Wednesday, June 25, 1924. Vol. LIX. No. 1538.

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal."

FROM AN ARCHITECT'S NOTEBOOK.

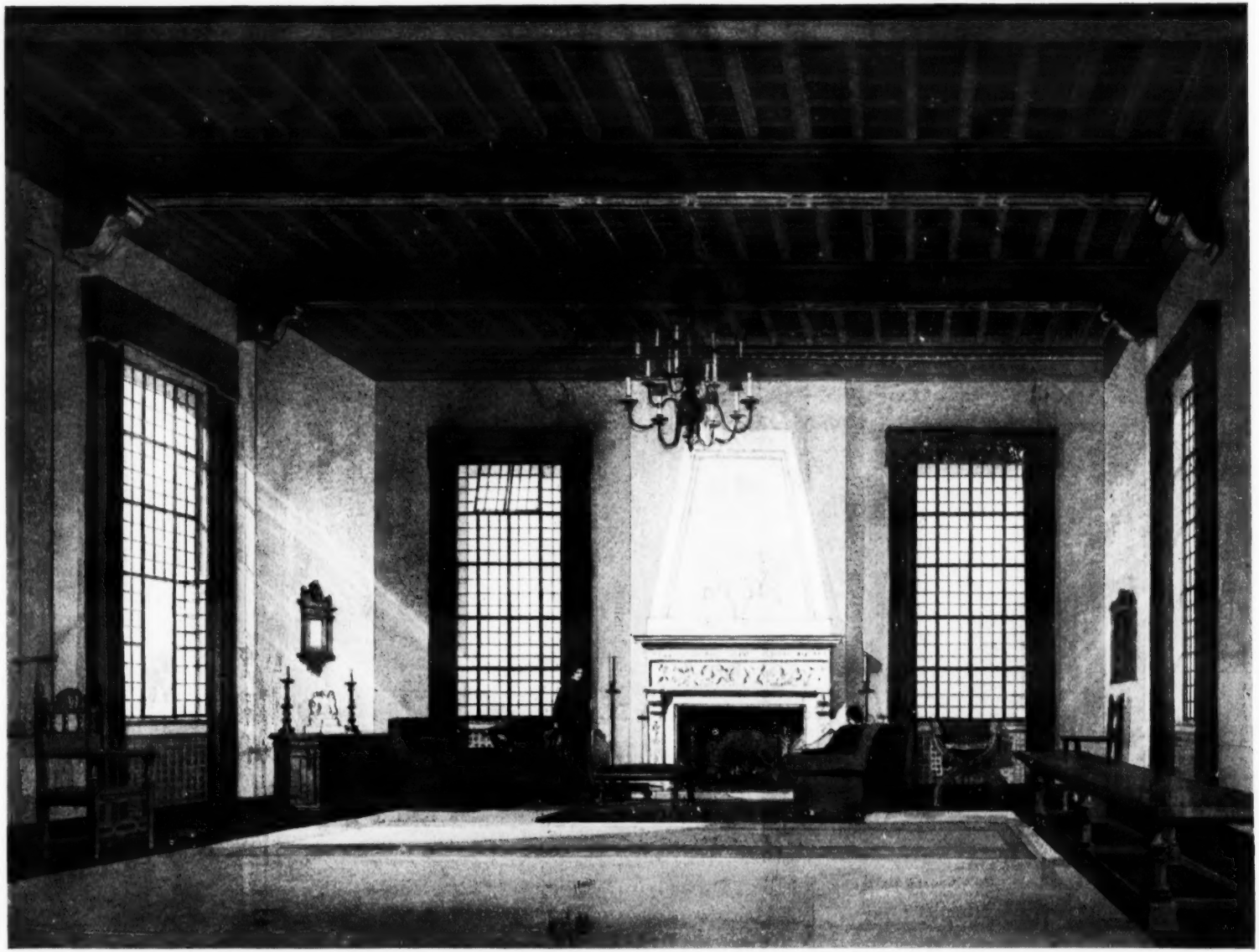
Old Regent Street.

Who that remembers the narrow, dingy, dirty thoroughfare called Swallow Street, with adjacent poverty-stricken alleys, can forbear to rejoice on seeing the wide, noble, and decorated vista of costly shops and other buildings which, in the improvement of London, has arisen on its site? Regent Street is the depository of foreign excellences and luxuries and the refinements of home manufactures; it is the mart whence Fashion derives her ornament, the favourite lounge of "men about town"; the region where architecture does not disdain to lavish upon shops her columns and entablatures and porticoes; the glory of the trading section of the West End, the assertor of the pride and wealth of retail dealers.

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

The Students' Common Room, British School at Rome

H. Chalton Bradshaw, A.R.I.B.A., Architect



Interest is lent to this design by reason of the fact that Mr. Bradshaw was the first Rome Scholar in Architecture.

THE

ARCHITECTS' JOURNAL

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Old Forms and a New Material

WHEN ancient Greece turned from her older manner of building temples in clay and wood to construct more ponderous and more permanent temples of solid marble, the invention of new forms of arts was not by any means unaided by precedent and example. Transformation rather than creation is in evidence in the history of this artistic development, and whether the proto-Doric columns of a rock-cut tomb at Beni-Hasan in Egypt may or may not be accepted as the possible origin of certain manifestations of Grecian columnar architecture, there is no lack of evidence that communication with Egypt affected the art of Greece. The Egyptians upon the one hand, and the Hittites upon the other, had already erected buildings of large stone masonry at a remote period, and the knowledge of these buildings could not have been without its influence upon an intelligent and enquiring race.

Climatic conditions and the established tradition of a pitched roof in Grecian architecture forbade any exact imitation of a foreign style, even though its great works may have stimulated construction upon a grand scale; and when the old proportions suitable for columns of timber were not found entirely appropriate for adoption in marble, the hints received from abroad were absorbed into a living body of native effort. An instinct for the creation of monuments of great plastic beauty directed the design of every part in accordance with the structural and artistic possibilities of the harder, but less tenacious, material. Scholars may yet discover documents to prove that art critics in ancient Greece were contented with the progress from the slender to the robust, but the very attenuated forms of columns and antæ represented in vase paintings and bas-reliefs of a somewhat later date seem to indicate that minor artists were not all in favour of increased bulk in the architectural features as translated into marble.

With modern architecture the course of transformation tends in the opposite direction. The introduction of structural steel, endowed with tenacity high in proportion to that possessed by timber and out of all comparison with the limited strength of stone when subjected to extension, has permitted of diminution in the number and area of the supports required to carry a definite load. Conditions of convenience and economy suggest that what is possible in this respect is also permissible. Supports are either made fewer and more widely spaced, or are made thinner, or even made more slender and given a greater intercolumniation simultaneously. Nor is there any pre-existing standard of skeletonized architecture at hand to direct and control the experiment. Little enough is known even about the wooden temples of antiquity, and these, as one-storied buildings, could but faintly illuminate the way of the modern architect save in respect of veranda'd bungalows, boat-houses, and petty garden kiosks. As for bandstands, the recent study of acoustics has brought in a continuous walled niche shape for them, in contradiction of the general tendency towards slimness, and, indeed, their cast-iron columns had developed that tendency to its extreme in any case.

Constructional interest is an important element in every living style, and when at the birth of English Gothic architecture the fashion for supports of ample bulk was replaced by the desire for comparatively slender piers and colonnettes, the change in shape reflected a genuine alteration in building material and method as, by degrees, the use of large stone ashlar superseded the use of feeble rubble concrete between facings composed of small cubic stones with thick joints of fat lime mortar.

Had steel been introduced into building practice in the same gradual manner, first as minor reinforcement to the masonry, then as an equal factor in load-bearing, before ever it became the principal support, the changes from style to style might have been interesting and comprehensible instead of over-violent, arbitrary, and pretentious. The fact that steel has been introduced in the interests of economy and not in the service of religion differentiates the modern example of change of material and method from either the ancient or the mediæval case, and has allowed the change in architecture to proceed without the same serious attention to the necessity for appropriate beauty of expression that was evident in them.

The Renaissance style of England, though not constructionally so vital as a true style should be, was yet pervaded by an air of content and presented a smiling face to the street. So far the modern use of steel has neither introduced a new style nor consistently developed the old one, which is in process of being stretched apart limb from limb to the horror of sensitive spectators.

The revival of the classic orders found its principal justification in that they had been perfected in the course of centuries, during which experiment and experience succeeded one another in the evolution of a single theme, the arrangement of columns and entablatures. Now, in the ancient art the proportion of light to dark, of solid to void, was as important as the form of the solid support itself, and the modern method of using columns accurately copied from the antique at distances far in excess of their original spacing only serves to exaggerate a deformity of proportion it is intended to disguise and to emphasize the poverty of wit that relies upon trimmings instead of upon a balance of purpose with its fulfilment and the expression of unity in both these elements.

That such a combination is recognizable even in the minor decorations of a Greek temple is no reason for blind repetition of those details in unsuitable places, but architecture proceeds by the imitation of chosen examples as well as by abstract reason, and these examples have seemed to promise to add to modern architecture their own intrinsic beauty. At one stage of the application of metallic archi-

tecture it so happened that the Mauresque style supplied the patterns. Cast-iron columns were given capitals in which those of the Alhambra were travestied, cast-iron screens of Arabesque scroll work were used as brackets beneath girders, as parapets, as ventilating panels, and as superficial decoration. The effects were hateful enough in all conscience, for the detail was invariably coarse, and Ruskin's condemnation of the "detestable ornamentation of the Alhambra"—which he had never seen—may have been occasioned by the disgust he must have felt beneath the tawdry fripperies of some glass and iron roofed railway station.

Whether it is better to employ classic detail divorced from any possibility of classic arrangement or to take a suggestion from the Arab style, where thin supports are contrasted with broad areas of walling, unbroken save by minute surface decoration, is a problem for the future. Skeleton construction stark and raw, or perfunctorily given a modicum of protection from the weather, but without the grace that may be given it by the kindly influences of conscious art, hardly amounts to architecture, though it is possibly a fair enough foundation for it. But while hoping for the discovery of a suitable treatment for skeleton construction, it should be remembered that the skeleton is not everything, and truth does not require that every line should be emphasized in the finished building. Still less is it necessary to insist only upon vertical lines as if vertical forces were the only ones worthy of notice or a department store in Oxford Street the ultimate canon of art.

The hard fate that dogs the steps of architecture in this country is exemplified in the case of Regent Street, where, just as Press and public are becoming aware of the beauty of simple continuous treatment, such as was shown in Nash's old buildings, some of the great new shops and showrooms are designed with the minimum of either continuity or repose. Even the most rigid of constructional purists should agree that the presence of the steel in our buildings may be quite sufficiently advertised without the sacrifice of every feature to the pilaster strips of stonework enclosing the main stanchions, and a possible remedy for the unpleasantly ribby type of architecture afflicting London at present is to return to the consideration of buildings and groups of buildings as a whole. They might be viewed as geometrical masses important in outline, in colour, and in light and shade, in which the void of a window opening counts as a dark blot in the colour composition and does not necessarily require a vertical line ruled down one side of it by the shadow of the pilaster strip.

WILLIAM HARVEY.

An Historic Meeting

Last week's meeting of the R.I.B.A. at Caxton Hall was an astonishing success. At least 600 members were present. Nor was the gathering merely metropolitan. Large numbers came from all parts of the country—from so far afield as Belfast and Elgin, to say nothing of two members from Australia. As we report elsewhere in this issue, the meeting recorded an overwhelming vote in favour of the amalgamation proposals; opposition was negligible, and perfect good feeling prevailed. This manifestation of solidarity and enthusiasm is particularly gratifying, coming as it does immediately upon the greatest political crisis that the Institute has ever known. The amalgamation proposals might well have split the Institute from end to end. Instead, the Institute emerges from its ordeal stronger than ever, united as never before for the advancement of the art and profession of architecture. This triumph—it is nothing less—is first of all the reward of those leaders of the profession who, in face of much difficulty and discouragement, persevered in the attempt to find a way out of the registration *impasse*; but due credit must be given to the general body of the Institute for rising to the greatness of the recent occasion, and also to the Defence League, whose letter, read at the meeting, signifying willingness to abandon controversial agitation in the interests of the profession as a whole, gives good cause for the hope that the bad old days of division and dispute are finally at an end. The card vote which is now being taken may or may not be necessary, but at least it will put the issue beyond the possibility of a shadow of doubt. General agreement on principle having been reached, the Council of the Institute will now, no doubt, feel themselves in a position to consider some few points of detail, concerning which there is a desire on the part of certain members (whole-hearted supporters of amalgamation and registration) to see some action taken. In this issue Mr. Gilbert Jenkins urges, for one thing, that the title of the Institute should be brought into consonance with the infinitely wider horizon that has opened up since the Institute was founded. He also brings forward an objection to the title "Chartered Architect." Opportunity for the consideration of these and other points of detail will no doubt be found on the occasion of the Special General Meeting which is to be convened for the confirmation of the resolutions put to last week's meeting.

"Names of Illustrious Fame"

Looking through the American periodicals one is often struck by the number of firms of architects credited with the design of current architecture whose founders have long since passed away. The practice of retaining these long-established and familiar names is perfectly understandable, for do they not impart a touch of distinction to the note-paper heading, and are they not potent for bringing much good work into the office? Some surprise may perhaps be occasioned years hence by the extraordinary difference of quality shown in the work of some of these firms, but that, after all, is a little problem for the future with which this generation need not concern itself. The retention of these old names, when the founders have died out, is not necessarily reprehensible; the law is a great believer in the practice, and that surely is a sufficient justification of it. (Those delightful portmanteaulogue names of the legal fraternity! And it is more than likely that behind some such formidable combination as Peabody, Peabody, Peabody, Son, Pecksniff and Postlethwaite there lurks an inoffensive little man by the name of Jones). It sometimes happens, however, that there is a real justification of names through a business being handed down from father to son, and in such cases it is usually found that the tradition of good work is inherited with the title. If we might be allowed to support our contention with an illustration we could not do better than mention the distinguished firm of Sheffield architects, originally Flockton and Gibbs (there must be many who remember the old title, and perhaps still think of the firm by it). Afterwards it became Flockton, Gibbs, and Flockton; then, on the death of the elder Mr. Flockton, it was reversed to Gibbs and Flockton. At present, of course, it is Gibbs, Flockton and Teather, though there is even now a Mr. Harry Gibbs, junior, in the firm, whose title may yet be Flockton, Teather, and Gibbs. It would be interesting to know whether there are any parallels to this case of continuity of family association and tradition.

The Title "Architect"

On the question of the registration of architects, Mr. Beresford Pite has written a letter to "The Times," which we print elsewhere in this issue. Mr. Pite, we think, is under a wrong impression in believing that the object of registration is to "limit the exercise of the art of design in building." Surely the object of registration is to restrict the use of the title "architect" to those who have shown themselves to possess certain qualifications. It has never been seriously contended that unqualified persons can be prevented from designing buildings. But they ought not to be allowed to call themselves architects.

Architectural Travel

Edited by F. R. Yerbury, Secretary of the Architectural Association

8.—Southern Italy and Sicily

By H. CHALTON BRADSHAW, A.R.I.B.A.

IT must be repeated that these notes are not intended to take the place of guide-books. Baedeker, or someone like him, is indispensable; and for Sicily, for those who read Italian, there is nothing so good as the guide to Sicily of the Touring Club Italiano, which contains all the latest information. The architectural student will understand that the main interest of Southern Italy and Sicily lies in its remains of Classical, and, in particular, of Greek antiquity, and will not expect to find the wonders of the Renaissance as in Northern and Central Italy. Again, one cannot too strongly urge the student to gain some background of historical knowledge both for the Classical and also the Norman periods, without which, in Sicily especially, he is bound to miss much.

Naples

For travelling in Southern Italy Naples will be the student's headquarters. From it branch out all the railways, and it is also the starting point of the steamers to Sicily, if the sea-route be chosen. Naples is not remarkable to any great extent for its architecture, but its position on the bay with Vesuvius in the background is, of course, unrivalled, and its museum contains the treasures from Herculaneum and Pompeii, which compensate for much.

The old quarters of the town near the harbour are picturesque and dirty, and the view from the Capo di Monte is magnificent, but on the whole the town is not very attractive. The cathedral and the other churches, built under the Normans, have been largely restored and have lost most of their original character. The Palazzo Reale, on the Piazza del Plebiscito, begun in 1600 from designs by Domenico Fontana, was rebuilt under the Napoleons after a fire. On the other side of the Piazza is S. Francisco di Páola, in the centre of a colonnade. This church was built in 1817, and is an imitation of the Roman Pantheon. Probably the best building in Naples is the Reale Teatro di S. Carlo. It has a striking front added in 1809 by Niccolini, which suffers by being in a narrow street. The detail is beautiful.

As mentioned above the chief treasure of Naples is the Museum, with its bronzes and frescoes from Herculaneum and Pompeii. Here the student will find not only statues, but the beautiful domestic furnishings—tripods, candelabra, lamps, etc., which have inspired much of the finest modern work. From all this he will instinctively turn to visit the towns from whence these objects came.

Pompeii

There is much more to be seen of Pompeii, which was buried in dust and ashes, than of Herculaneum, which was overwhelmed. The volcanic rock here has to be carefully drilled or blasted away, whereas at Pompeii the skilful use of the shovel is usually enough.

Pompeii is amazing; in particular the district of the town most lately excavated. The student should do all in his

PAESTUM: THE TEMPLE OF POSEIDON.

(From a Water-colour by H. Chalton Bradshaw.)

power to obtain permission from the director of the museum in Naples to see the parts of the city that are not yet thrown open to the general public. The earlier excavations were comparatively careless affairs, and most of the wall pictures were ruthlessly cut out and transported to Naples. In the later excavations the student will gain a remarkable insight into the domestic architecture and conditions of life in an Italian country town of the first century A.D. These excavations are model ones. Plaster casts are taken of doors and beams and other wooden objects which have left their shape in the ashes, and these are placed with their fittings in their proper position. Ceilings are laboriously pieced together from fragments and restored to their place, and frescoes are revealed as fresh as when they were overwhelmed. Even the scribblings on the walls are preserved. In one house there is still on the fire a pot within which are the bones of a chicken, and a bird-cage with its little drinking bowl. It is worth noting that most of the houses now appear to have had at least two stories, though unlike the Roman and Ostian "insula," they were of the "domus" type, built round a central atrium or peristyle.

Nearer to Naples, to the west, is Pozzuoli, an ugly, dirty, little town, but worth a visit for its amphitheatre and the so-called Serapeum.

Two other comparatively short excursions from Naples may here be mentioned—the one to Capua, to see the great amphitheatre, second only to the Colosseum, where one may walk along the passages which were under the arena, and the other to Beneventum, in the centre of its fertile plain (where the Romans broke the power of Pyrrhus), to see Trajan's great triumphal arch.

Sorrento, Salerno, Amalfi

I do not propose to speak of Capri or the other places which the student may wish to visit for their natural beauty,

GIRGENTI: THE TEMPLE OF CASTOR AND POLLUX.

GIRGENTI: THE TEMPLE OF HERA LACINIA (SO-CALLED).

(From a Water-colour by H. Chalton Bradshaw.)

but which have no particular architectural interest. But he will probably want to see Sorrento and take that wonderful drive along the coast to Salerno, stopping a night at Amalfi on the way, and perhaps paying a visit to Ravello on the cliff above. Both Amalfi and Ravello possess cathedrals, which though restored, are interesting examples—Amalfi of Northern Lombard, and Ravello of Romanesque work. As in the case of the churches in Palermo, there is a certain amount of Saracenic influence noticeable, though here it is, perhaps, not so marked. Traces of this influence are to be met with all along this coast, particularly in domestic architecture, which often exhibits the flat roof with the small shallow dome in the centre so characteristic of eastern towns.

Salerno, now rather a dirty manufacturing town, but possessing also a restored Norman cathedral, is the starting point for the trip to Pæstum. It is, however, preferable, from the point of view of comfort, to sleep the night at Cava dei Tirreni, a short distance back along the line towards Naples.

