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THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal."

FROM AN ARCHITECT'S NOTEBOOK.

PLINY ON PISÉ DE TERRE.

Have we not in Africa and in Spain walls of earth, known as 'formocean' walls? From the fact that they are moulded, rather than built, by enclosing earth within a frame of boards, constructed on either side. These walls will last for centuries, are proof against rain, wind, and fire, and are superior in solidity to any cement. Even at this day Spain still holds watch-towers that were erected by Hannibal.

Pliny's "Natural History," Book XXXV, chapter xlviii.

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

Piccadilly Circus as it is To-day

Photo: Topical.

We publish the above photograph of Piccadilly Circus (taken only last week) for its value as a record of a very interesting section of Nash's Regent Street that will soon be no more. The conjunction and inter-relationship of the Circus buildings were very carefully thought out by Nash, as Mr. Trystan Edwards explained in his first article, which appeared in our issue for January 23.

THE

ARCHITECTS' JOURNAL

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The Question of the R.I.B.A. Prizes

THE comparative failure of the competitions for the Institute Prizes is obvious to all, and the cause of it has been correctly diagnosed in THE ARCHITECTS' JOURNAL. The young men, who in the old days would have competed for them with keenness, are now working with equal keenness through the long and strenuous courses of the schools of architecture. Occasionally no doubt a student from one or other of the schools enters the competition for an Institute prize, but, when he does so, he does it without the knowledge or against the advice of his teachers and at the risk of detriment to his other work. A second-year student of the Liverpool school, for instance, who ought at least to have waited till his fifth year, tackled the Soane the last time without my knowing it. He made a very good show for his age and knowledge, but the work was obviously above his present capacity. That would not have mattered much; I believe in youth dreaming dreams and having high ambition, but for weeks this student came down to the school tired out, and his school work, much to my disappointment, for he is a clever fellow, went to pieces.

It is obvious, then, that the five hundred or so students in the English schools can no longer compete for these prizes during the years when such things should most appeal to them. The Scottish system of part-time work in their schools may make it easier for Scotch students to enter the lists, especially when their offices are slack, but of this I am not sure. One would imagine that the Scotch student, who often attends his school of architecture before and after his day's work in an office, is even more pressed than his English colleague.

What then is to be done? No one wants the distinction which such awards as the Soane and the Tite carry to fall in standard, yet under the present system that is what they are doing now year by year. Still less do we want valuable scholarships to go begging for want of suitable candidates. I think the time has come to face the facts and to hand over a large portion of these scholarships to the schools, leaving for the time being a certain portion to be competed for by students and architects who are not members of a recognized school. We are all anxious not to exclude the somewhat imaginary case of the untutored genius working by himself in some distant Philistria, though the kindest thing one could probably do for such a one would be an arrangement, easily come by, by which, if he happened to win an Institute medal, he received free tuition for a while in one of the big schools.

To clear our minds and see what the ideal solution would be under present conditions, let us assume that all possible obstacles, such as wills and trust deeds, have been swept away and that the Institute has an annual sum of £750, or thereabouts, to distribute in prize money. With the vast majority of the architects of the future already in the schools, obviously the mass of the money, say £600, should be competed for in those schools. The further question then arises, should the competition be an inter-school competition, or should the money be definitely allotted in sums of not less than £100 each—for less is nowadays of little use—for competition within the leading schools? I have not the faintest hesitation in saying the latter would be infinitely preferable. We already have the Rome and Victory Scholarships as inter-school competitions and we want no more of them. They make quite enough rivalry and difficulty. Certain A.A. students this year refuse to go in for the Rome, and in other years Liverpool ones have refused to go in for the Victory.

But, more than this, such competitive creatures are young architects, and one may add their professors, that inter-school competitions are apt to become rather like Cup-ties, too great a strain on everyone, including the referees. They interrupt the run of serious school work and put unfair strain on every one, on the physique of the students who feel they have the honour of their school at heart and stay up all night to maintain it, and on the morality of the teachers, whose hands and brains itch to help. Besides, in a school, the teachers are there to help—that is what they are paid for—yet while these inter-school competitions are being done they have to stand aside and see their best men making absurd mistakes. It is almost more than human nature can withstand, with the result that one hears of whole renderings done in the Victory Scholarship by instructors. I do not want to pit my powers of rendering against Mr. Bradshaw's or other teachers. I may say it would be a very poor lookout for the Liverpool school if I did. But that is not the real point, though some may think it is. We might buy a special renderer like certain American schools do, in which case the Institute might have to inaugurate a system of transfer fees for instructors like the Football Association. The system by which a preliminary esquisse is made of the problem by each student "en loge," while it secures that the original idea is the student's own, does not secure that the final presentation of it is. Indeed, there is a distinct difference among teachers whether it should be. Some following the French tradition say it should not, that there is a distinct educational value in the remainder of the work being group work. I am not at all convinced of this, nor I think are most Englishmen. Till we are, let each school which attains the honour of a five-year course, recognized by the Institute, have a hundred-pound prize awarded to it for the best work done among its fourth-year students. I say fourth-year, because then the student who wins and travels with the money will benefit his fellow students and his school by the results of his travels in his fifth year. Anything earlier than the fourth year is too soon for such distinction. Let the Institute, too, reserve to itself the right, if it likes, of awarding the actual

Nash, as Mr. Trystan Edwards explained in his first article, which appeared in our issue for January 23.

medal apart from the scholarship money (the award of which the school jury would determine), when it sees the collected work of the student in question. The old names could be preserved. The A.A. Scholarship could always be called the Tite, and the Liverpool one the Soane—I modestly choose the name which I prefer—and other distinguished names, like Wren and Inigo Jones, could be added to the other scholarships and medals for the other schools to compensate for their newness.

Now I am quite prepared for everyone to say that such a scheme as this is impossible, that the trust deeds are in the way, or that sort of thing. But I believe, too, that there are such people as Charity Commissioners with power to alter trust deeds, and when they have not the power the High Court of Chancery can give it to them, and beyond that again is the Government. After Mr. Macdonald's article in your last number we may feel that at last there is a Government interested in and anxious to help forward the practice of architecture. One gathers, too, it is a Government which will take a broad and informed view of architectural questions and, not like past Governments, be one that can only be approached by a few leading architects who happen to be members of the Royal Academy.

C. H. REILLY.

The County Hall Panels

The refusal of the London County Council to put in place the mural panels recently executed by London art students for the embellishment of the London County Hall, is an unhappy sequel to a novel experiment. The conditions of the experiment were entirely favourable. The works were prepared in the most famous of art schools—the R.A., the South Kensington, the Slade, and the Westminster—and were adjudicated upon by the principals of those schools. Two designs were selected from each, and these duly received the approval of the Establishment Committee of the Council. They represented scenes in London parks (some reproductions of them, if we remember rightly, appeared in "The Architectural Review"). A fortnight after the acceptance of the panels the Committee met again and rescinded its resolution, informing the heads of the respective schools that the Council had decided to allot the spaces to the work of more important artists. A suggestion by the students that the paintings should be referred to an impartial tribunal has been refused, and there for the present the matter rests. The committee appears to have placed itself in a very awkward position. If the panels are not good enough for the County Hall, why were they ever accepted? And, once accepted, upon what tenable basis of reasoning can they be rejected? The chagrin and disappointment of the students can be easily understood. We would, however, advise them not to take the matter too seriously. Work produced in the heyday of youth seldom passes the critical judgment of mature years. Had these panels taken their allotted place on the walls of the County Hall, it is not at all unlikely that the artists a few years hence would themselves unitedly petition for their removal.

A Forgotten London

Many of the photographs which we have been publishing with Mr. Trystan Edwards's articles on Regent Street have a special interest, inasmuch as they represent the street as it appeared in the days of our fathers and grandfathers. These old views are redolent of the leisurely atmosphere of the late Victorian period, and have to-day almost an antiquarian interest. They show the life of London streets before motor-cars were known. Here all the vehicles are horse-drawn. "Knife-board" omnibuses rumble slowly along, driver and front-seat passengers conversing amiably together under the big umbrella. "Hansoms" and "growlers" ply for hire, ready to take you to the other side of London for a shilling. The streets and pavements are singularly free from crush. Everybody has elbow room and can breathe freely. It is even possible for two old ladies to stand conversing unconcernedly in the roadway at Piccadilly Circus! This photograph (page 253) is one of special interest, for it shows the segment of Nash's circus and the island block of buildings that were cleared away to produce that shapeless area that, with an unpardonable disregard of the meaning of words, we still continue to describe as a "circus." This clearance was made about the time when Shaftesbury Avenue was building, so the photograph must have been taken roundabout forty years ago. It is a very different London—a forgotten London—that these old photographs reveal. Many of us would be glad to have it back again.

Dutch Auction

The Bishop of London is becoming more modest in his demands. Originally he wanted nineteen City churches to be surrendered to the pickaxe: last week he obligingly reduced the number to six. But not even this handsome concession to sentiment is likely to win the favour of those who find delight in things historical and beautiful. It may be difficult for the Bishop to appreciate this unbusinesslike attitude of mind, but the reduced estimate at least shows that he is conscious of it. The reduction is apparently made on the assumption that what cannot be removed in bulk can be removed piecemeal. Can it be imagined that if these six churches were let go we should hear no more of demolition? Not while appetite grows by what it feeds on! Pull out but one stitch of the crochet, and the garment may soon be no more than a thread. Not till the Bishop reduces his estimate to a cipher will lovers of London be content.

Housing and Labour

The precise nature of the Government's proposals with regard to housing is not yet known, but that a serious attempt will be made to accelerate building operations is certain. To do this many things are necessary. Carefully thought-out schemes must be prepared, which means that the services of architects must be engaged. On this point we are glad to note that the R.I.B.A. has placed its resources at the command of the Government. We already know, from the leading article by Mr. Alister Macdonald which we published last week, that the Government is fully alive to the importance of the architectural factor, so there is not likely to be a repetition of the bungling that characterized the Scheme of 1919. So far as the architectural side is concerned, no difficulties are to be anticipated. Materials are likely to be available in abundance at reasonable prices, so no trouble should be experienced in this respect. Labour alone is the doubtful element. If (and there is no doubt of it) large numbers of building projects are even now held up for want of skilled labour, how can the acceleration of house building do aught but intensify an already serious problem? The remedy is in the hands of the trade unions themselves—in a word, "dilution." With the certain prospect of regular employment for a prolonged period, the unions need have no qualms about accepting a reasonable proposal for increasing our resources of skilled labour. The method that has been adopted in the United States might with advantage be investigated. There, trade schools have been organized at a number of large centres. They are managed and supported by a committee appointed by the boards of education, the trade unions, the master builders, and the manufacturers of building materials. Young men between the ages of fifteen and twenty-five are given a short course of intensive full-time training in these schools. Subsequently they are taken over by the master builders for a further period, working half-time on the job and half-time in the schools. During this second stage of training they receive instruction from skilled operatives working with them. According to a correspondent of "The Daily Mail," this system is producing skilled workmen in an incredibly short space of time. Something of the sort might well be done here.

A MONTHLY CAUSERIE

Joking Apart

New Lamps for Old

FROM time immemorial it has been the special resource of authors to nibble their pens; and when so employed they have always been regarded as impressive spectacles. One so engaged represents a man crammed with ideas and at the point of finding inspiration to express them; the touch of the goose feather acts like a charm and starts him off at full gallop, but the vulcanite fountain pen denies him any such aid. This is my predicament. I want to enunciate an axiom and do not know how to manage it without offending the nimble-minded reader—and, what is worse, myself—by committing a pomposity; for one cannot talk glib generalities about art without saying what one means by the word and becoming a bore; and one has no right to speak in a special sense of artists without explaining what an artist is, and being, very properly, cursed for a pedantic solemnity. However, I can extricate myself by shifting the burden of definition upon the broad shoulders of Professor Baldwin Brown, which have sustained the load these thirty years without wilting.

It was the late Mr. Stopford Brooke who showed what the clergy can do when they come down out of their pulpits, by defining art as "that which sets free and purifies the soul"; but I pass Brooke, for a bottle of Bass will do all this for me, and I believe I am right in saying that what is wholly true of beer can be only partly true of art. Professor Brown's definition, however, fits the case like a blister. You may even transpose its terms without doing it much damage, though the Professor's own version is undoubtedly the best. He defines art, then, as "Play within the rules of order." If anyone jibs at that definition after a week's close acquaintance, he must be indeed hard to please; it and I have lived together happily for twenty years and not once fallen out. It exactly fills the conditions of a perfect definition; that is to say, it is unintelligible unless you are already so well informed as to have no need of any definition. In other words, it tells you one or other of two things; it tells you either (*a*) nothing at all, or (*b*) less than you already know. It is thus a perfectly sound and weathertight definition, and may safely be absorbed by the most fragile as by the robustest intellects.

Having thus pinned art like an entomological specimen to the table, I have now, by the rules of the game, to dissect the artist and peg him out too. If I said that the artist was one who indulged in play within the rules of order, I should not only say what was scientifically true, but touch the highwater mark of academic exactitude. I shall, however, do nothing of the sort. I shall extricate myself by offering an illustration which, I think, will serve the purpose better than any definition.

On a summer day long ago, workers in certain Irish fields saw a bent old man shuffling slowly along the high road; and they saw, also, a stalwart peasant going in the same direction, who, when he overtook the old man, struck him to the ground from behind with a heavy stick he carried. He had killed the old man. The motive for this apparently brutal act was not disclosed to the magistrate until the prisoner made his defence, as follows: "Sure, yer Honour," said he, "I meant no harrum at all, at all. I'd love this old man as well as I'd love another, and betther, for I'd never set eyes on 'm. Faith, I'd as soon kill one man as I would another, an' he be meself, and rather! Isn't it meself, now, that's so dainty wid me shillelah? Sure I'd fetch me own brother a brace of skelps an' he, the bhoy, standing with the tears shtreaming from his two eyeballs wid the laughter he had of ut! 'Twas just this way, yer Honour. I was there walking the road smooth and aisy the way I'd not worsen me boots, an' meself whistling an' lepping an' swinging me shillelah, and the sun shining warm, an' the birds calling an' the scent of the clover thick and sweet like the Holy Mass, an' me heart singing wid the joy of it all, an' I come up wid this old Mick, an' he took off his hat and there was the lovely bald crown of 'm wid the skin stretched tight an' smooth an' all glistening and shining white in the sun with the polish it 'ud taken, like a great, creamy, marble egg; an' says I to meself, 'Begor! there's a beautiful, glorious head for a crack!' an' before I knew 'ut I'd let a yell and there was the poor old felly on the ground at me feet."

That man was an artist. His motive was wholly artistic. The impulse to perform a skilful act beautifully masked in him the coarser aspiration which would have prompted him to cajole the old man into buying a bottle of fraudulent hair-restorer. "Play" is here exemplified in delight of the artist in his own dexterity and in the flourish and neat exactitude with which the performance was completed with one blow; "Rules of order," upon which the "play" was conditional, were merely to hit till the job was done. I am not to be charged with condoning battery and murder—for the æsthetic must not be confounded with the ethical—when I claim that here is a good example of art for art's sake. There was no intention to harm, but an ambition only to do a thing beautifully for the sake of the beauty in doing it. Art claimed a victim; what of that?

Art, in its modern aspect of grease to the wheels of progress—industrial progress, which is the only progress, of course, that matters—claims many victims: persons who are led to put confidence in fraudulent secret remedies, who are poisoned by colouring matter and preservatives and adulteration in food, persuaded into buying every kind of rubbishy substitution and deceptive simulation of the thing they need, and teased into wasting their money on shoddy superfluities. The art of advertising, the art of window-dressing, the art of the salesman and of the publicity agent, the art of writing "letters that bring business"—these not only claim their victims but are directed to that particular end so that the whole of these arts may, with perfect propriety, be grouped and broadly generalized as one art, the art, namely, of setting traps to catch mugs. This is not art for art's sake, certainly, but it conforms to our definition. In it "play" is represented by cajolery and deception, and "rules of order" are definitely those imposed by the laws of the land; while the condition that art exists only when "play" is restricted by "rules of order" is well shown, for if it were not for the restrictions imposed upon trade by the law, it is doubtful whether any commodity would be offered for sale under its true description, whether of kind, quality, measure, or weight; the faint supposition of truth, with which, only, the whole majesty of the law is able to endow the protestations of commercial enterprise, would disappear; there would be no presumption of trade veracity on which deception could feed, and these great national commercial arts would fall into decay and become moribund. As things are, these arts stand above all criticism. Any man may comment adversely upon any production in the fine arts, in literature, drama, or craftsmanship, and say all that is true about it without molestation, but the law protects the commercial arts from any such plain speaking. The law of libel seems to have been specially framed to shield the commercial man, or else the commercial man has been more active than have others in taking full advantage of it. Be that as it may, he is in this happy position: that it is scarcely possible to say anything true about the arts he practises without libelling him.

KARSHISH.

Regent Street—An Obituary. 3

(*Concluded.*)

By A. TRYSTAN EDWARDS, M.A., A.R.I.B.A.

COULD Regent Street have been saved? That is an unpleasant question. Why rake up such ancient matters? Regent Street is gone irrevocably. So might a man fence with his interrogators after he had committed a murder: "The thing is finished now. The man is dead, for I have killed him. You cannot bring him back to life. In fact, if you will excuse my saying so, you are wasting my time by purely academic discussions. I beg you to change the subject." But what of the judgment? Is architecture alone of all the activities of men to be immune from judgment? Are ill-deeds committed here to go without punishment or even without that verbal condemnation which it is the function of criticism to pronounce? But who in this instance is to be the accuser and who the culprit? It will, perhaps, be found possible to obtain answers to these questions.

The other day I had the temerity to speak to a building operative, "a British working man," who was engaged in picking with his axe the gentle stucco from one of the Regent Street façades. "What do you think of it all?" I said. Accompanying his words with an oath, he replied: "It is a shame to pull down these lovely buildings. And look at the things which are being put up instead. They are just like prisons." A Daniel has come to judgment! Let him, then, be the accuser. I do not propose to comment upon the latter half of his statement, although this was made with profound conviction after a contemptuous glance at the Piccadilly Hotel, but shall content myself with translating his observation upon the Old Regent Street into the form of a question: "Why have you pulled down these lovely buildings?" Let the question be considered a peremptory one, as coming from a typical representative of the populace who is entitled to express a most emphatic opinion upon the qualities of civic architecture.

The judgment of this "British working man" has been confirmed by countless other judgments I have heard from men and women of many types and occupations. It is, in fact, the mature opinion of the "average man," who has

WATERLOO PLACE, LOWER REGENT STREET, AS IT WAS, WITH THE CRIMEA MONUMENT.

PICCADILLY CIRCUS FORTY YEARS AGO.

always been swifter to recognize true genius than has the cultured doctrinaire blinded by his own half-truths. But who, in this instance, is to be called upon to answer the stern and peremptory question? Surely not the nominal agents of the outrage, the maligned officials of His Majesty's Office of Woods and Forests, who administer the Crown lands upon which Regent Street is situated? They are, indeed, agents, but they are agents with professional advisers. Shall we call the professional advisers the sole culprits, then? That also would be unjust, because these same advisers, in their tender years, may have been subjected to cultural influences too strong for them to withstand. Is the general public, perhaps, responsible? The answer is, of course, that all of us share in the responsibility. Even if we have not instigated the destruction of Old Regent Street, we have at least permitted it. Passive agents, in some measure, we have all been.

