1 6½	1 2
A	Newcastle ..	N.E. Coast	1 6½	1 2
A	Newport ..	S. Wales & M.	1 6½	1 2
A	Normanton ..	Yorkshire	1 6½	1 2
A	Northampton	Mid. Counties	1 6½	1 2
A	North Staffs ..	Mid. Counties	1 6½	1 2
A	North Shields	N.E. Coast	1 6½	1 2
A_1	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham ..	Mid. Counties	1 6½	1 2
A	Nuneaton ..	Mid. Counties	1 6½	1 2
A	OAKHAM ..	Mid. Counties	1 5	1 0½
A	Oldham ..	N.W. Counties	1 6½	1 2
A_2	Oswestry ..	N.W. Counties	1 5	1 0½
A_1	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 6½	1 2
B_2	Pembroke ..	S. Wales & M.	1 3	11½
A	Perth	Scotland	*1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ..	S.W. Counties	*1 6½	1 2
A	Pontefract ..	Yorkshire	1 6½	1 2
A_1	Pontypridd ..	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ..	S. Counties	1 5½	1 1½
A	Preston ..	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ..	S. Counties	1 5½	1 1½
B	Reigate ..	S. Counties	1 4½	1 0½
A	Retford ..	Mid. Counties	1 5	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	Yorkshire	1 5	1 0½
A	Rochdale ..	N.W. Counties	1 6½	1 2
B	Rochester ..	S. Counties	1 4½	1 0½
A_1	Ruabon ..	N.W. Counties	1 6	1 1½
A	Rugby ..	Mid. Counties	1 6½	1 2
A_2	Rugeley ..	Mid. Counties	1 5½	1 1½
A	Runcorn ..	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ..	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 6½	1 2
B_3	Salisbury ..	S.W. Counties	1 3½	11½
A_1	Scarborough ..	Yorkshire	1 6	1 1½
A	Scunthorpe ..	Mid. Counties	1 6½	1 2
A	Sheffield ..	Yorkshire	1 6½	1 2
A	Shipley ..	Yorkshire	1 6½	1 2
A_2	Shrewsbury ..	Mid. Counties	1 5½	1 1½
A_2	Skipton ..	Yorkshire	1 5½	1 1½
A_2	Slough ..	S. Counties	1 5½	1 1½
A_1	Solihull ..	Mid. Counties	1 6	1 1½
A_2	Southampton ..	S. Counties	1 5½	1 1½
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ..	N.W. Counties	1 6½	1 2
A	S. Shields ..	N.E. Coast	1 6½	1 2
A_1	Stafford ..	Mid. Counties	1 6	1 1½
A	Stirling ..	Scotland	1 7	1 2½
A	Stockport ..	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud	S.W. Counties	1 4½	1 0½
A	Sunderland ..	N.E. Coast	1 6½	1 2
A	Swansea ..	S. Wales & M.	1 6½	1 2
A	Swindon ..	S.W. Counties	1 5	1 0½
A_1	TAMWORTH ..	N.W. Counties	1 6	1 1½
B	Taunton ..	S.W. Counties	1 4½	1 0½
A	Teesside Dist...	N.E. Counties	1 6½	1 2
A_2	Teignmouth ..	S.W. Coast	1 5½	1 1½
A	Todmorden ..	Yorkshire	1 6½	1 2
A_1	Torquay ..	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11½
A_3	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ..	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ..	Mid. Counties	1 6½	1 2
A	Warrington ..	N.W. Counties	1 6½	1 2
A_1	Warwick ..	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1½
A_2	Whitby ..	Yorkshire	1 5½	1 1½
A	Widnes ..	N.W. Counties	1 6½	1 2
A	Wigan ..	N.W. Counties	1 6½	1 2
B	Winchester ..	S. Counties	1 4½	1 0½
A_2	Windsor ..	S. Counties	1 5½	1 0½
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ..	Mid. Counties	1 5½	1 1½
A_3	Worksop ..	Yorkshire	1 5	1 0½
A_1	Wrexham ..	N.W. Counties	1 6	1 1½
A	Wycombe ..	S. Counties	1 5	1 0½
B	YARMOUTH ..	E. Counties	1 4½	1 0½
B	Yeovil	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

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

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

CURRENT PRICES

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

WAGES

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

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	16	6
Hydrated Lime	,,	3	0	9
Portland Cement, in 4 ton lots (d/d site, including Paper Bags)	,,	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	,,	2	5	0
White Portland Cement, in 1 ton lots	,,	8	15	0
Thames Ballast	per Y.C.		6	6
¾" Crushed Ballast	,,		7	0
Building Sand	,,		7	6
Washed Sand	,,		8	6
2" Broken Brick	,,		8	0
¾" ,, ,,	,,		10	3
Pan Breeze	,,		6	6
Coke Breeze	,,		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	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.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	,,	9	0	15	0
Single junctions	,,	8	9	18	0
Double junctions	,,	13	6	30	0
Lead Wool	b.		6		—
Gaskin	,,		5		—

BRICKLAYER

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

MASON

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

SLATER AND TILER

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

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

CARPENTER AND JOINER

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

Plywood, per ft. sup.

Thickness	¼"			½"			¾"			1"		
Qualities	A d.	B d.	BB d.	A d.	B d.	BB d.	A d.	B d.	BB d.	A d.	B d.	BB 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	0	1/-	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

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

	¼"	½"	1"	1¼"	2"
Tubes, 2'-14' long, per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"-23" long each	10	1/1	1/11	2/8	4/9
,, 3"-11½" long ,,	7	9	1/3	1/8	3/-
Long screws, 12"-23½" long,,	11	1/3	2/2	2/10	5/3
,, ,, 3" M-1½" long ,,	8	10	1/5	1/11	3/6
Bends	8	11	1/7½	2/7½	5/2
Springs not socketed ,,	5	7	1/1½	1/11½	3/11
Socket unions ,,	2/-	3/-	5/6	6/9	10/-
Elbows, square ,,	10	1/1	1/6	2/2	4/3
Tees ,,	1/-	1/3	1/10	2/6	5/1
Crosses ,,	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples ,,	3	4	6	8	1/3
Diminished sockets ,,	4	6	9	1/-	2/-
Flanges ,,	9	1/-	1/4	1/9	2/9
Caps ,,	3½	5	8	1/-	2/-
Backnuts ,,	2	3	5	6	1/1
Iron main cocks ,,	1/6	2/3	4/2	5/4	11/6
,, with brass plugs ,,	—	4/-	7/6	10/-	21/-

Discounts:

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

SMITH AND FOUNDER—*continued*

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ¼"	,,	10	6
,, ,, ⅜"	,,	10	3
,, ,, ½"	,,	10	0
,, ,, ⅝"	,,	9	6
,, ,, ¾"	,,	9	6
,, ,, 1"	,,	8	6
,, ,, 1¼"	,,	9	6
,, ,, 1½"	,,	9	6

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

PLUMBER

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

L.C.C. soil and waste pipes:	3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	,,	1	1	1	3	2	8
Galvanized	,,	2	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	5	0
Plaster, coarse	,,	2	10	0
,, fine	,,	4	15	0
Hydrated lime	,,	3	0	9
Sirapite	,,	3	6	0
Keene's cement	,,	5	0	9
Gothite Plaster	,,	3	6	0
Pioneer Plaster	,,	3	6	0
Thistle plaster	,,	3	6	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
,, rent	,,		3	9
Lath nails	lb.			3

GLAZIER

	s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft.				2½
,, ,, 26 oz. ,, ,,				3
Flemish, Arctic, Figures (white)*	,,			7
Blazoned glasses	,,		2	6
Reeded: Cross Reeded	,,			11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	,,			6
Crown sheet glass (n/e 12 in. x. 10 in.)	,,		2	0
Flashed opals (white and coloured	,,	1 0	and 2	0
¼" rough cast: rolled plate	,,			5½
¼" wired cast; wired rolled	,,			9½
¼" Georgian wired cast	,,			11
¼" Polished plate, n/e 1 ft.	,,	†10	to	‡1 1
,, ,, 2	,,	†1	2 ,,	‡1 4
,, ,, 4	,,	†2	3 ,,	‡2 6
,, ,, 8	,,	†2	9 ,,	‡3 2
,, ,, 20	,,	†3	1 ,,	‡3 9
,, ,, 45	,,	†3	3 ,,	‡4 0
,, ,, 100	,,	†4	0 ,,	‡4 10
Vita glass, sheet, n/e 1 ft.	,,			1 0
,, ,, ,, 2 ft.	,,			1 3
,, ,, ,, over 2 ft.	,,			1 9
,, ,, plate, n/e 1 ft.	,,			1 6
,, ,, ,, 2 ft.	,,			3 0
,, ,, ,, 5 ft.	,,			4 0
,, ,, ,, 7 ft.	,,			5 0
,, ,, ,, 15 ft.	,,			6 0
,, ,, ,, over 15 ft.	,,			7 6
"Calorex" sheet 21 oz., and 32 oz.	,,	2	6 and	3 6
,, rough cast ¼" and ½"	,,		8½ ,,	1 0
Putty, linseed oil	lb.			3

* Colours, 1d. F.S. extra.

† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

PAINTER

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

BRICKLAYER

		£ s. d.
Brickwork, Flettons in lime mortar	Per Rod	26 10 0
" " in cement	"	27 12 6
" Stocks in cement	"	34 0 0
" Blues in cement	"	50 0 0
Extra only for circular on plan	"	2 0 0
" backing to masonry	"	1 10 0
" raising on old walls	"	2 0 0
" underpinning	"	5 10 0½
Fair Face and pointing internally	F.S.	1½
Extra over fletton brickwork for picked stock facings and pointing	"	8
" " " red brick facings and pointing	"	11
" " " blue brick facings and pointing	"	1 4
" " " glazed brick facings and pointing	"	3 6
Tuck pointing	"	7½
Weather pointing in cement	"	3
Slate dampcourse	"	10
Vertical dampcourse	"	1 1

ASPHALTER

		s. d.
½" Horizontal dampcourse	Y.S.	4 9
½" Vertical dampcourse	"	7 9
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 labours hoisting, fixing and cleaning down, complete	F.C.	17 9
Bath stone and do., all as last	"	13 6
Artificial stone and do	"	13 0
York stone templates, fixed complete	"	10 6
" thresholds	"	13 6
" sills	"	1 0 6

SLATER AND TILER

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

CARPENTER AND JOINER

		£ s. d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2 2 6
Shuttering to sides and soffits of beams	F.S.	7
" to stanchions	"	7
" to staircases	"	1 6
Fir and fixing in wall plates, lintols, etc.	F.C.	3 9
Fir framed in floors	"	4 6
" " roofs	"	6 6
" " trusses	"	7 6
" " partitions	"	8 6
¾" deal sawn boarding and fixing to joists	Sqr.	1 14 6
1" " " " " "	"	1 17 6
1½" " " " " "	"	2 3 0
3" × 2" fir battening for Countess slating	"	9 6
Do., for 4" gauge tiling	"	12 0
Stout feather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
" " " 2 "	"	2 9
" " " 3 "	"	3 3
Stout herringbone strutting to 9" joists	F.R.	10½
1" deal gutter boards and bearers	F.S.	1 2
1½" " " "	"	1 6
2" deal wrought rounded roll	F.R.	8
1" deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
1½" do.	"	2 10 0
1¼" do.	"	2 17 0
1" deal moulded skirting, fixed on, and including grounds plugged to wall	F.S.	1 6
1½" do.	"	1 9

CARPENTER AND JOINER—*continued*

		s. d.
1½" deal moulded sashes of average size	F.S.	1 9½
2" " " " " "	"	1 11½
1½" deal cased frames double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ¾" parting beads, and with brass faced axle pulleys, etc., fixed complete		3 7
2" " " " " "	"	3 10
Extra only for moulded horns	Each	6
1½" deal four-panel square, both sides, door	F.S.	2 0
2" " " " " "	"	2 8
1½" " but moulded both sides	"	2 4
2" " " " " "	"	3 0
4" × 3" deal, rebated and moulded frames	F.R.	1 0
4½" × 3½" " " "	"	1 4
1¼" deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages	"	2 6
1½" deal moulded wall strings	"	2 1
1½" " outer strings	"	2 4
Ends of treads and risers housed to string	Each	1 9
3" × 2" deal moulded handrail	F.R.	1 3
1" × 1" deal balusters and housing each end	Each	2 0
1½" × 1½" " " "	"	2 9
3" × 3" deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 0
Do., pendants	"	6 0

SMITH AND FOUNDER

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

PLUMBER

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

		½" s. d.	¾" s. d.	1" s. d.	1½" s. d.	2" s. d.	4" s. d.
Lead service pipe and fixing with pipe hooks	F.R.	10	1 0	1 3	2 0	2 10	—
Do. soil pipe and fixing with cast lead tacks	"	—	—	—	—	—	5 6
Extra, only to bends	Each	—	—	—	—	2 0	6 9
Do. to stop ends	"	6½	8	9	11	1 0	—
Boiler screws and unions	"	3 3	3 9	5 0	8 0	—	—
Lead traps	"	—	—	—	6 3	8 9	—
Screw down bib valves	"	6 9	9 6	11 0	—	—	—
Do. stop cocks	"	7 0	9 6	12 6	—	—	—
4" cast-iron ½-rd. gutter and fixing	F.R.						1 0
Extra, only stop ends	Each						1 0
Do. angles	"						1 6
Do. outlets	"						2 9
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.						1 2
Extra, only for shoes	Each						1 3
Do. for plain heads	"						5 6

PLASTERER AND TILING

		s d.
Expanded metal lathing, small mesh	Y.S.	2 0
Do. in n/w to beams, stanchions, etc.	"	2 9
Lathing with sawn laths to ceilings	"	1 3
½" screeding in Portland cement and sand or tiling, wood block floor, etc.	"	1 5
Do. vertical	"	1 7
Rough rénder on walls	"	1 2½
Render, float and set in lime and hair	"	1 9
Render and set in Sirapite	"	1 11
Render, backing in cement and sand, and set in Keene's cement	"	2 9
Extra, only if on lathing	"	4
Keene's cement, angle and arris	F.R.	6
Arris	"	1½
Rounded angle, small	"	3
Plain cornices in plaster, including dubbing out, per 1" girth	"	1½
1" granolithic pavings	Y.S.	3 6
1¼" " "	"	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

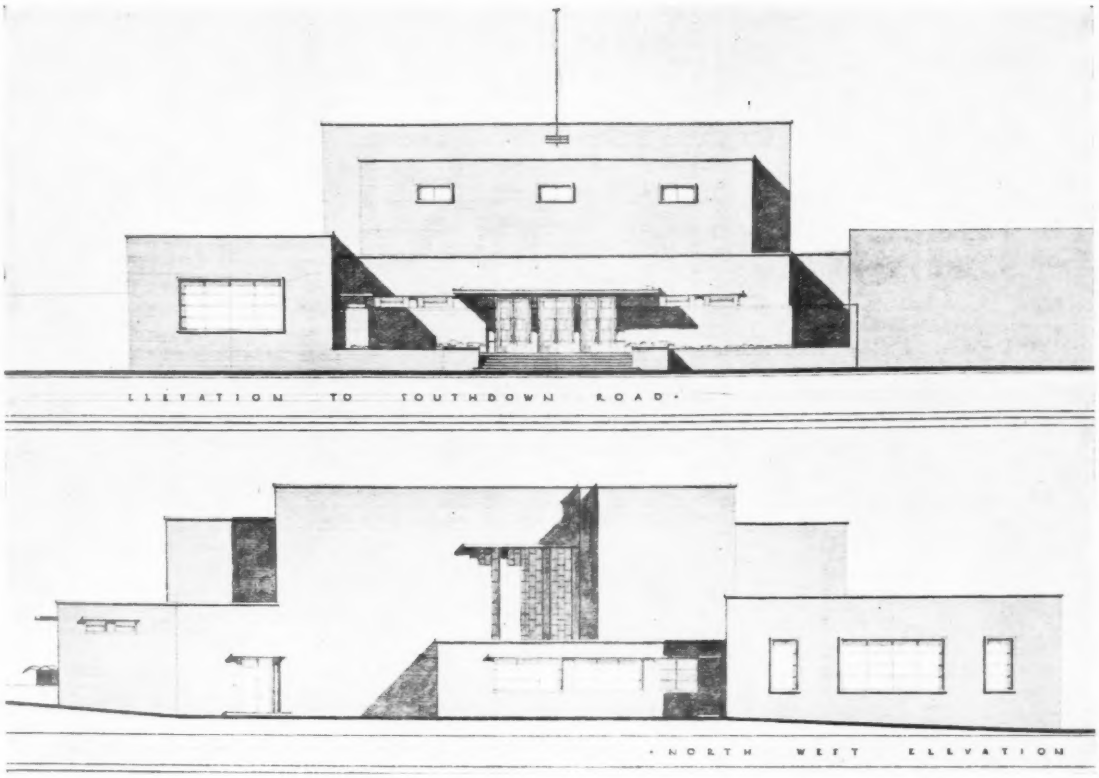
		s d.
21 oz. sheet glass and glazing with putty	F.S.	6½
26 oz. do. and do.	"	7½
Flemish, Arctic Figured (white) and glazing with putty	"	1 1
Cathedral glass and do.	"	1 2
Glazing only, British polished plate	"	7
Extra, only if in beds	"	2
Washleather	F.R.	4

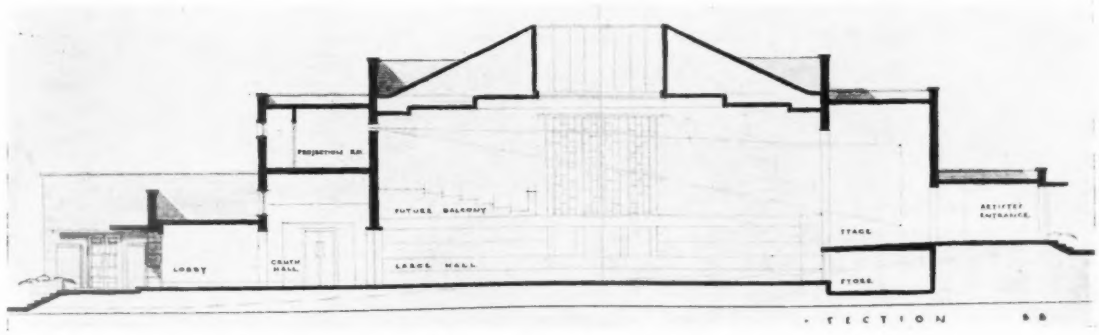
PAINTER

		s. d.
Clearcolle and whiten ceilings	Y.S.	8
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

HARPENDEN COMPETITION

THE PREMIATED DESIGNS





DESIGN PLACED FIRST: BY G. R. YEATS AND T. A. BULL

MR. ROBERT LOWRY, F.R.I.B.A., the assessor of the competition for proposed municipal offices, Harpenden, for the Harpenden U.D.C., has made his award as follows:

