dnesday, February 13, 1924. Vol. LIX. No. 1519.

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal."

FROM AN ARCHITECT'S NOTEBOOK.

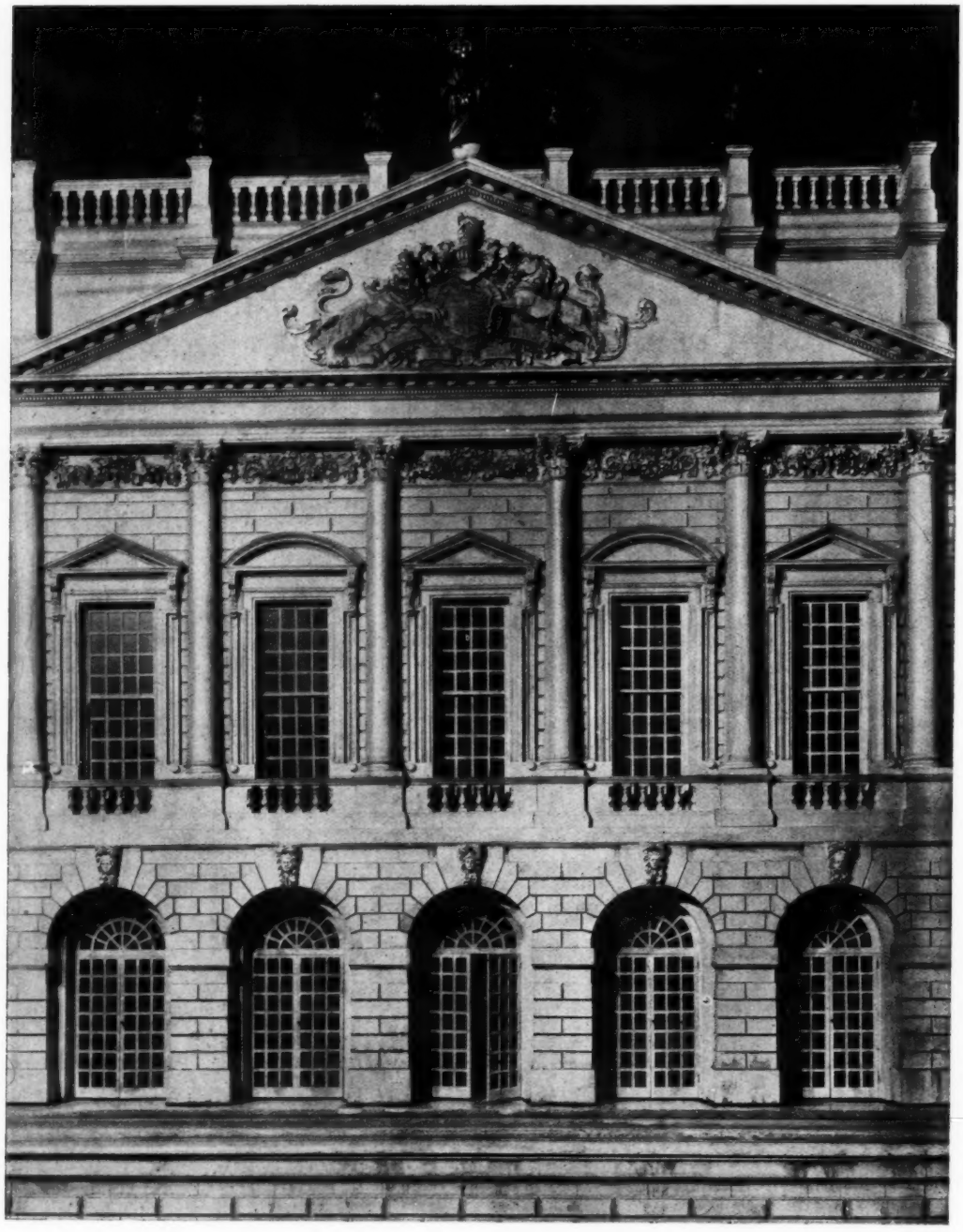
At some not very advanced period of life, men should desire to have a home, which they do not wish to quit any more, suited to their habits of life, and likely to be more and more suitable to them until their death. And men must desire to have these their dwelling-places built as strongly as possible, and furnished and decorated daintily, and set in pleasant places, in bright light and good air, being able to choose for themselves that at least as well as swallows. And when the houses are grouped together in cities, men must have so much civic pride as to desire that the whole gathered group of human dwellings should be a lovely thing, not a frightful one, on the face of the earth.

Ruskin: Lectures on Art.
Oxford, Hilary, 1870.

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

The Queen's Dolls' House : A Detail of the Principal Elevation

Sir Edwin Lutyens, R.A., Architect



The unique dolls' house which Sir Edwin Lutyens has devised as a gift for the Queen is a perfect model, constructed, furnished, and decorated in the best style of the present age. The scale is one inch to a foot.

THE

ARCHITECTS' JOURNAL

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

Wednesday, February 13, 1924. Volume LIX. No. 1519

Architectural Acoustics. What Architects Want to Know

ARCHITECTURAL acoustics as a subject is liable to fall between two stools. The theory underlying Sabine's formulæ is a complex one, but the results required by architects are in the nature of approximations having to do with the human ear and with large enclosed volumes and wall surfaces. Also numbers of varying materials variously mounted and absorbing selectively have to be considered. The work of the late Professor W. C. Sabine is not yet sufficiently understood by scientists in England in its bearings upon architecture. Yet Jaeger's corroboration of Sabine's law in Austria is independent evidence of its truth and here we have Professor Watson's book ("Acoustics of Buildings," by F. R. Watson. Chapman and Hall. 15s. net) from America witnessing to the results in building of its careful application. Unless English physicists accept and develop the American methods of research, using Sabine's law as a foundation, their results will not be of use to architects. This is because Sabine's law takes into consideration the whole auditory and its effect, as an instrument, upon the source of sound. Elaborate tests upon small surfaces of material, however interesting from the physicist's point of view in comparing degrees of porosity, will not give the practical results required by architects. A surface like a wood-panel, 4ft. by 6 ft., for instance, absorbs by vibrating, as a whole plate, in response to a sound. It will absorb less or more sound according to the spacing of its battens and according to the depths of air space behind it. It will also absorb in a high pitch or a low pitch according to its thickness. This applies also to glass, upon which no work has been done since Sabine's original experiments over one note only. Windows and glass plates are undoubtedly resonant, and where they are present contribute largely to effects of tone. An organ builder has to consider carefully the amount of glass in a church in order to ascertain how far he must reinforce the overtones of his pipes as compared with the fundamentals. All these variations require that tests be made upon a whole room—upon materials applied to the walls exactly as they will be applied in architectural practice—otherwise results are useless to architects.

By many physicists the human ear is discredited as a measuring instrument, in spite of the evidence produced by Sabine in his "Collected Papers." Here again it is not recognized that the value of the human ear *in architectural acoustics* is that it is the only instrument equally sensitive over the whole musical range. A microphone, for instance, may possibly measure to a hundredth of a second over two octaves only, but what an architect requires is only a tenth of a second over the whole range of musical notes.

The most important contribution in Mr. Watson's book is his table of sound absorption co-efficients on p. 25. New figures given are for cocoanut matting, pulp board, various thicknesses of carpet, curtains. He has also brought together in diagram form the times of reverberation for halls satisfactory for music only, and for halls satisfactory for both music and speaking. The comparisons these afford are of considerable value. The figures are given in each case for no audience, for a third of the usual audience, and for maximum audience. From these diagrams it is clear that the size of the hall should be designed with regard to the loudness of the source of sound. Professor Watson says: "the energy of the source of sound varies with the square of the cube root of the volume . . . for practical use it is desirable to express these energy units in terms of musical instruments. For instance, if the University of Illinois auditorium would give the best effect with an orchestra of about fifty-six instruments, then the number of instruments best suited for equally good effect in other auditoriums would be thirty-eight for the Smith Concert Hall, eighty-six for Eastman Theatre, and two for a small music studio of 3,360 cubic feet." On this principle the proper volume for an orchestra of seventy pieces would be 587,000 cubic feet, in order to secure the best tone effects. In practice this would make quite a large concert room.

Professor Watson's book will be of considerable use to architects although there are not enough plans given. A review of this American work makes it more than ever obvious that the English acoustic experiments now being carried out on Sabine's principles by the Building Research Board should be continued. The figures for the whole six octaves are badly required for glass, for the various three-ply woods, for the new patent boards, for the effects of air spaces of different thicknesses, for porous plaster, for padded partitions exposing both sides to absorption, for curtains of English material, and these figures require to be extended to every note in the musical scale in order to analyse more carefully their effect upon musical tone.

The Kent Coalfield

What is to happen in the north-east corner of Kent as a consequence of the opening up of the Kent coalfield and iron ore deposits? This is a disturbing question that cannot wait long for an answer. With an unrivalled industrial experience behind us we ought by this time to know how to handle such a problem when it arises. That we do know cannot be doubted; that we shall make use of our knowledge is not so certain. Here we have one of the loveliest stretches of rural scenery in the country. It is the very gateway of England, and from it the foreigner receives his first impressions of English soil. It is an area rich in historical associations and in the architectural

monuments of the centuries. Is it to become another Black Country, with all the hideous defacements that have hitherto accompanied mining development? Is Canterbury to become another Walsall or Wolverhampton? The danger has been foreseen, and there is good ground for hoping that the amenities will be preserved. The East Kent Joint Town-Planning Committee has been formed and has appointed Professor Abercrombie "to carry out a preliminary survey and prepare a report summarizing and collating information as to existing features, resources, and potentialities." So much we learn from the "Town Planning Institute Journal." That Professor Abercrombie will produce an invaluable report is certain; but ought precautionary measures to stop there? It seems to us that the task is one that must heavily overburden a professional expert and a local committee, be they never so competent, zealous, and energetic. The problem is not merely local; it is of national significance, and should be dealt with nationally. Here is scope for the energies of a Government Commission, representative of all the authorities concerned and of the corporate opinion of architectural and town-planning organizations, and armed with plenary powers. The Commission of Fine Arts should be co-opted. Every precaution should be taken to preserve the character of this delightful corner of southern England that so suddenly finds itself threatened with "industrial development." It is fatally easy to "let things slide" in the careless fashion that is a national habit. No matter how good the intentions, things have a knack of happening, as it were, of their own accord, or in obedience to the dictates of what has hitherto been regarded as industrial necessity. "Industrial necessity" must be kept well in hand, and be made to conform to the principles of enlightened and orderly development.