Unfortunately some of the defenders of this policy have been bold enough to affirm that the buildings of Old Regent Street were not beautiful. Of course, when once they had accepted the truth of this dictum, they could proceed to the work of reconstruction with a clear conscience, for obviously nobody is under any special obligation to preserve buildings which are not even beautiful. If the agents of the Crown and their architectural advisers had said: "We most profoundly admire the work of Nash and his collaborators but unfortunately utilitarian considerations make it necessary for these buildings to be superseded," it would have been possible to accept their decision with a better grace, for it would then have appeared that the æsthetic factor had been given due weight. But when the defenders of the demolition policy publicly sneer at Old Regent Street as "second-rate architecture," one is justified in suspecting that the fate of this remarkable composition of buildings has been decided by men who have little reverence for what they have destroyed.

There are critics who cannot refer to Nash without a certain note of apology, and if they deign to praise him there is timidity in their praise. Yet the apology and the timidity, always unnecessary, and indeed unseemly in this context, can to-day be dispensed with altogether, for Nash is coming into his own. Just when his greatest masterpiece lies before us in a state of pathetic disintegration his repute rises higher, and higher, until at this moment the name of Nash is one of the most illustrious in the history of architecture. Who were the two greatest English architects? Were they not Wren and Nash?

Why are we required to suffer such a loss? The whole purpose of the present argument will fail unless we stay to answer this question fairly and truthfully. For what can be more useless than to extol architectural virtues which, under modern conditions, can be proved to be quite unattainable. If it be true that *economic* causes have made impossible the retention of Old Regent Street, an examination of these causes comes well within the scope of our inquiry.

There is a school of opinion which denies altogether the "inevitability" of the destruction of Old Regent Street. Granted that the former rentals, which were fixed in the first quarter of the nineteenth century, were, according to modern standards, absurdly low, they could yet, with substantial advantage to the Exchequer, have been increased to a scale commensurate with the present value of the original buildings. If this had been done the lessees, most of whom were quite prepared to stay where they were, would have been able to retain the immense commercial advantage of being housed in the most attractive shopping thoroughfare in the world, while we should have been free from the reproach of having needlessly sacrificed what was one of London's chief claims to architectural distinction. The official agents in this instance naturally take shelter behind the technical experts whom they had called into consultation. It is instructive to note that a similar phenomenon has occurred in the case of the City churches. At the recommendation of a committee of ecclesiastical economists, a considerable number of City churches including some of the noblest works of architecture ever produced in this country are apparently doomed to destruction. The economists themselves are, of course, entirely exempt from blame! According to their own statement they have been

informed by their architectural advisers that the churches in question have no great artistic merit. What we encounter in both these cases is not the vulgarity of a populace that is indifferent to its architectural heritage, but a Bocotian spirit among a particular section of the people described as "cultured."

The enthusiasm of this type of cultured person is always more easily aroused by matters of archæological or romantic interest than by considerations of art. Did not Ruskin say that "the greatest glory of a building is in its age and in that deep sense of voicefulness, of stern watching, of mysterious sympathy, nay, even of approval or condemnation which we feel in walls that have long been washed by the passing wave of humanity . . . it is in that golden stain of time that we are to look for the real light and colour and preciousness of architecture"? The trouble about Regent Street and the City churches is that they are not ancient. The City of London Church Commission declare that they would not dream of touching the Gothic churches which survived the Fire. Nor would any public body presume to lay sacrilegious hands on the half-timbered Elizabethan shops left standing in Holborn. But Regent Street had not the virtue of great age. It had nothing to recommend it except incomparable beauty. And to the offence of being comparatively new it combined the still worse offence of being faced with a rather delicate material. It positively invited the pickaxe!

Can the spirit of Old Regent Street still live? This is only possible if there is a resuscitation of the *forms* of Regent Street. A statement very often made with regard to architectural tradition is that one may revive the forms of bygone styles without reviving their spirit. This is in a certain measure true, for the forms may be misused, as was very largely the case in the Gothic revival when the attributes of ecclesiastical architecture were given to secular buildings. But the obverse of the proposition, the theory that it is by some means possible to revive the spirit of a culture without its forms, is a palpable error, and involves a complete misunderstanding of the very nature of "form" as this word should be used in the visual arts. At the time of the Renaissance the great artists in recovering part of the culture of the ancient world naturally adopted the forms of the ancient world, by which I do not mean exact copies of ancient buildings, but copies or variations of the *elements* of ancient buildings—the Classic order, for instance. The spirit originally created the forms, and a similar spirit will create similar forms which, although born under different conditions, obviously belong to the same family as their prototypes.

What will be the proof, then, that we have been able to absorb the spirit of Old Regent Street? Of course, an obvious proof would have been if we had been able to *preserve* it as a living example of a great tradition. But failing this we must revive the *forms* of Old Regent Street. The first sign of grace would obviously be the erection of a *stucco* street. This would be a sign of grace, because it would be apparent that we had put aside the false dogmas which were the precise cause of the act of vandalism we now have reason to condemn. It would be a sign of grace because it would show that commercial architecture will have definitely set aside the ambition to play too ponderous a part in the architectural world. In London and other smoky cities, lightness and grace would begin to return. Such a treatment would be the salvation of towns like Manchester and Birmingham.

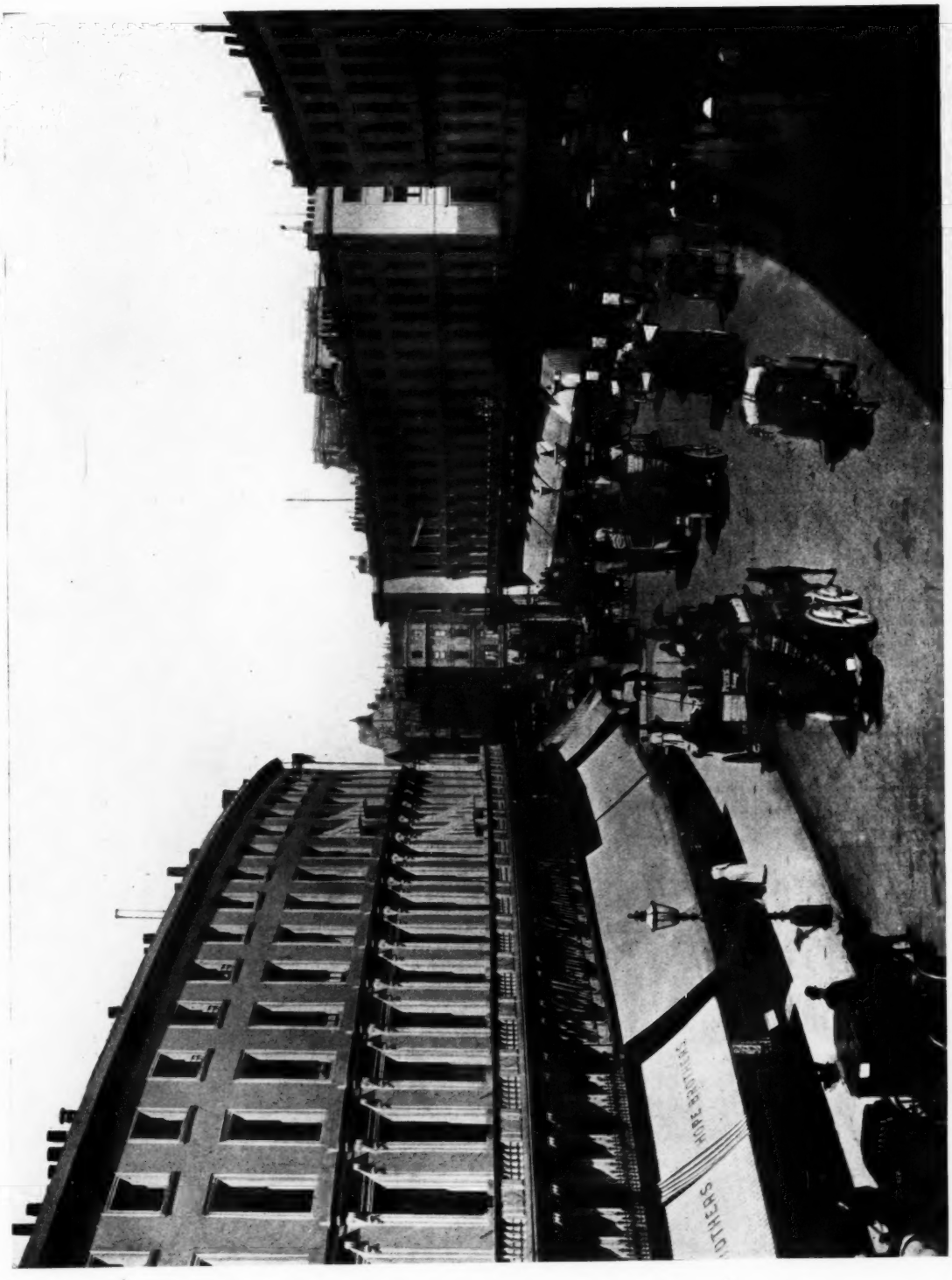
Next we may try to recapture the charm of Old Regent Street by designing façades (it does not matter in the least whether these façades are somewhat taller than their prototypes or set in a very different environment) where the qualities of scale—the just relation of the ground floor story to the human figure, the just relation of the wall surface to aperture and the just relation of shops to public buildings, which latter is an affair of civic conscience,—were fully maintained. The shopkeepers would then be encouraged to recognize that their common prosperity is best served by designing an attractive *street* rather than a miscellany of competing units. Within the limits of the polite formal code exemplified in Old Regent Street an infinite number of variations in street architecture are possible. This urbane tradition can quite well be recreated, and especially if we take pains to preserve those examples of it which, even after Regent Street is gone, will still remain to us. In the Strand, for instance, there is a stretch of stucco architecture including the beautiful Morley's Hotel in Trafalgar Square and Barclays Bank, also a charming composition. In many other parts of London (and in provincial towns as well) there are good examples of the delicate Regency style. All "sham classic" of course, and scarcely worthy of attention! Alas, the stucco is so vulnerable. Often I lie awake at night and imagine I can hear a disturbing, grating sound, which bodes ill for the future of civic architecture, and besides the unpleasant ominous sound I imagine that I can see an unpleasant sight of ugly little teeth, crooked, self-righteous little teeth—*the Ruskinian rats are nibbling*. They have had a good long run.

If London had been subject to a foreign conquest preceded by bombardment it is difficult to conceive that the architectural products expressive of the highest genius of the English people could have fared so ill as they have done at the hands of our own native vandals, our most literary and artistic vandals, who have shown themselves to be in several important respects culturally *beneath* the commonalty they profess to instruct. Have any of our wonderful, eclectic painters deigned to give us even one passable picture of Old Regent Street? Preferring the sunny South they have wandered in the streets of Florence and Verona to find themes worthy of their skill. But it need not be seriously proposed that men of such gentle nature ought to have taken station with their easels in front of the Quadrant. The flower-girls at Piccadilly Circus might have laughed at them or, worse still, a silver cloud might have appeared in the incontinent English sky and threatened them with a few drops of rain. But perhaps at this very moment some of the hardiest of them are already scurrying home in order to paint Regent Street. They never realized before that there was any money in it. But they will be too late. What they will see will be the new Regent Street, and there will not be a farthing's profit in painting that.

When the last glitter of Nash's Quadrant has faded away, we shall understand the true nature of the influences which have produced a result so shameful and so catastrophic. Some critics may hold that I am here exaggerating the effects of philosophic theories upon events in the architectural world. Yet these effects are far-reaching and profound. A wrong theory propounded with great eloquence and embraced by the leaders of thought at any given period will gradually filter down and corrupt the judgment even of the most uneducated who may be quite ignorant of the source of their opinions. It is these erroneous doctrines with regard to street architecture, or rather the propagation of doctrines actually *ignoring* all the vital considerations of civic art, which have been the real cause of the disaster of Regent Street. That disaster is in its nature quite without parallel and the heart grows sick at the contemplation of it.

We lost Regent Street because certain people did not appreciate it, but its end was also hastened by the fact that those who loved it, while it still stood, regarded it as so natural and perfect that it belonged to the nature of things and they could not believe that it has this element of frailty. And it seemed almost an impertinence to praise it. A work of architecture, however, is not like a great poem which can undergo long periods of neglect and then still quite intact come back to fame. Next time we are fortunate enough to create a supremely beautiful street (and this is one of the highest human achievements), if we would preserve it we must be most lavish in our praise, we must praise it often and praise it well, in picture, in book, and in conversation.

Old Regent Street : The Quadrant



The old-fashioned "knife-board" omnibuses help one to date this view of Regent Street, which shows the Quadrant before the building of the Piccadilly Hotel.

THE RUINS OF REGENT STREET.

(From a pen-and-ink sketch by E. Maxwell Fry.)

The Reconstruction of a Brighton Inn

DENMAN and SON, Architects

THE SIGN OF "THE SHIP."

THE directorate of the Kemp Town Brewery have long shared the general desire that the status of the public-house should be restored to that of the old hostelries, of which there are so many fine examples throughout the country, and an endeavour towards this end has been made in the recent reconstruction of the Ship Inn, Lewes Road, Brighton. The tremendous industrial development of the last century resulted in a jumbled collection of shacks and gin palaces, and even in districts as far removed from the industrial areas as Brighton the same tendency prevailed.

It has been said that there are many similarities between the Elizabethan age and the Victorian. Both were experimental periods; but whilst the buildings of the sixteenth century may, in spite of many beautiful exceptions, be described as "jerry designed," those of the early nineteenth were in addition "jerry built," being mere improvisations to meet the urgent requirements of the day, and resulting in the construction of camps rather than cities.

The sudden expansion of the industrial revolution was too great to permit of any considerations of civic order or good building, and in consequence the worker sought relief from the squalor in the glamour of the brilliant cut-glass windows, and the flaming lights of the public-house bars. These conditions could not but create dissatisfaction, and the national demand for better conditions of work and housing naturally brings with it a similar desire for better means of recreation. To attempt, however, the improvement of the public-house merely by following past traditions without giving adequate consideration to the needs of the present time, would be equally futile. To obtain the best results, therefore, the public-house should be a rendezvous for social intercourse and a place for men to be accompanied by their women folk, with accommodation for catering, such as luncheons, teas, and suppers.

If the plan of the Ship Inn as it originally existed is compared with that showing the recent reconstruction, it will be observed that a public improvement has been gained by the road widening, and the consequent setting back of the front portion of the house. The most important feature of the scheme is the provision of a large room, with separate and independent entrances from the street as well as from the hotel. This room is laid out with tables and chairs, and meals are provided as required. It is conveniently planned both with regard to access from the hotel and the entrances, as well as for service from the kitchen, and for communication with the garden at the

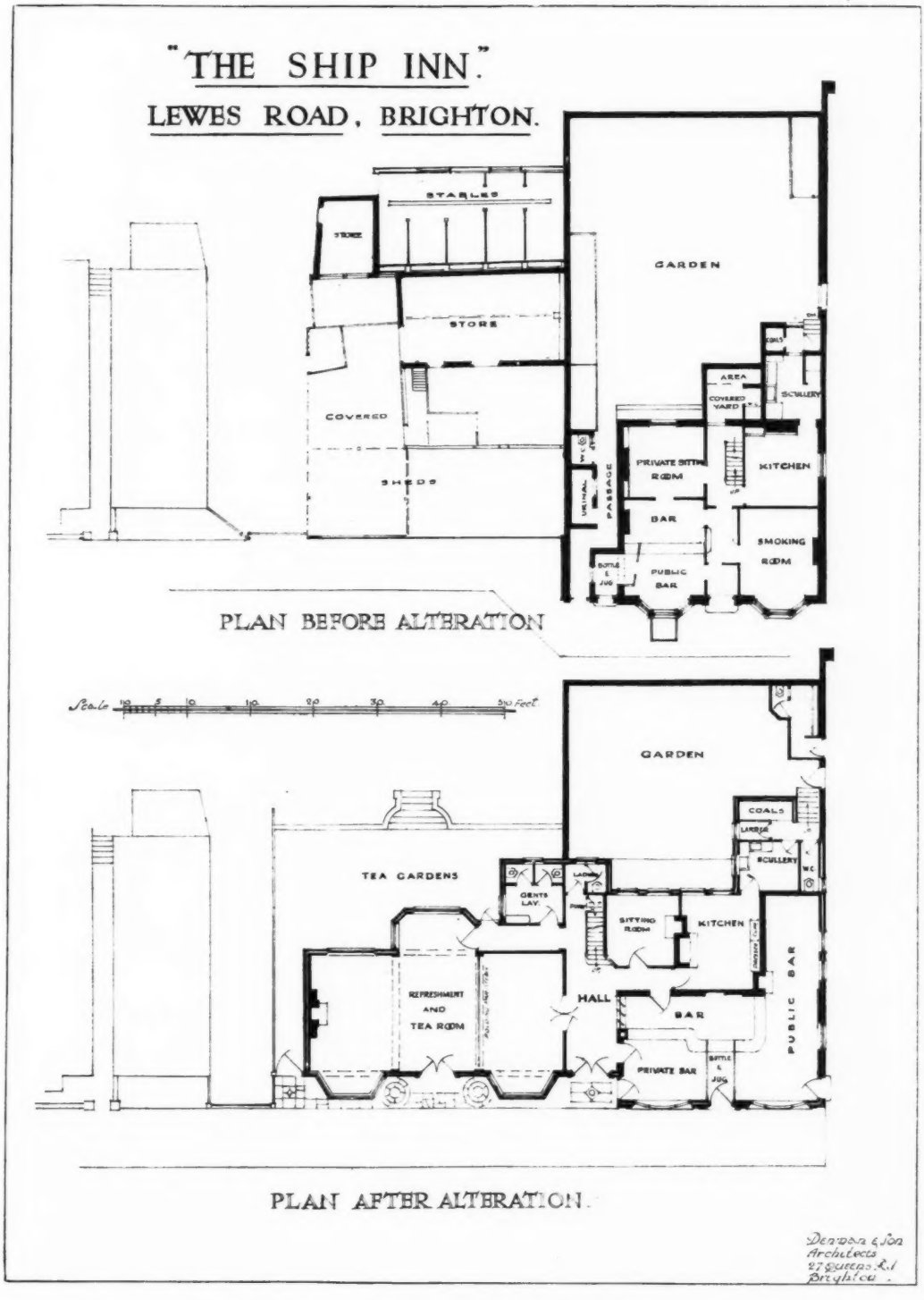
"THE SHIP INN," LEWES ROAD, BRIGHTON

Current Architecture. 223.—"The Ship Inn," Lewes Road, Brighton

223.—"The Ship Inn," Lewes Road, Brighton

Denman and Son, Architects

"The Ship Inn" is a good example of the new movement in public-house design. It consists of two main elements—the public-house proper (on the right) and the refreshment and tea rooms (on the left). The arrangement of the accommodation has been carefully studied to ensure efficient supervision over the whole premises.



"THE SHIP INN," LEWES ROAD, BRIGHTON: PLANS BEFORE AND AFTER ALTERATIONS.
DENMAN AND SON, ARCHITECTS.

rear. It may also be divided by means of a folding screen into two rooms, in which case the general convenience of, and communication with, the rooms are not interfered with. The projecting bay windows on each side afford a sense of spaciousness, and are extremely useful when the room is used for supper or other parties.