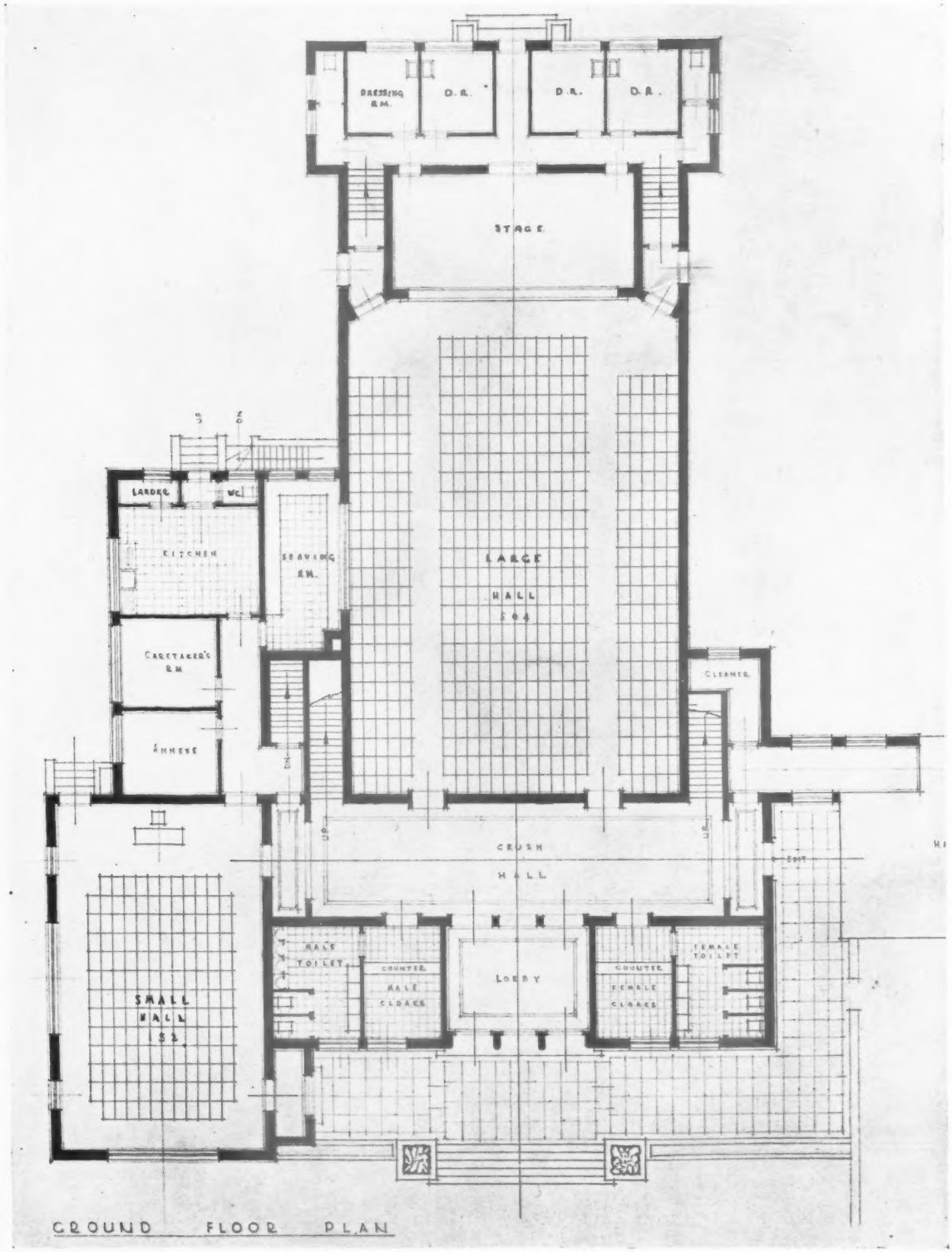
Design placed first (£100): Messrs. G. R. Yeats and T. A. Bull, of Welwyn Garden City, Herts.

Design placed second (£75): Messrs. Basil G. Duckett and J. S. Watson, of Harrow, Middlesex.

Design placed third (£50): Messrs. C. B. Pearson and Son, of Dalton Square, Lancaster.

The premiated designs are illustrated on this and the three pages following.