Pæstum

Pæstum is perhaps the most impressive monument that the Greeks have left to us. The three temples stand on the deserted plain, with only a miserable hut or two near by, and nothing to break the stillness but the tinkle of a sheep-bell and the occasional bark of a dog. The temples, like those of Sicily, are of coarse limestone, and show traces of the stucco with which they were originally covered.

It would be impossible even to mention the various towns of Southern Italy which you may care to visit. The choice must be left to your personal taste, and to the time you have to spend. You may see Lecce, that curious Baroque town in the heel of Italy, or the decayed and rather squalid cities of the Adriatic sea coast—Barletta, with its great bronze statue of Valentinian II, Bari, and Brindisi. Then you may go south to the reviving town of Taranto, with its classical remains; but all this land is rich rather for the historian and archæologist than for the architect, and probably rather than wander round Southern Italy you will elect to cross to Sicily. You can go either from Naples to Palermo by steamer, or by the short ferry crossing from Reggio Calabria to Messina.

Here it should be repeated that by far the best time to travel in Southern Italy and Sicily is between the latter part of October and May, when there is little or no danger of malaria. Otherwise the student must take precautions, and avoid sleeping or remaining out of doors after sundown in malarial districts.

Sicily

Sicily is even richer historically than Southern Italy, and the remains of its past are for the most part even better preserved. Like Southern Italy, the interest for us lies mainly in Classical, and more particularly Greek times. In

Sicily were most of the richest and most flourishing of the Greek colonies, including the greatest of all—Syracuse, which for centuries with varying success upheld the cause of Hellenism against the Carthaginian, just as Greece itself withstood the Persian. This first great period in the history of Sicily lasted until Rome took over the fight and finally crushed Carthage, and Sicily became Rome's first province.

In the second great period of her history Sicily played something of the same rôle when under the Normans she stood for Westernism against the Saracens. This struggle is mirrored in the second important period of her architecture—the Norman—where Byzantine and Saracenic influences are clearly visible.

A tour round Sicily may start, according to the route chosen from Naples, either from Messina or Palermo.

Palermo

Palermo is the capital and the headquarters for visiting the western parts of the island. Its main interest lies in the work produced under the Norman kings of Sicily, and in its modern quarters with their broad roads and spacious houses and blocks of flats. The student will, of course, visit the cathedral and other Norman churches, and also the Cappella Palatina in the Palazzo Reale. He will certainly take the train to Monreale, the cathedral of which with the Cappella Palatina reaches the high-water mark of that curious blend which is the architecture of Sicily under the Normans. The interiors of both churches blaze with mosaics—the work of Byzantine Greeks. He should also visit the museum of Palermo, which contains among other things architectural terra-cotta ornaments, of which excavations in Sicily supply many examples of beautiful design. From Palermo expedition should be made to the unfinished Temple of Segesta, with its still unfluted columns, and to Selinus, its unhappy rival, destroyed by Carthage 409 B.C., whose ruins, further laid low by earthquakes so that hardly one stone is left upon another, are almost overpowering (the visitor should sleep the night at Castelvetrano, as there are only a few cottages at Selinus, and the whole place is fever-stricken). There are two main groups of ruins at Selinus, those of the temples on the Acropolis, overlooking the old harbour, now silted up, and those to the east, farther inland. Beside these there is the precinct of Demeter at Gaggera, on the other side of the river, one of the earliest shrines so far excavated.

From Selinus the student, if historically minded, may proceed to Marsala and Trapani to see some of the Punic remains now being excavated at Motya, or he may return to Palermo.

Girgenti

Of even greater importance than those of Selinus, because of their better preservation, are the ruins of the temples of Acragas (Girgenti). Girgenti, the modern town, occupies the site of the ancient Acropolis of Acragas, which must have been a city of great size. The temples are situated on a natural ridge of rock scarped so as to form a precipitous bastion to the south of the town overlooking the low-lying coast and the sea. The so-called temple of Concord, which was once turned into a Christian church, and that of Hera (so-called) are well preserved. The other temples, like those at Selinus, have suffered severely from earthquakes.* The temple of Zeus was the largest of all Greek Doric temples. The prostrate Atlas for this temple, the enormous drums of the columns and stones of the stylobate, give some idea of its stupendous size.

A visit to the sites of Selinus and Acragas is a rare experience. To see these great ruins in settings of such lovely beauty, and to stand looking out over the Mediterranean is to imagine the ancient builders of these outposts of Hellenism gazing over the sea at the sails of the oncoming

* The columns of the Temple of Heracles have lately been re-erected.

GIRGENTI: THE TEMPLE OF HERACLES. FALLEN COLUMNS.

(From a Water-colour by H. Chalton Bradshaw.)

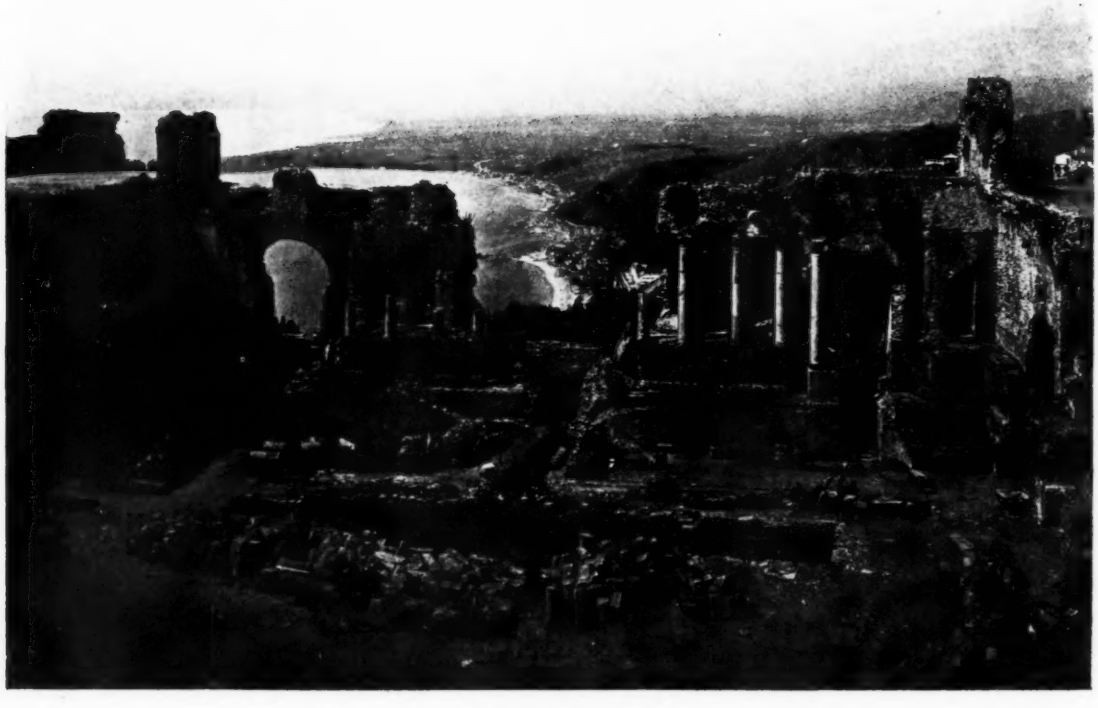
Carthaginians with whom they waged war for so long and who finally destroyed them.

Syracuse, the colony of Corinth, was one of the earliest and certainly the greatest of all Greek colonies. As at Acragas the modern town only occupies a fraction of its former site. Ancient Syracuse was at the time of its greatest power really immense, though we do not know how much unoccupied space there was within its walls. We know that it was divided into five regions, and that it is more than five miles from the great fort of the tyrant Dionysius, Euryalus, which guarded the town to landward, to the Island of Ortygia, once the Acropolis, and now the site of the older part of the modern city. There are ruins of temples in Syracuse —that of Apollo, one of the oldest examples of the Doric order, and that of Athena, built into the cathedral. Besides these there is the Museum, exceptionally rich in its architectural terra-cottas, and other remains of Greek colonists from the whole of the east of Sicily. Then there are the great Latomiæ, or stone quarries, from which were cut the blocks of which ancient Syracuse was built. These quarries are now like enormous sunk gardens, but one can imagine them grim and bare—the rock burnt by the blazing sun when the wretched survivors of the ill-fated Athenian expedition were flung into them to die. Probably, however, the most interesting of all to the architectural student is the great fortress of Dionysius, Euryalus, on Epipolæ. This is quite the most perfect example we have of ancient military architecture. It is of great size, and its galleries and defensive arrangements are remarkably well preserved.

A STREET IN NAPLES.

Passing Etna on his left, on his way up the coast to Messina, the student will stay at Taormina, beloved of artists. Standing in the ancient theatre he will have an unrivalled view of the coast so famous in classical legend.

[The previous articles in this series appeared in our issues for March 21, June 13, July 11, August 8, and October 17, 1923, and January 16, February 20, March 19, and June 11, 1924.]



THE THEATRE, TAORMINA.

The Evolution of the Tivoli Corner of the Bank, 1804-5

By ARTHUR T. BOLTON, F.S.A., F.R.I.B.A., Curator Sir John Soane's Museum

ALL alike share in the child's demand, "Want to see the wheels go round." Did any artist, however, ever succeed in conveying to others a clear idea of the mechanism of his design? There is always in his story that hiatus, at the very point where the vital change took place, suggesting the mere volition by which the design was so determined, and unconsciously assumed its originality of form and expression.

This thought may arise in connection with the illustrations given in this article, from sketches photographed for the Soane Museum through the kindness of the Directors of the Bank of England. They are missing in the series of drawings at the Soane which relate to the famous Tivoli Corner, but they can be connected with the successive stages of the evolution of Sir John Soane's masterpiece. The numbers given here are not on the originals, but have been worked out with a considerable degree of probability by the curator.

Thus No. 1 seems to be sketched from a rough elevational design by Soane himself, dated "Margate, September 16, 1804." He had left London on Friday the 14th in the Margate coach, and arrived at 7.30. The 16th was Sunday, and he notes that "Braham and Storace" (well known in the musical world) dined with him.

On the following day Soane dines with "Mr. Peacock." Certainly this would be George Dance's old assistant, through whom most probably Soane entered the office, and with whom he maintained a lifelong friendship. It would have been worth while to be present. Peacock possessed a pawky sense of humour, and in a book of his describes himself as "hod man to George Dance." There is no doubt he was a most valuable nigger in the office of a master deficient in concentration. "James Wyatt," Peacock writes to Soane, "is now I suppose too great a man to concern himself with my affairs." There must have been some rare talk extending back to 1768, the year Soane came to London, and embracing most of the personalities of the time. Soane leaves Margate by coach at five and arrives home by seven, noting his expenses as "about £5 5 0."

The following day he is back at the Bank, and there is a drawn-out elevation of that date with his own figures and rough sketches showing his concentration on the matter in hand.

Margate, which had been visited by Robert Adam, as appears from a design of his dated there about 1776, was still a fashionable resort, and its natural beauty of outline was as yet unspoilt. Cecil Square, laid out in 1715, still retains a trace of the old character. It is certainly interesting to connect the evolution of Soane's masterpiece with this brief holiday on the Kent coast.

No. 2 sketch can be related to a plan made twelve days

1. IDEA FOR THE TIVOLI CORNER. SEPTEMBER, 1804.

A sketch elevation by Sir John Soane, R.A., dated "Margate, September 16, 1804," closely resembling this, is in the Soane, also a rough-drawn-out elevation of September 19, but the attic is lower. Another drawing, dated October 3, 1804, agrees exactly, except that the attic is subdivided into a centre and side bays in correspondence with the width of the upper feature.

2. IDEA FOR THE TIVOLI CORNER.

Related to a plan dated September 28, 1804. No elevation for this in the Soane.

later, a passing idea of obtaining breadth, by eliminating the various complexities of the supporting masses set at an angle to the main face.

No. 3 also, related to a plan of October (no day given), shows a reversion to the angular treatment, which, however, is now to be treated in a closed instead of open manner, the free columns being reduced to flat antae. There is an intermediate solution where the four main columns are not projected forward, portico fashion, but are set back "in antis," no doubt also from consideration of breadth of effect. The original pencil and wash sketch of this is in the Soane, and not at the Bank. The date is October 12, and for the drawn-out version October 19.

No. 4 marks the final solution, so far as the order stage is concerned, and henceforth, until June, 1805, Soane concentrates his attention on the development of the attic.

It seems probable that this final stage was connected with a business trip to the West of England. Soane left London Friday, October 26, in the Exeter mail coach, travelling all night and getting to Salisbury at 8, Exeter 11, and leaving again at 1 p.m. in another mail for Plymouth. He arrives there 8.30 on Sunday, proceeds at 9 in a post-chaise, and reaches his destination, Port Elliot, at 12.30. Two days are passed there attending to work in hand, and on November 1 he leaves for Crichet, another undertaking, and gets back to London on Sunday, November 5, after a night journey. He notes "expenses £18 19 0" to be entered as against the two clients.

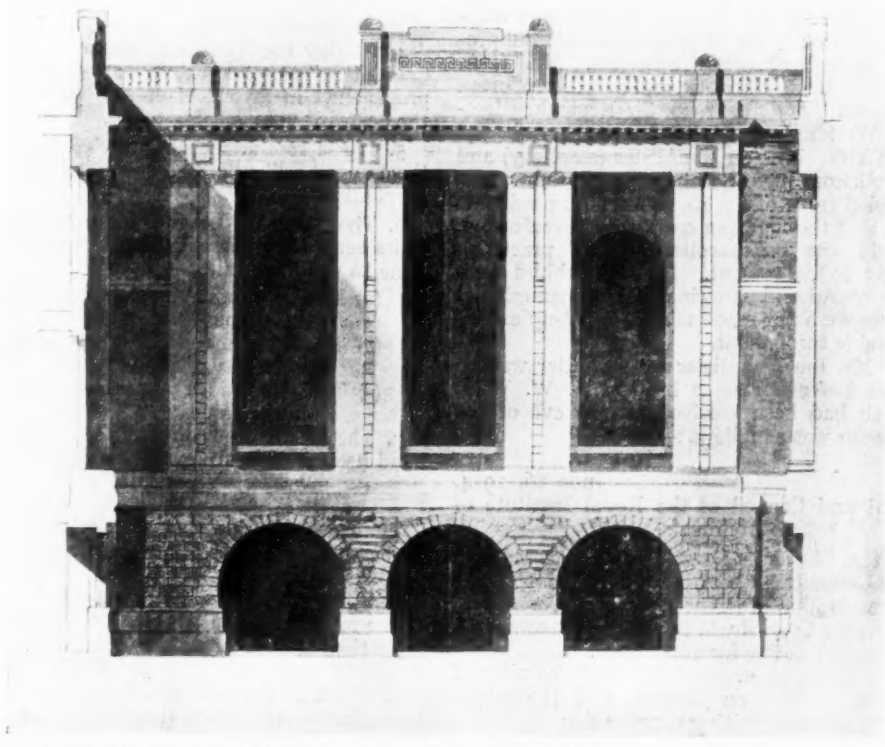
3. IDEA FOR THE TIVOLI CORNER.

A plan, October (no date), 1804, agrees with this sketch, but elevation is not at the Soane.

It is not unreasonable to assume that the mind of the energetic architect was incessantly occupied during these long journeys, and brief spell in the country, with the pressing problem of the Tivoli Corner. The design shaped in his mind was easily projected in the succeeding studies on paper, and apparently the months of November and December determined the decisive form.

4. IDEA FOR THE TIVOLI CORNER. DATE BETWEEN OCTOBER 11 AND NOVEMBER 1.

On a setting-out plan of October 11, 1804 ("in antis" treatment), the circular sweep forward is roughly drawn by Soane in red ink, the whole corner being moved outwards. Evidently this was the decisive moment. A brown-ink rough sketch elevation over it is the basis of this sketch. The attic development follows during November and December and lasts until June, 1805.



5. ELEVATION OF THE LOGGIA IN THE GOVERNOR'S COURT. DATE AFTER JULY 30, 1803.

No drawings for this at the Soane. This original is at the Bank.

The final stroke of the angular projection of the attic on the line determined by the twin columns of the angle, emerged timidly and tentatively on an elevation dated November 1, as it will be noticed that there is no trace of this idea in the four sketches illustrated.

A rough plan and sketches dated December 10, and some ideas of January 30 and February 4, 1805, show the continued progress of the attic stage. A drawing of April 24, however, threatens a reversion to an earlier idea of an arched recess in the centre of the attic, as though the four columns were projected forward as a curved screen in front of an archway. June 8 appears to be the latest date, and possibly by that time the work was passing into the stage of execution.

Soane was continually revising his designs up to the last moment, and the method of building he employed at the Bank made it easy for him to reserve points of design and detail down to the actual day of execution. He had too much sense of the value of work to acquire the disastrous habit of pulling about and altering works in progress.

The fifth illustration deals with a part of the Bank hardly inferior in interest to the Tivoli Corner itself. It was always a mystery that no drawings of any kind of this loggia to the Governor's Court as built existed at the Soane, and it is only recently that this elevation has been found at the Bank.

Soane's first idea for the loggia was undoubtedly that of realizing in part his Triumphal Bridge, the Gold Medal design of 1776. There are in the Soane views and elevations of a simple columned loggia over the triple arches, much less in height than the present gallery, and having the character of a colonnaded passage over a bridge. It seems certain that considerations of light to the great Hall of the £5 Note Office behind, whose tall arched windows appear in this elevation, led to the present design. It is remarkable for the Greek character imparted by the flat treatment of antae. The date is, say, between 1800 and 1805. The drawing shows the plain supporting masses to the central triple opening, which were, unfortunately, cut out, probably as late as 1860, when two arcades, hitherto blank, were opened out in the wall of the £5 Note Office. This elevation shows the walling as brick, but it may have been executed in stone. In "The Works of Sir John Soane, R.A.," just published, a photo is given of the loggia as it now stands, and various subtle changes and elaborations will be noted. The most important are no balustrades, pedimental lines to centre attic, and oblong instead of square tablets over the antae, their height that of the architrave only. This is evidently not the final drawing, and may even be a pupil's copy made in the office of the Bank.

It would have, of course, been impossible to preserve all the countless drawings made for the Bank during the forty-five years of Soane's stewardship, and, even so, they would not be final, so much being determined by the architect in person at the work.

Amalgamation

The Great Meeting at Caxton Hall

BY resolution of a largely attended special general meeting of the R.I.B.A., held on Tuesday afternoon last week at Caxton Hall, Westminster, the proposals to amalgamate with the Society of Architects were approved, and the opposition hitherto offered to the scheme by the Defence League was withdrawn on the agreement of the Council to submit the proposals to a referendum of voting members. Mr. J. A. Gotch, P.R.I.B.A., occupied the chair, and he was supported by Mr. Arthur Keen (hon. secretary), Sir Reginald Blomfield, Sir John W. Simpson, Major Harry Barnes, and Mr. Maurice E. Webb. Mr. Ian MacAlister (secretary) and the Institute's solicitor were also upon the platform. The attendance included three of the six living past presidents of the R.I.B.A., and the hall was crowded to overflowing. Nearly everybody one can recollect among practising architects seemed to be present. Division lobbies were arranged for the counting, but owing to the unanimity of the meeting, these were not made use of. Pent-up excitement was observable throughout.

At the outset Mr. Ian MacAlister read a letter written on behalf of the Defence League by Mr. H. W. Wills, F.R.I.B.A., which had been received on the eve of the meeting. The letter was as follows :—

June 16, 1924.

To the President and Council of the Royal Institute of British Architects.

Gentlemen,—The "Defence League" has proposed and the "Emergency Committee" has approved of the following agreement to settle the differences which have arisen, which, it is hoped, the Council will confirm and recommend to the special general meeting for acceptance.

1. That the Council's recommendations will be allowed to pass the general meeting on June 17 and the subsequent confirming meeting without opposition from the "Defence League" provided that, immediately after the resolutions have been passed by the general meeting on June 17 the Council forthwith hold a referendum on these resolutions by postcard vote of corporate members in the British Isles.

2. The postcard vote to be a direct vote in favour of or against the resolutions.

3. The referendum to be decided by a simple majority of those actually voting.

4. Neither the "Defence League" nor the "Emergency Committee" to send out circulars or otherwise to carry on propaganda in favour of or against the resolutions while the postcard vote is being taken.