No pains have been spared to render the whole premises, and especially the large room, as attractive as possible, and to create a pleasing environment. The name of the hotel happily suggested a motive for the general decoration, which is symbolical of the sea. The walls are covered with mural paintings, which give a restrained but gay effect. Ample ventilation is provided by the clerestory windows, which add a sense of space to the interior, and dignity to this portion of the exterior.

The general arrangement of the large room, entrance hall, bars, ladies' and gentlemen's lavatory accommodation, tenant's sitting room, kitchen, etc., has been carefully studied to provide complete supervision over every part of the premises, and, with the garden at the rear, the house forms a model for efficient working in every detail, combined with comfort for the customers as well as for the tenant. Central heating with radiators has been provided in conjunction with open fires.

The exterior has been treated in a simple but dignified manner. The front has upon it a band of letters, executed in enamelled bronze, and there is a swinging "Ship" sign, executed on circular repoussé bronze plates, enamelled and gilt. Taken all in all, the inn is a very satisfactory solution of the public-house problem.

The general contractors were Messrs. Geo. Lynn and Sons, of Marlbro' Street, Brighton. The mural paintings were executed by Mr. L. Ginnett, and the metal sign and letters were supplied by the Birmingham Guild, Ltd.

DOORWAY BETWEEN REFRESHMENT ROOM AND HALL.

Other sub-contractors were as follows:—Mr. Arserati, Brighton (asphalt); The Zeta Wood Flooring (1910) Company, Ltd., London (flooring); Messrs. J. Smith and Son, Brighton (heating and heating apparatus).

"THE SHIP INN": A VIEW IN THE REFRESHMENT AND TEA ROOM.
DENMAN AND SON, ARCHITECTS.

The Case for the Preservation of Old Buildings

Mr. Basil Oliver at the A.A.

MR. BASIL OLIVER, F.R.I.B.A., delivered an address on "The Case for the Preservation of Old Buildings," at a meeting of the Architectural Association held on Monday of last week. Mr. Gilbert H. Jenkins, F.R.I.B.A., presided in the absence of the president of the Association.

Mr. Oliver said that an architect called in to advise about an old building should approach the problem in an entirely different state of mind from that in which he created designs for new buildings. Self-expression was not wanted in dealing with old buildings. Highbrows did not always make good repairers and, indeed, it sometimes happened that a really good builder, who knew his job and did it without any self-consciousness, did more good for the health of an old building than an architect with an overpowering desire to display his knowledge of styles and dates. It was often obvious what a building used to be like, but under no circumstances was that any justification for embarking on a scheme of completion. A mere fragment of genuine work gave him more pleasure, as being what it purported to be, than a conjectural restoration which was nothing more nor less than a fraudulent misrepresentation. Whoever had the privilege of such work should be conservative, have a flair for history, a love and reverence for old things, but he should beware of too great an antiquarian knowledge. Too knowing and too ardent antiquarians had often been the most mischievous restorers.

MR. BASIL OLIVER
(From a caricature by H. de C.)

Personally he tried to develop two architectural personalities, one for doing modern work in a modern way, and the other for preserving worthy old buildings as they are, and not what we thought they were, or might have been. The use of the word "worthy," of course, raised a question. Sometimes it was easy to answer, just as it was at Croydon last year, when it was a case for preserving the Whitgift Hospital or the "gamboge" public-house opposite. Nor should one's own preferences be considered. Fashions in styles changed. What was considered good to-day might be the reverse to-morrow, and vice versa. For instance, we could tolerate Jacobean work now, but what a number of good Jacobean pulpits and other fittings were swept away and lost for ever during the fanatical period of the Gothic revival! The misguided restorers of those days were goaded to action by the wave of Romanticism which the writings of Sir Walter Scott engendered. Hence the speaker's solemn warning against the misuse of a knowledge of antiquarianism. On the whole, though, he was an optimist about this question. The faithful and continuous work for close on half a century of the Society for the Protection of Ancient Buildings had done more than anything else for the cause of our heritage of old buildings.

Among the lantern slides shown by Mr. Basil Oliver were many views of charming old places, but also some regrettable instances of the vandalism of ignorant restorers. Several houses before and after restoration were screened, some of which showed astonishing attempts at renewing in the old style. Successful examples of repaired buildings were shown, including the restoration to Whitby Abbey. Some views of Tintern Abbey, which, Mr. Oliver remarked, was being preserved in an excellent manner, were also shown.

Mr. Frederick Green, chairman of the Society for the Protection of Ancient Buildings, in proposing a vote of thanks to Mr. Basil Oliver, recalled the foundation of the society by William Morris and some of his friends. What led to the foundation of the society, he said, was the visit of William Morris to a church at Burford in Oxfordshire, where, on entering the church, he was disgusted with some tiles he saw there. Like St. Peter, he began to curse and swear, whereon someone came up to him and reproved him. Morris asked this man who he was, and on his replying that he was the vicar, Morris said: "Well you ought to be ashamed for allowing such a state of things as this to exist." Now things had so changed, remarked the speaker, that vicars of churches often wrote to them and asked them for their advice.

In conclusion he spoke of the difficulty the society was encountering in its efforts to preserve the threatened City churches, and prevent the Bill being brought into Parliament with a view to their demolition. He was glad, however, to say that there had been a conference of various important societies connected with the subject, and that Sir Aston Webb, Sir Reginald Blomfield and others agreed that the City churches must not go.

Mr. A. R. Powys, secretary of the S.P.A.B., in seconding the vote, said that as regards ancient buildings there were as many points of view as there were men in the world almost. He thought the only way to satisfy all needs was to draw an imaginary circle of commonsense and not to let the archæologist, architect or engineer—with their different points of view—outstep this circle.

Mr. A. H. Powell, who followed the last speaker, said he regarded the matter from the point of view of the worker. In the consideration of ancient buildings he was interested in the people who lived in them. It was astonishing to him, he said further, that architects were not put through the workshop as well as through the office.

Mr. A. E. Willets, Mr. H. B. Creswell, Mr. A. H. Moberley, Mr. H. T. Jackson, Mr. W. J. Alborn, and Mr. Gilbert Jenkins took part in the discussion.

Correspondence

The R.I.B.A. Prizes and Studentships

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—I am glad to see that you call attention to the decline of the Soane and other R.I.B.A. competitions for students. At first it was attributed to the war, but your diagnosis really touches the point. The time required for the Soane used to be six to nine months, and in a good many cases the winner had been previously a candidate. Of course, the tail has disappeared (say one-third of the designs), as there was often cause to regret that those entrants had not sought advice before expending so much labour in vain. It was from these, however, that the ultimate winner often emerged. This year's show had very little of the audacity formerly displayed. The exam., not mentioned by you, is, of course, a great hindrance; the testimonies of study, so-called, are a severe handicap and positive incubus to many students.

The R.I.B.A. might accept *well-prepared* students' competition drawings in lieu of these stock sheets. Other remedies in detail should certainly be considered to see if the old position can be retrieved. The preparation of the designs inside the schools would, I fear, destroy the free and open character of the Soane in particular, by which it was distinguished from the R.A. gold medal and other closed entries.

"SOANE MEDALLIST."

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Once more, upon seeing the drawings submitted to the R.I.B.A. for the Soane medallion and other prizes, we experience our annual disappointment, and once more no doubt we shall hear distinguished bleatings on the subject with sorrowful allusions to the *blasé* and lackadaisical post-war student.

May I ask that the Council rather turn the eye inwards and examine the conditions of these competitions, to see if the fault does not lie largely there?

Why is it that the Victory scholarship of the Society of Architects, a prize (I say it with due respect) with less prestige and monetary reward, attracts scores of students all over the country? It is, I submit, because it is well organized on present-day lines.

The present-day student, having experienced the advantage of what I may call the "esquisse" and the "rendu" system of elimination, cares not to submit an enormous amount of work to a single hazard, though that method may have worked fifty years ago. So he abstains from entering for the prizes at all.

It is, of course, almost impossible, by their nature, to apply this system to the Pugin and the Owen Jones prizes, but a little more energy on the part of the Council could surely make them more widely competed for.

I must apologize for taking so much space, but am sure that a discussion of this in your columns would be useful.

E. NORBURN.

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—With reference to the suggestion in your last issue that the R.I.B.A. competitions should be embodied in the curricula of the schools of architecture, may I point out that such a course would indicate that the authorities no longer recognized the existence of the pupilage system of architectural training; for the unfortunate pupil, working in his spare time, would stand but little chance in competition with the "recognized" student whose whole time could be devoted to the work.

Whether such a course is desirable is not a matter for discussion here, but as the suggestion comes from your JOURNAL, one is led to suppose that it carries some weight of professional opinion. If, indeed, the pupil is to be cast aside, it would be surely more reasonable straightway to forbid his existence than surreptitiously to exclude him from those fields of activity in which he can compete with his more fortunate fellows on equal terms.

"PUPIL."

Bush House

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—It is somewhat refreshing to observe that the extravagant praise lavished on Bush House is at last counterbalanced by the frank criticism of an American architect, Mr. Irving K. Pond, as reported in your issue for January 16.

I am sure that his criticisms are correct. The huge barren elevations are only relieved by mouldings of such slight projection that they are of no value at all, and the monotonous rows of perfectly plain windows give the building the appearance of penitentiary rather than a block of commercial offices. In my humble opinion the whole composition is possibly the ugliest addition to London's new buildings during the last ten years.

H. GILBERT.

The Planning of Furniture in Living Rooms

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—One is led to assume that in the house described by Mr. Burnett in your issue for January 30, the only person of intelligence is the maid. At all events, not a bookshelf is provided in any of the rooms which he mentions, and in a small house it is rarely possible to spare a room for a library. Actually by far the most difficult problem in furnishing a small house is the provision of book space. And about this there is not a word beyond the useful statement that "perhaps a bookcase" may be provided in the dining-room.

I do not know upon what authority the sweeping assertion is made that "a man requires a dressing-table, cupboard, and chest of drawers." Most men surely require a wardrobe with sliding shelves. I don't know how else a man with any respect for his appearance can be expected to keep his suits; and presumably the "fashionable" lady will require a well-dressed husband.

"AJAX."

Sash or Casement

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—If the last paragraph of Mr. Cross's letter in your issue for January 23 means that an architect's predilections should not be unduly influenced by archæological considerations, I am entirely in agreement with him.

Surely the time is past when such questions as that of "Sash or Casement" are to be decided merely on æsthetic grounds. Should not both efficiency and cost be primary considerations? I believe that any article which is completely suitable for the purpose for which it is intended will, if properly used, look right.

If the question must be looked at historically, I think it will be found that the original "English" metal casement was superseded by the sliding sash (chassis = frame, indicating a French origin) simply because the former type of window as then made was unsatisfactory, and not suitable for the large openings introduced with Renaissance buildings. Consequently the sash window, produced from materials then available, was then evolved. The fact that at that time sheet glass was available in larger sizes than were hitherto obtainable, also had its effect.

But is there any necessity for the architecture of to-day to be hampered by the limitations of two hundred years

ago? Metal windows of any size, fulfilling every modern requirement, can now be made, obviating all the admitted disadvantages of wooden sliding sashes at considerably less cost. Until such time as a more ideal form combining light and ventilation is invented (possibly on lines at present unthought of), I cannot see any real justification for retaining antiquated forms and materials in the architectural development of the twentieth century.

W. F. CRITTALL.

The Fine Arts Commission

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—As an organizing Council which aims at confederating the association and societies of workers in the Arts, we note the official setting up of a Fine Arts Commission, to advise the Government and other public bodies and to "form the taste of the nation."

While agreeing that such a Commission may do valuable work, we believe that as various bodies representing the different points of view of workers in the Arts in this country are in existence, such bodies—through their accredited representatives—should be brought into consultation and facilities should be afforded for a more representative Commission.

We would point out that many Arts are untouched by the present proposals, such as the art of the theatre, which so largely influences public taste; the industrial arts which go to every home and without which advice cannot be adequately given regarding interior decoration of public buildings; and arts in their educational aspect, as from schools and colleges, which all have a most obvious influence on national tastes.

C. F. SEDGWICK, J.P. (PROFESSOR).
Hon. Sec., British Confederation of Arts, on behalf of the Organizing Council.

Jerry Building in the Past

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—In your issue for January 30, a note relating to the recent repairs at Lincoln Cathedral states that a large portion of the walls are hollow or are filled with rubble, which is now little better than dust. A similar condition of affairs was discovered to be the immediate cause of the collapse of one of the nave piers at Seville Cathedral many years ago.

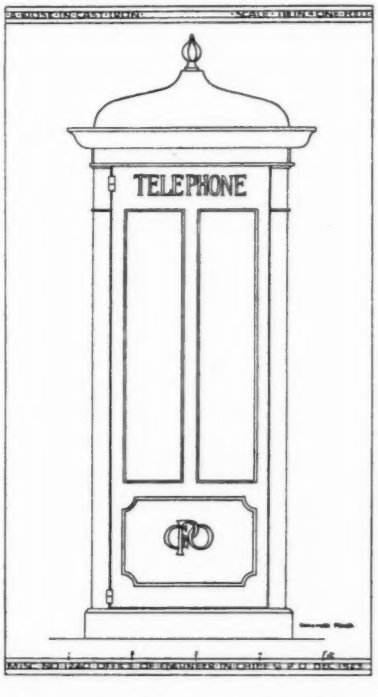
It is so frequently asserted that the present age is one of jerry building and scamped work, that the above mentioned instances of dishonest construction should not be overlooked.

F.R.I.B.A.

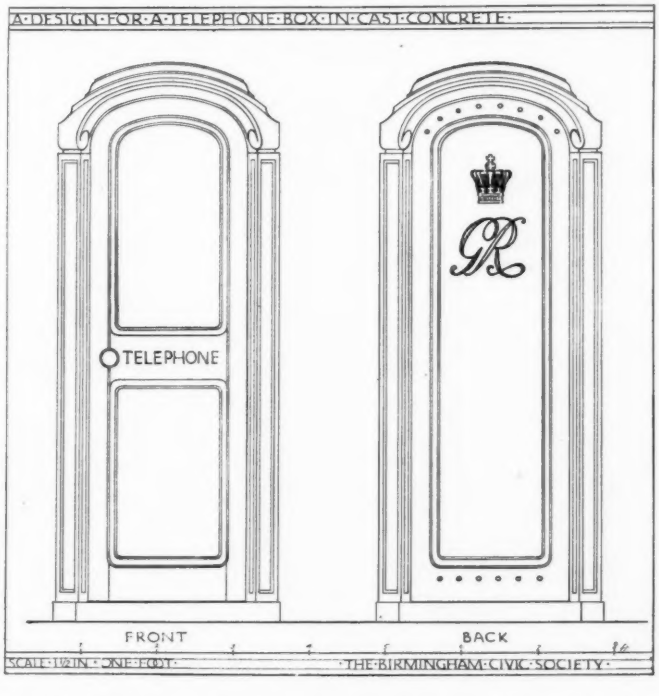
The Telephone Box Beautified

Some months ago the Birmingham Civic Society prepared a design model and estimates for what they believed to be an improvement on the telephone boxes now in use, and submitted these personally to the G.P.O. They have now been considered, together with many other designs, by a special committee, and we are informed that the design chosen is that illustrated on the left, whilst that of the Birmingham Civic Society (which was rejected) is also illustrated. The erection of a telephone box to the design chosen would cost £35; whilst that of the Birmingham Civic Society is estimated to cost only £23. The Society suggested that it might be constructed of cast concrete. The design officially chosen will be of cast iron, and was prepared in the office of the Engineer-in-Chief, G.P.O. Certainly, the lettering upon it is bolder; and, being placed higher, more likely to catch the eye of anyone looking for a telephone on a crowded railway station, but when that has been said for it, all has been said.

Apart from the saving of money—a saving of many thousands of pounds—no one with any knowledge of design could feel anything but indignation with the pattern that seems to satisfy the official mind.



THE DESIGN OFFICIALLY SELECTED.



THE DESIGN SUBMITTED BY THE BIRMINGHAM CIVIC SOCIETY.

The Raffles College Competition, Singapore

A Criticism of the Designs

THE aim of all architectural competitions is to secure the best possible designs. The awards should be attractive, the judging competent and fair. On these terms alone will the best talent compete with confidence. It may seem unnecessary to repeat the obvious, but as some recent competitions have shown a disregard of these elementary rules, it is not inopportune to restate them in connection with the designs submitted in the Raffles College competition. Here is an example to be followed. The substance and quality of the job, the rewards earmarked for the successful designs, made the competition one of uncommon importance, and we are glad to say that the assessor did assess justly. There can be no doubt as to this last point. The best design won, and we offer our congratulations to the assessor and winners on their respective judgments.

It is odd to reflect that no more trained competitors took their chance. There was room for it. With three or four exceptions, the designs submitted cannot be said to do justice to the power of design of British architects. The majority of the competitors failed to realize the importance of approaching in the proper light a site made difficult by many ground accidences, and also failed in the no less important question of architectural treatment.

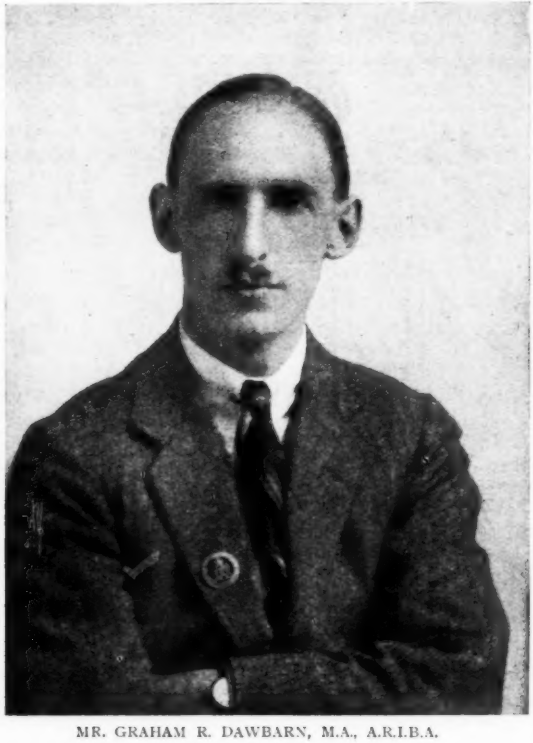
The site involved may be said to include a hilly kernel, with waves of ground lapping lower and lower round it. The problem of plan-distribution, in a country known for its scorching sun, had, therefore, a good deal to do with orientation, classes, and especially the living quarters for students and professors alike would have to be protected. A north, or N.E., or N.W. aspect was called for. Equally desirable was a high position. It might not be amiss to put the natives' quarters in indifferent ground; it would be fatal to do so with the European population. There is evidence that the premiated designs got well over that hurdle. Where most of them stumbled is in the architectural excellence of their scheme.

The winners face N.E., and place their administrative and technical block astride the spur of the hill, with the student hostel wings folded back and at right angles to them, the whole of that part making a spacious quadrangle. With such a *parti-pris*, the higher ground is at once available for living quarters (the staff buildings girdling the roadway not far off), and the very waywardness of the site is made to emphasize the central block which rises above all others from their emplacement. This solution is architectural and economical. Architectural, because a central motif is automatically found—and such a motif would have to be the administration and technical colleges—economical, because no unnecessary and costly foundations or understructures are needed to raise whichever part is deemed most important.

It is true that some elevations submitted are more elaborate than the winners; none, to our mind, is quite so effective. They combine dignity and simplicity; they also convey the impression of a college rather than of a university (No. 21), or, as indeed is the case with not a few, of some isolation hospital.

