THE

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JOURNAL

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CHRISTIAN BARMAN, *Editor*

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

RENDERINGS OF ARCHITECTURE

Selected and annotated by Dr. Tancred Borenius.

xix. Monsù Desiderio (working *c.* 1620).
Architectural Cappriccio
(dated 1623).

"Monsù Desiderio" is still a very mysterious artist, mentioned by a Neapolitan eighteenth-century writer on art as "famoso Pittore di prospettive e vedute," and as having had the figures in his pictures painted by the Neapolitan artist Belisario Corenzio (c. 1555 to c. 1640). The prefix "Monsù" to his name points to his having been a Frenchman; but otherwise we know next to nothing about him. The works assignable to "Monsù Desiderio" are all connected with one another by reason of the odd, freakishly romantic spirit which informs these architectural extravaganzas. He loves gloomy, melodramatic effects, with glaring lights on successions of ruined buildings, making phantastic silhouettes against dark, impenetrable skies. Gothic and Classical elements of style are curiously intermingled in the buildings, and the technique is both very minute and characterized by extreme heaviness of impasto. The present picture is of particular interest from being dated 1623; the tiny figures in the foreground illustrate the well-known story of St. Augustine desisting from speculating on the mystery of the Trinity after seeing a child attempting to empty the sea in a shell.—[National Gallery, No. 3,811.]

THE ARCHITECTS' JOURNAL

Wednesday, May 26th, 1926

ARCHITECT, BUILDER, CRAFTSMAN

That the R.I.B.A. is not the moribund body some of its critics would have us believe is shown by the eagerness with which it is called upon to right every wrong connected not only with professional matters, but also with the amenities of the town and countryside. Some of the calls to action are frivolous, but we think that the recent correspondence in the columns of this JOURNAL, inspired by a letter from Mr. Aumonier, has drawn attention to a very serious state of affairs, and we would join with those who are for invoking the Institute to investigate the whole matter with a view to bringing about a more satisfactory arrangement.

It would certainly appear that the position of the craftsman and specialist on a building job is extremely unsatisfactory, because under present conditions it is undefined, and there is no consistent procedure running through the industry which governs the method of their employment. One of the results of this most unsatisfactory state of affairs is that after a specialist has given his price, and this price has been accepted by the architect, he may find himself called upon by the contractor, to whom, be it remembered, he looks for payment, to allow a discount or to take out insurance policies for certain risks which it would certainly seem to be the contractor's duty to cover, and these amounts may vary according to the arbitrary whim of each particular contractor. The demand for a discount would seem to us to be quite indefensible, especially in view of the fact that clause 28 of the Conditions of Contract lays down that the sums in payment of work performed by specialists shall be payable by the contractor without discount or deduction. The demand is, to say the least, an extremely onerous one, since the specialist knows that the contractor has it within his power to make things both difficult and unpleasant for him in the execution of his work on the job, despite the fact that in his estimate the contractor is allowed to add his profit for specialist's work. "This profit," and here we quote from a letter from one of our correspondents, "is not a free gift from the client, it is to be earned by rendering some service." And this service, of course, includes waiting upon the specialist and giving him facilities for the proper carrying out of his work.

It is in connection with the giving of these facilities that the quite extraordinary insurance demands are made. It must sometimes happen with stone carving that work must be carried out on the stone before it is *in situ*, and the obvious place to do this is in the contractor's yard or wharf where there are proper banker facilities. Yet where this has to be done the contractor insists upon indemnification against all risks to the specialist's men. In other words, the specialist is to carry the contractor's third party risks, and this, we understand, insurance companies—quite reasonably—refuse to undertake. The contractor maintains in defence of these demands, that the specialist working in his yard does so to suit his own convenience, whereas the specialist, with more reason, maintains that he works in the contractor's yard for the benefit of the job, that it is the obvious and reasonable place to work, and that even had he facilities of his own for handling large blocks of stone, it is obviously uneconomical to shift them about from one place to another; furthermore, that it is for the granting of facilities of this kind that the contractor adds his profit to the specialist's estimate. Even in connection with these indemnification forms, which the specialist is called upon to sign, there is no uniformity.

Then, too, there are certain minor matters in regard to which the position of the specialist is far from satisfactory. If in the process of carving a piece of stone a flaw reveals itself, whose is the duty of replacement? Is there justification for the frequent practice of compelling the specialist to wait for payment due to him until the contractor shall have received his payment from the building-owner? It has been suggested that the position of the specialist might be improved were he to be employed by the building-owner and to receive payment direct from him. But in the case of large works this is clearly not possible on account of the labour which would fall upon the building-owner in settling separately with every specialist. There is another reason, too; it is quite likely that were the building-owner to know exactly what sums were being expended, instances would arise in which he would insist upon the reduction or omission of certain contracts which he might deem superfluous. A sum of several hundred pounds spent upon stone carving might seem to him wasteful even though, were he not put in possession of such details, the total cost of the building might not seem excessive.

There is to-day a general desire to raise the standard of craftsmanship, but as a preliminary it is surely necessary to give the craftsman an unequivocal position in the hierarchy of the trade, where he will not be subjected to petty annoyances and embarrassments. The last few years have seen the erection of one of the greatest buildings in the world. Yet, although we are ignorant as to the exact procedure in the building of the Stockholm Town Hall, we think that Mr. Aumonier must be right in supposing that its band of craftsmen worked without molestation: "there is too much joy written in its execution."

D

NEWS AND TOPICS

Strike experiences have made one accustomed to "peaceful picketing," but it was with some amazement that onlookers witnessed an extraordinary spectacle in the division lobbies of the House of Commons last Tuesday evening, after the debate on the proposals of the London County Council to demolish Waterloo Bridge. "Peaceful picketing," here, as elsewhere, had, indeed, given way to "intimidation." A mass of struggling, shouting members congregated at the entrance to the lobbies, and more than one latecomer, dashing into the "Aye" lobby in a frantic effort to record his vote before the division came to an end, was tackled in first-class Rugby fashion by a good-tempered, but somewhat over-zealous, opponent, who endeavoured, both by argument and by force, to induce the would-be voter to change his mind. Only the stern tones of the Speaker appealing for order eventually restored the customary calm of the Chamber. Above, in the Peers' Gallery, the Earl of Crawford, whose efforts to save Waterloo Bridge are too well known to call for further mention, had listened to a debate in which he must have longed to take part. He appeared to be particularly interested in the speeches of Sir John Simon and Sir Wm. Bull, both of whom, in entirely different styles, made extremely valuable contributions to the arguments for the retention of the bridge. In the Distinguished Strangers' Gallery there could be seen several architects and members of those societies interested in the preservation of the bridge. To these the result of the debate must have been a bitter disappointment. But there is still the House of Lords to contend with, and it is possible that the London County Council may yet have an unpleasant surprise, in view of the fate which was meted out not so long ago to the proposals of the Croydon Corporation to demolish the Whitgift Hospital. By the Parliament Act, the peers are debarred from amending a Government measure certified by the Speaker as a "Money Bill," but it is questionable if a private measure—as the London County Council (Money) Bill undoubtedly is—comes within the scope of that Act. Nor would the County Council's Bill appear, in any event, to be a "Money Bill" in the strict sense of the term, since it involves no charge on the National Exchequer. It is, therefore, to the Lords that lovers of Waterloo Bridge must look for further help.

* * *

On the whole, the defenders of Waterloo Bridge have had a very good Press. As far as I have seen, only one London newspaper has ventured to flout artistic opinion by siding whole-heartedly with the destroyers. In this solitary instance the line taken seems to be, "No case: abuse the plaintiff's attorney." In the issue of an evening paper now before me are these puerilities: Opponents of the L.C.C. scheme sneered at as "very lachrymose in their tone"; "the cranks who are fighting the new bridge think this [i.e. Mr. Gretton's motion in the House of Commons on May 18] is their last chance of stopping it in favour of their own preference for antiquities"; "the House, I hope, will not listen to them after the opinion of eminent architects is given to the L.C.C. that only rebuilding can suffice." That kind of persiflage is, I think, quite helpful to the friends of the bridge; it is such a naïve exhibition of the taste, tone, and temper of the destroyers. But I seem to recall that the "eminent architects" have delivered themselves in a sense precisely contrary to the allegation I have quoted. Really, the spokesman of the utilitarians should stick to fact. A further word in his ear. He should understand that the "cranks" are not "fighting the new bridge," but are defending the old and not because of a "preference for antiquities." The writer may like to learn that Waterloo Bridge is a hoary "antiquity" of the nineteenth century, and that the pageantry at its ceremonial opening on the second anniversary of the Battle of Waterloo may haply have gladdened the eyes of his grandsire. The "cranks'" much more practical intent is to save the L.C.C. from committing a monstrous outrage against art. And I am truly happy to have the honour of being classed with the "cranks" in opposition to the Wise Men of Gotham.

* * *

The Knightsbridge Barracks, from which the Grenadier Guards have recently moved, were designed by Thomas Henry Wyatt, and were erected during the years 1877-9, at a cost of some £150,000. They replaced the older barracks, which had been occupied by the Horse and Life Guards, and of which the riding school and certain other portions—the stabling for instance—had been built by P. Hardwick, the architect, in 1857. As a matter of fact, the first military establishment formed here was erected in 1795, and was then capable of holding 600 men and 500 horses. In the plan of Knightsbridge which Joseph Salway prepared for the Kensington Turnpike Trust in 1811, a plan reproduced in facsimile by the London Topographical Society, the long range of stone buildings is shown, with the officers' quarters, consisting of a large mansion with wings and a pediment in the centre, at their west end between the men's quarters and the stables. In those days, too, there was a smaller range of barracks just inside Kensington Gardens, where the entrance to the Broad Walk is now. At that time a turnpike, or toll-bar, as it is called in Salway's plan, stretched across the high road at the east corner of Gloucester Road, at the top of which thoroughfare was another toll-bar just north of the old tavern called the "Dun Cow," which stood in Gloucester Road itself.

* * *

There is naturally a good deal of speculation as to what will be the eventual fate of the Knightsbridge Barracks. Such a building as this is hardly likely to be adaptable for other purposes, and the alternative is, of course, its demolition. That is all very well; but one wonders, in this event, what is likely to take its place. The site must be an immensely valuable one; and one imagines that envious eyes have been cast on it, ever since the determination to give up the barracks was come to. Here is undoubtedly an opportunity for the erection of a fine block of buildings with shops below and flats above. If, however, this becomes an accomplished fact, the fate of the adjacent picturesque houses in Mills' Buildings, which are so delightful in their little backwater and so old-fashioned that one wonders that they have not been seized upon long since, will be in little doubt. Then, one supposes, the turn will come for the row between Mills' Buildings and the great houses flanking Albert Gate to go; that row in one of the dwellings of which Charles Reade once lived, and labelled his abode Naboth's Vineyard when an attempt was made to pull it down in order to form an entrance into the park immediately facing Sloane Street.

ASTRAGAL

SCULPTURE AT THE ACADEMY

[BY KINETON PARKES]

THE most satisfactory feature of the 158th exhibition is the presence of a fair percentage of carved and decorative sculpture. The traditional modelled monuments are, as usual, commonplace. The carved work, on the other hand, displays personality if not always fine technique. The fact that some of the glyptic artists commenced as craftsmen is all to the good, as may be judged from the charming stylized head of a girl in apple wood by Alfred J. Oakley. An even more potent sign of the times is when a modelling sculptor turns to carved work in its very essentials, as Charles Wheeler has done in his carved tree trunk group, a work done without the aid of either graphic or plastic sketch or model, making out of the material selected a piece more or less suggested by that material, the result being altogether satisfactory. The half-way house between modelling and carving principles is used by Harold J. Youngman in his oak statue of Ishmael, which is to be welcomed.

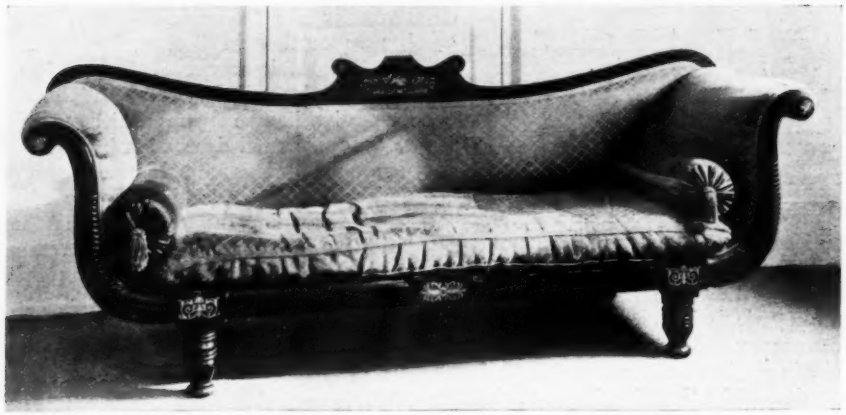
In stone there are two portrait heads—a bust by Mary Buchanan with good glyptic quality, and another by Sir Gilbert A. H. Wills. In this material, however, more important works are found as applied decoration in the delightful garden group in Portland stone by William McMillan. It is an edifying piece consisting of a surmounting group of a woman and man flanked by two frisking kids. This exhibits a thorough understanding of the idea of carved work. Another garden piece of considerable charm in the same material is the sundial of Alfred H. Wilkinson.

In ivory there are two really magnificent things—the "Primavera," of Richard Garbe, and the "Cup," of Arthur S. Walker, with its small beautifully carved frieze of figures and the two dancing figures of the lid. The "Primavera" is a most important essay in this glyptic form for its size, design, and execution. It contains a large central draped figure, two small figures, some other smaller figures, a frieze of figures and a fine surmounting figure. In marble Arthur Walker has, for him, a curious subject, a group including Cleopatra and the priest Harmachis. It is somewhat stagey, but interesting, because of its carving technique, as is also his "Youthful Faun" statuette.

Some of the most accomplished modelling is furnished by Alfred J. Hardiman, who has a more than life-size bronze statue of "Peace," of considerable dignity, and a bronze bust of "An Athlete." Other large bronzes are Derwent Wood's "David," and Basil Gotto's figure for the Army and Navy Club war memorial; the former exhibiting all the grace of Renaissance work, the latter its full vigour. The small bronzes of C. W. Dyson-Smith offer a pleasing originality, and admirable plastic quality. Gilbert Bayes has two large works, both occupying commanding positions —the St. George figure for the Jerusalem cemetery (in conjunction with Sir John Burnet), and England, a dynamic life-size figure of a young woman partly draped, with trident and drapery. The pose is strong and brave; the figure apostrophizes the "Wardress of Waters" in particular; the design is imposing, based on a rectangular plan, which is well maintained, suggesting, perhaps, a position on the prow of a great ship. Other modelled pieces of a decorative character are "The Madonna of the Lily," a charming conception in bronze, by Allan Howes; a small, but delightful, model of an architectural figure called "The Spinner," by W. Reid Dick; and two small decorative bronze figures which, with two others, belong to an overmantel decoration by Alfred Hardiman. Lead figures for gardens are not numerous enough, but good ones, which are far above the average of such work, are by Leonard Jennings, as are also Anne Acheson's "Rags," and "Echo," by Phœbe Stabler. E. Whitney Smith provides three character studies, a laughing girl's bust; "Muriel," a nice niche three-quarter length, and a marble bust of imaginative power called "Visions." The show of ceramic ware is sadly too small, but remarkably good things are shown by George Reed, Harry Parr, Stella Crofts, and Nicholson Babb. Animal sculpture, always more or less decorative in character in this country rather than realistic, is represented by Frank Lutiger's "Tiger disturbed at its Food," and "Indian Lioness Feeding," excellent studies; a large group of jaguar and serpent by Arthur White, which is very good; an elephant by E. M. Alexander, and "Leopard Hunting," and "Tiger at Play," by Leonard Harding.

In pictorial architecture, the Academy is strong this year in oil painting, water-colour drawing, and print work. Terrick Williams, with his large canvases of Martigues and Venice (four in all), makes a splendid show, equalled only by Sydney Lee, who, even more prolific, sends five in all: "The House with the Closed Shutters" and "The Haunted Château" recalling James Pryde, and surpassing in mystery Lee's own remarkably fine paintings of rocks, which are seen in three examples. Bertram Priestman's "Durham," Algernon Newton's "Regent's Canal," Oliver Hall's "Alcantara Bridge," Norman Wilkinson's "Dover," Charles Knight's "Llangollen," are all admirable, and architecture is well exploited abroad, at Martigues by Douglas Gray, at Cagnes by Sir H. Hughes-Stanton, at San Gimignano by J. McKirdy Duncan, by Alfred Withers in "The Village by the Rocks," and on the Ariège by Isobelle Dods-Withers. There are two bridge subjects: one of St. Martin at Toledo by A. E. Haswell-Miller, and the other the North Bridge, Halifax, by Claude Muncaster, which afford an interesting comparison. The Halifax subject is at first sight far from good, while the Toledo one is a picture ready-made. But in the treatment, in both cases similar—low tone, narrow range of coincident colour—the artist has distilled an identical graphic success in each case.

In the water-colour room the architectural interest is not well maintained, although good drawings are contributed by James Wilkie, Harold Hodgson, M. Tha Tun, Gordon Forsyth, William Matthews, Hanslip Fletcher, Frederick Holmes, and Grace M. Collcutt. The architectural prints are better, and it is pleasant to note a still further experimentation in engraving generally. Paul Drury projects a new style on copper with a dry needle, the result of which, if somewhat of the nature and method of engraving on wood, is still charming. Further architectural subjects are treated by Stanley Anderson, Job Nixon, William Narbeth, Graham Clifford, and Henry Rushbury in dry-point; by Alfred Hartley, William Walcot, Mabel Robinson, Lucy Robinson, and W. Westley Manning in aquatint; and in pure etching by William Narbeth, Frederick L. Griggs, Fred Richards, and William Walcot.



THE FURNITURE OF THE REGENCY

[BY JOHN C. ROGERS]

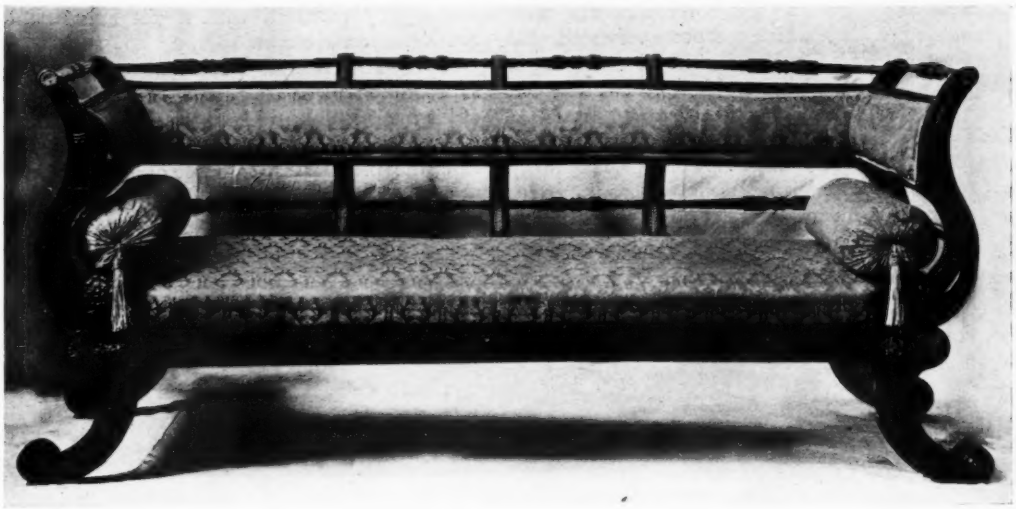
ii: SETTEES OR SOFAS

We apply the term Regency to furniture bearing Classic and Egyptian characteristics, form, and detail; but many of these motifs were gaining in popularity for several years prior to 1800. In Pyne's *Royal Palaces* the crimson drawing-room at Carlton House is depicted richly furnished with settees, chairs, tables, etc., as it was decorated and equipped from the design of Henry Holland between 1783 and about 1790. It is very important to remember this early date, which is just prior to Sheraton's arrival in London. The Classic style of Robert and James Adam was all the vogue in fashionable circles, the light and graceful furniture of Hepplewhite and many other contemporaries was in great demand, and Sheraton had a whole decade in which to evolve his very delicate satinwood and painted pieces before he felt the trend of public taste and began designing in the Regency manner. The work of our best designers had then become renowned all over Europe, and with the assistance of their published works on design, geometry, and drawing, continental craftsmen were emulating the styles of Adam, Sheraton, and others, and much common ground was traversed under the widespread taste for Classic and Egyptian motifs, which was at its zenith from 1800 to 1820.

The settee was often designed by Adam to stand in a recess or alcove, and is so shown on some of his interior designs, as in the library at Kenwood. It is always distinguished from the couch by having a back and two equal ends. Figure 1 shows an ebonized settee relieved with brass inlay panels and rosettes; the " scrole ends " are similar in treatment to the couch, figure 5, illustrated in my article on Regency couches in the issue for April 21.

The starting curves of the back frame are also similar,

Above, figure one. A settee with an ebonized beech frame on turned legs. The framework is relieved with panels of scrolled brass inlay (c. 1810). Below, figure two. A Rosewood settee with carved back cresting and seat rail. The legs are turned and reeded (c. 1820).



but in this settee they are reeded and curved up to the centre, where a panel is inlaid with foliated scrolls and a spread eagle in brass.

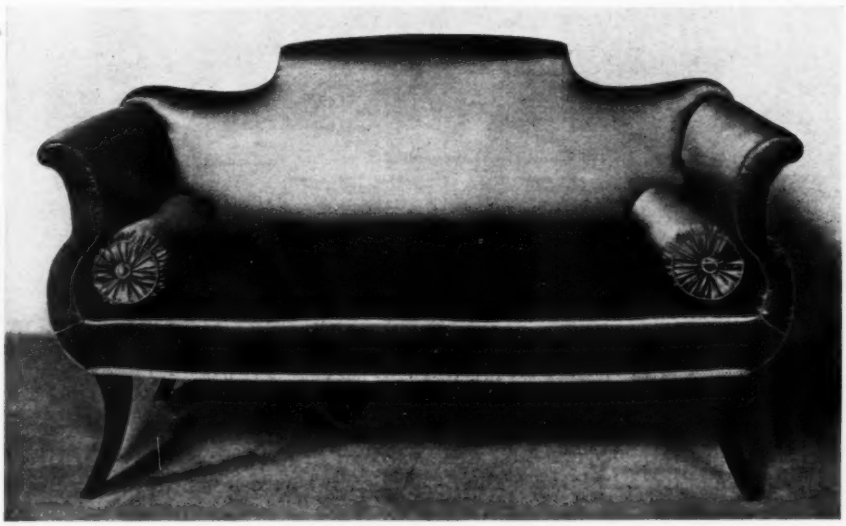
The seat rail, which is at a most comfortable level, has three panels inlaid with brass, and is supported upon stumpy turned legs, which are not fitted with castors.