5. If the resolutions are rejected by the postcard vote the Council will ask the confirming meeting to drop the proposals altogether.

6. The "Defence League" as a body and the members of its committee who signed the proposed undertaking on June 10 will undertake :—

(*a*) Not to oppose the Council's proposals before the Privy Council.

(*b*) To disband the "Defence League" and not to revive it within five years.

(*c*) To drop all idea of the formation of a rival society on this issue.

7. The "Emergency Committee" will undertake to disband itself and not to revive it within five years.

Yours faithfully,

(Signed) HERBERT W. WILLS.

The chairman said that this letter threw open the way to complete reconciliation within the Institute of those conflicting interests which had rather distracted their attention of late years. The Council had felt that in view of the result of the recent election they would have had no hesitation in proceeding in the ordinary way to get the necessary resolutions passed at that meeting, but they desired not to act with a high hand or to make use of the force which was at their disposal if any other course appeared which would help to bring harmony into the Institute. The Council had considered this proposal, and the Society of Architects had been acquainted with the suggestion and

were entirely willing to leave it to the Institute. Although the postal vote at present could have no legal force, yet it would give an opportunity to other members of the Institute to record a vote for or against the proposals and would remove any objection which might otherwise have been raised. The Council, therefore, urged them to agree to the taking of the postal vote. He (the chairman) undertook, on behalf of the Council, to abide by the terms mentioned in Mr. Wills's letter if the resolutions were carried. He added that the only way these resolutions could be voted upon, in accordance with the by-laws, was at a general meeting such as that, when they had to be carried by a two-thirds majority.

Major Harry Barnes, V-P.R.I.B.A. then moved the following resolution :—

"That this meeting hereby approves, ratifies, and confirms the Provisional Agreement for amalgamation, dated May 29, 1924, made between the Royal Institute of British Architects and the Society of Architects, produced to the meeting, and for the purposes of identification initialled by the president, and directs the Council of the Institute to carry the said agreement into effect." He said that by the adoption of this resolution they were going to perform the happy task of ending two divisions—one between the Institute and another considerable section of the architectural profession which had lasted for forty years. There seemed also every prospect of ending a division of some four years' standing which had been of a more acute character between the Institute and a section of it which had, since the formation of the Defence League, been opposed to the principle embodied in the agreement they were asked to approve. The Council had declined to take a referendum before, because they felt they had been elected in order to discover a policy which would end the divisions, and because they held that they must put forward the policy that they had decided upon with confidence. Having secured re-election they felt that their policy had already been approved, and they were now asked simply to make a bridge along which members of the Defence League and the Emergency Committee could rejoin their fellows in the Institute. The proposal for amalgamation arose directly out of the question of registration. The policy of achieving registration by setting up a Registration Board had already been rejected by the Institute. The only way remaining was the way which the Council had taken. To reject the present proposal would mean that the Institute had rejected the only two ways of securing registration.

Mr. Maurice E. Webb, seconding, said that in the opinion of their legal advisers this amalgamation was the first step towards the registration under Parliamentary authority, which they hoped to get later on.

Sir Reginald Blomfield, R.A., PP.R.I.B.A., supported the resolution, and congratulated the Institute on having arrived at what he hoped was a very happy solution.

Mr. John Keppie, president of the Incorporated Society of Architects in Scotland, said that they in Scotland were whole-heartedly in favour of the Council's proposals.

Mr. H. W. Wills said the Defence League held that unification had no bearing on registration, and that the electorate of the Institute had been misled into assuming that there was a connexion between the two subjects. A Registration Bill, supported by the two bodies would have as equal a chance of success as one supported by an amalgamation of the two bodies. Nevertheless, the Defence League was satisfied if it secured an opportunity for taking the feeling of the electorate and placing on their shoulders the responsibility for the issue.

Mr. T. R. Milburn, as a past-president of the Northern Association, supported the resolution, and said he hoped he was not yet too old to see registration for the profession.

Mr. Delissa Joseph said the Defence League took the view that this absorption was dangerous, because it would admit a large body of unexamined men who, by the weight of their numbers, might eventually dominate the policy of the Institute. They felt that this dilution would affect the prestige of the Institute and reduce the value of the hall-mark which present membership of the Institute gave, and would impose an irreparable injustice upon the Associates. The league had taken the opinion of Sir Lynden Macassey, who held that the absorption would not be a help in obtaining registration. He (the speaker) had pointed out to Sir Lynden that doctors, nurses, and dentists obtained registration, and Sir Lynden had replied that registration had been given in these cases, not for their own protection, but for the protection of the public, and that Parliament would give registration only where the public interest was in jeopardy. The public was already sufficiently protected as to sanitation and construction by the existing laws. He mentioned by name other bodies who had spent vast sums in Parliament trying to get registration. However, on behalf of the Defence Committee, he could say that they were agreed to abide by the result.

Sir John Sulman (Australia) said that he came from a State where they had obtained Registration, and in their community it had been badly needed. He urged the Institute to continue its efforts to secure Registration under Parliamentary authority. He hoped that at a not very distant date there might be a Royal Institute of Architects of the British Empire.

Mr. Gilbert Jenkins proposed, as an amendment to the resolution, that the clause giving Fellows the right to call themselves "chartered architects" be removed from the provisional agreement of amalgamation. He said that this clause would mean that unqualified people would be able to call themselves architects.

Major Barnes pointed out that there would be no addition to the Associate class as the result of the amalgamation. All the members of the Society of Architects were to go into the Licentiate class. The agreement must stand or fall as a whole, and he hoped there would be no criticism of it at that stage.

The amendment, which was seconded by Mr. A. H. Ough, was defeated.

The resolution was then put to the meeting, and carried almost unanimously.

Major Barnes then put the second resolution to the meeting: "That this meeting hereby approves of the Draft Supplemental Charter contained in the printed document produced to the meeting, and for the purposes of identification initialled by the President, and authorizes and directs the Council to take the necessary steps to obtain for each Supplemental Charter the approval of His Majesty's Privy Council."

Mr. Chalton Bradsaw seconded it, and Mr. P. W. Hubbard supported it, and it was carried.

Major Barnes then introduced the third resolution: "That this meeting hereby approves and adopts the new By-laws contained in the printed document produced to the meeting, and for the purposes of identification initialled by the President, and authorizes and directs the Council to take the necessary steps to obtain for the new By-laws the approval of His Majesty's Privy Council. And that the existing By-laws be rescinded immediately after such approval has been signified."

Major Barnes pointed out that only Fellows could vote upon this. After that meeting, all classes would be able to vote.

Sir John Simpson, PP.R.I.B.A., seconded the resolution, and spoke of the great value of the Unification of the profession. He believed that shortly there would be a general unification of all the professions. The professional classes were not having the influence they ought to have in the affairs of the country. He hoped there would be a great central organisation, in which not only architects, but all the great professions, would be represented, and which would be powerful enough to act.

Professor Hubert Worthington supported the resolution, and the resolution was carried by the same overwhelming majority.

The meeting then closed.

The New R.I.B.A. Charter

A Plea for Its Rectification

By GILBERT H. JENKINS, F.R.I.B.A.

THE Institute has held its meeting, and the wise and conciliatory policy pursued by the Council resulted in their scheme for amalgamation with the Society of Architects being carried by an overwhelming majority.

Unfortunately, the compromise effected between the Emergency Committee and the Defence League, although it had the happy result of uniting the profession, necessitated somewhat lengthy speeches of a propagandist nature being made to secure that the views of the two parties should be laid before those architects unable to attend the meeting, who are to be invited to take part in the postcard poll.

It followed that there was neither time nor opportunity to give adequate consideration to the wording of the new draft charter.

The work and expense of obtaining a new charter is of so onerous a nature, that it is unlikely to be undertaken more than once in a generation. Doubtless the Council of the Royal Institute has already had cause to be acutely aware of this. The need is therefore all the more urgent that the new charter should embody everything which will tend to raise the status of the profession which it is possible to devise.

Owing to the fact that the public is, at last, commencing to realize the advantage of employing competent architects for any building scheme, the time is ripe for presenting a Registration Bill, which, when promoted by a united profession, may have a real chance of becoming an Act; in view of this, there are two points in the draft charter which urgently need further consideration before the petition is presented to the Privy Council.

These two points are :—

1. The name or title of the new enlarged Institute which, under registration, will become the governing body in architecture throughout the Empire.

2. The style or distinguishing appellation adopted to designate members of the Institute.

With regard to the former it should be borne in mind that since the last charter was granted new political situations have arisen, both within and without the realm of architecture, and it would be to the best interests of architects generally, in view of the Registration Act proposals, that the title of the Institute should be amended to "The Royal Institute of Architects."

When the Institute was founded it could not have been foreseen that sooner or later the day would arrive when it would rise to such eminence as to include within its membership architects practising in all the great Dominions, and be the dominating force in architecture throughout the British Empire, with many societies or bodies practically subsidiary to it, scattered all over the world.

It is to be hoped that the architects practising in the newest of all those communities which form part of the Empire, viz., the Irish Free State, will in the future, as in the past, become members of the Institute, or belong to an allied society, subsidiary to it, and that they will be able to do so without injuring any feeling of loyalty to their native country. It is for their sakes, particularly, that the rather invidious and insular title "British" should be dropped, thus showing that the Institute has thought of their difficulties and has extended its hands to them in their new realm. The removal of the term "British" would be a real aid to such a laudable object.

It would further tend to shorten and simplify the professional title and make it less cumbersome, while the fact that it is the "Royal Institute" would still set it apart and distinguish it from any other Institute of Architects which, although English speaking, is outside the Empire. The shortened title would also give a catholicity of title to our Institute which it does not possess at the present time, without the necessity of using the full title, the Royal Institute of Architects of the British Empire, which would be still more cumbersome and long-winded.

That the members of the profession in the Colonies would welcome such a change is evident from the remarks made by Sir John Sulman, President of the New South Wales Institute of Architects, in his speech at the special general meeting.

As to the second point, the style or designation to be adopted by the members of the new enlarged Institute, there appears to be a considerable difference of opinion, founded on misconception and lack of forethought.

The Royal Institute in its negotiations with the Society of Architects seems to have found that one of the reasons which induced the latter to agree to the terms as to the class of Institute membership to which members of the Society will be admitted, was the fact that every member—be he Fellow or Licentiate—would be entitled to call himself "Chartered Architect." Consequently it was impossible for the Council of the Institute to accept the amendment proposed at the meeting that this appellation should be discontinued.

It is therefore to the members of the Society, whose Council very properly wished to continue this distinguishing appellation obtained through their own charter, that this appeal is particularly directed, as if the draft Charter lays down that members of the Institute—and those only—are entitled to call themselves "Chartered Architects," the lawyers drafting the Registration Bill will only protect this name, and the whole object of registration—to protect the public from unqualified "architects"—will thereby be frustrated.

The term "architect" should be one which is held in the highest esteem, and should rank with the other learned professions, none of whose members would dream of dubbing themselves "chartered."

The only commonly known precedent for the description "chartered" is that of accountant, but the very same reasons that led to the style "chartered accountant" should lead us to repudiate any suggestion that we should call ourselves "chartered architects." In the case of accountants, every bank and commercial firm of repute had on its staff a member whom they called "accountant," and it was necessary that the expert body of men who desired to set up a higher standard of ability and integrity in auditing accounts should adopt some title which would distinguish them from the ordinary accountant.

We, on the contrary, wish to make certain that no person shall call himself or herself "architect" without a similar high standard of ability and integrity, and further to make it impossible for house agents or firms of decorators and upholsterers from advertising that they employ a staff of architects, thereby robbing the word of much of the honour that should belong to it.

Apart, altogether, from the fact that no architect who looks upon architecture as an art as well as a profession would willingly consent to call himself "chartered architect," it is certain that if the Registration Act merely protects chartered architects, any unqualified charlatan will still be able to style himself "architect," and the Registration Act will be robbed of its power to prevent him doing so, and there-

fore be robbed of all the good which it is hoped it will accomplish. By asserting that members of the Institute were already sufficiently set apart by the term "chartered architect" opponents of registration will, indeed, be able to set up a definite obstacle to registration.

The objection has been raised that no Bill will pass through Parliament which will prevent persons, who care to do so, designing their own or other people's buildings, as engineers, surveyors, builders, and others would obviously oppose its passing. No doubt this is a fact, but it is one which is wide of the mark. Such a contention will not stop an Act being passed which will prevent any unqualified person calling himself an architect.

If registration is to be of any use to the profession, every possible step must be taken to secure this, and the first, and most important, is to ensure that the objectionable and unnecessary title "chartered architect" shall *not* appear in the new Charter of the Royal Institute, the body which will control the registration of architects.

Architectural Liberty

Mr. Beresford Pite, F.R.I.B.A., in a letter to "The Times," published last Friday, says: The internal professional politics of architects only concern the public indirectly; they are now summed up in the word unification. Confessedly unification is with a view to legal registration. But this may involve a serious and improper alteration in the practice of architecture. It may be conceded that legislation to control building, applicable to all, whether architects or not, is in the public interest, but the limitation of the exercise of the art of design in building to persons registered as qualified by a professional body is inimical to the liberty of the subjects of the King and contrary to the interests of architecture. Is an Institute of Chartered Inspiration possible?

Christopher Wren was professionally an astronomer, and as an amateur in architecture suffered badly from jealousy. Brunelleschi, the sculptor, was "blacklegged" by the master builders of Florence. Michelangelo, another sculptor, completed St. Peter's upon the failure of a generation of professional architects. Would not registration have deprived London of the significant and beautiful buildings at South Kensington carried out by the pupils of Alfred Stevens under Royal Engineers? The Royal Institute of British Architects must not forget that its fundamental charter is for "the general advancement of Civil Architecture," and that freedom is as essential to architectural inspiration and practice as it is to painting, sculpture, or the crafts.

Book Reviews

The Thames Valley.

Preliminary Report upon the Regional Survey.

One of the most hopeful indications of real reconstruction since the war is the number of surveys and regional plans that are being prepared for various districts as far apart as the Clyde region in the north, and East Kent, West Middlesex, and the Thames Valley in the south. The report on conditions in the South Wales coalfield published a few years ago showed the urgent necessity for such schemes in all areas likely to develop industrially, but it is equally important that regions mainly residential should have control over any building operations that will undoubtedly increase rapidly during the next few years. There is fortunately every reason to believe that the regional plans now being prepared for the most thickly populated regions will, in our lifetime, be extended into the more agricultural and unspoilt counties, and co-ordinated into one combined national plan, so that the resources of Britain may be utilized to the full, and at the same time the natural beauty of the country will be safeguarded for the future.

Messrs. Thomas Adams and Longstreth Thompson recently submitted their interim report on the West Middlesex sub-region, and they are now responsible for the preliminary report on the adjacent sub-region under review, viz., the Thames Valley, which includes Richmond, Surbiton, Barnes, Chiswick, East and West Molesey, Esher, the Dittons, Ham, Hampton Wick, Teddington, and Twickenham. It will be noted from the maps illustrated herewith that Kingston, which is virtually the capital of this sub-region, has unfortunately chosen to remain outside the scope of the scheme, as also have Hampton, Malden, and Walton-on-Thames. The consultants responsible for constructive proposals are consequently suffering under geographical restrictions, which one hopes will be removed before the publication of the final report, otherwise there is little scope for imaginative outline planning.

In spite of the above-mentioned restriction, a very great deal of useful "spade-work" has been done, because the sub-region comprises an area of approximately 37 square miles, and may be said roughly to cover a section of the Thames Valley three miles wide and twelve miles long, extending from Hammersmith Bridge to the reservoirs at West Molesey; it contains two well-defined centres of population, one comprising Richmond, Twickenham, and Ham, and the other including Surbiton, Teddington, Hampton Wick, and Kingston (independent); moreover, these two groups are for the most part self-contained in their social and business life, if not industrially.

Although it is highly desirable to decentralize the population of London in self-supporting centres situated like Kingston, Richmond, and others farther afield, the authors of this report believe that the Thames Valley sub-region, unlike the West Middlesex sub-region, is not suitable for industrialization (except that minor inoffensive industries might be desirable under proper control), because the river possesses on this reach such charm and unrivalled opportunities for recreation on its banks, that it should be preserved as one of the residential and recreative areas for the Metropolis itself. This is the essence of the authors' preliminary recommendation, and with which all people will heartily agree, although most architects believe that, provided cheap electric power be available, well-designed modern factories, devoid of smoke, could be concentrated at suitable points of the region, and would be in no way detrimental to amenities, but would, in fact, give an architectural interest to a district recently thrown open to the doubtful experiments or "monotonous incongruities" of the speculative builder.

As regards open spaces, the reader will note with satisfaction the recommendations of the authors for the rigid preservation of those magnificent public and semi-public parks and open spaces which provide such varied charm to the western suburbs of London; and if, as suggested, connecting strips of park lands are at once preserved, we shall have a park system to rival that of Washington in the district of Columbia, U.S.A.

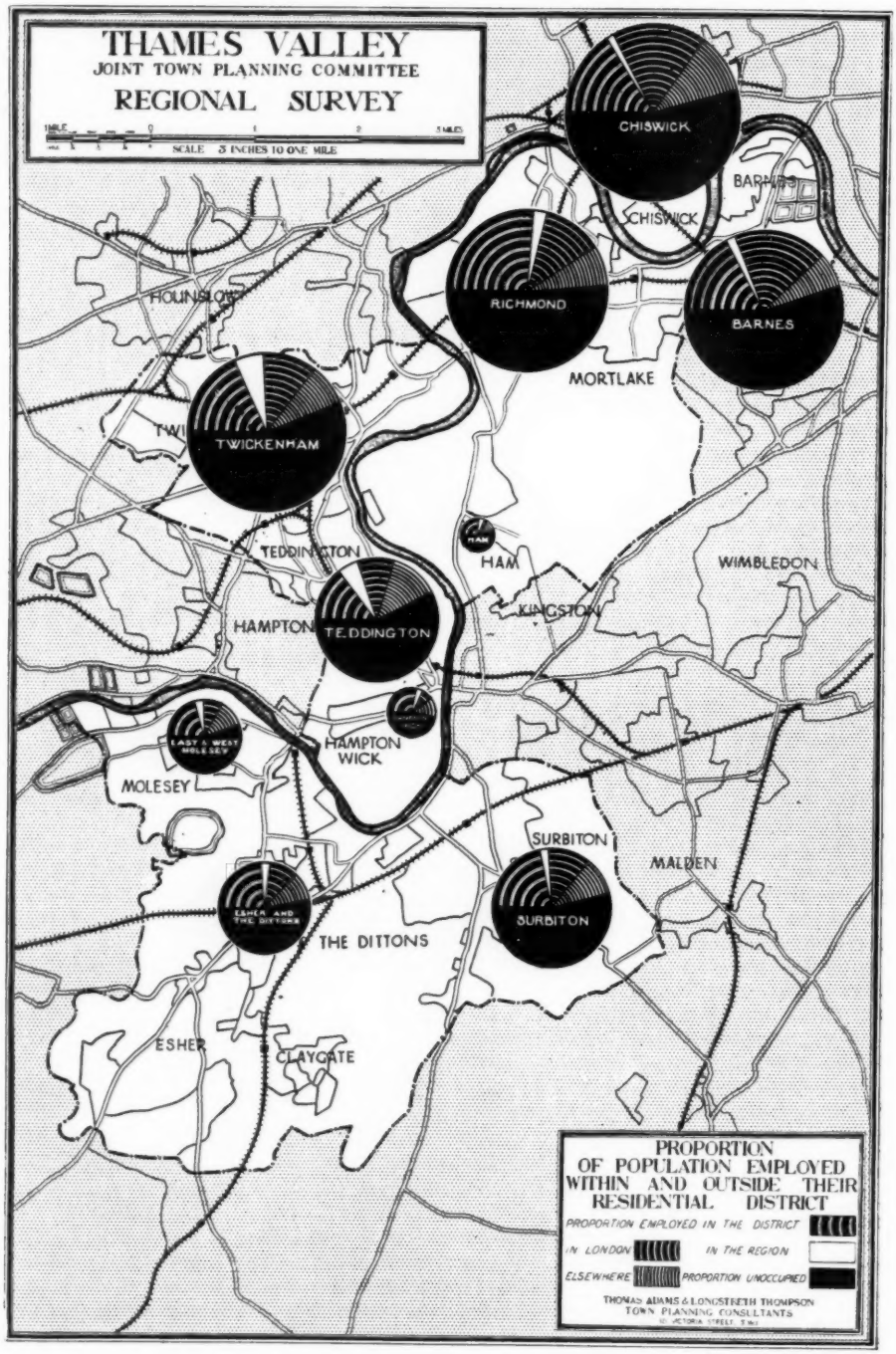
The report is well illustrated with maps showing graphically the statistics which are also shown in tables; from these significant figures it requires no mental effort on the part of the reader to learn how the population is distributed, where people work, how much is paid per diem in travelling by workers in London who live in the region, and how long it takes them to get from home to the place of work. Communications by rail and road are analysed; also the extent and cost of public utility services.

