Wednesday, December 17, 1924 Vol. LX. No. 1563

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal."

FROM AN ARCHITECT'S NOTEBOOK.

Four courts I made, east, west, and south, and north;
In each a squared lawn, wherefrom
The golden gorge of dragons spouted forth
A flood of fountain foam.

And round the cool green courts there ran a row
Of cloisters, branched like mighty woods,
Echoing all night to that sonorous flow
Of spouted fountain floods.

TENNYSON:
"The Palace of Art."

27-29 Tothill Street, Westminster, S.W.1.

Details of Craftsmanship. 30.—A Garden Vase in Terra-Cotta

This vase is in the garden of Mr. Arnold Mitchell's "holiday house," at Lyme Regis, and is one of a series of "finds"—a terra-cotta garden figure, a fine lead cistern, and an especially good example of a lead rain-water head and pipe. An article appears on page 906.

THE

ARCHITECTS' JOURNAL

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Smoke!

IT is surmised from what is known of the habits of prehistoric man that he lived more or less in constant apprehension that one day the sun—the source of all life upon earth, that much he knew full well—would fail to rise. Were his spirit to visit London, or any other large English city, he would think that his apprehensions had not been without justification, for one morning he would awake to find that to all appearances the sun had failed to rise. The bustle of the day would begin and continue, but the light of the day would tarry. Perhaps the fact that all those around accepted the situation without anxiety, and almost without comment, might assuage his fears, and he would ask for an explanation of this terrifying phenomenon. He would learn that it was not due to our inability to propitiate our gods, the cause that he had always anticipated might bring about such a result, but that it was due to the manner in which we burnt our fuel. Little by little he would gather that this effacement of the sun was wanton and avoidable, and he might then doubt if, despite our great cities with their vast buildings, our means of rapid communication, our telephones, our wireless, our comparative security against violent physical death, our comforts, our luxuries, he found any cause to envy our lot.

A "London particular" perhaps epitomizes the hopeless muddle and confusion to which we have been brought, or, rather, to which we have brought ourselves, more completely than any other single outward and visible manifestation. It is the final seal of folly, it is the stamp and trade mark of uncontrolled industrialism, it is the ultimate ineptitude of a policy of *laisser faire*, it is the outcome of uncurbed anti-social instincts, it is the crowning shame of our so-called organization.

Winter after winter, for whole days at a time, we creep to our work in a murky darkness, we crouch at our desks and tables in an infernal gloom; coughing and choking, we make our way home in a dismal shroud of suspended soot. We men, the kings of creation, the most highly-developed manifestation of life upon earth, intelligent, loving, striving creatures, with the whole resources of the world around us, with the accumulated knowledge of the ages at our disposal, deliberately and continually blot out the sunshine and besmirch ourselves with dirt, befoul our lungs, sap our vitality, blunt our senses, embitter our lives, uselessly and shamefully. For how much longer is it to continue so?

At one time it was the habit of humanity to turn to sorcerers for help in its difficulties and troubles, at another to priests and prophets, at another to politicians and statesmen; now it seems that the turn of the business man has come—but give him a free hand and he will put the world right. Unfortunately, it is partly because he has had too free a hand in the past that the world to-day is so wrong. To the business man we are, to a great extent, indebted for the state of affairs against which we now inveigh, and yet this very state of affairs is fundamentally unbusinesslike. Is it, for example, businesslike to waste three million tons of potential fuel, representing, at £2 per ton, six million pounds every year? Is it businesslike to increase the cost of household washing in one large town, not the largest in England, by £290,000? Is it businesslike to destroy our buildings? Is it businesslike to be compelled to build, equip, and maintain hospitals and sanatoria where those unnecessarily injured may be cared for? Is it businesslike to be compelled to use artificial light all day because the sunlight is deliberately obscured? Is it businesslike to beget children in unhealthy conditions, to rear them in unhealthy conditions until they grow into unhealthy adults? If the business man were a man of business who understood that upon the prosperity and happiness of the whole depends the prosperity and happiness of the individual, he would use his endeavours, in and out of season, to abolish the smoke nuisance. It would, however, be absurd to lay all the blame upon the business man, for we are one and all implicated and responsible, but it is natural that we should expect him to voice most loudly our protests against a practice which is the cause of so much waste, for surely waste and sound business are incompatible.

Protests have been made, it would seem, ever since coal was first used in London, towards the end of the thirteenth century, and that excellent monarch, Edward I, caused proclamations to be issued forbidding the use of coal in London whilst Parliament was sitting. In that, however, he was undoubtedly unwise; far better would it have been surely if, when Parliament was sitting, every chimney had belched forth its blackest soot. Then, perhaps, we should have had effective legislation, and the fiend that was destined so to blacken our lives might have been early checked. But already by the time Evelyn, the diarist, uttered his protest and prepared his bill to deal with the evil the practice was too securely established, and little more appears to have been done until 1819, when, for a century, various committees seem pleasantly to have met, discussed, and reported, and now and then an Act of Parliament was passed dealing with some special aspect of the matter. One or two societies were formed; in 1909 a smoke abatement exhibition was held, and the co-operation of the Local Government Board was invited. The invitation was declined. In 1912 an international smoke abatement exhibition was held. In 1913 a private bill was introduced into the House of Commons which, needless to say, did not become law. In 1914 a bill was brought forward in the House of Lords by Lord Newton, but was withdrawn upon the assurance being given by the Local Government Board that it would appoint a committee to go into the whole matter. The committee was appointed, but the war sus-

pended its activity, and its report was finally presented in 1921. And there, apparently, the matter rests.

We do not doubt but that eventually it will be dealt with, and in a few generations mankind will look back and read in contemporary literature of the discomfort and illness which we endured owing to our incredible folly. Actually, however, a spatial contrast can be effected at any time. In Germany, for example, the conditions which we endure to-day are unknown. In Westphalia, which approximates in its industrial activity to south-east Lancashire, there are no fogs, no perpetual gloom enshrouding hundreds of square miles. All of which shows that an improvement in the conditions under which we live is not dependent upon the discovery of cheap methods of low temperature carbonization, experiments in which are at present being carried out. Had we, the sufferers, the united determination, had our rulers the foresight, each year would see a steady increase in the hours of sunshine, a steady increase in national health and happiness, and a steady decrease in discomfort, in sickness and misery, and in wasteful expenditure. How long, how long, shall we continue to pollute this fair land?

H. J. B.

Oxford and "The Broad"

The columns of the Press have of late been much occupied with the question of the rebuilding of some part of the Broad, at Oxford. The leases of some old buildings will run out in about two years' time, and there is a certain amount of fear that new buildings of an unsuitable character may be allowed to take their place. Also there is some danger that if large commercial structures were permitted on this site it would mean the demolition of the only remaining portions of the old North Wall of Oxford west of New College. For the time being there is no cause for alarm. Dr. Wells, the Vice-Chancellor, has stated in "The Times" that he is in touch with the Town Clerk of Oxford, who assures him that the Property and Estates Committee of the City Council will take no decision "until you intimate whether or not the university and colleges intend to submit any offers or proposals." The colleges mostly to be affected by any changes in this part of the Broad are Balliol, Exeter, and Jesus, and it has been suggested that these colleges might combine to acquire the site, or that, alternatively, the university itself might intervene to save it. The Broad is only in a very minor degree commercial, and if changes are to be made they ought not to be allowed to take any but a collegiate direction. Happily, the most friendly relations exist between the City and the University, and the City Fathers are fully alive to the importance of preserving the amenities of Oxford. Though no danger threatens, it is well that this question should be considered in good time. As Mr. Trystan Edwards urged in the leading article of our last issue, it is essential that our towns and cities should conform to a civic standard. Upon Oxford, as a seat of learning, devolves the duty of giving the lead.

The New P.R.A.

Having reached the age limit fixed for tenure of that office, Sir Aston Webb has retired from the presidency of the Royal Academy, and with the election of Mr. Frank Dicksee, R.A., as his successor, the presidency returns to a painter. In several newspapers, we note, it has again been stated that Sir Aston was the first architect-president of the Royal Academy. This, of course, is not so, that distinction having been won long ago by James Wyatt. Sir Aston was elected to the presidency in 1919, and short though his term of office in comparison with that of some of his predecessors, it has been one of uncommon success, marred only by the unfortunate motor-car accident in which Sir Aston was involved on the night of this year's banquet—from the effects of which he has now, happily, recovered. Mr. Frank Dicksee is the eleventh president since the incorporation of the Academy in 1768. Seventy-one last month, he was

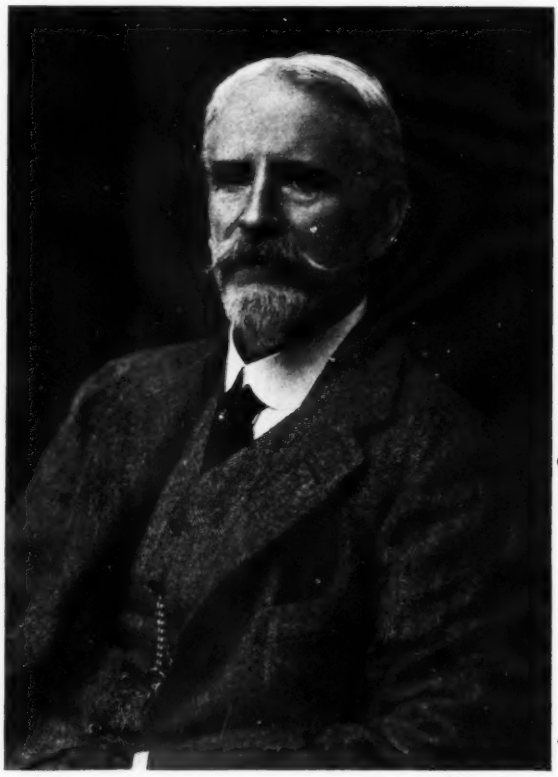


Photo: Russell.

MR. FRANK DICKSEE, THE NEW PRESIDENT OF THE ROYAL ACADEMY.

elected A.R.A. in 1881, and R.A. ten years later. As a painter, one critic observes, "he belongs to the older academic school, whose aim was to express certain not uncommon sentiments in a convincing pictorial form." His art is now, perhaps, a little old-fashioned, but it is always skilful and competent if not markedly original. For years he delighted the great public with his renderings of romantic subjects, but of late he has confined himself mostly to portraits. His election should be a very popular one.

The Resting Caravan

In these houseless times caravans are coming into popular favour. "Many families have been so charmed with the open-air life on holiday," said Mr. J. Davis Stone, the hon. secretary of the Caravan Club of Great Britain and Ireland, to a representative of the Press, "that they are not troubling any further about houses and are living in caravans all the year round." Architects, according to Mr. Stone, are now using caravans, living in them while at work in country districts, and thus avoiding having to travel to and from town. As the caravans are fully equipped with all the necessary impedimenta of an architect's office, it is to be feared that the living accommodation is somewhat cramped, The chef is notoriously a simple feeder; most barbers are bald-headed; and the tailor is entirely ineffective in the cut of his own trousers. When architects forsake houses and live in caravans, the tale of irony is surely complete.

Our New Offices

The Architectural Press has now moved to new offices at No. 9 Queen Anne's Gate, Westminster, to which address correspondents of this JOURNAL are requested to send all future communications. Telephone number and telegraphic address remain as heretofore, namely: Victoria 6936, and "Buildable, Parl, London."

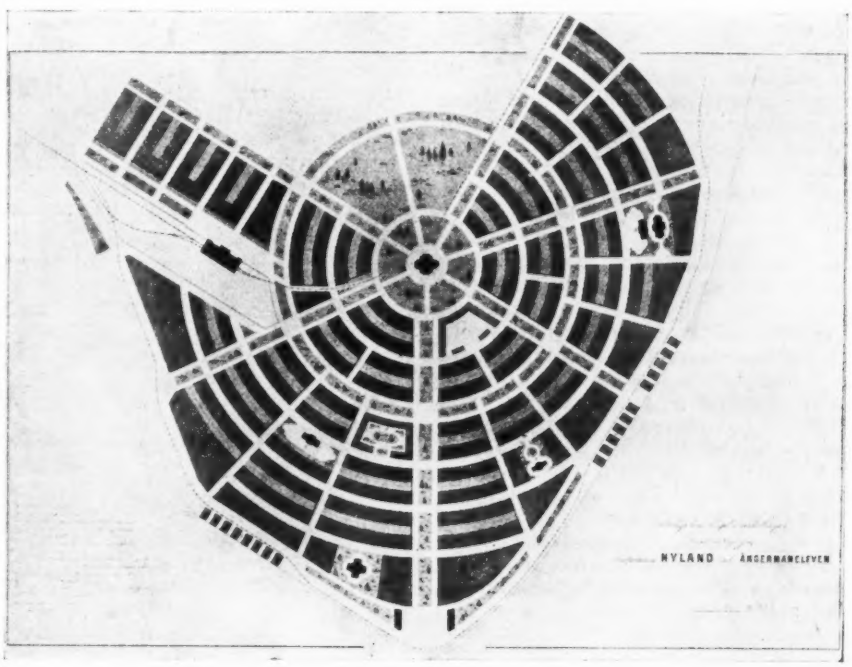
Vagaries of Town Planning—2

By H. B. CRESWELL

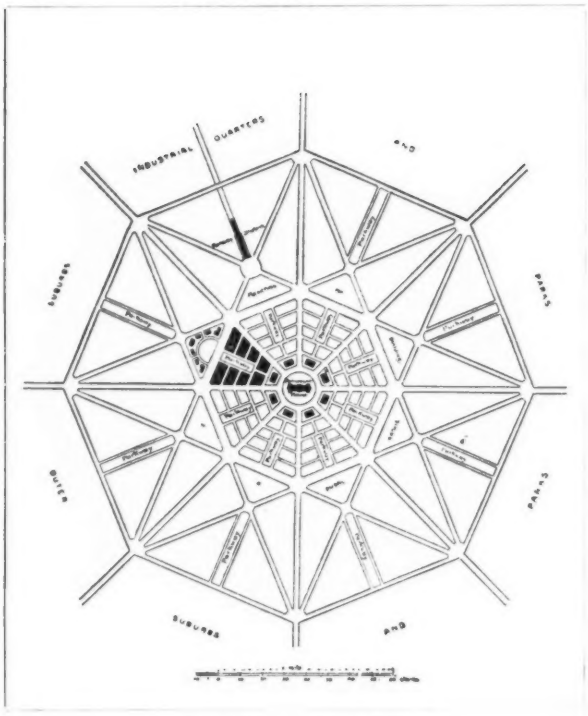
(Concluded from last week's issue.)

THE plan numbered two was introduced to the attention of the readers of this JOURNAL last year by a distinguished town-planner of wide experience as "one of the most interesting of the official model plans of 1874." This scheme for Nyland is offered as a solution of an actual problem: it claims to be a model plan only, not an ideal plan, and therefore it is unfair to criticize points which may be matters of necessity rather than of choice; but as it seems clear that the exigencies of the site have led to the irregularities in the pattern, we may assume that the radial and concentric symmetries of the plan constitute its triumph, and that the hiatus on the upper side, and break-down of compasses and protractors on the lower, are due to force of circumstances, and that this "model plan" would be hailed as an "ideal" plan if these saving irregularities did not appear in it, and its contriver had been free to complete and balance his symmetries after the pattern of a set-piece at a "Brock's Benefit" at the Crystal Palace. This model plan of 1874 is an example of the radial type of plan which is so highly esteemed by the town-planning experts that—since (luckily for us) a complete radial lay-out is usually impracticable—they apply it to half-circles and quadrants, and even to smaller parts as opportunity serves; and these so-called "fan" lay-outs have become one of the best recognized keys or motives for a town plan. If, under refractory conditions, the planner can contrive to drag in a "fan" or two he is considered to have done well. This strong appeal of the radial system to town-planners is probably due to the harsh, emphatic patterns it offers; but there is a positive advantage in radial and concentric symmetries over other symmetries. In other than radial plans the best contrived monotony is softened by finality; there is an end to the pattern, somewhere; a boundary, an edge, a limit. In the radial plan this blemish disappears and monotony becomes almost infinite, for there need be no end to repetitions, the first of which begins where the last ends, and boredom must reign eternal in the model Nyland. The governing principle of the radial plan is displayed in this example: first, that all thoroughfares shall be ranged like shooting galleries directed to the same target, so that the view down each shall be closed with the same building, and all sense of position or direction lost; and, second, that every street, right and left, shall lead remorselessly back on to itself, without variation or respite, by a rigid mechanical curve whose natural monotony is sublimed by repetitions. The exactly equal spacing of similar gardens along thoroughfares and concentric ways alike (suggesting that the gardens themselves are to be identical in pattern) points, surely, not to design, but to disease. In what way, we may well ask, does this "model plan" display thought applied to the problem of planning a town? The thing is artificial; false to life; a vapid affectation; remote from realities; the offspring of a shallow habit of mind; a product of the rival ingenuities of experts running after their own tails in a game devised by themselves.

In Milan, although the lay-out is radial in principle, compasses, protractors, and the straight-edge have had no part, and there are no repetitions. The main thoroughfares ramble away from the piazza in all directions to the fortifications, and the roads, right and left, joining the thoroughfares form but irregular concentric ways about this same central piazza. The radial idea is, in fact, so loose in form that, after an interval of many years, I have great difficulty in recognizing on the map of the town characteristics which impressed me when I was staying there. My experience was, when I began to be familiar with the place, that the streets arranged themselves in my mind on the radial principle, and immediately I lost interest in my surroundings. The town, which had previously delighted me, ceased to hold out its accustomed welcome. Mystery,



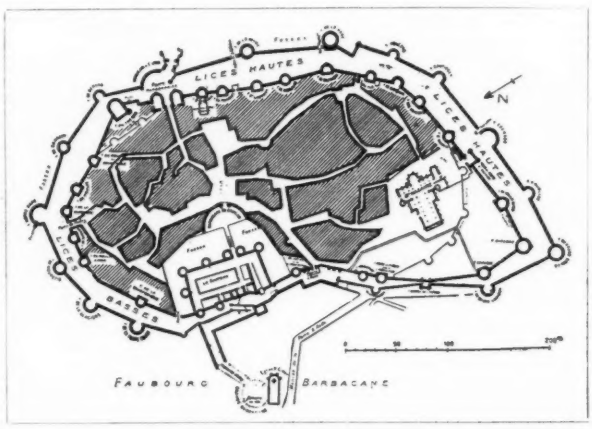
2. NYLAND, SWEDEN: AN OFFICIAL MODEL PLAN OF 1874.



3. A RADIALLY PLANNED CITY.

variety, charm had gone; I became conscious of the bald facts of my environment; I was discouraged in my explorations by feeling that whatever direction I took would bring me either to the fortifications, the piazza, or back to my starting point, and I suffered a more subtle dispersion of spirit which I will not attempt to analyse. My point is that if Milan's loose and rugged conformity with the radial principle could so impress itself and react on an ordinary traveller like myself, how is it that town-planning experts, whose first business it is to test in actual cities the effects they design on paper, yet continue to commemorate those very forms and devices of lay-out which in human experience are most unendurably tedious, ugly, and dispiriting? I cannot answer that question, nor can I form any conception why it is that faults and misconceptions which affront my understanding, and which must be apparent to anyone who brings sympathetic reflection and imagination to bear on the subject, not only continue to be unperceived by those who have made the matter their special study, but are by them actually elaborated with every possible emphasis and ingenious variation.

My readers may think that it would be hard for any technically-equipped person conscientiously to devise a worse town plan than that of the "ideal" Nyland. Hard as the task must have been the town-planners set themselves to accomplish it, and in thirty years they produced the plan numbered three, which, in its turn, will be seen to have worse faults and more of them than even the Nyland "ideal." This plan is well known, and is conspicuous in the history of town planning. It is an "ideal plan," and was put forward by Sir John Sulman as a directive hint to those preparing competition designs for the lay-out of Canberra. I say nothing of the merits of the plan as a pattern, except that is has a Moorish feeling and seems to have been derived from the ceiling of the harem at Granada. The pattern, though it makes us giddy to look at it, is admired by town-planners, but, as before, what we have to consider is not the ingenuity of the pattern, but the impression the lay-out will make upon the inhabitants of this ideal township. I speak quite seriously when I say that to live in such a place would explain a man's going mad. The mind falters in attempting to comprehend the intricate maze of repetitions and monotonies. In the Nyland plan, as in most others, the repetitions are expected; the citizen has a sense of being trapped, but he also has a sense of knowing his way out of the trap. In the Canberra ideal the repetitions have great insistency, but a man would have to keep a firm mind not to be surprised by an unexpected familiarity of his surroundings, and suffer a consequent sense of confusion and loss of direction. In the Nyland plan the regular segmental curves give a vague sense of direction, and the angles they make with the radial thoroughfares are, in effect, square; but amid the complexities of Canberra all sense of direction would soon be lost, and the radial roads, slicing through the intersecting streets at an angle of 67½ deg., would impose an ungainliness on the monotony that no ingenuities of architecture could ameliorate. To display the tedious futilities of this plan would be to repeat nearly all that has been said of the faults and failures of the geometrical and symmetrical principle, but I will call attention to the planner's device for dealing with the railway station which, ingenious as it may be, has no bearing whatever on actualities or the perception of the inhabitants, but is an automatic expression of a rigid unthinking habit of mind. A parliament house and a railway station have, it seems, to be accommodated in this plan. Now the stale requirements of symmetry can be satisfied by placing the parliament house at the bald, radial, focal-point of the pattern, where its graces will become only less familiar to the inhabitant than a perpetual smut on the end of his nose would be. The railway station, on the other hand, is not so readily disposed of. The problem is a difficult one, and illustrates the perplexities which confront the town-planner. The trouble is that the pattern of the design requires for its right, logical, symmetrical completion a complement of no less than eight railway stations. If this were an ideal plan, in the strictest sense, its planner could perfect it by completing it with eight symmetrical stations, but, as we have said, the Canberra plan had reference to an actual town where one railway only was in view; accordingly we find that the designer has contrived, with great ingenuity, to balance the railway station with seven similar and symmetrically-placed parkways. The incidence of the railway on the plan is, nevertheless, a blemish, for it breaks the infinite monotony of the town's main circuit—that, at least, would be the criticism of the expert, for since the town-planner so labours to achieve these sprawling symmetries, his failure to perfect them must be a defect; and as the only impression such symmetries give is one of tedious monotony, a defect in symmetry is an alleviation of monotony. If we look closely into the matter we perceive that the experts' regret at the break in symmetry due to the railway station is, in fact, regret at the break in monotony—regret, that is, at the blemish in a pattern whose unity depends upon a monotonous symmetrical repetition of its parts. The clear implication is that the abstract, æsthetic conception pursued by our town-planners



4. PLAN OF CARCASSONE.

is, in fact, *monotony:* vast, formal grandeur linked to symmetry, balance of parts, and geometrical lay-out, are but the mechanisms through which the abstract conception "monotony" expresses itself. To view the case from a different angle, let us suppose that a group of town-planners avowed that it was the purpose of a town plan to tend to subdue restless aspiration and instil a dull acquiescence in life, and that therefore monotony was the effect to be aimed at. Supposing this, can we, within rational limits, imagine any designs better promising to attain that purpose than those which our own town-planners classify as "ideal" town plans?