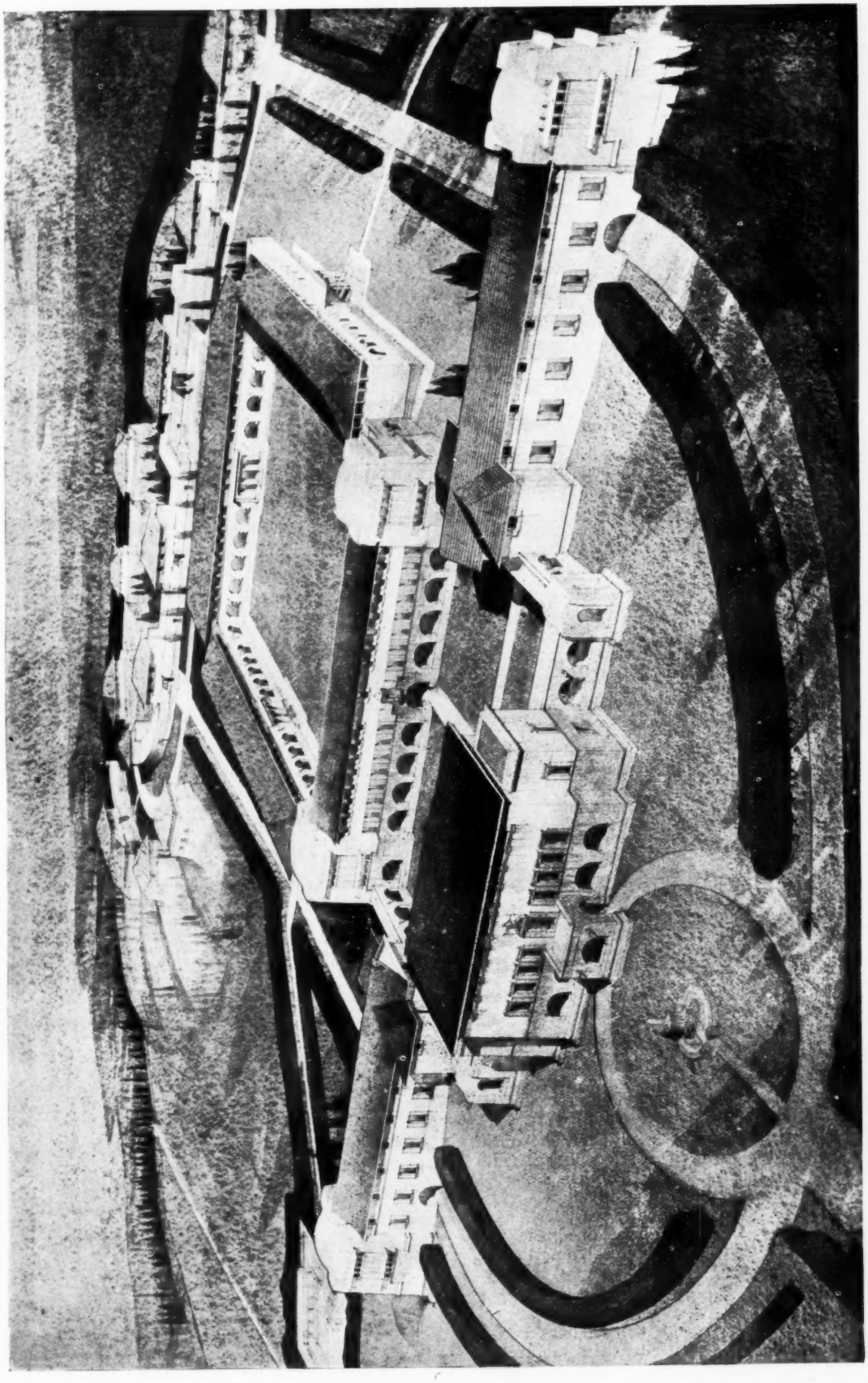
This scheme is, we said, spacious without being grandiose; it is well planned, and it has rather admirable architectural qualities. The assessor must have come to his decision without much loss of time. The second prize is equally divided between Nos. 16 and 21. No. 16 chose to give a wide berth to the highest ground. His buildings are fan-spread on two sides, and good orientation is obtained. This radiation of the main blocks is an excellent idea, and affords, beside good communication, facilities for effective grouping. The detailed planning is able, but we feel that the eleva-

MR. CYRIL A. FAREY, A.R.I.B.A.



MR. GRAHAM R. DAWBARN, M.A., A.R.I.B.A.

THE WINNERS OF THE RAFFLES COLLEGE COMPETITION.



THE RAFFLES COLLEGE, SINGAPORE, COMPETITION: A BIRD'S-EYE VIEW OF THE WINNING DESIGN
CYRIL A. FAREY, A.R.I.B.A., AND GRAHAM R. DAWBARN, M.A., A.R.I.B.A., ARCHITECTS.

tions, good as they are, would have been better still with a little more study. Still, they embody possibilities. Perhaps the administrative block, with its central, formal tower, flavours rather much of London. The drawings submitted are so complete in themselves that the model included is of dubious value. Surely an assessor worth his salt is in no need of it to visualize the vagaries of even admittedly capricious contours.

No. 21 has, in the main, an efficient lay-out, but it would have been improved by being held more tightly. The buildings sprawl about the ground and make it very difficult to control the design in an architectural manner. The principal's quarters, etc., are placed too low on the E. side of the site. Even a principal would prefer the freshness of whatever breezes are to be found on the hill to the miasmatic dampness of that low-lying part of the estate. The elevations are most interesting and speak of a mind fond of powerful and subtle outline and details. If they sin, it is in their craving to over-indianize Indian architecture. But they are nevertheless made of good stuff.

An honourable mention was bestowed on a scheme so eager, so abundant, so painstaking, and so improbable that the assessor felt there was no alternative but to give it an hon. mention. Its author, by the way, reverted to the ugly and bad old habit of using an incredibly thick line all round his buildings. Had they possessed any qualities of outline, these would surely have been swamped out.

The rest are, on a whole, disappointing. There is much industry and still more groping in the dark by competitors who never had a thin chance. Some of these designs, if carried out, would entail heavy expenditure for levelling (especially No. 10,310). Others look like tentative settlements; not a few, so lacking are they in a sense of cohesion and architectural grouping, give the impression that their buildings had been furtively dropped on the ground and told to look like isolation wards. Again, a small but fierce minority fairly took things into their own hands. No. 10,441, for instance, has prodigious approaches, and not satisfied with providing what was asked for, added two whole and distinct churches! Another settled down to a jig-saw puzzle and scattered all his buildings pell-mell, each one with its own curved roadway, a truly amazing effort.

The quality of draughtsmanship shown varies a great deal. Most of it is on the poor side. The winners and No. 21 have excellent drawings, the winners especially. No. 18 also has an engaged perspective in brown pencil. His elevational treatment is pleasant, but the planning has the serious defect that the students' hostels are planted on lowish ground facing east and west. He is by no means alone in that respect.

It is certainly singular that no more competitors took part. If practising architects are too busy, are not our architectural schools bursting with eager and talented hopes? They should keep their eyes open, compete and strive to win their spurs in such good company as the premiated competitors prove to be.

G. H.

The winners, in their report, state that the main college buildings face north-east. This choice is governed by the following considerations:—

(*a*) As the sun passes almost directly overhead from east to west, it is very undesirable that any building should face either due east or due west. On the other hand, the atmosphere of Singapore is so humid that it is highly desirable that direct sun should be able to enter every room for a short time every day. That this may be attained, and that the rooms may at the same time be kept cool, a north-east aspect is considered ideal.

(*b*) A spur runs from the hill summit in a north-east direction. An economic, and at the same time, symmetrical lay-out has been obtained by placing the buildings astride this spur, the axis of the spur being taken as the axis of the scheme.

(*c*) The Bukit Timah Road is the most important boundary. By choosing a north-east aspect a comprehensive and effective view of the scheme is obtained from this road.

The houses for the European staff, and the three hostels, occupy the summit of the hill. The main college buildings are 13 ft. lower. All the principal buildings are thus on high ground. Great care has been taken to minimize "cut and fill." The administrative block is placed on the main axis, and is in direct communication with the main college buildings. Cars and pedestrians have direct access to this block from the main approach without having first to enter the quadrangles.

Although the lay-out has been conceived on the assumption that the complete accommodation given will be required, care has at the same time been given to so dispose the blocks, which are to be erected immediately, that as they are completed they will group together and will be in due relation to each other. The main college blocks have been planned so that they can, if necessary, be extended at some future date. These possible extensions are suggested on the lay-out plan by dotted lines.

An area for playing fields is reserved axially beneath the sports pavilion, whence a comprehensive view could be obtained. Each hostel looks over its own garden and has direct access thereto.

The main approach is from the Bukit Timah Road and ascends gradually to the administrative block. On either side, two quadrant carriage-drives proceed under the arts and engineering blocks and ascend past the hostel blocks to the road containing the staff quarters. The college quadrangle is intersected by two paths connecting the main entrances to the different blocks, and the hostel quadrangle has a continuous path surrounding an uninterrupted lawn.

Complete circulation is provided in the various buildings by verandas containing large openings to the air. The various blocks are all connected to each other by similar covered ways. Attention has been given to adequate privacy. Rattan half-swing doors would be provided when desirable.

The science block is grouped with the other buildings included in the first building operation. These buildings are aligned on a common axis and form a complete scheme on their own. On the ground floor are placed all senior rooms, while all junior lecture rooms and laboratories are on the floor above. The professors' retiring rooms and large preparation rooms are placed adjacent to the senior lecture rooms. The large junior lecture rooms have only small preparation rooms. The senior laboratories have a separate balance room. The large lecture rooms are ventilated by windows high up on three sides. Each window is fitted with a small jalousie which normally folds back on to the inner reveal. The jalousies to one set of windows are all fixed on one rachet so that they can be closed together from the ground. The whole block has been designed with a view to the special climatic conditions at Singapore, and in every case the areas of the rooms per person are more than those laid down by the Board of Education for secondary schools in England.

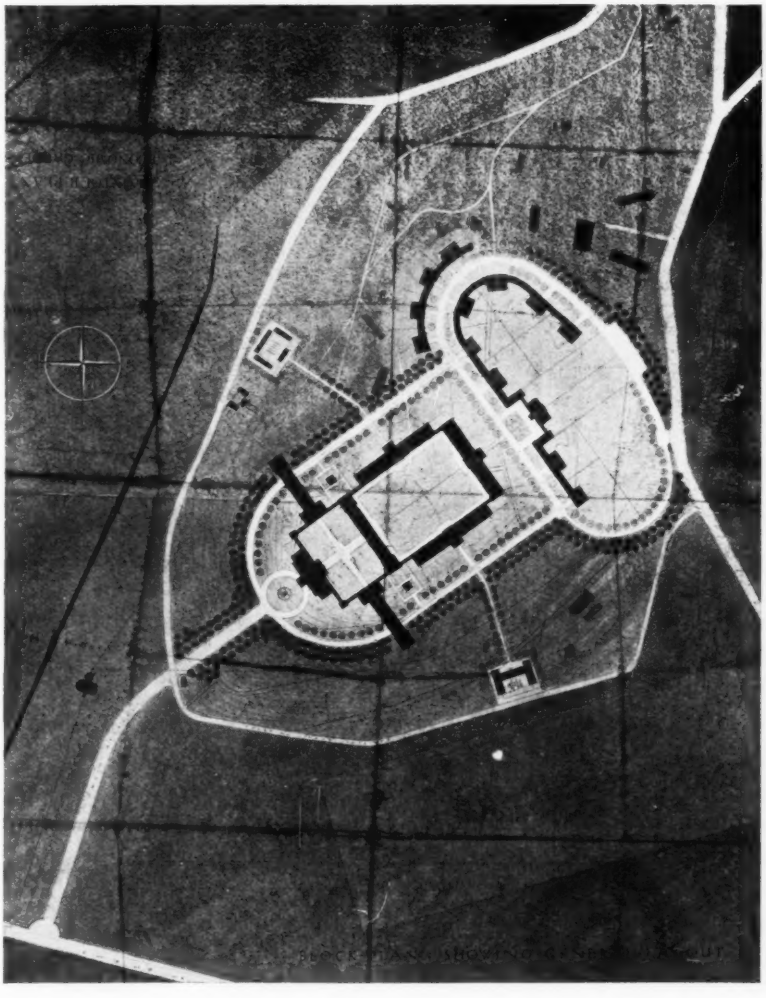
All three hostels give precisely the same accommodation for students' quarters, all rooms being protected by ample verandas. Only low buildings are placed in the four corners of the hostel quadrangle, thus allowing all winds to enter the quadrangle. Each student has a cubicle opening on to a veranda. Rattan swing half-doors are fitted allowing continuous ventilation whilst ensuring adequate privacy. The pitched roof runs out over the verandas, and is ventilated at ridge and eaves.

The five houses for staff quarters included in the first operation are grouped together as one unit. In accordance with the growing custom in the Far East, the kitchen is placed in each instance in the house, and a separate small cookhouse placed amongst the coolie quarters. This means that the servants do not cook or eat their own food in the European kitchen, and that this kitchen is readily

supervised from the house. The coolie quarters, while conveniently adjacent to the house, are completely screened from house and garden. On the ground floor ample verandas are placed on all sides except N.E. The first floor is protected by broad 4 ft. eaves. A feature of these plans, as of all the other blocks, is the cross ventilation. The entrance to the principal's house is protected by a porte cochère, while wide hoods protect the entrances to the other houses. All sitting-rooms look across verandas on to falling ground.

In the provision for future building operations in respect of the administrative block, the porte cochère gives access to the waiting-hall, whence there is access to the principal lecture rooms. The jalousies for these openings would be operated from the upper gallery. The ceiling is also ventilated into the roof, which has a ventilating flèche and also air spaces at the eaves.

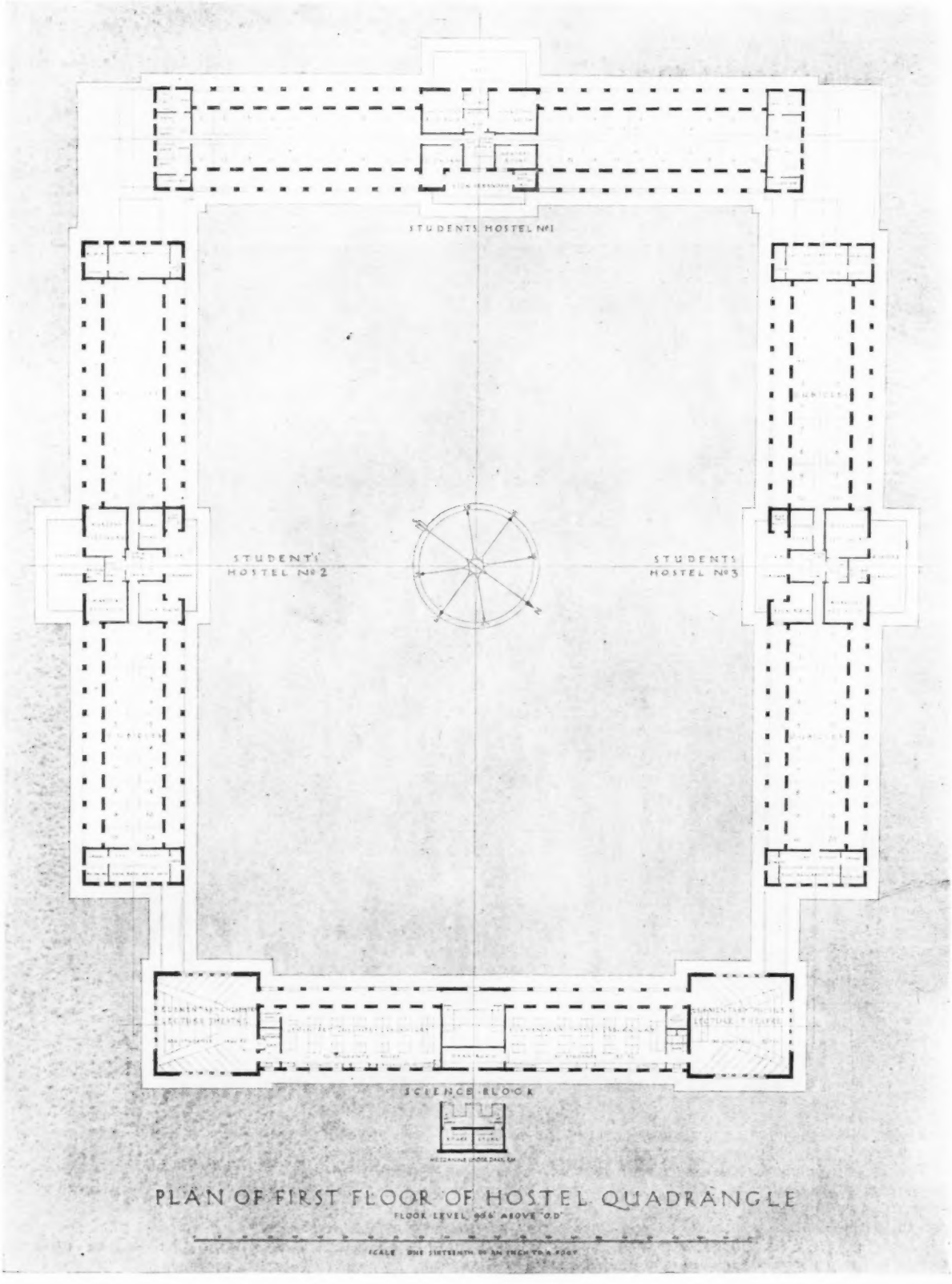
The design for the arts block is only tentative, and has not been fully worked out. Ordinary art school accommodation is given with big lecture rooms at the end. As the first-floor lecture room slopes up, and the ground-floor lecture room slopes down from the entrance, both lecture rooms have a maximum height of about 22 ft. The fall of the ground is utilized to provide amply ventilated handicraft room, etc., under the lecture rooms. The road also passes under this building so that the waste of space