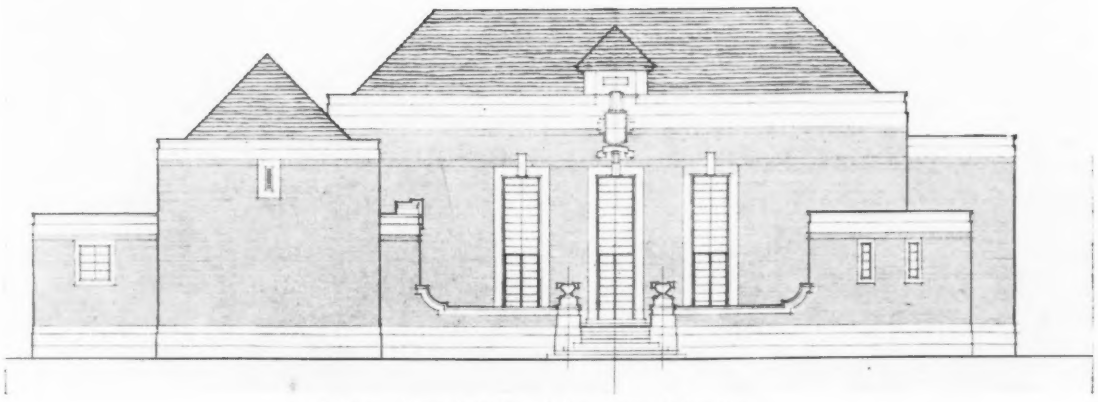
DESIGN PLACED FIRST



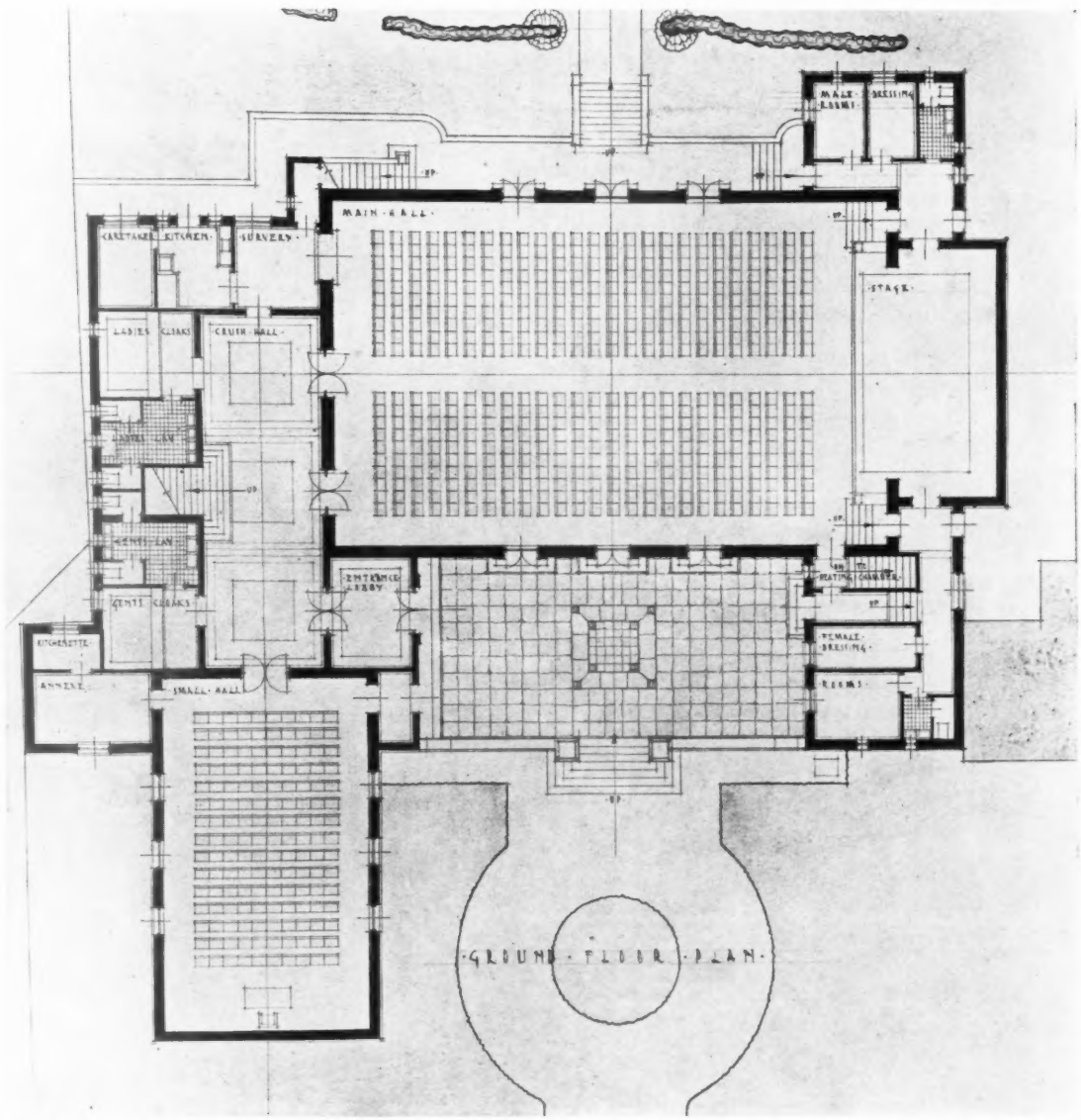
GROUND FLOOR PLAN

BY G. R. TEATS AND T. A. BULL

DESIGN PLACED SECOND

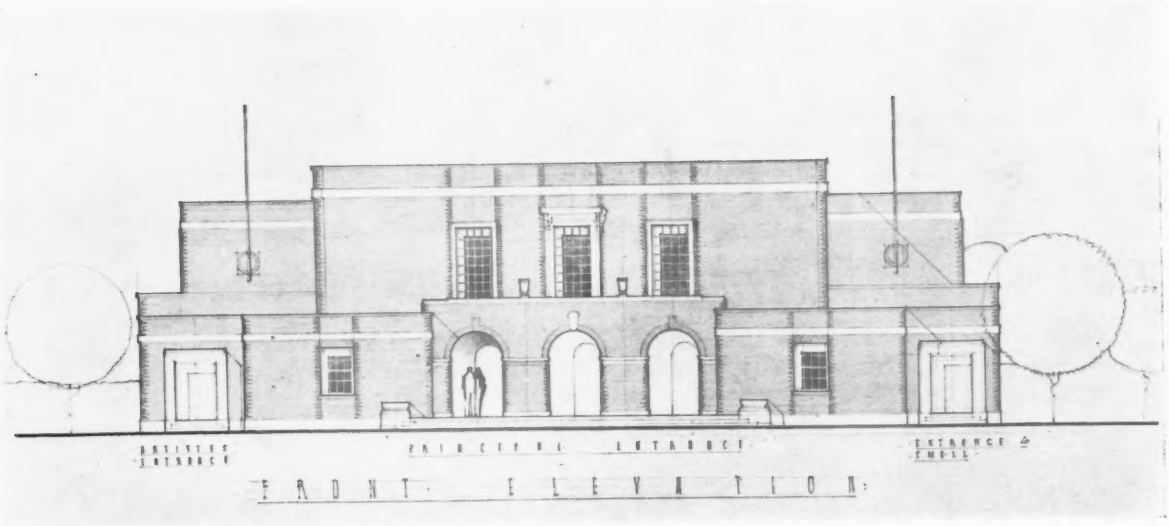


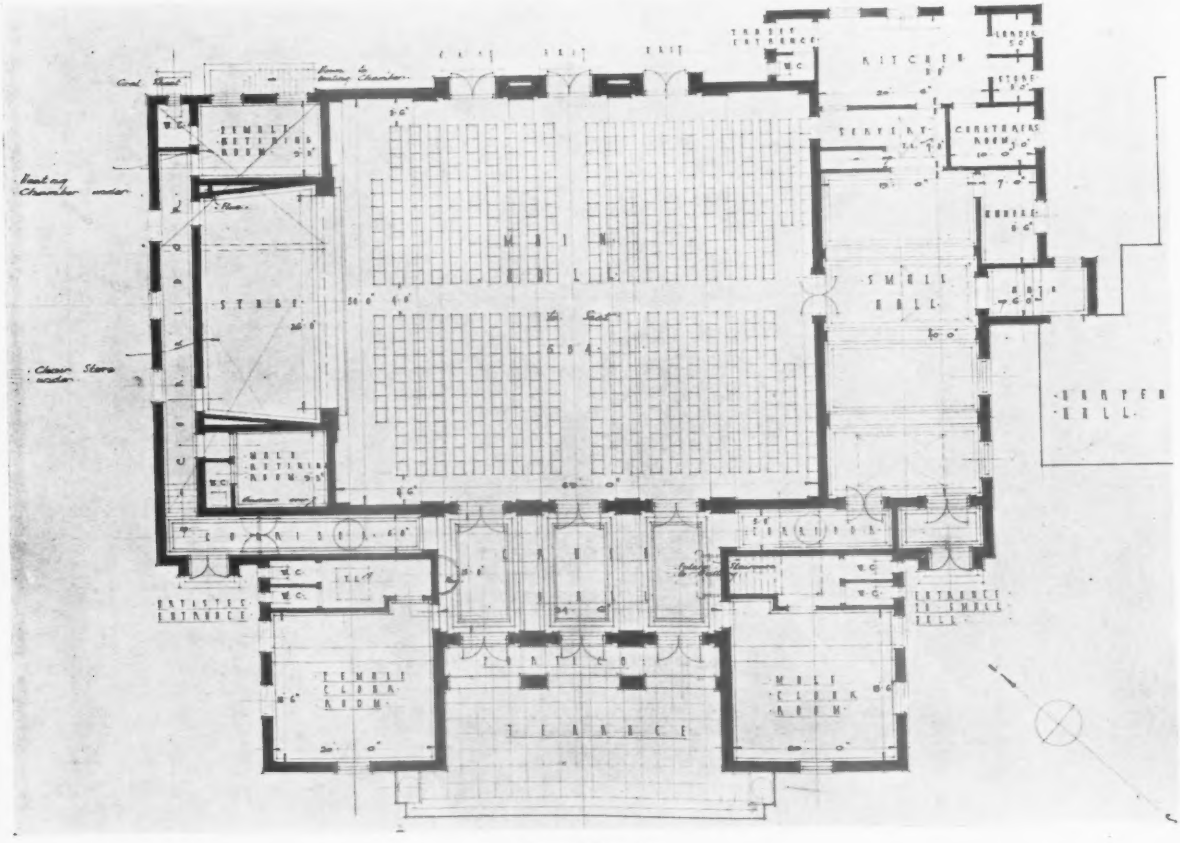
Above, front elevation; below, ground floor plan.



BY BASIL G. DUCKETT AND J. S. WATSON

DESIGN PLACED THIRD





Ground floor plan.

BY C. B. PEARSON AND SON

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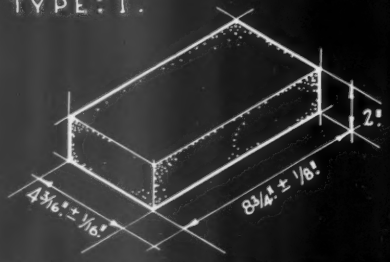
BRITISH STANDARD SIZES FOR CLAY FACINGS AND BACKING BRICKS:

This information has been extracted from British Standard Specification No. 657.

TYPE: 1.



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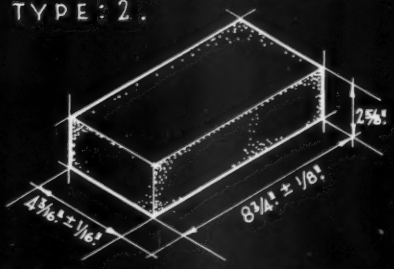
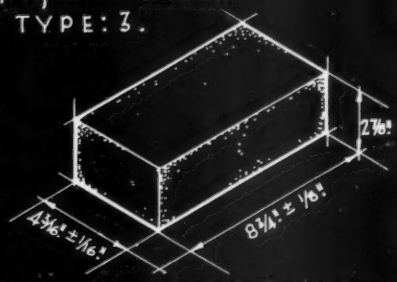


TYPE: 3.

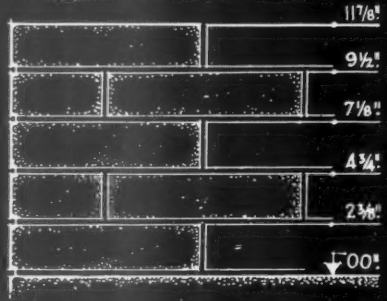


SNAP HEADERS • The width and depth shall be as standard bricks and the length shall be 4⅜6" ± 1/16".

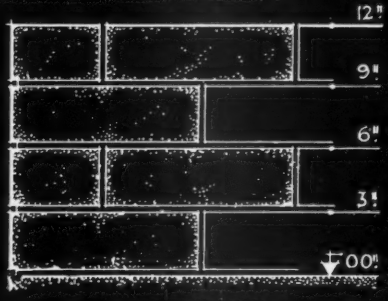
CLOSERS • The length and depth shall be as standard bricks and the width shall be 2" ± 1/16 inch.

HEIGHT OF BRICK COURSING WITH VARIOUS THICKNESS OF JOINT:

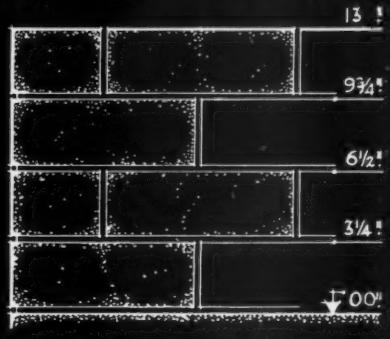
The British Standard Specification deals only with dimensions of clay bricks. It is applicable both to machine made and hand made bricks.



2" BRICK WITH ⅜" JOINTS:

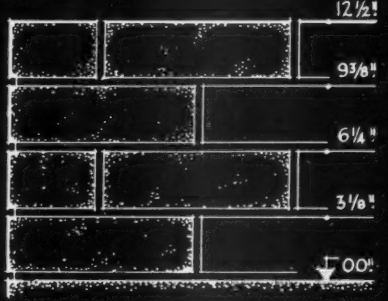


2⅝" BRICK WITH ⅜" JOINTS:

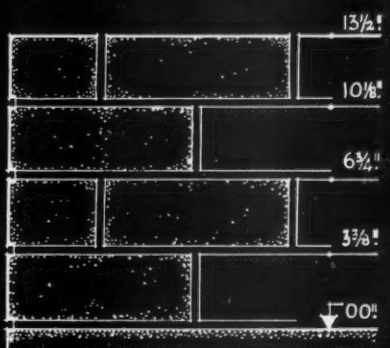


2⅞" BRICK WITH ⅜" JOINTS:

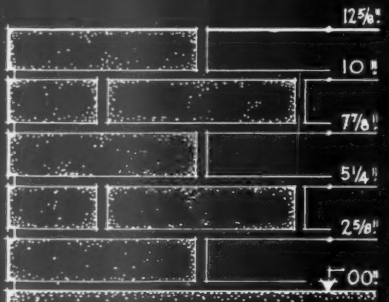
2" BRICK WITH ½" JOINTS:



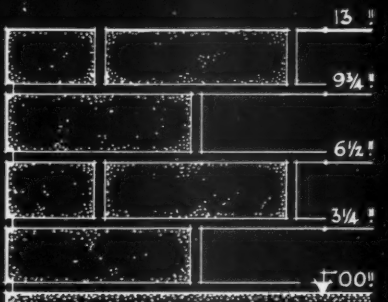
2⅝" BRICK WITH ½" JOINTS:



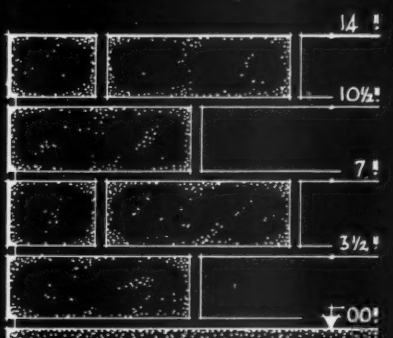
2⅞" BRICK WITH ½" JOINTS:



2" BRICK WITH ⅝" JOINTS:



2⅝" BRICK WITH ⅝" JOINTS:



2⅞" BRICK WITH ⅝" JOINTS:

Information from Clay Products Technical Bureau of Great Britain.