Having said so much of what is to be condemned, I should like to speak of what may be esteemed, but I must confine myself to just this one aspect of the large field of town planning. Lest it should seem that I have over-emphasized the extravagance of the ideas I have discountenanced, I reproduce here a plan of the mediæval town of Carcassone. Although its beauty as a pattern may be far to seek, its beauty, in fact, no man can deny. Here, in Fig. 4, we have the seed; the model of what man can beautifully do in building a town. In Figs. 1, 2, and 3 we see the answer successive ages of town-planning experts have given to the same question. With Bruges and Carcassone, and Nuremberg and Chartres, and Canterbury and Salisbury before them, they still continue in self-emulating elaboration of the tedious, the ugly, the mechanical, and the dull.

Architects and Building Apprenticeship

THE excitement over the question of apprenticeship that is visible behind the scenes in the building industry deserves the careful attention of the architectural profession. During the past few days the National Committee of the Building Industry of which Mr. W. H. Nicholls is chairman, has been taking steps for the formation of local joint committees throughout this country. One of the duties of these committees will be to encourage apprenticeship schemes, and an elaborate draft agreement for augmenting apprentices in connection with the Government housing programme is now being circulated for consideration.

But there is a danger that all these schemes will be looked at from too parochial a point of view. There are many within the industry who consider that employers and employed are quite sufficient in themselves to deal with these questions. They intend to control the industry themselves, and take strong objection to any interference from without.

Nevertheless, it is only necessary to consider such a craft as that of plumbing to realize that the efficient training of those who will afterwards have to do the work of putting in, and adjusting, sanitary fittings in buildings is of the utmost national importance. A faulty plumber may be the cause of an epidemic in a home. Certainly the feckless plumber who carries out his work in a slipshod way adds considerably to the householder's bills and anxieties. For this reason such a distinguished architect as Mr. W. D. Caröe has for years taken a keen personal interest in all the various schemes that have been under consideration for raising the general standard of craftsmanship in the plumbing trade. He has taken every possible opportunity, both in his capacity as an ecclesiastical architect and also as a member of the Worshipful Company of Plumbers to help every plumber to be a true craftsman, thoroughly trained in the practical processes of his craft, and to eliminate bad workmanship. Mr. Caröe and other members of the National Apprenticeship Council of the plumbing trades were to have met at the Board of Education on December 4 to discuss this and kindred other questions. The sudden announcement of the postponement of the conference at the Board of Education was a bombshell to those who appreciate how imperative it is in the interests of the nation, no less than of architecture and of art, that building crafts should be properly taught.

Let it be confessed that certain misguided officials at the Ministry of Labour, soon after the war, by putting forward a proposal, that was never actually published, but was in wide circulation, that all apprentices should be controlled by State officials, have done much to frighten the leaders of all industries. The impossible request was also made at the time that Dr. Macnamara was Minister of Labour, that officials of employment exchanges, or others specially appointed for the purpose, should be given power to go into workshops and to see that employers were carrying out apprenticeship schemes properly. The proposal would never have worked. Before it became public property it was withdrawn under pressure from those who know the real conditions of British industry, but the knowledge of the existence of such a scheme was widespread, and intensified the resolve "No more interference from the State."

There is a danger now of the pendulum swinging too far in the other direction. The presence of architects like Mr. W. Caröe, and Mr. H. Searles Wood the official representative of the R.I.B.A., on the National Apprenticeship Council of the plumbing trades, makes for a wider vision than can be possessed by master plumbers or operatives or even by Government officials. One proposal, for example, put forward by an architect, deserves special mention. It was suggested that every plumber should be registered, and that every piece of work he carried out should be stamped with his own mark, just as in our cathedrals we can trace the mark of the mason to-day. This would encourage pride of craft. Further, if any defect was found out it would make it possible to find out who was responsible. But the proposal hangs fire.

Looking at the question of apprenticeship from the point of view of the building industry generally, it must be acknowledged that apprentices have not been encouraged by many employers. Since the industrial revolution, building contractors in the main have lost the pride of craft and intimate association with their workmen which distinguished the old craft guilds that held sway under the domination of master builders in the fifteenth century. Parents, too, as all those who have sat on a local Juvenile Advisory Committee of an employment exchange know well, frequently prevent their sons becoming apprentices in the building trades, either because clothes wear out quickly, or because of bad weather conditions, or for fear of periods of slackness, or because of the indifferent teaching in trade classes. Similarly, the representatives of the operatives, who know that at present they have a stranglehold on the industry, however much they may protest in public as to their anxiety for building education, in private are likely to raise many administrative difficulties to the working of any apprenticeship scheme.

For these and many other reasons it must be recognized that the next few months are critical. Those architects who have the time and knowledge to do so, can help considerably in encouraging and, if asked, advising the local joint committees of the Building Industry Committee to carry out their work most effectively.

It is, of course, possible that apprenticeship, as we knew it in the past, is unsuited to modern conditions. Intensive courses for building operatives, such as have proved successful in Australia, may be the right plan for this country. If so, all the acres of paper now being covered with details of draft schemes of apprenticeship, are largely waste of time and energy. But architects, because of their wider training and education, can help in bringing the issues to a definite conclusion during the next few months, and these words are written in the hope that they may serve to suggest possible directions of service.

B. S. TOWNROE.

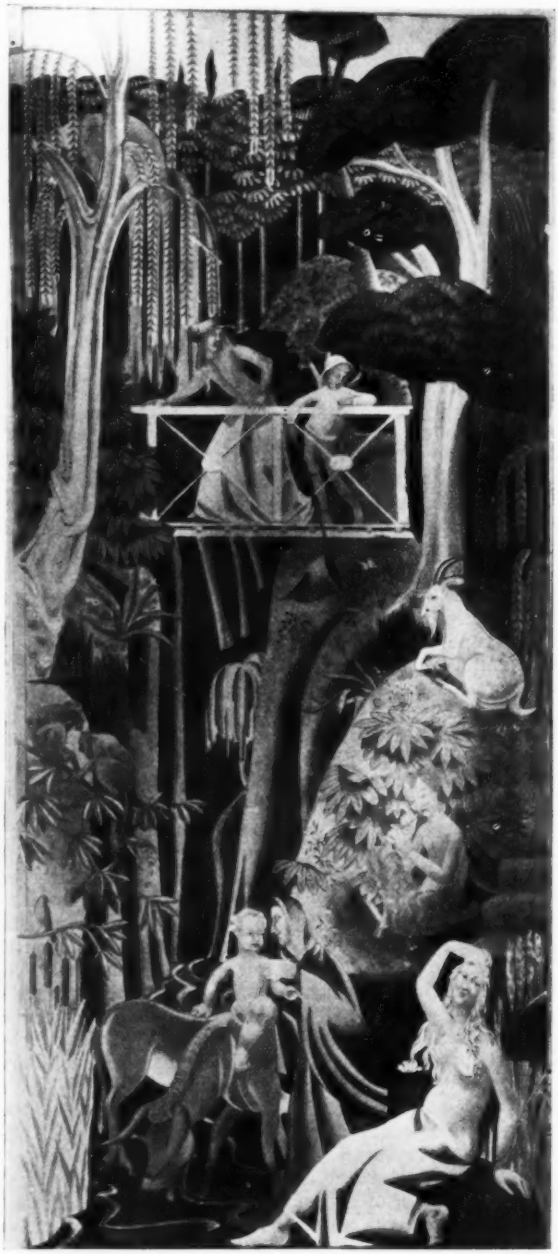
Mural Decorations at Shadwell

A Slade Experiment

DOWN in Shadwell, in what was once the ill-famed Ratcliff Highway, there has just been completed a very successful experiment in mural decoration by two students of the Slade School, Mr. Rex Whistler and Miss Adshead, under the direction of Professor Henry Tonks. Before coming to the pictures, a word must be said about their place of application, the Memorial Club of the Highway Clubs (Incorporated), where, in what was once a rendezvous of seafaring men from all parts of the world and loose women, devoted people of education are spreading the influence of sweetness and light, not by patronage or preaching, but by sharing the fruits of their better opportunities with a population almost entirely at the mercy of casual dock labour. The risk after one visit is of neglecting the artistic for the social interest of the occasion; and it will be enough here to say that the Highway Clubs have nine centres, ranging in purpose from clubs in Shadwell itself to boys' and girls' camps at Pinner and a cottage home at Hartfield, Sussex; and that the Memorial Club, built in memory of boys killed in the war, is at 225 High Street, next door to the notorious "Paddy's Goose," where what was once, literally as well as figuratively, a sink of iniquity, has been converted into a little chapel. Any further information may be had from the general secretary at the same address.

The Memorial Club is a large, well-lighted room, used for entertainments and lectures, with a platform at one end, the blank wall being divided into five bays or recesses, two of which have been decorated by Mr. Whistler and three by Miss Adshead. The origin of the experiment was simple enough. Disappointed, but not disheartened, by the failure of the London County Council to take advantage of its own arts opportunities at the new County Hall, and happening to have a sum of money at his disposal, Professor Tonks determined, by means of his students at the Slade School, to try another experiment in quite another sort of place. He disclaims being a philanthropist; he is an artist deeply interested in wall decoration, anxious to see it used, and fully aware that unless the artist is caught young he will never succeed at it. To reserve spaces for "accomplished artists" sounds very well; but the truth is by the time the accomplished artist turns his attention to mural decoration, he is too accomplished in the wrong direction. The West End being no place for experiments, Professor Tonks went to the East, "which adores them."

By any standard (says a writer in "The Times") the decorations would be good; as the work, the first of its kind they have tackled, of two young artists of about nineteen, they are extraordinary. The general subject is, rightly for Shadwell, "People enjoying themselves in the country," and, with a general harmony in the colour schemes and in scale of detail, the interpretation of it by the two artists is markedly different. Mr. Whistler is the racier in feeling. Miss Adshead—who is, incidentally, a daughter of Professor Adshead, Professor of Town Planning, London University, who, with Mr. S. C. Ramsey, was responsible for that model housing scheme at the Duchy of Cornwall estate, Kennington—the more poetical; and whereas Mr. Whistler obviously derives from the Dutch and Flemings, Miss Adshead has been inspired by the Italian Primitives, with hints from the East, in compositions which recall tapestry designs—though the handling is that of a painter.



PANEL NUMBER FIVE, BY MISS MARY ADSHEAD.

No set subjects are illustrated, but the general idea underlying the scheme of decoration was to illustrate the delights of the country as a contrast to the sordid surroundings of the East End. In this particular case the panels are carried out in oil-paint, with a medium of wax and turpentine on canvas, this being considered the best medium for the purpose.

It was the particular wish of Professor Tonks to show the possibilities of different treatments of decorative painting, and whilst in both cases a right convention has been observed, the individuality of the painter is strongly expressed.

The hall has been redecorated in a simple colour scheme of light grey walls and black dado to suit the somewhat cool treatment of colour adopted in the paintings.

Panels 2 and 3, are by Mr. Rex Whistler; panels 1, 4, and 5, by Miss Mary Adshead.

PANEL NUMBER ONE, BY MISS MARY ADSHEAD.

PANEL NUMBER FOUR, BY MISS MARY ADSHEAD.

PANEL NUMBER TWO, BY MR. REX WHISTLER.

PANEL NUMBER THREE, BY MR. REX WHISTLER.

MURAL DECORATIONS AT SHADWELL.

Architects' Own Homes—9

Mr. Arnold Mitchell's Holiday House at Lyme Regis

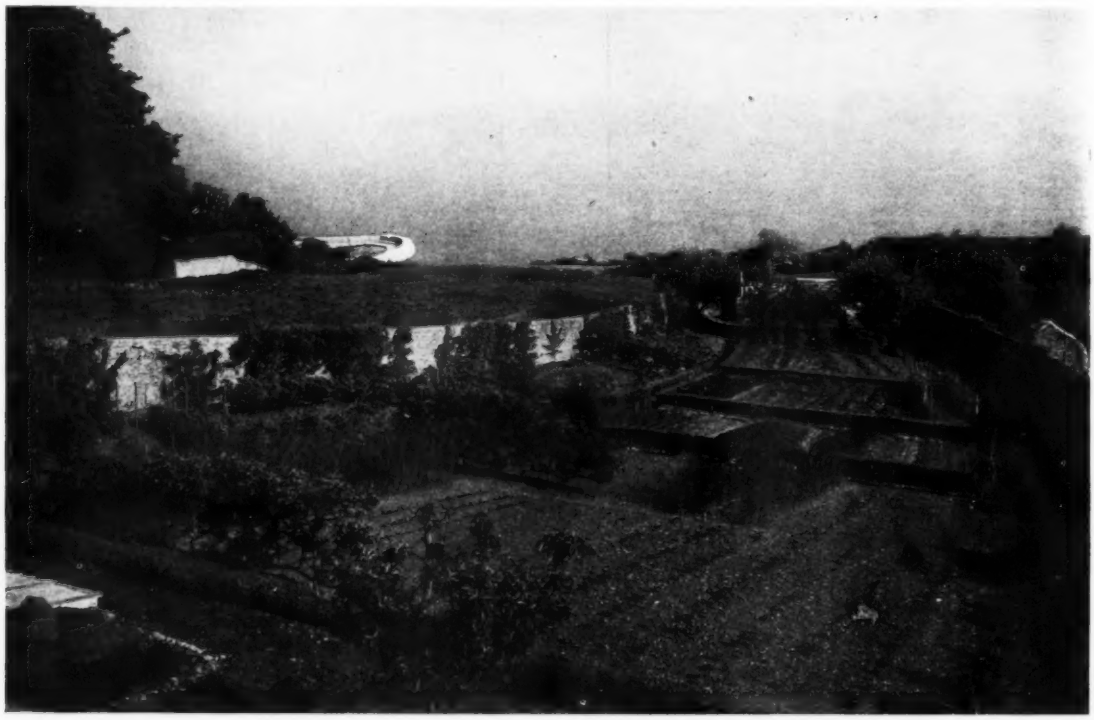
FAR from the madding crowd is "Little Cliff," Lyme Regis. Between 300 and 400 ft. above the sea-level—in the ancient town and yet hardly of it—a pleasanter or more retired small holiday home it would be difficult to find. Lyme Regis is remote—it is only of recent years that modernity, in the shape of a single-line branch railway has touched it, and even now trains are few and far between, and the slow and peaceful doings of the ancient corporation do little to disturb this backwater of twentieth-century existence. There is really but little change from a hundred years ago, when Jane Austen's Louisa received her famous concussion in her second attempt upon the old stone Cobb to reach Captain Wentworth's outstretched arms, an attempt which resulted in such distressing failure. Facing south, with a superb sea view, and sheltered from north, east, and west, it is an ideal winter home—a fact which its builders in the later Georgian period realized—planting the house down, as they did, in the little hollow of the cliff, screened from publicity of every kind, though actually bordering the great southern London-Exeter road.

The architecture of the earliest years of the nineteenth century is of the simplest character—and in none of its buildings more simple than in the small house. The plain plaster surface, the square holes for windows, the low-pitched, slated roof, with its boldly projecting eaves, make the sum total of its features; but there is a repose and quiet restfulness about it all that makes a very pleasant dwelling, and the solidity and strength of the structure stands up splendidly to the raging south-west gales that from time to time test seaside building to the uttermost. Not long since the whole town was littered with building debris after one of these great gales, but the older houses stand four square to the test, severe as it is, and it is not from these older houses that the debris comes.

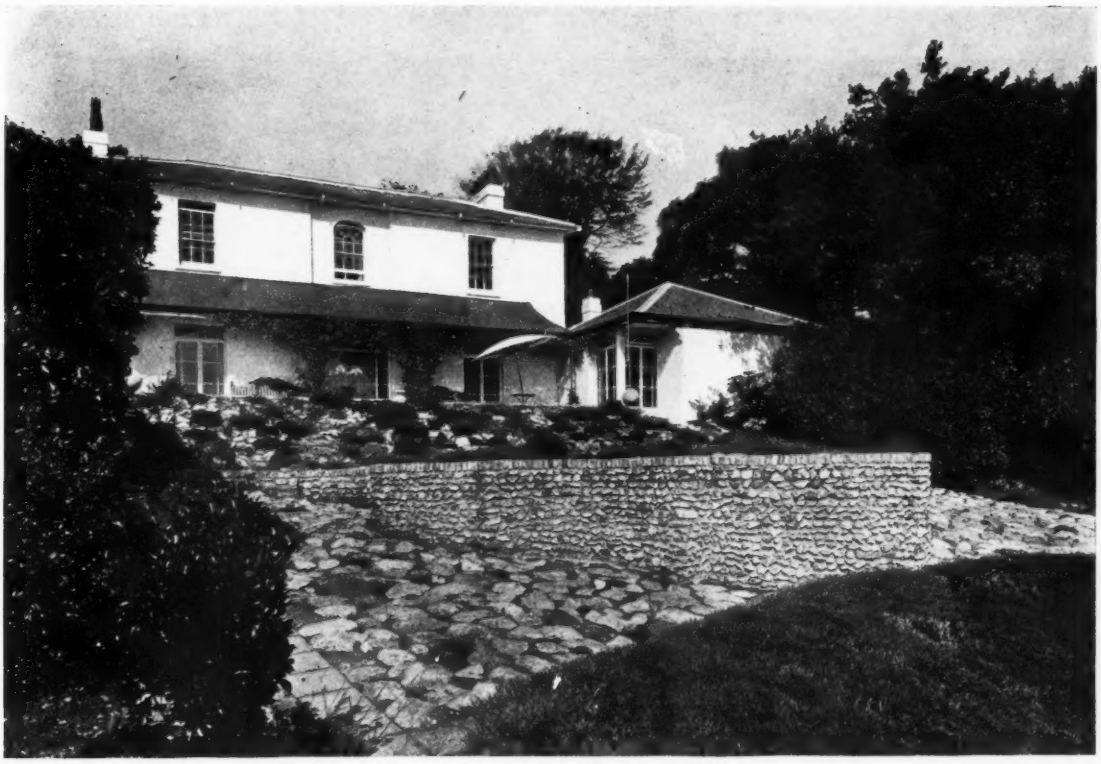
The old house has been, and is being, added to, as the accompanying plan shows, but scrupulous care has been taken to repeat exactly the simple architectural features of the older work; and it is difficult now to see, externally at all events, which part is old and which part new.