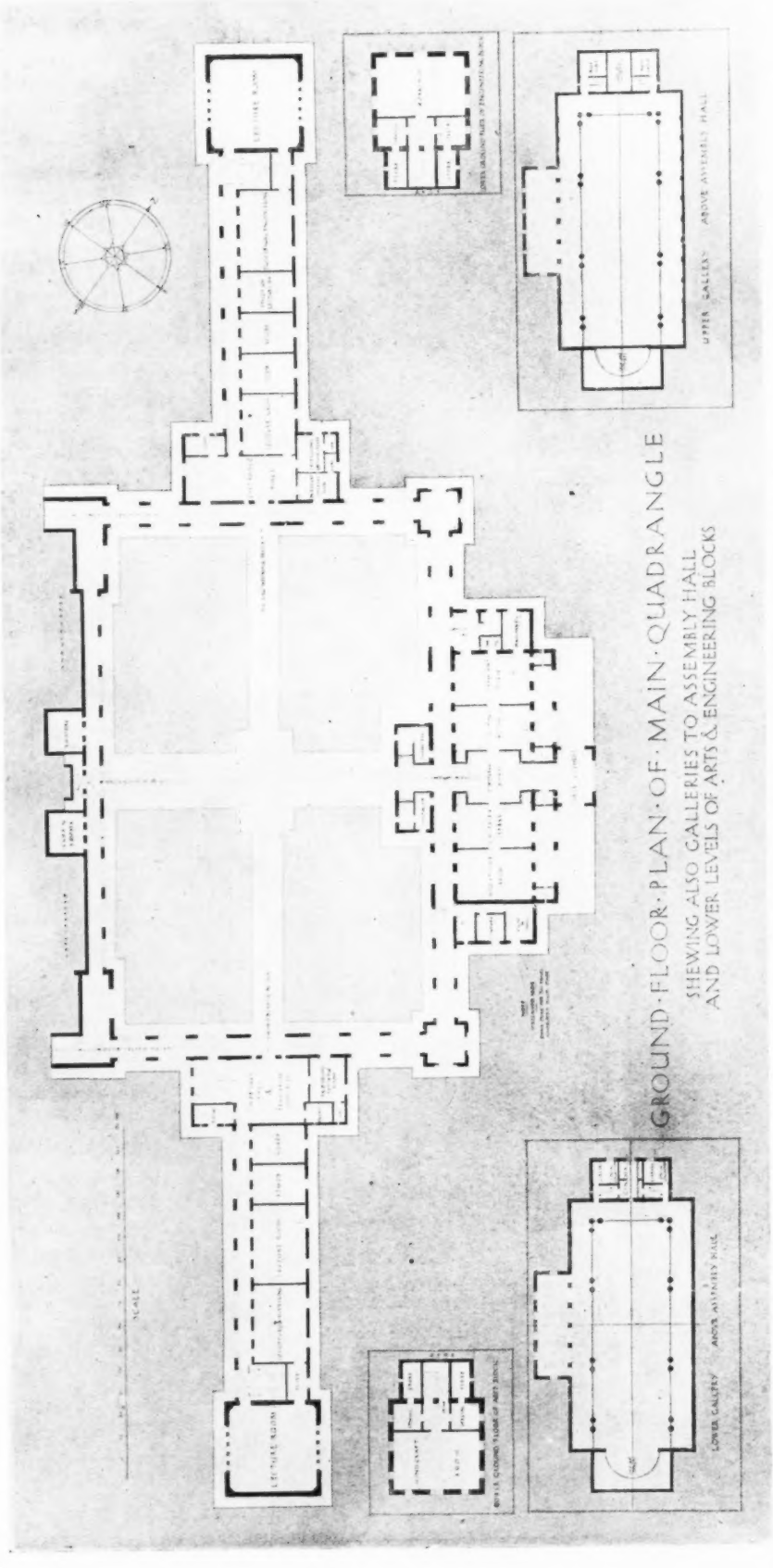
THE RAFFLES COLLEGE, SINGAPORE, COMPETITION: LAY-OUT OF WINNING DESIGN.
CYRIL A. FAREY, A.R.I.B.A., AND GRAHAM R. DAWBARN, M.A., A.R.I.B.A., ARCHITECTS.

and the registrar, to the main quadrangle, and to the great stair leading to the hall above. On the right is the librarian's wing, and on the left the stage with retiring rooms, also caretakers' rooms, and chair store for 500 chairs. The chairs can be pushed under the stage direct to the store from the hall. The library is combined with the great hall, the books being housed on three levels. In the galleries tables are provided where the students can work direct from books of reference. Additional rooms are provided for manuscripts and special collections, all accessible from the library stairs in the right wing. The main floor in the hall is cross-lighted and ventilated by large windows. In addition clerestory windows are provided all round on the same principle as those in the large due to contours is very small. North-east lighting with cross ventilation is once more employed.

The engineering block is also very tentative and no comments are necessary at this stage. The sports pavilion is on slightly rising ground overlooking the whole of the playing fields. A covered stand is proposed with lounge, bar, and changing rooms with shower baths, etc. Quarters for twenty general servants are shown in the form of a court, three sides of which are formed by rooms of about 90 ft. sq. each, and the fourth by baths and latrine block. The four blocks are connected by simple reinforced concrete covered ways. A similar plan is adopted in quarters for six gardeners. Latrine blocks are placed (see lay-out plan) on either side of the science block. These are thus



THE RAFFLES COLLEGE, SINGAPORE, COMPETITION: WINNING DESIGN.
CYRIL A. FAREY, A.R.I.B.A., AND GRAHAM R. DAWBARN, M.A., A.R.I.B.A., ARCHITECTS.



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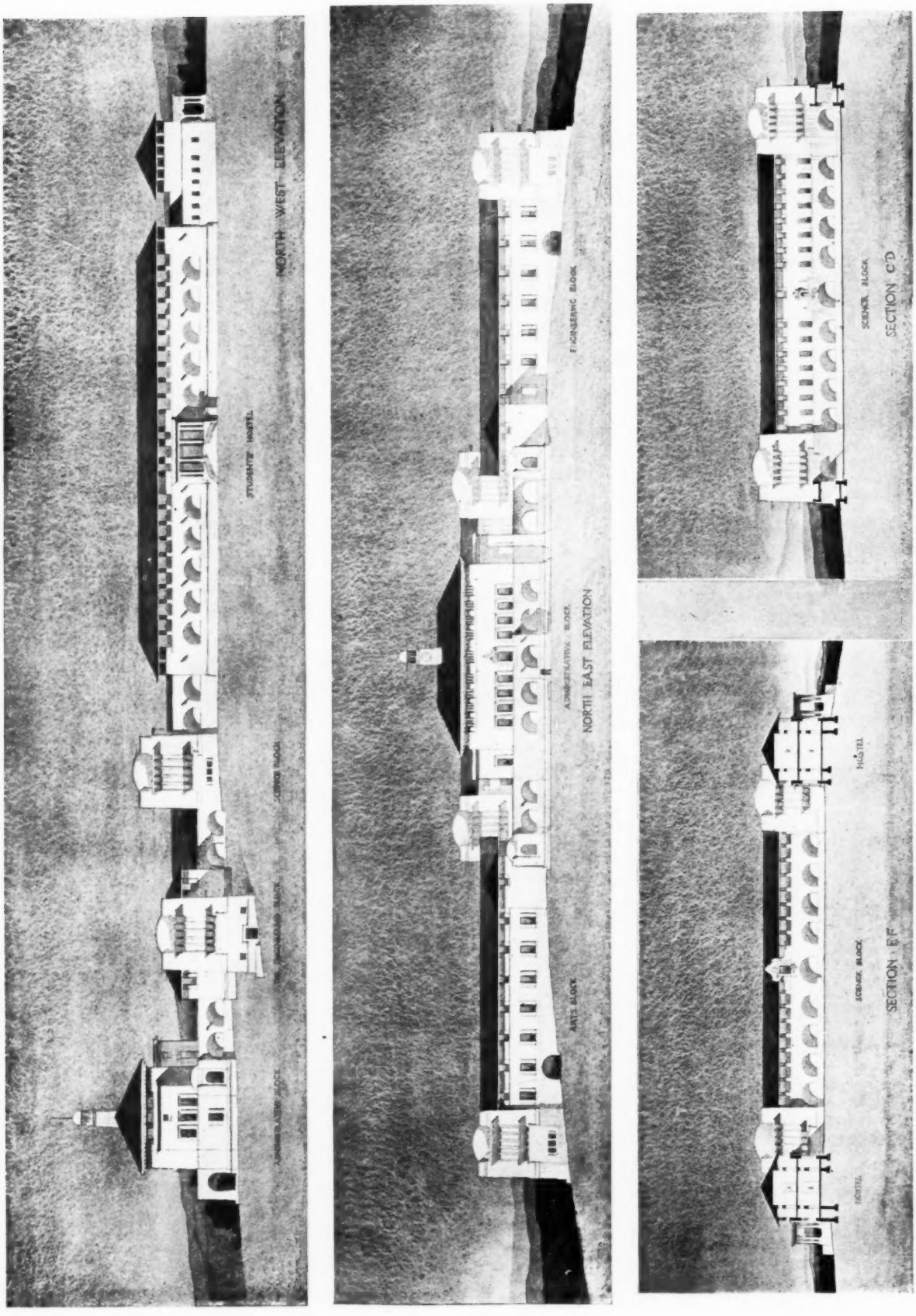

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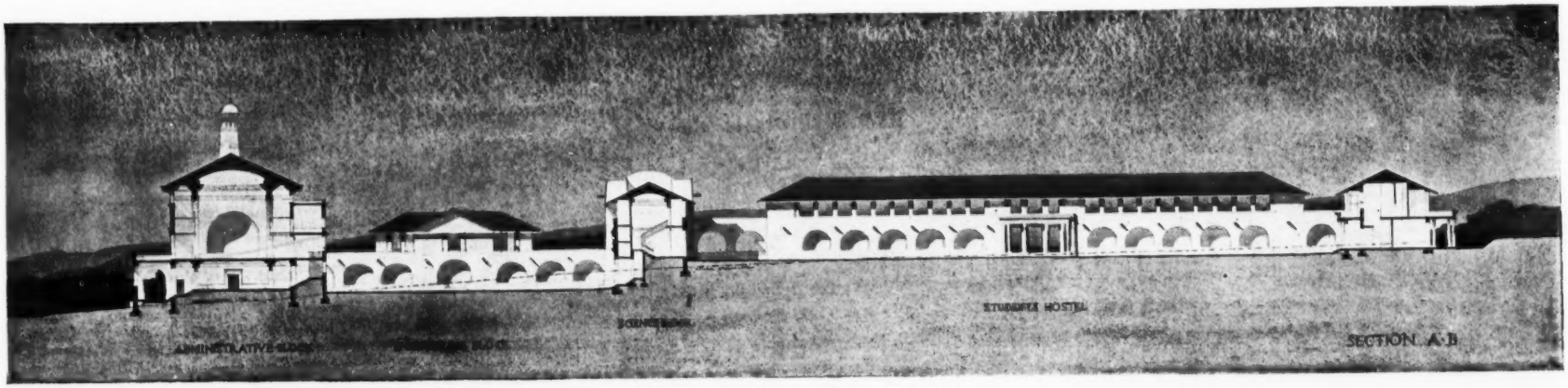
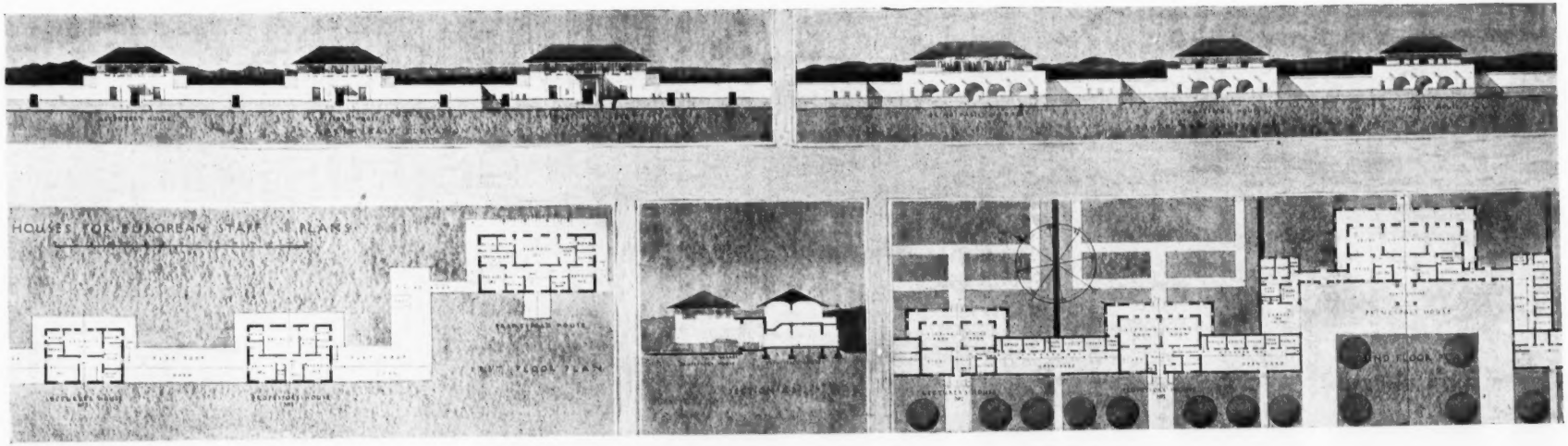




THE RAFFLES COLLEGE, SINGAPORE, COMPETITION: WINNING DESIGN.
CYRIL A. FAREY, A.R.I.B.A., AND GRAHAM R. DAWBARN, M.A., A.R.I.B.A., ARCHITECTS.

centrally placed without being obtrusive. Additional staff quarters are all placed on high ground and are similar in type to those previously dealt with. The planning would be slightly modified to suit the varying orientation.

The architectural style adopted is of collegiate character, and it has been thought desirable to group the main buildings around two quadrangles in order to give the collegiate character of the older universities. The upper one—the hostel quadrangle—consists of unbroken lawns levelled for tennis or other games. All round this quadrangle is a cloister linking up the various entrances and staircases, and there is a similar cloister to the lower quadrangle which unites the administrative block and educational buildings. As a contrast to the quiet seclusion of the upper quadrangle the lower quadrangle is intersected with paths on the main axes.

In view of the high temperature prevailing at all seasons the extensive use of verandas has been employed. On the ground floors this takes the form of wide arches to admit copious draughts of air, and on the first floors there is an open pier treatment. Owing to the torrential rains, low-pitched roofs are generally employed in preference to flat, and wide eaves throw the water clear of the walls on to slightly falling concrete platforms below, whence the water runs away clear of the foundations.

An attempt has been made to differentiate the various blocks according to the functions of each, without sacrificing the harmony of the whole. A strong domestic character is given to the hostel blocks and the houses of the principal, professors, and lecturers; while an academic character is attempted in the case of the administrative, science, arts, and engineering blocks.

Considerations of economy have had a considerable effect on the design and have dictated a style of simplicity, both in plan and elevation. Ornament has been avoided and an attempt has been made to obtain architectural effect by a proper inter-relation of the main features of the composition. Emphasis has been reserved for the principal entrances to each of the various blocks, situated as they are on the main axes.

Owing to the steep gradients on the site, great care has been given to obtain a proper balance and orderly effect, and to avoid as far as possible a disjointed composition by the various blocks appearing to slip down hill. This has been achieved by placing the higher blocks at rather a lower level than the low blocks, thus levelling up the group with strong horizontal lines.

The Winners

Mr. Cyril Arthur Farey, A.R.I.B.A., was born in 1888, and educated at Tonbridge School, the Architectural Association Schools, and the Royal Academy School. He was articled to Mr. Horace Field, F.R.I.B.A., and was afterwards assistant to Mr. Ernest Newton, R.A. His executed work includes ten houses at Hampstead, and several for the working classes at Bristol. During the war he served over four years in the army, and was demobilized in 1919 with rank of Captain. In 1909 he secured the travelling studentship at the A.A. Schools (fourth year); in 1911 the Royal Academy Schools bronze medal; in 1913 the Tite prize; in 1914 the Soane medallion; and in 1921 the Royal Academy Schools gold medal and Edward Stott travelling studentship. In 1910 he received hon. mention in the R.I.B.A. measured drawings competition for his Hotel Carnavalet. He has also secured the following successes in other competitions:—

In conjunction with Mr. Horace Field, F.R.I.B.A.—1911, Trevor Estate, Knightsbridge (first premium); 1912, "Country Life" Cottage (second premium); 1913, "Country Life" House (second premium); 1916, Civic Arts War memorial (first premium); 1919, Bristol housing, premiated and appointed one of the architects to design and carry out the scheme.

In conjunction with Messrs. C. Evelyn Simmons and Trystan Edwards.—1920, Leeds departmental store (second premium).

In conjunction with Mr. Graham R. Dawbarn.—1923, Hampstead flats competition (third premium); 1923, Holy Trinity Church Hall, Hounslow (first place); 1924, Raffles College, Singapore (first premium).

Mr. Graham Richards Dawbarn, M.A.Cantab., A.R.I.B.A., was born on August 8, 1893, and is the younger son of the late R. A. Dawbarn, M.Inst.C.E., M.I.E.E., Consulting Engineer. He was educated at King's School, Canterbury, 1907–1912, and at Corpus Christi College, Cambridge, 1912–14 and 1919–20, where he obtained second-class honours Mathematical Tripos, Part I, and first-class Architectural Studies, Part I. During the war he served in the Royal Fusiliers and Royal Flying Corps. From 1920 to 1921 he worked under Mr. Arthur Keen, F.R.I.B.A. From 1921 to 1923 he was architect in the Public Works Department at Hong Kong, where he designed a number of public buildings, including a fully-equipped school for 1,000 now in course of erection. He returned to England via America in 1923.

The Future Development of London

Sir Aston Webb, P.R.A., lecturing at the Royal Institution on "The Future Development of London," said that in the London area there were about a hundred authorities more or less independent of each other, serving, if anything, to make confusion worse confounded. The London Society were now engaged on a survey of the existing conditions over certain areas, while the L.C.C. were surveying other portions, and the R.I.B.A. had made very exhaustive plans of a large portion of the metropolitan district. The first and essential requirement was a complete survey of present conditions, showing in various colours public buildings, markets, railway stations, parks, playgrounds, etc. There was good reason to believe that this project would have the active sympathy of the Ministry of Health, which had on its staff a number of expert town planners.

Among the more important provisions of a development scheme was the question of transport. Roads, railways, and canals needed to be connected, the Northern and Southern termini needed to be linked up, and good carriage across London underground should be made possible. Good arterial roads were wanted, both ring and radiating, some 120 ft. and some 150 ft. wide arranged for two rows of fast traffic in the centre with two rows of trees to enclose them and on the outside two roads for slow traffic. The London bridges also required comprehensive consideration and treatment, Waterloo and Charing Cross bridges, for instance, being both insecure and totally inadequate for their work. The congestion of traffic round the docks and Covent Garden was a glaring abuse, and the railway congestion was even greater than the road congestion. It would possibly be necessary to amplify the present system and to carry all railway traffic across London underground.

Sir Aston Webb discussed the means of providing parks, of reserving landing-places for aircraft, of restricting areas for definite classes of buildings, and of moving factories farther out into the country. London, he said, would never be the city it deserved to be until the smoke was got rid of. He disapproved of the suggestion that higher buildings should be erected, and insisted that due importance should be given to the artistic side of any scheme. As to by whom the scheme should be prepared, he thought that possibly the London County Council could obtain statutory powers in one of their omnibus bills to plan a greater London; but there was much preliminary work to be done.

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.

CONCRETE FLOOR TO BATHROOM.

"Housing" writes: "I wish to provide a reinforced concrete floor, 8 ft. by 8 ft., in a bathroom in the upper part of a house. The room has the usual floor boards and joists. Must the joists be removed in order to obtain a concrete floor of the same floor level? Tiles and sheet lead are expensive, and a concrete floor would be more economical and suitable. Could the floor boards be used for centering? and should the boards be relaid?"

—The purpose of the suggested alteration is hardly made sufficiently clear, but it is inferred from the reference to tiles and sheet lead that it is with the object of obtaining an impervious surface not affected by spilt water. For this purpose it would scarcely appear necessary to destroy the present floor construction, but would be sufficient to cover the floor either with rubber flooring or with jointless composition flooring, which can be laid on boarding if ordinary wire netting is first stapled down thereon to preserve the floor material from cracks arising from slight seasonal movements of the timber structure. If for some reason not apparent a concrete floor is necessary it would be a troublesome business to cut down the present joists in position (though possible, of course), and probably better to remove entirely the present floor, using the material for temporary centering after. This is thought to be so chiefly because the concrete floor will require a continuous bearing all round by a chase or corbel from the supporting walls.—E.