INFORMATION SHEET : CLAY BRICKS, BRITISH STANDARD SIZES.

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

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INFORMATION SHEET

• 331 •

BRICKWORK

The Sheet sets out by permission of the British Standards Institution, the British Standard Sizes for Clay Facing and Backing Bricks. For full information see British Standard Specification No. 657.

Clay Brick :
The term "clay" as used in the British Standard Specification (No. 657—1936) is used in a general sense and is intended to cover bricks that are kiln-made from clay and shale deposits, etc.

Manufacture :
The sizes given are applicable to both machine-made and hand-made bricks.

Brick Coursing :
The Brick coursing dimensions given do *not* form part of the British Standard Specification.

Tolerances :
The tolerance permitted by the B.S.S. on all the brick-sizes set out is $\pm \frac{1}{16}$ in.

Snap Headers :
The B.S.S. required snap headers to conform to the same dimensions as the full brick except that the length must be $4\frac{3}{16}$ in. $\pm \frac{1}{16}$ in.

Closers :
Closers are also required to be of the same dimensions as the full brick except that the width must be 2 in. $\pm \frac{1}{16}$ in.

In the table above the dimensions are taken from the outside of one brick to the other side of the other brick, i.e., dimension includes one fewer joints than bricks.

TABLE OF LINEAL BRICK DIMENSIONS FOR PIERS, ETC.

No of Stretchers	Thickness of Joint. $\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.
1	$8\frac{3}{4}$ in.	$8\frac{1}{4}$ in.	$8\frac{3}{4}$ in.
2	$1.5\frac{7}{8}$	1.6	$1.6\frac{1}{8}$
3	2.3	$2.3\frac{1}{4}$	$2.3\frac{1}{2}$
4	$3.0\frac{1}{8}$	$3.0\frac{1}{2}$	$3.0\frac{7}{8}$
5	$3.9\frac{1}{4}$	$3.9\frac{3}{4}$	$3.10\frac{1}{4}$
6	$4.6\frac{3}{8}$	4.7	$4.7\frac{3}{8}$
7	$5.3\frac{1}{2}$	$5.4\frac{1}{4}$	5.5
8	$6.0\frac{5}{8}$	$6.1\frac{1}{2}$	$6.2\frac{3}{8}$
9	$6.9\frac{3}{4}$	$6.10\frac{3}{4}$	$6.11\frac{3}{4}$
10	$7.6\frac{7}{8}$	7.9	$7.9\frac{1}{8}$
11	8.4	$8.5\frac{1}{4}$	$8.6\frac{1}{2}$
12	$9.1\frac{1}{8}$	$9.2\frac{1}{2}$	$9.3\frac{7}{8}$
13	$9.10\frac{1}{2}$	$9.11\frac{3}{4}$	$10.1\frac{1}{4}$
14	$10.7\frac{3}{8}$	10.9	$10.10\frac{5}{8}$
15	$11.4\frac{1}{4}$	$11.6\frac{1}{4}$	11.8
16	$12.1\frac{5}{8}$	$12.3\frac{1}{2}$	$12.5\frac{3}{8}$
17	$12.10\frac{3}{4}$	$13.0\frac{3}{4}$	$13.2\frac{3}{4}$
18	$13.7\frac{7}{8}$	13.10	$14.0\frac{1}{8}$
19	14.5	$14.7\frac{1}{4}$	$14.9\frac{1}{2}$
20	$15.2\frac{1}{8}$	$15.4\frac{1}{2}$	$15.6\frac{7}{8}$