It is of vital importance that all such factors be considered carefully before any intelligent forecast can be made of the trend of future development, and although there are

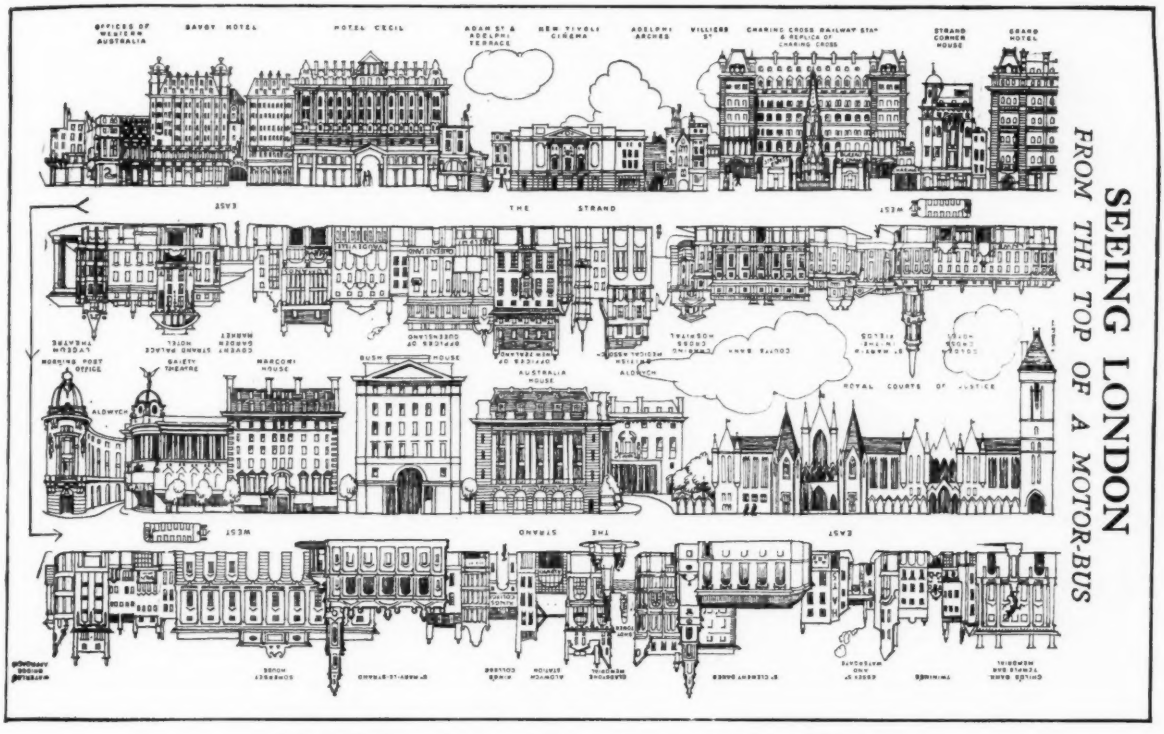
minor complications in so large an area, the authors are fortunate in having to deal with a region where the population is to some extent already localized by the wealth of open spaces, such as Hampton Court, Richmond Park, and others of incomparable beauty. In this connection it is of interest to note that in this region there is approximately one acre of public open space to every forty-one persons.

There are three matters which it is hoped the authors will emphasize in their final report, viz.: (a) the encouragement of electric power for industries and railways; (b) the improvement of passenger stations and their approaches; and (c) the architectural treatment of road junctions where new main arteries enter a built-up area. The last-mentioned is a point much neglected in recent years by road engineers. As regards the railways themselves, there would appear little justification for constructing new tracks in this region, even as cross-country connections, such as Kingston to Surbiton, or Hampton Court to Chiswick, in view of the fact that short journeys may be made more conveniently by an efficient service of motor omnibuses, which disfigure the country less than railroads.

In conclusion, a word of praise is due for the method of presentation of the report. A great many interesting facts gathered from different sources are collected in their logical sequence and printed in clear type; and the reader will look forward to the final recommendations by the authors,



(From the Preliminary Report upon the Thames Valley Joint Town Planning Committee's Regional Survey.)



THE STRAND FROM CHARING CROSS TO THE LAW COURTS.
(*From "London." Published by the Underground Railway.*)

which it is hoped will embody suggestions to fire the imagination of those local authorities of the region who are now engaged in the preparation of their individual town-planning schemes. With this object in view, diagrams coloured in good simple colours might illustrate zones, open spaces, roads, etc., more convincingly to the layman than the system of black and white notation here adopted, and would probably justify the extra expense of publica tion. W. HARDING THOMPSON.

Thames Valley Joint Town Planning Committee. Preliminary Report upon the Regional Survey. By Thomas Adams and Longstreth Thompson.

A Guide to London.

"London's Underground" are to be congratulated on their new Guide No. 3. Besides an excellent account of the well-known features of London, and some interesting air views, it has a series of street views as seen from the top of a 'bus, reminiscent of the manner of Tallis. Mr. Frank Scorlett's thumb-nail elevations in their panoramic views of London's main streets show how much their character has changed since the days of Tallis's engravings; the old street "rhythm" of the eighteenth century has entirely disappeared in the apotheosis of individualism, Whitehall being practically the only street which shows any architectural unity considered as a whole, due, of course, to its dedication to the seat of government. A. H. D.

Published by the Underground Railway. Price 1/- net.

"The China Architects' and Builders' Compendium, 1924."

Only those who have practised architecture in foreign countries appreciate the difficulties which are created by local conditions and circumstances. These result from a number of causes, prominent among which are the powers and functions exercised by the various legislative, administrative, and consular authorities having jurisdiction over particular areas; local regulations affecting land, property, and building; and the disparity between English currency, weights and measures, and those in traditional use by the inhabitants of the country.

Necessary information of the kind indicated and much other of an equally diverse nature has been gathered together in book form for the use of architects and builders in China—bearing the title "The China Architects' and Builders' Compendium"—under the editorship of Mr. J. T. W. Brooke, A.R.I.B.A., and Mr. R. W. Davis.

The work has been exceedingly well done, and so complete a classified compilation should, and doubtless will, prove an indispensable reference book for all architects in the great republic of China. It is published by the North China Daily News and Herald, Limited, and the information comprises: (1) General information connected with land, property, and building; (2) technical information and memoranda for architects and engineers; (3) a directory of architects, builders, and contractors; and (4) a catalogue of building materials, etc. There are folding maps of Shanghai and Hankow, numerous tables, and a good index.

We learn from the preface that the present volume is the first issue, and that the book will be published annually after thorough revision.

"The China Architects' and Builders' Compendium, 1924." Published by the North-China Daily News and Herald, Ltd., Shanghai.

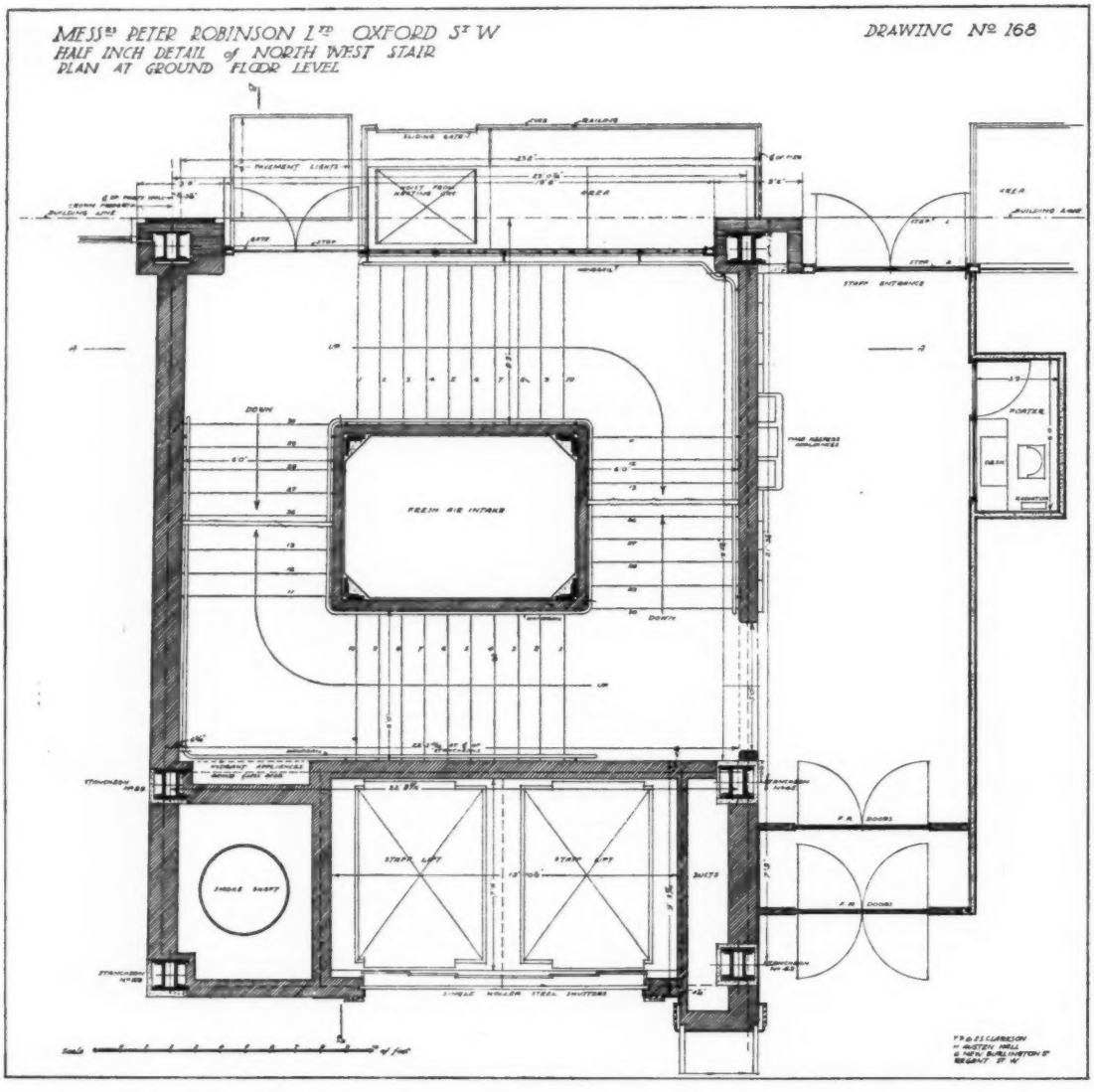
The Journal of the British Society of Master Glass-Painters.

In an editorial foreword it is stated that the publication of this, the first, number of "The Journal of the British Society of Master Glass-Painters," has been delayed for nearly a year, on account of the lamentable death of its joint Editor, the Society's first honorary secretary, the late Maurice Drake. His death, so utterly unexpected, found many of his excellent plans for this publication incomplete. As was his custom in all matters relating to the society, he had undertaken the lion's share of the work, and he was, unhappily, unable to leave on record what had been done, and what remained to be done, before he died. It was Maurice Drake's great desire to make this Journal the medium of exchange of news and ideas between those interested in glass-painting in all parts of the world. It was planned to devote a good deal of space to correspondence, notes and queries, and items of general interest. The co-operation of Fellows and Associates of the society is asked, and correspondence and notes of general interest concerning painted glass, old and new, will be welcomed.

The Double Staircase in Messrs. Peter Robinson's New Building

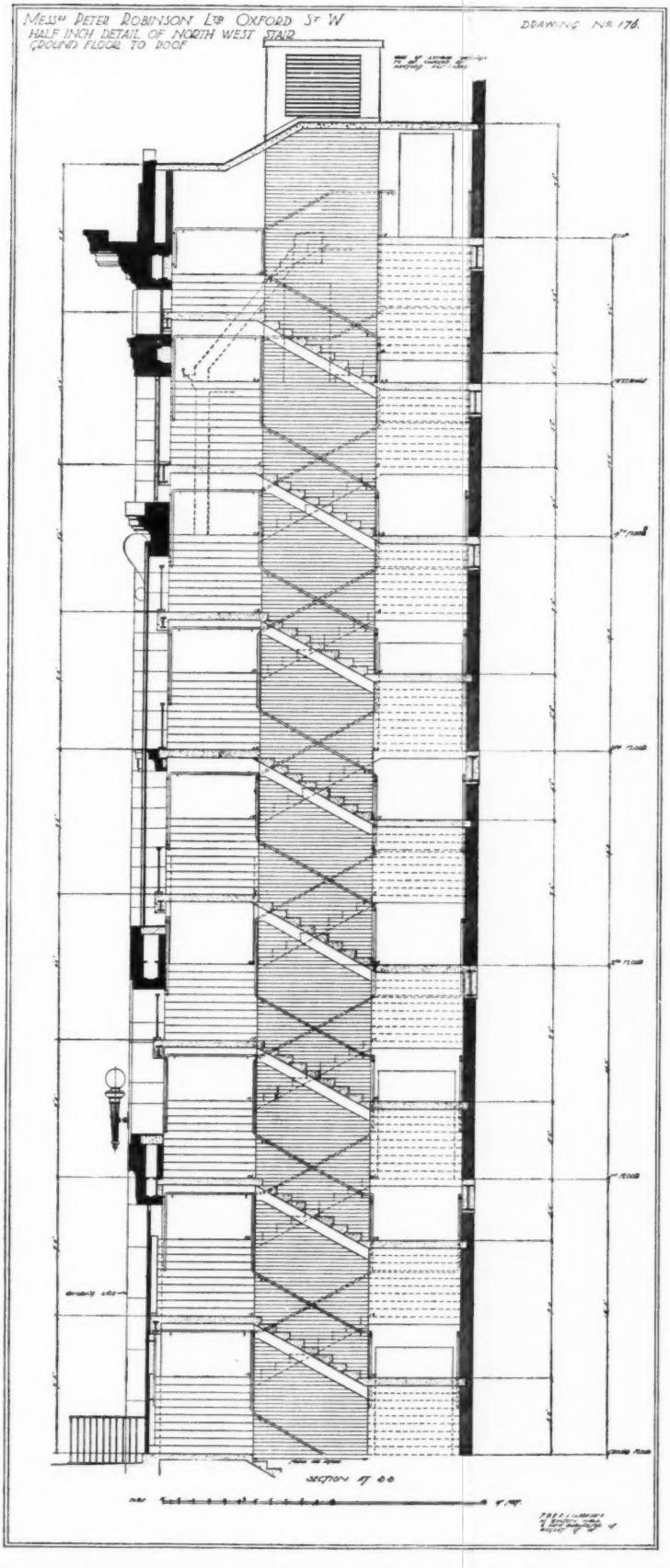
A NOVEL form of staircase has been constructed in Messrs. Peter Robinson's new building in Oxford Street. It is, in reality, a *double* staircase, two stairways being constructed around a rectangular well, and taking up no more space than that usually occupied by one, the saving being in the matter of head-room. The staircases start on opposite sides of the well, and rise around it in opposite directions, each being "secret" from the other. When using either staircase, the soffit of the other appears above one, and is mistaken for another flight of the same staircase. The entrances being, as stated, on opposite sides of the well, are also kept apart from one another, and at no point can communication between the two staircases be established. So far as we are aware, no similar arrangement has before been adopted in this country. The idea is, in fact, American. Its uses are obvious—the provision of, say, staff and public staircases in business premises, or servants' and tenants' staircases in a block of flats. (The advantages, indeed, should commend themselves to all architects commissioned with the planning of buildings on restricted or expensive sites.) The one illustrated is constructed of concrete, and, of course, no special construction has to be employed. What must be provided for is a slight increase in thickness, or reinforcement, of the staircase walls, because of the doubled load upon them.

In the example given, it will be observed that the angles of the outer wall are strengthened with two channel-section girders plated together. The inner well is used as a fresh-air intake.



PLAN OF THE DOUBLE STAIRCASE IN MESSRS. PETER ROBINSON'S NEW BUILDING.

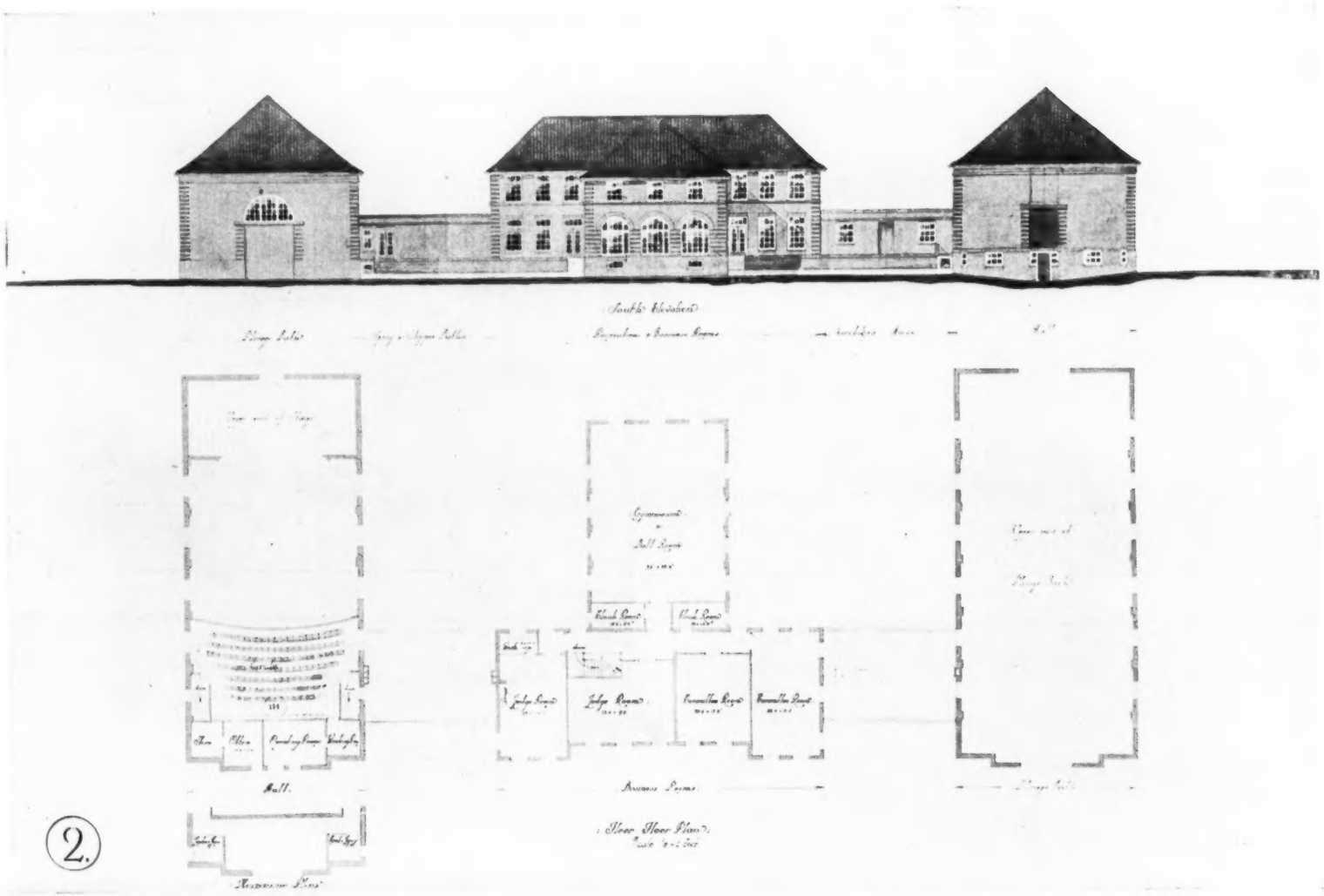
T. P. AND E. S. CLARKSON AND H. AUSTEN HALL, ARCHITECTS.