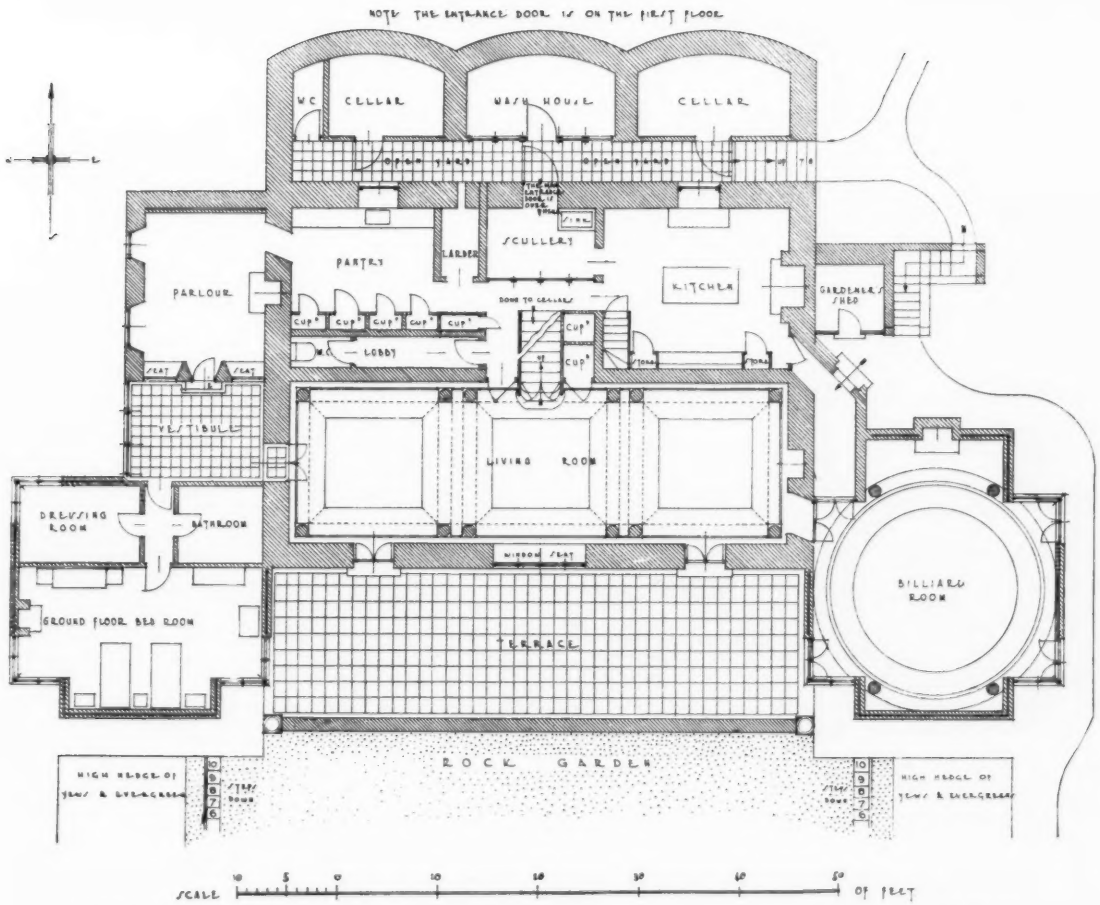
Internally there is more change. Gas and electricity are such amazingly good servants that they must be introduced; and then fads and fancies must be accommodated, and if in any house these things count, how much they count in the architect's home! In his own home he has no client to please; he pleases himself, subject, let us hope, to a feminine and higher authority; but then there is this drawback, that he has no client to blame—he must blame himself when things go wrong—as they will at times. Still, he can do things he likes, and in this particular house many things were done that had long been desired. Two in particular, which the photographs illustrate: a domed room instead of a room with the ordinary flat ceiling. Whether all that was desired was actually achieved is a debatable matter—performance so often lags behind the promise; but the architect has only himself to kick—if kicking is necessary. The other fulfilment of long-cherished desire was that most comfortable of meal-rooms, a mahogany room—nothing but mahogany, and very rich mahogany at that. Through the kind offices of Mr. William Mallinson—a name famous where knowledge of hard woods is sought—such mahogany was found as is pure delight to use, and though the illustration cannot convey a tithe of the beauty of the wood, there is some suggestion of the richness of effect obtained. Helped by a green Mexican onyx mantel and the green-tufted Donegal carpet, the brown mahogany makes a most delightful harmony of colours, and the old cut chandelier mirrors the colours in a hundred tints; in this room, at all events, kicks are not necessary.

The collecting of old lead work is a most attractive



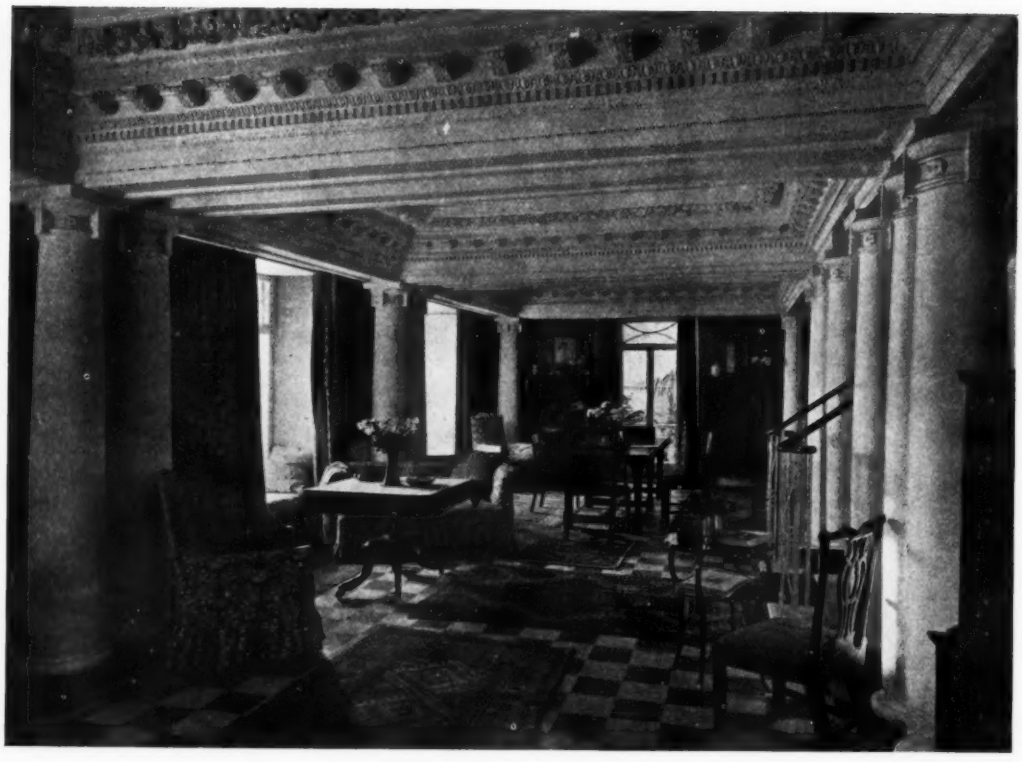
THE KITCHEN GARDEN, WITH A VIEW OF THE OLD STONE COBB.





LITTLE CLIFF, LYME REGIS: A VIEW OF THE SOUTH FRONT AND THE GROUND FLOOR PLAN.

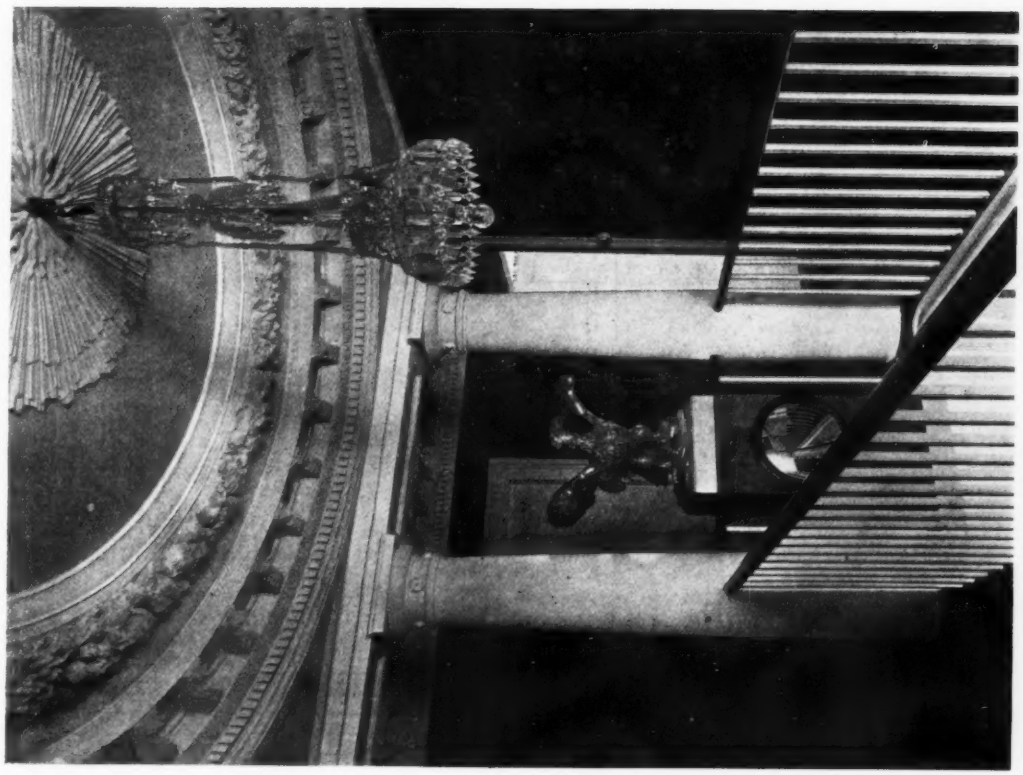
THE NEW BILLIARD-ROOM.



THE LIVING-ROOM.

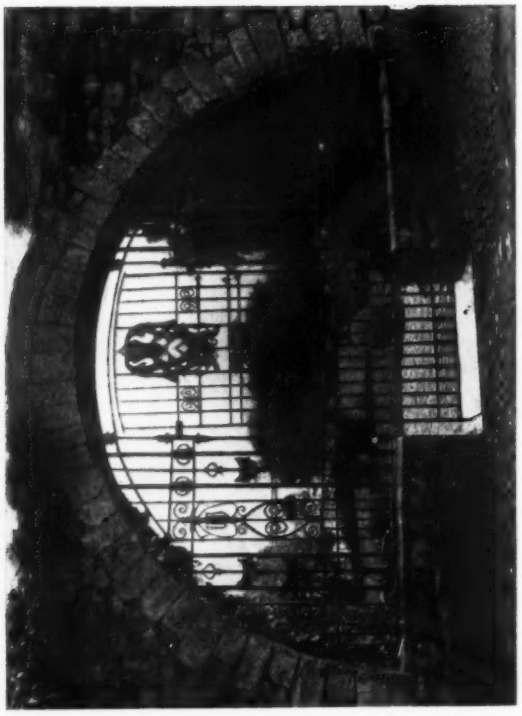
LITTLE CLIFF, LYME REGIS

THE PARLOUR CHIMNEYPIECE.



THE UPPER HALL.

LITTLE CLIFF, LYME REGIS.



THE ROAD GATEWAY.

A LEAD RAIN WATER HEAD.

FIGURES IN GARDEN.

AN OLD LEAD CISTERN. LITTLE CLIFF, LYME REGIS.

hobby to many, so attention is drawn to the garden figures, and more particularly to the rainwater head and pipe—one of a pair—dated 1722. This is a very fine example indeed; the heads are of large size, nearly 3 ft. all over, and their pipes, with most interesting clips and ears, are all perfect, and in long lengths. The cistern, though a good one, is of a more ordinary type. The semi-nude garden figure is not lead, but is in red terra-cotta, and is a very charming piece of old work. The gardener's cottage has some more old work, but in this case old German woodwork. This was found in a village near by, but then Dorset is a place where "things" crop up in the most unexpected manner; moving about, one is sure sooner or later to happen upon something old and interesting that has been passed by, and it is with such things with a story attached to each, that the country cottage can fill up with an extraordinary variety of miscellanies that give a very real and abiding pleasure to its occupants.

Regional Survey Progress

By G. L. PEPLER

PRIOR to the recent marked progress in regional planning, following the Act of 1919, Professor Geddes had demonstrated the immense educational value of a comprehensive study of the region in which one lives, and of the marks it bears (visible to those with eyes trained to see) of its evolution through the ages. The Regional Association has furthered the subject by surveys carried out by its members and by learned societies, such as the Croydon Natural History and Scientific Society, for whose interesting effort Mr. Fagg was chiefly responsible. The great value of this type of survey is perhaps scientific and educational and towards inculcating a regional sense, rather than as a preparation for proposals for development, although it also contains much of value in that respect. A similar but more complete survey was that of the Wirral Peninsula, by Mr. W. Hewitt, which was published in 1922. The survey required before a regional plan is made is of a somewhat different character, but it gives scope for much useful voluntary effort by such bodies as local natural history societies, boy scouts, and girl guides.

It would be a foolish presumption to attempt to plan for the future, without first striving to learn and understand the existing state of affairs and tendencies, their history and underlying causes. To achieve this understanding it is not enough to have lived long in a place. Exact knowledge is required, and the various factors must be measured and compared. The preparation and marshalling of this data (much of which often already exists in separate municipal departments) in graphic form, is the function of the survey.

An excellent and pioneer example is the civic survey prepared for the Sheffield Corporation, under the direction of Professor Abercrombie, which has recently been published. In this article, however, it is the regional aspect that chiefly engages our attention. The field opened by such a survey is so wide and fascinating that if the purpose is preliminary investigation prior to planning, it is necessary to restrict oneself rather severely to items that have an obvious bearing on that purpose.

Before briefly describing specific surveys, it may be of value to enumerate a few of the items of which knowledge is required before planning is undertaken. For convenience the items are divided into groups, but to obtain a true picture of any one item, a bearing will have to be taken of its relation to the facts portrayed by every set of studies. The first group that occurs to one may, for convenience, be termed:—

Physical Considerations.—Obviously a thorough knowledge is required of contours. For example, in picking the route for a road, or in allotting a site for a regional sewage outfall and trunk sewer, it is necessary to know the comparative heights and irregularities of the surface, and in order to get a picture of the whole there is nothing so useful as a contour model. Again, an intervening hill may serve as a useful barrier between industrial and residential property; steep sites may be extravagant for building, but valuable as parts of parks. Before allotting land to any particular use one must know whether the soil has any particular value for any special purpose, e.g., stability for foundations, brick-clay, or agriculture, or whether there is any possibility of subsidence from mining, etc. Rainfall and sunshine are important considerations in locating residential areas, and cleanness of air and dryness or humidity of climate in respect to some industries.

Historical Considerations.—We must not only preserve as far as we can, and bring into prominence all worthy traces that remain of the past history of our region, but it is of still greater importance that we should study the history of its evolution, socially, industrially, and economically, so that in framing a policy for the future we may benefit from the experience of the past.

Surface Utilization.—Existing use must have an important bearing on plans for the future, which will be framed to encourage and foster the good that is, and gradually to eliminate or convert the bad. In this connection reference must be made to the splendid surface utilization maps that were prepared during the war by architects ineligible for military service, under the ægis of the R.I.B.A., and largely inspired by Mr. Lanchester, for parts of Greater London, South-east Lancashire, etc.

Communications.—A picture is required of the route and area served by each existing form of communication, its capacity and present load of traffic, and its limitations such as bad grade, congestion, danger points, etc. The time-distance and cost of each transport service must also be plotted, so that the travelling facilities of each part of the region may be made plain and compared.

Public Services.—The present areas and lines of supply of such public services as water, gas, electricity, and the provisions for sewerage, the available margin and possibilities of extension, must all be plotted and compared with other factors, such as contours and surface uses, so that the facilities for these services and their economical extension may be taken into account when planning for future development.

Social Conditions.—Important factors are the growth of population and its distribution, density of houses and their condition, density of population, the extent and distribution of open spaces and playgrounds, compared with the vital statistics for each part, facilities for recreation, etc.

Occupations.—The location and extent of existing industries and their inter-relation and probable development, openings for ancillary trades, the form of transport used and needed, suitable kind of site, requirements as to power, type of effluent, where employees at present live, need for labour on the spot—all these and many other items have an important bearing on the plan, and those engaged in and responsible for the various industries should be brought into counsel at an early stage.

This brief survey of the field to be covered leads us to a consideration of some of the regional surveys that have been carried out preparatory to planning.

The first regional survey of this kind to appear was that of the *South Wales Regional Survey Committee*, who published their report in 1921. This committee was appointed by the Minister of Health early in 1920 to inquire into and report upon the special circumstances affecting the distribution and location of the houses to be erected with State aid in the region of the coalfields of South Wales.

The committee found that the distribution and location of houses was clearly allied to the location and prospects of the various industries, was complicated by the divisions of local authority areas, and was largely governed by physical considerations. Their report, which is illustrated by maps and diagrams, therefore deals with the following subjects: geology, subsidence, physical features, climate; the industries of South Wales, their history, development, and prospects; agriculture, growth, and distribution of population, occupations, character of population, housing conditions and needs, the ports, how and where the housing needs should be met, local government arrangements and how they might be improved, public services, existing, projected, and required, communications and travelling facilities and suggested improvements, recreation, need for improved amenities, need for regional town-planning.

The first regional planning report of a joint committee to be published (1922) was that prepared by Professor Abercrombie for the *Doncaster Region*. This report does not include a detailed survey of the region, but the main facts of contour, history, communications, industries, etc., are clearly brought out, and are linked with proposals. Extensive use is made of photographs (mostly reproductions from selected picture postcards), especially to indicate things of beauty that must be preserved. The one fundamental aspect upon which a report and survey was necessary, as a preliminary to any development proposals, was the probable rate of coal-getting and consequent subsidence.

The next report to be published was that of the *Deeside Joint Town-Planning Committee*, which covered the region from Chester to the sea, on the south side of the Dee Estuary. The survey portion of this report, which was well illustrated, was divided into the following headings: Physical conformation, local authorities, mineral resources, present character of residential areas, health and population, drainage, water and electricity supplies, industrial position and general prospects, historic features, existing system of communications. As would be expected in such a region, the historic side was emphasized, and in particular the ancient towns of Chester and Flint were surveyed historically and the past linked with the present and with the proposals for the future. The other aspect which received most careful attention was that relating to the mineral resources and industrial possibilities, and with reference to the former it was made plain that much wealth now lying dormant could be brought into production by wise planning and co-operative organization.

In the case of the *West Middlesex Joint Town-Planning Committee*, Messrs. Adams and Thompson, the advising experts, adopted a new plan, namely, of first preparing and publishing a preliminary report dealing with the regional survey. The published plans include a map showing the areas of the constituent local authorities, contour map, profile sections, map showing the existing conditions in the region with regard to (*a*) built-up areas; (*b*) factory areas; and (*c*) open spaces, communication map, railway time zone map, railway fare zone map, map showing the daily volume of suburban passenger traffic to the central area of London. Other plans prepared for the purpose of the report, but not published, include geological drift map, population curves for the whole region and for each constituent district, diagram of road system, indicating densities of traffic, and maps indicating, respectively, the areas of the various water, sewerage, electricity, and gas authorities of the region. An interesting departure in the survey of industries was the issue of a questionnaire to the principal industrial undertakings in the region with a view to discovering where the employees were housed, and the extent of their daily travel to and from work, methods and extent of transport of goods, outwards and inwards, form of power used, and requirements, etc. Having regard to the novelty of such a questionnaire, the response of the industrialists was not discouraging, and much useful information was acquired.

The *Thames Valley Joint Town-Planning Committee* were also advised by Messrs. Adams and Thompson, who followed their previous practice and prepared a preliminary report on the regional survey. The items included were similar to those dealt with in the West Middlesex preliminary report, but an interesting addition was made in the form of an analysis and diagram, compiled from information supplied by the census authorities, indicating the movements of population from place to place in their daily journey to and from work.

So far reference has only been made to reports that have been published, but this does not by any means exhaust the regional survey work that is in hand, of which the following examples may be quoted:—

Manchester and District Joint Town-Planning Advisory Committee.—A civic and regional survey sub-committee is actively engaged, and a contour model of the region has been prepared. The committee were fortunate in inheriting the survey, to which reference has already been made, prepared during the war for South-east Lancashire, which included a road-traffic density diagram, sunshine and rainfall charts, showing remarkable variations within the region, etc. A special road-traffic count has since been taken for the joint committee, and a number of diagrams have been prepared by Mr. Bruce of various items of the regional survey, such as surface utilization map, principal occupation map, etc., etc., also careful studies are being made of the public services in the region, such as gas, water, electricity, sewerage, etc.

Leeds and Bradford Region Joint Town-Planning Committee.—This committee is of more recent formation, but Mr. Mattocks, who assisted Professor Abercrombie in the preparation of the Sheffield civic survey, has been appointed chief surveyor to the joint committee, and has made a beginning with a comprehensive regional survey. One local point of some importance that he is investigating is to discover the exact connection between stream and river dams and the flooding of roads.

East Kent Joint Town-Planning Committee.—This committee was formed principally because of the new colliery and iron ore developments, with a view to facilitating industrial development, while at the same time safeguarding the amenities for which the region is famous, and providing for the housing, comfort, and recreation of the large additional population that will be required for the new industrial enterprises. The industrializing of such a region as this is clearly a matter of great moment, not only to Kent, but to the whole country. At present it is rural in the centre, lying between Canterbury and the seacoast, where stand the port of Dover and such well-established health resorts as Margate, Ramsgate, Deal, and Folkestone (to mention only the largest), the ancient and picturesque borough of Sandwich, and the remains of the great Roman station of Rutupiæ.

Anyone who has studied the regional surveys that have been published, or are in course of preparation (and there are others that limits of space make it impossible to refer to), must be impressed with their value. This value consists not only in that they ensure that plans for the future will be based on a knowledge and understanding of the present state of affairs and of what has produced them, but also because they make it possible to comprehend the resources and potentialities of a region, and the obstacles to realization, in a way that cannot possibly be grasped unless presented as a whole with all the facts of the situation correlated and compared.

REGIONAL SURVEY.

List of Published Reports.

Report of the South Wales Regional Survey Committee. H.M. Stationery Office, Gp 32. 3s. 6d. net.

Report of the Survey of the Croydon Natural History and Scientific Society. See article by Mr. C. C. Fagg in the "Geographical Journal," November, 1922.

The Doncaster Regional Planning Scheme. Messrs. Hodder and Stoughton, Ltd. 10s. net.

The Deeside Regional Planning Scheme. Messrs. Hodder and Stoughton, Ltd. 7s. 6d. net.

The West Middlesex Joint Town-Planning Committee. Preliminary Report upon the Regional Survey. Mr. Ernest S. W. Hart, Guildhall, Westminster, S.W. 5s. net.

The Thames Valley Joint Town-Planning Committee. Preliminary Report. Mr. W. T. Goodale, Council House, Mortlake, Surrey. 3s. 6d. net.

Cities in Evolution. By P. Geddes. Messrs. Williams and Norgate.

Wirral Peninsula: An Outline Regional Survey. By W. Hewitt. Messrs. Hodder and Stoughton, Ltd. 7s. 6d. net.