TABLE OF HEIGHTS of brick coursing with various joints

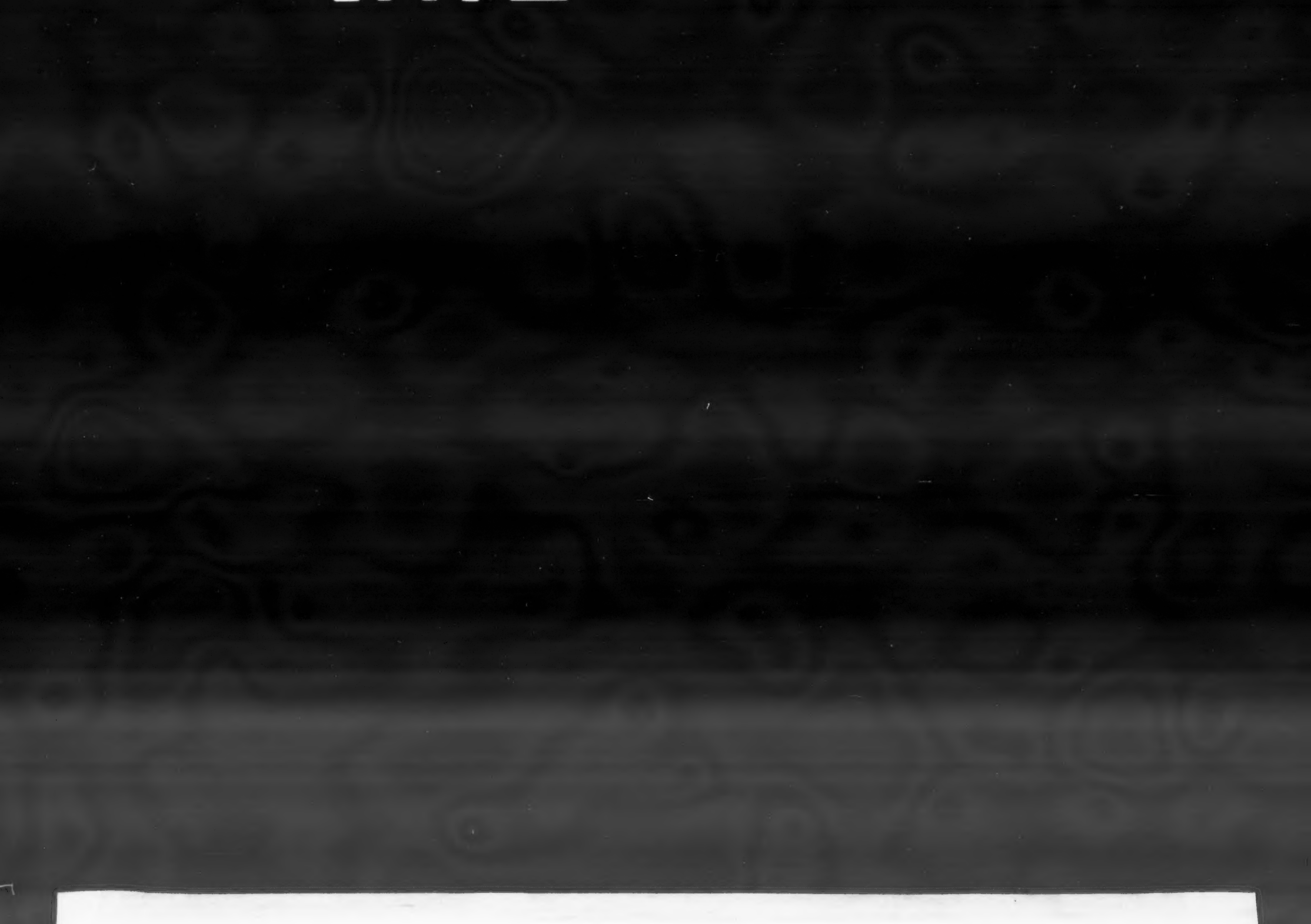
No. of Courses	2 in. Brick Thickness of Joint. $\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.	$2\frac{3}{8}$ in. Brick Thickness of Joint. $\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.	$2\frac{7}{8}$ in. Brick Thickness of Joint $\frac{3}{8}$ in.	$\frac{1}{2}$ in.	$\frac{5}{8}$ in.
1	$2\frac{3}{8}$ in.	$2\frac{1}{2}$ in.	$2\frac{5}{8}$ in.	3 in.	$3\frac{1}{4}$ in.	$3\frac{1}{4}$ in.	$3\frac{1}{4}$ in.	$3\frac{3}{8}$ in.	$3\frac{1}{2}$ in.
2	$4\frac{3}{4}$ in.	5 in.	$5\frac{1}{4}$ in.	6 in.	$6\frac{1}{4}$ in.	$6\frac{1}{2}$ in.	$6\frac{1}{4}$ in.	$6\frac{3}{4}$ in.	7 in.
3	$7\frac{1}{8}$ in.	$7\frac{1}{2}$ in.	$7\frac{7}{8}$ in.	9 in.	$9\frac{3}{8}$ in.	$9\frac{3}{4}$ in.	$9\frac{3}{8}$ in.	$10\frac{1}{8}$ in.	$10\frac{1}{2}$ in.
4	$9\frac{1}{2}$ in.	10 in.	$10\frac{1}{2}$ in.	1.0	$1.0\frac{1}{2}$	1.1	1.1	$1.11\frac{1}{2}$	1.2
5	$11\frac{7}{8}$ in.	$1.0\frac{1}{2}$	$1.1\frac{1}{8}$	1.3	$1.3\frac{3}{8}$	$1.4\frac{1}{2}$	$1.4\frac{1}{8}$	$1.4\frac{7}{8}$	$1.5\frac{1}{2}$
6	$1.2\frac{1}{4}$	1.3	$1.3\frac{3}{4}$	1.6	$1.6\frac{3}{4}$	$1.7\frac{1}{2}$	$1.7\frac{1}{8}$	$1.8\frac{1}{2}$	1.9
7	$1.4\frac{3}{8}$	$1.5\frac{1}{2}$	$1.6\frac{3}{8}$	1.9	$1.9\frac{7}{8}$	$1.10\frac{3}{4}$	$1.10\frac{3}{8}$	$1.11\frac{5}{8}$	$2.0\frac{1}{2}$
8	1.7	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.4
9	$1.9\frac{3}{8}$	$1.10\frac{1}{2}$	$1.11\frac{5}{8}$	2.3	$2.4\frac{1}{8}$	$2.5\frac{1}{4}$	$2.5\frac{1}{4}$	$2.6\frac{3}{8}$	$2.7\frac{1}{2}$
10	$1.11\frac{3}{4}$	2.1	$2.2\frac{1}{4}$	2.6	$2.7\frac{1}{4}$	$2.8\frac{1}{2}$	$2.8\frac{1}{2}$	$2.9\frac{3}{4}$	2.11
11	$2.2\frac{1}{4}$	$2.3\frac{1}{2}$	$2.4\frac{7}{8}$	2.9	$2.10\frac{3}{8}$	$2.11\frac{3}{4}$	$2.11\frac{3}{4}$	$3.1\frac{1}{8}$	$3.2\frac{1}{2}$
12	$2.4\frac{1}{2}$	2.6	$2.7\frac{1}{2}$	3.0	$3.1\frac{1}{2}$	3.3	3.3	$3.4\frac{1}{2}$	3.6
13	$2.6\frac{7}{8}$	$2.8\frac{1}{2}$	$2.10\frac{1}{8}$	3.3	$3.4\frac{5}{8}$	$3.6\frac{1}{4}$	$3.6\frac{1}{4}$	$3.7\frac{7}{8}$	$3.9\frac{1}{2}$
14	2.9	$2.11\frac{1}{2}$	$3.0\frac{3}{4}$	3.6	$3.7\frac{3}{4}$	$3.9\frac{1}{2}$	$3.9\frac{1}{2}$	$3.11\frac{3}{4}$	4.1
15	$2.11\frac{5}{8}$	$3.1\frac{1}{2}$	$3.3\frac{3}{8}$	3.9	$3.10\frac{7}{8}$	$4.0\frac{3}{4}$	$4.0\frac{3}{4}$	$4.2\frac{3}{8}$	$4.4\frac{1}{2}$
16	3.2	3.4	3.6	4.0	4.2	4.4	4.4	4.6	4.8
17	$3.4\frac{5}{8}$	$3.6\frac{1}{2}$	$3.8\frac{3}{8}$	4.3	$4.5\frac{1}{8}$	$4.7\frac{1}{2}$	$4.7\frac{1}{8}$	$4.9\frac{3}{4}$	$4.11\frac{1}{2}$
18	$3.6\frac{7}{8}$	3.9	$3.11\frac{1}{4}$	4.6	4.8	$4.10\frac{1}{2}$	$4.10\frac{1}{2}$	$5.0\frac{3}{4}$	5.3
19	$3.8\frac{1}{4}$	$3.11\frac{1}{2}$	$4.1\frac{7}{8}$	4.9	$4.11\frac{3}{8}$	$5.1\frac{3}{4}$	$5.1\frac{3}{4}$	$5.4\frac{1}{8}$	$5.6\frac{1}{2}$
20	$3.11\frac{1}{8}$	4.2	$4.4\frac{1}{2}$	5.0	$5.2\frac{1}{2}$	5.5	5.5	$5.7\frac{1}{2}$	5.10
21	$4.1\frac{7}{8}$	$4.4\frac{1}{2}$	$4.7\frac{1}{8}$	5.3	$5.5\frac{5}{8}$	$5.8\frac{1}{4}$	$5.8\frac{1}{4}$	$5.10\frac{7}{8}$	$6.1\frac{1}{2}$
22	$4.4\frac{1}{4}$	4.7	$4.9\frac{7}{8}$	5.6	$5.8\frac{3}{4}$	$5.11\frac{1}{2}$	$5.11\frac{1}{2}$	$6.2\frac{1}{4}$	6.5
23	$4.6\frac{5}{8}$	$4.9\frac{1}{2}$	$5.0\frac{3}{8}$	5.9	$5.11\frac{7}{8}$	$6.2\frac{3}{4}$	$6.2\frac{3}{4}$	$6.5\frac{5}{8}$	$6.8\frac{1}{2}$
24	4.9	5.0	5.3	6.0	6.3	6.6	6.6	6.9	7.0
25	$4.11\frac{3}{8}$	$5.2\frac{1}{2}$	$5.5\frac{5}{8}$	6.3	$6.6\frac{1}{8}$	$6.9\frac{1}{4}$	$6.9\frac{1}{4}$	$7.0\frac{3}{8}$	$7.3\frac{1}{2}$
26	$5.1\frac{3}{4}$	5.5	$5.8\frac{1}{4}$	6.6	$6.9\frac{1}{4}$	$7.0\frac{1}{2}$	$7.0\frac{1}{2}$	$7.3\frac{3}{4}$	7.7
27	$5.4\frac{1}{8}$	$5.7\frac{1}{2}$	$5.10\frac{7}{8}$	6.9	$7.0\frac{3}{8}$	$7.3\frac{3}{4}$	$7.3\frac{3}{4}$	$7.7\frac{1}{8}$	$7.10\frac{1}{2}$
28	$5.6\frac{1}{2}$	5.10	$6.1\frac{1}{8}$	7.0	$7.3\frac{1}{2}$	7.7	7.7	$7.10\frac{1}{2}$	8.2
29	$5.8\frac{7}{8}$	$6.0\frac{1}{2}$	$6.4\frac{3}{8}$	7.3	$7.6\frac{5}{8}$	$7.10\frac{1}{4}$	$7.10\frac{1}{4}$	$8.1\frac{7}{8}$	$8.5\frac{1}{2}$
30	$5.11\frac{1}{4}$	6.3	$6.6\frac{3}{4}$	7.6	$7.9\frac{3}{4}$	$8.1\frac{1}{2}$	$8.1\frac{1}{2}$	$8.5\frac{1}{4}$	8.9
31	$6.1\frac{5}{8}$	$6.5\frac{1}{2}$	$6.9\frac{3}{8}$	7.9	$8.0\frac{7}{8}$	$8.4\frac{3}{4}$	$8.4\frac{3}{4}$	$8.8\frac{5}{8}$	$9.0\frac{1}{2}$
32	6.4	6.8	7.0	8.0	8.4	8.8	8.8	9.0	9.4
33	$6.6\frac{3}{8}$	$6.10\frac{1}{2}$	$7.2\frac{5}{8}$	8.3	$8.7\frac{1}{2}$	$8.11\frac{1}{4}$	$8.11\frac{1}{4}$	$9.3\frac{3}{8}$	$9.7\frac{1}{2}$
34	$6.8\frac{3}{4}$	7.1	$7.5\frac{1}{2}$	8.6	$8.10\frac{1}{2}$	$9.2\frac{1}{4}$	$9.2\frac{1}{4}$	$9.6\frac{3}{4}$	9.11
35	$6.11\frac{1}{8}$	$7.3\frac{1}{2}$	$7.7\frac{7}{8}$	8.9	$9.1\frac{3}{8}$	$9.5\frac{3}{4}$	$9.5\frac{3}{4}$	$9.10\frac{1}{8}$	$10.2\frac{1}{2}$
36	$7.1\frac{1}{2}$	7.6	$7.10\frac{1}{2}$	9.0	$9.4\frac{1}{2}$	9.9	9.9	$10.1\frac{1}{2}$	10.6
37	$7.3\frac{7}{8}$	$7.8\frac{1}{2}$	$8.1\frac{1}{8}$	9.3	$9.7\frac{5}{8}$	$10.0\frac{1}{2}$	$10.1\frac{1}{4}$	$10.4\frac{7}{8}$	$10.9\frac{1}{2}$
38	$7.6\frac{1}{4}$	7.11	$8.3\frac{3}{8}$	9.6	$9.10\frac{3}{4}$	$10.3\frac{1}{2}$	$10.3\frac{1}{2}$	$10.8\frac{1}{4}$	11.1
39	$7.8\frac{5}{8}$	$8.1\frac{1}{2}$	$8.6\frac{3}{8}$	9.9	$10.1\frac{7}{8}$	$10.6\frac{3}{4}$	$10.6\frac{3}{4}$	$10.11\frac{5}{8}$	$11.4\frac{1}{2}$
40	7.11	8.4	8.9	10.0	10.5	10.10	10.10	11.3	11.8
41	$8.1\frac{3}{4}$	$8.6\frac{1}{2}$	$8.11\frac{5}{8}$	10.3	$10.8\frac{1}{4}$	$11.1\frac{1}{2}$	$11.1\frac{1}{2}$	$11.6\frac{1}{4}$	$11.11\frac{1}{2}$
42	$8.3\frac{7}{8}$	8.9	$9.2\frac{1}{4}$	10.6	$10.11\frac{1}{4}$	$11.4\frac{1}{2}$	$11.4\frac{1}{2}$	$11.9\frac{3}{4}$	12.3
43	$8.6\frac{1}{2}$	$8.11\frac{1}{2}$	$9.4\frac{7}{8}$	10.9	$11.2\frac{3}{4}$	$11.7\frac{3}{4}$	$11.7\frac{3}{4}$	$12.1\frac{1}{4}$	$12.6\frac{1}{2}$
44	$8.8\frac{1}{8}$	9.2	$9.7\frac{1}{2}$	11.0	$11.5\frac{1}{2}$	11.11	11.11	$12.4\frac{1}{2}$	12.10
45	$8.10\frac{7}{8}$	$9.4\frac{1}{2}$	$9.10\frac{1}{8}$	11.3	$11.8\frac{5}{8}$	$12.2\frac{1}{4}$	$12.2\frac{1}{4}$	$12.7\frac{7}{8}$	$13.1\frac{1}{2}$
46	$9.1\frac{1}{4}$	9.7	$10.0\frac{3}{8}$	11.6	$11.11\frac{3}{4}$	$12.5\frac{1}{2}$	$12.5\frac{1}{2}$	$12.11\frac{1}{8}$	13.5
47	$9.3\frac{5}{8}$	$9.9\frac{1}{2}$	$10.3\frac{3}{8}$	11.9	$12.2\frac{7}{8}$	$12.8\frac{3}{4}$	$12.8\frac{3}{4}$	$13.2\frac{5}{8}$	$13.8\frac{1}{2}$
48	9.6	10.0	10.6	12.0	12.6	13.0	13.0	13.6	14.0
49	$9.8\frac{3}{4}$	$10.2\frac{1}{2}$	$10.8\frac{5}{8}$	12.3	$12.9\frac{1}{8}$	$13.3\frac{1}{4}$	$13.3\frac{1}{4}$	$13.9\frac{3}{8}$	$14.3\frac{1}{2}$
50	$9.10\frac{3}{4}$	10.5	$10.11\frac{1}{4}$	12.6	$13.0\frac{1}{4}$	$13.6\frac{1}{2}$	$13.6\frac{1}{2}$	$14.0\frac{3}{4}$	14.7