ELEVATION OF THE DOUBLE STAIRCASE IN MESSRS. PETER ROBINSON'S NEW BUILDING: T. P. AND E. S. CLARKSON AND H. AUSTEN HALL, ARCHITECTS.

The Brancepeth Welfare Scheme Competition, Willington, Co. Durham : Winning Design

Hays and Gray, AA.R.I.B.A., Architects



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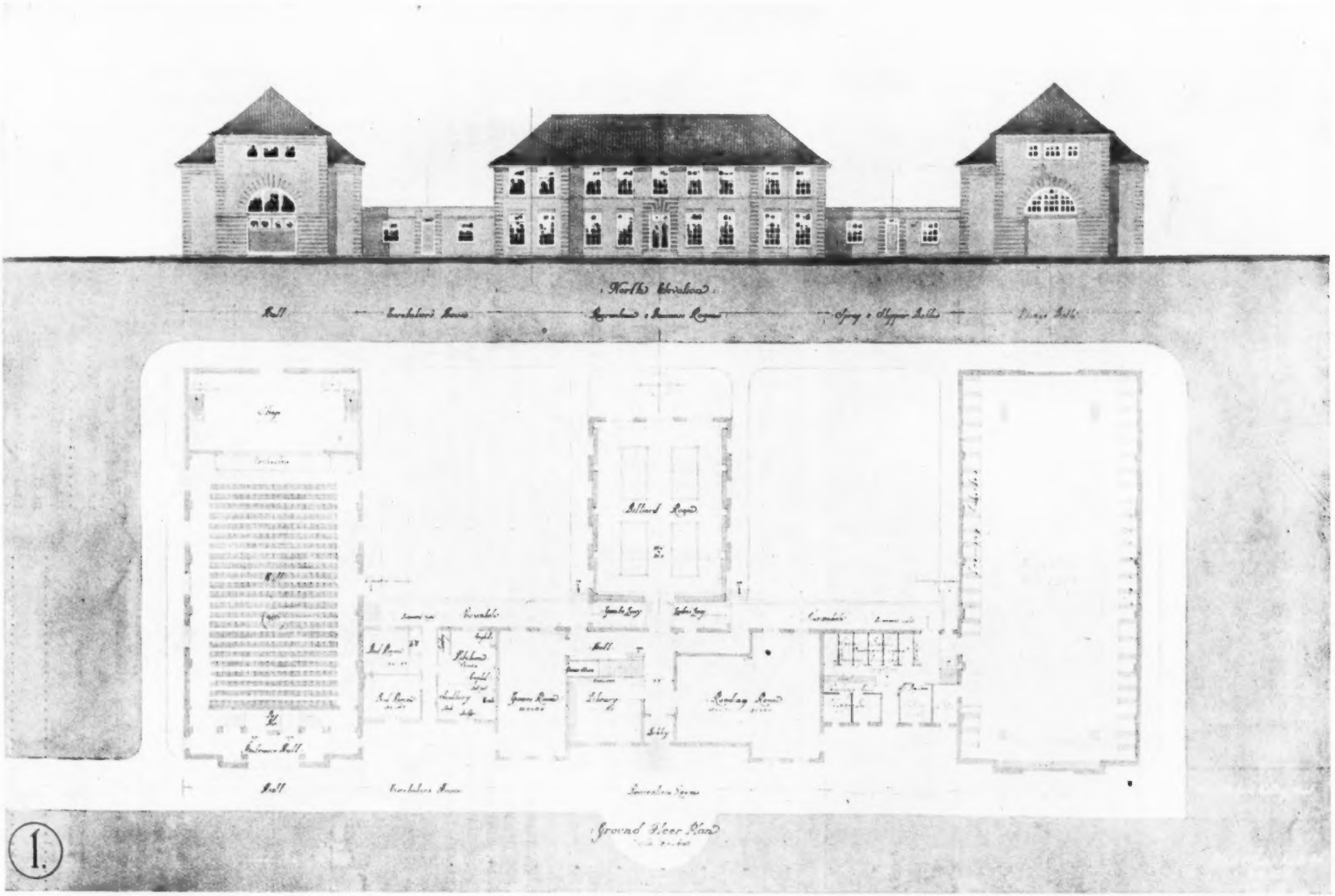
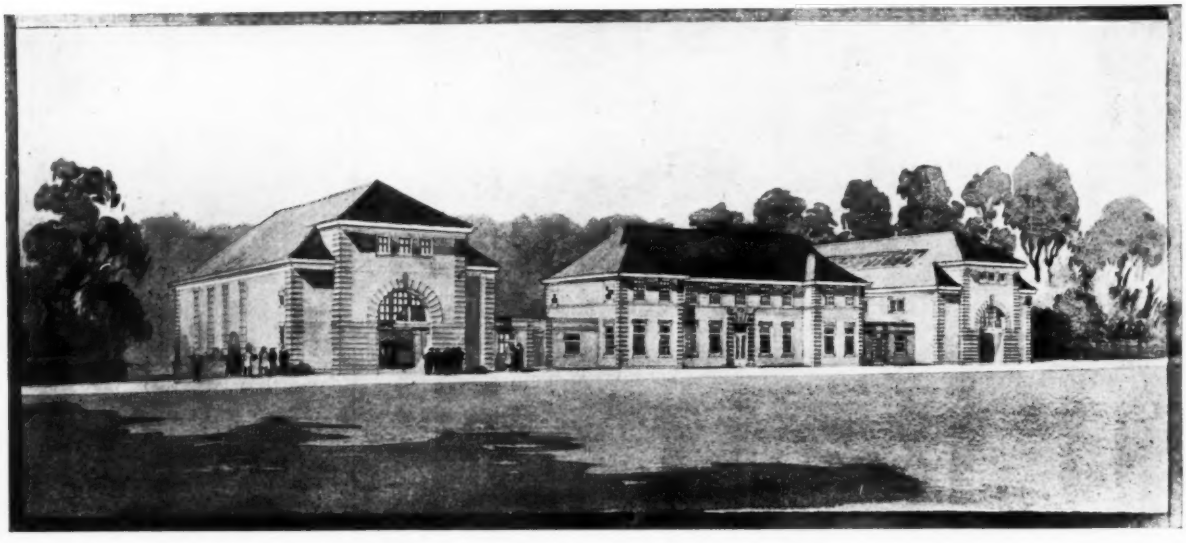


This comprehensive scheme of welfare buildings is to be erected in connection with the Brancepeth Collieries. The total cost of the work is estimated at £18,000.
Further particulars are given on page 1054.

Brancepeth Welfare Scheme Competition

HAYS and GRAY, AA.R.I.B.A., Architects



A PERSPECTIVE VIEW OF THE WINNING DESIGN.

(Plans and Elevations are given on pages 1052 and 1053.)

THE design of Messrs. Hays and Gray, AA.R.I.B.A., of Wingate, Co. Durham, and North Shields, has been placed first in a limited competition organized by the committee of the Brancepeth Collieries Welfare scheme for an institute for recreation of a very comprehensive character—proposed to be erected at Willington, Co. Durham.

The site is one of two acres, and it is proposed to erect the buildings in three blocks. The central block will comprise a billiard room, gymnasium, reading-room, library, games room, meeting rooms, etc., with a single story caretaker's house on one side, and a group of slipper and spray baths on the other; and the eastern block, an assembly hall with a total accommodation in the main floor and balcony of 600, which will be available for concerts, lectures, meetings, or as a cinema. The west-end block will comprise a large plunge bath, in a suitable building. Advantage has been taken of the fall in the ground from north to south to provide for the sloping floor of the main hall, and the necessary fall to the bath. The buildings are simple in character, and it is proposed to erect them of sand-faced brick, with roofs of tiles.

The grounds are to be laid out with a bowling green and tennis courts. On the lower portion of the site a children's playground is provided, and a sailing pond has been made by diverting the stream which runs along the boundary. The total estimated cost of the buildings and the lay-out of grounds is £18,000.

The Business of an Architect

13.—Contracts (*continued*), also Tenders

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

THE majority of building contracts with which most architects have to deal are at a fixed sum arrived at by competitive tenders, and the following is a useful form on which tenders can be obtained :—

TENDER.

(Name of Works) .....

To (Name of Employer) .....

I or We ..... the Undersigned do hereby Tender and undertake to perform, provide, execute, and do all the works, materials, matters, and things described or mentioned in the Conditions of Contract, Specification, Bills of Quantities, and the Drawings therein referred to, all of which have been produced to and carefully examined by ..... in strict accordance with, and subject to the terms, provisions, and conditions set forth or mentioned in the said Conditions of Contract, Specification and Bills of Quantities, and the Drawings therein referred to, for the price or sum of .....

..... £ : : .

which sum includes all provisional sums mentioned in the said Bills of Quantities; and also to provide such labour and materials for work paid for at day-work prices as may be directed by the Architect, at or for .... per cent. above the current standard district rates paid to the workpeople employed and .... per cent. above the net cost of materials, such percentage to include all Insurances, Establishment charges, superintendence, use of all Tools, Scaffolding, Machinery, and other plant, travelling expenses, and profit.

And ..... further undertake and agree, when required, to execute and deliver a Contract in the form referred to in the said Bills of Quantities.

AS WITNESS ..... hand(s) this ..... day of .....

One thousand nine hundred and .....

Signature .....

Address .....

. .....

This Tender, in the addressed envelope provided, is to be delivered to the Employer, at the office of the Architect,....., not later than 12 o'clock noon on ....

When there are no quantities supplied, or when they are not to constitute part of the contract, this form should be modified so that there is no reference to "Bills of Quantities."

All tenders should be opened at the same time, and it is preferable that they should be opened by the client himself in the presence of the architect. This obviates suspicion, which may enter some people's minds, that the architect is possibly in league with any of the tenderers.

"Am I bound to accept the lowest tender?" is a question that is frequently asked, and to this the following answer should be given. "In invitations to tender, either by advertisement or letter, it is customary to point out that the employer does not bind himself to accept the lowest or any tender, and there is no legal obligation on the employer to do so. However, when a limited number of contractors has been invited, it may be reasonably assumed that those contractors have been selected on account of personal knowledge or on reliable recommendation, and, provided no circumstance has subsequently come to the knowledge of the employer or the architect to shake their confidence in the lowest tenderer, there is a moral obligation to entrust the contract to him."

It should be remembered that contractors are put to a considerable amount of work, trouble, and risk in preparing tenders, many of which bear no fruit, and it is obviously unfair to them if they are to lose a contract, which the result of a successful tender merits, after they have been definitely asked to submit a price for the work.

The selected tender should be accepted in writing within seven days of its receipt. The tender and its acceptance form a contract in themselves, and there are very few builders who will then attempt to back out. However, in the event of the contractor wishing to withdraw before signature of the regular contract, it is invariably best to let him do so, for, although he is strictly under legal obligation to proceed, to have an unwilling builder on any work creates an almost impossible situation.

The preparation of the contract documents is the architect's next duty. These will consist of the Contract (embodying the Conditions), the drawings, specification, and bills of quantities (if forming part of the contract).

The Form of Contract issued by the R.I.B.A. (dated October, 1909) will be found to meet the majority of cases, and is furthermore acceptable to most builders. Some architects prefer to prepare their own form of contract, but this seems to involve unnecessary labour on a subject which has been carefully thought out in all its details by technical and legal experts, the fruit of whose researches and deliberations can be purchased for one shilling and sixpence. This form of Contract is published in two editions: (1) where Bills of Quantities form part of the Contract; (2) where they do not so form part. When there are no quantities at all the latter is also applicable by the deletion of Clause No. 4 of the Contract and of Condition No. 14.

The Conditions are so clearly framed as to be self-explanatory, but it will be as well to touch upon a few of them and to deal with circumstances that arise in their connection.

Clause No. 1 is worthy of considerable attention, for many interesting disputes and arbitration cases have arisen in connection with the following condition: "If the work shown on any such further drawings or details, or necessary to comply with any such instructions, directions, or explanations, be, in the opinion of the Contractor, extra to that comprised in the Contract, he shall, before proceeding with such work, give notice in writing to this effect to the Architect. In the event of the Architect and Contractor failing to agree as to whether or not there is any extra, and of the Architect deciding that the Contractor is to carry out the said work, the Contractor shall accordingly do so, and the question whether or not there is any extra, and, if so, the amount thereof shall, failing agreement, be settled by the Arbitrator as provided in Clause 32, and the Contractor shall be paid accordingly."

Where quantities form part of the contract, and where the building is to be measured up and paid for on the basis of a Bill or Schedule, difficulties in connection with this condition are not likely to arise, for the contractor will in the ordinary course actually be remunerated for all work done on the architect's instructions or authority, whether included in the original Bill of Quantities or not. It is in the cases where there are no quantities that troubles arise over such possible extras, and it is noticeable that contractors very seldom do give notice, before proceeding with the work, that in their opinion extras are involved by the subsequent details, instructions, etc.; in fact, it is in many cases a practical impossibility for a busy builder to do so. He will probably base his claim for additional payment on the contention that authority for these extras was contained in the writings and drawings signed by the architect and will regard such as coming within the scope of Clause No. 12 of the Conditions, which states: "The Contractor shall, when authorized by the Architect....., vary by way of extra or omission from the drawings or specification; such authorization is to be sufficiently proved by any writing or drawing signed by the Architect or by any subsequent written approval by him, ..." Clause 13 provides for the valuation of such authorized extras.

The usual response to this basis of claim is that if the execution of work in accordance with such drawings or instructions involved an extra, the claim should have been made when the drawings were deposited or instructions given and before proceeding with the work, it having been assumed that, as this was not done, no objection or claim would subsequently be made. That is where the deadlock frequently occurs and the dispute goes to arbitration.

The following has been the view of many arbitrators on this point: If no notice of extra involved has been given by the Contractor before proceeding with the work, his subsequent claim must necessarily fail where the arbitrator opines that such further drawings, details or instructions, etc., could reasonably have been accepted as amplification of the relative descriptions contained in the contract specification and/or delineations on the contract drawings. However, in cases where orders have been given either by writing or by drawing, or in the acceptance or approval of work done, and where these can properly be interpreted as orders for variations or extras, such orders will come within the meaning of Clause 12 of the Conditions of Contract, and the work done thereunder must be paid for.

There is a very uncertain line of distinction between the readings of Clauses 1 and 12 of the Conditions of Contract, and the arbitrator has to decide where that line should be drawn in every case.

(To be continued.)

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

Wider Waterloo Bridge–Some Architectural Views

THE proposal made by Mr. Herbert Morrison, the Labour whip in the London County Council, that it be an instruction to the Improvements Committee to make Waterloo Bridge wide enough to accommodate tramways, as well as a full measure of ordinary traffic, and at the same time provide wider arches for navigation, is not likely to be accepted by the London County Council, but architectural opinion is none the less strong in its complete condemnation of the idea. "The Times" publishes interviews with leading architects and others on the subject.

"Do Londoners realize," asked Mr. Powys, the secretary of the Society for the Preservation of Ancient Monuments, "that the beauty of Waterloo Bridge depends more on the relationship of the span and sweep of the arches to their width than on the features which truly decorate the long river faces? The bridge is a reality in three dimensions, and its beauty would be marred less by stripping the surface features from it than by changing its essential design." He emphasized that the rightness of the structure depended on the rightness of its mass rather than on the finish given that mass; and as for the suggestion that the bridge might be re-erected higher up the river more than one architect scorned the idea that the bridge could be torn from its surroundings, shorn of two arches, then be placed somewhere else and retain anything of its distinctive dignity and beauty. No specific width is mentioned in Mr. Morrison's motion, but the width of the bridge cannot be considered without relation to the width of its approaches, and no indication is given whether the existing approach on the north side is wide enough to meet the traffic Mr. Morrison has in view, or whether any widening of the approach on that side is possible at a reasonable cost.

The general opinion seems to be that the widening already sanctioned is within the limits of what is possible without destroying the distinctive design of Waterloo Bridge, and Mr. Maurice Webb informed "The Times" that, although architects would naturally prefer the bridge to remain unaltered, he believed, in view of the traffic requirements, that architectural opposition to widening within reasonable limits had not been serious. "But," he added, "to take the bridge away to a higher reach and to remove two of its arches would ruin the whole design; and such a suggestion shows a complete lack of appreciation of the treatment which is due to a national monument."

One of the main points made by Mr. Morrison was that the Council was building a bridge and not a monument, and that traffic requirements must have first consideration. This was not disputed by several architects, and both Mr. Ian MacAlister, the secretary of the Royal Institute of British Architects, and Mr. Powys were quite ready to meet that point. Mr. Powys said that the Society for the Preservation of Ancient Monuments took the point of view that the London County Council were not justified in altering Waterloo Bridge until they had made certain that the traffic could not be taken across the river at some more suitable place. "Primarily," he said, "we are not concerned with the traffic problem, but it does seem to our society that there is something wrong in bringing an increased traffic at right angles into one of the most used thoroughfares of London. From the traffic point of view the bridge seems to be in the wrong place, and Charing Cross is indicated as a much more natural point of entry." Mr. MacAlister expressed the view of the R.I.B.A. in the following terms: "My Council have expressed views which are diametrically opposed to everything Mr. Morrison suggests, and I feel sure that they would strongly protest if the proposal went any further. It would mean entirely altering the character of the bridge, and to take the bridge out of its present position, even if an appropriate site could be found for it, would, I am sure, be regarded by my Council as not only an utterly mistaken policy, but one entirely unnecessary, because we have been pressing for a long time that the whole bridge problem of London should be gone into at once upon comprehensive lines. We agree with Mr. Morrison that London is underbridged, and urge that the problem should be taken in hand seriously, particularly in regard to a bridge at Charing Cross. If only London would realize the possibilities of a bridge here we should not have to consider such proposals as this one relating to Waterloo Bridge. It has been said that the Charing Cross Bridge would be extremely expensive, but I have seen no authoritative figures, and I know that Mr. Paul Waterhouse and others who have studied the question seriously do not consider it an impossible or extravagant scheme."

There is a considerable body of opinion which regards as the ideal solution one which would retain Waterloo Bridge without the alteration of a single dimension and the provision of another bridge in a position more suited to the traffic requirements of modern London, and Mr. Powys reminded a representative of "The Times" that his society were still awaiting an answer from the London County Council upon the plan of Mr. Dalrymple Hay, and supported by the society, to underpin the sinking piers of the present bridge without altering in any way the above-water features. "If his suggestions cannot be carried out, it is for the London County Council to say so. They may have information which we have not, but Mr. Dalrymple Hay's scheme will, no doubt, receive very careful consideration, for under it the bridge can be made sound in one year, just the time estimated for the erection of the temporary bridge, while from a monetary point of view the saving will be enormous."