Sheffield Civic Survey and Development Plan. Messrs. Hodder and Stoughton, Ltd. Cloth, 20s., paper, 15s.

War Memorials. 47.—The Naval War Memorial to the 8th and 9th Submarine Flotillas, Shotley Church

A. H. Ryan Tenison, F.R.I.B.A., Architect. F. Brook Hitch, R.B.S., Sculptor

This memorial is erected within the special compound adjoining Shotley Churchyard, and adjacent to the R.N. cemetery, the Eastern Command. The bronze figure faces towards the graves. The architect worked in conjunction with Mr. F. Brook Hitch, R.B.S., who was responsible for the modelling. See also note on page 924.

War Memorials. 48.—The R.N. Submarine Memorial, The Victoria Embankment

A. H. Ryan Tenison, F.R.I.B.A., Architect. F. Brook Hitch, R.B.S., Sculptor

This memorial is erected on the face of the Pylon towards the Temple Gardens, The Victoria Embankment. The bronze tablet is 12 ft. 6 in. by 8 ft. 6 in. The subject of the centre panel is a submarine lying at the bottom of the sea, the officers defending and the evil spirits of the sea attacking. The architect worked in conjunction with Mr. F. Brook Hitch, R.B.S., who did the modelling.

The Business of an Architect

18.—Surveying Sites

By C. MURRAY HENNELL, F.S.I.

THE articles in this series have so far been confined to an architect's indoor duties. However, the profession is fortunately one which does not keep us everlastingly on an office stool but enables us to spend a good deal of our time in the open air.

Before any accurate drawings for a building can be prepared a survey of the site must be made, and this should really be done even before the roughest sketch plans are attempted, for the information obtained from a survey frequently necessitates the scrapping of any ideas one may previously have formed.

Architects with large practices often employ a surveyor to make their surveys for them, but the more humble members of the profession do this work for themselves. So much the better for them, for it is by tramping over and over a site with chain, tape, level, and staff, also with open eyes, that one really gets an intimate knowledge of the piece of land on which the projected building is to stand. This is of far greater importance than would at first appear, for not only does the preparation of a careful survey enable the architect to visualize the actualities and possibilities of the site while he is designing the structure, but calls his attention to a number of queries that must sooner or later be raised, the sooner the better, and gives its own answers to many of them. He ascertains, among other things, the nature of the site's boundaries, the exact positions of obstructions, movable and immovable, the distance from railway and the means of approach, proximity of essential services, the existence of natural drainage and of water-courses, footpaths, and rights-of-way, also the outlook at all aspects.

There are four different kinds of land surveys, namely: (1) a chain survey, (2) a trigonometrical survey, (3) a combination of (1) and (2), and (4) a traverse, but it is extremely unlikely that the architect will ever find it necessary to make any survey other than a simple chain survey.

The surveying instruments that the architect will ordinarily require and should be retained as part of his equipment are:—

A stout chain.
Ten arrows.
Twelve pickets or ranging poles.
Two tapes (50 ft. and 100 ft.).
A level with tripod, and staff.
A compass.

In surveys made for the purpose of computing areas, a Gunter's chain is generally used. This is 66 ft. long, divided into 100 equal parts, called links, each 7·92 in. long, but for surveys for building and engineering works it will be found far more convenient to use a 100 ft. chain, each "link" being 12 in. long.

The only real difficulty about land surveying is to obtain deadly accuracy, which is of the greatest importance, for it would obviously be a calamity to find when one's building or buildings came to be set out on the site, that they would not fit, and in order to obtain complete accuracy it is essential that the instruments used be perfect and exact. It may appear to be unnecessary to mention this, but chains, etc., are treated with considerable carelessness and disregard, and are often thrown down in a cupboard after use without any thought of periodical cleaning or checking. However, chains and linen tapes are liable to stretch, and if they have done so, will, unbeknown to the surveyor, cause the most carefully made survey to be incorrect. Chains and tapes should, therefore, be frequently checked, and many land surveyors and engineers have what is known as a "standard" chain, which is specially made with great accuracy. This is not used for surveys, but is kept for the purpose of testing the working chains. A good steel tape is kept by others for the same purpose.

There is a permanent standard for testing various measures, laid down by the Royal Engineers in Trafalgar Square, London, and there are other standards in different towns, the positions of which can be ascertained from the local authority.

The taking of levels is also a simple matter, but here again accuracy is the key-note, and care must be taken not only to set up the level correctly, but to see that this instrument itself is properly adjusted, with its bubble tube at right angles to the vertical axis.

The levels of a site should never on any account be left to chance, nor should it be assumed that land is practically flat because it appears so. Gradients are most deceptive to the eye, and claims for extra digging, concrete, brickwork, and masonry, frequently arise owing to the levels not having been accurately taken in the first place.

For a scheme of building which is to cover an area of appreciable size contouring is most advisable. This means the ascertaining of a sufficient number of levels to enable a plan to be prepared with lines indicating the general slopes of the land, and foot contours, i.e., showing levels at vertical intervals of 12 in., are desirable for this purpose. To do this, levels must be taken at measured intervals all over the site, generally by dividing the area into squares, the squares or intervals being large when the land is comparatively flat, and smaller as the gradients become steeper.

When the position of the proposed building is predetermined, it is, of course, only necessary to take levels at definite points, such as at the corners of the building and in other obvious places.

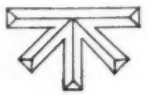
Every endeavour should be made to keep to "simple levelling," that is, with only one setting up of the instrument and a consequent saving of time, but where there is much rise or fall in the ground this is impossible, and the level has to be moved from time to time in order to obtain a reading on the staff. The latter is called "compound levelling." The level should, therefore, be set up near to the highest point of the site, and the longer the staff the less frequently the instrument will have to be moved.

Although, as has already been pointed out, accuracy in levelling is essential, it is not necessary for building purposes to take readings to one-hundredth part of a foot, as provided for on the levelling staff. Readings taken to the nearest one-twentieth part of a foot are as minute as will ordinarily be required. These can be more quickly and easily read than the hundredth parts, and time is saved in making the arithmetical calculations to arrive at the reduced levels.

The architect does not often require to know the exact height of the site above ordnance datum, comparative levels on the site itself and of adjacent roads, sewers, etc., being usually all that are needed, and the approximate general level can be arrived at by reference to the nearest contour line or level marked on the ordnance maps.

However, should knowledge of the exact height above ordnance datum be required, it can be obtained by taking a reading from the nearest "bench mark," which may be defined as some permanent immovable object on which the levelling staff may be held, the height above ordnance datum of this object being known. For example, the exact level of a manhole cover may be known by the local authority, and this will make a very good bench mark from which

to work. Permanent bench marks shaped as in sketch, have been carved in the masonry of many buildings throughout the country by the Royal Engineers and their levels are given on the ordnance maps. It is advisable to use the nearest of these when strict accuracy is required, and in taking a reading from one of these the heel of the staff should rest exactly on the centre line of the horizontal cut.



[The previous articles in this series appeared in our issues for April 4, 11, 25; May 9 and 30; June 27; July 18; August 1; November 7 and 21; December 12, 1923; and January 23; February 20; June 25; August 20; October 1; and December 3, 1924.]

The Oldham Nurses' Home Extension Competition

The Winning Design

THE design of Messrs. C. T. Taylor and Roberts, of 10 Clegg Street, Oldham, has been placed first by the assessor, Mr. Francis Jones, F.R.I.B.A., in the limited competition, promoted by the Oldham Board of Guardians, for the proposed extension to the nurses' home at Boundary Park Hospital. Three architects were invited to submit designs, viz., Mr. E. S. England, A.R.I.B.A., Messrs. Taylor and Simister, and Messrs. C. T. Taylor and Roberts, all of Oldham. Four sets of drawings were received—Messrs. C. T. Taylor and Roberts submitting two schemes.

The conditions of the competition were most lucidly drawn up. Plans and elevations of the existing home were supplied to the competing architects, and it was stipulated that the new works were to cost between £20,000 and £30,000. It was desired that the new building should occupy that part of the site adjacent to the existing building, so that together they might form a whole building, convenient and economical in its internal arrangements, and of a unified character externally. Accommodation was to be provided for fifty nurses—with a separate bedroom for each—together with a recreation room (800 super feet), and the existing dining-room was to be enlarged for the accommodation of eighty-four nurses, the whole nursing staff in the home. In addition, a sisters' sitting room was required, and it was suggested that this should communicate with the recreation room to some extent, so that they might be used together on certain occasions.

The site of the existing nurses' home is bounded by two roads, one on the north, and the other on the south. The main entrance is on the north road, suggesting that this is the more important of the two, and that the main front of the proposed extension should also be approached from the north.

When one considers that, by doing this, the chief rooms will fall naturally to the back of the plan, where they will obtain a south aspect, and overlook gardens or tennis courts, which may be laid out on the rest of the site, one finds the obvious position for the new extension in relation to the existing building, and all the competitors have realized the advantages to be obtained from this position. Nevertheless, it is obvious that the competitors have found difficulty in placing the new building on the site so as to obtain an axial treatment of the plan, and a unified grouping of the nurses' home with the various other buildings of the institution. The placing of the building on the site with regard to the orientation of the more important rooms has been particularly well carried out in schemes Nos. 1 and 3, and also in scheme No. 2a, which, from the point of view of general arrangement and lay-out, is probably the most satisfactory.

In scheme No. 2a—the winning design—the recreation room and the sisters' room appear to be particularly well placed in the plan, but there is some doubt in my mind as to whether the lighting problem is satisfactorily solved in the recreation room. The competitor has evidently considered it a difficulty, and has tried to obviate it by placing windows on one side of the sisters' room, and thus obtain borrowed light, but it is not satisfactory, as the lighting of the recreation room itself is quite inadequate. The lavatories and cloaks are very well planned, suitably placed, and evenly distributed, and the positions of the library and study, lecture, and demonstration rooms are quite good. The bedrooms are dealt with in a very practical manner, though it is doubtful whether the narrowing of the corridor between them is desirable; but probably this was done to reduce the cube. The hair-washing room is in a very good position, but it was quite unnecessary to place the basins in the only bay window of this long façade; and I feel confident that the linen and sewing room would have been more convenient had it been placed in a central position on the first floor. The central motif in the elevations—the heavy stone clock over the French window—produces the feeling that the greatest weight is placed over the largest void in the whole façade. The scheme is clearly shown, and the presentation is excellent.

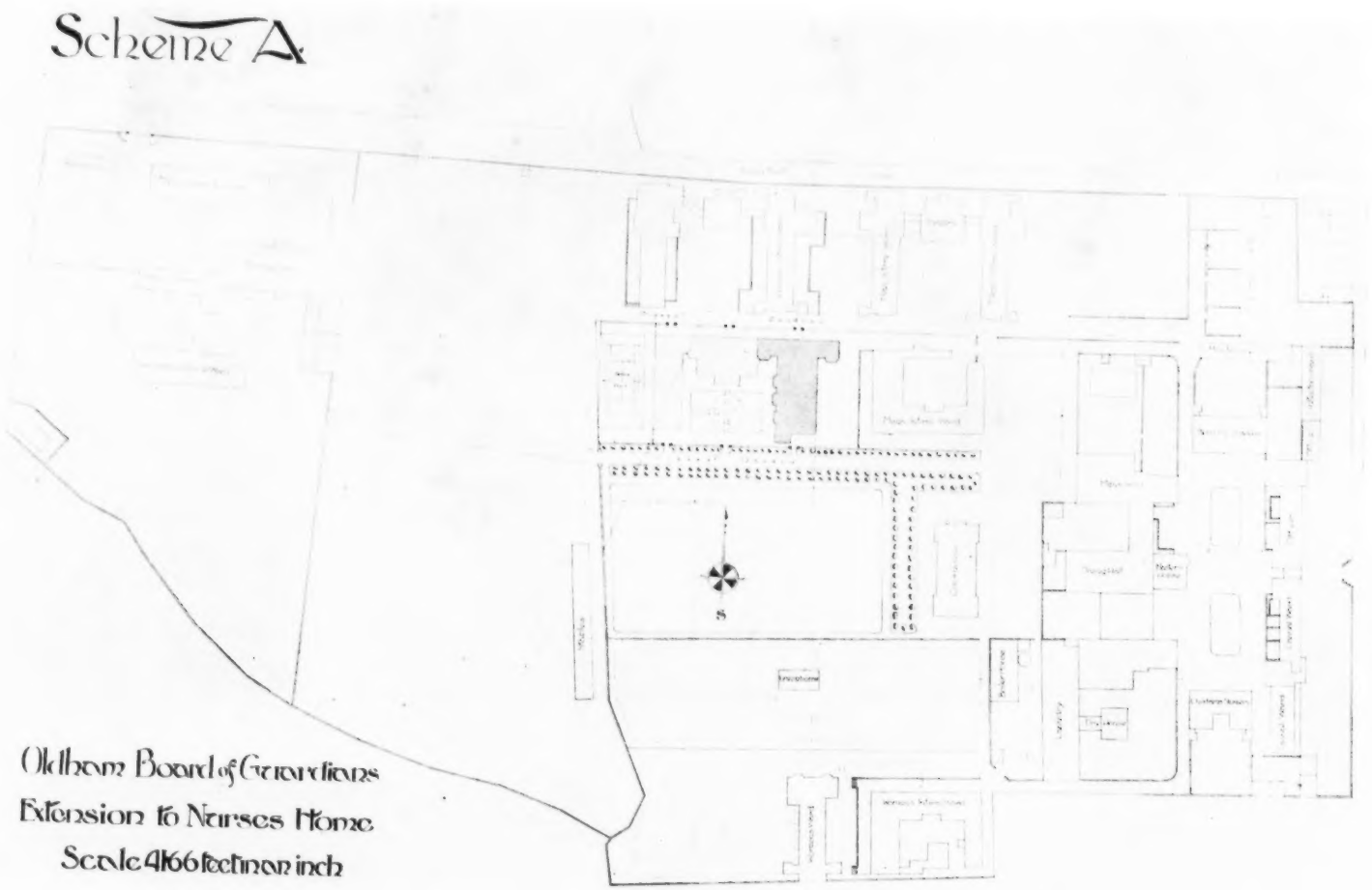
Scheme No. 2b is not so satisfactory in its general arrangement as No. 2a, although the recreation room is in an excellent position, and the lighting far more adequate. To my mind the great fault in the plan is that it contains two small areas which, although they are not of great height, would be unsuitable in a building of this description where open planning is essential. The elevational treatment is much better than that of scheme No. 2a, but I think that the proportion of the square-headed windows on the south front might have been improved with a little further study.

Scheme No. 1.—The recreation room and sisters' sitting room are exceptionally well placed, having a south aspect and adequate lighting. This plan could have been considerably improved by keeping the bedrooms clear of the recreation room and bringing the lavatories and cloaks in closer proximity to it, and to the main entrance. The position occupied by bedrooms on either side of the main entrance is one more suited to lavatories and cloaks. The elevational treatment of the scheme is good. The plain façade fronting on to the north road looks well, but it would have been better had a focal point of interest been formed by the doorway, and had this been sufficiently elaborated as the main feature. The proportion of window to wall space is good, except for the central windows in the side wings. If it were possible it would have been better to have given more height to these side wings, as they look rather dull and uninteresting for want of contrast with the main block.

In scheme No. 3 the recreation room is not so well placed as in the other schemes, but the lighting is good. Furthermore, it is the only design showing two fireplaces in this room, which is a point in its favour. Considering the size and purpose of the room two fireplaces would be needed. The plan certainly meets the requirements, but it is not particularly interesting as a plan. The elevations follow the existing building very closely. The fenestration on the south side shows want of further study, and the proportion of the windows is bad.

As regards cost, each of the schemes submitted could be built for the sum laid down in the conditions.

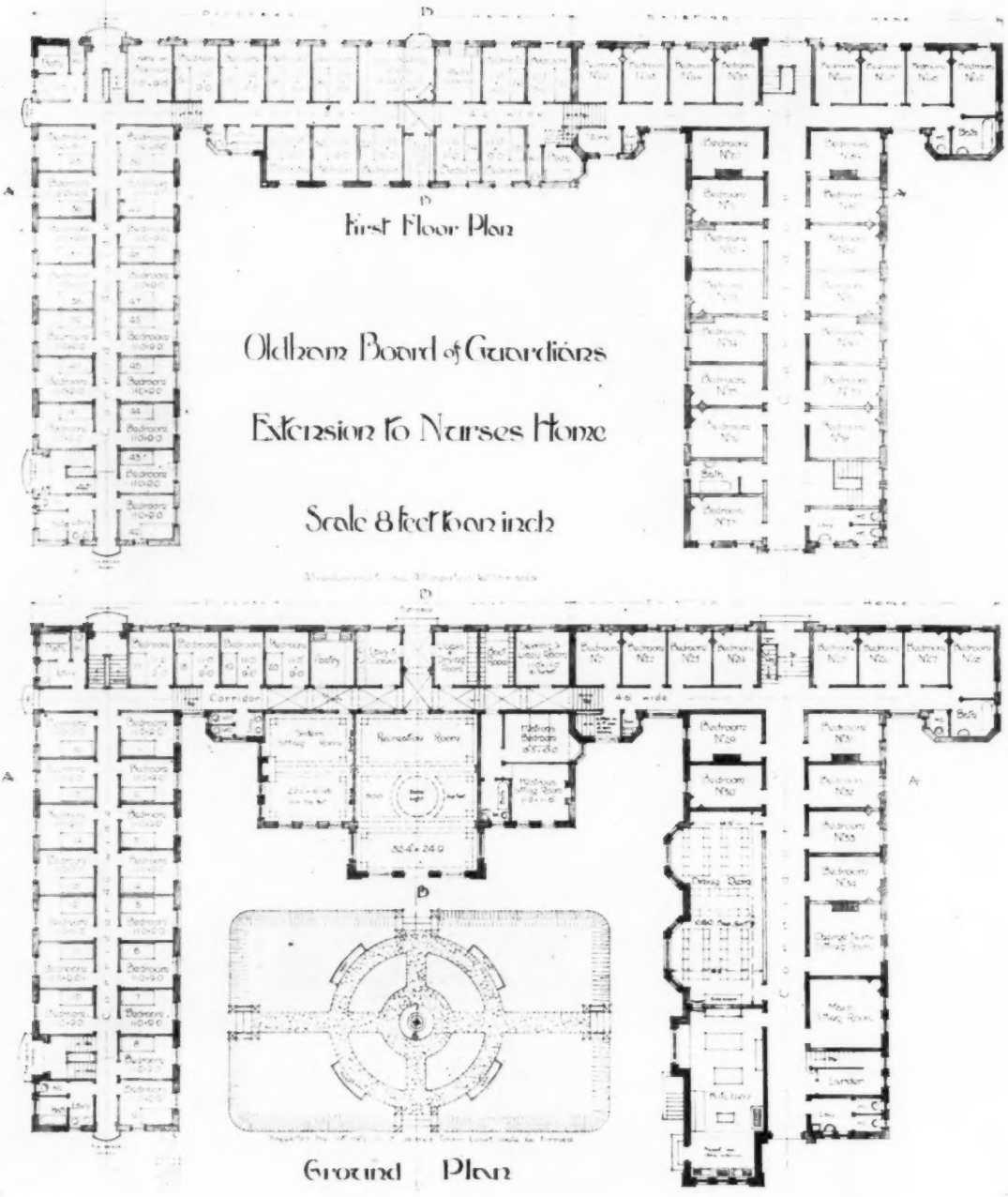
W. B. E.



OLDHAM NURSES' HOME EXTENSION COMPETITION: GENERAL PLAN OF WINNING DESIGN.
C. T. TAYLOR AND ROBERTS, ARCHITECTS.

Oldham Nurses' Home Extension Compet

C. T. Taylor and Roberts,

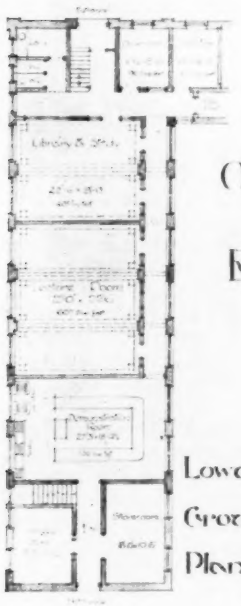


In a limited competition for extensions to the Nurses' Home at Boundary Park Hospital, the design of Messrs. C. T. Taylor and Roberts has b

ɔn Competition : The Winning Design

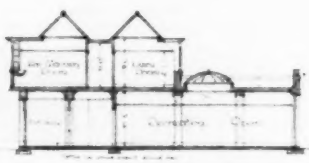
and Roberts, Architects

Section AA



Oldham Board of Guardians

Extension to Nurses Home



Section BB

Lower Ground Plan

Scale 8 feet to an inch

South Elevation

This and the adjoining reproduction represent Scheme A.

d Roberts has been awarded first place. A criticism of the designs appears on page 918. Mr. Francis Jones, F.R.I.B.A., was the assessor.

Bird's-eye Perspectives

By WILLIAM HARVEY

"D H. A. J." writes: "Can you advise me as to a method of setting up a bird's-eye perspective drawing, the particulars of which are as follows: The drawing has to be antiquarian size finished, and this occupies the whole of my largest board. The HL, being at some 250 ft. high, comes far above the top edge of the board. I am thus unable to use a centrolinead, as this instrument has to be set on HL. The only way known to me is to make a small perspective and enlarge it, but I cannot help thinking there must be a better method than this?"