The R.I.B.A. Housing Memorandum

The Memorandum of the R.I.B.A. on National Housing Policy, which we publish in another part of this issue, is a document that deserves the careful consideration of all who may be concerned with the housing problem. Much thought has obviously gone to its preparation; it is moderate in its recommendations, and takes a long view. Clearly, if anything of permanent value is to be accomplished, housing must be viewed not merely as a temporary and an isolated problem, but as a permanent factor in the social organism. This is the spirit in which the R.I.B.A. Memorandum approaches the problem. How may the rapid erection of a great number of small houses be secured without detriment to other no less important building interests? Standards of design and accommodation being accepted, the problem falls naturally into three chief divisions: (1) money; (2) materials; (3) men, and under these headings the Memorandum offers some thoughtful suggestions that will doubtless receive due consideration in the proper quarter. Without pretending to deal with so involved a problem in the space of a short note, we would like to lay stress upon one or two points. The principle of State assistance being now generally accepted, the immediate difficulties are materials and men. Whether existing arrangements for the production of building materials can be suddenly expanded to meet the heavy demands that will be made upon them, and without an accompanying rise in prices, is a question that only time can answer. In any case, profiteering cannot and will not be tolerated; on this point the Prime Minister has made perfectly clear the attitude of the Government. On the whole, the greatest difficulty would seem to be that of man power. Skilled labour is not created by Act of Parliament. That we have the necessary resources of crude labour is certain; but to train it needs time, money, and the goodwill of the trade unions, who, it is believed—though at the moment of writing no official pronouncement has been made—are favourable to a measure of dilution. This essential reform achieved, the outlook for housing is not unpromising. In the rush to build, however, the architectural factor must not be overlooked. The services of the architect are necessary to the success of any housing scheme. Since the untimely ending of the 1919 Scheme, which, by example, was quite reasonably expected to have some beneficial effect upon housing standards, large numbers of houses have been erected by speculative builders, and they show no improvement upon the unpleasant productions of pre-war days, of which the newer suburbia provides so many square miles of dreary examples. The speculative-builder standard of design is a disgrace to the country, and it is deplorable that, after the Scheme of 1919, any reversion to it should ever have been permitted.

The Royal Gold Medal

The nomination of Mr. Lethaby for the Royal Gold Medal will give universal satisfaction. No living educationist is more deserving of the distinction, for none has done more to induce a right appreciation of the arts. With all his great weight of learning, indicated by works on such diverse subjects as "Westminster Abbey," "Greek Buildings," "Leadwork," and "London before the Conquest," Mr. Lethaby has nothing of the pedant about him. He has retained an engaging simplicity of character and a great charm of manner that have endeared him to all. If one were to try to convey his personality and outlook in a few words one could not do better than say that he prefers to talk of "right building" rather than of "architecture," and of "practical ways of doing things" rather than of "art." It is this essential simplicity of outlook that has made his name almost a household word, and has gained for him the respect of those who have not always seen eye to eye with him in certain affairs—for example, in architectural education. His achievements as professor of design at the Royal College of Arts, and as principal of the L.C.C. Central School of Arts and Crafts, stand, however, as a testimony to his methods and his ability as a teacher. Though officially retired (his retirement was made the occasion of a memorable function a year or so ago, when his confrères united spontaneously to do him honour), Mr. Lethaby still "practises in a small way," and is, of course, architect to the Dean and Chapter of Westminster. In his student days he had the distinction of winning both the Soane and the Pugin.

Names for Streets

The naming of streets is a matter that is frequently handled with a plentiful lack of intelligence, especially in suburbia, where a strong inclination is often observable towards the inappropriate and the bizarre. There is a peculiar fondness for the poets. Is there a London suburb in which you will not find your Chaucer, your Shakespeare, your Tennyson road? Excellent names enough if there be some real association with the poets, but how often is there any such? Suburbia is highly sensitive to passing events when new roads have to be given names, and not always is the choice a happy one, as witness Klondyke Road that, up to a few years ago, commemorated in a south-west London suburb the goldfield boom of the early part of the century. The subsequent change to Kingsley gave the road a name more refined if no more appropriate. Street names at their best spring from natural association, as in the instances of the Strand, Fleet Street, Cheapside, Eastcheap. When they are manufactured they must, to be effective, have a touch of inspiration, as in the case of Aldwych or Kingsway. To name the streets of an entire exhibition is a task that could be successfully undertaken only by a man of the calibre of Mr. Kipling, who has given to Wembley as striking a set of appellations as could be desired. Anson's Way, Drake's Way, Unity Bridge, East Dominion Way, Pacific Slope, Atlantic Slope, all strike a chord sympathetic to an Imperial exhibition, while Stephenson Gate, Watt Gate, Faraday Gate give a clue to the source of the Empire's strength. Postman's Gate and Leather Gate are less obvious, but they convey a pleasant sense of the homely basis of this association of nations which constitutes the most extraordinary empire ever known.

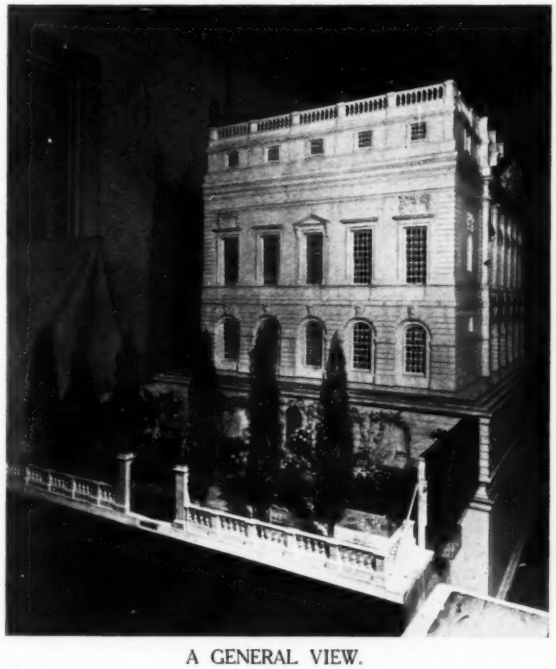
The Queen's Dolls' House

Sir EDWIN LUTYENS, R.A., Architect

Sir, I should like to stay here four-and-twenty hours. We see here how our ancestors lived.—

Dr. Johnson to Boswell, upon visiting Cowdray.

THIS wonderful palace, 5 ft. high to the top of the parapet, 8 ft. 6 in. long, 5 ft. deep, has been constructed as a monument to future years of what a great house of 1924 might be like. It will be on view at the Wembley Park Exhibition. We say "might be like," for no one would be able to have such a marvellous company of artists and craftsmen work for him in reality. The scale is 1 in. to a foot, and so perfectly is the scale maintained that from photographs it is impossible to realize the rooms and their furniture are not full sized. The outside walls of the palace are made to rise so that every room can be perfectly seen. The garden with every sort of flower, even with a fairy ring of toadstools one-eighth of an inch high, folds up like a writing-desk and slides into the basement just as the garage containing Rolls Royce, Daimler, Sunbeam, and Vauxhall cars does on the other side. The centre of the main front is taken up with the great staircase hall 31 in. broad, with marble lapis lazuli paving, the walls painted by William Nicholson in blue and white, with "The Expulsion from Eden" with all the animals looking on. A lift with external control is held by many the most marvellous contrivance in the palace. The queen's bedroom, with a black, red, and yellow ceiling by Glyn Philpot, A.R.A., is only 22 in. high, yet its grey silk hangings and bed, walnut furniture, carpet, and even the blue-enamelled toilet set and the photograph of the King are perfect. The King's bathroom is in white and dark green marble, and has every toilet convenience. A different kind of perfection is seen in the dining-room; the ceiling is by Professor Gerald Moira, Queen Victoria and the Prince Consort by Mac Evoy, Munning's Prince of Wales above the chimney-piece, and every detail down to the salt cellars and rolls on the table is complete. The library, 28 in. high, is wainscotted in walnut, the books are bound in red or grey leather, and often written in MSS. by the authors themselves. There are books here by Hardy, Bridges, Galsworthy, Masefield, Ian Hay, Walpole, Jacobs—in fact, all the best authors and authoresses. On one table are writing materials, including a fountain pen ½ in. long, on another pipes and tobacco. On a third lie the dispatch cases of all the Ministries of State. The ceiling is by William Walcot.



A GENERAL VIEW.

The nursery, painted by Edmund Dulac with fairy stories, is 8 in. high, and has every toy a child could want—lead soldiers the size of mosquitoes, a toy train, a model theatre, and scooter. The ordinary bedrooms are 10 in. wide and 8 in. high, each completely furnished down to tooth-brushes ¾ in. long.

There are four bathrooms, a box-room (8 × 10 in.) a strong-room with the crowns and sceptres (with real tiny jewels), housemaids' closet with sinks and Dutch tiles, each one ½ in. square. And beneath all are stores and cellars with cases of real Johnnie Walker and dozens of real claret and champagne, bottled and binned; in the stores are chocolate boxes, soap, and pots of genuine jam and marmalade.

Electric light is fitted in every room, and it works.