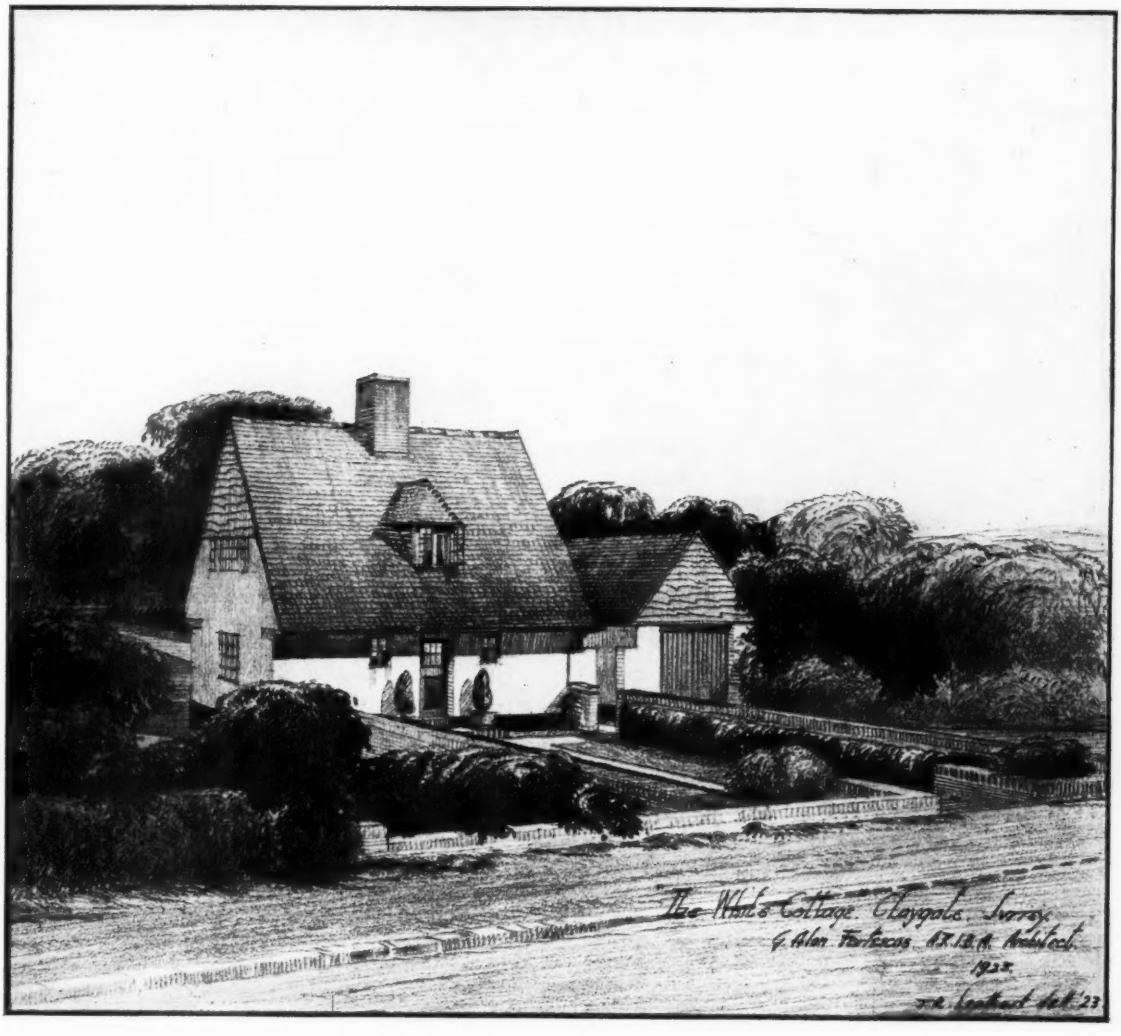
It is evident from the above opinions that Mr. Morrison's motion will be widely opposed outside the County Council as well as, no doubt, within, but it should at any rate focus attention on the urgency of a comprehensive survey of the bridge requirements of London as a whole. Mr. Maurice Webb, who is chairman of the Central London Planning Committee of the society, pointed out that London had been allowed to grow for centuries without any considered plan.

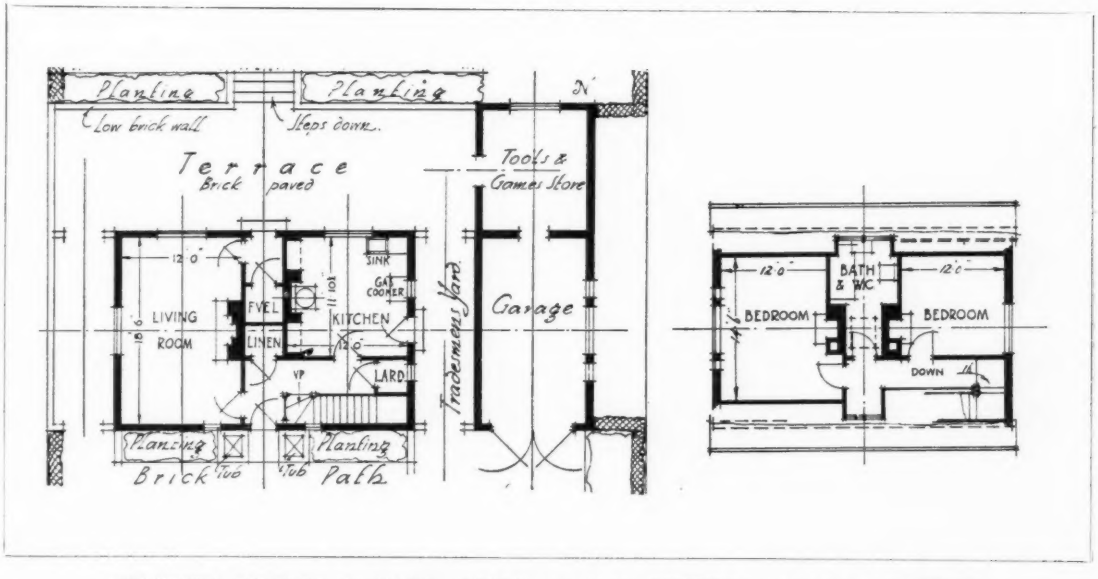
The White Cottage, Claygate, Surrey

G. ALAN FORTESCUE, A.R.I.B.A., Architect

This cottage is built on a sloping site. The entrance court is sunk, and the surplus soil was taken to the back of the house to form a terrace. The walls, of 9 in. brick, are covered externally with Portland cement stucco in two coats, the last coat being finished with "wood float" and twice distempered in "Duresco." The roof is covered with hand-made sand-faced tiles, supplied and laid by Messrs. Hall & Co., of Croydon, and the brick plinth has been twice tarred. The central chimney stack is of local hand-made bricks, and the windows are formed of steel lights fixed in wood frames.

In the living-room the brick fireplace is formed with $6 \times 3 \times 2$ in. red briquettes with wide joints. A gas stove has been installed for cooking, and a "Sentry" boiler for hot water supply. The internal cills are of 6×6 in. quarry tiles. The ironmongery was supplied by the K.C.B. Foundry Co., and the heaped fires by Messrs. Bratt Colbran & Co., of London.





THE WHITE COTTAGE, CLAYGATE, SURREY. G. ALAN FORTESCUE, A.R.I.B.A., ARCHITECT.

(*See Notes on opposite page.*)

A Pictorial Review

Illustrations of Topical, Practical, or Curious Interest

Readers are invited to send in sketches and photographs for publication in these pages. A fee of 2s. 6d. will be paid for each illustration accepted. Contributions should be accompanied by short explanatory notes.

A windmill with six sails or sweeps is a very uncommon sight, and this illustration shows the old mill which, until nine years ago, stood on Kingston Hill, near Lewes, Sussex.—A. J. F.

"The Manor," Upper Swell, Gloucestershire. This view is taken from the top of the churchyard wall, and shows an interesting doorway.—E. A. P.

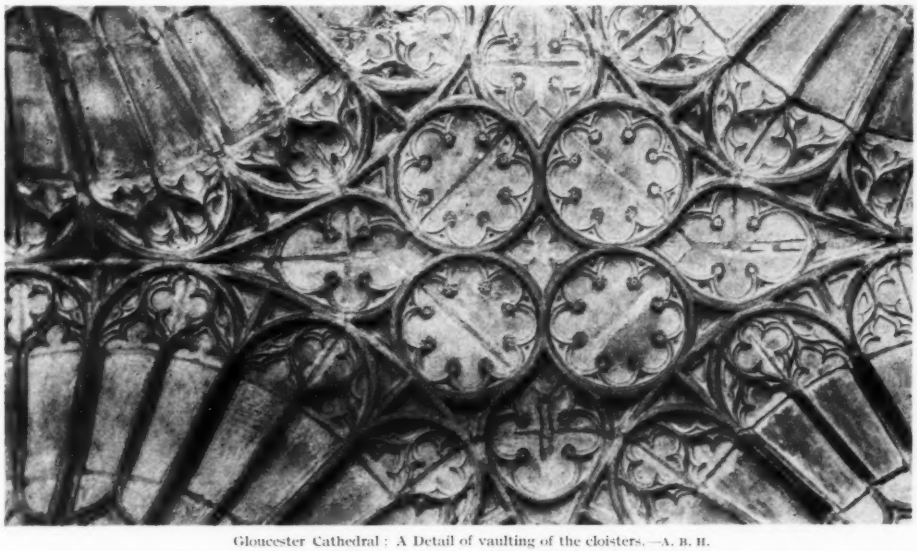
Cowdray, Sussex. A detail of the embattled porch, which shows over the Tudor doorway the arms of Henry VIII, flanked by the badges of the Earl of Southampton, the Lord High Admiral, an anchor and a trefoil.—J. H.

Barcelona. East End of the Church of the Sacred Family, by Antonio Gaudi. It is incomplete, but if completed it will represent the bible story in stone, having carved on it, in addition to Bible history, almost every specimen of animal and vegetable life.—L. B.

This is a fine example of one of the many similar Arab houses in Suakin. Note the elaborate carving and the harem windows.—A. J. W. G.

Queen Hoo Hall, near Bramfield, Herts, which has been styled the "Birthplace of the Waverley Novels," from the fact that the task of editing and completing an historical romance called Queen Hoo Hall commenced by Stuart, the antiquary, suggested to Sir Walter Scott the finishing and publication of his abandoned romance of "Waverley." —J. B. T.

The "New Buikl" at Lyveden, near Oundle, Northants, recently purchased by the National Trust for places of Historic Interest or Natural Beauty. Built by Sir Thomas Tresham in the latter part of the sixteenth century, but never roofed in, its plan is a Greek Cross. The outside walls are covered with fantastic religious sculptures and inscriptions. The interior woodwork was removed by Cromwellian vandals, who attempted in vain to raze to the ground the rock-like masonry of the fabric.—J. B. T.



Gloucester Cathedral: A Detail of vaulting of the cloisters.—A. B. H.

The town of Friedrichstadt, in Schleswig-Holstein, was founded by the Dutch in 1620. The religious sect of the "Remonstrants," persecuted and expelled from Holland, found their new abode here, at about the same place where the ancient Saxons embarked on their way to England. The architecture of the entire town is absolutely Dutch. The house on the left was that of the first mayor of the place.—H. P.

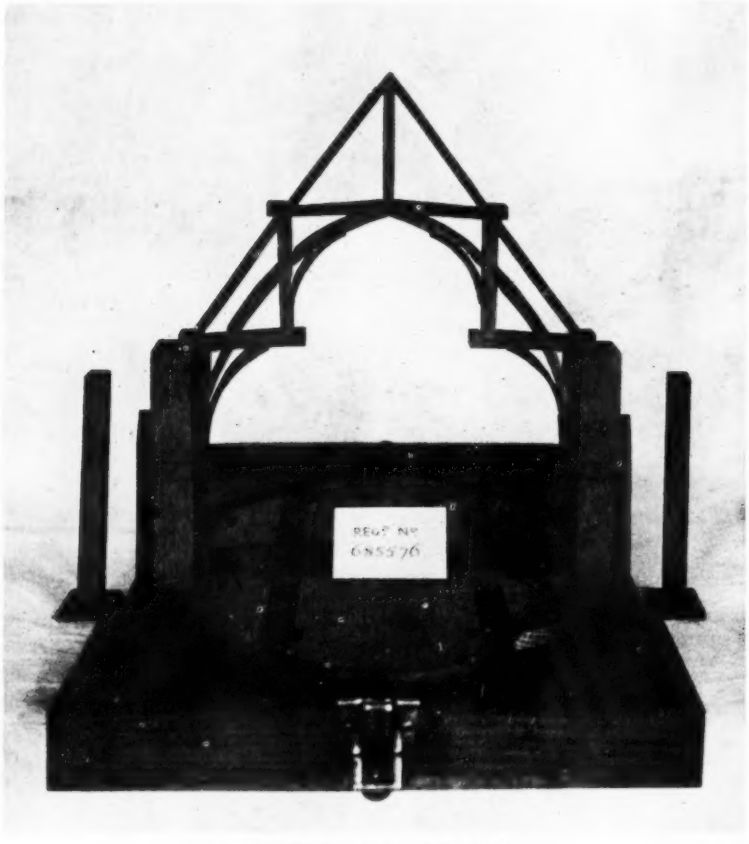
An Instructional Model of Westminster Hall Roof

Devised by WILLIAM HARVEY

AMONG the models of old buildings shown at the Architecture Club Exhibition were two of special interest to students of architecture and construction. These were models made of loose blocks to illustrate the principles of Gothic architecture. Mr. William Harvey, who devised the models in the course of an enquiry into the constructional function of the timbers in the arched hammer-beam roof principals of Westminster Hall, has found them of great assistance in unravelling the meaning of this magnificent piece of mediæval builder's craft. It was not generally understood which of the timbers were definitely useful and which might be considered to have been added merely as ornament. The most extraordinary diversity of opinion has been expressed by former writers on this subject, and the nature of the roof, with its imperfect triangulation, redundant members, and its joints incapable of effectually transmitting tensile stress, makes it an unsuitable subject for analysis by the ordinary modern methods of graphic statics.

Calculation only led to results incompatible with the behaviour of the timbers in the great roof itself. Guesswork and assertion had been exploited to the full by writers of the last century, and it remained for the model to demonstrate that every timber in the roof, without exception, was useful to its strength and its stability. Even the minor tracery has proved beneficial to the endurance of the roof and was applied in a manner which must have added very considerably to its rigidity.

The process of evolution by which the design of the old Norman post and beam roof was allowed to influence the disposition of timbers in the new and complex arcuated construction created for King Richard II can also be shown by the model in a manner at once fascinating and convincing. Of the two models exhibited at Grosvenor House, the larger was the original and was roughly hacked out of odd fragments of oak as an aid to investigation; the smaller one has been designed for the use of students and is contained in a case of special form to facilitate the erection of the model. The statical and historical problems are studied by a process of subtraction and substitution of one or several of the loose blocks composing the model.



THE MODEL WITH ITS CASE.

It is not by any means improbable that Hugh Herland, the master carpenter, arrived at his unique design by some such process of adjustment and systematic alteration of models devised by him in the light of his abundant and precise knowledge of the mediæval theory and practice of arch building.

The authorities of the Science Museum at South Kensington have invited the designer to lend his model in illustration of principles of construction. A copy will shortly be exhibited in the ground floor galleries of the Museum.

Mr. Harvey's model is registered, and persons desiring copies should communicate with him at Dallinga, Lower Road, Fetcham, Leatherhead, Surrey.

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.

SOUND-PROOFING A PARTITION.

"B" writes: "I thank you for the information published in your issue for May 28 which will be most useful. I notice that Professor Watson recommends plaster slabs and not breeze. My problem is in connection with an existing wall of two 2½ breeze slabs with a cavity of 2 in. between them. The joists beneath are continuous and I have felt that this is the real cause of the sound coming through. I propose to fill the cavity in the partition with sawdust, hoping that this will better the condition of affairs. Please let me know your opinion of this."

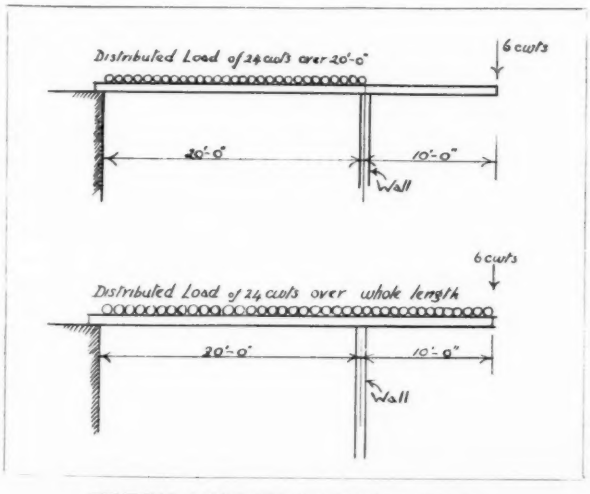
—Yes; 3 in. heavy plaster slabs are more *reflecting* and therefore less transmitting than 2½ in. coke breeze slabs. By all means fill in the cavity with sawdust or slag wool, but all will be useless if you plant the partitions straight on the continuous floor. First decide on an anti-vibration course of cork or pulp board, lay it on the joists and build up the partitions of as heavy and thick a slab as can be afforded, with an absorbent between; felt or sawdust or slag wool. Then again, at the top insulate from ceiling by felt or cork or pulp board. H. B.

BENDING MOMENTS ON BEAMS.

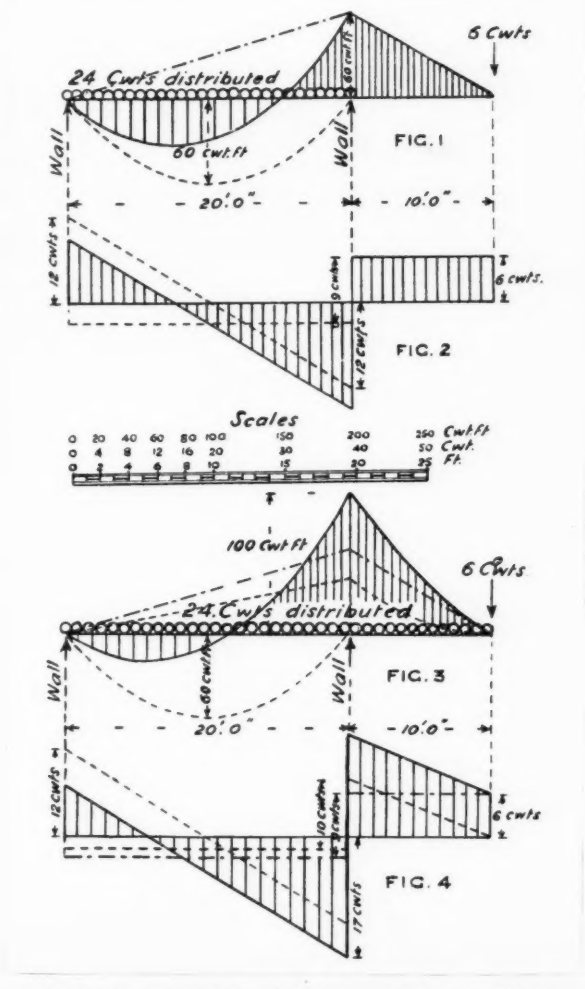
"W" writes: "What are the bending moments of two beams subject to loads shown on enclosed diagrams, and what formulæ is used to arrive at them?"

—The accompanying diagrams show the beams with their supports and the extent of the loading, with the resulting bending moment and shear diagrams. Fig. 1 shows a beam loaded over 20 ft. span and continued as a cantilever 10 ft. beyond, with an end load of 6 cwt. The first step is to make the fundamental bending moment diagrams, the positive shown by the dotted parabola below with a depth of $\frac{Wl}{8} = \frac{24 \times 20}{8} = 60$ cwt.-ft., and the negative shown by the dotted triangle from end to end with a height of $Wl = 6 \times 10 = 60$ cwt.-ft. Combining these so that part of each is cancelled we get the balance shown by full lines, the positive moments being indicated by the wide shading and the negative by the closer shading. It will be seen that the maximum bending moment is still 60 cwt.-ft. If a rolled joist is used it should have a section modulus not less than $Z = \frac{B}{C}$ where B = maximum bending moment in ton-inches, and C = working stress to be allowed, say, 7 tons sq. in. Then $Z = \frac{B}{C} = \frac{60 \times 12}{20} \div 7 = 5{\cdot}142$. On referring to tables it will be found that the nearest section is 6 in. by 3 in. by 12 lb. R.S.J., with a section modulus of 6·996, but with a depth of only 6 in. the deflection would be too great for the span. Under the common rule of depth in inches equals half span in feet we must use a 10 in. by 4½ in. by 25 lb. R.S.J. with a section modulus of 24·47. There is probably some mistake in the loads proposed. The shear diagram is shown in Fig. 2 built up in the same way from the fundamental diagrams. It will not affect the section of joist used in this case, but is added to make the set complete. In Fig. 3 the distributed load is carried (with the same total) to the end of the cantilever, in addition to the end load. The negative bending moment is now increased to $\frac{Wl^2}{2} + Wl = \frac{0{\cdot}8 \times 10}{2} + 6 \times 10 = 40 + 60 = 100$ cwt.-ft., for which the beam must be designed. Fig. 4 shows the corresponding shear diagram.