A rosewood settee of similar type in which the detail is more heavily treated is shown in figure 2. The scrolling curves and central honeysuckle ornament form an important cresting to the back, though they may be criticized for a certain lack of refinement in carving. There is also a suggestion of the continental craftsman, yet the legs are turned and reeded in the manner of some work by Gillow, which dates from 1812. This piece is actually very pleasing in its position against a simply-panelled wall painted a pale parchment tint, and standing on a floor of old oak boards of unusually good colour.

Sometimes a remarkable piece is met with in which the designer has given play to a particular whim or fancy; of such is the settee in figure 3. Here we again meet the outward curving legs (see the article on couches previously referred to), and in order to secure adequate strength they are cut out of one piece with the S-curved end frames, the seat rail being tenoned in where a rectangular block is formed.

The open treatment of the back and sides or ends is very uncommon. Three main uprights are tenoned into the back rail of the seat, and are of similar curvature to the ends. All are connected by a broad upholstered band, above and below which is a row of turned and carved spindles, which in themselves are excellent, but one can hardly excuse the designer's expedient of curving them to meet the uprights at the back corners. The curious kick in the curvature of the end uprights is again seen in the upholstered settee, figure 4.

This is quite a refined little piece, which, apart from the



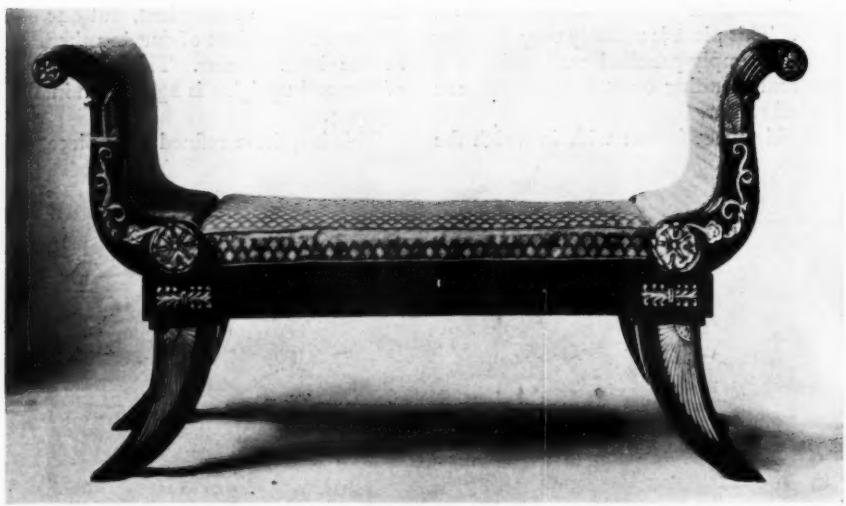
Above, figure three. A mahogany settee of unusual design. The back is of open framework connected by rows of turned and carved spindles. The carved enrichment is gilded (c. 1810). Below, figure four. A small settee entirely covered with upholstery. It has simple curved legs (c. 1810).

typical tapering and curved legs, is covered entirely with fabric; it has a shaped back which composes very well, and is most comfortable. The design, it will be observed, is always completed with cylindrical cushions, a feature which is also to be found in beds of the period.

A modified form of the settee was a favourite article of furniture, often placed in large bay and bow windows. It is hardly a couch on account of insufficient length, yet has the equal ends of a settee; it was always intended to stand out away from a wall, both sides being similarly treated and decorated. In figure 5 a simple "Egyptian" type is shown. The S-curved arms sit on the seat rail and have the rope strand detail very similar to figure 1. The effect is curious, inasmuch as the arm seems to be pivoted in some way to the seat rather than joined to it as it must be. The legs, which are connected by slender turned stretchers, are of a type very popular for chairs, derived from ancient seats. They are slightly moulded with a gilt line terminating in a roundel under the seat.

A very fine example of this type is shown in figure 6, and is probably a piece designed by Thos. Hope, so typical is it of his manner and so like more than one piece of furniture illustrated in his book, both in form and detail; in any case, the piece is an example of accomplished design and perfect workmanship. The end supports and legs are very graceful. of just the right mass, and very suitably decorated. Hope was very partial to the gilded wing, which is here adapted to the leg panels; the rosettes and trailing scrolls on the ends are also in his style, and may very well be compared with the ormolu decoration on the couch, figure 1, in the issue for April 21.

Figures 1 and 2 are from the collection of Sir George Lewis; figures 3, 5, and 6 from that of Messrs. Lenygon and Morant; and figure 4 is from that of Messrs. Trollope and Son.



Above, figure five. A simple mahogany window seat with couch-like ends (c. 1810). Below, figure six. A fine example of a Regency window seat, enriched with gilded ornament in the Hope manner.

CURRENT
ARCHITECTURE
SECTION

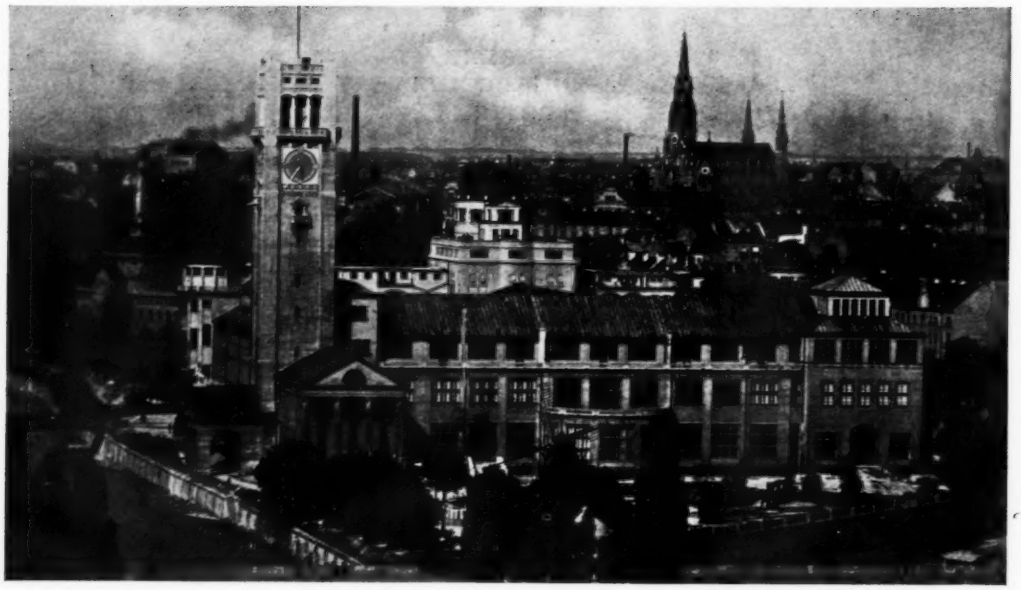
THE DEUTSCHES MUSEUM AT MUNICH

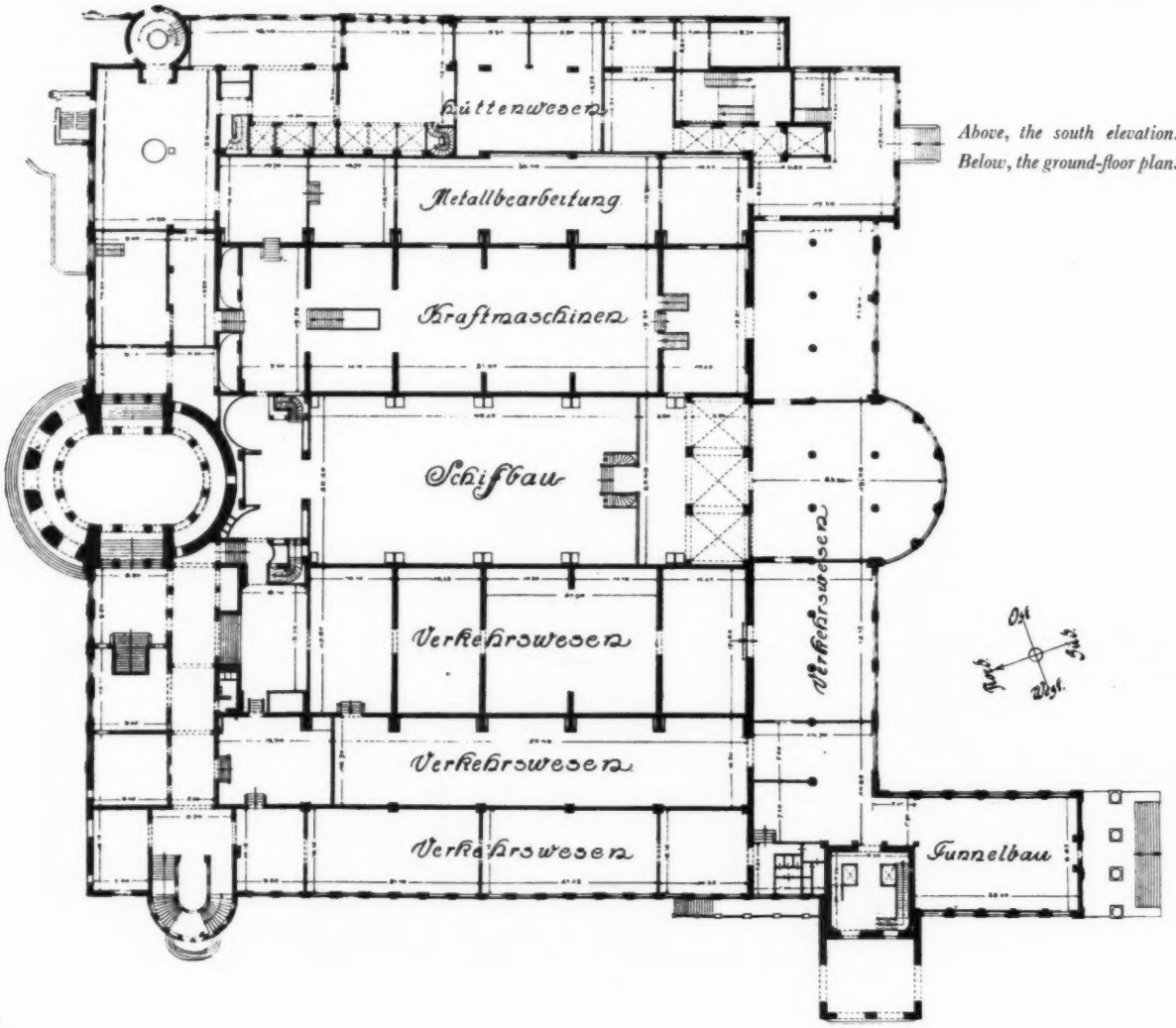
[BY ECKART MUTHESIUS]

THE Deutsches Museum stands on an island in the river Isar at Munich, and is believed to be the finest museum of its kind in the world, although at the moment the huge exhibition hall and a part of the eastern annexe are the only portions of the buildings that have been completed and opened to the public. The foundation of the museum was first suggested by Oscar v. Miller, the engineer, who achieved distinction for the manner in which he utilized the water-power of great rivers. As a young man he had much success with works connected with electrical technology. Inspired by a visit to an exhibition held in Paris to show the practical applications of electricity, he afterwards arranged a successful exhibition of a similar character in Munich. As a result, he was entrusted with the building of a power-house on the River Isar, which produces to-day electric energy of 170,000 h.p. In later years, when he came to London to study, a visit to the South Kensington Museum excited his warm admiration, and created a desire to form a similar museum in Germany. Influential people assisted him with money, and his proposals were approved by a circle of invited guests in May, 1903. Negotiations with the City of Munich, the State of Bavaria, the German Government, organizations of learned men, and industrial corporations began at once. The State presented him with a valuable site, the so-called Coal Island in the Isar; and placed considerable sums of money at his disposal. The Bavarian State gave the old National Museum as a temporary home for the museum, and even the German Government recognized the importance of this proposed educational institution and promised to aid with large sums of money. The Bavarian Academy gave its large collections as a valuable basis for the new museum.

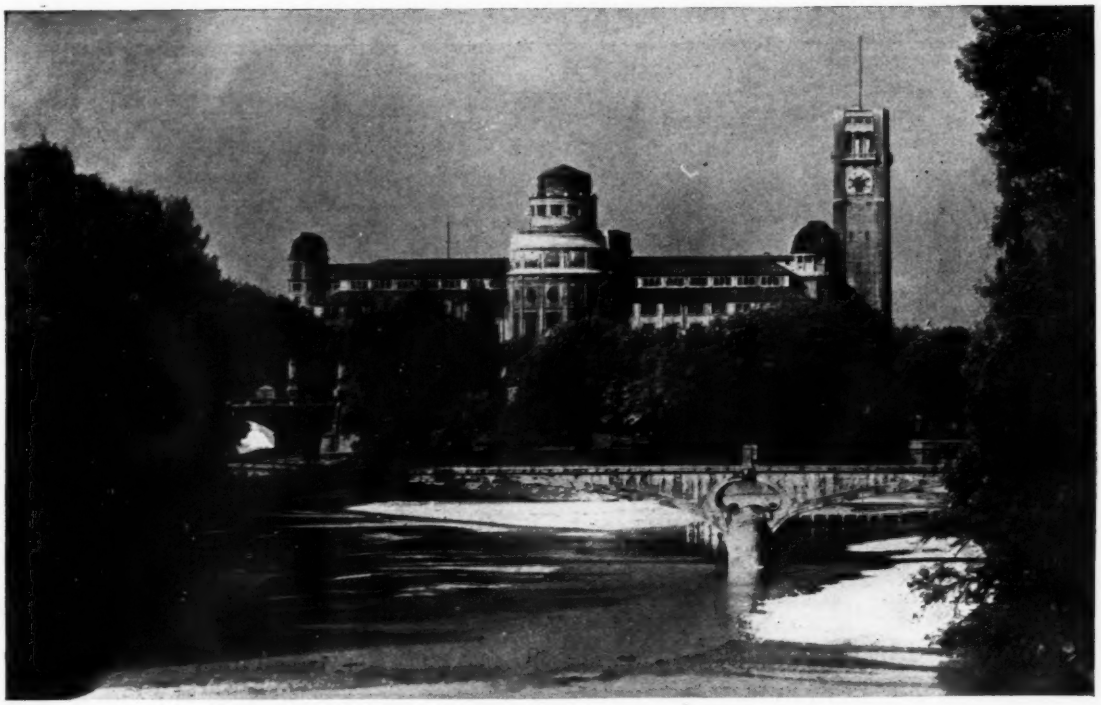
A view from the south-west.

The organization and founding of the museum having thus been settled, a public competition was held among German architects. This produced many suitable plans, and those of Prof. Gabriel v. Seidl were awarded the first prize. The foundation-stone was laid in the presence of many famous scientists in 1906, but the commencement of the actual building was delayed until 1909. During this period the first plans were altered repeatedly, partially as the result of visits to England and France, and later to America. Efforts were made to erect a building which would not only meet the special requirements of the museum, but to create one that would be the best of its kind and one



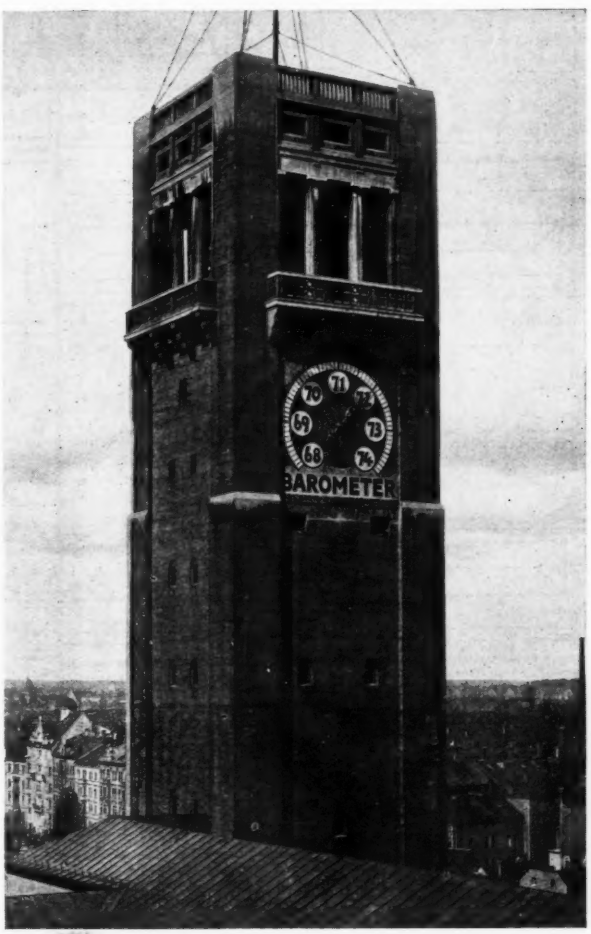


Above, the south elevation. Below, the ground-floor plan.



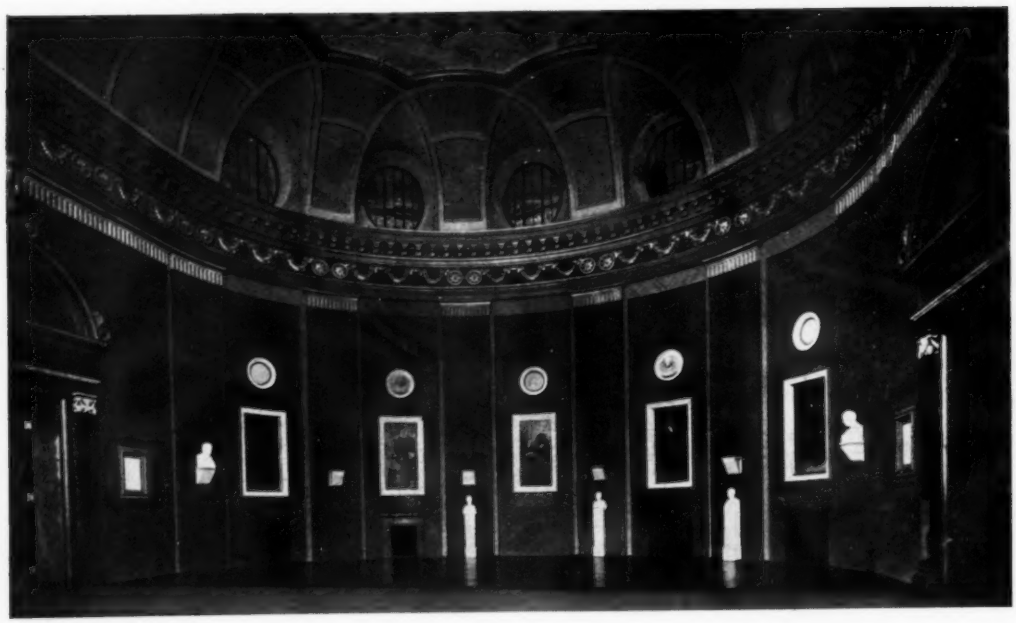
that would serve as an outstanding model for other museums.

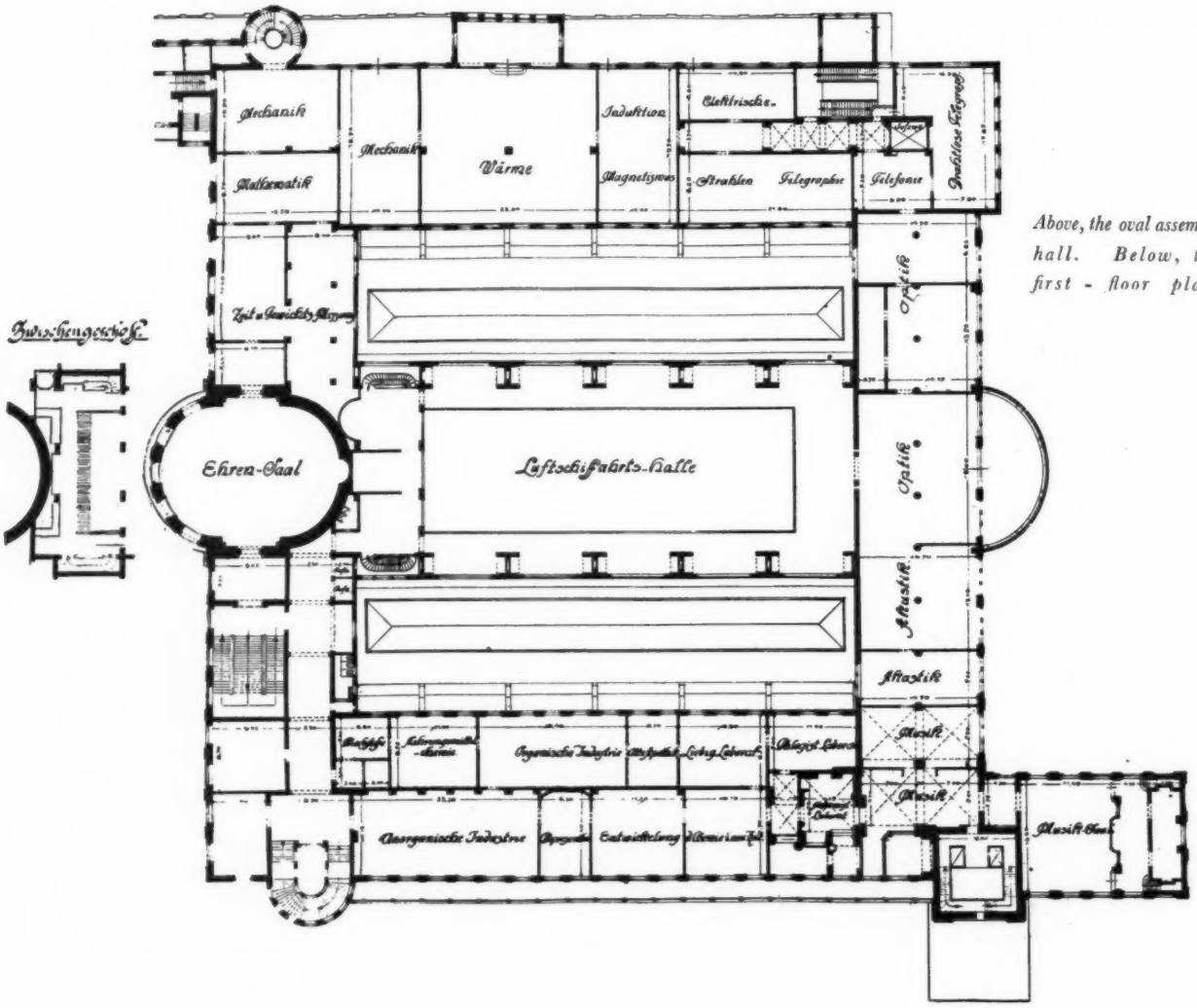
Gabriel v. Seidl died on April 29, 1913, and was succeeded by his brother, Emanuel v. Seidl, who continued the work according to the plans of his predecessor with such energy that the completion of the building was expected in 1916. When war broke out in 1914, the walls and roof were finished, and the interior decoration had just begun, but the work was afterwards delayed through lack of workmen and material. On December 25, 1919, Prof. Emanuel v. Seidl died. Various parts of the building had already been completed by this time, but it was not possible until 1920-21 to obtain from the German or Bavarian Governments, and from capitalists and other patrons, the necessary funds and material to proceed systematically with the work. After the death of Prof. Emanuel v. Seidl the work was entrusted to Prof. Bieber, of Munich, who was assisted by the architect Schaffer. They succeeded in completing the installation of the sewage work, the water supply, the heating plants, and the electric plants on exhibition in the museum. Thus, during a period of sixteen years from the commencement of the building work, owing to the great difficulties which had to be surmounted, only a part of the original voluminous project, namely, the exhibition building and a part of the eastern annexe, has been completed.