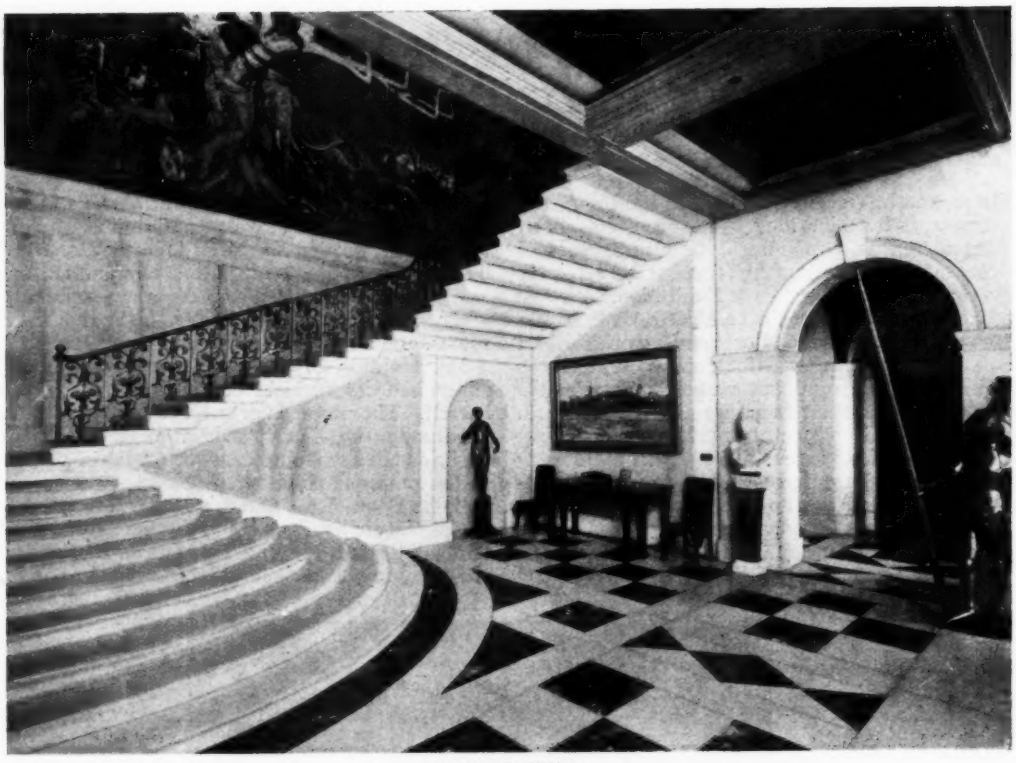
Sir Edwin Lutyens designed the house and all its rooms, and a multitude of famous firms have contributed.

Her Majesty, to whom the house will be presented, has supervised its furnishing, and has given many objects herself. The proceeds of the exhibition go to charity, and eventually, no doubt, this wonderful building will be enshrined in a museum as a perfect house of 1924, the year of the Empire Exhibition.

"The Book of the Queen's Dolls' House," descriptive of the miniature house, is being prepared by Messrs. Methuen, and will be issued in time for the Empire Exhibition, where the house will be shown. The book consists of two volumes, uniform in size and appearance, but independent also. The first is devoted to a description of the structure itself and all its most interesting features, and is under the editorship of Mr. A. C. Benson, Master of Magdalene College, Cambridge, and Sir Lawrence Weaver. The second volume contains complete reprints of a selection from all the original books written for the Dolls' House Library, and is edited by Mr. E. V. Lucas. The edition of each volume has been limited.

Associated with the editors of the first volume are a number of experts, each of whom writes on a separate department of the structure. Mr. Benson supplies an introductory essay of a general nature, while Sir Lawrence Weaver describes the architecture of the house. Among the contributors are Mr. E. F. Benson, Mr. A. F. Kendrick, and Mr. E. J. Dent. Miss Gertrude Jekyll writes about the beautiful garden, which, in addition to its lawns and flower beds, gives shelter to birds and even a snail. Mr. Percy Macquoid has written on the furniture; Colonel O'Gorman on the mechanical devices, which include a working lift, electric lighting, and water service; Mr. Lionel Cust, C.V.O., on the portraits and other paintings; Mr. Stephen Gaselee, M.A., on the library; and Mr. C. E. Hughes on the collection of water-colour drawings, pencil drawings, and etchings which are stored in the library. These are the work of more than 600 British artists, and a selection of nearly 200 of these in facsimile, both in colour and in black-and-white, are reproduced in this volume.

Among the artists of the portraits, sculpture, and mural decorations, which include some exquisite ceilings, are Sir William Orpen, Sir John Lavery, Sir George Frampton, Sir A. S. Cope, Mr. Charles Sims, Mr. D. Y. Cameron, Mr. Glyn Philpot, Mr. Adrian Stokes, Mr. Derwent Wood, Mr. A. J. Munnings, Mr. William Nicholson, Mr. Gerald Kelly, Mr. C. S. Jagger, Mr. George Plank, Mr. Edmund Dulac, Mr. Laurence Irving, and Mr. Herbert Haseltine.



THE STAIRCASE.

The floor is of bold black and white marble, and a sweep of white marble steps leads to the foot of the staircase. The frieze, in shades of blue, is the work of William Nicholson.

THE LIBRARY.

This room is 28 in. high. The ceiling is by William Walcot. The chimneypiece is in white marble and lapis lazuli.

THE QUEEN'S DOLLS' HOUSE.

The Queen's Dolls' House : The Dining Room

Sir Edwin Lutyens, R.A., Architect

The dining-room is on the ground floor, and to mention that it is 20 inches wide, 15 inches high, and a trifle under 43 inches in length, may convey some idea of the actual dimensions of the chief rooms. The ceilings and over-doors have been painted by Professor Gerald Moira.

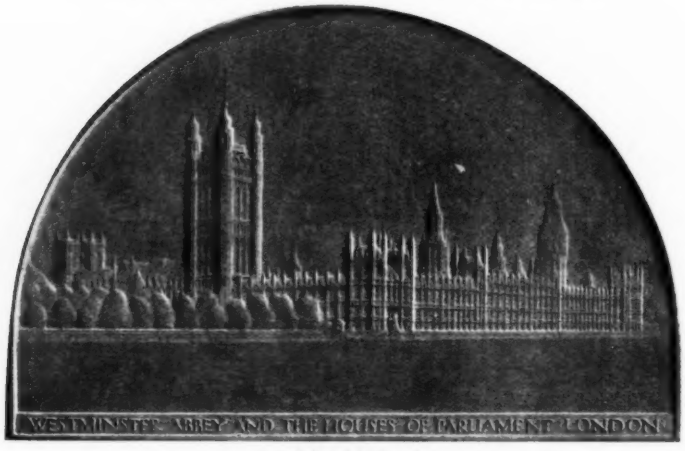
THE QUEEN'S BEDROOM.

This room is 22 in. high. The ceiling is by Glynn Philpot, A.R.A. Bed hangings are of grey silk, and furniture of walnut.

THE KING'S BEDROOM.

In the King's bedroom the bed is hung with silk specially woven at Sudbury, and over the mantelpiece is Mr. McEvoy's portrait of Princess Mary in bridal dress

THE QUEEN'S DOLLS' HOUSE.



Actual size 3½ in. by 2 in.

WESTMINSTER ABBEY AND THE HOUSES OF PARLIAMENT. BY ERIC BRADBURY.

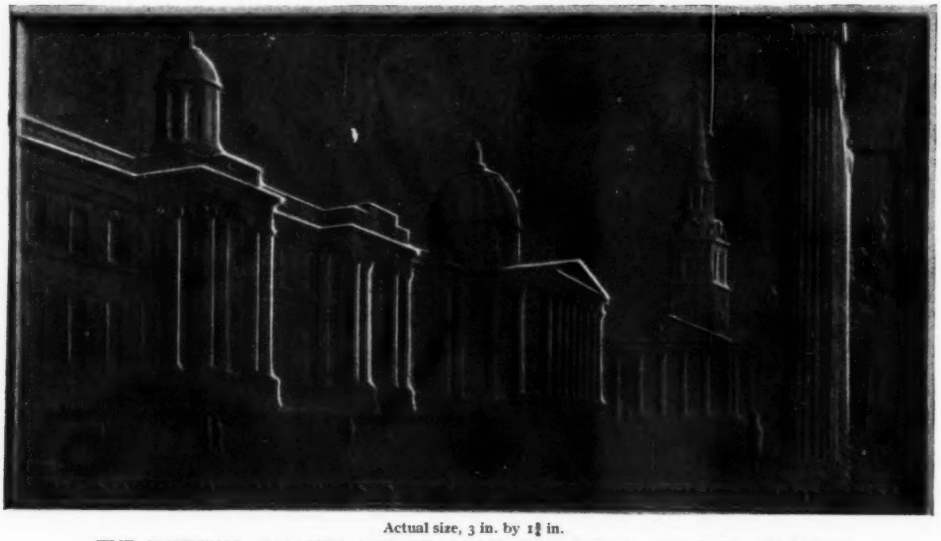
London Plaquettes

THE Royal Mint authorities are now proceeding with the striking of the medals and plaquettes illustrative of London and its principal features, which are to be on sale to the public at the forthcoming British Empire Exhibition at Wembley. They are the result of a series of competitions held during the past year, under the auspices of the advisory committee to the Mint, as already stated in the JOURNAL. The object of the competition was to make it worth while for artists to devote themselves to the medallic art, and in order to achieve this end the Mint recognized that something must be done to revive public interest and awaken a public taste in this kind of production. A considerable proportion of the more important work is in its hands, and it was realized that if the Mint produced inferior work it would tend to depreciate the whole standard of taste throughout the country. The medals and plaquettes will be struck mostly in bronze, but it has been decided to strike a certain number in silver.

The London plaquettes, which are about 2 in. by 3 in. in size, the circular plaquette being about 2½ in. in diameter, include representations of the Tower, the Tower Bridge, Westminster Abbey, the Houses of Parliament, the National Gallery, and St. Martin's Church, and allegorical designs representing London as the Capital City of the Empire.

Actual diameter 2⅜ in.

BY C. L. J. DOMAN.



Actual size, 3 in. by 1⅞ in.

THE NATIONAL GALLERY AND ST. MARTIN'S CHURCH. BY ERIC BRADBURY.

Actual diameter 2¼ in.

THE TOWER.

BY ALLAN HOWES.

Actual diameter 2¼ in.

TOWER BRIDGE.

BY PERCY METCALFE.

Actual size 3 in. by 2 in.

BY MISS M. KITCHENER.

Actual size 3 in. by 2¼ in.

BY W. H. DOXEY.

ALLEGORICAL PLAQUETTES OF LONDON AS THE CAPITAL CITY OF THE EMPIRE.