HENRY ADAMS.



BENDING MOMENTS ON BEAMS.—FIG. 1.



BENDING MOMENTS ON BEAMS.—FIGS. 2, 3, AND 4.

CEMENT STAINS ON TILE FLOOR: PREVENTING DRAUGHTS THROUGH CASEMENT WINDOWS.

"Architect" writes: "(1) I have some quarry tile floors which have been very badly treated by workmen. Cement has been splashed about all over them, and then it has been ground down on to them with heavy boots. They have been scrubbed a number of times, but this has failed to remove the cement. Can you suggest anything to remove the cement? Would spirits of salts be of any use? (2) I have just erected a house in a very windy position. The windows are wood casements of section as shown. Although they fit fairly closely, the wind blows right through between the frames and the casements. Can you recommend any fitting on the market which is not unsightly and which I could have fixed to exclude the draughts?"

—(1) Cement stains can be removed from the surfaces of hard tiles such as Ruabon Quarries by means of hydrochloric acid in aqueous solution commonly known as "spirit of salt." The cement dissolves with effervescence, and may be washed away with excess of water. Spirit of salt is a corrosive poison, and yields an unpleasant fume. It must therefore be handled with caution if injury to the operator is to be avoided. Curtains and clothing are liable to be bleached by contact with the acid solution or fumes. A small portion of the tile surface should be dealt with at a time to avoid the discomfort of the fumes. The spirit of salt is applied a few drops per tile and spread with a cork upon the cement patches until the tile surface appears. A second application may be necessary if, after washing the floor, the appearance should be found to be irregular. Thick spots of cement can be removed by scraping with a knife or trowel after they have been damped with the spirit of salt and allowed to remain for a few minutes. All traces of the acid should be washed away with hot water and soda. Care must be exercised that the cement joints between tile and tile are not destroyed by the acid running and settling into them. If grease has been spilt on top of the cement it must be removed in the first instance as it would otherwise protect the cement from the action of the acid. (2) Casements fitted to a house situated in a very windy position may be made more draught resisting by fitting the casement fasteners in such a manner as will draw the casement tightly home to the frame by means of a slight wedge action. Any strong fastener is suitable, but the metal slot or striking plate must be filed to a slight curve to permit the tongue of the fastener to be tightened as the handle is forced home. The hinges of the casement must be strong and applied in such a way as to keep the hanging style of the casement well up to the frame (Fig. 1). With frames weather-grooved on the stops such measures should suffice, but, if the wind persists in entering, draught-excluding rubber tape may be bradded on all round the casement with its roll edge adjusted to fit into the weather groove in the stop when the casement is shut (Fig. 2). Or a small inner stop may be planted on all round the frame with its outer edge carefully scribed to fit the casement when it is shut. Planted stops should be bedded in a thick coat of white lead paint applied both to the frame and the stop which should be screwed into position while the paint is tacky (Fig. 3).

WILLIAM HARVEY.

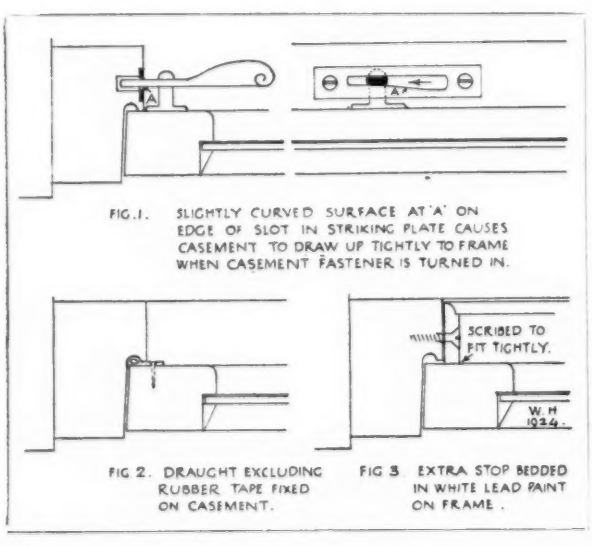


FIG. 1. SLIGHTLY CURVED SURFACE AT 'A' ON EDGE OF SLOT IN STRIKING PLATE CAUSES CASEMENT TO DRAW UP TIGHTLY TO FRAME WHEN CASEMENT FASTENER IS TURNED IN.

FIG 2. DRAUGHT EXCLUDING RUBBER TAPE FIXED ON CASEMENT.

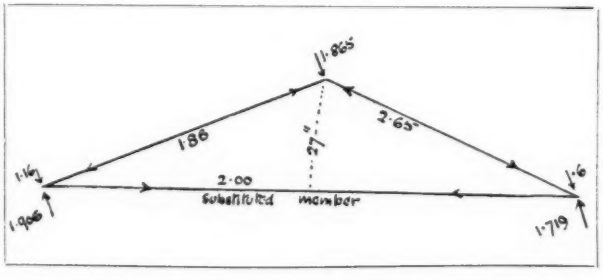
FIG 3. EXTRA STOP BEDDED IN WHITE LEAD PAINT ON FRAME.

PREVENTING DRAUGHTS THROUGH CASEMENT WINDOWS.

(*See Answer to "Architect."*)

A BENT GIRDER FOR A STAIRCASE.

A correspondent writes as follows with regard to the enquiry, "A Bent Girder for a Staircase," published on page 358 of our issue for February 20: "The principles applied in the solution of the above problem by Professor Henry Adams appear to differ from the general practice followed in the somewhat similar problems of roof truss members, and as such points frequently crop up, it would be worth while to have the theory more fully explained. In the solution given the greatest bending moment is at the joint, and equal to $1{\cdot}85\times4\times12 = 88{\cdot}8$in. tons, and 'acts in the opposite direction' to the bending moment from the load, hence it obviously arises from the horizontal reaction at the foot of the raking member. Professor Henry Adams,



in his work on "Mechanics of Building Construction," gives some very useful methods of applying substituted members. Dealing with the problem on these lines, and taking only vertical reactions at supports, we should get the stresses as here shown. Now, taking away the substituted member, the bending moment at the joint is $2\times27 = 54$ in. tons, in the *same* direction as that produced by the load. But if the substituted member is removed and horizontal thrusts applied at the ends to replace it, which appears to be the condition of the member in the problem, how then does the negative bending moment arise? The general conditions appear very similar to the rafter leg to an A type roof truss which is in direct compression so long as adequate horizontal thrusts exist at the foot, but requires positive bending moments to be calculated for on yielding supports with vertical loading. Structural textbooks do not give much information on such points, perhaps the author of the solution will kindly throw some light on them."

—The suggestion to test the case by the use of a substituted member is very good, and throws new light on the problem. Using the true figures to the third decimal, it gives the bending moment at the joint as 54·27 ton-inches, against 89·52 ton-inches given by the method previously used. This is a startling difference, and arises as follows: If the thrust is to be resisted by a horizontal force, it will be as shown in the previous diagrams, but if the joint is made to resist the bending moment there will be no horizontal thrust, and the measure will then be as shown by the substituted member = 54·27 ton-inches. Taking the beam as straight over the total span and loaded as in the bent beam the bending moment at the joint will be $72(1{\cdot}906-1{\cdot}16) = 53{\cdot}7$ ton-inches, which is almost the same, and judging by this, there is after all no great error in calculating it the same as a straight beam.

HENRY ADAMS.

Contemporary Art

The Alpine Club Gallery.

Works by four artists are displayed here; they have no group characteristics, but are alike in being tentative, in covering a wide range of subject, and in their courageous attack of the greatest difficulties. Here and there are signs of promise, as in Alexander Gerhardi's "Self Portrait," in Stanley Grimm's "Mrs. Geoffrey Baker," and the decorative "Shepherd Boy" of William M. Milner, a work that would well adorn a simple wall space. Sir Timothy Eden is most contented with his limited powers of expression, but Stanley Grimm aspires to be a colourist, and succeeds at least in producing a vivid expression, displayed in flowerpieces and buildings. There is something attractive about the slightness of treatment he accords to his architectural essays, as seen in "The Canal" and "The Herring Boat," the latter exhibiting also a good light effect.

The Redfern Gallery.

Here there is admirable accomplishment, for W. W. Russell and David Muirhead are among the exhibitors. But there are some less experienced artists who show definite promise, and some less well-known ones who show charming performances. The little group of monochromes by Thomas T. Baxter strike a distinct note, and Ethel Walker's drawings are the least mannered of hers I have seen, while her small bas-relief in Kirkwood stone is the best piece of her sculpture yet exhibited. The three pieces of sculpture by a young *Prix de Rome* artist, Alfred Hardiman, show great promise and performance. Each is a bronze: "Jane" a portrait, an "Italian Workman," and a half-mask portrait, the last very good. In spite of the extreme smoothness of these pieces—in itself a charming characteristic—they denote a distinct plastic faculty, and if only their author will remember that thought is required in sculpture as well as suavity, his future work should be of considerable value. To another young artist, Franklin White, who has not yet found his métier, it may be worth while to recommend a more rigid study of Nature and a less casual illustrative tendency.

The St. George's Gallery.

"The Man Sime" as seen by Max, and as pictured by himself, is not an attractive creature, but he has filled the seventy-eight pictures here shown with strange creatures no more attractive to look at than his own portraits, but yet full of charm and intrigue. Sidney Sime has for long been a name to conjure with and to dream about, and now he is revealed definitely in the mass by this exhibition. His work is decorative and illustrative, full of fancy and not devoid of humour. It does not aspire to represent the vision of a seer or to emulate the revelations of the great masters, but it is an original seeing, and stimulating at that.

On Mediterranean Shores.

At the Fine Art Society R. Talbot Kelly is exhibiting a series of more or less topographical drawings in water-colour of the Côte d'Azur, the district of the "Maure," the Var province of France from Marseilles to San Raphael. Here he found ample material for his busy brushes. Avoiding the Riviera banalities, he depicts the less-known and more worthy artistic features of the scene: a pleasant street view in the "Church of St. Paul, Hyères," another "Street at San Tropez," a "Street Fountain" at Bormes, and two streets there, as well as "La Place Chapon."

From this happy hunting ground it is not a far cry to the Balearic Isles, where Edith E. Caswell spent some months making her pictures of Majorca, now showing at the Brook Street Galleries. Flowers, fruits, gardens, interesting old inns and bridges, villages and hill-towns are rendered with considerable talent.

"Flowers and people" are the subjects of Isobel Nevill's versatile talent, as shown at the Gieves Art Gallery. The simple colour washes seen in such drawings as "Storey's Gate" are effective, and "The Loggia, Florence," and "The Greyhound Inn, Corfe," are two interesting works.

At the Independent Gallery Keith Baynes has an exhibition of paintings and drawings, the best of which is a "Still-life, Bottle and Melon." At Paterson's Gallery Lady Swinburne shows a number of small pictures and water-colour drawings.

KINETON PARKES.

Societies and Institutions

The New President of the Institution of Municipal and County Engineers.

Mr. G. F. Carter, borough engineer of Croydon, has been elected President of the Institution of Municipal and County Engineers for the ensuing year, in succession to Mr. W. T. Lancashire.

List of Books Recommended to Students.

The R.I.B.A. have published a list of books recommended to students. Copies of the list may be obtained free on application at the Royal Institute, 9 Conduit Street, Hanover Square, London, W.1.

Yorkshire Structural Engineers.

At a meeting held in the Town Hall, Halifax, it was decided to form a Yorkshire branch of the Institution of Structural Engineers. The meeting was addressed by the president of the institution, Major James Petrie, O.B.E., M.I.Struct.E., M.Inst.T., etc., who explained at some length the aims and activities of the institution, and the benefits accruing to members of a branch. The acting local secretary is Mr. D. Lloyd Jones, of Halifax.

The Illuminating Engineering Society.

According to the last report of the Council of the Illuminating Engineering Society four additions have been made to the list of kindred bodies whose presidents or appointed representatives became, during their tenure of office, members of the council of the society, namely: The British Electric and Allied Manufacturers Association, the National Institute of Industrial Psychology, the Institution of Public Lighting Engineers, and the Women's Engineering Society. Sir John Herbert Parsons, after two years of office, is relinquishing the presidency, and the council take the opportunity of putting on record their appreciation of his services to the society, notably in connection with all questions relating to the effect of light on the eye.

Town Planning and Open Spaces.

Mr. Laurence W. Chubb, secretary of the Commons and Footpaths Preservation Society, gave an address at the Town Planning Institute on the reservation of lands and open spaces under town planning schemes, in the light of the model clauses issued by the Ministry of Health. He said that the importance of saving the commons could be seen when it was realized that out of the total area of about 25,500 acres of open space in the Metropolitan Police district, including the Royal Parks at Richmond and Hampton Court, no less than 15,900 acres were common land, none of which had been saved without a struggle.

The really important questions now were: First, to what extent each town-planning authority ought to take steps to schedule public and private open spaces in accordance with Model Clause 35; secondly, what types of open spaces should be provided; and, thirdly, how the powers of the Town Planning Acts could be most effectively used. He hoped that these questions would be approached with a determination by every town-planning authority so that there should be no repetition of the disastrous mistakes of the past. The scarcity of open spaces was due not only to the unwise enclosure of many commons, but even more to the failure of public authorities of the last generation to look ahead and anticipate the future requirements of their districts. The whole subject should be approached in a broad and statesmanlike way. The issue should not be determined by a careful inquiry into the minimum needs of the moment, but by an intelligent effort to forecast the maximum requirements of the future. This would in the end prove to be the soundest policy.

Parliamentary Notes

[BY OUR SPECIAL REPRESENTATIVE.]

In the House of Commons Mr. Sunlight asked leave to introduce a Bill to fix the dimensions of bricks used in housing schemes subsidized by the State. He said that the Bill would increase the size of bricks to 9 in. by 4½ in. by 3½ in. thick, and would augment by one-fifth the quantity and volume of brickwork without the addition of a single bricklayer, and without any cost to the State. The saving under his proposal on a £500 cottage would be £30.

Mr. D. G. Somerville opposed the Bill, which he characterized as an extraordinary proposal, but leave was granted by 140 votes to 139. The Bill was brought in and read a first time.

Law Reports

Unusual and Onerous Covenants

Marshall v. *Johnson.*

Chancery Division. Before Mr. Justice P. O. Lawrence.

This was an action by Mrs. A. M. Marshall, of Glendower Road, West Kensington, against Miss F. E. Johnson, of Avonmore Road, West Kensington, for specific performance of an agreement by the defendant to purchase a house and furniture for £1,450 and £400 for "remainder of furniture." Defendant counterclaimed for return of £50 deposit, denying the agreement or that she was given an opportunity of seeing the lease which contained onerous terms. Defendant also said that continuation of the user of the house as a boarding house for which she wanted it, would be breach of the lease covenants.

His lordship, in the course of his judgment, said this was an unfortunate dispute in which expensive litigation was necessitated through these two ladies having proceeded in a transaction of sale and purchase of leasehold property without taking proper legal advice to begin with. Both took in boarders. The lease under which the property was held contained covenants which were "unusual and onerous," and in that case the onus was upon the vendor to disclose to the purchaser the existence of such onerous covenants if he desired to enforce his contract. For the plaintiff it was said the defendant was put on her guard by her agent, her sister being told that the business the plaintiff was carrying on was being carried on under licence, which indicated that there were some restrictions in the lease which required a licence to overcome, but his lordship held there was nothing at the interview in question to put the defendant on enquiring as to the existence of unusual and onerous covenants. Then it was said ample opportunity was given the defendant to inspect the lease and she was estopped from saying she was unaware of the clauses. She wished to borrow money from an insurance company and its agents enquired as to mortgages existing on the house and defendant obtained for him information of them from plaintiff.

His lordship could not help assuming that the information was given as to where the deeds could be seen, but the ladies were hurrying matters to a conclusion and he did not think either realized there was any difficulty such as had cropped up now. Mrs. Marshall, it was obvious, never had a suspicion of the law or that it was her duty to disclose any covenants that might be unusual or onerous. In his lordship's view no fair opportunity was given the defendant before the contract was signed of seeing the lease and informing herself of these covenants. Defendant, herself, never asked to see the lease, and it never occurred to Mrs. Marshall to tell Miss Johnson to go round to the mortgagee's office to see it for herself. Plaintiff had not discharged the onus and defendant was not estopped from saying she had no notice of the covenants in the lease. He dismissed the action with costs, and allowed the counterclaim, with costs.

New Inventions

Latest Patent Applications.

13895.—Prior, R. W., Crittall Manufacturing Co., Ltd.—Casement windows. June 6.

13873.—Cuming, A. J. Roach.—Sectional units for floors, walls, etc. June 6.

13863.—Dickinson, A. W.—Reinforced-concrete floors and ceilings. June 6.

13726, 13727.—Grant, J. K.—Building constructions. June 5.

13890.—Heyl, G. E.—Moulding buildings, etc. June 6.

13750.—Logan, W. A.—Sectional dwelling-house. June 5.

13632.—Moore, D. H.—Concrete structures. June 4.

Specifications Published.

216245.—Meadows, S. C.—Composition suitable for making or waterproofing roads.

216361.—Haskins and Bros., Ltd., S., and Haskins, J.—Means for raising and lowering fireproof doors, shutters, and the like.

216404.—McNay, J. T.—Adjustable framing or supports for centreing for concrete floors, beams, and the like.

Abstract Published.

214474.—Flack, F. C., 5 Clonmore Street, Southfields, London.—Beams; columns.

The above particulars are specially prepared by Messrs. Rayner & Co., registered patent agents, of 5 Chancery Lane, London, W.C.2, from whom readers of the JOURNAL may obtain all information free on matters relating to patents, trade marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and abstract only, and forward on post free for the price of 1/6 each.

Correspondence

Acoustics

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Referring to your excellent proposal that a conference of persons who are really expert in applied acoustics should be called together, I venture to suggest that any such conference should not be confined to professional people only.

I know that many of your professional contributors have been in the habit of decrying the man engaged in trade as a person who is only out for advertisement and self-interest, yet many of the modern developments in building and engineering practice have been the direct outcome of the enterprise, knowledge, and skill of men who have sunk their capital in developing new ideas for commercial purposes.

Those who have specialized in the application of acoustical treatments have, I think, a claim to some practical knowledge of the subject based on an experience which is not obtainable in ordinary professional practice, and they should be represented in any conference which is called with the idea of co-ordinating research in acoustical problems.

JAMES CHAPMAN.

Competition News

A New Central School for Gosport.

For a new central school at Gosport the Education Committee have provisionally accepted the design of Mr. L. M. Field.

Bexhill Town Hall.