A LIGHT ROOF-TRUSS FOR A HALL.

"B" writes: "In your issue for December 27, 1922, you published examples of light, inexpensive roof trusses. I now have a hall which I wish to roof over in this manner. It is 24 ft. 6 in. wide, with sandwich trusses of 5 in. by 1¼ in. scantlings at about 10 ft. centres, and an intermediate truss in each bay of ⅔ in. by 1¼ in., sandwiched with one 5 in. by 1¼ in. collar only. The hall is 60 ft. long, and is to be roofed with asbestos sheets bolted to purlins (composed of ⅔ in. by 1¼ in. sandwiched) fixed at 3 ft. 6 in. centres. The sheets weigh 38 lb. each, or 59 per ton (each 4 ft. by 3 ft. 8 in.). I would like to know whether you consider this type of truss strong enough to carry the weights which will be required."

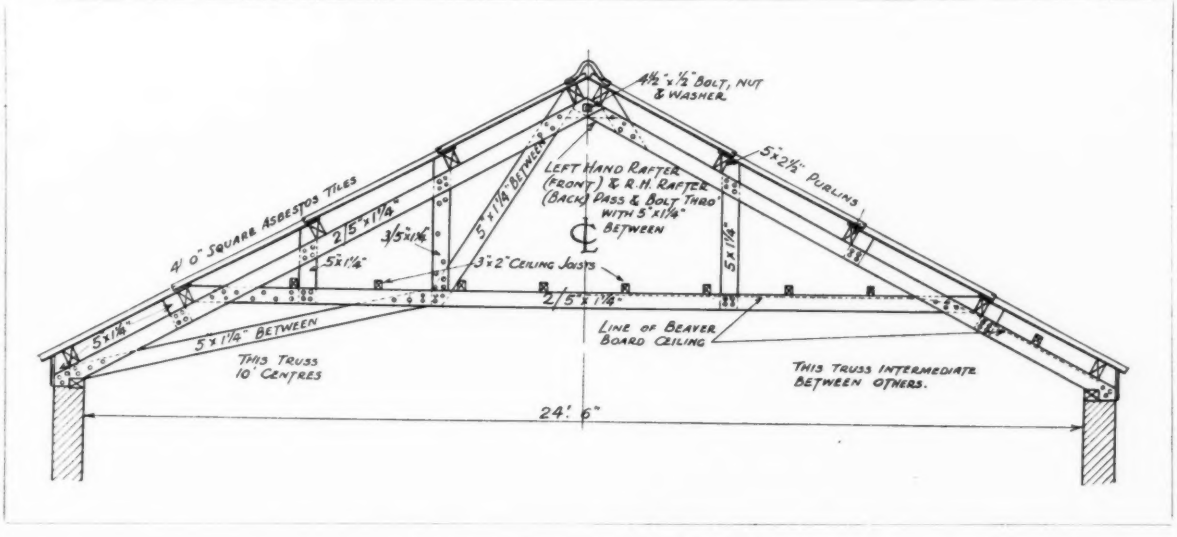
—The accompanying drawing, I think, explains the points raised by your correspondent. The 5 in. by 1¼ in. material suggested by him is sufficiently strong in view of the intermediate trusses taking part of the weight; but I would suggest that the positions of the internal members of the trusses be arranged so as to support directly the purlins instead of (as he proposes) fixing the purlins on independent cleats. There is no advantage in making the lower oblique tie a double member, as the fixing at each end must be single, and this is the weakest point of the member.

I do not advise using two thicknesses for the purlins. In a framed structure such as a truss, the laminated system enables strong fixings to be made where the members cross. There is no need for this in a beam or purlin, and to use two thin members nailed together will probably cause increased deflection owing to slip.

It is not evident from your correspondent's enquiry how he proposes to fix the Beaver-board ceiling. I think that it is too much to expect Beaver-board, without sagging, to span 5 ft. from truss to truss; and, besides, there is no sloping tie to the intermediate trusses to which it can be fixed. I have therefore suggested, on my drawing, that the ceiling line shall be the underside of the purlins and the upper side of the collar, with a slight cove at the junction. This will leave exposed the collar and part of the rafter of every truss, on which a fillet can be nailed to mask the space, and the lower ties to the 10 ft. trusses. The ceiling rafters supporting the Beaver-board can be laid across the upper edge of the collars, and to increase the support at the intermediate trusses I have shown a double collar with a single vertical member spiked between the double collar and the double rafter.

I should like to draw special attention to the joint at the head of the rafters. Owing to the laminated construction, the front and back halves of the left and right hand rafters respectively can pass one behind the other and be bolted through with a blocking piece between, thus making a very firm joint.

A. EWART ASTON.



A LIGHT ROOF-TRUSS FOR A HALL.

Acoustic Demands in Auditorium Design.* — I

By G. A. SUTHERLAND, M.A.

THERE is in some quarters a certain feeling of resentment that anyone who claims to understand the application of acoustics to architecture is unable to take any existing example of a recognized architectural design, and by the alteration of a few unimportant details make it a pleasant place to hear and speak in, but demands that acoustic considerations shall influence the whole design from the outset. This is an unreasonable complaint, for the laws of sound are older than the earliest architectural design, and it is no more possible to adapt them to suit any given shape than it is possible to alter the laws of mechanics to make safe the structure of a building that has been erected in defiance of them. The physicist is doubtless to blame in the matter, as he has been slow to consider how the fixed and known laws of sound apply to the design of an auditorium pleasant for speaking and hearing; with the result that it has been assumed that they do not apply at all, and that whether a room will have good or bad acoustics is a question of pure chance. Indeed, it has been said, and even believed, that two rooms might be identical in construction, and yet have quite different acoustic properties.

Since 1896, however, the most important aspects of the matter have been the subject of theoretical and experimental investigation, chiefly in America and Germany, and the results have been applied with success in practice in those countries. What has hitherto largely been lacking is an orderly presentation of these results in such a form as to make them intelligible to the man who cannot devote time to the searching out and editing of scattered scientific papers. Covering so wide a field, the most I can hope to do is to introduce you to the main demands that the laws of acoustics make in the design of an auditorium. It is not suggested that such factors can be the sole considerations in design; that they are of fundamental importance no one will deny.

To be able to solve the problem of designing a room to have good acoustics it is necessary first to state what we mean by good acoustics, and to determine the physical conditions that are associated with them. These conditions can be ascertained from the opinions of persons of critical taste, provided that we can supply such persons with a mode of expression that is unambiguous. Secondly, it is necessary to express, again quite definitely, how the shape of the room and the materials used in its construction contribute to the physical conditions we desire to attain.

The conditions of good hearing in an auditorium, expressed in ordinary language, are, first, uniform and adequate loudness; secondly, distinctness or freedom from undue overlapping of successive sounds; and, thirdly, accurate rendering, or the preservation of their proper relative proportions in the simultaneous components of a complex sound.

Uniform loudness is associated in practice with the absence of curved walls. Thus it may be pointed out that all whispering galleries owe their peculiar properties of concentrating sound in one or more places to the presence of curved walls. The concentrations are most marked if the surfaces are curved in two directions at once, a point which can be realized from an examination of the well-known whispering gallery in St. Paul's Cathedral, the whispering arches in the church of St. John Lateran in Rome, and an auditorium in the University of Illinois.

In the St. Paul's gallery the wall slopes inwards, as is seen in the section in Fig. 1, but it has no actual curvature in this direction. If it had, its properties would be even more marked, a statement which is borne out by the fact that a gallery has been constructed in America with chosen curvature in this sense, and its remarkable properties entirely fulfil the prediction to this effect that was made before it was erected. Special concentrations of sound in some places imply corresponding deficiencies elsewhere, and thus we have non-uniform distribution of intensity. Concentrations do exist with sustained tones even in rooms with flat walls, but here the closeness together of regions of maximum and minimum intensity, the fact that a person has two ears, and the comparative smallness of the differences of intensity in such cases, make these unimportant unless the room has a large number of walls.

The effect of increasing the number of walls in militating against an even distribution of the sound is illustrated in Fig. 2. The first room has three walls, the second six, and the third nine. In each case the source is at the point o. The number on any region indicates the number of first reflected beams of sound passing over that region. As the number of walls increases not only are there greater differences in these numbers, but the region of maximum concentration is much reduced. When the number of walls is increased indefinitely, i.e., when we have a curved wall, the region of concentration becomes very small indeed, and practically all the first reflected beams pass through this to the detriment of other parts of the room. In practice there is not merely a single focus, but a main focus, and a series of subsidiary foci. A case in point is the congregational church at Naugatuck, a room with a segmental ceiling, of which the centre of curvature is at floor level. With a source at the centre of this room the distribution of intensity at head level is shown in Fig. 3, contour lines

* A lecture delivered at University College.

FIG. 1.

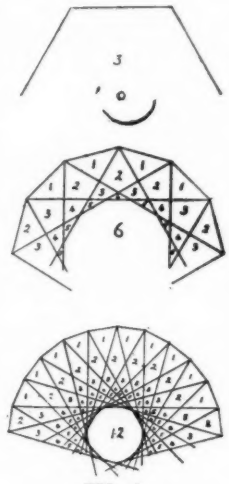


FIG. 2.

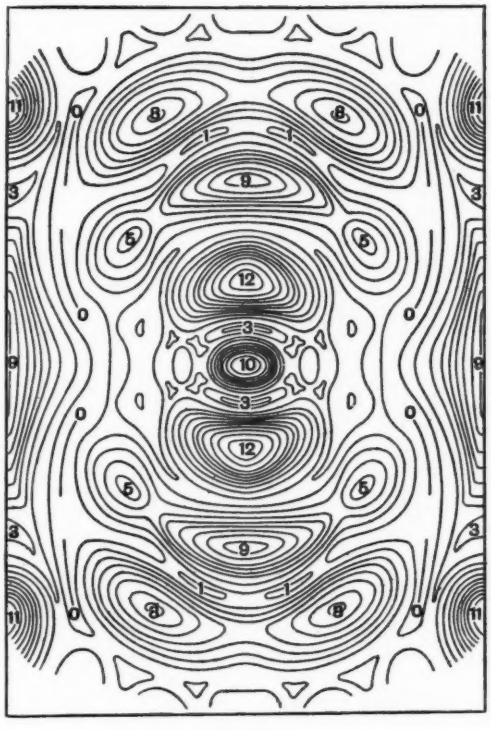


FIG. 3.

being drawn for different intensities as in a geodetic survey. On the other hand, the conventional rectangular pattern is universally found to give satisfactory results, and may always be safely adopted for all but the largest of halls.

When we come to a consideration of the provision of *adequate* loudness, we are met with a difficulty in that there is no definite standard of loudness apart from the consideration of distinctness, which is our second desideratum. In the open air it is possible to hear sounds over very long distances, but in a hall there are factors that militate against this, and it may be taken as a rough practical guide that provision should be made that every auditor receives in the first one-fifteenth of a second after the direct sound reaches him not less sound than he would receive directly if he were situated 50 ft. from the speaker. There is no scientific basis for the choice of this distance; it is found in practice to allow a fair margin of safety if steps to ensure distinctness are taken at the same time. The reason why one-fifteenth of a second is chosen is that the ear does not distinguish, as separate, sounds which strike it at intervals of less than one-fifteenth of a second; so that the sound arriving in the first one-fifteenth second may be considered as adding up to form the initial sound, whereas that arriving later has the nature either of an echo, if it is distinct, or otherwise of a diffuse prolongation of the original sound. The calculation as to whether the 50 ft. condition is satisfied involves factors that we have not yet considered and we shall return to it later.

In turning to the question of distinctness we have to remember at the outset that sound is a form of energy, and that energy is uncreatable and indestructible. The manifestations of energy that we perceive are merely the conversion of one form of energy into another. When mechanical energy in the form of sufficiently rapid vibrations is imparted to the air, compressions and rarefactions are set up which are propagated as waves, and when these impinge on the tympanum of the ear the sensation of sound is experienced. Once these waves are started they continue to be audible until they are converted into some other form of energy. The mere breaking up of them by irregularities in the walls of a room is of no service in this respect, but their entanglement in porous materials of every kind, notably curtains, produces so much air friction that the sound is soon converted into heat.

These waves of sound differ in length according to pitch; the longer the wave-length, the lower the pitch. Musical wave-lengths range from 30 ft. to 4 in. All wave-lengths travel at the same rate, which is about 1,120 ft. per second in air at ordinary temperatures, and about sixteen times as much in steel. On reaching the bounding surface between two media in which the velocities are different, such as the wall of a room, most of the sound is reflected back according to laws which are well-known, and the path of a beam of sound can easily be traced out. The fraction of the sound reflected in this way depends on the character of the walls. Hard unyielding walls will reflect much, but porous walls will reflect comparatively little.

The waves may also suffer *diffraction* or scattering, by obstacles which are comparable in size with their length. For example, a house will cast a sound shadow of a high note, but a low note such as the report of a gun will bend right round it, in just the same way as a rock in the sea will stop a ripple, but will have little effect on a long wave. When an explosion occurs, the vibrations of the air are found to shatter windows of houses on the side farther from the place of explosion as well as on the near side. There are other features in the mode of sound propagation besides reflection and diffraction that enter into a full discussion of the problem, but with these we have no time to deal now. As reflection is the most important factor in the distribution of sound in a room, we may here consider how the reflected beam from any surface can be traced out.

Consider a source S (Fig. 4) sending out a spherical wave of sound which strikes a surface AB as shown, the reflected wave is simply found by finding the image of S in AB, which is a point I on the perpendicular from S to AB as far behind AB as S is in front of it. The path of any particular part of the wave striking for instance CD is found by joining I to the points CD and producing the lines to EF as shown. If the wall were not there, that part of the wave would go to YZ. Owing to the wall it is bent back. When we consider what kind of surface will act in this way as a sound mirror we have to remember the length of sound waves. In the case of light waves about one-forty-thousandth of an inch long, a very small surface will act as a mirror, and minute scratches will serve to spoil its reflecting properties. In the case of sound waves, a large

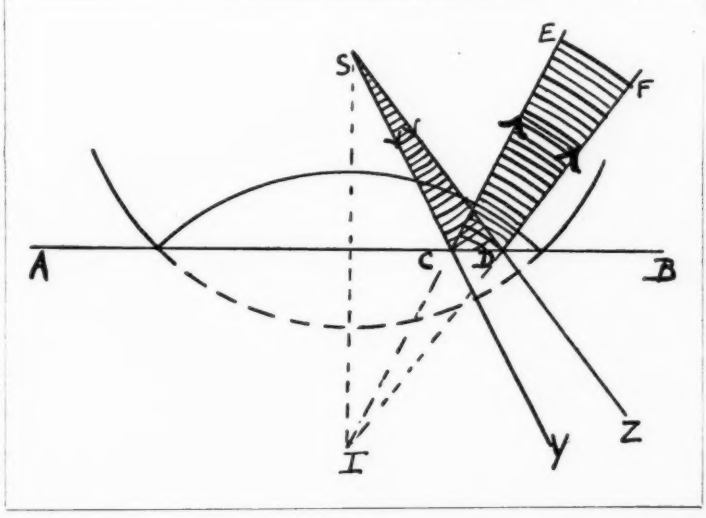
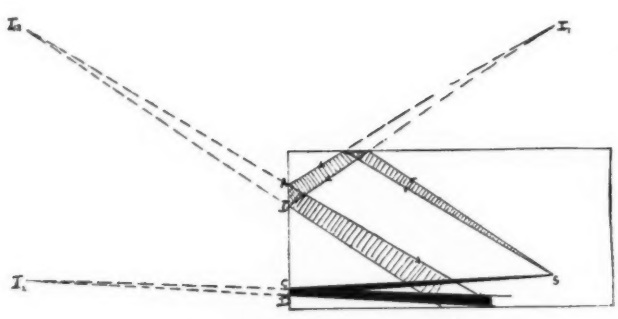
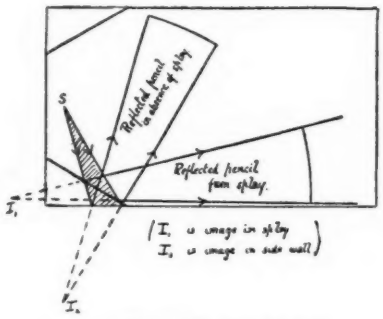


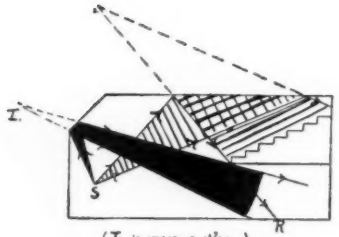
FIG. 4.



(A.) —Showing long reflected paths tending to produce echoes.



(B.) —Showing the effect of a splay on the side wall in reflecting sound to the rear seats.



(C.) —Showing the advantage of a ceiling splay for reflecting sound below a gallery.

FIG. 5.

surface is necessary to produce reflection at all (as has been pointed out the long waves will bend round a small object as though it were not there), and very large scratches, i.e., coffers up to 3 ft. deep and 15 ft. wide, will be necessary to prevent regular reflection of the lowest sounds and produce scattering.

As has been mentioned, even when this scattering is produced the sound is still there, only instead of proceeding in the direction indicated by the reflection diagram, it is scattered from the surface in all directions. Applications of the diagram method of tracing reflected paths, which also illustrate other points that arise, particularly in regard to the desirable shape of a large hall, are seen in Fig. 5.

(To be continued.)

R.I.B.A. Council Meeting

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

The Royal Scottish Academy.—The congratulations of the Council were conveyed to Mr. George Washington Browne on his election as President of the Royal Scottish Academy.

Smoke Abatement.—It was decided to make representations to the London County Council on the subject of smoke abatement in London.

National Housing.—It was decided to inform the new Government that the R.I.B.A. were willing to tender information and advice upon housing design and construction and other technical aspects of the problem.

The National Association of Water Users.—Permission was given to the Council of the National Association of Water Users to circularize the members of the R.I.B.A. with a view to pointing out that the water companies have no powers to insist on testing and stamping water fittings.

Shortage of Skilled Labour in the Building Industry.—Professor S. D. Adshead and Mr. W. Alexander Harvey were appointed as additional representatives of the R.I.B.A. on the Conference which has been arranged to consider this question.

The Letting of Office and other Accommodation.—The following resolution was passed: "The Council view with disapproval the exhibition by architects of boards upon which are displayed notices that offices or like accommodation are to be let, and that applications to the architects are invited. This resolution does not preclude the architect of a building at the request of his client from exhibiting a board inviting prospective tenants to inspect the plans at his offices, provided that the architect receive no commission for lettings resulting, nor does it apply to the letting or selling of land."

R.I.B.A. Scale of Charges: Clause 5.—It was decided to warn Members and Licentiates that they should, with reference to the above clause, protect themselves against the contingency of the work being subsequently proceeded with.

Builders Acting as Architects.—Attention having been called to the damage to the profession in certain districts which is caused by the competition of builders, who advertise widely that they will "design and erect houses to clients' requirements," it was decided to communicate with the National Federation of Building Trades' Employers and the National Federation of House Builders, and to draw their attention to this encroachment upon the legitimate work of an architect.

The British Engineering Standards Association.—Mr. H. D. Searles-Wood was appointed to represent the R.I.B.A. on a conference of parties interested in the standardization of reception tests for paints used in the engineering and allied trades, arranged by the above Association.