The Principles of Architectural Composition.—4

By HOWARD ROBERTSON, S.A.D.G., Principal A.A. School of Architecture

AS we have already inferred, it is not sufficient, for the production of a satisfactory composition, that merely correctness of the proportion of its individual elements should be attained and that unity should result. It is necessary also that the composition should avoid monotony, and that it should have *interest*. Good proportion in each separate element will provide a certain interest in itself, but it is necessary also that the relationship of the elements one to another be made interesting. This interest will be obtained by a judicious introduction of variety or contrast.*

Good proportions in any composition will be found to depend on certain effects of contrast, and we may almost say that the obtaining of good proportions, in a general sense, is synonymous with the obtaining of good contrast. In effect it is impossible to produce such weaknesses as competitive equalities and dualities, if a proper contrast in proportions is present.

It is a notable fact that in everyday life one of the greatest sources of pleasure to the individual is that furnished by contrast. In effect, contrast is equivalent to absence of monotony, and supplies relief to the brain and the senses, so that it is fortunate that it is amply provided for by Nature and by man-made custom. Heat and cold, day and night, sunlight and shadow, fire and water, hills and plains, are but a few natural examples, while such opposites as work and play, exercise and repose, are the result of the necessity of contrast of action in the functioning of the human machine. It is safe to say that were such contrasts, more or less violent, to be eliminated, existence would lose one of its greatest interests.

In design of any kind the same need for a stimulation of interest is felt, and the designer should remember that there is such a thing as an almost monotonous perfection. The breaking of a rule, the whimsicality of a departure from an expected form, has at times the virtue, by the piquant contrast which it affords, of accentuating the correctness of the composition, while at the same time adding a sense of freedom and vitality. For human appreciation delights in minor and joyous imperfections as a contrast to a stern general rectitude.

Contrast in architectural composition is of secondary importance only to Unity of design, and a feeling for its perception and proper employment is bound up with the cultivation of the sense of Proportion with which it is indissolubly connected. The use of contrast can only be learnt by experience and a development of the æsthetic sense, but here again there are elementary principles to guide us.

Contrast in design is applied over an almost limitless field. In the first place we have a contrast of form and mass, such simple contrasts, for example, as that of the sphere and the cube (Fig. 33), and contrasts in bulk between figures of identical type (Fig. 35). We then have contrasts of line, line being considered either as the contour of objects (Fig. 34), as the silhouette of pattern (Fig. 37), or by extension as "direction," such as verticality, horizontality, obliqueness (Fig. 36).

Contrast again is applied to colour, such as black and white, red and green, or to depth of tone, such as light and dark (Fig. 37). Or again to texture, such as rough and smooth, and to "weight"—light and heavy. It is in short applicable to every object, form, or abstract quality which has an opposite which can be expressed in the terms with which we are dealing in a work of architecture. In the use of contrast, the golden rule should be followed that there should be no hesitation or lack of definition unless these be introduced with intention as a foil or contrast to obtain elsewhere a greater emphasis of strength.

The main lines of a building should produce an effect of decision (Fig. 38), and all its subdivisions and elements should be imbued with a similar quality. The elevation of a building in which the main lines are horizontal should produce a definite sense of horizontality; there should be no hesitation as to whether it is a vertical or horizontal scheme. A tall building should not be continually subdivided by strong horizontal lines, giving an impression of perpetual striving after an effect of horizontality, unless such divisions are employed for some such reason as a desire to lessen the apparent height. And even then such an attempt creates an impression of weakness of idea, a desire to conceal rather than frankly to express, an indecision and lack of conviction (Fig. 39).

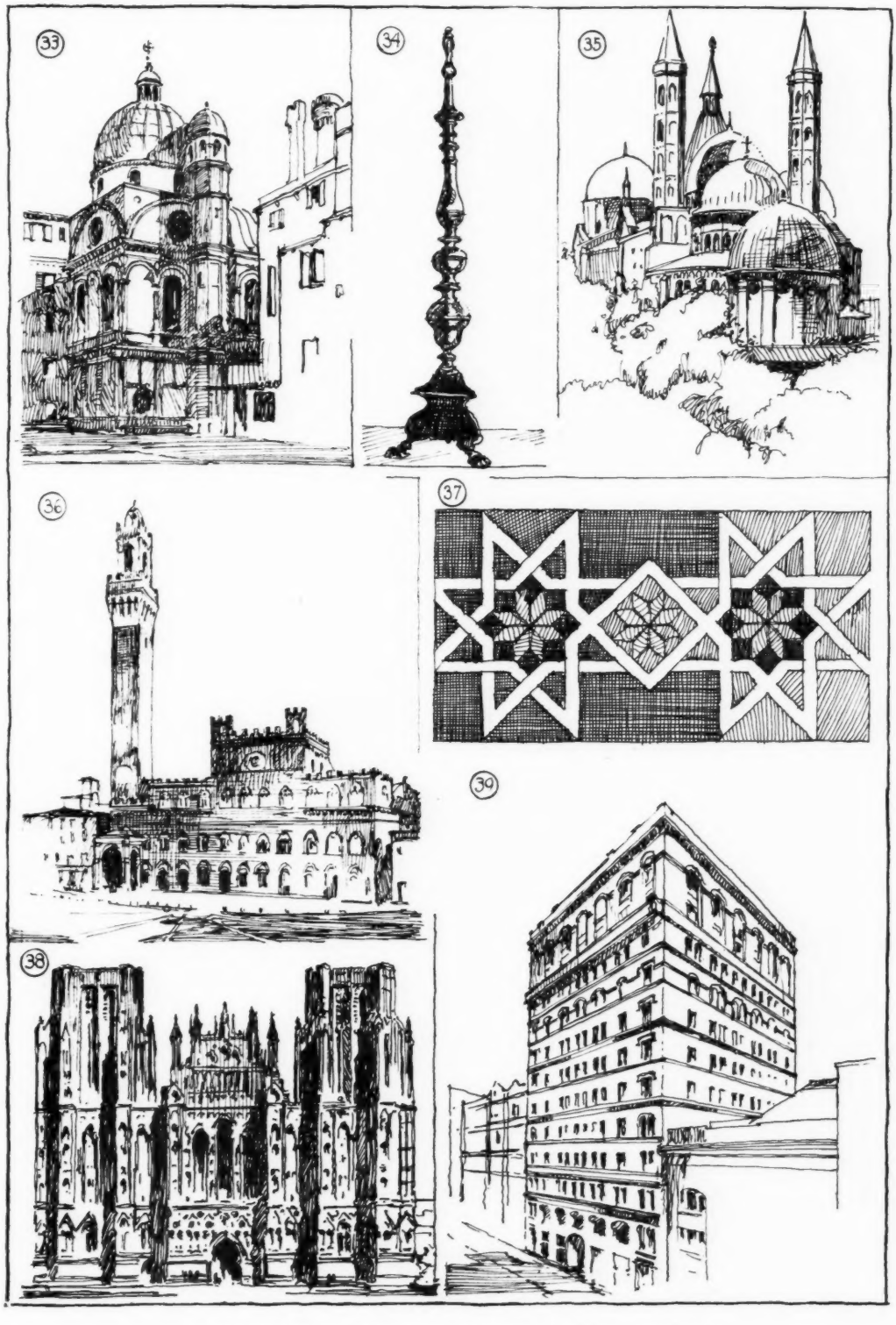
The simplest forms are subject to the same law. A square should be an actual square, and not a figure which is just a little more or less than a square. An ellipse should have the properties of its form, and not be merely a slightly bulging circle. There are certainly circumstances in which this principle of definition does not hold good, but generally speaking the eye prefers complete decision to an approximation.

One of the most general applications of contrast which presents itself in the design of architectural elevations is the proper treatment of solid and void, usually termed the problem of fenestration. As in most buildings (except those few types in which fenestration is not required) the arrangement of doors and windows will form one of the dominating factors of the design, it is necessary that these "voids" should be of good proportion in themselves, and should provide proper contrast with their opposites, namely, the "solids" of the wall surface. To provide contrast, competing equality with its indecision and weakness must be avoided, hence the necessity of setting out the voids in such a way that they are definitely either wider or narrower than the wall surfaces between them. Figs. 40–42 show the different effect in well-known buildings depending on a more or less strict observance of this rule.

In addition to such contrasts as that of solid and void, there will be the contrast of light and shade, formed not only by the difference in colour, tone, and texture of the building's material, but also by the actual shadow cast by projections on the wall surfaces (Figs. 43 and 44).

Materials of different kinds, such as brick and stone, rough-cast and tile hanging, should not be found in exactly equal masses. One or the other should dominate, nor should the projections in façade necessitated by the plan, or the requirements of external design, be all precisely similar in depth. Here again, contrast should be introduced, or the vitality and strength of the design will be adversely affected. It should be clearly understood that there is a danger in the excessive use of contrast, as in the opposite defect of monotony (Fig. 46). We are here faced with the question of degree and proportion, and the designer must acquire his own experience. A too constant introduction of contrasts will result in loss of repose, and will produce, through a dispersal of interest to innumerable subsidiary parts of the design, the very weakness which it is intended to overcome. For, paradoxically, contrast too freely employed will become monotony. Again,

* It may be objected at this point that we are introducing the subject of Contrast, while omitting to make mention of Harmony. It should be understood that the word Contrast is used for lack of a better descriptive term; it must not, however, be confused with Discord. Harmony in design is covered by an examination of the Principles of Unity and the necessity for good proportions, which are those essentially harmonious. Proper contrast will be found to conduce to harmonious design, in the same way as different notes in music may form an harmonious chord. We have purposely omitted the term Harmony as being too general and allusive. We assume that it is understood that our aim is to analyse and synthetize good composition, which is *harmonious* composition.



THE PRINCIPLES OF ARCHITECTURAL COMPOSITION: DIAGRAMS.

FIG. 33.—Church of the Miracoli, Venice. Contrast of elementary form, the cube, cylinder, hemisphere, octagon.

FIG. 34.—Contrast of line in the contour of form exemplified in a candelabrum.