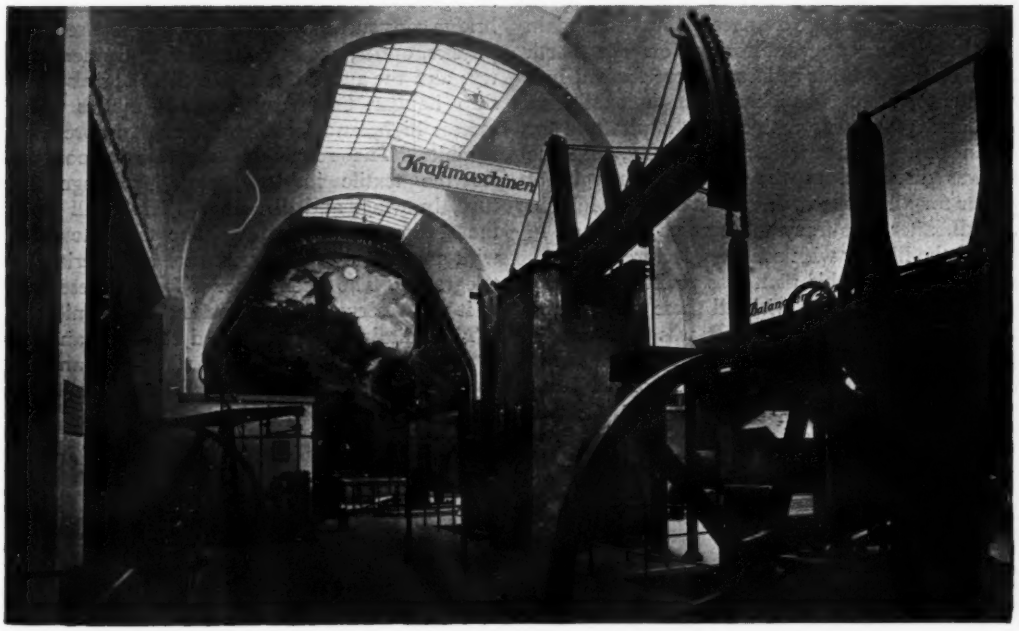
In the first plan of Gabriel v. Seidl the building was arranged in two main divisions, the museum to the south, and the library, bordering upon the Ludwig Bridge, to the north. This plan was altered and improved as the result of experience gained during travel, and to meet the further requirements of the museum; and by the various

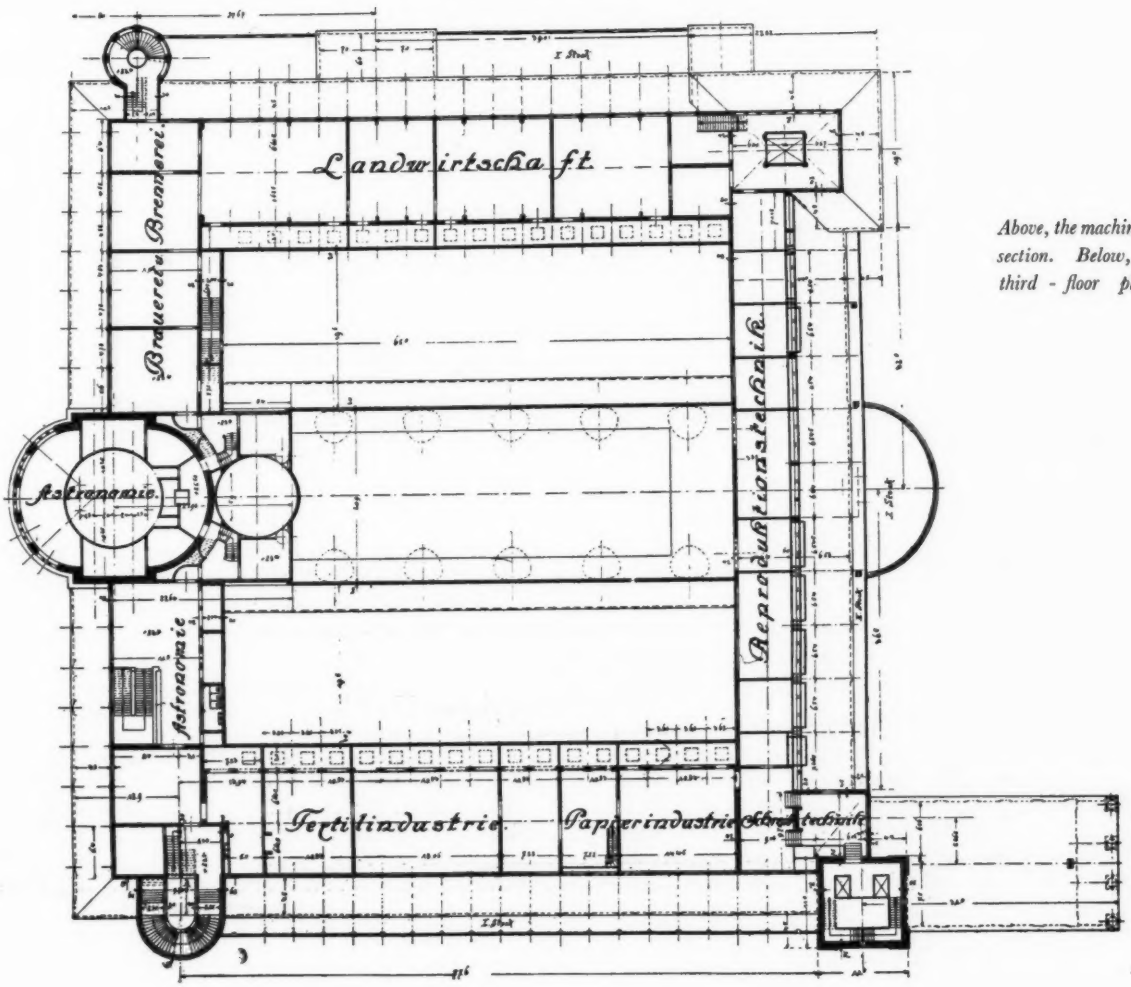
Above, the north elevation. Below, a detail of the tower.





Above, the oval assembly hall. Below, the first-floor plan.





Above, the machinery section. Below, the third - floor plan.

architects who have directed the work. The assembling of the exhibits and the expansion of the exhibition made necessary many far-reaching changes; thus the main observatory above the oval auditorium on the north front was altered, the two side staircases were formed into observatories, the top storey was included in the exhibition rooms, the pointed tower was replaced by a platform for experiments in optics and wireless telegraphy, and the boiler-room was discarded as the result of the gift of electrical power for all purposes from the City of Munich. Gabriel v. Seidl, after a journey to America for study in 1912, replanned the library with congress, lecture, reading, and reception rooms, but this plan was revised again by his brother and successor. But with all these changes the original idea remained unchanged. It was to create a forum between the main exhibition building and the low side wings, with the entrance on the north side of the Ludwig Bridge and the side approach over the two Isar bridges. This has been half realized in the buildings which have now been inaugurated. Through the absence of the book-binding building, the congress-room, and the larger part of the side wings the structure as it is to-day lacks the monumental entrance-front and the courtyard, and only when these parts are supplied will it be possible to realize the architectural picture dreamed of and worked out by V. Seidl.

The huge exhibition building, thrown open to the public, covers an area of 12,000 sq. metres, contains 300,000 cubic metres of space, and has an exhibiting surface of 36,000 sq. metres. The lower floor is divided into three sections, and is devoted to mining.

There are eight mines of full size, as follows : one bronze ore mine, an anthracite coal mine, a soft coal mine, a lead and copper mine, a rock-salt and common salt mine, and a potash (kali) mine. The ground floor contains the vestibule and cloak-rooms, and sections for geology, the steel, iron and other metal industries, power-machines, shipbuilding, locomotives, tunnel building, street and bridge construction. On the first floor are sections for clocks, physics, optics, acoustics, musical instruments, and chemistry; and the auditorium. On this floor also is a huge airship hangar, 62 metres long, 20 metres wide, and 22·5 metres high, and forming the most impressive of all the exhibits. The rooms on the third floor are reserved for the textile industry, paper, photography, agriculture, brewing, and distilling. The small towers contain the section for astronomy. The taller tower is installed with meteorological instruments and aerials for wireless telegraphy. The second floor is for the present unoccupied, as it was reserved for the opening ceremonies.

The building is of reinforced concrete, and is impressive in its massive treatment. It stands on an island and is dominated by a four-sided tower on the south-west corner. Internally the decoration is generous, and good use has been made of sculpture and painting. In the exhibition rooms the decoration has been so arranged as to give prominence to the exhibits, and particular attention has been given to those sections of the museum where old laboratories, the old paper mill, and the old scythe smithy, etc., are shown. The music-room has been designed by Prof. Emanuel v. Seidl in Rococo style. The great oval assembly hall on the upper floor contains the busts and portraits of celebrated engineers and scientists, and has a fine painted ceiling. This hall is connected with a smaller room, which also contains portraits. These rooms are notable for their decoration. The walls are covered with red silk, and the floor is of parquetry laid in excellent patterns. The restaurant rooms on the lower floor are also decorated in a charming manner. Since the opening of the museum many thousands of people have paid it a visit. It is understood that Oscar v. Miller is to prepare plans for similar museums in New York and Washington.

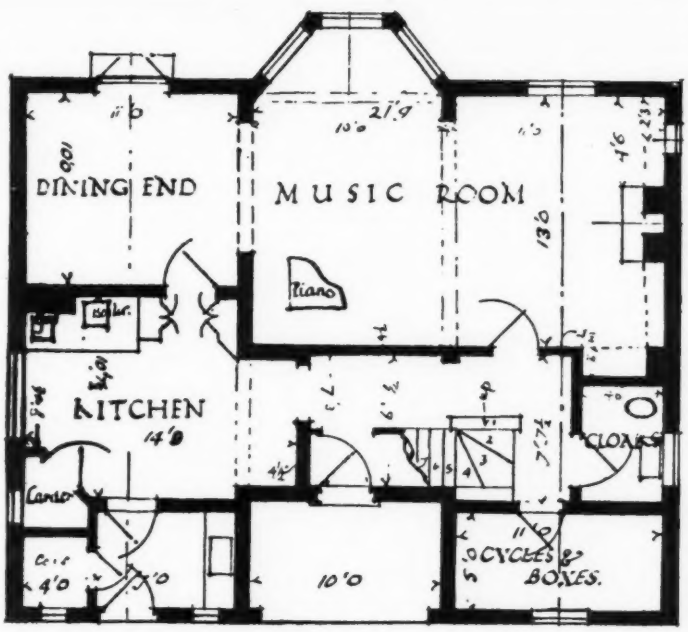
A musical instrument section.

SOME HOUSES AT CAMBRIDGE BY H. C. HUGHES

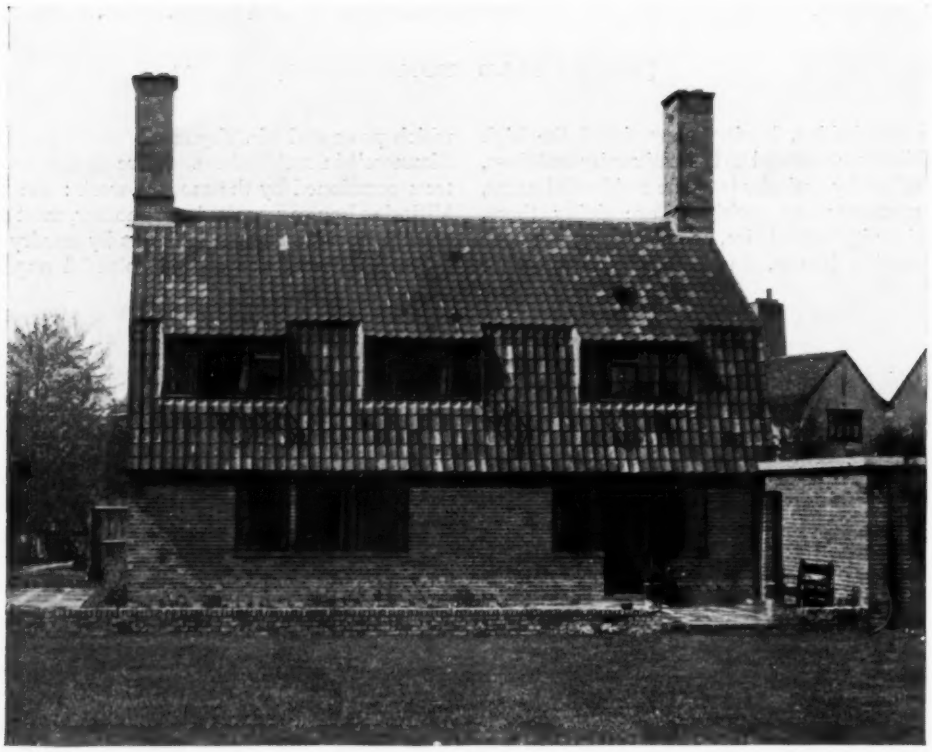
[BY HAROLD TOMLINSON]

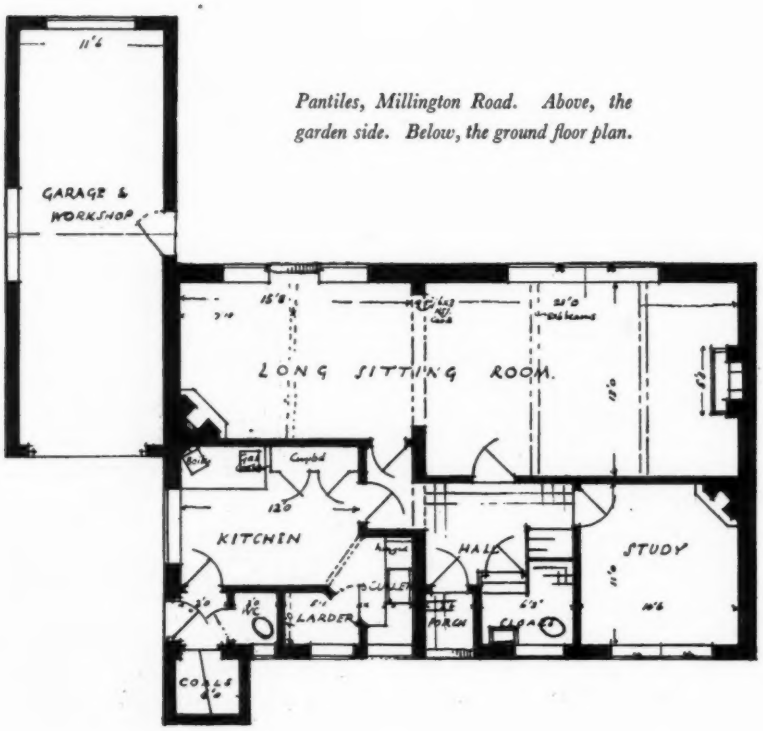
A visitor to Cambridge, having appreciated the high standard of architecture attained by the University buildings, may find himself led by curiosity into the residential areas, to see what contemporary architects are doing there. Leaving the University behind him, he enters an urban zone of pleasant Georgian houses, and, still musing on their beauties, passes through the unusually inoffensive Victorians almost without noticing them; but a rude awakening awaits him in most of the moderns. Gone are the mellow voices of the Georgians, the studiously polite accents in which the Victorians address each other, and substituted for these is a dreadful cacophony of strident discords. There are several good houses of this century in Cambridge, but one is invariably moved to pity for them on account of their neighbours; they stand aloof like well-bred exiles. It was a happy inspiration which prompted Mr. Trystan Edwards to demand "Good Manners" in architecture. Here is the secret of the distress occasioned by the modern work: the Georgian and Victorian houses respected one another, most of the moderns attempt to snub their neighbours by tawdry ostentation.

Storey's Way once offered splendid opportunities, and one believes that Mr. Baillie Scott started it well, with a homogeneous entity as his aim; but since those days the golden exceptions, such as the house designed by Mr. Moberley, and its friendly rival across the way, only accentuate the chaos that the road now shows. The imposition of a minimum price is not the recipe for orderliness in building. Among the most satisfactory of the recent houses in Storey's Way are two by Mr.



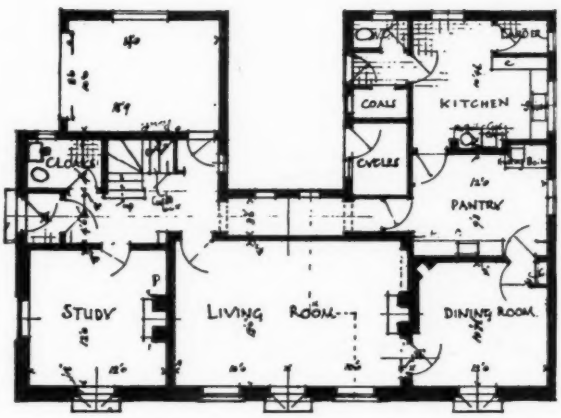
Lavender Cottage, Storey's Way. Above, the main front. Below, the ground-floor plan.

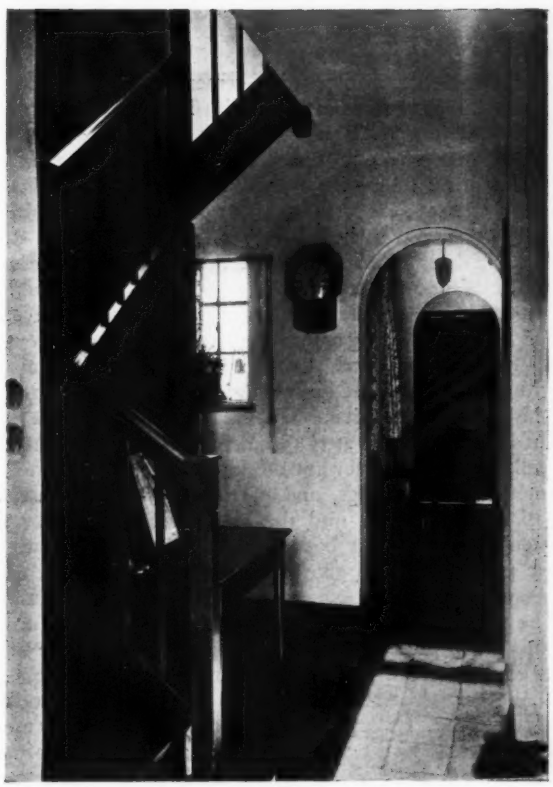




Pantiles, Millington Road. Above, the garden side. Below, the ground floor plan.

No. 42 Storey's Way. Above, the garden side. Below, left, the ground floor plan, and right, the entrance hall.





Hughes : the charming little " Lavender Cottage," whose name to a certain extent prepares one for the delicate minuteness of the design, and a larger house (for Sir Gilbert Walker) in a more austere and sophisticated manner.

At first sight " Lavender Cottage " seems to conjure up a vision of crinolines, an association which it is difficult to explain, the only touch of period being given by the front door; in other respects the house is frankly modern. Its steel casements, white Atlas cement stucco, and black concrete tiles are in harmony with its pleasant neighbour by Mr. Lyon. Charming as this cottage is, it would, perhaps, have been more at home in rural surroundings.

The other house in Storey's Way strikes a definitely urban note. The restrained façade to the east, with its shallow recessed arches, is very satisfactory, and now that both brick and tile have lost something of their original harshness, one can see that, in a few years' time, when the colours have become even more harmonious, the effect will be more pleasing still. The low-pitched roof is covered with red, sand-faced, patent pantiles, which, together with the exact projection of the cornice, gives a crispness which is very effective. Mr. Hughes can get great effect out of the standard steel casement, and here it is hard to realize that this somewhat mechanical unit has been used. Internally the fittings, and particularly the staircase, are designed with skill, and the kitchen fitments make that often-neglected office both attractive and convenient. In the passages, arches give an opportunity for vistas which one would not have expected within their narrow confines. The woodwork is treated with bright, fine colours, and in one or two places the juxtaposition of red and blue might be considered a little too strong for some palates.

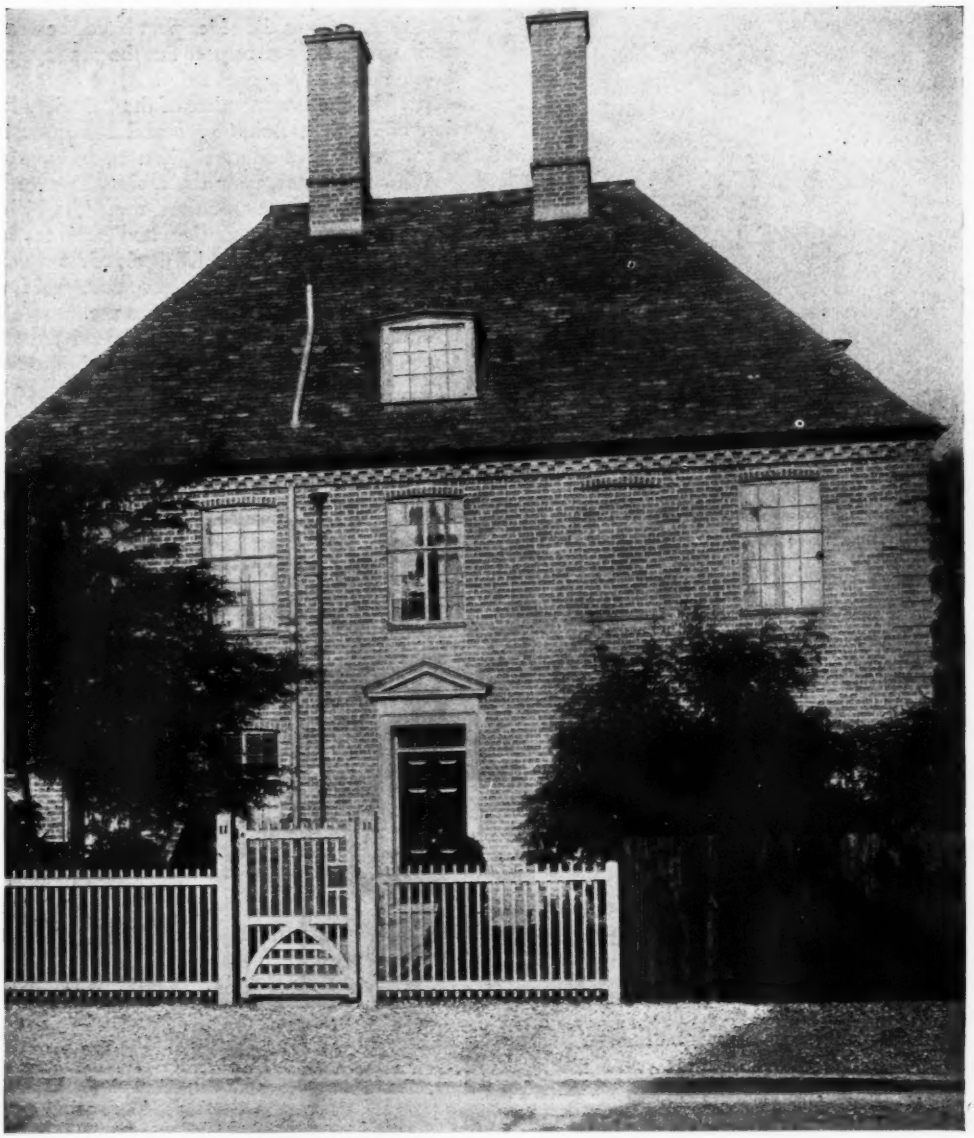
Another white stucco house by this architect stands on Barton Road. Its large two-story bays, set forward by means of side walls, give two rooms which are both well-proportioned and delightfully light. This house was designed round a central staircase, and is interesting in being the only example with a slate roof. The neighbouring cottages, again designed by Mr. Lyon, bear no very marked family resemblance beyond a stucco finish, yet in a subtle way there is a sympathetic bond between the two. The success of this group makes me wish that architects who build side by side might more often see each other's projects before finally settling their designs, and so form the slight co-operation which is bound to lead to mutual respect rather than unhappy competition.