—The abbreviated direct method described and illustrated in THE ARCHITECTS' JOURNAL for May 28, 1924, may be adapted to suit this particular case as follows:—

1. Pin down the plan of the object on a large table, or upon the floor, and select a suitable position for the view-point SP as directed in the above-mentioned article. With a depth of 250 ft. from HL to the lowest corner of the object, a distance of about 1,000 ft. will be required between the SP and the nearest corner of the object if the whole surface of the antiquarian board is to be kept in focus.

Where the plans are already drawn to a small scale the perspective view can be made to cover a larger area by placing the picture-plane behind the object. If reduction of scale is desired the picture-plane PP should be placed between the object and the station point in the usual way. The proportions of the object as seen in the finished perspective will be similar in either case, only the scale being altered (see Fig. 1).

2. The position of each point in the finished perspective will be found independently of vanishing points by means of two co-ordinates:—

(a) Widths measured to right or left of the centre of vision CV.

(b) Heights measured down from the horizontal line HL.

In the present case the HL is not available on the finished perspective, and a datum line, DL, at the top edge of the sheet will be substituted, but the working must be done in relation to the position of the HL, and a deduction made in transferring the dimensions for use on the antiquarian board.

3. *Method of working to find perspective of any point A.*—With a long straight-edge pivoted on a pin at SP on plan, draw a visual ray through the point *a* of the object, and cutting the plan of the picture plane in A (see Fig. 2). The distance from CV to A is the required width co-ordinate of the point A. This is to be transferred to the antiquarian board, and marked off along the datum line DL.

4. *To find the height, or depth, of point A below the horizon line HL.*—On all elevations and sections consulted in setting up the perspective mark a horizontal line at a height of 250 ft. above the same chosen point on each (see Fig. 2A). The true depth of any point in the object or foreground, etc., will then be its vertical distance below this horizontal line. The perspective depth is obtained on plan (Fig. 2) by erecting two perpendiculars to the visual ray, one through the point *a*, and one through A, where the ray cuts the picture plane. On the perpendicular through *a* set off *aa'* the true depth of point *a'* as determined by reference to the scale elevation or section. With the straight-edge still pivoted on the pin at SP join SP *a'* and cut the perpendicular from A in A'. A A' is then the correct perspective height or depth below HL of the point A. This method of working is universally applicable to perspectives containing points above and below HL, to bird's-eye views containing only points below HL, and to mole's-eye views of roof timbers, tower tops, etc., in which only points above eye-level are seen. In the present instance a deduction has to be made from the depth AA' to account for the difference in level between the datum line, DL, and the horizon, HL. In like manner any other point can be determined in turn, and the widths and depths applied to the finished perspective without any cumbrous construction lines. Each point should be carefully lettered up for identification on plan elevation and perspective until the body of the object becomes easily distinguishable on the antiquarian sheet (see Fig. 2B).

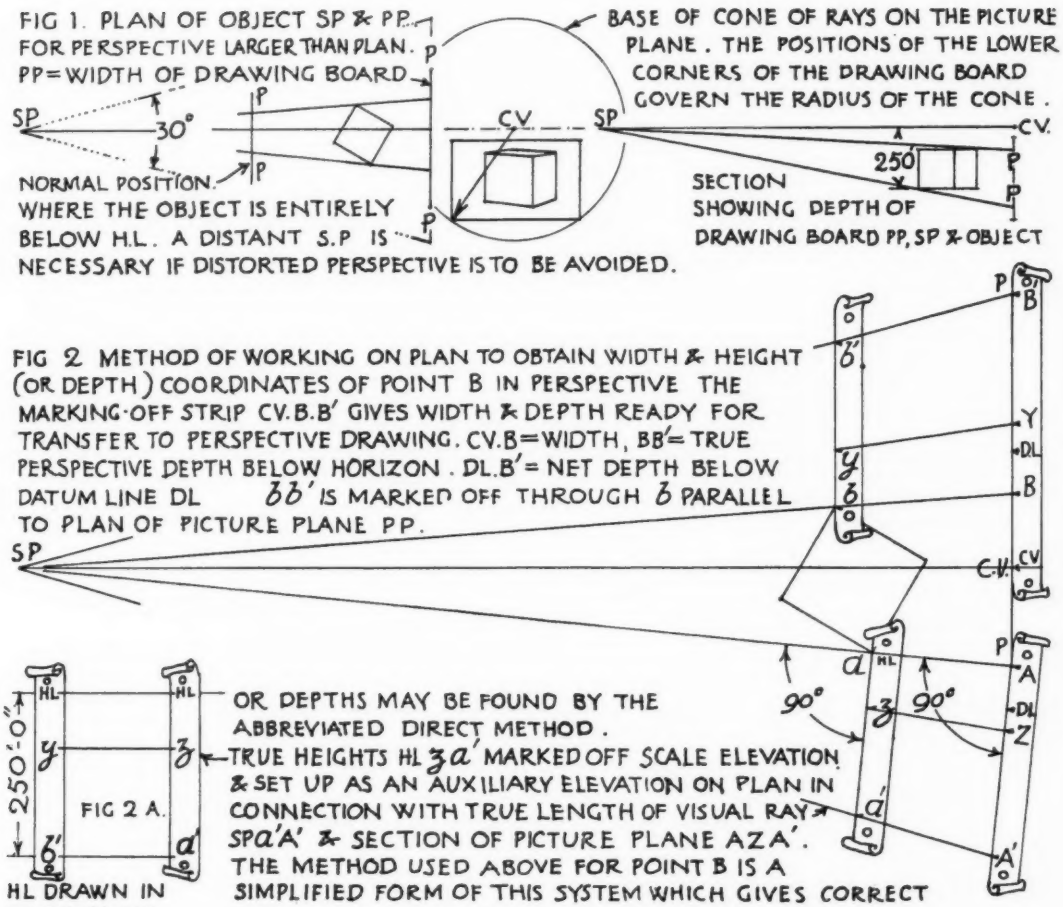
5. Students of perspective theory will recognize in the construction on plan a skeletonized version of the "direct method" in which a side elevation of the object and a vertical section of the picture plane are associated (see Fig. 1). The perpendiculars *aa'* and AA' are respectively the elevations of the vertical line containing the point *a'* and of the picture plane as seen edgewise. The line SP *a'* A' is the elevation and true length of the visual ray from the point of sight SP to the point *a'* and the picture plane at A'. When a dome is being placed in bird's-eye perspective this relative position of the visual ray and the plan of the object is a convenience, for the curve of the dome in section may be drawn in upon the true height line and the tangency point between visual ray and dome obtained. If the summit of the dome is far beneath the horizon the apex point will not appear on the curved outline as seen in the bird's-eye view, but as a point enclosed within it.

6. In practice it would be advisable to prepare straight-edged strips of tracing-paper for use in marking off true heights from the elevation, and the perspective widths and depths from the working on plan. In this case the deduction for difference of level might be marked in advance upon the strips used for transferring perspective depths, and the strips set on the perpendicular AA', so that the point representing HL coincides with A. An attempt to work without reference to HL would only result in confusion, and the deduction must only be made in the last strip when the true perspective depth of a desired point has been obtained.

7. It is a mistake to suppose that the centrolinead cannot be used on a perspective drawing where the HL is inaccessible. A centrolinead may be made for any pair of lines which converge towards one another and applied satisfactorily by trial and error. Where any two converging lines are too far apart for a given centrolinead to span it is always possible to introduce a third converging line midway between them, and set the centrolinead first on one side of it, and then on the other. An ordinary centrolinead cannot in any case be expected to work over the whole area of an antiquarian sheet with a single setting, and one of the first things to do in starting to set up the bird's-eye view is to determine a few principal lines of the object which will divide the surface into a convenient perspective mesh.

To these main lines the centrolinead should be set before any further detail is drawn. Once found, the pin marks should be encircled with a pencil line, so that the positions would not be lost when the pins have to be withdrawn from the board in the course of making the drawing.

Where space is not available for the distant station-point SP on the plan a spare centrolinead may be used to draw the visual rays. Supposing a distance of 1,000 ft. to be required between SP and the nearest point of the object, two converging lines may be drawn inclining to one another at such a rate that at 500 ft. from the nearest corner of the object they are only half as far apart as when in its immediate neighbourhood (see Fig. 4). If these converging lines are drawn one on each side of the visual ray joining CV and SP, and are equally distant from it, they will be so directed as to meet, or vanish, at SP, and a centrolinead set to them would provide a series of lines radiating from that point. It is possible to effect a considerable economy of working



DIAGRAMS ILLUSTRATING METHOD OF SETTING UP A BIRD'S-EYE VIEW PERSPECTIVE.

(Drawn by William Harvey.)

in finding the heights or depths of points in perspective by dealing with a whole series of joint lines, or cill and head levels, at one time. And, further, one ticking-off strip may be saved by using the width strip on the plan of the picture plane, PP, to measure also the perspective heights and depths. This may be done without any sacrifice of accuracy if the true heights from the elevation are marked upon a line passing through the plan of the point *b*, dealt with and parallel to PP, instead of perpendicular to the visual ray (see upper part of Fig. 2). Exactly the same dimension is obtained, and the only disadvantage of the shorter method is the theoretical one, that the lines *bb'* and BB' are not recognizable as elevations of the line and the picture plane. They are still true lengths, however, and are placed in positions where they are most useful to the practical draughtsman.

Two R.N. Submarine Memorials

A. H. Ryan Tenison, F.R.I.B.A., Architect, and F. Brook Hitch, R.B.S., Sculptor

THESE memorials (see illustrations on pages 913 and 915)—the one erected within the special compound adjoining Shotley churchyard, and adjacent to the R.N. cemetery, Eastern Command, the other erected on the face of the pylon facing the Temple Gardens, Victoria Embankment—are the work of A. Heron Ryan Tenison, F.R.I.B.A., in collaboration with Mr. F. Brook Hitch, R.B.S., who is responsible for modelling the work in both cases.

The larger and more important memorial takes the form of a bronze tablet some 12 ft. 6 in. by 8 ft. 6 in. in the clear facing the Temple Gardens. The subject matter of the central panel is the interior of a submarine lying at the bottom of the sea, its officers defending, the evil spirits of the sea attacking; the whole being enclosed in a framing, upon the pilasters of which are noted the boats which were lost in the war, with a panel of a submarine awash at the base, and the naval anchor and crown surmounting the whole. On either side are figures of Justice and Truth. The Shotley memorial was designed by instruction of the Admiral, Captain, and Committee of H.M.S. "Maidstone," in monumental form, the base being a large stone platform, enclosed with stone posts with bronze heads of lions with rings taking the enclosing chains. The figure faces towards the graves; the top of the memorial has four faces depicting naval emblem and boats, with a half globe as representing the world, and small balls at the angles descriptive of the four continents.

This memorial is approached through a handsome lych-gate of oak and a flight of stone steps. There is a special designed panel of bronze giving the inscription, with a submarine, wrought from the architect's design by the Birmingham Guild, which is fixed to the gate of the lych. Every grave has a specially designed headstone.

Cottage at Farncombe, Surrey

Easton and Robertson, Architects

THIS cottage is built on a sloping site, necessitating the entrance door at a lower level than the main floor, and entailing considerable stepping of the foundations.

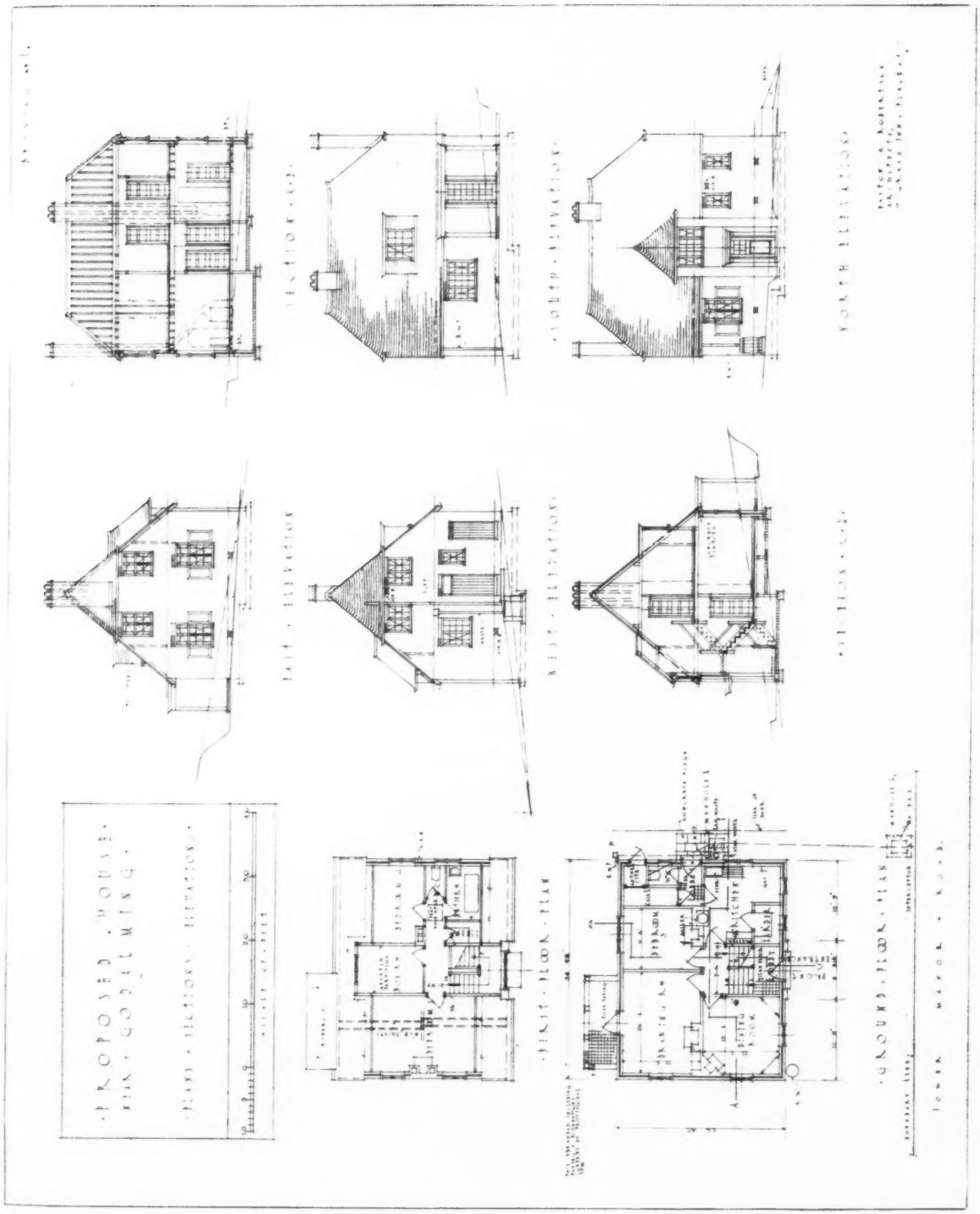
The walls are 11 in. hollow, built with purple Littleton facings, and the roof is covered with sand-faced orange-brown tiles, made by the Hammer Brick Co.

Cooking is by a gas stove, and an independent boiler ensures the domestic hot-water supply. The plastered internal walls are distempered throughout, and the woodwork painted, with the exception of the stained finish to stairs and kitchen offices. An unusually ample larder was one of the client's requirements.

The cost of the cottage worked out at 1s. per cubic foot, including all fittings and drainage.

The builders were Wm. Gorringe and Son, of Hare Lane, Farncombe. The architects were J. Murray Easton, A.R.I.B.A., and Howard Robertson, S.A.D.G.

TWO VIEWS OF THE COTTAGE



A COTTAGE AT FARNCOMBE, NEAR GODALMING: DRAWINGS.
EASTON AND ROBERTSON, ARCHITECTS.

Enquiries Answered

Enquiries from readers on points of architectural, constructional, and legal interest, etc., are cordially invited. They will be dealt with by a staff of experts, whose services are specially retained for this purpose. If desired, answers will be sent direct through the post. In no case is any charge made for this service. Whenever diagrams accompany an enquiry, they should be clearly drawn and lettered and inked in.

SASH WINDOWS.

"A.R.I.B.A." writes: "(1) In what period were the first double-hung sliding sash windows used? (2) Why is their use almost confined to Great Britain and U.S.A.?"

—Although references are made in old accounts to "sashes" and "shashes" inserted in existing buildings during the seventeenth century, it is not always possible to identify the present windows with those made at that time. Willis and Clark's "Architectural History of the University of Cambridge" quotes documents referring to the making of sash windows for Clare Hall in 1689, at £3 10s. for each window, but it does not necessarily follow that these sashes were of exactly the same type as would be described as "double-hung" at the present day. Investigation of reputed old examples of sashes generally ends in the discovery that the woodwork preserved to us dates back only 100 to 150 years, so that the build of the first sashes introduced is more or less a matter of conjecture. The sash windows which appear in Ernest Croft's well-known picture of the execution of Charles I at Whitehall, and even those on earlier prints of that building, should not be regarded as conclusive evidence that Inigo Jones planned the large window openings for sashes.

The Market Hall at Leeds, 1640, is represented as having double-hung sashes in a reprint published in "The Pictorial History of England, 1838–40." The same publication illustrates a brick-built house in Great Queen Street, Lincoln's Inn Fields, attributed to Inigo Jones, and dated as early as 1615. The tall sash windows in this drawing, which was apparently made from the building about the year 1839, may or may not have been the originals.

The Queen's House at Greenwich designed by Inigo Jones, is reputed to possess some original sash windows on the park façade.

(2) Sliding sashes are supposed to have been introduced into this country from Holland, but early and original examples are difficult to identify in that country, as well as in England. Their use is by no means confined to Great Britain and U.S.A., since they are found in Holland, in South Africa, and Australia. The appropriate use of sash windows is confined to climates that are too severe for single casements, but not severe enough to make two thicknesses of glass necessary or desirable, and they are therefore peculiarly suited to meet the changeable weather conditions of England. They were exported to the English colonies and dependencies, with other purpose-made details of construction and furniture, and being somewhat more costly, have always enjoyed a certain vogue in buildings of the well-to-do.

W. H.

FIRE-PROOFING WOODWORK.

"Subscriber" writes: "Do you know of a colourless fireproof solution for weatherboarding?"

—Most reagents applied to wood with a view to rendering it fire-resisting are soluble in water, and are therefore liable to be leached out of the cells of the material by successive wetting and drying. They would only be of temporary value in the case of weatherboard exposed to driving rain unless they are retained in the wood fibre by the application of outer coats of fire-resisting paint, and this would not be colourless.

The nearest approach to a permanently effective treatment which leaves the grain of the wood exposed, is to create an insoluble salt actually within the pores of the wood.

This has been achieved by the following series of processes:—

(1) Thoroughly dry the wood to increase its power of imbibing moisture.

(2) Saturate the wood under pressure, or by soaking, with boric acid or any soluble borate, bi-borate, or per-borate solution.

(3) Dry the wood to remove excess of moisture and deposit the salt in the pores, and leave access for the next solution.

(4) Force into the wood by pressure a solution of any soluble salt capable of chemical combination with the first reagent to form an insoluble borate, bi-borate, or per-borate.

The principal salts that have been experimented with in this way are borax and zinc chloride. An excess of zinc chloride helps to preserve the wood, but is a disadvantage in certain cases, as where the wood treated is used for shingling a roof from which the rainwater is to be caught and used for drinking. In this case the zinc chloride should all be neutralized by excess of borax. The processes are somewhat expensive, and sodium chloride produced in the chemical reaction is liable to corrode iron nails if these are used in fixing the wood. The treatment retards combustion, but does not render the wood absolutely fireproof.

Research in this subject is still proceeding, and before any specific process is adopted for a large quantity of material the advice of a consulting chemist should be obtained.

S. Wilmer Kendall, B.Sc., research chemist, Bridge Works, Cowley, Middlesex, undertakes investigations of this nature.

W. H.

THE CONTOUR OF A SITE.

"D.J." writes: "Please give me a simple method of working out the contour lines of a piece of ground at 1 ft. intervals; is there a fixed rule for working them out? I am laying out the land for buildings and drainage."

—In contouring, the work is usually done with the spirit level on the ground, the assistant moving the staff about till a level corresponding to the last reading is obtained—then mark the spot on the plan. It is a tedious process, and really the method you have adopted is much better for your purpose, and if you plot cross sections you will easily get the places for your contour lines by scaling on the drawing.

F. S. I.

THE QUALITY OF BLUE BRICKS.

"X." writes asking "whether blue bricks with a blue metallic coating which, when broken, are red internally, can be regarded as 'blue Staffordshire bricks of best quality'? Must bricks of such quality be blue throughout?"

—The answer to this question depends on the wording of the order; if the order specifies that the bricks must be blue throughout, then this condition of the order must be complied with, but if the order merely specifies blue Staffordshire bricks of best quality, the fact that about 10 per cent. of the bricks are mottled red when broken would not be considered as contravening the conditions of the order.

This question of red material in the interior of blue bricks is one which is constantly giving rise to disputes, and it is the more unfortunate because the colour is of very minor importance in judging the usefulness of the bricks. The red colour is merely due to a little air having entered the bricks at some stage of the burning and having oxidized some of the iron, so as to form red oxide, whereas the greater part of the iron is reduced to the black or "blue" oxide, which rapidly forms a blue slag.

Bricks in which all the iron is in the form of the red oxide are usually, but not necessarily, porous; those in which the blue silicate is present are usually non-porous, because the slag readily fuses and fills the pores of the bricks. Consequently, when a non-porous brick is required blue bricks are usually specified.

For all practical purposes the best method of judging the quality of blue bricks is by determining: (a) the crushing strength of the bricks; and (b) the amount of water absorbed when the bricks are broken into pieces not more than $\frac{3}{4}$ in. diameter.