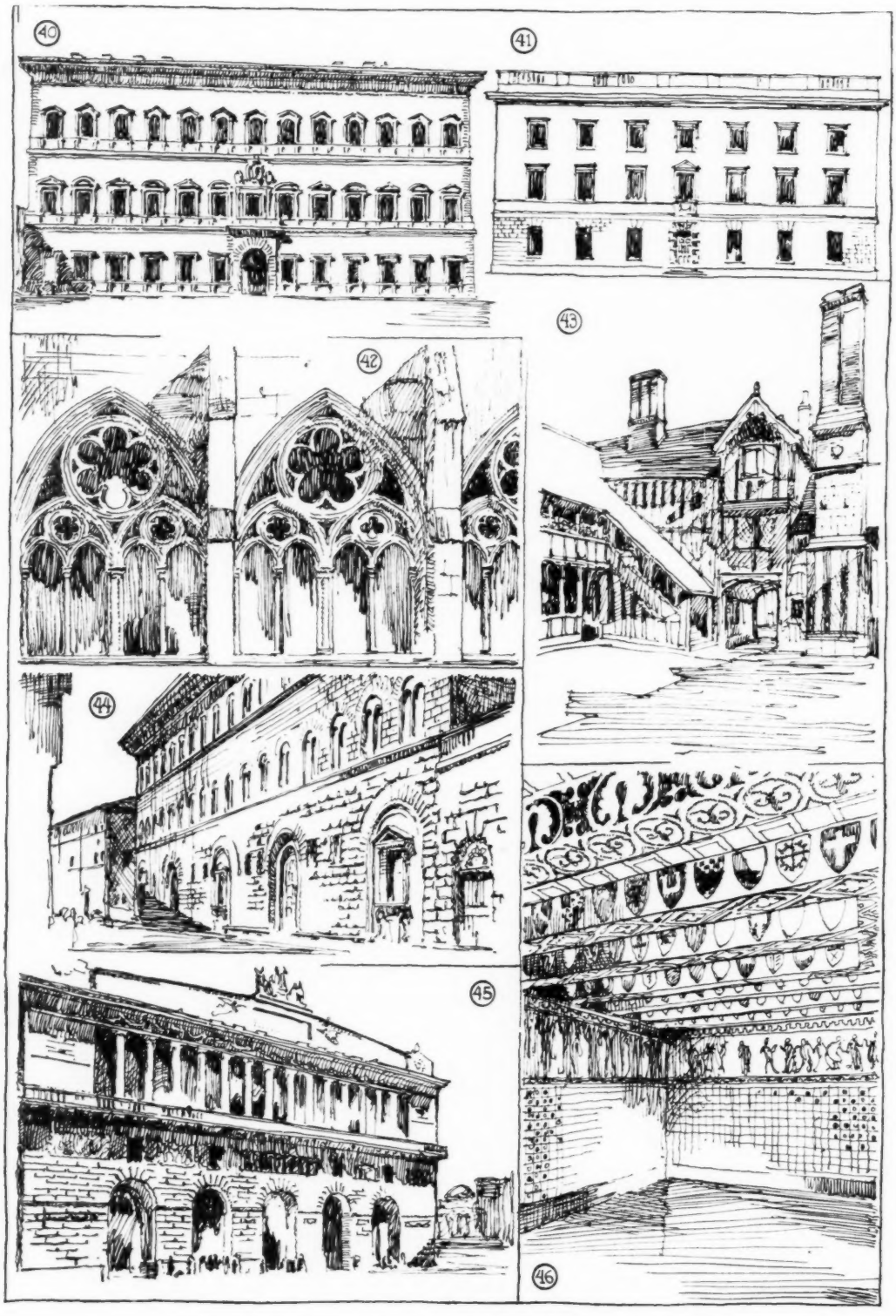
FIG. 35.—The Chiesa del Santo, Padua. Contrast between forms of the same type, and general contrast of geometrical shapes.

FIG. 36.—The Palazzo Communale, Siena. Magnificent contrast of horizontals and verticals.

FIG. 37.—Geometrical pattern from the Cathedral of Monreale. Repetition relieved by contrast of form and tone.

FIG. 38.—West front of Wells Cathedral. A fine composition conveying an effect of decision.

FIG. 39.—A New York office building. Indecision through continual stressing of horizontals in a vertical mass.



THE PRINCIPLES OF ARCHITECTURAL COMPOSITION: DIAGRAMS

FIG. 40.—Farnese Palace, Rome. In spite of the fine feeling of this building, the solids and voids are hesitating and weak in their relationship.

FIG. 41.—The Chapel, Trinity College, Dublin. Solids clearly dominating over voids.

FIG. 42.—The Cloisters, Salisbury Cathedral. Voids dominating over solids, typical of the Gothic spirit.

FIG. 43.—Lord Leicester's Hospital, Warwick. Contrast of materials, tone, and colour, harmonized by judicious handling.

FIG. 44.—Riccardi Palace, Florence. Note the contrast in the surface treatment of the masonry in ground and first stories.

FIG. 45.—The San Carlo Theatre, Naples. The contrast of character and scale between the two stories is so marked as almost to produce an effect of separation.

FIG. 46.—Reconstruction of a room in a Swiss house, Zurich. The interest is here dispersed by excessive use of contrast, resulting in a lack of main contrast, e.g., between ceiling and walls. The solution would have been a simpler wall treatment.

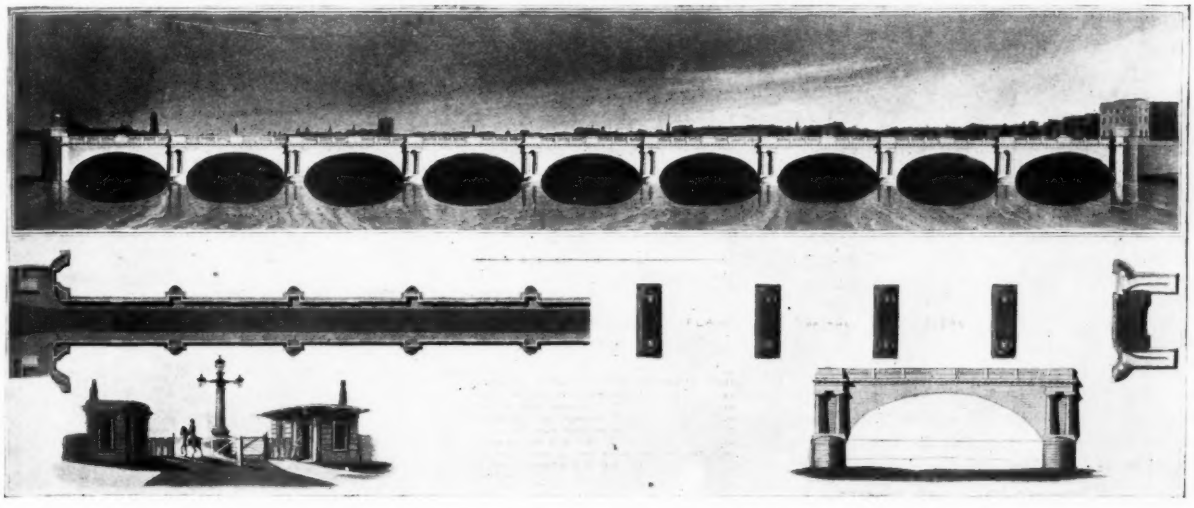
excessive violence of contrast may defeat its own ends, for instead of accentuating, for example, the dominating proportions of one element over another, it may result in complete separation of these elements and break up the composition. Such a separation may arise where a strong contrast of material occurs, or where there is a sudden dividing line between the character of the ground and upper stories of a building (Fig. 45).

(To be continued.)

[The previous articles in this series appeared in our issues for January 9, 16, and 30.]

A Note on Waterloo Bridge

By W. H. THORPE



IT may be recalled that Waterloo Bridge, which is now being examined by the London County Council as to a cause of the settlement in one of the piers, was sanctioned in 1809. The projectors were first advised by George Dodd, civil engineer, who produced a design of nine elliptical arches, with the intention that the piers should be built within caissons. This design was submitted to John Rennie, the first engineer of that name, Mr. Jessop, an engineer of repute, being associated with him in the enquiry, and received adverse criticism with regard to the estimates and method of construction. Ultimately the work was placed in the hands of Mr. Rennie, who, after preparing studies for a seven-arched bridge, which promised to be too costly, finally recommended that the structure should be carried out as we now have it, with nine 120 ft. elliptical arches, rising 34 ft. 6 in. from the springing.

In the method of founding the piers and abutments Rennie broke through all tradition. Coffer dams were used of elliptical form, within which the piers were founded on piles at 3 ft. 6 in. centres in each direction, upon which were laid timbers 12 in. deep, in two directions, close planked with 6 in. timbers, in all 2 ft. 6 in. deep, and well spiked together, the spaces between the 12 in. timbers, and also between the heads of piles, having previously been filled in with brick and stone. Upon this platform, at a minimum depth of 9 ft. below low water, the piers were built. These piers are 30 ft. wide at the bottom, reducing to 20 ft. at the springings, granite faced, and hearted with hard sandstone and Yorkshire grit. The bottom of the river from the south abutment to the fifth pier was composed of gravel, and the remainder of solid blue clay. That is to say, though the clay extends right across the river, the southern half was over-laid by gravel of negligible thickness at the middle, to a greater thickness on the south side.

The first three arches having been built, on three centerings, the first centering was transferred to the fourth opening to enable the work to proceed, the fourth pier being, of course, by that time built, and the fifth probably in hand. For the remaining piers, that is the sixth, seventh, and eighth, Rennie took the precaution of girdling the timber platform with close sheet piling. It is not improbable that there were already premonitory symptoms at the fourth pier which led to this course, though this suggestion is not based on any knowledge that it was so.

The bridge was brought into use in 1817, and thirty years later it was found that the river bed had scoured some three or four feet below the base of the masonry piers. The elder Rennie's son, Sir John, being consulted, advised the tipping of Kentish ragstone around the piers, and this was done. Later, in 1878, the bed of the river generally was found to be 5 ft. 6 in. below the level of the timber platforms.