In the table above the dimensions are taken from the bottom of the joint below the first brick to the top of the brick, i.e., the dimensions include an equal number of bricks and joints.

Manufacturers : The Clay Products Technical Bureau of Great Britain

Address : 19 Hobart Place, Eaton Square, London, S.W.1

Telephone : Sloane 7805



313. # THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

HOLOPHANE BUILT-IN PRISMATIC PANEL UNITS:

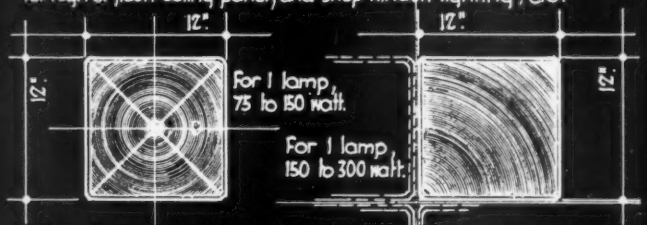
Diagrammatic reflected plans of sizes and shapes.

Squares. Equilateral and right triangles. Rectangular units.

NOTE: For the use of above panel units in standard fittings see previous Information Sheet No: 277.

HOLOPHANE CONTROLENS PRISMATIC PLATES:

For high or flush ceiling panel, and shop window lighting, etc.

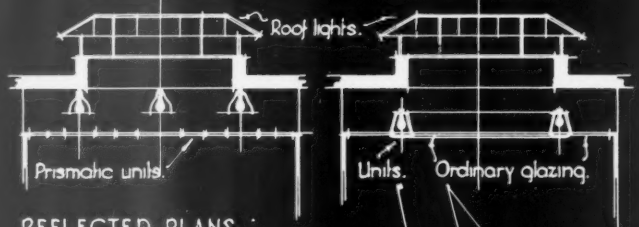


LENS No: 755, concentric prism. LENS No: 756, ¼ concentric prism

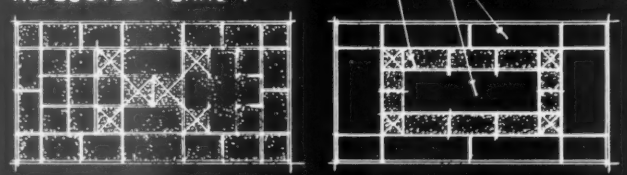
TYPICAL SECTIONS OF BUILT-UP LAYLIGHT TYPES:

A. Prismatic panels only, laylight of any size & shape.

B. Prismatic units in conjunction with ordinary glazing.



REFLECTED PLANS:

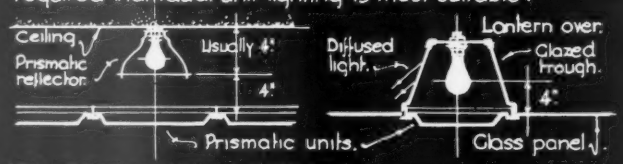


A. Laylights may be built up as shown with square, triangular or rectangular units combined.

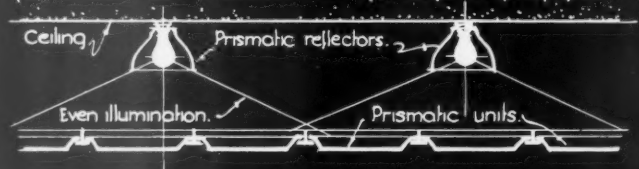
B. Laylights may be built up with prismatic units in conjunction with any type of glass panel.

NOTE: In each of the typical built-up laylights shown, the glazing is supported by a light steel grid of flats and Tee sections, with bolts and hangers as required.

LIGHTING OF UNITS: (1.) In small laylights where the headroom is restricted, or where strong illumination is required individual unit lighting is most suitable.



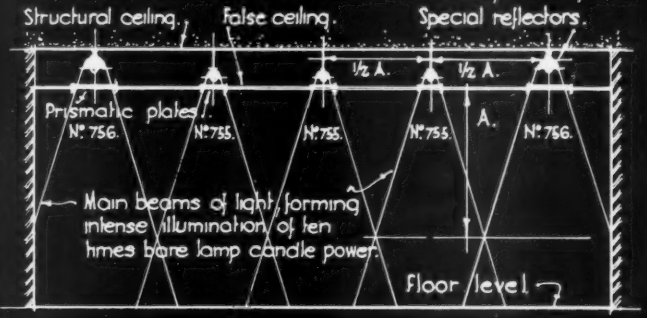
(2). GROUP UNIT LIGHTING: for large & high laylights.



NOTE: Larger lamps & suitable reflectors, depending on headroom, may be used to provide even illumination over the whole.

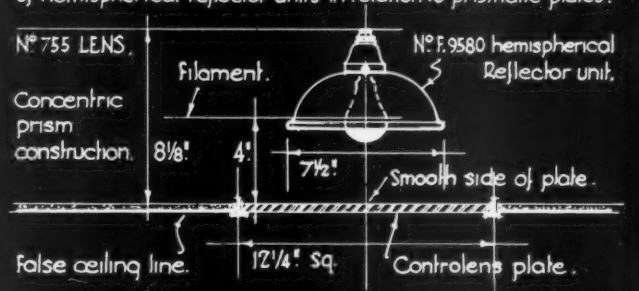
REFLECTORS, WATTAGE, ETC.: Type of reflector, ie. concentrating or extensive, depends upon height of ceiling. Wattage of lamps depends upon area to be covered & the foot-candle intensity required.

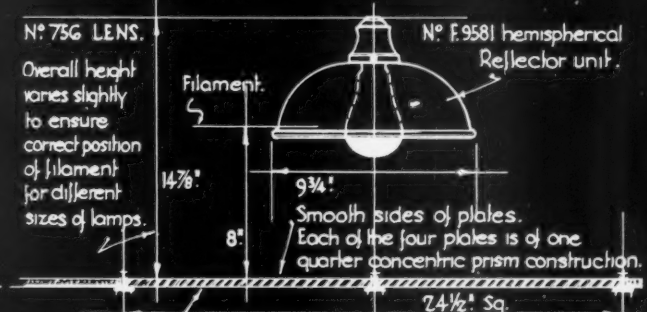
TYPICAL SECTION THROUGH STUDIO, HALL, ETC.



SECTIONS SHOWING TYPICAL GENERAL ASSEMBLY

of hemispherical reflector units in relation to prismatic plates.





The 4 lens plates can be used with dropped frame & side panels.

NOTE: In all cases the smooth side of the prismatic lens plate should be placed towards the lamp. Clear lamps only to be used.

REFLECTORS: Hemispherical reflectors should be fitted so as to redirect upwardly-emitted light in a downward direction.

PLATES: are designed to refract the light rays from the top reflector equipment and redirect them into an intense beam which illuminates in the form of a concentrated ray.

Information from Holophane Ltd.

INFORMATION SHEET: ELECTRIC LIGHTING FITTINGS • PRISMATIC PANEL UNITS

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Miss A. Baynes.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 332 •

ELECTRIC LIGHTING

Product : Holophane Built-in Panel Units and Holophane Controlens Plates

This is the second Sheet devoted to Holophane prismatic units and plates.

Built-in Panel Units :

For average height ceilings where a general lighting effect is required from laylights, the use of Holophane Hedralite plates is to be recommended. The Hedralite plates give a widely diffused light and are suitable for use in ceilings of average height. The Hedralite panel system is a series of definitely related panel sizes which can be used to cover various shapes and areas. (See Sheet No. 277.)

A laylight can be composed entirely of Hedralite plates with Holophane reflectors above the laylight. The number of reflectors is dependent on the height above the laylight which controls the area of light spread from the reflectors. The lighting intensity required in the room can be attained by using the size of lamps and reflectors calculated to give the required effect.

Where it is not possible to light the laylight by general lighting due to obstruction above the glass, then an arrangement of Hedralite plates built into the laylight and illuminated by smaller lamps in a glass box formation over each plate. Luminous patterns may be formed on the laylight by means of the brightly lighted Hedralite plates, which contrast with the lower intensity of the general lighting of the laylight.