If the bricks have a high crushing strength (say, exceeding 300 tons per square foot) they will be amply strong enough for almost all purposes for which blue bricks are required. If the amount of water absorbed by the broken pieces of brick does not exceed 1 per cent. of the weight of the brick, the precise colour of the broken brick will be of very small importance.

As manufacturers of blue bricks always aim to get their bricks perfectly blue throughout, those who succeed in doing this naturally conclude that their bricks are superior to others. For practical purposes, however, a limited amount of red colour in the interior of the brick need not seriously be regarded as detrimental, but for reasons stated above, the quality of the bricks is not judged by the colour of the bricks, but by their actual properties.

A. B. S.

THE DESIGN OF SCHOOL BUILDINGS.

"H. W." writes: "Please inform me where I can obtain the regulations of the Board of Education and any other regulations that must be adhered to when designing school buildings."

—The following publications, which are issued by the Stationery Office, should meet your requirements:—

"Building Regulations for Public Elementary Schools (England), 1914" (Grant Regulations No. 35) (Cd. 7516). By post 7d.

"Draft Amending Regulations No. 1, 1924." Dated August 27, 1924. Price 1d. (by post 1½d.).

"Memorandum by Local Government Board on Drainage and Disposal of Waste Matters at Public Elementary Schools." Price 1d. (by post 1½d.).

"Circular on Risk of Fire in Public Elementary Schools, and External Doors." (Circular 587 for England, or Wales, circular 19.) Price 1d. (by post 1½d.).

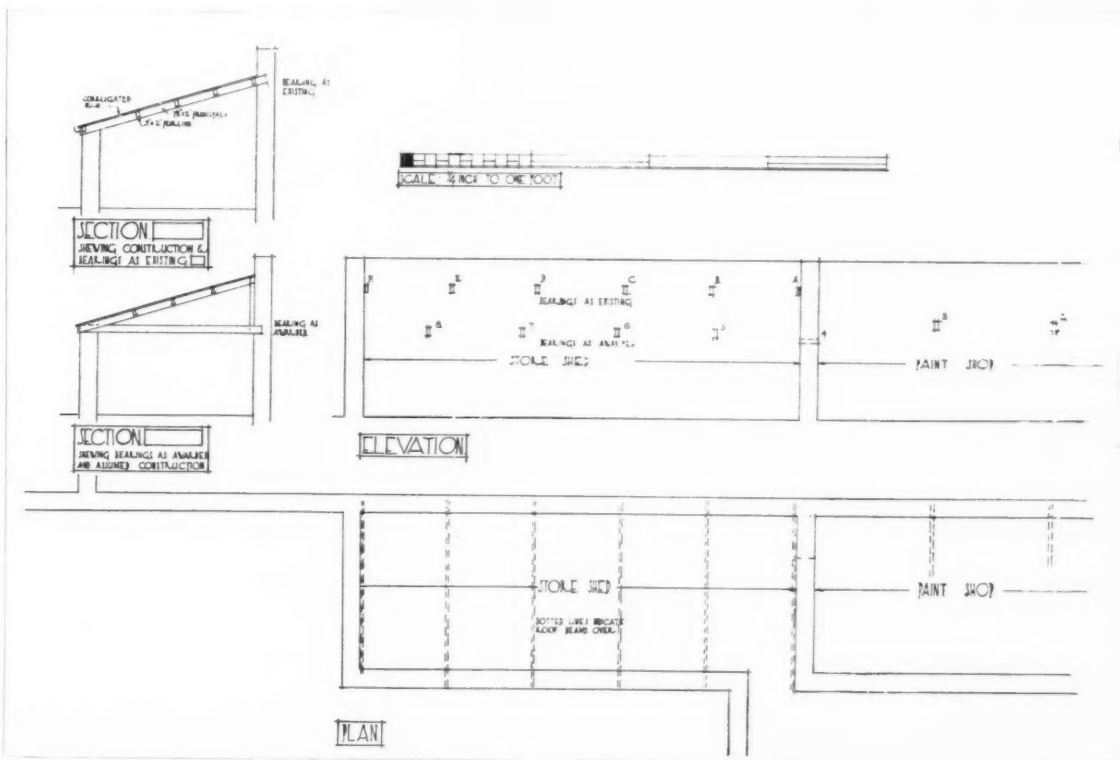
These publications can be obtained from H.M. Stationery Office, Adastral House, Kingsway, W.C.2.

LEAN-TO ROOF TO STORE-SHED.

"A. J." writes: "Will you kindly help me in a matter of calculation of lateral thrust against a wall caused by a lean-to roof, without ties or footbeams? I own a high masonry wall, 18 in. thick, which forms the boundary of my premises, and it is now in danger of collapse, caused, I contend, by lateral thrust from an improperly constructed roof on adjoining property. An award taken up in 1894 permitted bearings of *footbeams* in the wall at specified points, and it is presumed that the roof then existing has been removed, and a new one substituted. The accompanying drawing illustrates the positions of both the original bearings (footbeams) and those now existing. Had this new roof (to store-shed) been constructed on the lines of the old one, with footbeams to trusses, the wall, in my opinion, would not have developed a 'lean.' This contention is borne out by the fact that the length of wall taking the bearings of an adjoining roof (paint store), *which has footbeams*, is quite plumb. The present roof over the store-shed is of 7½ in. by 2 in. beams at 10 ft. intervals, and 5 in. by 2 in. purlins, covered with corrugated iron sheets. In my calculation I have taken corrugated iron sheets at 3 cwt. per square, and wind pressure at 36 cwt. per square, and arrive at the result of approximately 2·8 tons per 10 ft. bay. If the present roof had been constructed with footbeams to trusses (see assumed original construction) it would be helpful also if you would say what (if any) lateral thrust there would be on the wall."

—Provided that the various timbers were secured together at their junctions, the former construction of the lean-to roof gave no horizontal thrust against the wall. The drawing accompanying the query is marked as being to a scale of ¼ in. to 1 ft. At this scale the principal rafters are 7·25 ft. centre to centre, while the latter describes them as at 10 ft. intervals. Taking the drawing as correct, each bay of the roof will weigh 360 lb., assuming the corrugated iron at 2 cwt. per square. The wind pressure at 30 lb. sq. in. horizontal, will be 8½ lb. sq. ft. normal to the roof, or 925 lb. on each bay. These forces together will give a horizontal thrust at the bearing of each principal on the high wall of 193 lb. As the greater part of the thrust is due to the wind, it is probable that if the position is not exposed the leaning of the wall is not due to the roof, but to goods piled against the wall.

HENRY ADAMS.



"LEAN-TO ROOF TO STORE-SHED."

(See answer to "A. J.")

STABILITY OF A WALL.

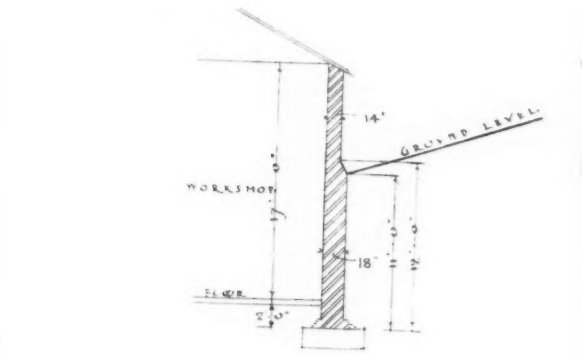
"S. B." writes: "Is the wall shown on the accompanying sketch of sufficient thickness to act as a retaining wall? There are piers inside a workshop at 12 ft. centre. They project 9 in., and are 18 in. wide. Will these increase the resistance? Is a 22½ in. wall of sufficient thickness to hold a 6 ft. bank vertically?"

Assume the bank of earth to be 10 ft. above the course at which rupture would be likely to take place, and to have a slope of 16 deg., the natural slope being 36 deg. Then draw AB, Fig. 1, to represent the wall, AC the surcharge. Set off the natural slope at base and bisect the angle made with the wall to give the line of rupture. The wedge of earth ABC will be the portion to be held up by the wall. Set off on face of wall an angle ABD equal to the natural slope, cutting the surcharge CA produced to D. Bisect BD in E, and describe a semicircle. From point A drop a perpendicular on BD at F and produce to G. From D as a centre describe arc GH. Then the horizontal thrust acting at one-third of the height of wall will be $T=\frac{1}{2}w(BH)^2$, where T = total thrust, w = weight of earth per foot cube, say 1 cwt., BH = distance on diagram, say 5 ft. 7 in., l = length of wall taken into account, say 12 ft. as being the centre distance of buttresses. Then, $T=\frac{1}{2}\times 112\times(5\frac{7}{12})^2\times 12=20948{\cdot}7$, say 20,950 lb.

The next step is to find the resistance of the wall. The weight of the brickwork at 1 cwt. per cub. ft. will be $112(1{\cdot}5\times 12\times 11+1{\cdot}125\times 12\times 6+1{\cdot}5\times{\cdot}75\times 17)=112(198+81+19{\cdot}125)=112\times 298{\cdot}125=33{,}390$ lb. The pressure of the roof for 12 ft. run on the top of the wall will be, say, 1½ tons = 3,360 lb., making a total load on the base of the wall of 33,390 + 3,360 = 36,750 lb. We now require to find the section moduli Z_1 and Z_2 of the horizontal section, Fig. 2.

$$Z_1 \text{ for buttress side}=\frac{(BD^2-bd^2)^2-4BDbd(D-d)^2}{6(BD^2-bd^2)}$$

$$=\frac{(12\times 2{\cdot}25^2-10{\cdot}5\times{\cdot}75^2)^2-4\times 12\times 2{\cdot}25\times 10{\cdot}5\times{\cdot}75\,(2{\cdot}25-{\cdot}75)^2}{6(12\times 2{\cdot}25^2-10{\cdot}5\times{\cdot}75^2)}$$



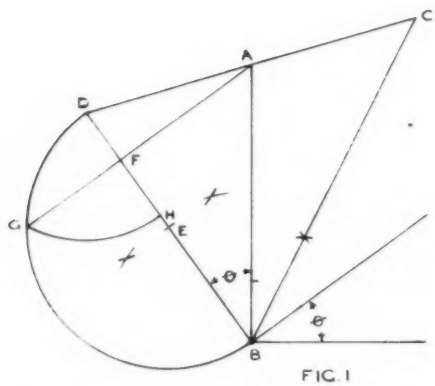


FIG. 1

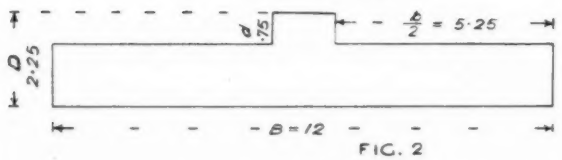


FIG. 2

$$=\frac{3007-1275{\cdot}75}{6\times 5_4{\cdot}84}=5{\cdot}2.$$

$$Z_2 \text{ for earth side}=\frac{(BD^2-bd^2)-4BDbd(D-d)^2}{6(BD^2-2bdD+bd^2)}$$

(as above) $$=\frac{3007-1275{\cdot}75}{6(12\times 2{\cdot}25^2-2\times 10{\cdot}5\times{\cdot}75\times 2{\cdot}25+10{\cdot}5\times{\cdot}75^2)}$$

$$=\frac{1731{\cdot}25}{6(60{\cdot}75-35{\cdot}2+5{\cdot}91)}=\frac{1731{\cdot}25}{187{\cdot}3}=9{\cdot}2$$

Now the maximum stresses will be

$$\frac{W}{A}\pm\frac{M}{Z}=\frac{36750}{19{\cdot}125}\pm\frac{\text{bending moment}}{\text{section modulus}}$$

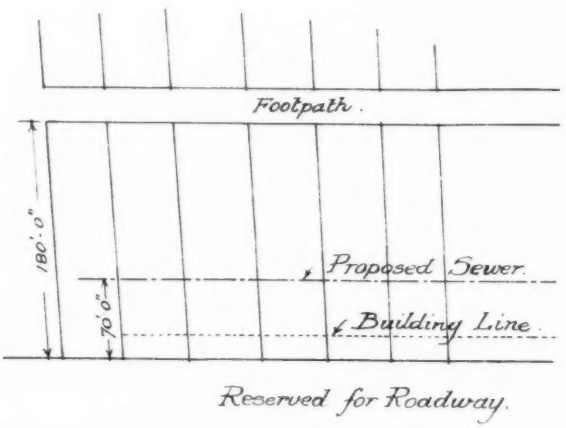
The bending moment $=20950\times\frac{10}{3}=69833$ lb. ft. The section moduli are $Z_1=5{\cdot}2$, $Z_2=9{\cdot}2$. For the buttress side $\frac{36750}{19{\cdot}125}\pm\frac{69833}{5{\cdot}2}=1921{\cdot}5\pm 13429$, which, taking the plus sign = 15340 lb. sq. ft., or 6·84 tons sq. ft. compression. For the earth side $\frac{36750}{19{\cdot}125}\pm\frac{69833}{9{\cdot}2}=1921{\cdot}5\pm 7590{\cdot}5$, which, taking the minus sign = 5669 lb. sq. ft., or 2·53 tons sq. ft. tension. Both of these stresses are higher than can be allowed safely, and if water got into the earth behind the wall, failure would be almost certain.

As regards the second query, a 22½ in. vertical wall supporting earth level with the top, using the same constants as before, we have the thrust for 1 ft. run $=\frac{1}{2}wh^2\tan^2\frac{90-\theta}{2}=\frac{1}{2}\times 112\times 6^2\times 1{\cdot}376^2=3816{\cdot}85$, and the bending moment $3816{\cdot}85\times\frac{6}{3}=7633{\cdot}7$ lb. ft. The section modulus will be $\frac{1}{6}BD^2=\frac{1}{6}\times 1\times(\frac{22\frac{1}{2}}{12})^2={\cdot}58$. $\frac{W}{A}\pm\frac{M}{Z}=\frac{1\times 6\times 112}{1{\cdot}875\times 1}\pm\frac{3816{\cdot}85}{{\cdot}58}$ = 358 ± 6581 = say, 6939 lb. sq. ft., or 3·09 tons sq. ft. compression and 6223 lb. sq. ft., or 2·77 tons sq. ft. tension, which are both rather high, and allow very little margin of safety.

HENRY ADAMS.

CONSTRUCTING A SEWER THROUGH PRIVATE LAND.

"Anderida" writes: "Since purchasing a plot of freehold land in a rural district (see accompanying sketch) I have heard that the local authority intend to construct a sewer which will pass through it. Can this be prevented? Have I any redress, or have the local authority powers to put sewers just where they like? I have agreed with the local authority to pay part of the cost of the sewer and for connection of the house drains to the sewer (in common with all adjoining owners). I did so, however, before I knew the position in which it is to be placed. Will the sewer detract from the value of the land or will it enhance it?"



—You have nothing to fear from the action of the local authority in constructing a sewer through your land. Nothing of the kind can be done without the authority of Parliament. You do not say what is the locality in which your property is situated, and there is not sufficient information to enable your query to be answered fully and satisfactorily. Speaking generally, however, it is practically certain that your rights will not be interfered with nor any injury done to the property. It is probable that the sewer will enhance the value of the land.

S. J. S.

Contemporary Art

Flower Painting and Sculpture.

At the Leicester Galleries there is a triple bill of a quality seen but rarely in London picture shows. The art of Marie Laurençin is the most disturbing item, that of William T. Wood the most reassuring. In between come the flower structures of Mrs. Avery Robinson. Marie Laurençin has a large vogue on the Continent, or at any rate in France and Germany, where illustrations of her drawings may continually be seen in all the illustrated magazines. She is piquant and challenging, and to these qualities her success is due rather than to any proficiency of draughtsmanship. Her colour is pleasant, and her character-study is clever if monotonous. She is all artifice. The flower structures or sculptures of Mrs. Avery Robinson are all artifice, too, but with a surer basis in naturalism. Their forms and their colours are true to life, and the sense of design by which they are arranged is an essential part of the art of their producer. It is a clever art, plastic, and yet possessed of a cut quality, mostly in outline. It is a legitimate exercise in sculpture, and important from the point of view of polychromy. Its effect is highly decorative, and the work takes its place in its superficial aspect between the wax-moulded flowers and fruit of the Victorians and the miniature plants of the Japanese.

To turn to W. T. Wood's flower paintings is turning from artifice to art. They are sound and strong; decorative and naturalistic; transcripts from gardens with all the glamour that art is able to add to Nature. They are flowers which give comfort and joy to an interior such as neither natural flowers nor flower sculpture are able to give, for they are never restless. They are painted with skill; they have not only beautiful colour, composition, and character, they have design, which is the prime factor in making naturalistic work tolerable. They are not mere flowers copied, but the souls of flowers evolved.

Another form of sculptured work is to be seen at the Gieves Art Gallery, where there are sixty-five examples of A. J. Rowley's inlaid wood panels. In this case co-operation between artist and craftsman has become necessary, for wood-inlay is so delicate a craft that Frank Brangwyn, great craftsman as he is, could hardly be expected to master its intricacies. A. J. Rowley interprets him in "An Italian Town," and a fine interpretation it is. Other painters have contributed designs, such as W. A. Chase, who has done many; Edward King, H. M. Livens, and T. Blake Wirgman, but undoubtedly the artist and the craftsman are best welded in the Rowley-Chase examples. It is extraordinary that the craftsman has achieved so wide and so fitting a collection of woods as to be able to achieve these niceties of colour and texture.

NICHE FIGURE: "MADONNA AND CHILD." BY ALLAN HOWES.

"The Seven and Five."

At Paterson's Gallery the most distinguished exhibition of this society is now being held. There is less *outré* work and more Nature. Among the pictures, Claude Flight's are of the greatest interest, for they indicate a true appreciation of natural objects and conditions, combined with a feeling for inquiry which is obviously honest. In the realm of decoration Léna Pillico once more demonstrates her originality, and another decorative piece is "The Tarn," by P. H. Jowett. Studies of architectural subjects are contributed by J. R. R. McCulloch and Norman Janes, and woodcuts by Alan Durst. The latter has also a small seated figure of a woman in marble, carved with distinction; and E. S. Frith, a marble head, carved in profile in the matrix, which is remarkably able. "Marie" is a portrait head in limewood, by A. J. Oakley, which has character, but possesses more plastic than glyptic quality. The niche group, by Allan Howes, of "Madonna and Child," for stone, is an original decorative conception possessing a distinct architectural feeling.

London Architecture.

A show at the Fine Art Society of the work of W. Dacres Adams reveals a really splendid talent for the representation of London buildings and of some at Oxford. The London ones are particularly striking, and their rendering is fresh and individual. The artist has given a proper monumental character to "Waterloo Bridge Steps"; fine tone study to the "Entrance to King's College"; and interesting colour subdued to the subject of the buildings around "The Monument." "St. Bartholomew's Hospital" is a simple, suave study of great charm. At the same gallery there is a highly amusing set of drawings by W. Heath Robinson. KINETON PARKES.

Permanency in Building

To-day the problem of erecting buildings of all classes quickly and at the same time durably is one of the most acute with which we are faced. There has probably never been in the history of England a time when so much building has been undertaken. It is going on in every sphere of town and country life; everywhere there are new housing schemes, new blocks of offices, banks and stores. All this activity has greatly accelerated progress in the art and science of architectural construction, and has brought new materials and new methods into extensive use.

A paper on the subject of permanency in building has, in these circumstances, a very apposite interest, and the address which Mr. Marshall gave before the Liverpool Architectural Society on this theme was concerned with issues which affect a great part of the building work that is being done in the country to-day.

At the outset the lecturer stated that he proposed to confine his treatment of the subject to specifically modern problems. The results of research regarding the old-established building materials—stone, brick, and wood—are much better known than the recent experimental results that have been obtained in the case of steel and reinforced concrete. And as the two latter mediums of construction are those principally employed in the erection of large commercial buildings to-day, it seems most profitable and most interesting to concentrate attention on them.

The causes of decay in steel and concrete were analysed, and were found to be chiefly of the following nature :—

In the case of *concrete*, faulty mixing, insufficient density, and unsuitable constituents are chiefly responsible.

Iron and steel, on the other hand, may decay as a result of external corrosion, or be disintegrated by electrolysis, which itself may be set up within the metal or transmitted to the metal from an outside source.

After a detailed examination of these various processes of decay, illustrated by lantern slides, the lecturer explained the methods and devices by which they might be either arrested or eliminated altogether.

Law Reports

Architects and Building Scheme

Clarkson v. *Hall.*

King's Bench Division. Before Mr. Justice Roche.

An arbitrator's award in the form of a stated case, in which the parties concerned were Mr. Thomas Peter Clarkson and Mr. Herbert Austen Hall, both architects, came before his lordship, the matter being in relation to a professional dispute.

Mr. Barton, counsel for Mr. Hall, said that his client and Mr. Clarkson, as well as another gentleman, who was Mr. Clarkson's brother, were employed by Messrs. Peter Robinson & Co. in connection with a new building scheme for their Oxford Street premises. The scheme was in two parts, one being for the eastern block, and the other for the western block. There was an agreement of November 4, 1914, providing for the employment by Messrs. Robinson of the three architects in relation to the eastern block.

Following that agreement, the architects entered into an agreement on November 5 among themselves on the matter. In 1916, the work on the eastern block was stopped and, as a consequence, Messrs. Robinson paid the architects certain sums. The architects had acted in the meantime in connection with the western block of buildings. Mr. Clarkson was a director of Messrs. Robinson & Co. After some time the company decided to proceed with the eastern block, and Mr. Hall discovered that, although there was an agreement which specially provided that the architects should work together in connection with any future business obtained for them from Messrs. Robinson, Mr. Clarkson had been appointed sole architect for the eastern block, which was work in which the architects had previously acted. Mr. Hall's case was that the partnership agreement between the architects still subsisted, and that that subsequent work on the eastern block should have been obtained for the partnership. The matter went to arbitration, before the president of the Institute of Architects, before whom an objection was made on behalf of Mr. Clarkson that the architects' agreement, being merely supplemental to the first building agreement of November 4, 1914, had come to an end, and that therefore there could be no submission to arbitration.