The fourth pier from the Surrey side has been down, to common knowledge, for the last forty years, though it is now apparently some few inches lower. The second, third, and fifth piers are also down in a varying but much less degree. Rennie, in founding the piers as he did, made a great step in advance of previous methods, but he placed the top of the timber platforms but little below the then existing bed. The subsequent removal, in 1833, of old London Bridge, which had previously checked the tidal flow, had the effect of so increasing scour in the upper river that it is now but little wonder the river deepened, a result which became the more pronounced with the embankment of the river, completed in 1874. The trouble now apparent is of old standing, but there are evidences of recent movement in the southern half of the bridge, which make the investigation now proceeding eminently wise.

In conclusion, it is fitting to bear tribute to the genius of the builder of this bridge. Physically a splendid man, he was well versed in the science of his time, and went far beyond its teachings in the conduct of his works. Previously English mathematicians seem to have seen little more in the design of arches than the determination of fanciful loadings to keep a linear arch in equilibrium. Rennie brushed all this aside, and developed methods of arch design to meet actual conditions, and notwithstanding the sinking of a particular pier of the Waterloo Bridge, with conspicuous success. No engineer previous to his time had ventured to use granite as he used it, in blocks, which, as voussoirs, were 9 ft. to 10 ft. long and of proportionate thickness.

The New Chancel of All Hallows, St. Pancras

G. GILBERT SCOTT, R.A., F.R.I.B.A., Architect

THE nave of All Hallows Church, North St. Pancras, was built a good many years ago by the late James Brooks, and a temporary brick wall was erected at the east end, against which the altar was placed. In addition, the chancel, beyond the temporary wall, had been begun, but was abandoned after being carried up to a height of 15 ft. or 20 ft. This work was left for years open to the air, though fortunately the top of the wall had been protected. There was thus a squat but sturdy fragment upon which the new chancel had to be built. The ground plan, therefore, was dictated by the existing work; but in other respects, particularly as regards the interior of the building, there was considerable scope for design in the treatment of the new work. The low arches at each side of the choir, which were in existence, were retained, and upon them were erected upper arcades of tall arches supporting the vaulting.

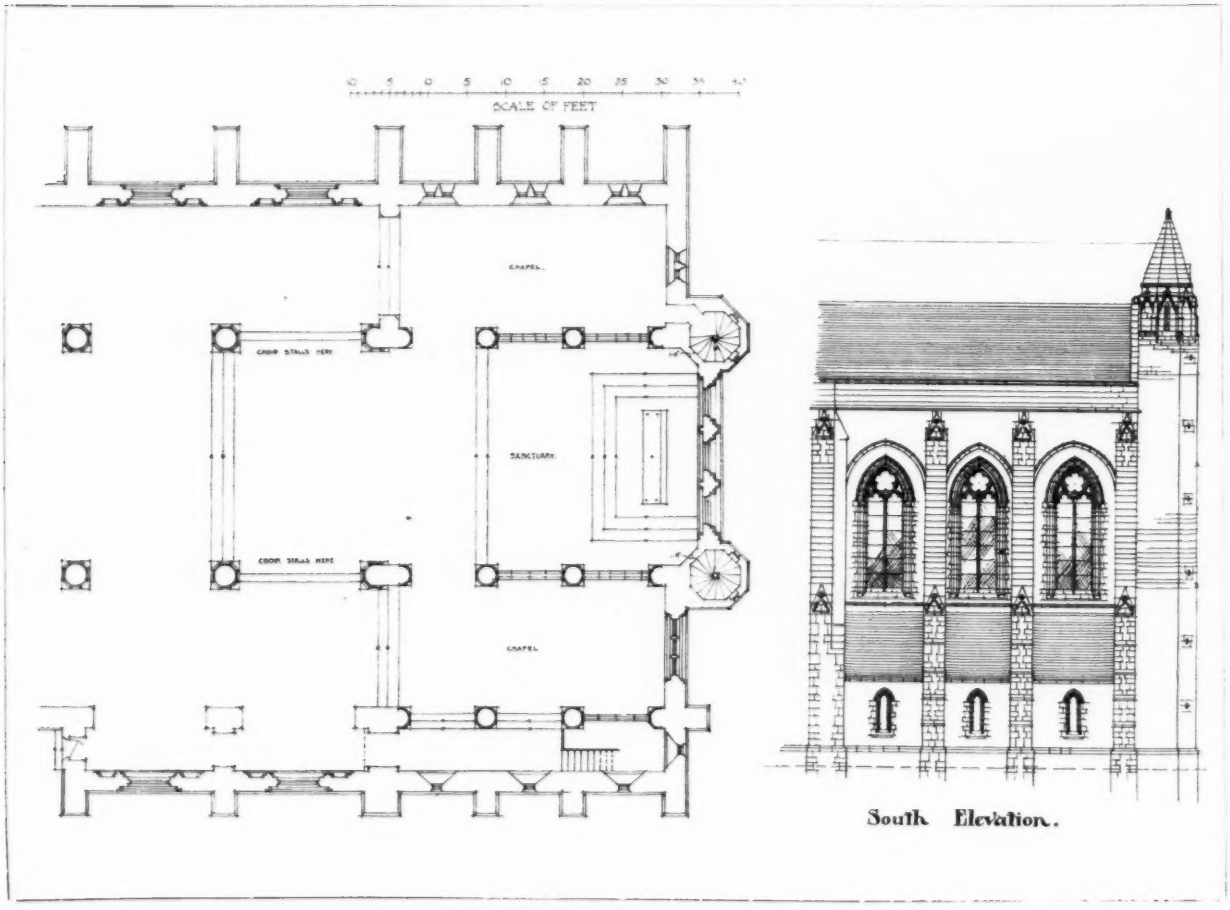
The aisles are used as chapels. That on the south side runs up without interruption to the same height as the choir itself, but the north aisle is divided into two stages by a floor at a level corresponding with the division between the upper and lower arcades—the lower stage forms the chapel, while the upper stage provides the organ gallery. The cill of the east window had been built in when the original fragment of the chancel was erected, but it was taken out and re-inserted at a much higher level, so as to produce a more dignified effect. A prominent feature of the interior is the main altar, which is of marble; there is also a marble altar in the chapel on the north side.

The choir, as dictated by the existing work, was felt to be too short to produce an effect of spaciousness and dignity. This defect was remedied by extending the raised floor of the choir one bay westward into the nave. The choir stalls at present in use are those which formerly did duty when the choir was accommodated in the nave.

The walls of the chancel are faced externally with Kentish rag to match the nave, with dressings of Bath stone; while the interior is of Bath stone throughout, with the exception of the vaulting, which is of concrete, plastered, with Bath stone ribs. The floor is paved with black and white tiles.

At present the contrast of the new work with the old is rather marked, but the church is built in a part of London where the stone will soon be toned down. The windows, not yet filled with stained glass, reveal the better the strong, graceful vaulting.

The contractors were Messrs. Goddard and Sons, of Dorking, Surrey.



PLAN AND SOUTH ELEVATION.

Modern Ecclesiastical Architecture. 25.—The New Chancel of All Hallows Church, St. Pancras, London

G. Gilbert Scott, R.A., F.R.I.B.A., Architect

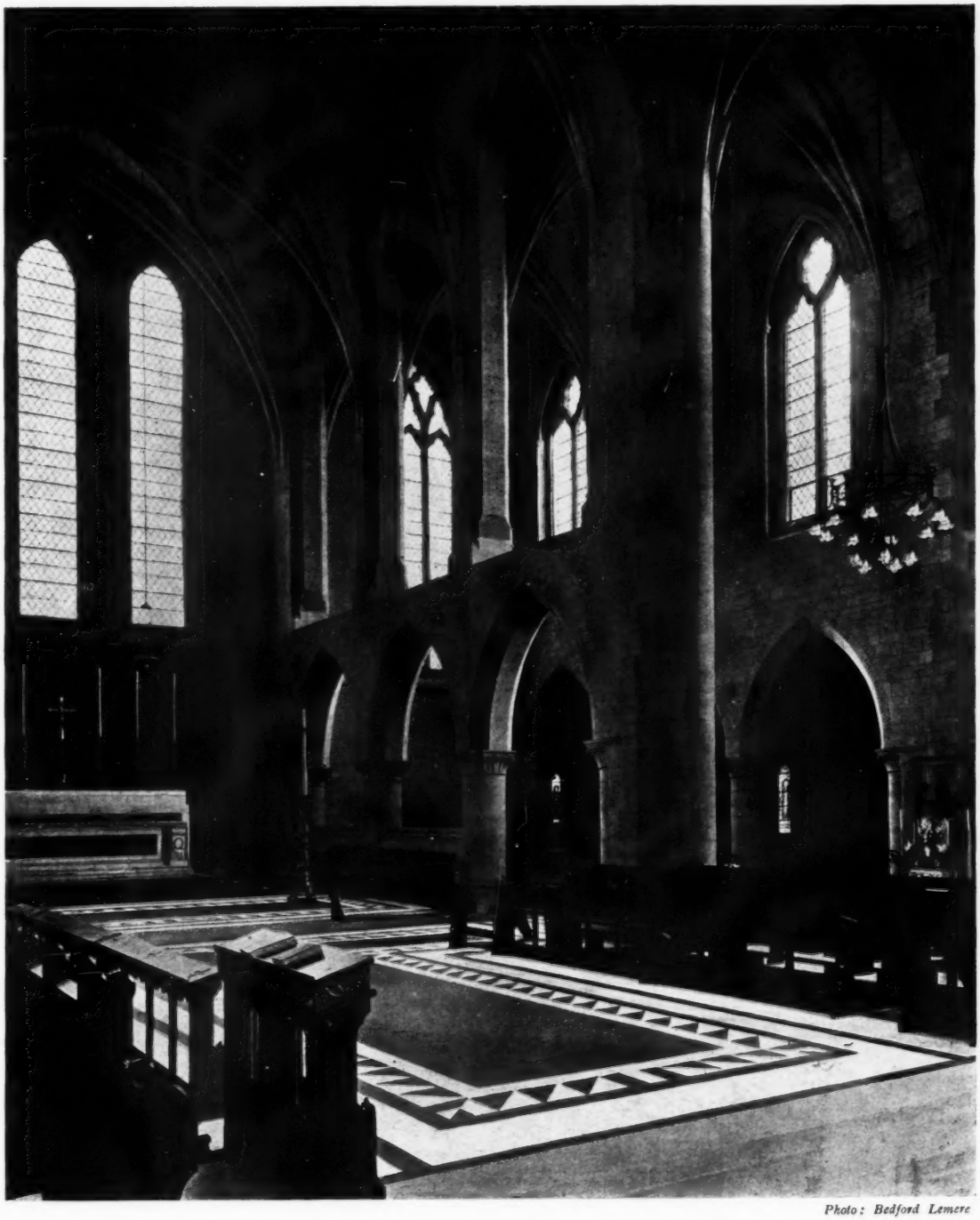


Photo: Bedford Lemere

This new chancel completes a building the nave of which was erected many years ago from the designs of James Brooks. The walls of the chancel are of Bath stone, the vaulting being of concrete plastered, with Bath stone ribs. The floor is paved with black and white tiles.