The writer himself finds most pleasure in a pair of semi-detached houses, built earlier by Mr. Hughes, in Millington Road. This pair is so designed that the domestic offices face the street, whilst the garden parts reserve an intimate privacy which is greatly appreciated by the occupants. This arrangement is not uncommon in modern practice, but it is rarely that, as here, the street elevation preserves the ordered appearance which social and civic amenities rightly demand of it. One of the pair is fitted in a more expensive manner than is customary with small houses, and Mr. Hughes has not been slow to realize his advantages. The staircase, and the ingenious servery fittings of Burmese woods, are designed with great success, showing a restraint which is in keeping with the character of the house, while giving full play to his imagination.

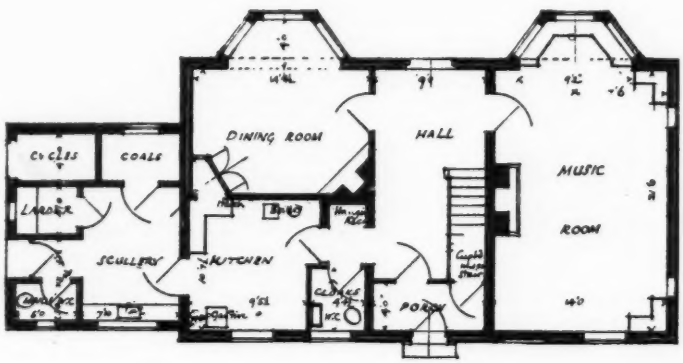
The charm of this pair is shared by its neighbour, a house Georgian in spirit except for its steeply-pitched roof and steel casements. Its simple pedimented doorway is one of the most delightful features of the road.

The fourth house which ends the group was built at a later date. The clever plan was worked out by the client

Greenhayes, Millington Road. Above, the south front. Below, the west elevation.



No. 11 Millington Road. Above, the entrance front. Below, the ground floor plan.



beforehand, and did not permit of much freedom for the architect. The elevations, therefore, differed from previous work in that a symmetrical treatment could not be adopted, and in work subsequent to this, absolute symmetry becomes the exception rather than the rule. This, also, is the first of a series of mansard-roofed houses. Before dealing with this it should be said that the present writer belongs to that group of architects who believe that the mansard roof is not a suitable form for the small house. It is undoubtedly true that, for the same ground floor area, a house which has its two stories of brick contains a more convenient, warmer, and larger upper story, although one must admit that some clients are willing to sacrifice these considerations for a more picturesque effect. The condition which most frequently determines the building of a small house is one of cost, and it is felt that the expenditure saved by the cheaper brick construction might be more profitably employed in increasing the accommodation. The mansard roof has been, for several centuries, a common form in East Anglia, and no doubt the type finds favour with Mr. Hughes on account of his strong feeling for local suitability.

Perhaps his most successful essay with this construction is seen in his addition to " The Old House," Trumpington. Here the roof is large in scale, with two dormers facing the road. The red, sand-faced plain tiles form a splendid foil to the delicate tints of the old brickwork, and an effect of harmony is achieved by the way in which the eaves of the new work pick up the line of the old string course. Yet there is no equivocation, no competition; the old and the new according the mutual respect which each deserves. The alterations to the older part have been carried out in a spirit which only a respect for the craftsmanship of other days could have engendered.

Mr. Hughes is a member of the " Society for the Protection of Ancient Buildings," and has done several works of conservation of churches, houses, and a windmill.

At Grantchester, near the architect's own home, he has designed a cottage, mansard-roofed, which might well please those of the romantic school, who see in its blending with the landscape the chief merit of rural work. It seems as if the whole fabric might have occupied its present position ever since the type came into use.

This article may well be concluded with a mention of Greenhayes, Mr. Hughes's latest house in Millington Road, built to house an ideal client and her Georgian and Victorian furniture. Here the maturer skill of the architect finds a fitting setting in the delightful little garden which owes, here as elsewhere, a large part of its success to the horticultural knowledge of the architect's wife. Greenhayes admits no compromise; the plan and its expression are both direct and practical; yet, in some subtle way, the charm of the earlier work has been retained.

It may be thought that the word " charm " has appeared too frequently in this article, but the conviction persists that this is the most characteristic quality of Mr. Hughes's work, and one which is essentially most attractive where it is least conscious. What else can it be that raises such a frankly utilitarian object as a greenhouse so high in our architectural esteem ?

Above, house in Barton Road.
Below, the old house, Trumpington.

THE COMPETITORS' CLUB

[CONDUCTED BY SENESCHAL]

Appreciating that many minds are better than one, Seneschal holds himself open to consider for publication on this page articles contributed by other pens than his own. The first article by an outside contributor appears this week.

THE LIMITED COMPETITION

[BY P. L. DICKINSON]

VERY many architects are opposed to the whole system of open competition, and there is certainly a good deal to be said for this view. Does this system tend to produce the best, or is it more inclined to crystallize what may be a passing fashion of the time? What are the broad facts in most cases? A group of men who may or may not know something of architecture appoint an assessor, usually an architect of distinction who has reached a stage of his professional career in which his style may be said to be set. A list of conditions is drawn up, with certain limits imposed. These limits must of necessity emanate mainly from the professional assessor. These conditions are then passed as satisfactory by the professional societies, and a larger or smaller number of men compete. In many cases the first action of the competitor before he embarks on his plans is to make a close study of the assessor's work, both in regard to special tendencies in planning, and his method of treating his elevations. If the work of the assessor shows a predilection for, say, Greek detail, the competitor, rightly or wrongly, generally decides that this is the detail he must adopt, and so on. The competitor usually believes that he is wasting time if he submits his design in any manner foreign to the assessor's style. He is, unfortunately, probably right in this view. This method, then, boils down to the fact that the competitor generally disregards his own methods, and tries to produce something which shall please the assessor, and be as like his work as may be. Everyone has seen this happen, and we have all been pained at the quality of work put in by some of those we know to be good men and capable of much better things, if they were working on their own lines, and not with one eye on the assessor. Would it not be a better plan to appoint the assessor as architect straight away, as one must assume he is an expert on the class of work involved? There is a great deal to be said for this view.

I have always held that it is very unfair to ask professional men to give so much time as is involved in preparing drawings for a competition, without any fee, and with only a small chance of even winning a premium. Is any other body of professional men asked to do this, or to enter into what is, in fact, a gamble? There most certainly is not.

If there are those who think that the system of competitions is a fair one (and I expect there are many such), and one producing the best results, it seems to me the question should be definitely thrashed out by the professional societies, and more stringent rules laid down for their conduct. I believe if action on these lines were taken it would ring the death-knell of open competitions. No one, not even the most trade-union type of architect, can object to a limited invitation competition, where each competitor is guaranteed a fee at least sufficient to cover the actual costs of the preparation of his design. Such competitions do occur now and then, but they are all too rare. It is only fair to consider the other aspect of the case, namely, that some competitions in the past have produced very fine work by unknown men, who most certainly would not have been of sufficient status to have been included in any invitation competition, but this does not affect the main argument that competitions are unfair to the competitor, and unlikely in the vast majority of cases to produce a better building than the invitation competition, or a direct commission.

In my view, as a result of twenty-five years' practice, the system of appointing the single assessor is, on the whole, unsatisfactory, and the present method of conducting a competition requires revision. It is certainly possible to devise a scheme for a limited invitation competition, which gives the maximum satisfaction as regards adjudication, and at the same time gives a chance to the young and untried men. The broad lines might be something like this. A small committee, experienced in building, but not professional architects, engineers, or surveyors, would act as assessors. This committee would have an architect of standing as technical adviser, whose duties would be to explain all points of a technical nature, and to advise on the merits of plan, cost, and artistic quality. He would, however, have no vote, and the actual decision as to the winning design would rest with the committee. Some method would have to be devised, of course, to meet the possibility of each member of the committee selecting a different design as the winner. This could, however, easily be arranged by the use of a casting vote, or some such device—we need not labour it here. The technical adviser would be appointed by the professional bodies, and not selected by the committee. Some such scheme would give the competitor the greatest confidence that his work was going to be judged entirely on its merits. Then as regards the question of invitation to competitors, some such line as this might be followed. Two or three leading men would be asked to compete, and paid a fixed sum each for their work. The number of drawings and amount of detail required should be reduced to a minimum to avoid waste of time. In addition to this, a well-known architect of a recognized school of architecture could be asked to nominate some young men whom he considered were of sufficient merit to be likely to produce a first-class design. This would probably bring in another five or six competitors, but as the latter would be all young man, it would not be unreasonable to pay them a smaller fee than their seniors. This, of course, is rather a controversial point, and is against the generally existing outlook of the professional societies. I do not, however, agree with this outlook, and think that law and medical work is on sounder lines, and that such a difference in fees is entirely to the advantage of the young unknown man. Under the general plans sketched in outline above, we are ensured that the best of the known, and a certain number of first-rate unknown men shall have their opportunity. There may be, it can be argued, other sources. Possibly in some remote office in the provinces a man exists, an unknown Michelangelo, who, were only he given his chance, could beat all the other competitors. This is, of course, exceedingly unlikely, but even such a case could be provided for. It would be easy for any such man to make application to the committee, ask special permission to compete, and if they were satisfied with his ability he should be allowed to do so on the terms of the juniors. There is no insuperable difficulty in this. It is true that such a system would mean more work at the outset than is now the case, but what of that?

THE MASONIC MEMORIAL COMPETITION

Arrangements have been made for the public exhibition of the designs submitted in the final competition for the new Masonic Peace Memorial, to be held at the galleries of the R.I.B.A., 9 Conduit Street, Hanover Square, London, W.1, from Monday, May 31, to Wednesday, June 9 inclusive. The designs will be on view each weekday from 10 a.m. to 6.30 p.m. (Saturday, 4.30 p.m.) In addition to signing the visitors' book of the Institute, members of the craft are requested to leave their visiting cards, upon which should be stated their Masonic rank.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL COMPETITION AWARD

The assessor, Mr. William A. Pite, F.R.I.B.A., has made the following awards in the limited competition for designs for the new buildings for the Royal Westminster Ophthalmic Hospital, to be erected in Broad Street, Bloomsbury. First—Messrs. Adams, Holden, and Pearson. Second—Messrs. Thompson and Walford. The Building Committee have selected Messrs. Adams, Holden, and Pearson as architects for the new hospital.

[*The Competition Calendar appears on page 736.*]

PRESENT-DAY BUILDING CONSTRUCTION

[BY WILLIAM HARVEY]

MASONRY
ii: A STONE-BUILT MANSION

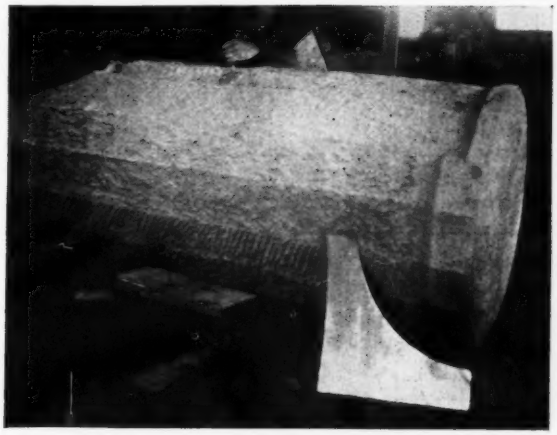
In these days of skeleton steel construction, the erection of a large mansion in substantial finely-wrought stonework is likely to be achieved only under special circumstances. An abundant local supply of sound stone, and the will to use it in accordance with a grand tradition have contributed to the creation of Gledstone Hall in wooded, hilly country, some five miles to the west of Skipton. The architects, Sir Edwin Lutyens, R.A., and Mr. Richard Jaques, have prepared a design in classic style, including columns and entablatures, and, the stone being procurable in large blocks, the work is being carried out with genuine stone architraves very much in the ancient manner.

Figure 1 shows part of the front of the building, with the piers and arches of an entrance porch in process of erection. A fine and uniform standard of finish is being maintained, and the stone cutting and setting is performed with a close approach to mathematical accuracy in accordance with the drawings. In work of this precise nature nothing can be left to chance. Just how regularly every face of every stone is purposely shaped can be seen in the unfinished spandril of the arch, where the vertical sides and backs of the stones are temporarily exposed to view. To keep the mortar joints close and equal in width, the beds of the stones are finished level and square, though they are not in all cases dressed so finely as the exposed surfaces. Since mortar is being used to equalize the pressure between stone and stone, there is no necessity to prepare the beds with rubbed surfaces after the manner of the Egyptians and ancient Greeks. But, in order that each stone shall occupy exactly the right spot, the actual place left for it among the stones already set is carefully measured, and any excessive projection that happens to exist on the beds is carefully removed with chisel and mallet. This process is particularly necessary in connection with the voussoirs of an arch which have to fit accurately to the curve of the temporary centre and to the radiating joints. However carefully the stone is set out in the first place, the thickness of the mortar bed is not altogether under control, and the mason seen in the middle of figure 1 is preparing for the setting of the next voussoir by dressing the radial bed joint of one already set.

Figure 2 shows a similar operation in process of application at the end of a long block of stone forming part of a cornice to an open loggia on one side of the one-story kitchen wing of the mansion. The different degrees of fineness in the moulded surface that is to be exposed to view, the surface that will form one side of a fine face-joint, and the surface that will abut upon the backings of the parapet can be recognized in the figure. The little pier of bricks and mortar in the foreground is built as a temporary expedient to support the projecting corner of the cornice block, while the mortar bed is green. Without some such device the stone would overbalance, and compress its bed of plastic mortar more on the heavily weighted side than on the other. When the mortar bed has set hard, the bricks will be removed, and the stones in the return wall built in to take their place. By the use of long, continuous blocks of stone to form the architrave, frieze, and cornice the utmost strength is obtained in the entablature, which has to carry itself across the space between wall and column or between one column and the next.

Figure one. Gledstone Hall in process of erection. The radial bed of a voussoir is being dressed to permit of the formation of joints of uniform width. Wooden casings protect the bases of columns and piers.

In setting out and preparing the large stones for the columns of the great order used in the porch, the size of the stones obtainable had to be taken into consideration in designing the number of drums which should go to the building up of each shaft. Figure 3 shows a stone being cut for a lower drum of one of these columns. As the stone surface was chipped away a flaw revealed itself some 7 ft. from the base, but within that dimension a drum of very respectable size can be obtained. To ensure regular curvature of the cylindrical shaft the block is first reduced to a polygonal section, with the arrises of the several facets marked out by finely-chiselled lines. The facets themselves are then produced by paring away the masses of stone left standing between the arris lines and, finally, the arrises themselves will be pared away, and the resulting circular sweep of the section will be tested by means of zinc templates prepared from the full-size detail drawings.



Left, figure two. A final paring away of a back edge to permit of uniform jointing. The mason is using a "mallet-headed" chisel, i.e. one provided with a swelled-out driving end. The small brick pier supports the cornice while it settles equally on its green mortar bed. Right, figure three. A large block in preparation for the lower drum of a column. The angles of the square have been pared away to form an octagon, whose angles are now being pared away to form a sixteen-sided prism. Convex and concave templates of zinc are used in marking and testing the curvature of the shaft.

One such template is seen in the foreground, and another, of convex curvature, lies on top of the block. The mason's hand is seen holding a steel chisel with which he is removing the last fragment of the triangular prism of material which lies between the face of a sixteen-sided prism and the arris of the octagonal prism, in which it is inscribed. One arris of the old octagonal prism still remains at the front lower edge of the block, which will be treated in the same way in due course. As one side of the block is finished up to a certain stage, the whole mass is turned over and the other side dressed in turn.

The importance of the geometrical processes employed in the setting out of these elements of regular Classic architecture can hardly be over-emphasized, and a great part of the mason's time and skill is spent in so disposing the order of operations that the desired result will be obtained with certainty, and without fear of blunders being committed. To hack gaily into the mass without these preliminary aids to steady progress might yield excellent experimental effects under the chisel of a Michelangelo, but, in the ordinary course, a grave risk would be run of cutting too deeply in some spot, and so ruining a block for its intended purpose. Not only has the finished shape of the stone to be set out on the drawing table, but the several stages in the process of getting that shape out of the block have to be set out on the stone itself.

Figure 4 shows a large block of stone in process of being roughed out to form the upper part of a capital and its abacus. Comparatively few of the original setting-out lines remain on the block, although the work is still far from completion. From time to time the mason finds it necessary to put down the chisel and brush away the dust and chips, so that he may test the accuracy of the work already done, and mark out the limits of the next portion to be cut away. In this instance the mason is using a brush made of a strip of coconut matting rolled up into a bundle, and tied round the centre with a piece of string. The surface he is clearing of chips is not the finished surface of the capital, but, in order that the carver may start from a recognizably suitable basis, these concave cylindrical parts of the cap have to be made true to the horizontal curve of the plan and to the vertical axis of the column. They are left sufficiently smooth for the next stage of the work to be set out on them in its turn. But the work has not only to be marked for the subtraction of material in the paring away of unwanted roughnesses of the original block, for in setting the carefully shaped stone in the building, it is frequently necessary to mark the position of the next stone to be laid.

In Figure 5 one of the column bases is seen brushed clean of the newly-fallen snow, and the line of the next drum is being traced on it by means of a zinc template. Building work involving the use of mortar had been stopped by the frost, and the opportunity was taken to finish the preparations preliminary to making a new commencement with this part of the work as soon as weather conditions should permit. The advantage of using a template over striking the circle afresh from a pivot point in the centre of the existing stone, is that it can be placed minutely out of centre to adjust any small irregularity in the position of the base. "Seeing is believing," and the amount of adjustment that is possible without it becoming in any way apparent can only be determined by experiment.

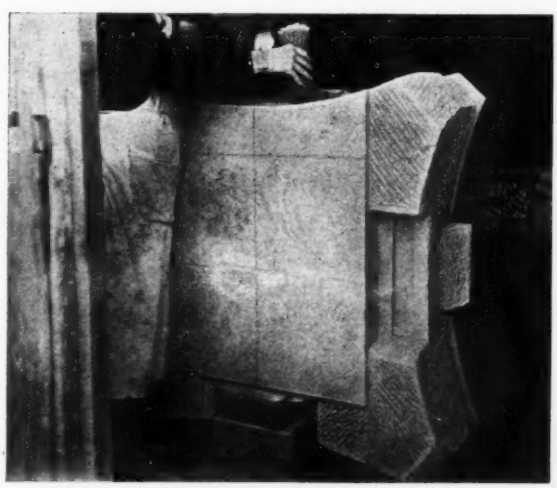
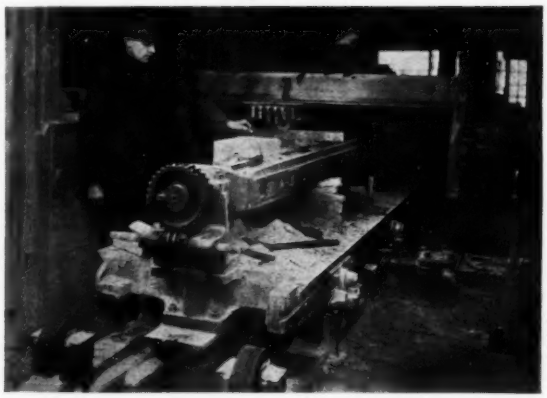


Figure four. A complex piece of stone cutting like this large capital cannot be set out once for all at the beginning, and the mason has to clear away the chips and dust, and set out advanced portions of the work in several stages. Although the surfaces are not actually smooth the blocking out is performed with an approach to geometrical accuracy.

In ancient work systematic adjustment of an initial error of setting out often took place over several courses, and became so minutely sub-divided as to be unrecognizable to ordinary inspection. Such admirably artistic fudging only reveals itself now to the archæologist when he subjects the buildings to accurate measurement. The ancient practices of paring down the exposed surfaces of the building after its erection and of colouring them



Left, figure five. Marking out the position of the drum on the base, which has been already set. The zinc template used for marking out the plan on the underside of the drum is used for establishing its future position on the base. Right, figure six. Planing the surfaces of a block of stone by machinery. A great number of different shapes can be produced by adjusting the relative positions of the block to the cutting edge, but the machine is most useful in the preparation of many blocks of similar shape.

in vivid hues with applied pigments made last-minute adjustments a natural and a recognized part of the work, for the architect could rely upon the assistance of skilled sculptors and painters in the final shaping of his work.

In present-day masoncraft the architect has no such second line of defence; every effort has to be made to shape and bed the stone accurately in position in the first instance, and only the slightest amount of trimming or rubbing down after erection is resorted to. How old and new methods may be carried on side by side may be realized by comparing figure 3 with figure 6, which shows a modern stone-working machine installed in a corner of the same workshop. A block of stone is being planed to a smooth surface as it is carried past the edge of a broad cutting chisel, which is wedged into the socket of the overhead cranked beam. The block is fixed in position in an adjustable upper bed, which is itself fixed by means of wooden blocks and wedges on the heavy cast-iron bed, which travels back and forth over the wheels supported on axles upheld by projecting spurs on the rails of the underframe. As the travelling bed carries the stone block past the cutter, a blow from one of the strikers on the edge of the bed throws a lever into action which causes the cranked beam to lean over in the opposite direction and present the edge of the cutter against the stone as it passes under the beam again on its return journey. By this means an almost continuous cutting action is maintained, which results in the speedy reduction of the block to a smooth condition. Adjustments in the position of the upper bed permit of the blocks of stone fixed on it being presented to the cutting action at various angles, so that a very great variety of shapes can be obtained by its means. Such a machine is invaluable in connection with a design of this sort, where regular coursed ashlar and long lengths of uniform mouldings are in preparation. A man is required to attend to the machine to see that all is in running order, and to measure the blocks of stone from time to time and to test them for square corners and level surfaces, but the hard labour of hacking at the stone is removed from the province of the mason and is transferred to the miner and the engineer, who obtain the ore and coal and make the machine.