Sessional Papers.—Mr. Hope Bagenal having found it necessary to postpone the delivery of his lecture on "Planning for Musical Requirements" on March 17, Major Harry Barnes was invited by the Council to deliver a lecture on "National Housing" on that date.

Law Report

An Important Compensation Decision

Attorney-General v. *Great Western Railway.*

January 18. King's Bench Division. Before Mr. Justice MacCardie.

This action raised a point under the Railway Fires Act, 1905, as to whether the defendants' liability in respect of a fire at Beechenhurst enclosure, in the Forest of Dean, Gloucester, which was under the management of the Commissioner of Woods, was or was not limited to £100.

Sir Harold Smith, K.C., appeared for the Attorney-General, and Mr. Barrington Ward, K.C., for the Railway Company.

It appeared that on July 20, 1921, sparks or cinders from an engine on the Great Western Railway Company's line near Speech House Road station had caused the fire, and the damage which resulted was over £3,000. There was no dispute on the facts, but the Crown for certain reasons limited their claim to £100, and the short point of law was whether or not, if the damage exceeded £100, the Crown could limit the claim to that sum.

Sir Harold Smith argued that the statutes of 1905 altered the position in which railway companies were then placed in that they could always plead they were running their trains under statutory authority and were not liable in the absence of negligence. The statute was for the protection of farmers and landowners and enabled them where land, crops or hedges were damaged by fire to recover up to £100 from a railway company. If their claims were over that sum then they could not succeed because the railway company could, in the absence of negligence, plead that they were running under statutory powers and were not liable. In the present case it was admitted that no negligence could be alleged against the defendants.

Mr. Barrington Ward contended that the 1905 Act did not apply at all if in fact the damage caused by the fire exceeded £100, and that the notice of claim and the particulars of damage did not come within the meaning of the Act. The notice of claim had to be given within seven days, he said, and the particulars of damage within fourteen days. The point was that the railway companies should be informed of any claims so that the claims should not be left at large, as in the present case, where a whole year was allowed to pass before anything was done and it was then too late for the company to make any investigation and they were left without protection. The Act, he further said, was passed to benefit agriculturists, and at the same time it imposed the restrictive liability on the railway company, the benefit to the agriculturist being that he was relieved in future in the case of a small fire of proving negligence. The Act covered only small fires, and if it did not apply, then reliance must be placed on common law action.

His lordship, in giving judgment for the Crown for £100 and costs, said the object of the Act was to make a railway company liable for the working of their railway, even though they were not guilty of negligence, providing that the railway company was not to be responsible for more than £100 damage. He thought there was nothing to prevent joining a claim for damages for negligence against the railway company with a claim for compensation under the Act of 1905. He did not think so far as the Act was concerned that it mattered whether the damage done was £100 or more, the point being not the actual damage, but the amount claimed against the defendant company. Mr. Ward had taken the point that though *prima facie* the documents might be within section 3 of the Act, yet the particulars of damage was not in accordance with the section because the claim was more than £100. The claim was £3,400. Did that fact preclude a plaintiff from commencing proceedings in which he did not ask for more than £100? He saw no reason at all why the plaintiff should be necessarily bound by the amount he had mentioned in his statutory document. In his view the various points raised by the railway company failed and the Crown was entitled to succeed.

Leave to appeal was granted.

Contemporary Art

The Thirty-Guinea Look.

At the Beaux Arts Gallery in Bruton Place, an entirely praiseworthy attempt to break away from the secrecy of prices, the bargaining, and the over-estimating of values is being made. Forty good works are hung and priced at thirty guineas; they are all well worth it, and you may have a John, an Orpen, a Walcot, a Russell Flint, a David Muirhead, or a Davis Richter at your will. The works gathered together are representative of most kinds of present-day British art, including the newer artists, such as Ethelbert White, Adrian Allinson, Neville Lytton, and Walter Bayes. There are some delightful architectural pieces by William Walcot and others, and a most satisfying work by Isabella Dods-Withers of "Old Houses near Grenoble," set against a background of whitish-grey rocks.

The St. George's Gallery.

A very interesting and scholarly exhibition of drawings, etchings, and lithographs by Francis Unwin includes a striking series of studies of the mountains of the Bernese Oberland, a no less interesting set of drawings made at Cromer, which are all architectural, and another mountain set of the Ober Engadine, consisting of five admirable etchings.

Etchings and Water-colours.

Edna Clarke Hall is an original artist, relying more on temperament than technical accuracy. There is a remarkable series called "Spontaneous Compositions," in which the artist's attitude is definitely stated. It is an independent and sincere outlook of an intellectual character, which has yet a graphic appeal of much value. There is, moreover, spontaneity about her other works shown here, etchings included, the subject-matter varied, and the production.

There are two very nice water-colour drawings of buildings in the show by Beatrice Lawrence Smith at the Fine Art Gallery, 18 Cork Street, Burlington Gardens, among others of charm. Here also are a series of portraits, including a good one of her husband, by Laura Anning Bell, and there is a very pleasing pastel drawing of Miss Horniman, and one in charcoal of Mr. Charles Ricketts.

Sculpture.

Power of thought distinguishes Edith Bateson's sculpture from most of that done by English artists, and, moreover, it has a monumental suggestion, a distinct plastic quality which is more than merely architectural, but which includes the essence of the architectural idea in its own intrinsic properties. It is not definitely exampled so much as hinted at in this show, but there are two designs, one for granite of Death, Man, and the Earth Mother, and one for a war memorial which should seriously be considered by those interested in such matters. Marble, stone, bronze, and plaster are used for the various statuettes, heads, and ideal groups here shown.

The Royal Society of Portrait Painters.

With the closing down of all the important independent exhibiting galleries in London, it is satisfactory to know that the Royal Academy is not only gracious, but willing to face the obvious by lending its galleries for important picture and sculpture shows. Now that it has itself properly curtailed the number of works it hangs in May, it is very fitting that the exhibitions of outside bodies should be held in its galleries. The present one is as like to an academy show as possible, but the smaller number of works hung makes it easier to see and appreciate them. Even official pictures, like the group by George Coates of "General Bridges and Staff," gain, but this is an exceptionally conspicuous work. The smaller portraits, such as the delightful boy of James Quinn, "Brian McIlwraith McGowan," the same artist's Lady Abdy and Mrs. May Micklen; Sir Cuthbert Quilter, by Alfred Priest; and "Jasper," by Bernard Adams, have a much better chance, hung as they are in this show.

KINETON PARKES.

Societies and Institutions

Research on Illumination.

Mr. J. S. Dow, in reading a paper before the Illuminating Engineering Society on "Research in Illumination," emphasized the need for co-ordination of investigations on lighting. He said that improvements in lamps, and the design of instruments for measuring illumination, could be done by individuals, but when one came to special problems that affected a large section of the community, one had to enlist the help of various experts (architects, medical men, etc.), and of the users of the light concerned. He remarked that there was nothing in the way of research being done abroad that could not be done equally well in this country, if encouragement and support were forthcoming from those associated with the lighting industry. A discussion followed in which Lt.-Col. K. Edgcumbe (chairman, National Illumination Committee), Mr. J. W. T. Walsh (National Physical Laboratory), Mr. W. R. Rawlings (past-president of the Electrical Contractors' Association), Mr. A. Cunnington (lighting engineer to the London and South Western Railway) and others took part. All agreed that many researches on lighting could only be efficiently conducted by a body associated with all illuminants, and in a position to enlist the co-operation of kindred bodies.

The A. and S.A.P.U. (Metropolitan Branch) Annual Meeting.

The annual general meeting of the Metropolitan Branch of the Architects' and Surveyors' Assistants' Professional Union was held at Caxton Hall, Westminster, under the chairmanship of Mr. J. W. Dennington. The hon. sec., Mr. J. A. Gould, in submitting his report for the past year, referred to the objects of the Union, and gave an outline of the work which had been carried out. He said that a scheme for the founding of a hostel for members and their fellow-workers had been under consideration, and he felt confident that the project would soon have a beginning.

The following members were elected to serve on the committee: chairman, L. E. Wheble, A.R.San.I.; vice-chairman, J. A. Hatfield; hon. sec., J. A. Gould; treasurer, R. G. Forbes, M.S.A.; J. G. Batley, A. F. Lodge, A. A. Beckham, P.A.S.I.; A. S. Reeves, Licentiate R.I.B.A.; F. C. Button, M.S.A.; A. P. Knight, J. H. Metcalf, N. H. Cooper, W. S. Dalton, E. H. Worley, H. Hyams, F.R.I.B.A.; P. Mauger, A.R.I.B.A.; J. O. Hughes, M.S.A., M.I. Struc.E.

The general secretary of the Union, Mr. John Mitchell, said he thought that perhaps one of the finest things the Union had done in its short existence of just over four years was to come forward at the beginning with a definite programme attacking low salaries, long hours, and undemocratic institutions. The present result was that the Union was in negotiation with the R.I.B.A. on the questions of a Registration Bill, a scale of minimum salaries for assistants, and the overcrowding in the profession. During the year, he reported, the Union's employment bureau had placed over a hundred men in appointments, all in accordance with the scale of minimum salaries. He appealed for more technical assistants to join the Union. The scheme for a benevolent fund was being taken up by branches all over the country. An increase of membership was reported from the larger branches, including London, Devon, Cornwall, and Edinburgh, while Manchester had doubled its membership.

The A. and S.A.P.U. Pocket Diary.

The Architects' and Surveyors' Pocket Diary for 1924, published by the Architects' and Surveyors' Assistants' Professional Union, is unique, in that all the technical information contained has been collected and compiled by assistants engaged in the professions. This information should save the user hours of research, and a small fortune in the cost of books. Another innovation is the "Bookman's Page," giving a list of books, such as Dickens' "Martin Chuzzlewit," and John W. Simpson's "Essays and Memorials," which deserve to be read by the professional man. It is a mild attempt to refute the popular superstition that the literature of any profession is confined to works of a purely technical character. Among other features, unusual in a diary of this description, are the lists of journals and periodicals, with the names, addresses, and telephone numbers of the publishers, and information with regard to the aims, officers, scholarships, and prizes of the various professional societies and institutions. The ultimate object of the publishers "to provide a diary that will contain everything that a professional man can possibly want, and nothing that he is never likely to want," seems already to be achieved.

Town Planning and Industry.

Under the auspices of the Institute of Public Administration, Dr. I. G. Gibbon, Assistant Secretary of the Ministry of Health, delivered a lecture on "Town Planning" at the London School of Economics. Sir Aston Webb, P.R.A., presided.

Dr. Gibbon said it was time that the architect, the engineer, and the surveyor took adequate measures to learn the business of town planning. In our English fashion of putting the cart before the horse we had done very little indeed in the way of such study. We were too complacent in this country—too content with makeshifts, but we paid very heavily indeed for our ways. The time was more than ripe for the preparation of a plan for London. Improvements and developments ought to proceed on a plan after inquiry, and that applied to St. Paul's Bridge, Charing Cross Bridge, and Lambeth Bridge. But at the moment it was no one's business. He would like to see for London the appointment of a general committee representing all the various interests. Under that committee should be a small executive, on which business should be strongly represented, to supervise and direct the work necessary for a plan. A great deal of money would not be required to begin with. Money would not be difficult if a few big business men were convinced of the vital urgency of the problem for the industrial and commercial wellbeing of London.

The Polytechnic Plumbing Awards.

Following is a list of the winners of the prizes and certificates awarded at the end of last year in connection with the Plumbing Department of the Polytechnic, Regent Street, London. The prizes were distributed by Major Robert Mitchell, C.B.E., J.P., late Director of Education of the Polytechnic :—

Silver medal, awarded by the editor of "The Plumber," for the best paper in the Polytechnic technical examination : John W. Marston.

The G. J. Chatterton prize (an ivory rule, suitably engraved, presented by Mr. Frederick Chatterton, F.R.I.B.A., to perpetuate the memory of his late father) : Wilfrid W. Washbrook.

Mr. Provost Ross's prizes, with extra prize by the judges : W. Bettle, E. Ellard, and J. Peters.

Institute of Plumbers' prize—books to the value of £2 2s., in connection with the City and Guilds examinations : Wilfrid W. Washbrook.

Certificates—City and Guilds minor course final examination : Wilfrid W. Washbrook, H. E. Ashford, Alfred Webb.

City and Guilds major course final : H. T. Lambert, L. Richards, B. W. Kilby.

Polytechnic senior course certificates (including such subjects as builders' quantities, materials, land surveying, etc.) : James J. Blaney, Geo. E. Durbin, B. W. Kilby, John W. Marston.

Polytechnic group course certificates : W. H. Allen, R. E. Batten, J. Hubbard.

There were also forty passes in the written examination and thirty-six in the practical examination.

The Romance of the Roman Forum.

Sir Banister Fletcher, F.R.I.B.A., in a lecture on "Ancient Architecture," at the Central School of Arts and Crafts,

London, described the plan of ancient Rome on her seven hills, with the great Forum Romanum in the central valley. He said that the Capitoline Hill dominated this public meeting place on one side and the Palatine Hill, with its Imperial palaces, on the other. The Forum Romanum was the heart of Roman civic life, and held much the same position as the Acropolis of ancient Athens, only that, for the practical Roman, it included the commerce of the city, and was flanked by temples of the gods and courts of justice. Here political demonstrations were held, and from the rostrum orators addressed the populace on matters of State and demagogues harangued the "plebs" and instilled the spirit of discontent. Stately colonnades, spacious basilicas, and the majestic temples of a state religion, all made a fitting setting for the activities of Roman citizens. But the city grew with its growing Empire, and successive emperors, eager to ingratiate themselves with the people, built other Forums for the people which rivalled in size, but never in importance, the old Forum Romanum of the citizens. All these Forums were monuments to their imperial founders and ornaments to the city. Once hives of human activity, they were now dead sites—broken records of a greatness that had passed.

The Economic Laws of Art Production.

Sir Hubert Llewellyn Smith, chairman of the British Institute of Industrial Art, delivered the first of a course of lectures at the London School of Economics on "The Economic Laws of Art Production." He said the lectures were intended as a contribution towards building up a body of economic doctrine applicable to the special case of works of art, and thus eventually filling a notable gap in ordinary economic theory. It was in line with modern tendencies that special study would be given to the economic laws affecting the production and distribution of works of art. There was every probability that the more advanced industrial countries, like our own, would find that the struggle for future economic leadership would turn more and more on quality rather than on quantity of production. Hence all the economic problems which were special to works of art were destined to become of greater practical importance. What they were concerned with for economic purposes was not the rare outpouring of "fine art," in the true sense of the term, but the permanent substratum of "common art," the soil which was essential to the growth and flowering of great art, though it might only yield this blossom at rare intervals and for short periods. It was by maintaining common art in health and vigour, and not by efforts to recall to life the dead style of some past period of art, that we could best prepare the ground for a possible future efflorescence. The fostering of common art meant caring for utility, fitness, and beauty in all branches of the national life.

The Gloucestershire Architectural Association.

An exhibition of the architectural prize drawings of the R.I.B.A. and the Society of Architects has been held at the Cheltenham Municipal Art Gallery.

Mr. G. P. Milnes, the president of the Gloucestershire Architectural Association, who occupied the chair at the opening ceremony, said that this was the first time that such a collection of drawings had been sent into Gloucestershire, excluding Bristol. It was fitting that the exhibition should be arranged in Cheltenham, because the County Association owed a great deal in its formation to Cheltenham architects, particularly to Mr. H. W. Chatters, who was one of the first vice-presidents, and to Mr. T. Overbury, who acted for some time as secretary and had made himself responsible for the organization of the present gathering.

Mr. Harold Donaldson Eberlein, B.A., remarked that it was peculiarly suitable that an exhibition for stimulating architectural appreciation should be held in that town. There was not much of Cheltenham before it became a spa, and directly there were signs of popularity those who had its welfare at heart developed an architectural consciousness and conscience. The assistance of Papworth was invoked, and he and those inspired by him did things very well worthy of remembrance. The result was that Cheltenham was classically coherent in its whole aspect, and he did not know of any place where there was such an admirable exhibition of Regency architecture.

The British Empire Exhibition Handbook

A handbook of general information has been issued in connection with the British Empire Exhibition, which is to be held at Wembley from April to October, under the Patronage of the King and the Presidency of the Prince of Wales. It shows how the exhibition began, and describes the accessibility of Wembley from all parts of the country, the magnificent scale of the exhibition buildings, the British and Overseas exhibits, the stadium, which dominates the landscape for miles around, the pleasure ground and landscape gardens, and the excursions, catering, and other facilities which have been arranged for visitors. Two maps are included. One shows the disposition of the exhibition buildings, and the other the railway communication from the London area to the grounds and the points where they are joined by the various main lines. The handbook contains much information that is new, and leaves the reader eagerly awaiting the opening of the exhibition, which promises to be one of the most significant events in the story of our Imperial development.

Town-Planning. Supplement to Model Clauses

The Minister of Health will issue shortly a supplement to the model clauses published for use in the preparation of town-planning schemes. In particular, provisions will be included for enabling the regulation of streets in a town-planning area to be dealt with wholly in a scheme, instead of partially in a scheme and partially in by-laws. Thus it is hoped to avoid a dual system of control and to introduce a desirable simplification. The supplement will be obtainable through any bookseller, or directly from H.M. Stationery Office, Imperial House, Kingsway, W.C.2.

The English Fine Arts Commission

The King, on the advice of the late Prime Minister, has appointed the following as members of a Fine Arts Commission for England on the lines of the American Fine Arts Commission, which has been in existence since 1910: The Earl of Crawford and Balcarres (chairman), the Marquess Curzon of Kedleston, Sir Aston Webb, P.R.A., Sir Reginald Blomfield, R.A., Sir Edwin Lutyens, R.A., Mr. Alfred J. Gotch, P.R.I.B.A., Sir George Frampton, R.A., Mr. D. Y. Cameron, R.A., and Mr. T. H. Mawson, president of the Town Planning Institute.

The status of the Commission is advisory, with no power of veto and with non-statutory powers in the first instance. Its advice may be sought by the Government, or any authority of standing, on the location of statues, fountains, and monuments in public squares, streets, and parks, both in London and the provinces, and upon the selection of designs for statues, fountains, and monuments or any artistic question in the open air, such as elevations of buildings, town planning, and landscape gardening in public parks, and the internal decoration of public buildings.

It has been decided that the Commission should consist of nine members of acknowledged authority in matters of art, but with power to add a member, or members, if thought desirable. The Commission will also have the power to co-opt members or appoint a special committee, if thought advisable, for the study of any special problem.

After the first three years from the establishment of the Commission, two members will retire in turn each year, but will be eligible for reappointment if thought desirable.

The services of the members of the Commission will be honorary, and they will not be able to sit to consider any question in which any individual member is professionally interested.

The Week's News

A Big Housing Scheme for Liverpool.

During this year 3,500 houses are to be built by the Liverpool Corporation.

Armagh Waterworks Improvements.

£3,000 is to be spent by the Armagh Urban District Council in enlarging the waterworks.

A Warwickshire Architect's Estate.

Mr. William Hawley Lloyd, of Leamington Priors, Warwickshire, architect, left estate to the gross value of £32,912.

Hampstead Library Extension.

The Hampstead Borough Council propose to extend the public library at a cost of £9,163.

Proposed New Swimming Bath for East Barnet.

The erection of a swimming bath at a cost of about £26,000 is being considered by the East Barnet Urban District Council.