The R.I.B.A. Presidential Address

Mr. Gotch's Advice to Young Architects

MR. J. ALFRED GOTCH, P.R.I.B.A., F.S.A., delivered his address to the students of the Institute at the annual presentation of prizes at Burlington House last week. He reminded the students that the future of English architecture lay with them. It was theirs to guide public taste into the right channels, to apply the logic of design to new methods of construction, to solve their problems with unstinted ingenuity, and to maintain a high standard of conduct in the pursuit of their calling. When he contrasted the method of initiation into the mysteries of their craft which it was given to them to employ with those vouchsafed to their forerunners, he was filled with envy and admiration. The old haphazard way of learning to be an architect had been replaced by a regular course of study, but its effect on the public mind appeared not yet to have passed away; for too often they found that members of the public, and in particular public bodies, were under the impression that no great amount of training was necessary for an architect; that anyone whose training was remotely allied to architecture, or, for the matter of that, who had had hardly any training at all, was competent to carry out architectural work. They did not realize that in the old days the study was as severe, albeit not so well regulated, as it was in the present.

But that there was a great deal more which went to the making of an architect than that which appeared upon the surface was sufficiently proved by the number and variety of the prizes and studentships which were offered for competition by the Institute. He was sorry that this year full advantage had not been taken of the opportunities so offered. The number of competitors had been small, and some of the work submitted had not been of merit enough to justify the award. The Essay Prize had not been awarded, nor the Pugin Studentship, nor the Grissell Medal. These prizes were for work which affected education in different directions. It was a pity that some of the younger architects did not cultivate a literary style, for so few architects seemed able to rise above the level of the graces of the specification that the road to distinction in this direction was but little obstructed and seemed to invite more traffic.

The decline of the Pugin studentship was equally to be deplored, and it was yet more strange. For the work submitted in competition need not be specially prepared, but might be the student's own sketches made on his holidays and the outcome of his recreations. Sketching and measuring old work was in itself a delightful occupation, apart altogether from its educational value, and that this pleasure should be neglected, with the opportunity it offered of gaining a substantial and, of old, much-coveted prize, seemed passing strange. The list of names of the Pugin students showed how often this prize had been one of the early steps towards fame.

The Grissell Gold Medal took us into a more prosaic atmosphere, but one no less vital to the architect, for a knowledge of practical design and construction was one of the most essential items in his equipment.

"What are the reasons for the falling-off in candidates this year?" asked Mr. Gotch. "One is said to be the fact that students are now so fully occupied in the work of the schools as to have no leisure for competing for the admirable prizes of the Institute. If this be the chief reason a remedy may easily be found by co-operation between the Institute and the schools. The study and the prizes can no doubt be co-ordinated. But I have heard that there may be another reason: that students are impatient at the long course of study necessary to master the art of architecture as now conceived; that they have visions of a new style free from the shackles and conventions of the past; that they think they can strike out a new line of their own. Painters have done it, why not architects? But can you draw the leviathan with an hook?

"Do not imagine that a new style of architecture can be invented even by the most gifted student in the full flush of his intuitive perceptions. We are all prone to wish that it could be so, and some, maybe, think it actually possible; but all history teaches the contrary. Wherever we look we find that changes have been gradual, whether we examine architecture, or mankind, or the universe itself. Violent upheavals there have been in the framework of the earth, but their range has been limited and they have not changed the essential development of the great globe. Violent upheavals have occurred among mankind, but they have not permanently affected the orderly processes which control its fate.

The Spell of the Past.

"In architecture," said Mr. Gotch, "no violent upheaval has occurred. The most distinct change to which it has been subjected is that which we call the Renaissance, when Gothic architecture was superseded by the revived classic. But even that change was not entirely abrupt. To take our own case here in England, where there was no other tradition than the Gothic; more than 100 years elapsed between the invasion of the new classic detail, in the shape of Torrigiano's tomb of Henry VII in Westminster Abbey, and the erection of the first building absolutely free from all trace of Gothic ancestry, in the shape of Inigo Jones's Banqueting House at Whitehall. But these very examples are subject to reservations. For the recumbent figures of Torrigiano's Italian tomb are still those of the Gothic tradition. Foreigner though he was, and imbued with foreign ideas, he was unable to free himself wholly from the influence of his new surroundings. Inigo Jones himself, in his early work, made use of traditional methods of design, and although he ignored them in later years, his contemporaries were unable to do so, but still succumbed to the spell of the past. What the giants of old could not do, the giants of to-day, even the youngest, can hardly hope to achieve; the inevitable conditions of architectural design are too stubborn.

"If you want to see two distinct styles side by side, so distinct as to belong to two different worlds of habit and thought, go to Hampton Court and compare the old parts of the building with Wren's work. Two products of the same race of men could hardly be more dissimilar; and yet a whole series of buildings could be marshalled in chronological order, covering the century and a half which lie between Henry VIII and William III, wherein the changes that led from one style to the other can be traced step by step."

One of the greatest charms of a work of art, he added, was the absence of any visible effort in its production. The most delightful buildings were wholly unselfconscious; they almost seemed to have grown of themselves; their special features were there because they were wanted, and not because the designer wanted to introduce them. One of the greatest foes of art was affectation—and affectation was the offspring of conscious effort. In the present day it was not difficult for novelties, even indefensible novelties, to obtain a vogue, especially if possession could be obtained of one of the thousand ears of the Press. But such success was never long-lived, and least of all was it likely to endure in architecture, for that subject was far too grave and solid in its nature to admit of tricks. He was convinced that they would better advance their art by pushing forward in the same direction that their predecessors took than by making excursions into the uncharted wilderness on either hand.

Correspondence

The correspondence of readers is welcomed. It is naturally preferred that a letter should bear the name of the writer, but the use of a pseudonym is permissible. The Editor does not necessarily associate himself with the views expressed. Anonymous letters cannot be published.

Bush House

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—It is no doubt encouraging to have one's opinion corroborated, whatever that opinion may be. But are Mr. Pond's opinions, with which Mr. Gilbert is so pleased, correct? Are the elevations of Bush House so "barren" as Mr. Gilbert seems to imagine? Are the rows of plain windows monotonous? Would Mr. Gilbert prefer the elevations to be fretted and worried by carving and useless pilasters, and the windows all of different shapes and sizes like goods displayed on the shelves of a grocer's shop?

The fact of the matter is that the English mind is, apparently, in its present state of development, incapable of grasping "scale." It has not yet passed what may be termed the "prettiness" stage of conception; every building, if it be a public one, must—to put it broadly—be a kind of temple taken from the nearest text-book on the Italian Renaissance found lying open on the office table.

The English architect must not look forward; that is an unpardonable sin. He must rather play for safety, copying the accepted forms without understanding their spirit, and caring nothing for applying that spirit to the needs of the present day. Thus Mr. Gilbert, when he speaks of "barren elevations," perhaps forgets that beauty can be obtained by breadth and line. It is not by any means to be obtained by ornament, which only serves to worry, and not help the end in view; beauty is most faithfully served by the discriminating faculty which knows best how much to omit.

The writer of this letter is not an American, but an Englishman, who, however, is able to appreciate the work now being done by an American architect.

G. ALAN FORTESCUE.

Regent Street—An Obituary

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Mr. A. Trystan Edwards, in his article on Regent Street, touches upon an evil which is only too apparent in London to-day to those who have any interest in our great city. It is the abominable manner in which our buildings are plastered over with placards, notices, and signs of a truly revolting character. One has only to glance down any London street to notice what a repugnant form of decoration this is, and how it mars the façades of many quite modern buildings. The advertisement is the great offender, striving to command attention by all possible means, frequently by sheer hideousness, and consequently showing no regard whatsoever for the architecture of the neighbourhood. The main features of the façade of a building are often, from this cause, completely obliterated and the efforts of the architect in vain. But advertisement is not the sole offender, and ordinary announcements are frequently of an appalling character.

As I endeavoured to point out in a letter to "The Times" some while ago, it does not seem to be realized that lettering occupies a place of great importance among the arts, and in architecture it should be given due consideration and respect as an ornament of the elevation. At present lettering has run rampant, and advertisement has brought it to the lowest stages of degradation by its total disregard for the artistic expression of good lettering.

One of the greatest enemies is the electric sign which, in spite of its value at night, is by no means beautiful by day. Even among buildings erected quite recently, and I have in mind a big cinema theatre in London only just completed, there is utter incongruity between the façade and the signs put upon it. Surely the architect to-day should show his ability to meet modern requirements in providing for and subjecting the signs to the façade, for in a building of this kind they must necessarily form an important feature of the elevation.

But this is only one example which happens to occur to me. The Londoner cannot fail to be aware of the offensive nature of most of our street advertisements—the huge, coarse letters, and the vulgarity of the signs which meet him at every turn, endeavouring to protrude themselves and proclaim their presence wherever the eye would rest, and frequently extinguishing all beauty that there may be in the vicinity. In the interests of the public this is a thing which well deserves control.

Cannot the new Fine Arts Commission direct its attention to this acute malady in our great city?

CHESTER H. JONES.

Furniture in Living Rooms

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Your correspondent, writing under the awe-inspiring pseudonym of "Ajax," is surely a little off the track when he writes that "by far the most difficult problem in furnishing a small house is the provision of book space." I have always found that people want to do other things in their living rooms besides store books—such as rest, entertain, or eat.