Both Thomas Love Peacock and John Ruskin would certainly have found something to object to in this substitution of underground labour for that in the light of day, and now, with the coal strike threatening calamity to the whole British community, it would appear that these prophets really knew what they were talking about! Reliance upon coal and iron may be carried too far, and may bring about a very awkward series of crises as coal and ore become more and more difficult to win. However that may be, and however one may regret the substitution of machine-tenders for handicraftsmen, the presence of this elaborate and powerful stone-dressing appliance in a remote part of the country may be accepted as evidence of the effective manner in which machinery has taken its place in present-day building construction in England. Whether the machine is, indeed, an economic factor calculated to benefit the whole community, or whether it merely robs Peter Miner to pay Paul Mason, it is worth noting that in the building of Gledstone Hall the exceptionally large stones are still being dealt with by hand, and some only of the smaller ones by machinery. Other small stones are being reduced to shape by the old-fashioned processes of hammer dressing and picking, and in spite of the snow some of this work was in progress in the open air while the machine was operating in the shed.

Figure seven. While the machine is in action in the shed, the old-fashioned pick is in operation outside. The lower portion of the stone surface has been already treated, and the degree of uniformity obtainable by the pick may be realized from its appearance.

Figure 7 shows the pick in use in the reduction of the rough protruding boss from the centre of a block of stone. The lower portion of the stone surface has already been reduced to something like an average plain surface, and

the stone has been turned over to bring another part within easy range of an effective blow.

Another part of the building in which stone figures largely is the fine expanse of roof slope which is being covered with roughly-cleft slabs in courses which diminish in width as they mount from eaves to ridge. These exterior roof-slopes really hide an attic story, but dormer windows would have broken up the slope and disfigured the magnificent effect obtained by the carefully arranged proportion of roof to wall. A way was found to light these upper rooms with vertical windows opening upon the sides of small areas contrived within the central part of the roof, where they only affect the architecture of the mansion when it is seen in a bird's-eye view. The valleys and hips of the stone roof are formed in stone to preserve the continuity of colour and texture throughout its whole length and breadth, lead gutters and flashings being kept out of sight as far as is practicable.

[*To be continued.*]

CORRESPONDENCE

THE PLAN IN THE WINDOW

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Can any of your readers tell me where the ground-plan of a church building is illustrated in the stained glass windows of that church? As an archæologist, rather than as an architect, I have examined hundreds of churches, both mediæval and modern, but I have only seen the point above mentioned in one place. In the famous St. Mary Redcliffe Church in Bristol the south window of the south transept is of much interest, and in one of its panels is shown the master-mason of the church. He is dressed in a long blue robe with fur trimmings; and holds, stretched between his hands, a parchment sheet with the ground-plan of the Redcliffe church drawn on it. The window is modern, being the gift of a person who died in 1910. The thought occurred to me that this point might be of interest to your readers.

D. GORDON DENOON,
Member of the British Archæological Association

ARCHITECTS AND THE R.I.B.A.

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The leader on "Architects and the R.I.B.A." is interesting, but is it not somewhat illogical? It appears to put the "cart before the horse" in many of its arguments. The Institute has been in existence long enough to prove its worth, and if it has to "urge" architects to become members, this in itself is evidence of its futility. Your statement that "The public for the most part attach but slight importance to the letters which members may place after their names" and the criticism "that the Institute does little to help its members, especially at the beginning of their career, when they are most in need of help" is quite true, and is further proof for condemnation of the policy which it adopts. Is it not quite natural that non-members ask "What benefit will they get from sitting for examinations and paying annual subscriptions?" This attitude is quite reasonable, and cannot be called "selfish aloofness." Is not the selfish aloofness rather the attribute of the R.I.B.A. which seeks all the benefits, but only imposes rules and restrictions which are quite out of date? The Institute has had the opportunity of being of very material assistance to its Members, and of proving itself an organization of great educational value to the general public. It has failed in both. The writer, speaking with fourteen years' experience of the Institute, has never found it to be "The backing of a powerful professional organization." This could have been attained even without registration.

R. E. HASTEWELL

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Will you permit a word of criticism on your excellent article on "Architects and the R.I.B.A."? Your closing sentence is: "When, at last, the Institute has the backing of the entire profession, then it will be able to strive for the good of its Members and for the good of that art which its Members serve; we do not think that the Institute will be found wanting." The drift of your article is that the Institute is anxious for the membership of all real architects in our country, and that it lies with such to enter or remain outside. But what if with one hand the Institute beckons this welcome, and with the other shuts the door against it? Let me give you an instance of what I think to be a representative kind at least of a number of similar cases.

A young man in 1914 volunteered for the war, went through the four years, and came out with an open future. He desired to be an architect, was a pupil for several years, then an assistant, and now is in practice. It was open to him to become, as he might easily have done, a Licentiate, but he preferred to seek admission to the Institute by examination. The war lost him four years, and involved his forgetting a certain amount of his school learning, etc. He entered for the examination, and failed, not, I believe, badly, for he did some excellent work. He was urged to try again, but, fortunately or otherwise, he had plenty of work, and having his living to obtain, he had no time to take that course. The list of Licentiates was closed or he might have by this time been a Fellow. He has a strong desire to be in the Institute, but after interviews, correspondence, etc., he has been definitely told there is only the way of examination for admission. This, in his position, definitely closes the door.

Now, I can testify as to the character of his work, and he is in a certain district doing his best in the way in which an individual can to counteract the manner in which village after village is being spoiled. His work can be seen, and I have no fear as to the result of such inspection. This is not an extraordinary case, and I would submit that for such there should be some arrangement by which entrance to the Institute, much desired, should be possible. An inspection by a qualified representative of his work, and a due consideration of the conditions of his case, would at least give a possibility which under present circumstances is non-existent.

W. RAVENS CROFT

COAL RESIDUES AND STEEL

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The Association of Floor Constructors has had under consideration regulations which govern the construction of steel and concrete floors, and in particular the use of coal residues in concrete which is in any way in contact with steel. Having regard to the many cases in which this material has been clearly proved to have corroded the steel, often to the extent of entire destruction, the Association have decided to approach the Government, and all county, borough, and district councils to take steps to prohibit the use of coal residues in structural concrete in contact with steel. The Association recommends that all clauses of Acts of Parliament, By-laws, and regulations which permit the use of coal residues in any concrete in contact with steelwork, or in structural concrete for fire-resisting floors and roofs, should be rescinded, and that the use of this material should be prohibited. In this connection it is worthy of note that the revised building regulations of other countries prohibit the use of this extremely dangerous material for the class of work mentioned.

W. G. SHIPWRIGHT,
Honorary Secretary, The Association of Floor Constructors

THE WESTMINSTER EYE HOSPITAL

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In your issue for April 21 you state that Charing Cross Hospital has purchased our site and building, but nothing is said about the movements of this hospital. I would inform you that our new hospital will be erected on a freehold site, which we are purchasing in Broad Street, W.C.2. Possession of these premises will not be given to Charing Cross Hospital until our new hospital is ready for occupation, i.e. in about two years' time.

J. H. JOHNSON, Secretary,
Royal Westminster Ophthalmic Hospital

[The result of the competition for designs for the new building appears on page 729. ED. A. J.]

WATERLOO BRIDGE BEFORE PARLIAMENT

[BY OUR PARLIAMENTARY CORRESPONDENT]

By 158 votes to 96 the House of Commons has sanctioned the demolition of Waterloo Bridge, and all attempts to save Rennie's work of art have therefore proved futile. The debate lasted for nearly three hours, and it arose on consideration of the London County Council (Money) Bill.

Col. Gretton, the Unionist member for Burton-on-Trent, after the Bill had been read a second time, moved that the Committee which is to consider the Bill be instructed to delete "Item 9 of Part I of Schedule 1." This "item" provides for expenditure by the London County Council on the reconstruction of Waterloo Bridge, and the provision of a temporary bridge. It is proposed to spend £100,000 during the current financial year, and another £100,000 in the first half of the next financial year. Col. Gretton put the case for the retention of the bridge forcibly and cogently. The question, he said, was one of national importance. Waterloo Bridge was one of the most remarkable bridges in Europe to-day, and it was the finest bridge æsthetically and artistically in this country. "This Bill," he exclaimed, "proposes to condemn that bridge to destruction." Proceeding, he declared truly that there was a great tendency in these days to look at everything from an entirely utilitarian point of view, but there were other considerations. Every one who came to London and who saw the Thames with its buildings, particularly Somerset House, the Cathedral of St. Paul's, and the whole vista of the river, must be struck by the beauty of the bridge, and its entire appropriateness to the setting in which it was. It would be a national calamity that a bridge of this beauty, this fame, and these associations, should be destroyed unless it were an absolute necessity. Col. Gretton then quoted expert opinion to show that its destruction was not "an absolute necessity," and advocated a process of underpinning. The traffic problem of London would not be solved by a new Waterloo Bridge of a wide description; it was no use driving the traffic into a dead end, or into the congested traffic running at right angles. He suggested that there should be a further inquiry into the matter, and that to that inquiry the whole problem of London traffic as well as of the beauty of the Thames and its æsthetic and architectural possibilities should be left.

Sir Martin Conway, who seconded Col. Gretton's motion, emphasized the fact that Waterloo Bridge was the memorial of the Waterloo campaign, officially so made and consecrated by the House of Commons. "Now we are asked," he said, "on some practical grounds, to knock down this war memorial of our ancestors, to destroy that which was set up in memory of their deeds. A more miserable proposition was never laid before the people of this country"—a statement which was greeted with cheers. The bridge was the finest architectural achievement of the nineteenth century, and its retention was favoured by the Royal Academy, the R.I.B.A., the London Society, the Society for the Preservation of Ancient Buildings, the Architecture Club, and other bodies of repute. The bridge was not only a magnificent piece of architecture, but an extraordinary piece of craftsmanship. As to the traffic problem, that could be solved by the construction of the long-delayed Charing Cross Bridge, and he pleaded for the consideration of the problem of the London bridges as a whole, and not singly. He wished to avoid the triple disaster of the demolition of Waterloo Bridge, the building of St. Paul's Bridge, and the postponement of the construction of a bridge at Charing Cross.

The L.C.C. view was put by Sir Cyril Cobb, who, while extolling the architectural beauties of the bridge, declared that it was essential to have a bridge which would carry six lines of traffic instead of three.

A particularly telling speech was then delivered by Sir John Simon, who, with his vast legal experience, made great play with the report of the Bridges sub-Committee of the L.C.C., and declared that, as it was "six of one and half a dozen of the other" in regard to technical opinion, the matter should be reconsidered. People to-day regarded the proposal to remove Waterloo Bridge as people one hundred years hence would regard a proposal to remove the Cenotaph. Apart from the bridge being admittedly one of the most splendid monuments of the genius of Rennie, it stood at a place in London where every visitor realized that it was one of our great treasures. What was going to be said of the House of Commons if it had to be written of this Parliament, "You did not think it necessary to get rid of Charing Cross railway bridge, but you pulled down Waterloo Bridge instead."

After Sir Henry Jackson had detailed at some length the reasons which had led the London and Home Counties Traffic Advisory Committee to favour the demolition of the bridge, Sir William Bull declared that, if the subsidence of Waterloo Bridge had not taken place, the House of Commons would never have heard anything about its widening. A six-line bridge instead of a three-line bridge would make the navigation of the river traffic doubly difficult. But the real point was that if Waterloo Bridge was widened and made into a six-line traffic bridge, the much-needed Charing Cross bridge would not be built for twenty, thirty, or forty years. People would be content; they would say that the expense of the Charing Cross Bridge was too great. If, on the other hand, Waterloo Bridge was merely repaired and frankly made into a monument of Waterloo, he believed that the Charing Cross Bridge would be forced on the attention of London, and would be built. "Canova, one of the greatest critics of his time, said it was worth while coming to London to see Waterloo Bridge alone, and I ask hon. members to bear that in mind," concluded Sir William Bull.

Sir William Davison suggested that the Bridge House Estates Committee of the City of London should once more go outside their purview in order to do work of national importance, and should offer to build a bridge at Charing Cross.

Col. Ashley, on behalf of the Government, made a speech which, while it appeared to take an impartial view, impressed members with the seriousness of "turning down" a recommendation of the London County Council, upon which body had been placed the statutory duty of looking after certain bridges in the Metropolitan area. After this contribution to the debate, the result seemed inevitable, and the announcement of the majority by which Col. Gretton's motion was rejected occasioned little surprise.

SOCIETIES AND INSTITUTIONS

R.I.B.A. Council Meeting

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

Architectural Education. On the recommendation of the Board of Architectural Education the Council made the following decisions : A suggested outline course of study for the guidance of architects who accept pupils in districts where professional school education is not available was approved, together with two lists of books to be obtained, one by the pupil and the other by the architect. Copies of the outline course and lists of books are to be inserted in each R.I.B.A. form of articles of pupilage sent out by the R.I.B.A. It was decided that partial exemption may be granted to students who produce evidence of having passed approved examinations in certain subjects in schools of University rank, viz., the general history of architecture, the specialized history of architecture, the calculations of simple structures.

Lectures on Architecture for Working Men. A course of four evening lectures on architecture and the building crafts (with lantern slides) for working men is to be given at the R.I.B.A. in October and November.

R.I.B.A. Prizes and Competitors Overseas. A scheme has been approved for holding the preliminary and final competitions for

the Tite Prize and the Soane Medallion or Victory Scholarship in the Dominions so as to enable overseas students to take effective part in the competitions. Arrangements on the same principle will be made for the Owen Jones Studentship.

R.I.B.A. Studentship. The following probationers were elected students of the R.I.B.A. : Elder, Robert Walter, Glasgow School of Architecture; Kelham, Harry Wilkinson, Architectural Association; McCrea, William, Glasgow School of Architecture; North, Edwin Samuel Lithgow, Architectural Association; Scotland, James Clason, Glasgow School of Architecture; Wingate, James West Cleland, Glasgow School of Architecture.

Specialization and its Effect on Craftsmanship. The Council appointed three representatives to serve as additional temporary members of the Architects' and Builders' Consultation Board for the purpose of holding an inquiry into the question of specialization in the building trade and its effect on craftsmanship.

Lectures for Architects in Practice. On the recommendation of the Science Standing Committee the Council approved a scheme for a series of lectures to enable practising architects (1) to revive forgotten knowledge; (2) to acquire modern knowledge, and requested the Board of Architectural Education to formulate detailed proposals for carrying the scheme into effect.

Building Trades Operatives. The Council accepted an invitation from the committee of the National Federation of Building Trades Operatives to appoint a small committee to meet representatives of the Federation to discuss problems of mutual interest which periodically arise in the industry.

Professional Defence. A scheme prepared by the Practice Standing Committee for the establishment of a professional defence union for architects was provisionally approved.

Riverside Ground at Twickenham. The Council received the warm thanks of the Twickenham Urban District Council for the assistance rendered by the R.I.B.A. in connection with the effort to preserve the amenities of the riverside ground at Twickenham.

Exhibition of Garden Design. The Council passed a cordial vote of thanks in favour of those who lent work for the exhibition and of the committee who were responsible for the arrangements.

The Hampshire and Isle of Wight Association of Architects. A revision of the rules of the Association was approved under By-law 82.

Composition of Subscriptions for Life Membership. The Council approved a scheme for the composition of subscriptions, and directed that it should be submitted to the general body for consideration.

Annual Report. The draft annual report of the Council and standing committees for 1925-1926 was approved together with the ordinary and trust funds draft revenue accounts and balance sheets for the year ended December 31, 1925, and the rough estimate of ordinary income and expenditure for 1926.

Grants. The following grants were made : £50 to the Royal West of England Academy School of Architecture for the year 1926; £100 to the Board of Architectural Education for the provision of additional studio text-books for use by the students of schools and allied societies which have an inadequate supply of text-books, such grant to be for the period of one year; £100 to the British Engineering Standards Association for the year 1926.

Wages Slips on Tenders. On the recommendation of the Architects' and Builders' Consultation Board the Council agreed to recommend, in a modified form, the arrangement for adding wages slips to tenders for the period ending March 25, 1927, and gave notice to terminate the arrangement on that date.

Hon. Auditors. The Council nominated Mr. A. H. Goslett, F.R.I.B.A., and Mr. F. J. Toop, A.R.I.B.A., as hon. auditors for the session 1926-1927.

The Elmes Testimonial Fund. Mr. G. Hastwell Grayson, F.R.I.B.A., was re-appointed a trustee.

Applications for Membership. The following applications for membership (election June 7, 1926) were approved : As Fellows, 43; as Associates, 16; as Hon. Associates, 2; as Hon. Corresponding Members, 1.

Applications for Election as Licentiates under Section III (I) of the Supplemental Charter, 1925. Three applications were approved.

Applications for Election as Subscribers under Section VI of the Supplemental Charter, 1925. Two applications were approved.

Resignations. The following resignations were accepted : A. Paul MacAlister, F.R.I.B.A.; G. Leslie Head, A.R.I.B.A.; W. J. Leahy, A.R.I.B.A.; R. A. Walter, A.R.I.B.A.

The Liverpool Architectural Society

At the annual general meeting of the Liverpool Architectural Society (Incorporated) the following officers and council were elected for the ensuing session : President : Prof. C. H. Reilly, O.B.E., M.A., F.R.I.B.A.; Vice-Presidents : Messrs. S. Segar-Owen, F.R.I.B.A., and Edgar Quiggin, F.R.I.B.A.; Hon. Secretary : Mr. Ernest Gee, A.R.I.B.A.; Unofficial Members of the Council : Fellows : Messrs. Leonard Barnish, F.R.I.B.A., Prof. L. B. Budden, M.A., A.R.I.B.A., Duncan A. Campbell, A.R.I.B.A., Edwin J. Dod, A.R.I.B.A., Harold A. Dod, M.A., A.R.I.B.A., Gilbert W. Fraser, M.C., F.R.I.B.A., E. Bertram Kirby, O.B.E., F.R.I.B.A.; Associates : Messrs. A. C. Townsend, A.R.I.B.A., F. Velarde, A.R.I.B.A.; Hon. Treasurer : Mr. Edwin J. Dod, A.R.I.B.A.; Hon. Librarian : Mr. E. H. Honeyburne, A.R.I.B.A.; Hon. Auditors : Messrs. Hastwell Grayson, M.A., F.R.I.B.A., and G. Stanley Lewis, A.R.I.B.A.

The Architects' Benevolent Society

It is not perhaps sufficiently realized that all kinds of insurances can be negotiated through the agency of the Architects' Benevolent Society. The following list of insurances which have been effected recently gives an indication of the variety of the work that is being done : motor-cars, value £900, £400, £275, £110; building and contents of houses against fire and burglary, value £4,000, £3,000, £2,750, £1,200, £200; building in course of erection and alteration against fire, £19,200, £10,000, £1,100, £300; accident insurance, £1,000; all risks, £200; life endowment and whole life, £1,000, £500, £200. It is earnestly desired that all architects who are contemplating insurance in any form should communicate with the Secretary, A.B.S., 9 Conduit Street, W.1, who will give immediate attention to all inquiries.

ANNOUNCEMENTS

Mr. Henry James Wise, F.R.I.B.A., has moved to 49 South Molton Street, W.1. Telephone : Mayfair 4346.

Mr. W. H. R. Blacking has moved to Ladymead, Guildford. Telephone : Guildford 911.

Mr. H. T. Richardson, L.R.I.B.A., architect and surveyor, has moved to Hilton's Chambers, Mardol Head, Shrewsbury.

Mr. A. C. Bossom, the American architect, has given £1,000 to the Chadwick Trust to form a studentship for encouraging research into building materials and construction.

Two entrance exhibitions tenable in the Bartlett School of Architecture of the value of £40 a year may be awarded in June. The first exhibition is tenable for five years, and is open to undergraduates of the University of London intending to proceed to a degree in architecture. The second is tenable for three years, and is open to graduates of any British university or of any other university approved by the Selecting Committee. Applications must be sent to the Secretary, University College, London, W.C.1, by May 30.

COMPETITION CALENDAR

The following competitions are announced with the full approval of the R.I.B.A.

Monday, June 14. Dance Hall, Restaurant, Pavilion, and Shops at the Sea Beach, Aberdeen, for the Town Council. Assessor, the President of the Incorporation of Architects in Scotland. Particulars from Mr. A. B. Gardner, Town House, Aberdeen.

Saturday, July 31. Australian National War Memorial, Villers Bretonneux, France. Open to Australians. Particulars from High Commissioner's Office, Australia House, Strand. Deposit £2 2s.

The conditions of the following competitions have been received by the R.I.B.A.

June 21-23. Royal Society of Arts: Competition for Industrial Designs. Particulars from the Secretary of the Society, Adelphi, W.C.2.

Monday, July 12. Royal National Eisteddfod of Wales, Swansea, Competitions: (1) National Parliament House of Wales (Prize, £100); (2) Street Façade to a Large Stores (Prize, £25); (3) Set of Measured Drawings of Architecture (Prize, £25). Assessor, Mr. Arthur Keen, F.R.I.B.A. Particulars from the publishers, Messrs. Morgan and Higgs, Heathfield Street, Swansea (1s. 2d. post paid).

Monday, July 12. Lay-out for new cemetery for Leicester City Council. Assessor, Mr. H. V. Lanchester, F.R.I.B.A. Premiums, £100, £50, and £25. Particulars from the City Surveyor. Deposit £1.

The conditions of the following competitions have not as yet been brought to the notice of the R.I.B.A.

No date. Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans. Sir John Burnet, R.A., British representative on jury of assessors. Particulars from R.I.B.A.

No date. Manchester Town Hall Extension. Assessors, Mr. T. R. Milburn, F.R.I.B.A., Mr. Robert Atkinson, F.R.I.B.A., and Mr. Ralph Knott, F.R.I.B.A.

No date. Cenotaph for Liverpool, on the St. George's Hall Plateau. Particulars from Town Clerk.

TRADE NOTES

Messrs. Blundell, Spence & Co., Ltd., have issued a new booklet which should be of help to all those who are interested in paints, colours, varnishes, and other decorative and protective materials for all classes of work. Blundell's products are known in every part of the world, and the company's vast experience extending over more than a century, coupled with the most up-to-date methods of manufacture and distribution, enable them to supply all requirements at competitive prices. The booklet contains brief details, supplemented where necessary with sample colours, of the company's most popular manufactures. The firm are contractors to His Majesty's Government, the Admiralty, the War Office, the Air Ministry, His Majesty's Office of Works, the India Office, colonial and foreign Governments, British, colonial, and foreign railways, London County Council, municipal corporations, and the leading steamship companies.

Among the various specialities of Messrs. British Insulated Cables, Ltd., of Prescot, one of the most popular is aluminium matting, which is largely used for stair treads, shop counters, and the flooring of passages subject to heavy wear. The matting is of the solid back type, corrugated on one side only, and flat on the other, so it is claimed that it will wear indefinitely without cutting into holes. Aluminium matting is claimed to keep its colour, to be cleaned easily, and to be non-slipping. The following notes on aluminium sent us by Messrs. British Insulated Cables are interesting: "Aluminium is one of the most readily oxidizable of the metals in commercial use. In the form of powder, it unites so vigorously with oxygen as to become explosive. In fact, it forms an ingredient in a certain commercial form of blasting agent. One of the most interesting and peculiar characteristics of the metal is that, although it is so readily attacked by oxygen, it resists oxidation to a remarkable degree. This apparent paradox is due to the fact that the thin transparent film of oxide, which forms on the metal in the presence of air, affords protection against any further action so that in practice the metal remains unaffected."