The R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

List of Competitions Open

Date of Delivery.	COMPETITION.
July 4	The Glasgow Corporation invite competitive plans of a public hall to be erected on a site near Bridgeton Cross. Estimated cost £25,000. Premiums £150, £100, £75 and £50. Apply Office of Public Works, City Chambers, 64 Cochrane Street.
Aug. 23	The United Grand Lodge of England invite designs for re-building the Freemasons' Hall in Great Queen Street, Kingsway, London. The competition to be conducted in two stages. A first or sketch competition, and a second or final competition. Not fewer than six designs will be selected from those submitted in the first competition, the authors of which will be invited to submit detailed plans in the second or final competition. Each of the architects submitting a design in the final competition will receive an honorarium of £500. The assessors are:—Sir Edwin Lutyens, R.A., F.R.I.B.A., Mr. Walter Cave, F.R.I.B.A., Mr. A. Burnett Brown (Grand Superintendent of Works), F.S.Arc., F.S.I. Apply, with deposit of one guinea, to the Grand Secretary, Freemasons' Hall, Great Queen Street, London, W.C.2. The envelope should be marked "M.M.M. Competition."
Sept. 1	Entertainment hall for the Bexhill Corporation. Premium £50 and £25. Apply Town Clerk, Bexhill. This competition is open only to architects in the district.
Sept. 30	The Hamilton War Memorial Committee invite designs for the proposed war memorial to be erected in the Public Park. The estimated cost of the memorial will be £2,000. Premiums £60, £40, £20, and £10. Mr. G. A. Paterson, President of the Glasgow Institute of Architects, will act as Assessor. Apply, with deposit of £1 1s., to Mr. P. M. Kirkpatrick, Town Clerk, and Clerk to the Committee, Hamilton.
Sept. 30	Designs are invited for a statue in bronze and a pedestal (at a cost of about £3,000) in honour of the late Sir Ross Smith, K.B.E. Apply The Agent-General for South Australia, Australia House, London.
Sept. 30	Competitive designs are invited for a Memorial Club House and Pavilion to be erected on the ground of the Glasgow High School Club at Anniesland, Glasgow. The competition is confined to former pupils of the High School of Glasgow, and will be conducted under the R.I.B.A. Regulations for architectural competitions. Mr. John Keppie, F.R.I.B.A., Glasgow, has consented to act as Assessor. Particulars of the competition, with instructions to competitors and a plan of the site, may be obtained on application to Mr. Hugh R. Buchanan, Hon. Secretary, Glasgow High School War Memorial Committee, 172 St. Vincent Street, Glasgow.
Sept. 30	The Committee of the Harrogate Infirmary invite designs for the extension of the infirmary by the addition of 67 beds. Mr. Sydney D. Kitson, M.A., F.S.A., F.R.I.B.A., is Assessor. Premiums, 150, 100 and 50 guineas. Applications for conditions of the competition, accompanied by a cheque for two guineas, should be made to Mr. Geo. Ballantyne, Secretary, The Infirmary, Harrogate, not later than May 31.

The Week's News

A New Village Hall for Ickenham.
A village hall is to be erected at Ickenham.

A New Wesleyan Church for Northwood.
Mr. J. H. Fielding has given £2,000 towards a new Northwood Wesleyan church, and provided a manse.

A "Boulevard" for Uxbridge.
A new Uxbridge recreation ground layout provides for a "boulevard" alongside the river Frays.

New Sports Pavilion for Beeston.
The Beeston Urban District Council have passed the plans for a new sports pavilion for the Highfield University.

A New School for Selby.
A new school for infants and juniors is to be erected in the Selby urban district.

More Houses for Hampton.
The Ministry of Health have approved the erection of an additional thirty-one houses on the Priory Road site.

Change of Telephone Number.
The telephone numbers of Messrs. Mewès and Davis, architects, are now Mayfair 1208 and 1209.

Professor Anning Bell.
Professor R. Anning Bell is shortly to relinquish the Professorship of Design in the Royal College of Art.

Proposed Big Drainage Scheme for Rochester.
The Rochester Corporation are considering a drainage scheme estimated to cost £160,000.

Proposed New London Market.
A scheme has been prepared for erecting a market in Tower Bridge Road at a cost of £18,000.

More Houses for Willington.
The Willington Urban District Council have resolved to erect sixty additional houses.

Housing in Upper Renfrewshire.
The Housing Committee for the Upper District of Renfrewshire have decided to apply to the Scottish Board of Health for permission to erect 205 houses.

Newport Improvements Schemes.
Negotiations have been completed for the widening of the station approach and a portion of High Street. It is estimated that the cost will be about £24,000.

A New Parish Hall for Westgate-on-Sea.
A site has been secured by the building committee of St. Saviour's Church for the new parish hall, which will be built between Adrian and Ethelbert Squares.

The Southend Winter Garden Scheme.
The Southend Town Council have decided not to proceed for twelve months with a winter garden on the cliffs, which was to cost £135,000.

The Restoration of a Perth Church.
Lord Forteviot has given £10,000 towards the restoration of the historic church of St. John the Baptist, Perth. The church is being restored as a war memorial for the city and the county.

Sir Edwin Lutyens' Daughter Engaged.
An engagement is announced between Viscount Ridley and Ursula, daughter of Sir Edwin and Lady Emily Lutyens. Lord Ridley, who came of age at the beginning of the year, is the third holder of the title, and owns about 10,200 acres.

Chorley's War Memorial.
Astley Hall, Chorley, has been presented to the town by Mr. R. A. Tatton, of Cuerdon, as a war memorial. The original hall was built in Stuart days by the Charnocks. It is particularly notable for its decorative ceilings, believed to be the work of French artists, and its wood carving and panelling.

A Birkenhead Church Damaged.
Christ Church, Birkenhead, the largest Anglican church in the town, was struck by lightning and set on fire during a heavy thunderstorm. Lightning caught the south transept, and blazing wood falling into the pews below set fire to them. The flames spread to the organ and to a handsome memorial pulpit to two officers killed in the war.

Westminster Bridge.
The engineering department of the London County Council has asked Messrs. Rendel, Palmer, and Tritton, consulting engineers, of Westminster, to make an immediate inspection of Westminster Bridge and submit a report as to its stability and condition, having regard to the heavy volume of traffic passing over it.

A New Bridge for North Seaton.
The London and North Eastern Railway are to erect, at a cost of £90,000, a new steel viaduct at North Seaton, Northumberland, over the River Wansbeck. It will replace the old wooden structure which has done duty since 1859, and is believed to be the last of the old timber bridges used for heavy traffic in this country.

A Sussex Electric Village.
Seventeen cottages have been erected near East Hoathly, Sussex, from the designs of Mrs. Annabel Dott, wife of the rector of Barnes, Middlesex. The cottages, which stand in Grey Wood, an estate of fifty acres, have their own power station, electric light, electric laundry, electric washer-up, refrigerating plant, communal bakehouse, electric irons, and electric kettles.

The Abolition of the Smoke Nuisance.
In the Palace of Industry, Wembley, there is an exhibit, organized by the British gas industry, which demonstrates a scientific and economic way of bringing about the abolition of the smoke nuisance. Diagrams, charts, and pictures are arranged to show the three chief ways in which smoke is allowed to attack our persons and our purses, our health and our wealth.

New House Ordered to be Pulled Down.
A newly-erected house at Wickford, Essex, may have to be pulled down again, as it has been found that it has been built across a public footpath. As the owner refuses to allow people to go round the house, the Billericay Rural District Council have asked him to pull it down. The chairman said this seemed to be drastic action, but it was the only thing they could do, as the owner could not give a right of way through the house, and the Council could not sanction a diversion, which was a matter for quarter sessions.

Rye Parish Church Bells to be Rehung.
The Rye Parish Church bells, among the most ancient peals of bells in the country, are to be rehung. Six of them first called the people of Rye to church in 1360. Eight years later, when the French pillaged the town, the bells were carried off to Normandy, where they remained for ten years. The men of Rye and Winchelsea then set off in a fleet of boats, and after pillaging the coast of Normandy they found the bells hidden away in a French town, and carried them back to Rye, where they were rehung and remained for four centuries. In 1774 John Lamb had the bells recast and added two to their number.

The Study of Modern Architecture.
The first of the scholarships for the study of modern architecture abroad recently instituted by the Society of Architects has been awarded to Mr. W. Harding Thompson, lecturer in town planning and civic design at the Architectural Association Schools. The scholarship is of the value of £300 and the holder is required to spend between three and four months in a foreign country conducting investigations according to an approved programme. Mr. Harding Thompson intends to proceed to America and will concentrate on the problems of planning and design presented by the smaller industrial towns and settlements.

A London Hospital Rebuilding Scheme.
At a meeting of the Governors of the Kensington, Fulham and Chelsea General Hospital it was announced that the King Edward's Hospital Fund had sanctioned the scheme for the rebuilding of the hospital on the present site. A resolution was unanimously passed pledging support to the scheme, and authorizing the Board of Management to take all necessary steps to achieve the object in view. The plans of the new building have been prepared by Sir Aston Webb, P.R.A., and provide 100 beds, an outpatients' department, facilities for electrical treatment, and an X-ray department. The cost will be approximately £50,000, and £5,000 for equipment.

The Week's News—*continued*

Wesleyan Scheme for Chapel Erection.

An extensive scheme, which includes the erection of numerous chapels and Sunday schools in various parts of the country, is being undertaken by the Wesleyan Methodist Church. The largest individual scheme is at Hackney, London, where a mission hall is to be erected at a cost of £48,613. Small chapels costing between £1,000 and £1,500 each, are to be erected at Biggin, in the Selby circuit, Newton-on-Ouse, Easingwold, and Louth. The scheme also provides for the erection of ministers' houses. Sunday schools will be erected at Haltwhistle, costing £2,298, at Castleton, Danby, costing £1,000, and at Flimby, Maryport, at a cost of £1,652.

A New Italian Altarpiece at the National Gallery.

An important addition has been made to the series of large Italian altarpieces which are among the chief glories of the Trafalgar Square Collection, in the shape of an altarpiece and lunette by Francesco Zaganelli da Cotignola. This imposing and richly-coloured painting was recently purchased by the trustees, and is now on exhibition in Room XVI. This altarpiece was formerly in the church of San Domenico, Faenza, and had considerable fame. It is signed and dated 1514, and is therefore among the latest works of Francesco Zaganelli, the elder and more accomplished of two brothers, of whom Bernardino the younger is already represented at Trafalgar Square. Their chief centre of work was Ravenna.

The Leicester Building and Decorative Exhibition.

The first comprehensive trade exhibition of the above character will be held in the Junior Training Halls, Leicester, from October 16 to October 25. Only exhibits directly pertaining to the building and decorative trades will be permitted. The object of the organization is to collect in the hall at their disposal the most comprehensive and representative display of up-to-date building, constructional, and decorative materials that has ever been seen outside London. Special arrangements will be made to ensure the attendance of the architects, surveyors, councils, sanitary engineers, builders and contractors, and the decorative trades generally from all over the Midlands. The address of the organizers is 32 Victoria Street, Manchester.

Cardiff's Important Improvement Scheme.

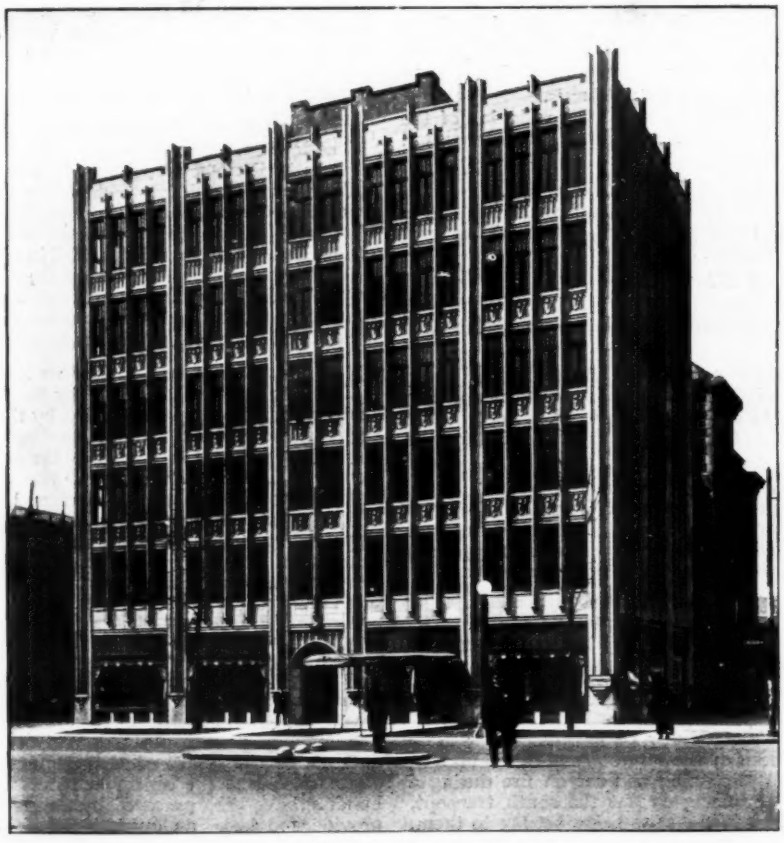
A much needed improvement—the widening of Duke Street, Cardiff—was opened with civic function. The new thoroughfare removes a narrow and very dangerous bottle neck on the main road from London to West Wales, and at the same time enables the City Council efficiently to link up the tramways. After Mr. C. F. Sanders, the first and present chairman of the Duke Street Improvement Committee had declared the thoroughfare open to public use, a decorated double-decked covered tramcar, in which the members and officials of the Corporation were passengers, was driven through it by the Lord Mayor. Later in the day the members and chief officials of the Corporation, Sir John Courtis, and other guests were entertained at luncheon by the Lord Mayor. The improvement has been a very obvious one for about a quarter of a century, but the cost has, in the past, been prohibitive. Two outstanding personages who had much to do with the improvement are Sir John Courtis and Lord Bute.

A New Business Building in Chicago

The building illustrated below is an example of the great simplicity of treatment of many of the big business blocks in Chicago and New York. The building has in it much that is Gothic in feeling, and in its "perpendicularity" is reminiscent of Barry's Houses of Parliament. The architect is Robert T. Newberry. It is located on the corner of Michigan and Chicago Avenues (Michigan Avenue is the finest street in Chicago), and the building is only a few blocks from where the well-known Wrigley building and Tribune Tower are located.

The facing of the cast stone used in the entire building consists of a mixture of Crown Point spar and "Atlas White" Portland cement.

Crown Point spar aggregate consists of various coloured particles, including the colours grey, white, black, and cream, and various shades of these colours. This aggregate gives cast stone the appearance of grey granite.



NEW BUSINESS OFFICES, CHICAGO. ROBERT T. NEWBERRY, ARCHITECT.

Trade and Craft

The Cement Marketing Company's Exhibit at Wembley.

The exhibit of the Associated Portland Cement Manufacturers, Ltd., British Portland Cement Manufacturers, Ltd., Wouldham Cement Company, Ltd., Martin Earle & Co., Ltd., and the Cement Marketing Company, Limited, in the main avenue of the Palace of Industry, is the only one representative of the British Portland cement industry at the British Empire Exhibition. The building is finished in concrete, suitably treated, and the two columns of the entrance are also of concrete with a scrubbed granite aggregate surface. Mainly the exhibit consists of a large working model of a cement works, a testing counter, specimens of casks, drums, and sacks in which cement deliveries are usually made, and a complete range of the company's products—cement, lime, whiting, etc. The working model is electrically driven, and is arranged to illustrate every stage of the process of manufacture: the washing and screening of the raw materials, the subsequent burning in the rotary kiln, the reduction of the resulting clinker in the grinding mills, and the automatic storing and packing of the cement. On the testing counter are carried out all the mechanical tests of the British standard specification, and in addition to the usual machines for breaking briquettes, there is a hydraulic machine for crushing cubes. The wide reputation of the companies' brands of cement is evidenced in the many photographs of large works in every quarter of the globe in which they have been used. Some large aerial and other photographs decorating the stand show the size and importance of the companies' works and activities. One striking exhibit is an illuminated stained glass globe some 4 ft. in diameter suspended in a central position in the stand. It is designed in the form made popular on the "Marketing" motor wagons, and bears a surround of the companies' trade marks. Above and below are bronze tablets with suitable inscriptions. One of these arrests attention in recalling the fact that English cement was the first made, in 1824, and is, therefore, now entering upon the centenary of its history.

In conjunction with this stand one should visit the building of the Concrete Utilities Bureau situated in the Horticultural section (stand No. 25). Here are to be seen concrete roads, examples of concrete building systems, and the uses to which concrete can be put on the railway, in agriculture, and by public authorities, and for ornamental products and other purposes.

A New Trade Film.

Last week we saw a film showing the manufacture of the "Celotex" insulating building board and a number of lantern slides illustrating some of the uses to which it has been put. A representative gathering of architects, engineers, British and continental contractors were present. In a series of stages one was led from the cutting down of the cane at the sugar plantations to the mills where the sugar is extracted and the remaining fibre compressed into bales. Last year, it is stated, 24,000 tons of the fibre were used in the manufacture of "Celotex." We next saw the manufacturing plant, which covers forty-eight acres, where the fibre is reduced to a pulp and "cooked" in a chemically treated liquor. This liquor is claimed to purify the fibre, to remove matter that engenders decay, and to render the fibre weatherproof. The treated fibre is then conveyed into a machine where the fibres are woven and interlaced into a board of homogeneous structure. The board as it leaves the rollers for the drying sheds is 12 ft. wide, and continues unbroken for 900 ft. The next operation is to cut it up into boards of different lengths, which are then subjected to various tests, any board failing these tests being rejected. The firm state that at present the production averages 576,000 ft. per day, but new units are being laid down to enable the firm to cope with a larger demand. Among the uses for which "Celotex" is claimed to be suitable are the following: insulation of refrigeration and cold storage plants; roof insulation; shuttering for poured concrete; suspended ceilings in concrete floor construction; anti-vibration courses and for ceilings and interior walls. Particulars will be sent to anyone interested by Messrs. Bivert and Firth, Cunard House,

27 Cockspur Street, London, S.W.1, the sole importers and exporters.

Road Reinforcement at Chester.

The accompanying illustration shows a section of the Liverpool-Birkenhead road at Chester, which is being reinforced with "Maxweld" steel fabric. The section in question is a Class 1 road under the Ministry of Transport's classification, and carries the great volume of direct traffic to and from Birkenhead. Under the direction of Mr. Charles Greenwood, A.M.I.C.E., the city engineer of Chester, this has been relaid with a view to meeting more effectively the heavy demands of increasing weight and volume of traffic. The average width of the road is 39 ft., and over this is laid an 8 in. foundation of 6 : 1 concrete reinforced with a single layer of "Maxweld" fabric and surfaced with mastic granited rock asphalt 2 in. thick.

The reinforcing medium used is a straightforward mesh in high-grade British drawn steel, electrically welded at the intersection of the wires. This fabric is supplied by the makers, Messrs. Richard Hill & Co., Ltd., of Middlesbrough and London, reinforced concrete engineers, in rolls of varying strengths and spacings to the requirements of individual work. It is readily transported, and simply unrolled into position at the site. In order to meet the varying opinions of road engineers respecting the relative advantages of hard drawn steel and mild steel for reinforcing fabric the makers of "Maxweld" are producing their patent welded mesh in both materials.

THE LIVERPOOL-BIRKENHEAD ROAD, CHESTER, UNDER RECONSTRUCTION.

"Britain's Best Industrial Sites."

Under this title the Nottingham Colwick Estates, Ltd., of Colwick, near Nottingham, have issued a brochure setting forth the reasons why progressive firms should select sites for their works at Colwick, the new industrial estate in the centre of England. Colwick is particularly notable for the following advantages: (1) Cartage costs to and from rail are eliminated, because every site has direct communication to the London and North Eastern, and the London Midland and Scottish Railways. (2)The river Trent gives direct access to the Humber ports. (3) It is within easy reach of England's dense populations by waterways, railways, and roads, and yet with garden city conditions. It is claimed that the estates provide industry with all the conditions inseparable from vigorous and rapid business development, cutting out wastage on every hand, and offer remarkable facilities for transport, power, labour supply, and distribution.

Royal Visit to Marconi House.

General H.R.H. Prince Purachatra, director of the Siamese State railways, has visited Marconi House and instructed the "Relay" Automatic Telephone Company, Ltd., to dispatch to Siam some of their new loud-speaking telephones and other apparatus to work in connection with the "Relay" automatic telephone exchanges, which are at present serving the Siamese State railways. His Royal Highness expressed his pleasure at the service the "Relay" exchanges were giving in his country. This is one of the first overseas cases of the application of the new loud-speaking telephones to automatic telephony, which has been developed by the "Relay" Company, of Marconi House. Several are already working on installations in England, such as at Lloyds Bank, the British Empire Exhibition, Marconi House, and elsewhere.

Hot Meals at the Office.

By telephoning Museum 6708 architects and others can order a hot lunch or dinner and have it speedily delivered to the home, office, or studio. This innovation has been introduced by the Service Kitchen, 32 Burton Street, Cartwright Gardens, W.C.1. The lunch or dinner, hot for the table, is delivered in a special container with china plate, etc. The food is excellent, and the price reasonable.

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