The arbitrator heard the evidence, without prejudice to the preliminary objection, and made an award, the effect of which was, if his lordship was of the opinion that there was a subsisting submission to arbitration, his client (Mr. Hall) was to recover one hundred guineas and costs of the reference and award.

Counsel went on to say that the work on the eastern block was stopped in 1916 owing to increased costs, and the architects were paid 2½ per cent. on the estimated cost of the building. When it was decided at a later date to proceed with the eastern block, Messrs. Robinson resolved it was not necessary to employ an outside architect, and that the work would be more economically and efficiently dealt with in the company's own offices. Mr. Clarkson was appointed architect. In his claim before the arbitrator, Mr. Hall alleged (1) that the partnership agreement of November 5, 1914, still subsisted; (2) that the conduct of Mr. Clarkson in agreeing with Messrs. Robinson, Ltd., to be sole architect for the completion of the eastern block was a breach of his duty to his partners under the partnership agreement of November 5, 1914, and that the alleged breach had prevented the partnership from earning certain fees; and that Mr. Clarkson was liable for such loss. Mr. Clarkson objected that the agreement of November 4 had been determined, the original service of the architects having been paid for and subsequent services dispensed with, and that that agreement having terminated, the agreement of November 5 was of necessity also terminated.

Mr. Barton said he supported the arbitrator's award, and argued that the agreement in question never came to an end.

Mr. Barrington Ward, K.C., for Mr. Clarkson, contended that the agreement had ended.

In his judgment, Mr. Justice Roche said it was contended by Mr. Hall that the partnership agreement of November 5 still existed. It was not really a partnership agreement, but an agreement providing for joint action as architects in certain specified matters. Mr. Hall also alleged that Mr. Clarkson's conduct was a breach of the partnership agreement. In his (his lordship's) opinion the complaint against Mr. Clarkson was not well founded. The agreement of November 5 was supplemental to that of November 4, which related to the employment of the three architects by Messrs. Robinson on the eastern block. The agreement of November 5 provided for the distribution of duties and rights and benefits among the architects under the principal scheme. It also contemplated that there might be other matters in respect of which Messrs. Robinson might choose to employ them, and if so employed on other matters, the architects would act upon the terms of the November 5 agreement. For the eastern block nothing had been done by 1916, except tenders were invited, but no contracts entered, and the matter was then not taken up again until 1923, when Mr. Clarkson alone was appointed as architect. The arbitrator had found Mr. Clarkson was wrong in the matter, but he (his lordship) thought there was no contract on the part of Mr. Clarkson which was broken, and a breach which could give rise to Mr. Hall's claim for damages. He (his lordship) had no doubt that the agreement of November 4 had been put an end to, tenders for the building apparently having been declined by Messrs. Robinson, and in those circumstances it could not be argued successfully that the agreement of November 5 gave any right in connection with the eastern block to either of the parties. When the November 4 agreement terminated, there was no obligation upon Mr. Clarkson to do anything to secure or attempt to secure for Mr. Hall and himself a further agreement. So far from it being the right and duty of Mr. Clarkson to invite the giving of work to Mr. Hall and himself, having regard to the relations of Mr. Clarkson to Messrs. Robinson there was a good deal to be said for the contention that his duty was the other way. He (his lordship) decided that the arbitrator had no power to make the award on a claim that Mr. Clarkson had committed a breach of agreement as alleged. That disposed of the matter.

City Housing Scheme—Arbitration over Loss

W. Muirhead, McDonald, Wilson & Co. v. *Corporation of City of London.*

King's Bench Division. Before Mr. Justice Roche.

This matter came before the Court in the form of a special case stated by arbitrators for the opinion of the Court, the plaintiffs having sued the City of London Corporation for loss on the Ilford housing scheme.

Sir John Simon, K.C., on behalf of the plaintiffs, said the matter arose under two contracts—one a building or housing contract, dated July 1, 1920, and the other a roads and sewers contract, dated August 6, 1920. The Corporation's scheme was one for the erection of not more than 2,000 houses. The payment clause was of an intricate nature, and was one which the Ministry of Health must have more or less patented. The object of it was to secure that the contractors would get a definite remuneration per house. A standard price was fixed, and if the contractors brought a house out at less than that price their profit was increased, whereas if the house cost more than the standard price the contractors' profit was reduced, but they had a guaranteed profit of £30 a house in any event. He submitted that there was an implied term that the Corporation would not so behave as to make the houses cost more than the standard price, because if they did so behave the contractors would be penalized. Although a great deal of work was done by the contractors, only 220 houses were erected, and the foundations of 414 others were made. The scheme was then abandoned, and there was a big bill to foot. The real question was what was the size of the bill? There was power in the Corporation, if they followed a certain form, to give notice to suspend or put an end to further work under the contracts. In that event the builders were to be paid for what they had done. The Corporation relied on the provision that they were at liberty to say stop, and they said that they were only liable to pay a fixed sum per house. As the houses in the circumstances had cost more than the standard price to build the contractors' profit had been reduced to the minimum. The contractors said that this result had been brought about by the misconduct, using that term in its legal sense, of the defendants. Counsel's submission was that the defendants had broken their contract. His clients had been subjected to great loss, because to carry out this great work they had provided themselves with heavy plant and had ordered bricks. The Corporation actually took a portion of the site out of the

contractors' hands and had let it to a farmer, so that at one time the contractors' headquarters on the site were surrounded by potatoes. The contractors said that the Corporation were not entitled now to say that their liability was limited to the terms of the contract. The arbitrators had found the facts entirely in favour of the contractors, and the question which his lordship had to decide was how these facts had to be applied. He claimed that his clients were entitled to a large sum by way of damages. It was to be a £2,000,000 contract, and the defendants were continually putting obstacles in the plaintiffs' way.

Mr. Neilson, K.C., for the defendants, said that the Ministry of Health had been responsible for all the steps which the Corporation had had to take. There was to be a penny rate on the City, and any sum required above that for the scheme had to be found by the Ministry of Health. It was because of the urgent public necessity for economy that steps had to be taken to stop building these houses. The number of houses to be built, he submitted, was entirely in the control of the Corporation. After one or two were built they could go to the contractors and say they were not going to build any more. The cost of the materials and plant, except certain specified portions, had to be paid for by the Corporation.

His lordship found that the plaintiffs were entitled to £40,766 on the housing contract, and £9,173 on the roads and sewers contract, and gave judgment accordingly. In giving judgment his lordship said that prices were mounting in an alarming way, and the defendants did everything that could be done to prevent progress and dispatch. Under these circumstances he thought that defendants ought to make up the loss resulting from that to the plaintiffs. In a contract of this kind it was a necessary implication that one of the parties to it should not so act as to prevent the other from earning a reasonable profit.

Road Charges—Alleged Agreement

Gravesend Land Co. v. *Putt.*

Court of Appeal. Before Lords Justices Bankes, Scrutton, and Atkin.

This was an appeal by the defendant from a judgment of Mr. Justice Bailhache in favour of the Gravesend Land Co. for £304 19s. 11d., money claimed by them from the defendant under a covenant of February, 1918.

Mr. Barrington Ward, K.C., for the appellant, stated that the facts of the case were as follows :—

The defendant was the purchaser from the Land Co. of some land in the parish of Milton, near Gravesend, and the company sought to recover the defendant's share of the cost of making up the roadway on which his land abutted. The company conveyed to the defendant two plots of land abutting on the west side of a road which was proposed to be made, and the defendant covenanted with the company that he would, until the road should be adopted as a public highway, contribute to the expenses of laying out, constructing, and repairing the road in the proportion to which his plot abutted on the road. The proposed road was laid out and constructed by the Gravesend Corporation in 1922 at a cost to the plaintiff company of £3,213, and the defendant's share, it was alleged, was the sum claimed, viz., £304 19s. 11d.

The defendant's case was that the Gravesend Corporation contracted to do four pieces of work of which the cost of the road in question represented only five-sixteenths, and therefore that the proper sum that he (the defendant) should pay was only his proportion of five-sixteenths of the total sum of £3,213.

After hearing the evidence, Mr. Justice Bailhache held that the documents did support the view that the whole of the £3,213 was paid in respect of the Gravesend Corporation's promise to construct the road in question—that being the case, he thought the plaintiffs were right in their construction that the defendant should pay the amount claimed. He accordingly gave judgment for the plaintiffs for the amount claimed, with costs, and from this decision defendant now appealed. No question arose, continued counsel, as to the figures, because if the plaintiffs were right they were entitled to the £304 19s. 11d. which they claimed and had got judgment for, and if the defendant was right, the £112 he had paid into the court was admittedly sufficient. The only question for the court to determine was the basis on which the expenses should be applied. He contended that Mr. Putt on the proper construction of the covenant had incurred no greater liability than that which the company had incurred in making up Singlewell Road, in respect of which Mr. Putt admitted his liability to pay his proper proportion.

After hearing Mr. Norman Birkett, K.C., for the Land Co., the court dismissed the appeal with costs.

Lord Justice Bankes, in giving judgment, said that if Mr. Justice Bailhache was entitled to come to the conclusion which he assumed from what he said in his judgment he had arrived at, viz., that £3,213 was attributable in the view of the plaintiff company to the making up of Singlewell Road, he (the Lord Justice) thought his judgment could not be interfered with.

Mr. Raymond Unwin on Town Planning

Mr. Raymond Unwin, F.R.I.B.A., chief architect to the Ministry of Health, lectured to a large company at the Castle Museum, Norwich, on "Town Planning," the gathering being arranged by the Norfolk and Norwich Architects' Association, in conjunction with the Museum Committee.

The lecturer said he was not present to attempt to tell Norwich citizens how they ought to plan Norwich. It would be extremely presumptuous for him to do so. He only knew their beautiful city slightly, but it was a city that deserved very careful study, and he hoped it was receiving very careful study in the way of what was called civic service in order that those on the committee which had been formed to guide the experts might really understand the problem they had in front of them for making a town-planning scheme for the city. What he wanted to do was a much simpler matter. He wanted to tell them a little about town planning—what it was and what it was not. One of the things which anybody who studied cities from a town-planning point of view all over the world noticed was how circumstances and the form of towns affected the lives of the citizens, and how the lives of the citizens affected the form of the towns. Town planning was not an attempt to interfere with people; it was not an attempt to hamper people in the development of their land. It was not an attempt to deprive the landowner of some advantage which he would get without it. On the contrary, it was an attempt to make the most of the opportunities which a city and its surroundings afforded, and to make the most of them for all the citizens collectively and individually. It might be there were occasions upon which some individual owner might feel that he could do better without town planning, but experience showed that there was much to be gained by the orderly and consistent development of a town, and that owners as a whole gained immensely with the citizens. Town planning was co-operative, and it could only be carried out successfully by getting the people to realize that it was an important subject which affected their lives. Engineers, land valuers, and medical people to study the question of health were all needed. Above all, skilful business men were needed to tell what was necessary and what was helpful for the efficiency of the industry of a town.

There was nothing really gained, he said, by building houses too thickly. It was remarkable that if new land was properly laid out it could generally be laid out to the best at twelve houses to the acre at the same price, or sometimes even less than it could be laid out for twenty or twenty-two houses. Open gardens he advocated as being really another room to a house. Town planning all over the world was to have a central industrial area, and when that got too large to have a satellite town built beyond an open space. That could be planned by foresight and care, but towns were not complete unless they were beautiful. If a city had a fine thing, such as a castle mound, they should be careful before they allowed anyone to block it by buildings. In making a plan for a city like Norwich they were laying down possibilities and opportunities for the lives of the citizens of the next generation. It was a great opportunity for the town-planning committee and a great opportunity for the city. He suggested that the citizens should take an interest in the work of the committee; back up their experts with their co-operation and sympathy, and in that way they might preserve from injury a great deal that was beautiful in Norwich already.

Mr. E. T. Boardman, in moving a vote of thanks to Mr. Unwin, remarked that it was a very good thing that Mr. Unwin should have visited the city at this time when one of the great town-planning schemes for Norwich was under contemplation —he referred to the widening of Castle Meadow. He would not go into details, but he felt quite convinced if they did not pull down that old police-station and clear it out of the way they would in a few years' time say they would never overtake that mistake.

Societies and Institutions

R.I.B.A. Council Meeting.

Following are notes from the minutes of the last meeting of the Council of the R.I.B.A. :—

Registration of Probationers.—On the recommendation of the Board of Architectural Education the Council decided to accept the senior certificate examination of the Ministry of Education, Northern Ireland, in support of applications for registration as probationer R.I.B.A., provided the certificate covers the required subjects.

Godwin Bursary and Wimperis Bequest.—On the recommendation of the Board of Architectural Education the Council approved the memoirs and sketches submitted by Mr. W. T. Benslyn, A.R.I.B.A., Godwin Bursar, 1923.

Illegal use of the R.I.B.A. Affix.—The Council were informed of two cases in which the R.I.B.A. affix had been illegally employed by non-members of the R.I.B.A., and it was decided to take strong action in the matter.

Reinstatement.—Major L. M. Wells-Bladen was reinstated as a Licentiate of the R.I.B.A.

Liverpool Architectural Society.

Mr. E. B. Kirby, O.B.E., F.R.I.B.A., in his presidential address to the Liverpool Architectural Society, said that the reunion of the R.I.B.A. with the Society of Architects would be of great and immediate advantage to the profession as a whole, and that its ultimate results would elevate the practice and prestige of architecture to a position which it has not previously occupied in the eyes of the public. He was proud to recall how notable a part the members of his Society had played in that endeavour. Their record in this respect was not eclipsed by any of the allied societies. After giving a brief account of the history of the movement he said : "Some time ago the allied societies were invited by the R.I.B.A. to reconsider and report on the existing distribution of their areas, but without any noticeable response, although it has lately been apparent at the allied societies' conferences that fairly general dissatisfaction exists on the subject. The anomalies which exist in our own area are particularly evident from its geographical character. Whereas its extent is considerable, reaching, as it does, from the Clyde to Aberystwyth, the urban centres are very few and poorly distributed. The only towns of any real size are Liverpool (in which may be included the towns at the mouth of the Mersey), Chester, Warrington, and Southport. It is hardly reasonable to expect isolated architects in outlying places to feel any tie to the Liverpool Architectural Society, or look for any advantage from its membership. On the other hand, the Society cannot possibly exercise its influence on such architects as do not belong to it. We do not even know their names. In view of these facts, and in order to bring our Society into some practical relation to its area, I can see no remedy except in a policy of decentralization consisting of the formation of local branches affiliated to the parent society. This has actually been inaugurated in the case of Chester, where the formation of such a branch society is practically completed."

Edinburgh Architectural Association.

Mr. Gerald Moira, late Professor of Painting of the Royal College of Art, London, who has recently succeeded Mr. F. Morley Fletcher in the directorship of the Edinburgh College of Art, attended a meeting of the Edinburgh Architectural Association. Mr. J. Morrison, who presided, extended a cordial welcome to Mr. Moira, and referred to his long and distinguished connection with the profession. At this time, he said, when the question of architectural education was receiving such great consideration, and such rapid strides were being made, it was fitting that their Association should get into touch with Professor Moira, and get him interested in their work. Edinburgh was specially suited to be a great centre of architectural education, and one that could develop it as well as, if not better than, any other centre.

Mr. Moira initiated a discussion on "The Building, the Architect, and the Craftsman," and expressed the view that, as the building was the casket in which were placed all those precious things that were so personal and reflected not only the life of its owner, but the controlling influence of the designer, it should set a standard in all canons of taste. It was for this reason that the building should be placed before the designer of it. He made a point also of the responsibilities that rested with the dominating mind, the mind which should set the standard of taste throughout the whole structure. He was of opinion that the architect started from the wrong end. The architect started by studying antiquity and archæology, whereas the painter and sculptor started from Nature and moved forward and into tradition.

In the discussion which followed, Sir Robert Lorimer, A.R.A., R.S.A., advocated the necessity for the master mind controlling the design of the whole building, and the need for the crafts working under that mind.

Professor Baldwin Brown emphasized the need for the architect having a fuller and better knowledge of the various materials in which he designed.

Mr. John Begg and Mr. William Davidson referred to the notable work which Mr. Moira had performed in decorative art.

The Royal Institute of the Architects of Ireland.

At a meeting of the Council of the Royal Institute of the Architects of Ireland, in Dublin, the appointment of Mr. R. M. Butler as Professor of Architecture in the National University was heard with pleasure. It was reported that the following had passed in the recent examination for admission to the institute as students : Mr. F. C. Martin, Miss Kathleen M. Carroll, Messrs. H. V. Millar, A. F. Lucy, J. H. Watson, and R. L. Burgess. Mr. Conor MacGinley, B.Arch., was admitted to the studentship class without examination. On the report of the scrutineers of ballot the following were declared elected members of the institute : Messrs. John M'Ardle, J. P. Martin, and J. H. Williams.

The Architects' Benevolent Society Scheme of Insurance.

Architects who have not yet insured through the Architects' Benevolent Society will, it is hoped, do so at an early date, either by effecting new policies or, in the case of policies already placed, by transferring them to the agency of the Benevolent Society. The Society is in touch with most of the leading insurance companies and is in a position, with the help of an advisory committee of insurance experts, to offer advice on all insurance matters, the interest of the insured receiving special consideration in every instance. In life assurance the Society allows a rebate of half of the initial commission. The other half of the commission, as is the whole of the commission on policies other than life, is retained by the Society and credited to the fund in the published list of donors and subscribers as a contribution from the architect who has insured.

Since the insurance scheme first started, the sum of £100,000 has passed through the agency of the Society, which has received in commission close on £300. In addition, nearly £200 has been returned in rebate.

These figures, though encouraging, are not, it is considered, proportionate to the number of architects now practising in this country. The Architects' Benevolent Society urgently needs money; and while appreciating the extent to which architects in the ordinary way support it with subscriptions and donations, the Society does at the same time appeal to them for their support in the effort it is now making through its insurance scheme to help itself. A £1,000 life assurance brings in £10 (half of which is returned as rebate) the first year, and £1 15s. 2d. in subsequent years; a motor car policy for £500 brings in two guineas; and a £1,000 fire policy effected through the agency of the Society brings in the small amount of 2s. 7d.; so that obviously before any real benefit is felt to the fund, it will be necessary for a very large number of people to give their insurances.

Particulars of any kind of policy will be sent by return of post on application to the secretary of the Benevolent Society, 9 Conduit Street, W.

Glasgow Cathedral.

Professor Charles Gourlay, B.Sc., F.R.I.B.A., of the Royal Technical College, Glasgow, delivered a lecture on Glasgow Cathedral before a meeting of the Edinburgh District of the Scottish Ecclesiological Society, held in St. Cuthbert's Hall, Edinburgh. Glasgow Cathedral having been served by secular canons, the lecturer began by showing the suitability of its plan to the services as they were conducted in the Middle Ages, and at the same time he explained the development of the design of its plan from the sanctuary to the nave. He said that the essential parts of most cathedrals were

generally placed on practically one floor-level, and these might be divided into two sections—respectively east and west of the "crossing." The eastern section in Glasgow Cathedral was unique in that it consisted of two stories, which in all old documents were referred to as lower and upper churches, but these terms did not convey the essential unity of the eastern arm of the cathedral. As its site was one which sloped steeply downwards to a river towards the east, this led to the development of the design as executed, which was a work of genius on the part of the original designer, who produced in this portion the outstanding glory of the cathedral. The placing of the high altar on the upper level gave the rightful prominence to this floor, while the placing of the Lady Chapel and the Chapel of St. Kentigern on the lower floor made it the necessary complement of the upper. Professor Gourlay next showed the important influence of processions in the design of a mediæval cathedral plan by describing the ceremonial of the Sunday procession, and then proceeded to deal with the historical growth of the cathedral. The first church on the site was that erected by St. Kentigern, and it probably occupied the south-west compartment of the present lower church. In 1115 David I of Scotland appointed his Chancellor, John Achains, to the bishopric, and John began the first cathedral, which was consecrated in 1136. Its style would be Romanesque, but of its plan they had no knowledge.

The rough diagonal tooling, upwards to the left, to be seen on the surface of the stone wall near the Jocelin wall-shaft, the lecturer pointed out, made it probable that a fragment of this cathedral might yet remain. The 1136 Cathedral was burned down in 1176, and Bishop Jocelin rebuilt it, but only the wall-shaft named after him now remained. These fragments of early cathedrals being left *in situ* by later builders suggested that they marked a sacred spot, and the oldest sacred spot known to have existed within the building was the original grave of St. Kentigern, who was recorded to have been buried at the right-hand side of the altar in his church. The veneration paid to the resting-places of saints by pilgrims in the thirteenth century often led to the removal of their relics from inconvenient positions and their enshrinement in saints' chapels, and this appeared to have occurred in Glasgow Cathedral.

The Shattered Glories of Rheims Cathedral.

Sir Banister Fletcher, F.R.I.B.A., in his lecture on December 10, at the Central School of Arts and Crafts, showed that all the principles of Gothic architecture, at the period of its greatest perfection, were exemplified in the construction and decoration of Rheims Cathedral, to which he solely devoted this lecture.