The *Nottingham Evening News* recently invited manufacturers and industrialists in the Midlands to submit to them for publication the names of workers who had been in their continuous employ for a period of forty years and over. The Stanton Ironworks Company, Ltd., near Nottingham, employ some 14,000 workpeople, and were able to submit the names of 265 veterans who are still in their employ and who have served them for a minimum period of forty years. The maximum period of service of any employee was sixty-two years, and no small number fell within the range of forty-five and fifty-five years' service. The number submitted by the Stanton Company of 265 individual cases was by far the largest number sent by any single firm of employers. The *Nottingham Evening News* subsequently issued a printed certificate for each of the names included in their list, and during the past few weeks Mr. E. J. Fox, the managing director of the Stanton Company has been presenting these certificates at the company's various centres.

OBITUARY

Mr. Percy B. Houfton

We regret to record the death of Mr. Percy B. Houfton, F.R.I.B.A., at the age of fifty-one. He had been ill for ten days, and had so much recovered that he intended resuming his professional duties. However, he had a seizure, which proved fatal. Mr. Houfton, who was originally a mining engineer with the Bolsover Colliery Company, was consulting architect to the Chesterfield Corporation, and as such had to advise as to the lay-out of the various housing estates. He collaborated with Professor S. D. Adshead in town-planning schemes. He was also architect to the Bolsover Colliery Company in connection with their housing estates at Clipstone, Edwinstowe, Rainsworth, and other places. He had designed many buildings in Chesterfield, one of his last big schemes being the new Technical College, which is the gift of Alderman G. A. Eastwood to his native town. He was also architect for the Derbyshire miners' new convalescent home at Skegness.

Mr. William Watkins

We regret to record the death of Lincoln's oldest architect, Mr. William Watkins, J.P., F.R.I.B.A., at the age of ninety-two. He was articled to an architect at Worcester, and later entered the office of the late Mr. Goddard, of Lincoln, architect. In 1864 he set up in practice on his own account on the Cornhill. He won many open competitions, among them being Grantham Town Hall, Doncaster Markets and Corn Exchange, Worcester Orphanage, and Kidderminster Workhouse. Locally he was responsible for many public buildings and private houses. He did a great deal of county work, restoring North Carlton Hall, Boultham Hall, and built a mausoleum for Lord Monson. For many years he was architect to the Lincoln County Hospital, and built the Ruston Ward and the operating theatre. Advancing years compelled him to retire in 1918, leaving his business in the hands of his son, Mr. W. G. Watkins, whom he had taken into partnership in 1898.

Mr. F. G. Elmes

The death has occurred of Mr. Frederick George Elmes, who was in the employ of Messrs. John Daymond and Son as a wood carver for about thirty-five years, part of the time as foreman. He was probably the sole remaining craftsman who worked on the wood carving in Carpenters' Hall, London Wall, between 1878-1881. He was eighty-six years of age.

Mr. L. A. Westwick's Estate

Mr. Louis Alfred Westwick (sixty-eight), of Hillcrest, Mansfield, Notts, architect, left £29,868; net personalty, £12,712.

READERS' QUERIES

FLOOR AREAS FOR RESTAURANTS, DANCE AND CONCERT HALLS

H. L. writes: "What is the customary allowance of floor area per person upon the dancing floor of a dance hall, and the area of floor space required to seat 500 to 1,000 people in a pavilion theatre or concert hall? What would be the estimated cost of the above types of buildings? I suggest 1s. 4d. to 1s. 6d. per ft. cube for a plain, straightforward hall, having no extensive surrounding accommodation. What is the allowance of floor area per head in a restaurant to accommodate about 250 persons on the main floor only, and the minimum rate per cub. ft. for such a building?"

The customary allowance of floor area per person upon a dancing floor of dance halls varies from 6 ft. in the larger halls to 10 ft. in the smaller ones. Very frequently this allowance is considerably reduced during the crowded season, but for comfortable dancing these areas should be regarded as the minimum. The size and approximate accommodation of a few of the better known dance floors may be of interest.

Building.	Size of floor in feet.	Accommodation.
Blackpool Winter Gardens	210×110	3,000
Blackpool Tower ..	120×102	2,000
Wimbledon Palais de Danse	138× 58	1,200
Scarborough Spa ..	125× 66	900
Brighton Winter Gardens	105× 56	900
Bridlington Amusement Centre	107× 53	900
Liverpool Grafton Rooms	100×58	900
Nottingham Palais de Danse	88×48	400

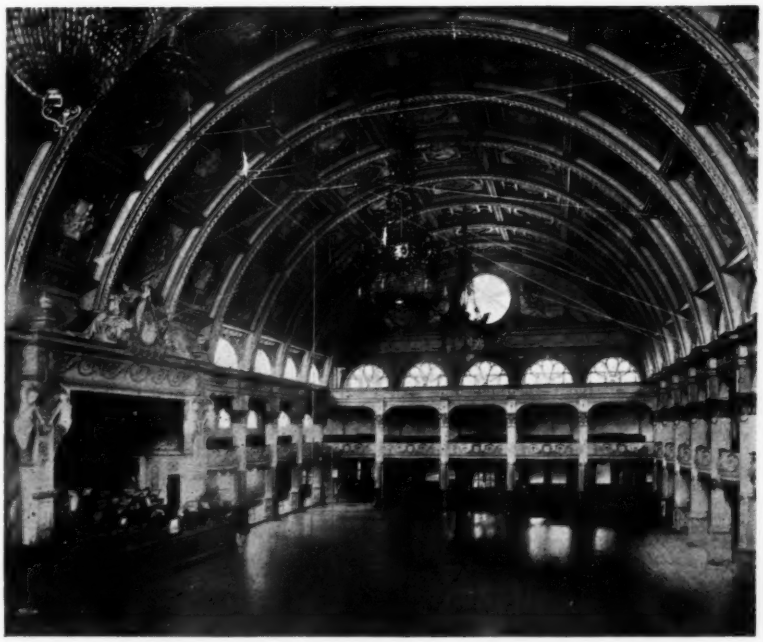
The area of floor space required to seat 500 to 1,000 people in a pavilion theatre or concert hall (including gangways) may be calculated at from 4 ft. to 6 ft. super per head, according to the arrangement and description of the seating accommodation provided. A hall 64 ft. by 62 ft. (exclusive of platform) will comfortably accommodate 1,000 people on ordinary chairs. This gives an allowance of about 4 ft. super per person. If a portion of the seats are given a width of 20 in. by a "go" of 28 in., and the remainder a width of 18 in. by a "go" of 26 in., it may be necessary in a hall to hold 500 persons to provide a minimum of 6 ft. per head (including an allowance for gangways 4 ft. wide).

The suggested figures of 1s. 4d. and 1s. 6d. per ft. cube would appear to be rather on the high side for a plain, straightforward hall simply treated and having no extensive surrounding accommodation. In ordinary circumstances the cost should not exceed 9d. to 1s. per cub. ft. exclusive of furniture, seats, etc.

The allowance of floor area per head in a restaurant accommodating about 250 persons (main floor only) will vary from 11 to 20 ft. super, according to the class of business catered for. The dimensions of the dining-room are usually determined by a careful consideration of the size and arrangement of the tables and the distance it is desirable to place them from each other. These factors will vary in almost every case, and floor area per head must not be relied upon too much, especially if the room is rather small, or the floor area is broken up with piers or columns, or is of some irregular shape. Wherever possible it is an advantage to plan the restaurant (like a hospital ward or a classroom) around the internal fittings, but where this is impracticable a more generous allowance of floor space per person will be necessary to make up for wasted space necessitated by the shape of the enclosing walls. It is sometimes thought advisable to have the tables some simple multiple of a standard size, so that while in separate and ordinary use they will accommodate two, four, or six people respectively; when grouped together they will form one continuous dining-table for public functions or private celebrations. Tables 4×4, 4×2, and 2×2 are suitable for use in this connection. If the restaurant is planned with alcoves, or has some form of screen between the tables, a much larger unit of floor space will be required per head than in an open room. Tables in an open room should have a minimum of 4 ft. between them, and a distance of not less than 2 ft. 6 in. between the table and the wall.

It is impossible to give a useful "minimum rate" per cubic foot for a restaurant to seat 250 persons without the fullest information of the scheme and the district where it is to be erected. The system of calculating costs by cubing can only be regarded as useful to a certain point, and is only used to give approximate figures. Experience proves that the cost per cubic foot of any type of building varies considerably with almost every example, and even in such standard types as State-aided cottages, where little variation either in accommodation or design is possible, the cost per foot cube has been known to vary from 1s. 4¾d. to 9½d. within the short space of two months. Only a wide experience of the particular type of building and a thorough knowledge of all the various factors affecting the cost of the proposed building would ensure the selection of a reliable minimum figure, and even then the cost would be an approximate one. A much safer and far more satisfactory method of arriving at the estimated cost is to prepare an approximate bill of quantities which may consist of about thirty to forty items, such as the areas of roof, floors, plastering, etc., with the brickwork roughly measured out in yards or rods super, and all the specialists' work such as heating, lighting, ventilating, etc., included as provisional amounts. With a schedule such as this, which can be prepared in an hour or two for even a job of considerable size, it is an easy matter to form a very near idea of the approximate cost. Much useful information on the subject of cubing and some wise advice as to its value may be found on page 19 of *Specification* for 1925, although the prices therein given are now a little on the high side for the above class of structure.

M. S. A.



Blackpool Winter Gardens: The Ball Room. The floor is of oak boards in narrow widths. Bordering the floor is the dancers' promenade, above which is the spectators' gallery. The orchestra is on a dais on the left of the picture.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 8	1 3½
A₁	Abergavenny	Do.	1 7½	1 2½
B	Abingdon ..	S. Counties	1 6	1 1½
A	Accrington	N.W.Counties	1 8	1 3½
A₂	Addlestone	S. Counties	1 6½	1 2
A	Adlington ..	N.W.Counties	1 8	1 3½
A	Airdrie ..	Scotland	*1 8	1 3½
C₁	Aldeburgh	E. Counties	1 4	1 0½
A	Altrincham	N.W.Counties	1 8	1 3½
B₂	Appleby ..	N.W. Counties	1 4½	1 0½
A	Ashton-under-Lyne	N.W.Counties	1 8	1 3½
A₂	Atherstone	Mid. Counties	1 6½	1 2
B₂	Aylesbury ..	S. Counties	1 4½	1 0½
B	BATH ..	S.W.Counties	1 6	1 1½
B₂	Banbury ..	S. Counties	1 4½	1 0½
B₂	Bangor ..	N.W. Counties	1 5	1 1
A	BarnardCastle	N.E. Coast	1 8	1 3½
A	Barnsley ..	Yorkshire	1 8	1 3½
B₁	Barnstaple	S.W. Counties	1 5½	1 1½
A	Barrow ..	N.W.Counties	1 8	1 3½
A	Barry ..	S. Wales & M.	1 8	1 3½
B₂	Basingstoke	S.W. Counties	1 4½	1 0½
A	Batley ..	Yorkshire	1 8	1 3½
B	Bedford ..	E. Counties	1 6	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 7	1 2½
A₃	Bewdley ..	Mid.Counties	1 6½	1 2
B₂	Bicester ..	Mid. Counties	1 4½	1 0½
A	Birkenhead	N.W.Counties	†1 9	1 3½
A	Birmingham	Mid. Counties	1 8	1 3½
A	Bishop Auckland	N.E. Coast	1 8	1 3½
A	Blackburn	N.W.Counties	1 8	1 3½
A	Blackpool	N.W.Counties	1 8	1 3½
A	Blyth ..	N.E. Coast	1 8	1 3½
B₂	Bognor ..	S. Counties	1 4½	1 0½
A	Bolton ..	N.W.Counties	1 8	1 3½
A₃	Boston ..	Mid. Counties	1 6½	1 2
B₁	Bournemouth	S. Counties	1 6	1 1½
A	Bradford ..	Yorkshire	1 8	1 3½
A₃	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 8	1 3½
B₂	Bridgwater	S.W. Counties	1 5	1 1
A₁	Bridlington	Yorkshire	1 7½	1 2½
A	Brighouse ..	Yorkshire	1 8	1 3½
B₁	Brighton ..	S. Counties	1 6	1 1½
A	Bristol ..	S.W. Counties	1 8	1 3½
B₂	Brixham ..	S.W. Counties	1 4½	1 0½
A₃	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 4	1 0½
A	Burnley ..	N.W.Counties	1 8	1 3½
A	Burslem ..	Mid. Counties	1 8	1 3½
A₂	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W.Counties	1 8	1 3½
A₃	Buxton ..	N.W.Counties	1 6½	1 2
B	CAMBRIDGE	E. Counties	1 6	1 1½
B₂	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff ..	S. Wales & M.	1 8	1 3½
A	Carlisle ..	N.W.Counties	1 8	1 3½
B	Carmarthen	S. Wales & M.	1 6	1 1½
B₂	Carnarvon ..	N.W.Counties	1 5	1 1
A₁	Carnforth ..	N.W. Counties	1 7½	1 2½
A	Castleford ..	Yorkshire	1 8	1 3½
B₁	Chatham ..	S. Counties	1 5½	1 1½
B₁	Chelmsford	E. Counties	1 5½	1 1½
B	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W.Counties	1 8	1 3½
A	Chesterfield	Mid Counties	1 8	1 3½
B₂	Chichester ..	S. Counties	1 4½	1 0½
A	Chorley ..	N.W.Counties	1 8	1 3½
B₂	Cirencester	S. Counties	1 5	1 1
A	Clitheroe ..	N.W.Counties	1 8	1 3½
A	Clydebank	Scotland	1 8	1 3½
A	Coalville ..	Mid. Counties	1 8	1 3½
B₁	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W.Counties	1 8	1 3½
B₁	Colwyn Bay	N.W.Counties	1 5½	1 1½
A	Consett ..	N.E. Coast	1 8	1 3½
B₁	Conway ..	N.W. Counties	1 5½	1 1½
A	Coventry ..	Mid. Counties	1 8	1 3½
A₃	Crewe ..	N.W.Counties	1 6½	1 2
A₃	Cumberland	.....	1 6½	1 2
A	DARLINGTON	N.E. Coast	1 8	1 3½
A	Darwen ..	N.W.Counties	1 8	1 3½
B₂	Deal ..	S. Counties	1 4½	1 0½
B₁	Denbigh ..	N.W.Counties	1 5½	1 1½
A	Derby ..	Mid. Counties	1 8	1 3½
A	Dewsbury ..	Yorkshire	1 8	1 3½
B	Didcot ..	S. Counties	1 6	1 1½
A	Doncaster ..	Yorkshire	1 8	1 3½
C₁	Dorchester	S.W.Counties	1 4	1 0½
A₃	Driffield ..	Yorks	1 6½	1 2
A₃	Droitwich ..	Mid. Counties	1 6½	1 2
A₂	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 8	1 3½
A	Durham ..	N.E. Coast	1 8	1 3½
B₁	EASTBOURNE	S. Counties	1 6	1 1½
A	Ebbw Vale	S. Wales & M.	1 8	1 3½
A	Edinburgh	Scotland	1 8	1 3½
A	E Glamorganshire & Monmouthshire	S. Wales & M.	1 8	1 3½
B	Exeter ..	S.W. Counties	‡1 7	1 2½
B₂	Exmouth ..	S.W. Counties	1 5	1 1
B	FELIXSTOWE	E. Counties	1 6	1 1½
A₃	Filey ..	Yorks	1 6½	1 2
A	Fleetwood ..	N.W.Counties	1 8	1 3½
B₂	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W.Counties	1 8	1 3½
B₂	Frome ..	S.W.Counties	1 4½	1 0½
A	GATESHEAD	N.E. Coast	1 8	1 3½
B₁	Gillingham	S. Counties	1 5½	1 1½
B	Gloucester ..	S.W.Counties	1 6	1 1½
A₂	Goole ..	Yorkshire	1 7	1 2½
B₁	Gosport ..	S. Counties	1 5½	1 1½
A₃	Grantham ..	Mid. Counties	1 6½	1 2
A₂	Gravesend ..	S. Counties	1 7	1 2½
A	Greenock ..	Scotland	*1 8	1 3½
A	Grimsby ..	Yorkshire	1 8	1 3½
B₁	Guildford ..	S. Counties	1 5½	1 1½
A	HALIFAX ..	Yorkshire	1 8	1 3½
A₁	Hanley ..	Mid. Counties	‖ 7½	1 2½
A	Harrogate ..	Yorkshire	1 8	1 3½
A	Hartlepools	N.E. Coast	1 8	1 3½
B₂	Harwich ..	E. Counties	1 5	1 1
B₂	Hastings ..	S. Counties	1 4½	1 0½
B₁	Hatfield ..	S. Counties	1 5½	1 1½
B	Hereford ..	S.W.Counties	1 6	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A₁	Heysham ..	N.W.Counties	1 7½	1 2½
A	Howden ..	N.E. Coast	1 8	1 3½
A	Huddersfield	Yorkshire	1 8	1 3½
A	Hull ..	Yorkshire	1 8	1 3½

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

			I	II
			s. d.	s. d.
A	ILKLEY ..	Yorkshire	1 8	1 3½
A	Immingham	Mid Counties	1 8	1 3½
B	Ipswich ..	E. Counties	1 6	1 1½
C₁	Isle of Wight	S. Counties	1 4	1 0½
A	JARROW ..	N.E. Coast	1 8	1 3½
A	KEIGHLEY	Yorkshire	1 8	1 3½
B₂	Kendal ..	N.W. Counties	1 5	1 1
B₂	Keswick ..	N.W.Counties	1 5	1 1
B	Kettering ..	Mid. Counties	1 6	1 1½
A₃	Kidderminster	Mid. Counties	1 6½	1 2
B₂	King's Lynn	E. Counties	1 5	1 1
A₁	LANCASTER	N.W.Counties	1 7½	1 2
A₃	Leamington	Mid. Counties	1 6½	1 2½
A	Leeds ..	Yorkshire	1 8	1 3½
A	Leek ..	Mid. Counties	1 8	1 3½
A	Leicester ..	Mid. Counties	1 8	1 3½
A	Leigh ..	N.W. Counties	1 8	1 3½
B₃	Lewes ..	S. Counties	1 4½	1 0½
A₃	Lichfield ..	Mid. Counties	1 6½	1 2
A	Lincoln ..	Mid. Counties	1 8	1 3½
A	Liverpool ..	N.W.Counties	†1 9	1 3½
B	Llandudno	N.W.Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 8	1 3½
	London (12 miles radius)		1 9½	1 4½
	Do. (12–15 miles radius)		1 9	1 4
A	Long Eaton	Mid. Counties	1 8	1 3½
A	Loughborough	Mid. Counties	1 8	1 3½
B	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 8	1 3½
A₁	MACCLESFIELD	N.W.Counties	1 7½	1 2½
B	Maidstone ..	S. Counties	1 5½	1 1½
A₃	Malvern ..	Mid. Counties	1 6½	1 2
A	Manchester ..	N.W.Counties	1 8	1 3½
A	Mansfield ..	Mid. Counties	1 8	1 3½
B₃	Margate ..	S. Counties	1 4½	1 0½
A₃	Matlock ..	Mid. Counties	1 6½	1 2
A	Merthyr ..	S. Wales & M.	1 8	1 3½
A	Middlesbrough	N.E. Coast	1 8	1 3½
A₃	Middlewich	N.W. Counties	1 6½	1 2
A	Monmouth	S. Wales & M.	1 8	1 3½
	S. and E. Glamorganshire			
A₁	Morecambe	N.W. Counties	1 7½	1 2½
A₃	NANTWICH	N.W.Counties	1 6½	1 2
A	Neath ..	S. Wales & M.	1 8	1 3½
A	Nelson ..	N.W. Counties	1 8	1 3½
A	Newcastle ..	N.E.Coast	1 8	1 3½
A	Newport ..	S. Wales & M.	1 8	1 3½
A	Normanton	Yorkshire	1 8	1 3½
A₂	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 8	1 3½
A	North Shields	N.E. Coast	1 8	1 3½
B	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 8	1 3½
A	Nuneaton ..	Mid. Counties	1 8	1 3½
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W.Counties	1 8	1 3½
A₃	Oswestry ..	Mid. Counties	1 6½	1 2
B	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 8	1 3½
C	Pembroke	S. Wales & M.	1 4½	1 0½
A	Perth ..	Scotland	*1 8	1 3
A₃	Peterborough	Mid. Counties	1 6½	1 2
A	Plymouth	S.W. Counties	¶1 8	1 3½
A	Pontefract ..	Yorkshire	1 8	1 3½
A	Pontypridd	S. Wales & M.	1 8	1 3½
B	Portsmouth	S. Counties	1 6	1 1½
A	Preston ..	N.W.Counties	1 8	1 3½
A	QUEENSFERRY	N.W.Counties	1 8	1 3½
B	READING ..	S. Counties	1 6	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A₃	Retford ..	Mid. Counties	1 6½	1 2
A	Rhondda Valley	S. Wales & M.	1 8	1 3½
A₃	Ripon ..	Yorkshire	1 6½	1 2
A	Rochdale ..	N.W.Counties	1 8	1 3½
B	Rochester ..	S. Counties	1 5½	1 1½
A₁	Ruabon ..	N.W.Counties	1 7½	1 2½
A₂	Rugby ..	Mid. Counties	1 8	1 3½
A₃	Rugeley ..	Mid. Counties	1 6½	1 2
A	Runcorn ..	N.W. Counties	1 8	1 3½
A₃	ST. ALBANS	E. Counties	1 6½	1 2
A	St. Helens ..	N.W.Counties	1 8	1 3½
A₁	Scarborough	Yorkshire	1 7½	1 2½
A	Scunthorpe	Mid. Counties	1 8	1 3½
A	Sheffield ..	Yorkshire	1 8	1 3½
A	Shipley ..	Yorkshire	1 8	1 3½
A₃	Shrewsbury	Mid. Counties	1 6½	1 2
A₂	Skipton ..	Yorkshire	1 7	1 2½
B	Slough ..	S. Counties	1 5½	1 1½
A₂	Solihull ..	Mid. Counties	1 7	1 2½
B	South'pton	S. Counties	1 6	1 1½
B₁	Southend-on-Sea	E. Counties	1 5½	1 1½
A	Southport ..	N.W.Counties	1 8	1 3½
A	S. Shields ..	N.E. Coast	1 8	1 3½
A₂	Stafford ..	Mid. Counties	1 7	1 2½
A	Stockport ..	N.W.Counties	1 8	1 3½
A	Stockton-on Tees	N.E. Coast	1 8	1 3½
A	Stoke-on-Trent	Mid. Counties	1 8	1 3½
B	Stroud ..	S.W.Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 8	1 3½
A	Swansea ..	S. Wales & M.	1 8	1 3½
B	Swindon ..	S.W. Counties	1 6	1 1½
A₁	TAMWORTH	N.W.Counties	1 7½	1 2½
B₁	Taunton ..	S.W. Counties	1 5½	1 1½
A	Teeside Dist.	N.E. Counties	1 8	1 3½
A	Todmorden	Yorkshire	1 8	1 3½
A₂	Torquay ..	S.W.Counties	1 7	1 2½
B₁	Tunbridge Wells	S. Counties	1 5½	1 1½
A	Tunstall ..	Mid. Counties	1 8	1 3½
A	Tyne District	N.E. Coast	1 8	1 3½
A	WAKEFIELD	Yorkshire	1 8	1 3½
A₂	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W.Counties	1 8	1 3½
A₃	Warwick ..	Mid. Counties	1 6½	1 2
B	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 8	1 3½
B	Weston-s-Mare	S.W. Counties	1 6	1 1½
A₃	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W.Counties	1 8	1 3½
A	Wigan ..	N.W.Counties	1 8	1 3½
B₂	Winchester	S. Counties	1 5	1 1
B	Windsor ..	S. Counties	1 6	1 1½
A	Wolverhampton	Mid. Counties	1 8	1 3½
A₃	Worcester ..	Mid. Counties	1 6½	1 2
A	Worksop ..	Yorkshire	1 8	1 3½
A₁	Wrexham ..	N.W. Counties	1 7½	1 2½
B	Wycombe ..	S. Counties	1 6	1 1½
B₁	YARMOUTH	E. Counties	1 5½	1 1½
B₂	Yeovil ..	S.W. Counties	1 5	1 1
A	York ..	Yorkshire	1 8	1 3½

* Plasterers, 1s. 9d.