The Eastbourne Music Pavilion.

The Eastbourne Pier Company's new music pavilion is to be completed by July. It will cost £20,000, and seat 2,000 people.

Bradford's Wooden Houses.

The Ministry of Health have sanctioned the erection of 100 temporary houses. They will probably be built of wood.

Proposed New School for King's Norton.

The King's Norton Higher Education Sub-Committee recommend the erection of a new secondary school for girls.

Dundee's Esplanade Scheme.

The Dundee City Council are considering a scheme for extending the esplanade at a cost of £65,000.

New Children's Hospital for Blackburn.

The Blackburn Board of Guardians have approved in principle the erection of a children's hospital and maternity ward.

The Renovation of the Dublin City Hall.

The Dublin Corporation have decided to renovate and repair the City Hall at a cost of £6,000.

An Ancient Porch Discovered at Battle.

At Battle, near Hastings, the west porch of the ancient church of St. Martin has been discovered during excavations.

Proposed New Y.W.C.A. Centre.

It is proposed to erect a new Y.W.C.A. building in George Street, Hanover Square, London.

Change of Address.

Mr. Leslie Mansfield, F.R.I.B.A., has moved his office to No. 27 Victoria Square, Buckingham Palace Road, London, S.W.1. Telephone: Victoria 3355.

Housing at Coventry.

The Coventry Housing Committee recommend that Rodford Estate should be acquired and laid out for building purposes. The purchase price is £45,000.

More Houses for Doncaster.

The Ministry of Health have sanctioned the scheme of the Doncaster Rural District Council for the erection of forty-six houses at Norton.

Housing at Oswaldtwistle.

The Oswaldtwistle Urban District Council are applying to the Ministry of Health for sanction to a loan of £12,000 for housing.

The Leicester Improvement Scheme.

The plebiscite arranged to obtain the ratepayers' decision with regard to Leicester's £2,500,000 improvement scheme has resulted in a majority of 4,748 against the scheme.

Proposed New Housing Estate for Manchester.

The Manchester Housing Committee recommend the Council to acquire 41½ acres of land at Withington, as a site for 484 houses and a number of shops.

Proposed New Durham Bridges.

The Durham County Council are considering proposals for the erection of new bridges at Derwent (estimated cost £56,000); Lambton, £52,000; and Sunderland Bridge (Croxdale), £56,600.

A New School for Cumberland.

Plans have been submitted to the Cumberland Education Committee for a new elementary school for Thorn Hill, Egremont. The cost is estimated at £16,000.

A New Golf House for Llandudno.

The Llandudno Urban District Council have decided to apply to the Ministry of Health for sanction to a loan of £5,870 to defray the cost of erecting a golf house at Maesdu.

The late Mr. A. H. Randell.

Mr. Arthur Hollis Randell, a member of the firm of Messrs. Andrew and Randell, architects, died suddenly in his home in St. Austell. He was thirty-nine years of age.

New Church Buildings for Southend-on-Sea.

A £9,000 building scheme to include a new lecture hall and Sunday school classrooms has been approved by the Cliff Town Church.

The Dee Bridge Scheme.

The Flintshire County Council are promoting a Bill in Parliament to obtain powers for the erection of a bridge over the River Dee at Queensferry. The estimated cost of the bridge is £104,000.

Housing at Wandsworth.

The Wandsworth Borough Council are considering the question of erecting a further seventy houses on the Southfields housing estate. At present fifty-two houses are under construction.

Three New Schools for Lindsey.

The Lindsey County Council have decided to apply for powers to borrow £25,050 for the erection of a secondary school at Sceethorpe, £25,050 for a similar school at Cleethorpes, and £10,550 for an elementary school at Crosby.

Latham House a Dairy.

Latham House, Lancashire, the ancestral home of the Earls of Latham, is to be converted into a modern dairy. The woodlands around Preston Lodge, one of the main approaches to the house, will be used as tea gardens.

Lord Radnor's Gift to Folkestone.

The Folkestone Town Council have accepted an offer from Lord Radnor to give to the town the Kingsnorth Gardens, three acres of vacant land, for the erection of new municipal buildings and Turkish baths.

The Clapton Maisonette Scheme.

The Ministry of Health have approved, for the purposes of the Government subsidy, the scheme of the Hackney Housing Committee for the erection of twenty-four maisonettes, providing accommodation for forty-eight families at Clapton.

A New Public School for Cranbrook.

Hemsted Park, the seat of the Earl of Cranbrook, and latterly of Lord Rothermere, has been acquired, with 147 acres, for use as a public school for girls. The school will be known as Benenden School, Cranbrook.

A New School for Portobello.

The Edinburgh Education Authority have accepted the design of Messrs. Reid and Forbes, architects, for a proposed new primary school at Portobello. The cost is estimated at £20,000.

A New Grammar School for Manchester.

The Governors of the Manchester Grammar School have appointed Mr. Percy Scott Worthington and Mr. Francis Jones as joint architects for the new school buildings which are to be erected at Fallowfield.

More Houses for Morecambe.

The Morecambe Town Council have approved the erection of 120 dwellings on Corporation land and 150 on builders' land. The work is to be undertaken by private enterprise under Government subsidy.

Proposed New Hospital for Teignmouth.

Plans for a new hospital at Teignmouth (Devon) have been placed before the committee by Mr. Leslie Moore, F.R.I.B.A. The cost is estimated at £13,000. A site, two acres in extent, has been secured.

The Brighton Aquarium.

It is expected that the cost of demolishing the Brighton Aquarium and converting the site into ornamental gardens with a restaurant, entertainment or shelter hall, will be round about £30,000. The work cannot be commenced until next autumn.

Brighton Improvement Schemes.

A Ministry of Health inquiry has been held into the application of the Brighton Corporation to purchase 171 properties in the town at a cost of about £260,000. The properties are proposed to be acquired in connection with the scheme of the Corporation for the widening of main streets, the formation of a new station approach, and the provision of an open market.

Professional Announcement.

Mr. R. R. Wentworth Hyde, M.S.A., who has recently returned from the East, has re-opened his practice of Singer Hyde and Sons, architects and surveyors, at Worthing. Manufacturers, etc., are invited to forward catalogues of building and engineering specialities to No. 8 Heene Terrace, Worthing.

The Progress of Liverpool Cathedral.

The King and Queen have consented to be present at the consecration on July 19 of the first portion of Liverpool Cathedral, consisting of the choir and transepts, which is approaching completion. It is proposed, after the consecration, to commence the building of the central tower, which will be carried up to a height of 170 ft.

A School of Pathology for Cambridge.

The Senate of Cambridge University have accepted the offer of the trustees of the Rockefeller Foundation of New York of £100,000 for the building and general maintenance of the School of Pathology at Cambridge, and of £33,000 towards the endowment of the school, provided the University can secure another £33,000 to complete the endowment.

Coming Events

Wednesday, February 6.

L.C.C. Central School of Arts and Crafts, Southampton Row, W.C.1.—Lecture XVI: "The Thermæ in Rome and the Provinces."

Thursday, February 7.

Northern Polytechnic Institute, Holloway, N.—"Recent Legislation." By Mr. T. P. Bennett, F.R.I.B.A.

British Museum.—Lecture XVII: "Dynamic Symmetry," etc. By Miss Claire Gaudet. 4.30 p.m.

Royal Society of Arts, John Street, W.C.—"The Earthquake and the Work of Reconstruction in Japan." By Mr. Iyemassa Tokugawa, O.B.E. 8 p.m.

Friday, February 8.

Town Planning Institute.—Discussion on subject of last meeting ("Streets"). 6 p.m.

Royal Technical College, Glasgow.—"Scottish Mediæval Architecture—Details." By Mr. Arthur Ling.

Monday, February 11.

Institute of Heating and Ventilating Engineers.—"Industry and Invention." By Sir George Croydon Marks.

Surveyors' Institute.—"Approximate Estimates."

Mr. Samson Clark: An Explanation

Mr. Samson Clark, of East Molesey, chairman of Samson Clark & Co., Ltd., the advertising service agents, of Mortimer Street, W., and former parliamentary candidate for the Chertsey Division of Surrey, asks us to state that he is not in any way connected with Mr. Samson Clark, of 63 Kent House Road, Sydenham, S.E., against whom a receiving order in bankruptcy has been gazetted.

Competition News

The Gillingham Town Hall Competition.

The president of the R.I.B.A. has nominated Mr. H. V. Lanchester, F.R.I.B.A., as assessor in the Gillingham (Kent) Town Hall and Municipal Offices competition.

The "Modern Hospital" Competition.

The following awards have been made in the competition, promoted by the "Modern Hospital," for a general hospital containing thirty or forty beds:—

First: Butler and Rodman, New York.

Second: John J. Roth, Los Angeles.

Third: Ernest Hoedtke, Cambridge, Mass.

First honourable mention: Cervin and Horn, Rock Island, Ill.

Second honourable mention: L. C. Dillenback, Urbana, Ill.

The Honan Scholarship Result.

The following awards in the Honan scholarship competition for 1924 were announced at the last meeting of the Liverpool Architectural Society. The subject was a design, with working drawings, for the proposed Mersey Traffic Tunnel. The scholarship was won by Mr. Herbert Thearle, 170 points; while to Mr. T. Theo. Wills, 152 points, the council presented as honorarium £10. The adjudicators reported that the winner had dealt with the traffic problem skilfully, while the runner-up excelled in the artistic treatment of the façade of the entrance to the tunnel. Both competitors are students of the Liverpool School of Architecture, and it was pointed out that the scholarship was extended to ex-students not over thirty years of age. It was hoped that the number of entries would be increased year by year. A gold badge, to be worn by the successive presidents of the society, was inspected with appreciation.

List of Competitions Open

Date of Delivery.	COMPETITION.
Feb. 14	Proposed New Cottage Hospital for Durham. The Holmside and South Moor Collieries Welfare Scheme Committee invite designs for a new cottage hospital, and premiums of £75, £50, and £25 respectively are offered. Mr. T. R. Milburn, F.R.I.B.A., is the assessor. Apply not later than December 26. Joint Secretaries, Welfare Scheme Committee, South Moor Colliery Co., Ltd., South Moor, Stanley, S.O., Co. Durham.
Feb. 29	Architects practising in the West Riding of Yorkshire are invited to submit designs for the City of Leeds Branch Public Libraries, Cardigan Road, Burley, and Hough Lane, Bramley. Premiums, £35, £20, and £15. Assessor, Mr. Percy S. Worthington, M.A., Litt.D., F.R.I.B.A. Apply Mr. Robert E. Fox, Town Clerk, 26 Great George Street, Leeds, with deposit of one guinea.
March 1	Proposed Concert Hall and Public Baths for Newcastle-upon-Tyne. Premiums of £750, £250, and £100 respectively are offered, the first premium to merge into the commission or other payment to be made to the author of the successful design. Assessor, Mr. Alfred W. S. Cross, M.A. Apply, with deposit of £2 2s., to Mr. A. M. Oliver, Town Clerk, Town Hall, Newcastle-upon-Tyne.
March 27	New Police and Fire Brigade Station for the Newcastle City Council. Apply Town Clerk.
April 3	A competition has been promoted by the Canadian Government for designs for a full-length statue of the late Sir Wilfrid Laurier to be erected in the grounds of the Parliament Buildings, Ottawa. The winner will be commissioned to carry out the work. Second premium, $1,000. Apply the Secretary, Public Works Department, Room 784, Hunter Buildings, Ottawa.
April 26	At the instance of the British Drama League the proprietors of "Country Life" have promoted a competition for designs for a national theatre. The proprietors of that journal will bear the cost of building a complete large-scale model of the first prize design, to be shown at the British Empire Exhibition. Jury of Award: Mr. J. Alfred Gotch, President R.I.B.A.; Sir Edwin Lutyens, R.A., F.R.I.B.A.; Sir Lawrence Weaver, K.B.E., F.S.A.; Professor C. H. Reilly, F.R.I.B.A.; Professor Hubert Worthington, A.R.I.B.A.; Mr. Harley Granville-Barker; Mr. Albert Rutherston. Mr. Geoffrey Whitworth, Hon. Secretary. First prize, £250; second prize, £100; for the best model sent in with a design, £25; for the best perspective view of the interior of the larger auditorium, £25. Designs are invited from architects, or architects associated with decorative designers, of either sex, who must be British born or of British parentage. The work of such architects resident in the British Dominions will be especially welcomed. Apply Editor, "Country Life," 20 Tavistock Street, Covent Garden, London, W.C.2.
Sept. 30	Designs are invited for a statue in bronze and a pedestal (at a cost of about £5,000) in honour of the late Sir Ross Smith, K.B.E. Apply The Agent-General for South Australia, Australia House, London.

The British Industries Fair, Birmingham

A distinct liveliness of interest already manifested in the forthcoming British Industries Fair at Birmingham clearly points to a keen appreciation on the part of British manufacturers of the unique opportunities for the development of trade, both at home and abroad, which such an exhibition inspires and offers. Certain is it that if the interest already shown develops in proportion as the dates of the Fair approach, then 1924 will register the high-water mark of popularity and usefulness. Already the preliminary arrangements for the allocation of stands are well in hand, and a large number of last year's exhibitors and new firms have intimated their decision to be represented.

One circumstance that will tend tremendously towards the real business success of this year's Fair is the fact that it will be held during the period of the British Empire Exhibition at Wembley. Tens of thousands of buyers, representatives and business men generally from all parts of the world will converge on London, and it may be taken for a certainty that those visitors in England from May 12-23 will not fail to take full advantage of that circumstance by going on to Birmingham.

In the best interests of the Fair and trade prosperity generally, it is desirable that space bookings should be delayed as little as possible. The Council of the Fair invite applications for space and such applications should be made direct to the General Manager, British Industries Fair, Chamber of Commerce, Birmingham, who, we understand, will also deal with all matters relative to the Birmingham Fair.

New Inventions

Latest Patent Applications.

992.—Mills, H. M.—Road-making. January 14.
1355.—Swanton, G. H.—Roadway conduits for gas mains, etc. January 17.
1331.—Tonks, W. H.—Casement stays, etc. January 17.

Specifications Published.

209114.—Mulligan, F.—Plaster.
209179.—Harrison, J. A., and Waschatz, O. A.—Apparatus for the manufacture of composition building sheets or slabs.
209251.—Moreau, H.—Method of and apparatus for central heating.

Abstract Published.

207009.—Roof Gutters.—Jones, W., 164 High Street, Bangor, Carnarvonshire.

Blinded Soldiers as Telephone Operators

It may not be generally known that telephone-operating has been most successfully taught to the blinded ex-Service men at St. Dunstan's. A number of these men have found employment with important business firms and organizations in London and the Provinces, where they are rendering good and efficient services. St. Dunstan's has several fully-trained men ready for vacancies. Perhaps some reader opening up in new fields, or faced with a necessary change in present arrangements, might like to give a blinded soldier operator a trial. If so, the authorities of St. Dunstan's Headquarters, Regent's Park, London, N.W.1, will be glad to supply full particulars.

Two Ingenious Home Fittings

The modern way of hanging curtains is to substitute the "sliding" action of curtains hung on rings and poles for the "rolling" action of the little "Challenge" runners running on roller bearings along a light section rail fixed in position above the window. Curtains hung by the "Challenge" method will "glide at a touch" round any curve. The curtains are suspended on runners freely running along a light section curtain rail which is easily bent by hand—and just as easily fixed by a few screws in the position required. The runner will accommodate both light and heavy curtains, and the wire frame of the runners being made of rustless steel, makes discoloration of the most dainty fabrics impossible. Every style of hanging curtains can be carried out by the "Challenge." Another "Challenge" speciality is the patent stair-carpet clip—which does away with the use of stair rods. It is a strongly-made two-armed clip for securely holding the carpet rigidly in position and preventing all sag. The clips do not require cleaning. Specially prepared booklets fully describing these improvements may be obtained on application to the makers, Chalco, Ltd., Summer Row, Birmingham. The firm are exhibiting at the Ideal Home Exhibition (February 28 to March 22).

Tenders

Birmingham.—Steelwork at new stores for Messrs. Lewis. Messrs. G. de C. Fraser and Ainley, Liverpool, architects :—

Robinson and Kershaw	£27,500
Bannister Walton	26,750
Redpath Brown	26,360
Keay	25,883
MacIntyre	25,092
Dorman Long	24,360
Ed. Wood	23,100
Braithwaite	22,950
Parkes (accepted)	21,990

Cardiff.—Alterations to 18 Pembroke Terrace, Cardiff, for the Cardiff and District Branch of the British Legion. Messrs. Willmott and Smith, Cardiff, architects :—

Walter Gale, Ltd.	£2,137 2 0
M. J. Venning and Son	1,447 14 5
Bradford and Davies	1,430 0 0
E. Williams & Co.	1,306 10 6
Price and Morgan	1,295 0 0
H. C. James	1,276 0 0
T. R. Evans	1,238 0 0
H. Jones	1,181 0 0
W. Rowles, 183 King's Road, Cardiff (accepted)	1,179 10 0

Carshalton.—Erection of 28 cottages in 12 blocks and eight flats in two blocks, in various parts of the district, for the Carshalton Urban District Council. Mr. W. Gale, A.M.I.C.E., Licentiate R.I.B.A., Carshalton, architect :—

Perry Bros.	£17,627 0 0
Cropley Bros., Ltd.	15,732 0 0
G. Greenwood and Sons	15,413 0 0
Turnbull and Son	15,000 0 0
Burnand and Pickett	14,879 0 0
Smith and Moreton, 171 Gipsy Road, West Norwood (accepted)	14,357 1 0

Holyhead.—Erection of minister's residence, Porthyfelin Road, Holyhead, for the trustees of the Hyfrydle C.M. Chapel, Holyhead. Mr. T. E. Thomas, M.S.A., Holyhead, architect :—

Pritchard and Williams	£2,018
D. J. Jones	1,842
O. R. Jones	1,828
J. Hughes, Sunnyside, Holyhead (accepted)	1,684

Portsmouth.—Erection of shops, etc., at Grove Road. Mr. G. C. Vernon-Inkpen, Portsmouth, architect :—

G. J. Davis and Son	£2,996
S. Salter	2,965
J. Croad	2,920
J. Crockerell	2,708
J. Lay and Co.	2,669
F. Corke & Co.	2,599
F. J. Privett (accepted)	2,327

Southwark.—Structural alterations at Newington Institution, for the Guardians :—

Trollope and Colls, Ltd.	£43,900
Dove Bros., Ltd.	43,870
Patman and Fotheringham	43,334
Higgs and Hill, Ltd.	42,880
R. J. Truscott	42,805
J. Marsland and Sons, Ltd.	42,765
W. H. Gaze and Sons, Ltd.	41,881
J. and C. Bowyer, Ltd.	40,794
Webster and Cannon	40,198
Walker and Slater, Ltd.	39,940
Prestage & Co.	38,773
Castle Bros., Ltd., Borough (accepted)	38,021

Truro.—Reconstruction of the Royal Printeries and alterations to shop front, etc., at Truro, for Mr. O. Blackford. Messrs. Cowell, Drewett and Wheatly, A.R.I.B.A., Newquay, architects :—

Carkeek and Sons, Ltd.	£5,885 0 0
Colenso, Ltd.	5,749 0 0
H. Tippett and Son	5,350 0 0
W. E. Bennett	5,124 17 0
G. West, Newquay (accepted)	5,106 0 0