Standard Shapes, Sizes and Prices :

The standard shapes and sizes are shown overleaf. For particulars of prices see Sheet No. 277.

Holophane Controlens Prismatic Plates :

The use of laylights for artificial lighting from lofty ceilings is made possible by Holophane Controlens plates. The control of light through the lens plates ensures a much higher intensity of lighting on the floor than is possible by using ordinary types of glass. Lens plates can be used as single 12 in. square plates with lamps of 75—100—150 W. For larger size lamps (150—300 W) 4 quarter section plates are used, making an area of 2 ft. sq. These 4 plates act as a 2 ft. sq. composite unit. The spacing of the units on the ceiling is half the mounting height from the working plane, i.e., in a modern store where the counter 3 ft. above the floor is the working plane, and the ceiling height from floor 20 ft., maximum spacing of units is 8 ft. 6 in.

Reflectors :

The special reflectors used with these plates are hemispherical. Concentrating reflectors are not to be used as the light flux should be distributed evenly over the plate, and the prism design is the method used for concentration.

Clear lamps only should be used with Controlens plates.

Manufacturers : Holophane Ltd.

Address : 100 Elverton Street, Vincent Square, S.W.1

Telephone : Victoria 8062

PRICES AND DATA

List Nos.		Fitted		Dimension Ins.		Prices.	
Prismatic Plates.	Top Reflector Unit.	for Lamp. (Watts.)	Prismatic Plates.	Dia.	O'all Ht.	Plates only.	Top Ref. Unit.*
755	F.9580	75-150	12×12	$7\frac{1}{2}$	$8\frac{1}{2}$	10s. 6d.	7s. 9d.
(4) 756	F.9581	150-300	24×24	$9\frac{3}{4}$	$14\frac{7}{8}$ (variable)	50s.	17s. 6d.

* Complete with Lamp Holder, Reflector Carrier and Metal Cover.

316.

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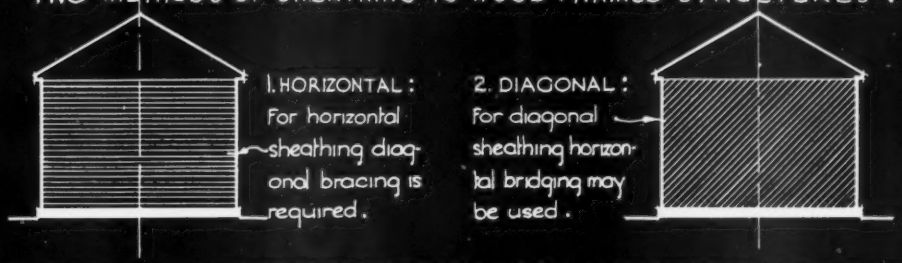
COVERING-IN OR SHEATHING.

Sheathing may be Tongued and Grooved or square edged, the boards 8" maximum width and 7/8" thickness, planed to ensure even thickness, nailed with 2½" punched clasp or 3" flat headed nails to studs.

WEATHER BOARDING:

Sawn feather edge cut of 1" x 4", 5", 6" or 7" Planed feather edge or ship lap such as typical examples shown, can be produced to special designs at no extra cost for reasonable quantities.

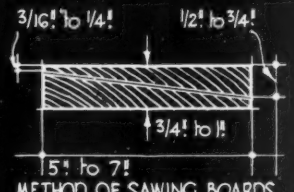
TWO METHODS OF SHEATHING TO WOOD FRAMED STRUCTURES :



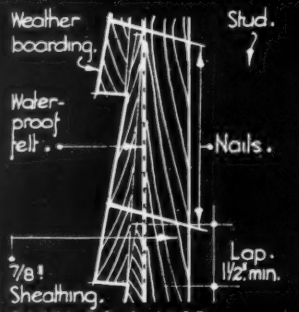
1. HORIZONTAL : For horizontal sheathing diagonal bracing is required.

2. DIAGONAL : For diagonal sheathing horizontal bridging may be used.

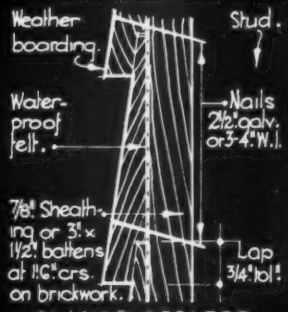
VARIOUS TYPES OF FEATHER-EDGED OR WEATHER BOARDING & SHIP LAP : QUARTER FULL SIZE DETAILS:



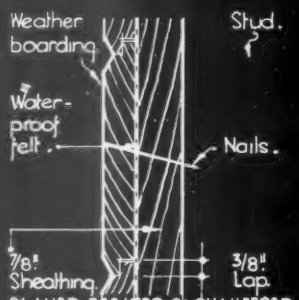
METHOD OF SAWING BOARDS. The best results are obtained when boards are sawn to required top and butt thickness and fixed immediately.



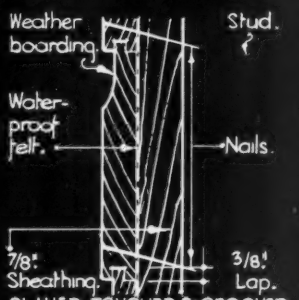
SAWN OR PLANED FEATHER EDGE.



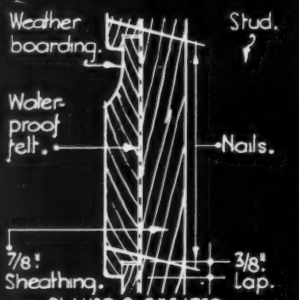
PLANED REBATED FEATHER EDGE.



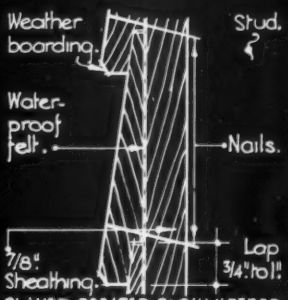
PLANED REBATED & CHAMFERED RUSTIC BOARDING.



PLANED TONGUED & GROOVED SHIP LAP.

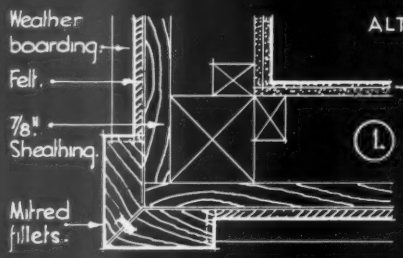


PLANED & REBATED SHIP LAP.



PLANED REBATED & CHAMFERED FEATHER EDGE.

ALTERNATIVE TREATMENT AT ANGLES :

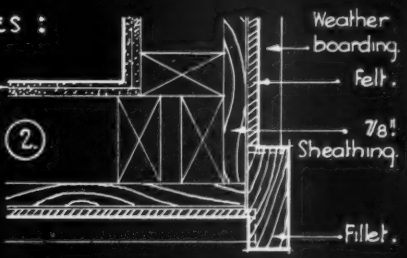


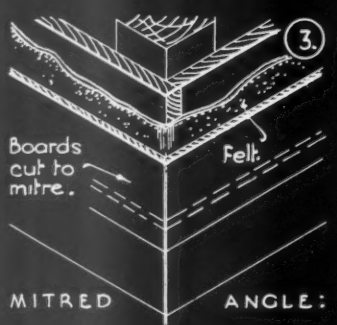
1. MITRED FILLETS : Butt or scribed to boarding.

2. SINGLE FILLET : Butt or scribed to boarding.

Plaster & insulating board, or other lining.

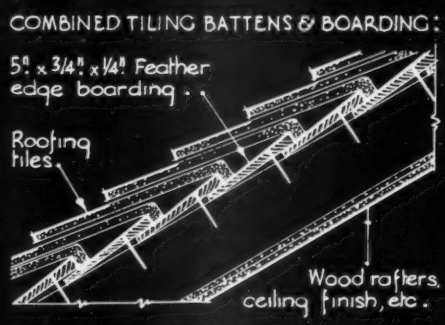
Fillets to be thick enough to form a stop to lapped weather boarding.

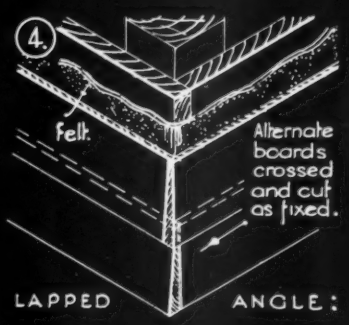




MITRED ANGLE:

COMBINED TILING BATTENS & BOARDING:





LAPPED ANGLE:

Information from The Timber Development Association.

INFORMATION SHEET : VARIOUS TYPES OF WEATHER BOARDIN

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

Supplement to THE ARCHITECTS' JOURNAL for March 26, 1936

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INFORMATION SHEET

• 333 •

TIMBER

Product : Weatherboarding

Sheathing on Boarding :

While weatherboarding may be nailed directly on to the studs, it is advisable always for strength, insulation and weather-resistance to use rough boarding or sheathing over all walls under the weatherboarding. This sheathing, if run diagonally and well nailed, gives great strength to the framing ; it is usually $\frac{7}{8}$ in. boarding, but thinner material is used in many cases.

Weatherboards :

While various types of weatherboard shown on this Sheet are usually to be obtained from stock already cut, there are no exact standard shapes common to all timber merchants and manufacturers. It should be noted, however, that for reasonable quantities, say, upwards of 2,000 square feet, any shape can be supplied to the Architects' detail, at no extra cost, provided, of course, that the detail is one which does not entail excessive waste in cutting.

Timbers recommended :

Redwood (Red Deal, Yellow Deal),
Douglas Fir,
Western Red Cedar,
Elm,
Oak.

Scotland :

White Pine and Red Pine.

Information from : The Timber Development Association, Ltd.

Address : 69 Cannon Street, E.C.4

Telephone : City 2714