† Carpenters and Painters, 1s. 8½d.

‡ Plumbers, 1s. 9d.

§ Painters, 1s. 6d.

‖ Carpenters and Plasterers, 1s. 8½d.

¶ Painters, 1s. 7d.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; NAVVY, 1s. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	11	6
Thames ballast, per yd.	0	13	0
Pit gravel, per yd.	0	18	0
Pit sand, per yd.	0	14	6
Washed sand	0	16	6

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	19	0
Lias lime, per ton	2	10	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.

Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0

Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	2	4
SPREAD and level, including wheeling, per yd.	0	2	4
PLANKING, per ft. sup.	0	0	5
DO. over 10 ft. deep, add for each 5 ft. depth 30 per cent.			
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	£0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	10	0
CEMENT CONCRETE, 4-2-1, per yd. cube	2	3	0
DO. 6-2-1, per yd. cube.	1	18	0
DO. in upper floors, add 15 per cent.			
DO. in reinforced-concrete work, add 20 per cent.			
DO. in underpinning, add 60 per cent.			
LIAS LIME CONCRETE, per yd. cube	£1	16	0
BREEZE CONCRETE, per yd. cube	1	7	0
DO. in lintols, etc., per ft. cube	0	1	6

DRAINER

LABOURER, 1s. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; BRICKLAYER, 1s. 9½d. *per hour*; PLUMBER, 1s. 9½d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per yd.	£0	1	3
DO. *6 in., per yd.*	0	2	8
DO. *9 in., per yd.*	0	3	6
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	6	9
DO. *6 in., per yd.*	0	9	2
Portland cement and sand, see "Excavator" above.			
Lead for caulking, per cwt.	£2	5	6
Gaskin, per lb.	0	0	5½
STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	4	3
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	9	0
DO. 6 in., per ft.	0	11	0

Note.—These prices include digging and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

London stocks, per M.	£4	19	0
Flettons, per M.	3	0	0
Staffordshire blue, per M.	9	12	0
Firebricks, 2½ in., per M.	11	3	0
Glazed salt, white, and ivory stretchers, per M.	21	10	0
DO. *headers, per M.*	21	0	0
Colours, extra, per M.	£5	10	0
Seconds, less, per M.	1	0	0
Cement and sand, see "Excavator" above.			
Lime, grey stone, per ton	£2	12	0
Mixed lime mortar, per yd.	1	6	0
Damp course, in rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll*	0	7	6
DO. *18 in. per roll*	0	9	6
BRICKWORK in stone lime mortar, Flettons or equal, per rod	33	0	0
DO. in cement do., per rod	36	0	0
DO. in stocks, add 25 per cent. per rod.			
DO. in blues, add 100 per cent. per rod.			
DO. circular on plan, add 12½ per cent. per rod.			
FACINGS, FAIR, per ft. sup. extra	£0	0	2
DO. Red Rubbers, gauged and set in putty, per ft. extra	0	4	6
DO. salt, white or ivory glazed, per ft. sup. extra	0	5	6
TUCK POINTING, per ft. sup. extra	0	0	10
WEATHER POINTING, per ft. sup. extra	0	0	3
GRANOLITHIC PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup.	0	6	0
DO. 2 in., per yd. sup.	0	7	0
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd	0	8	6
DO. SKIRTING, 6 in.	0	0	11
BREEZE PARTITION BLOCKS, set in Cement, 1½ in. per yd. sup.	0	5	3
DO. DO. 3 in.	0	6	6

THE wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

MASON

MASON, 1s. 9½d. *per hour*; DO. *fixer*, 1s. 10½d. *per hour*; LABOURER, 1s 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	4
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	2	9½
Usual trade extras for large blocks.			
York paving, av. 2½ in., per yd. super.	0	6	6
York templates sawn, per ft. cube	0	6	9
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6
Cement and sand, see "Excavator," etc., above.			
HOISTING and setting stone, per ft. cube	£0	2	2
DO. for every 10 ft. above 30 ft., add 15 per cent.			
PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup.	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do. per ft. run	0	1	4
HALF SAWING, per ft. sup.	£0	1	0

Add to the foregoing prices if in York stone 35 per cent.

DO. Mansfield, 12½ per cent.			
Deduct for Bath, 33⅓ per cent.			
DO. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	6
RUBBED round nosing to do., per ft. lin.	0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	9	0
YORK SILLS, W. & T., ft. cub. fixed.	1	13	0

SLATER AND TILER

SLATER, 1s. 9½d. *per hour*; TILER, 1s. 9½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; LABOURER, 1s. 4½d. *per hour.*

N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per M:			
Portmadoc Ladies	£14	0	0
Countess	27	0	0
Duchess	32	0	0
Clips, lead, per lb.	0	0	4
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	1	10
Cement and sand, see EXCAVATOR, etc., above.			
Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0
SLATING, 3 in. gauge, compo nails, Portmadoc or equal:			
Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made DO., per square	4	17	0

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, 1s 9½d. *per hour*; JOINER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour.*

Timber, average prices at Docks, London Standard. Scandinavian, etc. (equal to 2nds):

7×3, per std.	£23	0	0
11×4, per std.	33	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1-in., per sq.	£1	5	0
DO. *T. and G., 1 in., per sq.*	1	5	0
Planed Boards, 1 in.×11 in., per std.	33	0	0
Wainscot oak, per ft. sup. of 1 in.	0	2	0
Mahogany, per ft. sup. of 1 in.	0	2	0
DO. *Cuba, per ft. sup. of 1 in.*	0	3	0
Teak, per ft. sup. of 1 in.	0	3	0
DO., *ft. cube*	0	15	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	9
DO. framed in floors, roofs, etc., per ft. cube	0	6	3
DO., framed in trusses, etc., including ironwork, per ft. cube	0	7	3
PITCH PINE, add 33⅓ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	3	10	0
SLATE BATTENING, per sq.	0	18	6

PRICES CURRENT; *continued.*

CARPENTER AND JOINER; *continued.*

DEAL GUTTER BOARD, 1 in., on firring, per sq.	£3	5	0
MOULDED CASEMENTS, 1¼ in., in 4 sqs., glazing beads and hung, per ft. sup.	0	3	0
DO., DO., 2 in., per ft. sup.	0	3	3
DEAL cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys, etc., per ft. sup.	0	4	0
DOORS, 4 pan. sq. b.s., 2 in., per ft. sup.	0	3	6
DO., DO., DO., 1¼ in., per ft. sup.	0	3	0
DO., DO., moulded b.s., 2 in., per ft. sup.	0	3	9
DO., DO., DO., 1¼ in., per ft. sup.	0	3	3
If in oak multiply 3 times.			
If in mahogany multiply 3 times.			
If in teak multiply 3 times.			
WOOD BLOCK FLOORING, standard blocks, laid in mastic herringbone:			
Deal, 1 in., per yd. sup., average	0	10	0
DO., 1¼ in., per yd., sup., average	0	12	0
DO., DO., 1¼ in. maple blocks	0	15	0
STAIRCASE WORK, DEAL:			
1 in. riser, 1¼ in. tread, fixed, per ft. sup.	0	3	6
2 in. deal strings, fixed, per ft. sup.	0	3	9

PLUMBER

PLUMBER, 1*s.* 9½*d. per hour;* MATE OR LABOURER, 1*s.* 4½*d. per hour.*

Lead, milled sheet, per cwt.	£2	3	0
DO. *drawn pipes, per cwt.*	2	4	6
DO. *soil pipe, per cwt.*	2	8	0
DO. *scrap, per cwt.*	1	9	6
Copper, sheet, per lb.	0	1	1
Solder, plumber's, per lb.	0	1	2
DO. *fine, per lb.*	0	1	5
Cast-iron pipes, etc.:			
L.C.C. soil, 3 in., per yd.	0	4	1
DO. *4 in. per yd.*	0	5	0
R.W.P., 2½ in., per yd.	0	2	0
DO. *3 in., per yd.*	0	2	5
DO. *4 in., per yd.*	0	3	3
Gutter, 4 in. H.R., per yd.	0	1	5
DO. *4 in. O.G., per yd.*	0	1	9
MILLED LEAD and labour in gutters, flashings, etc.	3	10	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	1
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	3
DO. 1¼ in., per ft.	0	4	6
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
CAST-IRON R.W. PIPE, at 24 lb. per length, jointed in red lead, 2½ in., per ft.	0	2	5
DO. 3 in., per ft.	0	2	10
DO. 4 in., per ft.	0	3	3
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	7
DO. O.G. 4 in., per ft.	0	2	10
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	7	0
DO. 3 in., per ft.	0	6	0
Fixing only:			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS only, with all joints	1	18	0
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 9½*d. per hour (plus allowances in London only);* LABOURER, 1*s.* 4½*d. per hour.*

Chalk lime, per ton	£2	12	6
Hair, per cwt.	0	18	0
Sand and cement see EXCAVATOR, *etc., above.*			
Lime putty, per cwt.	£0	2	8
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	4
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	£3	9	0
Lath nails per lb.	0	0	4
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	5
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 8½*d. per hour.*

Glass: 4ths in crates:			
Clear, 21 oz.	£0	0	5
DO. 26 oz.	0	0	6
Cathedral white, per ft.	0	0	5½
Polished plate, British ¼ in., up to 2 ft. sup.	0	2	5
DO. *3 ft. sup.*	0	3	2
DO. *7 ft. sup.*	0	3	9
DO. *25 ft. sup.*	0	4	3
DO. *100 ft. sup.*	0	5	1
Rough plate, ¾ in.	0	0	5½
DO. *¼ in., per ft.*	0	0	6
Linseed oil putty, per cwt.	0	16	0
GLAZING in putty, clear sheet, 21 oz.	0	0	10
DO. 26 oz.	0	0	11
GLAZING in beads, 21 oz., per ft.	0	1	0
DO. 26 oz., per ft.	0	1	3
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span. 1*s.* 5*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup.	£0	3	6
Glazing only, polished plate, 6½*d.* to 8*d.* per ft., according to size.			

DECORATOR

PAINTER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* FRENCH POLISHER, 1*s.* 9*d. per hour;* PAPERHANGER, 1*s.* 8½*d. per hour.*

Genuine white lead, per cwt.	£3	5	0
Linseed oil, raw, per gall.	0	4	0
DO., *boiled, per gall.*	0	4	3
Turpentine, per gall.	0	6	6
Liquid driers, per gall.	0	9	6
Knotting, per gall.	1	5	0
Distemper, washable, in ordinary colours, per cwt., and up	2	0	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4
Single gold leaf (transferable), per book	0	1	10
Varnish copal, per gall. and up	0	18	0
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	1	0	0
French polish, per gall.	0	19	0
Ready mixed paints, per gall. and up	0	10	6
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	10
DO., subsequent coats, per yd. sup.	0	0	9
DO., enamel coat, per yd. sup.	0	1	2½
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	£0	5	6
FRENCH POLISHING, per ft. sup.	0	1	2
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

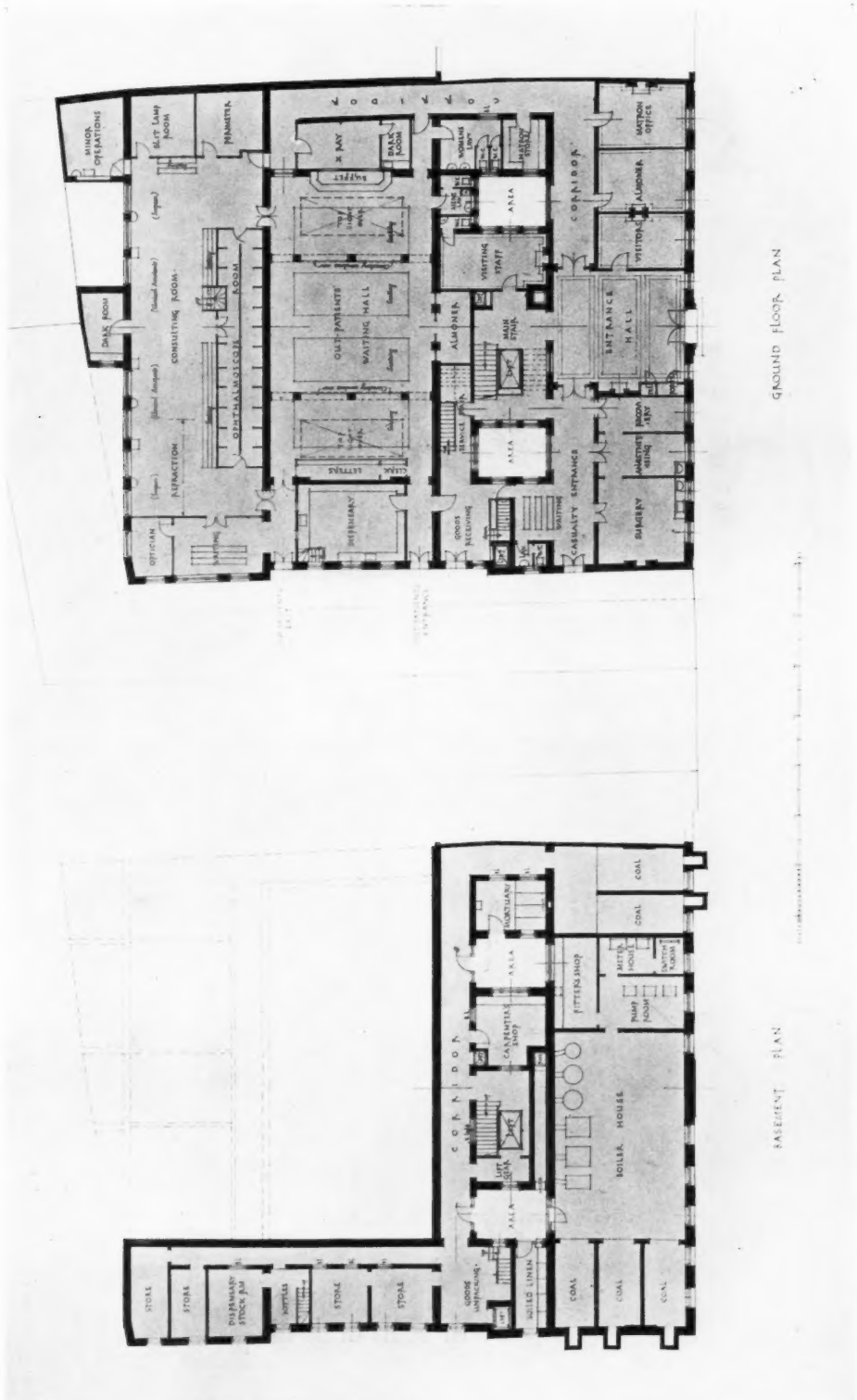
SMITH

SMITH *weekly rate equals* 1*s.* 9½*d. per hour;* MATE, *do.* 1*s.* 4*d. per hour;* ERECTOR. 1*s.* 9½*d. per hour;* FITTER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4*d. per hour.*

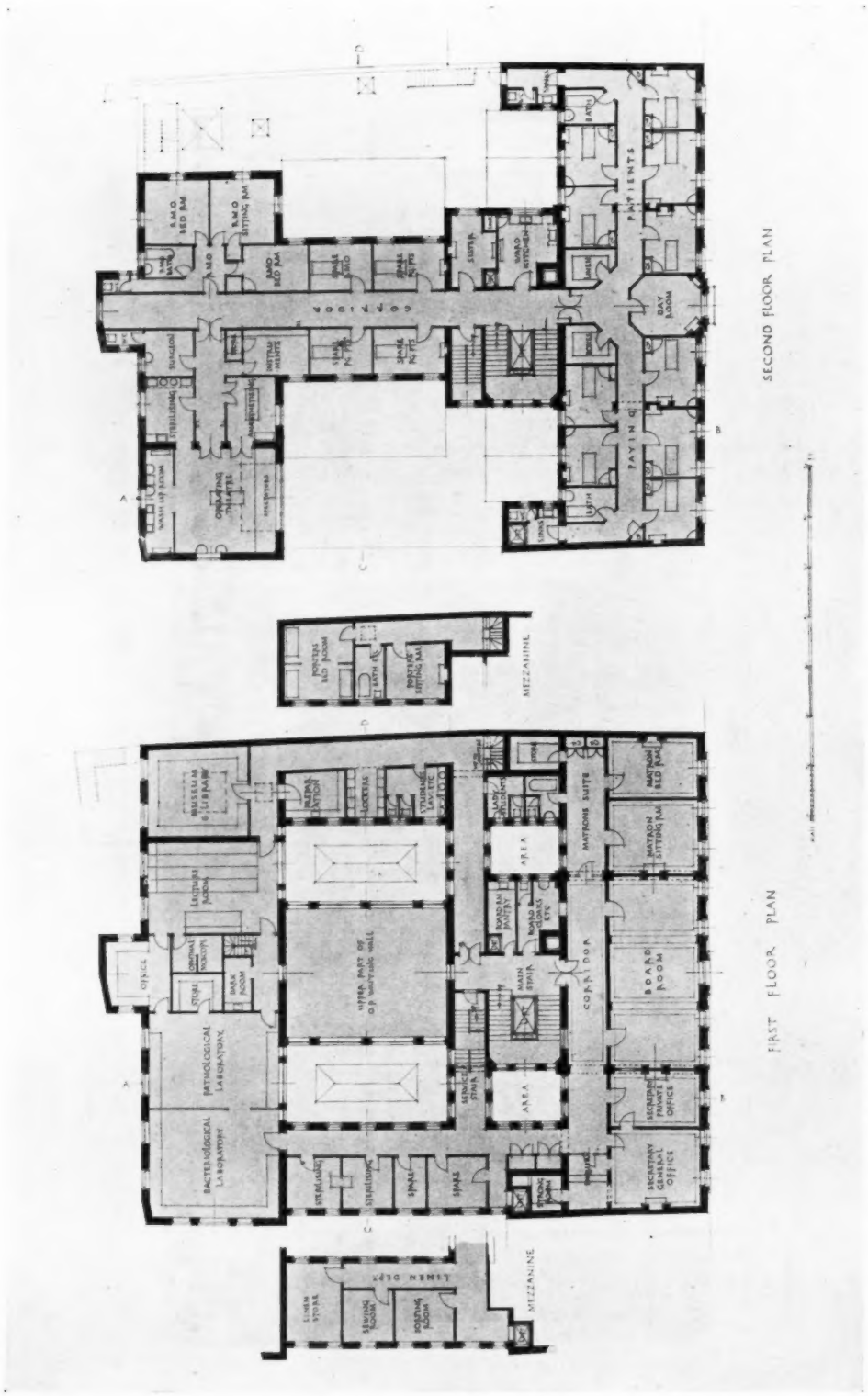
Mild steel in British standard sections, per ton	£12	10	0
Sheet steel:			
Flat sheets, black, per ton	19	0	0
Do., Galvd., per ton	23	0	0
Corrugated sheets, galvd., per ton	23	0	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts, per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected per ton	25	10	0
DO., in small sections as reinforcement, per ton	16	10	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	20	0	0
WROT. IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

SUNDRIES

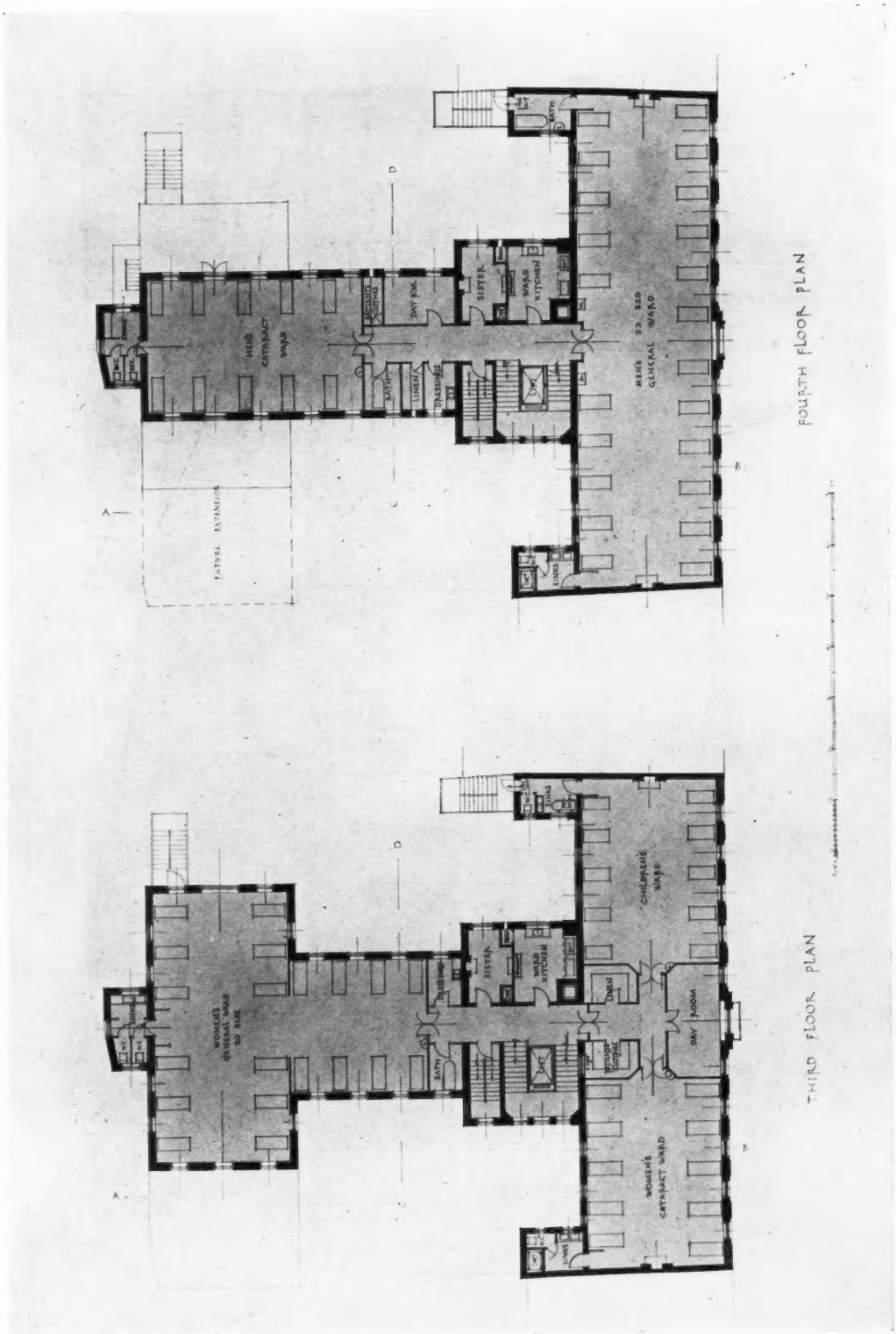
Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, fixed on, but not including studs or grounds, per ft. sup.	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . from	0	2	8
Asbestos sheeting, 5/32 in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	6
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, 5/32 in. punched per M. grey	17	0	0
DO., *red*	19	0	0
ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			
Plywood			
3 m/m alder, per ft. sup.	0	0	2
4½ m/m amer. white, per ft. sup.	0	0	3½
⅜ m/m figured ash, per ft. sup.	0	0	5
4½ m/m 3rd quality, composite birch, per ft. sup.	0	0	1½



New premises in Broad Street, W.C., for the Royal Westminster Ophthalmic Hospital. (William A. Pite, assessor.) The first premiated design. By Adams, Holden, and Pearson.