Great among the many great cathedrals which cover France, and third among them in actual size, the cathedral overlooks the town which took its name from the Remi, who submitted to the Roman legions. Then, as now, in the midst of a fertile plain, the city was in the track of war, as it had been also of Christian missionaries. The first church was probably of timber; the second church on the site was destroyed at the beginning of the thirteenth century, just when the time was ripe for building a cathedral in the free Gothic style, which was so well suited to French freedom in ideas. Archbishop, architect, masons and citizens set to work to rebuild their old cathedral, which had already attained such a proud position as the coronation church of France; and the church they erected proved to be the greatest triumph of Gothic art in France, in stone, wood, and glass, recently shattered by shells but now beginning once again to rise from its ashes.

The Trend of Modern Town Planning.

In his ninth lecture on town planning, at Birmingham University, Mr. William Haywood, F.R.I.B.A., said that the Town Planning Act of 1909 marked an important date in town development. Government approval was then secured for a policy of progress, subject to a preconceived plan, and embodying certain new principles of house design and site arrangement, the excellence of which had been advocated and tested by reformers during the preceding twenty years. Prior to 1909 town-planning conditions in all countries were represented by the development of characteristic local tendencies, and had not the comprehensive form that they had to-day. Since 1909 those tendencies had matured; and had been augmented by the interchange of international experiences making for progress on broader lines. For example, the feeling for corporate expression which was so marked a feature of continental life, and out of which arose the very conception of town planning, had been supplemented abroad by the adoption of the best fruits of English individualism. The individual home, the limitation of houses to the acre, and the economic design of exclusively residential roads, were now universally accepted as preferable in most cases to tenement buildings and roads for all purposes.

In a similar manner American schemes for municipal recreation, and her experiences with zoning, were valuable aids to wider views elsewhere, and by thus engrafting the best experience of others upon local practice (with a due regard for the preservation of local character) town planning progressed towards a full development of many still unrealized possibilities. Town planning, in the modern sense of the word, was of comparatively recent growth, yet actual work upon town problems already showed that in some respects it was closely related to wider regional needs, as those, in their turn, were related to the still greater problem of national organization.

In one respect the Town Planning Act of 1909 was deficient. Although largely inspired by a desire for greater amenity, the promoters of the Act failed to provide any adequate method for giving legal assistance to that end. Public opinion, however, was moving towards an appreciation of beauty in future work, and in that new interest we would find scope for giving to our towns an uplift in outward expression which so many of them lacked.

South Wales Institute of Architects, Cardiff Branch.

The annual prize distribution and exhibition of students' work of the South Wales Institute of Architects, Central (Cardiff) Branch, and the Department of Architecture and Civic Design, Technical College, Cardiff, was held in the college.

The chairman (Mr. T. Alwyn Lloyd, F.R.I.B.A.) referred to the excellent work done by the Cardiff School of Architecture during the four and a half years that it had been in existence under the direction of Mr. W. S. Purchon, M.A., A.R.I.B.A. He thanked the City Council, through the Lord Mayor, for founding and developing the school, and expressed the hope that before long it would be possible for the students to work for university degrees.

The Lord Mayor (Alderman W. H. Pethybridge, J.P.), who distributed the prizes, expressed his high appreciation of the valuable services to the school of Messrs. Percy Thomas, F.R.I.B.A., Ivor Jones, A.R.I.B.A., Alwyn Lloyd, F.R.I.B.A., and Harry Teather, F.R.I.B.A., who had acted as honorary lecturers and had helped the school in numerous other ways. He also thanked the donors of prizes, and spoke of the close relation between the school, the South Wales Institute of Architects, and the R.I.B.A.

A vote of thanks to the Lord Mayor was proposed by Mr. Percy Thomas, F.R.I.B.A., and seconded by Mr. J. H. Jones, secretary of the South Wales Institute of Architects (western branch). In proposing a vote of thanks to the chairman, Councillor G. Fred Evans undertook to bring before the next meeting of the University College Council the suggestion with regard to the award of degrees in architecture.

The prizes awarded were as follows :—

The South Wales Institute of Architects, Central (Cardiff) Branch Prizes.

Design fourth year: First prize—B. W. Thomas; second prize, W. O. Oakley. Design third year: First prize—V. Banks; second prize, J. B. Wride. Measured drawings prize, P. G. Budgen.

Department of Architecture and Civic Design Prizes and Certificates.

President's Prize for Draughtsmanship, presented by Mr. Percy Thomas, F.R.I.B.A.	V. Banks
The Architectural Sketching Prize, presented by Mr. H. Teather, F.R.I.B.A.	J. B. Wride
The Architectural Construction Prize, presented by Mr. Sidney Williams	F. W. Harper
The Batsford Prize for Architectural History, presented by Messrs. B. T. Batsford, Ltd.	E. B. Byrd
Civic Design Prize, presented by Mr. Alwyn Lloyd, F.R.I.B.A. ..	D. J. Williams
The Working Drawings Prize, presented by Mr. Ivor Jones, A.R.I.B.A.	V. Banks

Certificate in Architecture (carrying with it exemption from the Intermediate Examination of the R.I.B.A.): V. Banks (with distinction), James B. Wride (with distinction), Harry A. Barton, E. B. Byrd, F. W. Harper.

The Society of Engineers' "Nursey Premium."

The Council of the Society of Engineers have decided to award to Captain W. J. Liberty, the secretary of the Institute of Public Lighting Engineers, the "Nursey Premium," value £3 3s., for his paper on "Underground London," read before the Society at their autumnal meeting at Burlington House.

The Week's News

A Fish Market for Luton.

At Luton a fish market is to be built.

A Town-Planning Scheme for Colchester.

A town-planning scheme is being launched at Colchester.

A New Police-station for Norbury.

A new police-station is to be built at Norbury.

Birmingham Housing Scheme.

At Birmingham sites are being prepared for the erection of between 6,000 and 7,000 houses.

A New School for Bolton.

The Bolton Corporation are to build a new day school in Devonshire Road at a cost of £14,800.

Fifty-eight Houses for Eastleigh.

Fifty-eight houses are to be erected by the Eastleigh Urban District Council.

Proposed New Town Hall for Darlington.

The Darlington Town Council have appointed a committee to consider the building of a new Town Hall.

More Houses for Bethnal Green.

The London County Council are to build a new block of houses for 294 people at Bethnal Green.

A Solway Firth Water Scheme.

A water scheme estimated to cost £20,500 has been agreed to by the Wigton Rural District Council.

A New Church for Rossington.

A Roman Catholic Church is to be built in the new colliery village of Rossington, near Doncaster.

A New School for Cheltenham Spa.

The County Council have agreed to purchase a site in Cheltenham for a new domestic science school.

Rotherham Improvement Schemes.

The Rotherham Corporation have resolved to erect 700 houses during a period of three years.

Hendon Street Improvements.

Nearly £50,000 is being spent by Hendon Urban District Council in making up private streets.

A New Railway Station for Beeches Holt.

A new railway station is to be built by the Southern Railway Company at Beeches Holt, near Carshalton.

Big Housing Scheme for Leeds.

The Leeds Corporation propose to build 500 more houses on the municipal estates.

Road Widening at Leyton.

Lea Bridge Road, Leyton, is to be widened at a cost of £15,000.

Proposed Hydro-Electric Station for Grimsby.

Proposals are being made in Grimsby that the two forts built during the war at the mouth of the Humber should be converted into hydro-electric stations.

A New Bridge for Rotherham.

The Rotherham Corporation have decided to build a new bridge over the River Don at Rotherham at a cost of £90,000, half of which will be borne by the Ministry of Transport.

New Houses for Durham.

The Durham City Council have submitted a scheme to the Ministry of Health for the erection of 120 houses on the Whinney Hill site.

The New Wearmouth Bridge.

The Sunderland Corporation have received from the Ministry of Transport an official intimation that the plans for a new Wearmouth bridge are officially approved. The Ministry will give a grant in aid of the cost of construction up to 65 per cent. of the cost, which, for a 90 ft. wide bridge, is estimated at £300,000. The Council have yet to decide whether the bridge shall be 80 or 90 ft. wide.

City of London Housing Expenditure.

Up to date the City of London Corporation have expended £1,382,660 in connection with its housing scheme at Ilford and elsewhere. The amount of the loan was £2,750,000.

Redcar Improvements.

The Redcar Town Council have decided to buy land for possible extensions of the gasworks, and to seek permission for the erection of 100 additional houses.

The Condition of St. Mary's Hall, Coventry.

The Estates and Finance Committee of the Coventry City Council have approved a scheme for the restoration of St. Mary's Hall.

Hartlepool Hospital Schemes.

Schemes that would involve an expenditure of from £10,000 to £20,000 have been suggested for the extension of the Hartlepools Hospital.

The Royal Sanitary Institute Congress.

The next Congress of The Royal Sanitary Institute and Health Exhibition will be held at Edinburgh from July 20 to 25, 1925, by invitation of the magistrates and City Council.

A New Electric Station for Guildford.

The Corporation are to purchase a five-acre site in Woodbridge Road for a new electricity station. The scheme will cost nearly £90,000.

Proposed Oddfellows' Hall for Portsmouth.

The Manchester Unity of Oddfellows (Portsmouth branch) propose to build a new hall from the designs of Mr. Henry Dyer, M.S.A., of Southsea, architect.

Saltburn Sewerage Scheme.

To cover the cost of the new sewerage scheme the Saltburn Urban District Council have decided to apply to the Public Works Loan Board for the sum of £18,000.

Professional Practice.

The firm of Messrs. William Hill and Son, of 38 Albion Street, Leeds, architects, of which Mr. Victor Bain, A.R.I.B.A., M.S.A., was a member, has been dissolved. Mr. Victor Bain is now in practice at the above address in his own name.

Ancient Roof Discovered in Somerset.

At Chesterblade Church, Somerset, a seventeenth-century king post and tie beam oak roof has been discovered. Upon the centre of the middle beam is a large incised flower with the letters "W.V.R.C., 1663" boldly cut thereon.

Housing at Keighley.

The Housing Committee of the Keighley Corporation have decided to erect on the Broomhill site a further hundred houses, and to purchase thirteen acres of building land in another part of the town with the idea of commencing another scheme.

A Famous Monument Unsafe.

The monument to Sir Walter Scott is declared to be unsafe in its highest parts. Repairs would cost thousands of pounds, and Edinburgh declares that it cannot find the money. Some of the higher stones in the monument weigh a ton.

The Condition of Selby Abbey.

Selby Abbey, Yorkshire, founded by William the Conqueror, is in danger owing to the ravages of time in the stonework. Serious cracks have developed in the pinnacles on the north side. Until repairs are carried out the masonry is being supported by strong chains.

Woolwich Garden City Purchase.

The Royal Arsenal Co-operative Society, Woolwich, have approved the proposal of the General Committee to purchase from the Government a garden city estate at Well Hall comprising over 1,000 houses and flats and 90 acres of freehold land for the sum of £368,000.

(*Continued on page* xxi.)

The Week's News—*continued*

The Rebuilding of Middlesex Hospital.

The Board of Governors of the Middlesex Hospital, Mortimer Street, have decided to rebuild the old portion of the hospital, and have appointed Mr. Alner W. Hall, M.C., F.R.I.B.A., as their architect to carry out the work. Mr. Hall is a partner in the firm of Young and Hall, 17 Southampton Street, Bloomsbury.

More Houses for Walsall.

The Ministry of Health have provisionally approved the programme of the Walsall Corporation for the erection of 600 houses within the next two years for subsidy under the Housing Act, 1924. The Ministry have also approved, for the purposes of financial assistance under section 2 of the Act, the proposals of the Council for the erection of 100 houses on the Palfrey site.

Whitehall Improvements.

Work will begin shortly on an extension to the Foreign Office by an addition to the roof on the quadrangle side. An attempt is to be made to improve the temporary offices, erected during the war, between Gwydr House and Whitehall Gardens. The huts, also built during the war, on the top of the Admiralty Arch, will be demolished early next year.

The Old G.P.O. Site.

Messrs. Gunton and Gunton, are the architects for a building, 100 ft. high, and with an area of 21,800 square ft., to be erected on the site of the old General Post Office in St. Martin's-le Grand. It will be a composite building of offices, shops, and warehouses, and will cost about £250,000. A building is now in the course of construction on a large portion of the centre of the site, and not quite a third of the area now remains undisposed of, at the Gresham-street end.

Big Housing Scheme for Newcastle.

The Newcastle Corporation Housing Committee have agreed to erect eighty-four houses on Slater's Quarry, Barrack Road, and 467 dwellings on the Cowgate site, to provide accommodation for the tenants displaced in Pilgrim Street, Prudhoe Street, and Liverpool Street. The committee have also decided to erect 300 concrete houses on the High Heaton estate, 150 on the Walker estate, and 68 on the Cowgate site. The total number of houses in the latest scheme of the committee is 1,069.

London Hotel with 10,000 Rooms.

An hotel with 10,000 rooms, which will take two years to build and will cost about three-quarters of a million, is to be erected in London. Excavation work on the site between Tavistock Square and Russell Square has commenced. Mr. Harold Walduck, head of the Imperial Hotels, Ltd., is behind the venture, the "Royal." One of the principals of the firm is about to start a world tour of hotels in order to learn of the most modern improvements.

Housing at Liverpool.

The Housing Committee are negotiating for sites for the provision of houses for the people now occupying the insanitary areas of Hopwood and Eldon Streets, and also of Rankin Street. Plans are almost ready for dealing with the Pitt Street area and the King Street area, Garston. The present programme before the committee involves some 12,000 houses—5,000 in new districts, and 7,000 to replace insanitary property.

The Restoration of Sherborne Abbey.

Further work is to be undertaken towards the restoration of Sherborne Abbey Lady Chapel. In March the work of reconstruction of the eastern arches, which will eventually lead to the sanctuary, was taken in hand, and this is now nearly finished. It has been decided to proceed with the flooring of the chapel, the work to the walls of the St. Mary-le-Bow Chapel, the ceiling of the proposed new vestry, the provision of a staircase to the new library, and the work on the main arch between the Abbey ambulatory and the chapel.

A Bigger Port Sunlight.

The first houses have been completed in connection with the scheme of Lever Brothers, who are giving free sites, averaging 400 sq. yds., on land adjoining Port Sunlight, Cheshire, firstly to their co-partner employees and then to any other persons who apply. The owners of the houses get the Government subsidy of £75 per house. As about 80 per cent. of the value of house and site can be obtained from the local authorities on mortgage an applicant need find only a small sum of his own money. Nearly 150 plots have already been allotted.

The Week's News—*concluded.*

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to October 31, 1924 :—

	Completed.	Under Construction.
1919 Act	22,969	2,457
Private Subsidy Schemes	2,324	—
Slum Clearance Schemes	752	2,004
1923 Act	917	5,009
1924 Act (Local Authority Schemes)	—	232
	26,962	9,702

Of the total number of houses completed and under construction under the 1923 Act, 1,975 are by the local authorities and 3,951 by private enterprise.

Waterloo Bridge.

The London County Council have passed a recommendation of the special committee on Thames bridges that the Council of the Institution of Civil Engineers should be asked to express its view whether, having regard to the present condition of Waterloo Bridge, it would be practicable to underpin all or some of the piers of the bridge so as to render the structure permanently safe and enable it to be restored to its original form. Mr. R. C. Norman, the chairman of the special committee, assured the Council that nothing would be done regarding the reconstruction of the bridge until the completion of the temporary bridge, which would not be before next July. If the bridge was an ordinary one it would not be necessary to consult outside opinion, as the evidence of their own engineers would have satisfied them. Many considered the bridge the finest in Europe, and if it was pulled down they must have the support of public opinion. At present they had all the economic opinion, plus that of antiquaries and artists, and also of the Council itself, which, very properly, was jealous of the great monuments entrusted to its care. Therefore, they were seeking the opinion of the great association of engineers before deciding.

L.C.C. Housing Scheme.

Mr. H. A. Chapman, an inspector of the Ministry of Health, opened an inquiry at Hendon Town Hall respecting an order made under part III of the Housing Act to enable the L.C.C. to acquire land in the Hendon district for the purpose of a building scheme. The Hendon Urban and District Councils, the Kingsbury Urban District Council, and the Middlesex County Council opposed.

Lieut.-Col. Cecil Levita, chairman of the L.C.C. Housing Committee and Mr. Frank Hunt, valuer for the L.C.C., gave evidence. The former said that he had to provide 12,500 houses a year, and Mr. Hunt said that there were over 123,000 people in the north-western boroughs of London who were living in overcrowded conditions. There was no land within the L.C.C. border to build the houses needed for the relief of this overcrowding.

Mr. Charles William Hill, chairman of the Hendon Urban District Council, said his council were quite opposed to the scheme of the L.C.C. They considered it would spoil their district. It was his belief that the real object of the L.C.C. scheme was to acquire a hold on districts outside the L.C.C., a power which they failed to obtain through the inquiry on London government. Mr. A. O. Knight, surveyor to the Hendon Urban District Council, said the rates of the district would be greatly increased if the L.C.C. scheme went through.

Coming Events

Wednesday, December 17.

Bucks Society of Architects, Oakley House, Slough.—"Estimating and Estimators." By Mr. A. Reid. 7.30 p.m.

British Society of Master Glass-painters in the Hall of the Art Workers' Guild, 6 Queen Square, W.C.1.—"The Stained Glass at the Victoria and Albert Museum." By Mr. Bernard Rackham. 6 p.m.

Edinburgh Architectural Association, 15 Rutland Square.—"The Future of Architectural Education." By Professor Lionel B. Budden, M.A., A.R.I.B.A. 8 p.m.

Competition News

The National Institute for the Blind, Argentina.

The Department of Overseas Trade have sent us the following translation of some of the principal clauses of the regulations governing the competition for designs for a National Institute for the Blind in Argentina :—

Competitors resident abroad must submit their designs to the Argentine Legation by December 31, 1925, for transmission to Buenos Aires. The address of the Argentine Legation in London is 30 Grosvenor Gardens, S.W.1.

Competitors must limit themselves to presenting the following :—

(a) General plan on a scale of 0·0025 per metre (2½ millimetres per metre).

(b) Frontages and sections showing the more important parts of the buildings at a scale of 0·006 per metre (six millimetres per metre).

(c) Partial or total plans of the pavilions on a scale of 0·005 per metre, where the competitor thinks it of interest to give details of distribution.

(d) A descriptive report on such parts of the project as cannot be represented on the plans. This report is to give full details of the area to be occupied by the projected buildings.

Designs are to provide for : porter's lodge, director's house and offices, administration, library, workshop, children's section, kindergarten section, special section, cottages, printery, gymnasium, ward for blind workmen, ward for old and infirm, hygienic quarter, machinery house and water supply, laundry and ironing shops, bakery, small ice-making plant, building with quarters for staff, garage and stables, hospital sick ward, chicken run and vegetable garden, parks and sports grounds. Competitors have liberty in including other special sections which they consider justified. The total available area of the site is 187,735 square metres.

The Sir J. Ross Memorial Competition.

Mr. F. Brook Hitch, R.B.S., the sculptor, has won the competition for the Sir J. Ross memorial for South Australia. The competition was open to all sculptors.

Technical College, Middlesbrough.

Attention is drawn to this competition (see below) of which particulars have just been issued.

List of Competitions Open

Date of Delivery.	COMPETITION.
*Dec. 31	International competition open to landscape architects, etc., for plans for the elaboration of the general plan of the Toptchider Park, near Belgrade. Premiums : 1st, £400; 2nd, £300; 3rd, £200; 4th, £150; 5th, £100. In addition the sum of £250 is set aside for the purchase of designs failing to secure prizes. Apply Minister of Agriculture and Water, rue Prole Mateie 62, Belgrade.
*Dec. 31	Designs are invited for a wall tablet to be placed in the large hall of the King Henry VIII School, Coventry. Apply Headmaster.
1925 Feb. 16	Designs are invited for a library to be erected at the Compton Road estate, Leeds. Assessor, Mr. Percy S. Worthington, F.R.I.B.A. Premiums of £35, £20, and £15. Apply Town Clerk, Leeds.
*Feb. 28	Art gallery and museum of art for the City of Manchester. Assessors, Mr. Paul Waterhouse, Professor C. H. Reilly, and Mr. Percy S. Worthington. Premiums £500, £300, £200, £100. Apply with payment of 5s., which is not returnable, to Mr. P. M. Heath, Town Clerk.
Feb. 28	Competitive designs are invited from qualified architects, being British subjects, for proposed New Railway Offices to be erected in Nairobi, Kenya Colony. Assessor, Mr. William Dunn, F.R.I.B.A. Premiums £200 and £100. Designs must be received at the Offices of the General Manager, Uganda Railway, Nairobi, Kenya Colony, not later than February 28, 1925. Apply, with deposit of £1 1s., to The Crown Agents for the Colonies, 4 Millbank, Westminster, S.W.1, not later than February 1.
*Mar. 31	Bethune War Memorial. Assessor, Sir Aston Webb, P.R.A.
*May 1	The United Grand Lodge of England invite designs for rebuilding the Freemasons' Hall in Great Queen Street, Kingsway, London.
May 15	Technical College for the Middlesbrough Education Committee. Assessor, Mr. Percy Thomas, F.R.I.B.A. Premiums £200, £100 and £50. Apply, not later than January 24, to the Director of Education, Education Offices, Woodlands Road, Middlesbrough.
*June 30	Lay-out of open spaces and fortifications between Valletta and Floriana and those encircling Floriana. Premiums £1,000 and £500. An indemnity of £100 will be awarded to three other designs showing conspicuous merit. Assessors, Mr. E. P. Warren, F.S.A., and Professor Patrick Abercrombie, A.R.I.B.A.
Dec. 31	The Argentine Government offer prizes of 10,000, 5,000, 4,000, 3,000, and 2,000 Argentine gold pesos for the best architectural designs for a National Institute for the Blind. Apply Enquiry Room, Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W.1.

* Date of application passed.