New premises in Broad Street, W.C.1, for the Royal Westminster Ophthalmic Hospital. (William A. Pite, assessor.) The first premiated design. By Adams, Holden, and Pearson.



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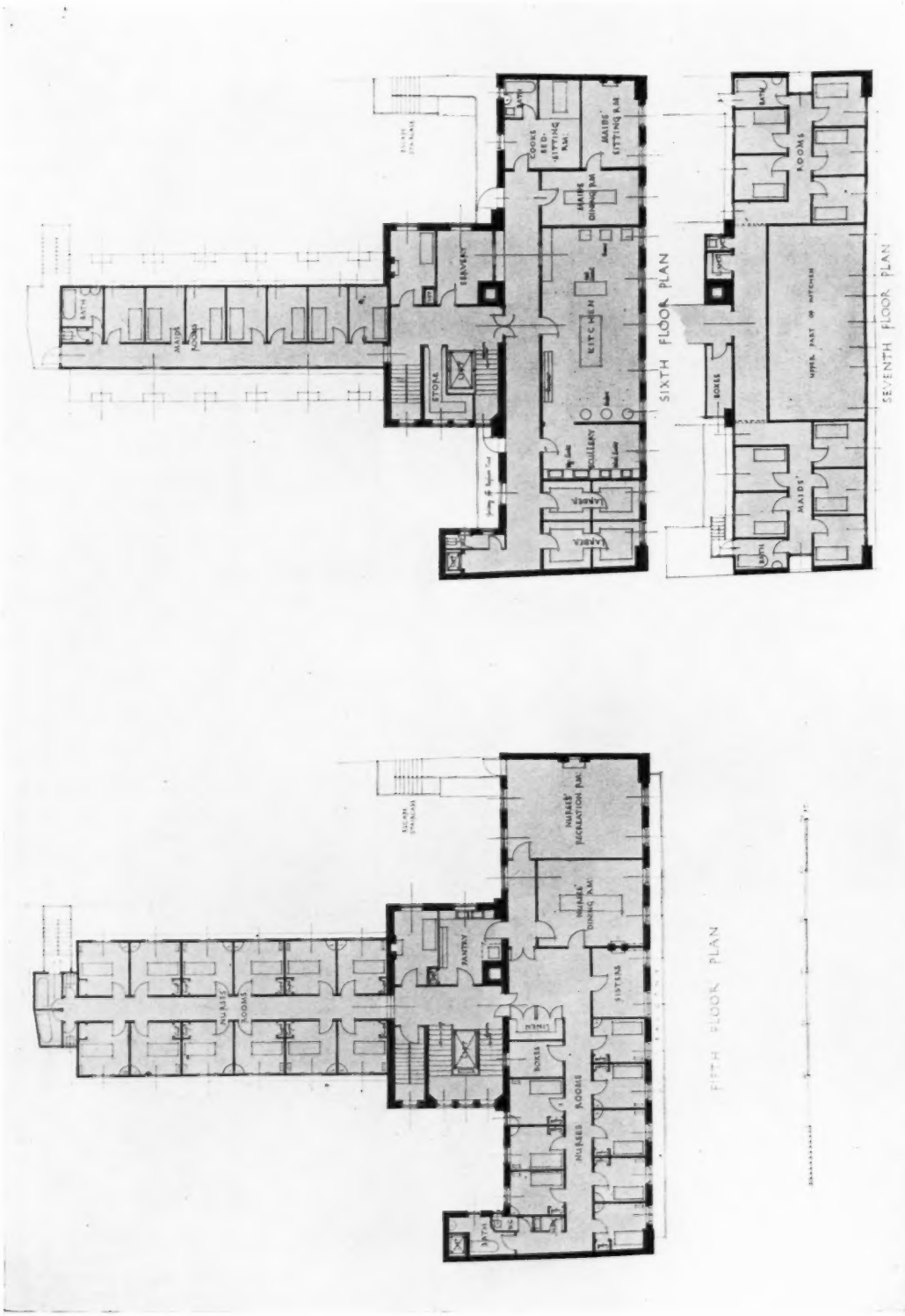

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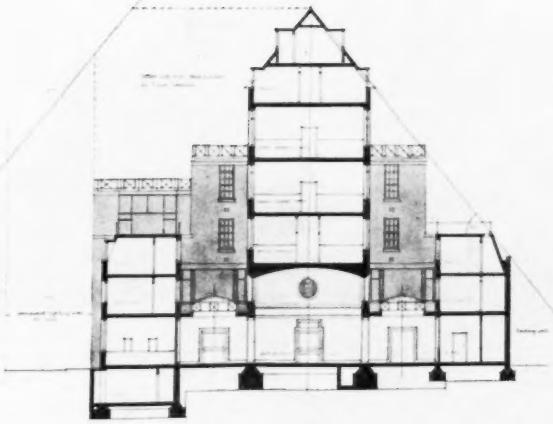
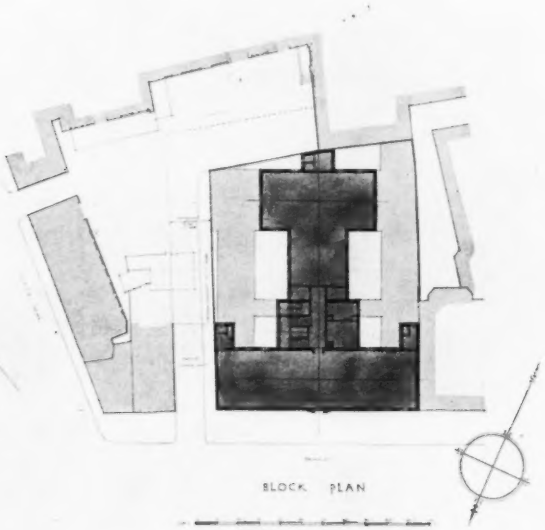
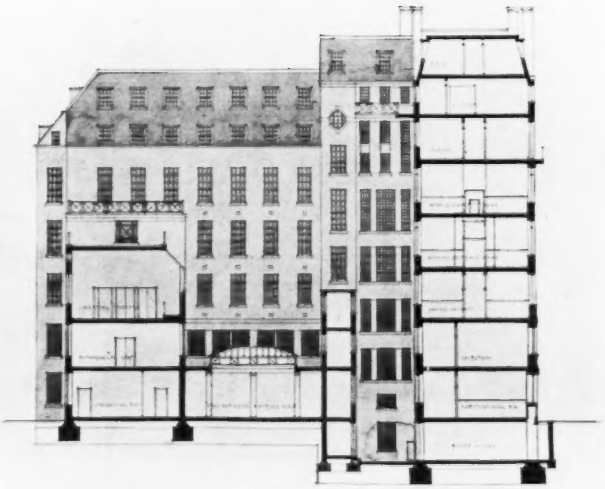


SECTION C-D



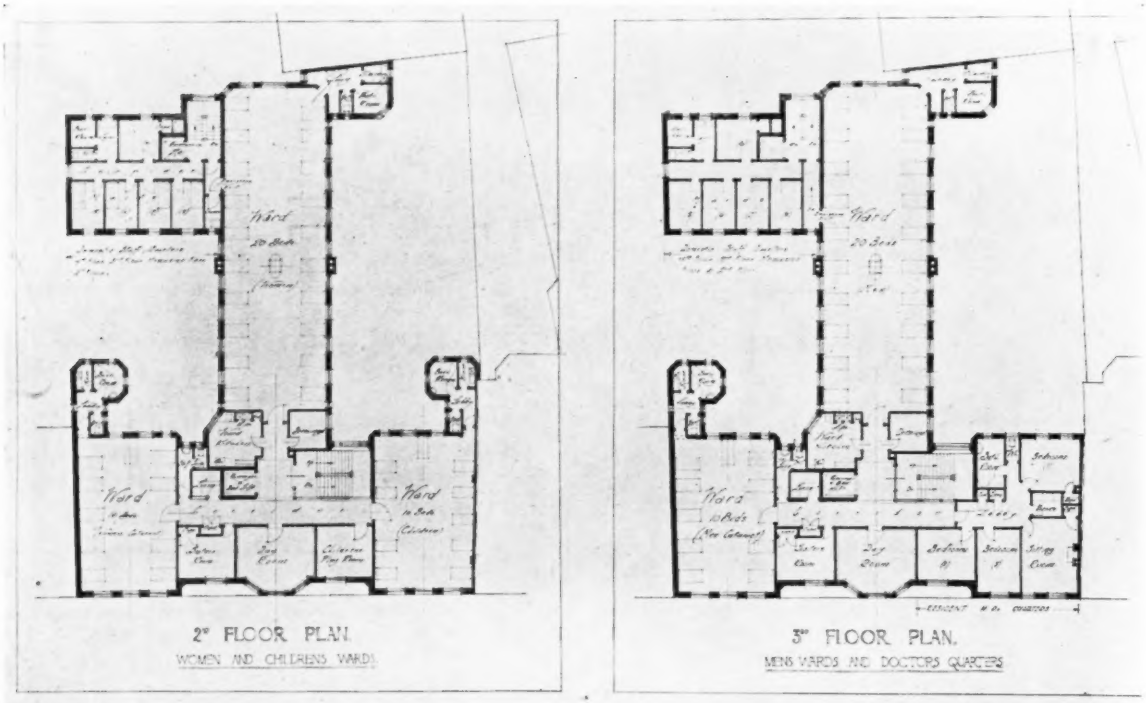
BLOCK PLAN

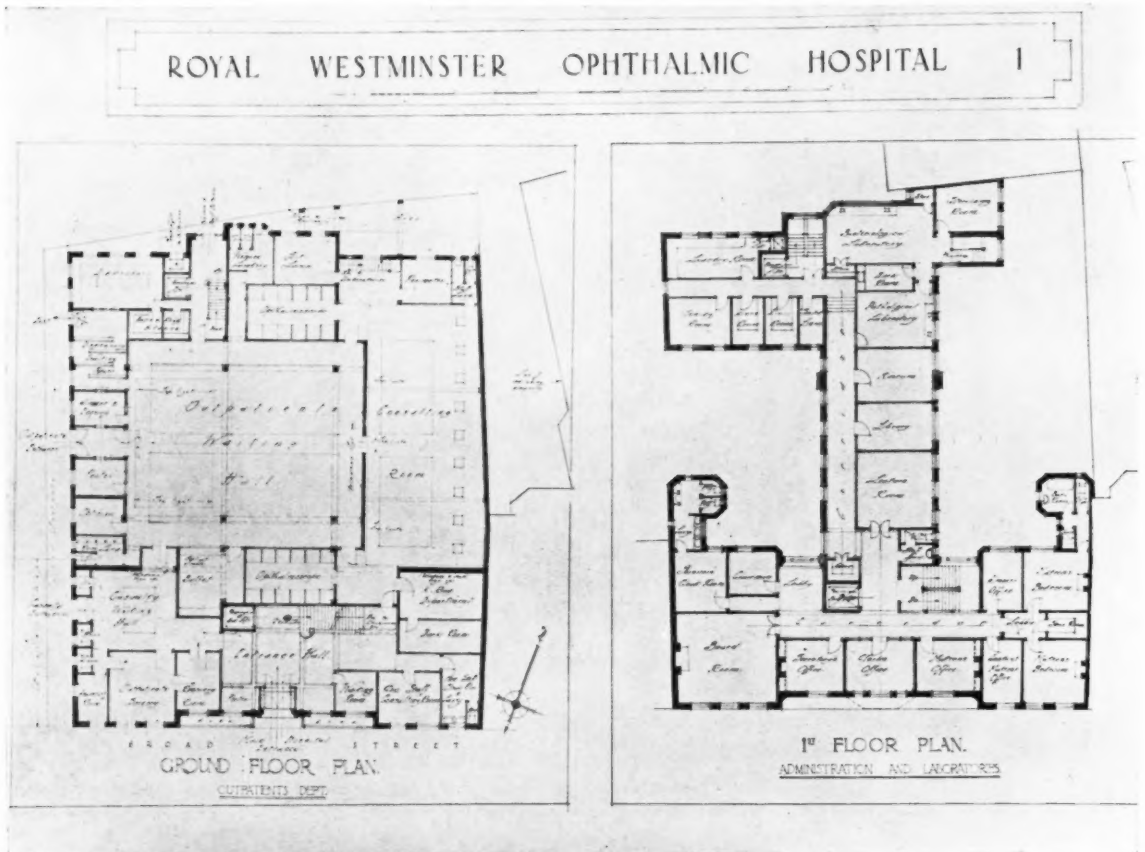
ELEVATION TO BROAD ST.



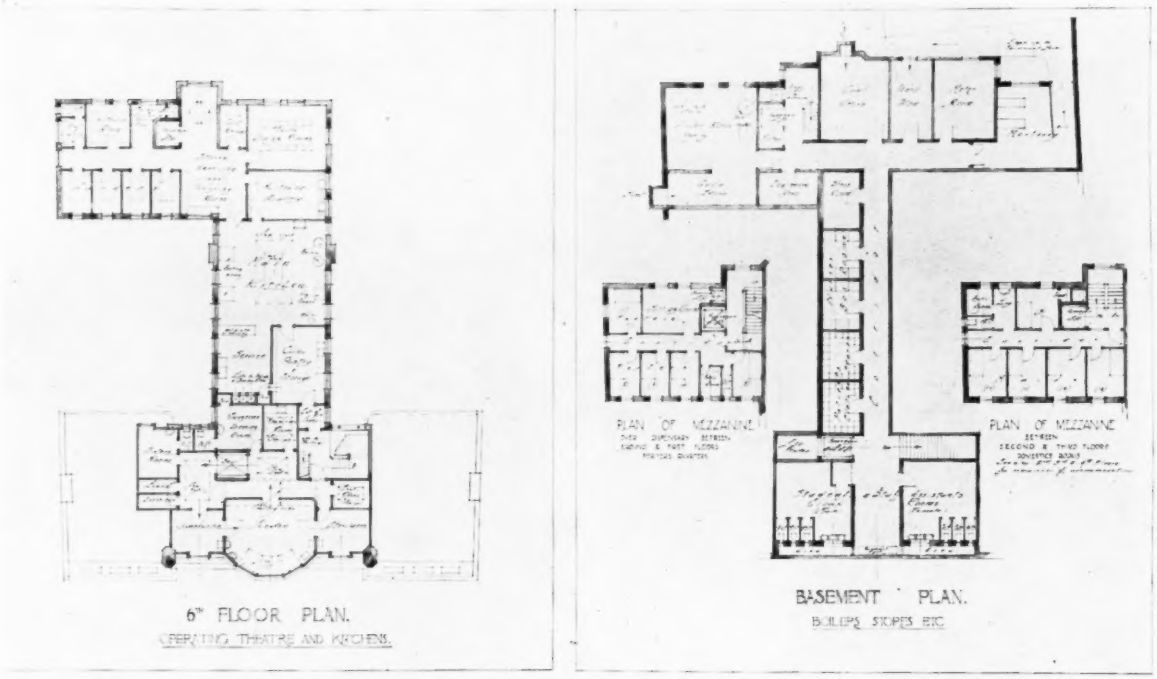
SECTION A-B

New Premises in Broad Street, W.C., for the Royal Westminster Ophthalmic Hospital. (William A. Pite, assessor.) The first premiated design. By Adams, Holden, and Pearson.





New Premises in Broad Street, W.C., for the Royal Westminster Ophthalmic Hospital. (William A. Pite, assessor.) The second premiated design By Thompson and Walford



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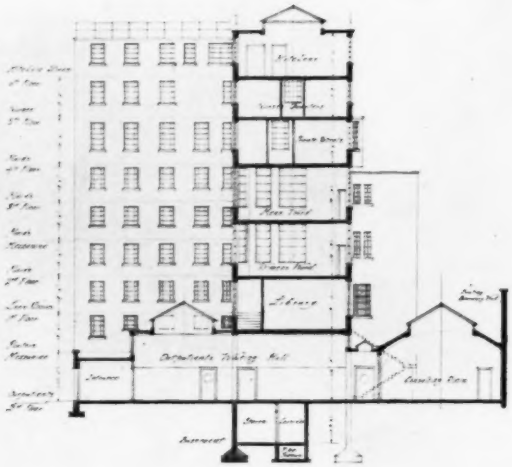
ELEVATION TO BROAD ST.



New premises in Broad Street, W.C., for the Royal Westminster Ophthalmic Hospital. (William A. Pite, assessor.) The second premiated design. By Thompson and Walford.

THE SUCCESSFUL DESIGN

In their competitive designs for this building the winning architects have provided the following accommodation :

GROUND FLOOR : The out-patient department is free from all steps and slopes; the entrance and exit is from the side court.

The waiting hall (61 ft. by 32 ft.) accommodates 300 patients and is perfectly lighted and ventilated, the centre part of the hall being 23 ft. high and lighted and ventilated by clerestory windows on both sides.

Next the entrance is the clerk's office and letter store. The refreshment buffet is placed at one end of the hall and a small room is provided for almoner and inquiries. The patients enter at one end of the hall, and after receiving a card wait, eventually passing direct under the supervision of the porter to the consulting room, and there first see the surgeon, and, if necessary, pass on for further treatment or advice; then, by a separate exit, pass to the waiting-room for the optician and dispensary, and then direct to the exit.

Ample lavatory accommodation is provided for each sex.

The consulting room (71 ft. by 26 ft.) is placed in a position to obtain the best possible lighting, and, in addition to the seating accommodation, has ample desk space for the honorary staff, house surgeons, and the clinical and refraction assistants. A small staircase is provided for access to the pathological laboratory on the first floor, where specimens of blood can be taken for examination. Leading from the consulting room is the ophthalmoscope room, providing twenty-one dark examination boxes, and also the rooms for the perimeter and microscope slit lamp (13 ft. by 13 ft.). The X-ray room is also in close proximity.

A dark room and small room for minor operations are also provided, as these seem to be essential. If it is thought desirable to connect the casualty rooms with the out-patient department, this could be easily effected by transposing these rooms with the rooms for matron and almoner, and also access for the staff is provided to the consulting room without passing through the waiting hall.

The casualty department is reached from the side covered way and has a separate waiting room with lavatory accommodation. The surgery (17 ft. by 17 ft.) will be fitted with sinks and lavatory, and have in communication an anæsthetic room (17 ft. by 9 ft.), and a recovery room (17 ft. by 7 ft. 6 in.).

The entrance hall (26 ft. by 22 ft.) has been made a special feature, and is amply lighted, and has the main staircase and passenger lift well screened from it. The waiting-room for visitors (17 ft. by 11 ft.) is entered from the main hall. The honorary staff room (21 ft. by 11 ft.) is quite close to the main entrance, and has cloak-room and lavatory adjoining. The matron's office (17 ft. by 13 ft.), also the almoner's office (17 ft. by 12 ft. 6 in.), are close to the main entrance.

FIRST FLOOR : Board-room, secretary's private office, secretary's clerk's office, and a research department.

The large laboratory (40 ft. by 26 ft.), divided for bacteriological and pathological investigations, is to be fitted with the usual teak benches, sinks, etc. From the pathological laboratory is a small staircase leading direct to the out-patients' consulting room. The main sterilizing rooms for dressings are adjacent and under the supervision of the bacteriologist. A private laboratory is also provided, which could also be used by lecturer. A dark room (11 ft. by 6 ft.) and large store-room (10 ft. by 8 ft.) are also provided. The lecture-room (26 ft. by 19 ft.), well cross-lighted and conveniently placed, accommodates fifty persons. The museum and library (20 ft. by 18 ft.) is top- and side-lighted, and has a small preparation room adjoining. Cloak-rooms are provided for male and female students and staff assistants, with locker spaces adjoining.

The MEZZANINE FLOOR planned over the rooms on either wing and accessible from the service stairs, comprise on one side : the linen rooms, sorting (12 ft. by 10 ft.), sewing (10 ft. by 10 ft.), and general store (16 ft. by 12 ft.), all in direct communication with the goods lift for the receipt from and dispatch to the laundry. On the other side is a suite of rooms for the porters, three bedrooms, bath, w.c., and a general sitting-room.

SECOND FLOOR : Private wards, operating theatre department, house surgeon's quarters.

THIRD FLOOR : Wards for female patients and children's day-room, small dressings-room, ward kitchen, and sister's room.

FOURTH FLOOR : Wards for male patients.

FIFTH FLOOR : Entirely occupied by accommodation for nurses.

SIXTH and TOP FLOOR : Entirely occupied by kitchen department.

BASEMENT : Boiler-house, fitter's shop, mortuary, soiled linen-room, dispensary stock-room, large store-rooms, coal storage, carpenter's shop.

* * *

All the heating, hot-water, and steam supplies will be generated from the central boiler-house. For the hot-water heating there will be two slow-combustion cast-iron sectional type boilers, each having a duty and margin sufficient for the heat requirements of the whole apparatus, coupled together with valved connections so that either could be worked independently, and complete with all usual fittings and smoke-pipes.

The total number of beds provided in the present scheme is eighty-five, and a future extension of ten beds could at any time be provided without interfering with adjoining lights. It could be placed on the fourth floor, and nurses' and servants' rooms over the same.

The total cube of the building is 721,113, and, pricing the building at 2s. a foot, the approximate estimate of cost is £72,111. The time for erection is fifteen months.