With regard to a man's dressing-room, keeping suits upon sliding shelves in a wardrobe is a method foreign to me. I am sure most men hang their suits up, and for this purpose a built-in cupboard was shown in the dressing-rooms. Presumably "Ajax" thought this cupboard, 3 ft. by 2 ft. 6 in., and the full height of the room, was for storing his toothbrush.

Perhaps I might have considered the remarks of "Ajax" a little more seriously if he had been sufficiently courageous to sign his name under his opinions, as it is difficult to answer a critic upon technical matters when one is unaware whether he is an architect or a manufacturer of bookcases and wardrobes.

PERCY V. BURNETT.

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

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—All who are interested in architectural education will regret the falling off in the number of competitors for the above awards, and many of them are now busily seeking for basic causes, and "searching avenues" in the hope of finding a cure.

The war is, of course, to some extent the cause, and so, too, is this peace which passeth all understanding. Few were studying architecture during the war, and of those still alive who were studying it before August, 1914, the vast majority are either too old for certain of the competitions or too busy earning livings for themselves and their families. We are left in the main, then, so far as students are concerned, with those who have started their studies since December, 1918, and we may well, I think, give them another year or two before getting seriously alarmed.

If anything goes wrong we naturally turn to the schools, first to condemn them for their misdeeds, and then to ask them to man the lifeboat, and I don't think we shall do this in vain.

A set of drawings for a prize external to the schools may now be used as one of the four subjects which students who obtain associateship of the Institute through the schools are required to submit to the R.I.B.A. for exhibition. If each of the schools with Final exemption makes good use of this regulation, there will be a record entry for the Tite this year!

But we make a great mistake if we think the schools the only "avenue" to search. The competitions are by no

means limited to the schools, for there are large numbers of pupils in offices. Nor are the competitions limited to the first five years of a student's career, and there are doubtless an increasing number of assistants who are under the age of thirty, and are thus eligible for the Tite and the Measured Drawings prizes. To these assistants and pupils a little encouragement might make all the difference. Perhaps a slight extension of a summer vacation would enable another competitor to enter for the Measured Drawings prize !

Of course, students ought to read Samuel Smiles and Pelman, and Arnold Bennett's "How to Live on Twenty-four Hours a Day," and they ought to be falling over each other in the endeavour to obtain these prizes; and to some old stagers who used to work so hard a long time ago it may seem sad that all this encouragement appears to be needed nowadays. Still, those of them with the best memories will recollect how the oldest assistant used to tell them that in *his* day pupils really had some work to do !

These energetic old stagers, by the way, may all compete for the Godwin Bursary; those who have not been in practice over ten years may go in for the Grissell; while all under forty may try for the Essay prize; so that if entries are few we must not put all the blame on the very young.

It is, of course, axiomatic that these competitions must be kept (so far as is compatible with the terms of the bequests) in complete touch with modern conditions and free from any doctrinaire taint, and there is, I think, little need for pessimism. With just a little encouragement—a pat is no more expensive than a kick and very often more effective—there are going to be this year much better sets of work for the Measured Drawings competition than for last year's Pugin, a big entry for the Tite, several good essays, including one worthy of the medal, in addition to some entries for the Grissell which will display, not only a knowledge of construction, but also some ability in design.

W. S. PURCHON.

The Technical College, Cardiff.

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—I am entirely in agreement with your view with regard to the R.I.B.A. prizes and studentships. The Institute prizes are a relic—a glorious relic, be it admitted—of the older scheme of architectural education, that of the reinforced pupilage. For better or worse that scheme has now been largely replaced by the curricula of the schools, and the extent to which it has been so replaced may be gauged by slackened competition for the once coveted prizes.

I agree with your suggestion generally that something might be done in the form of throwing open the prizes and studentships to the schools. But this is a matter for the Board of Architectural Education to deal with.

I may say that the Incorporation of Architects in Scotland are having a similar experience with their own prizes, and this year for the first time the "Rowand Anderson Medal"—a travelling studentship of the value of £100—has been declared eligible for competition by students at the schools, the work being done as part of the ordinary class work. The result of the experiment will be interesting and instructive.

It may be that there is another factor at work contributory to the lack of popularity of these prizes. I am reluctantly finding myself toying with the idea that perhaps the average student of these days is not such a "keen chap" as he used to be in ours. His heart and soul don't seem to be in his job as ours were. I don't think it argues any inferiority in the school system compared with the old pupilage system. It may be only that the national heart and soul are still tired after the war (and the peace), and that our students' attitude towards their life and work is merely a reflection of this. I hope so.

J. W. BEGG,

Head of Architecture Section, Edinburgh College of Art.

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—The whole thing boils down to this: Are the schools the recognized method of entry into the profession, or is the system of pupilage in offices ? The schools attract the larger number of students, who, therefore, have not time to enter for the R.I.B.A. studentships. If the R.I.B.A. wishes the intention of the founders of the studentships to be carried out, it will rearrange them in such a way as to make them up-to-date and attractive to the school students, and the students must be given the opportunity to enter for them. The articled pupil must disappear.

CHARLES D. CARUS WILSON.

The University, Sheffield.

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Under the heading of "Unwanted Prizes" in your issue for January 30, you invite correspondence from students in order to find out the reason of the falling off of the number of competitors for the R.I.B.A. prizes. Perhaps the ideas of a Glasgow student may be of interest.

Undoubtedly for us in Glasgow the main reason for not competing for these prizes is that of lack of time. Day students spend the whole day at school constructional and design problems, and attend lectures several evenings per week, while much spare time must perforce be occupied in home-work and revision. Evening students have, of course, even less time at their disposal. The obvious remedy is the standardization of all school designs and the awarding of the prizes for these.

Other reasons for the lack of competitors may be :—

1. Not enough publicity given to the competitions (in Glasgow at any rate).
2. Uncertainty due to the recent withholding of the awards.
3. The small (post-war) value of many of the prizes offered, compared with the amount of work demanded.
4. The increasing number of competitions restricted to the various schools and obtainable by concentration on the school work.

"BYDARD."

Professor Richardson's Views

A Committee has now been set up by the R.I.B.A. to consider and report upon the lack of enthusiasm shown by students with regard to the winning of the once highly-esteemed Institute's prizes.

Interviewed by a representative of the JOURNAL last week, Professor A. E. Richardson expressed the following opinions :—

The various bodies of architectural education could not countenance any proposals from the R.I.B.A. which would in any way interfere with the lines upon which they were now working. These lines were simple nowadays, and tending to become simpler. He agreed that healthy competition was good for schools and students alike, but feverish activity—used often for advertisement—did not help to produce good architects. It was a view held, he was sure, by all good teachers—teachers who, he pointed out, were not that alone, but practising architects.

They were all in sympathy with the difficulties before the R.I.B.A., but no school could respond to any appeal.

"Leave the prizes where they are," he said, in conclusion, "but alter the age limit. Make the age limit forty. We can provide plenty of competitors then. Advanced schools, such as the Atelier, might then enter. Architects of thirty and thirty-five will have finished their school work and have the time and the experience for their winning. Besides which, when about to set up in practice, a £100 prize would be very acceptable."

The prizes would be bound to lose in value if scrambled for by incompetents, whereas if they were made attractive to competitors of maturer years they would gain in value.

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Magazines of the Month*

A Literary and Pictorial Digest

THE ARCHITECTURAL REVIEW for February opens with the first of a series of articles upon "Bases of Criticism," number one dealing with the citizen and the artist. "The Public Press," says the writer (the article appears over the initials W. G. N.), "can help architecture best, not by engaging one who is ignorant or uninterested to write criticisms of architecture. Such an one will either take refuge in precedent and preach the past to those whose eyes are set on the future, or encourage what is unusual or bizarre as an escape from what to a journalist may seem dull and indifferent 'copy.' But if it can, day after day, or month after month, say a little good about good things, and make each reader feel a little indignant, and also a little personally responsible for obviously bad things, then we shall feel that things are on the right lines. Meanwhile, it lies with us, as architects, to make an attempt to clear up a good deal of mental lumber and try to lay bare, as well as we can, our own bases of criticism."

Mr. Kineton Parkes contributes under the title "Contemporary British Sculpture" a first article upon the older school, giving the members of that school credit for a certain amount of regeneration of plastic and even glyptic art, and says that the newer, younger artists will owe them that debt, for the progress of the new group would have been more difficult without them, and, therefore, less rapid.

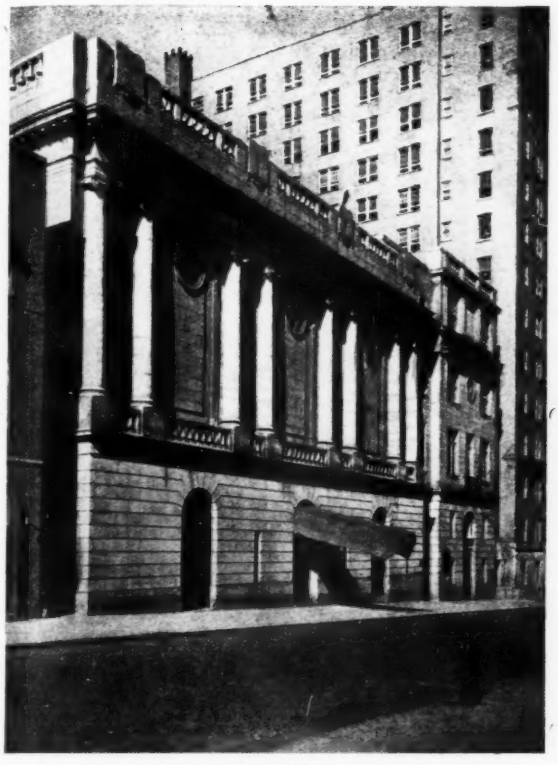
A remarkable monument by Lorado Taft, an American sculptor, taking its idea from Austin Dobson's "The Paradox of Time" ("Time goes, you say? Ah, no!—Alas! Time stays, we go.") is illustrated in the issue, and by the courtesy of the editor we reproduce one of the illustrations.

* All these magazines may be seen in the Reading Room at 29 Tothill Street, Westminster.

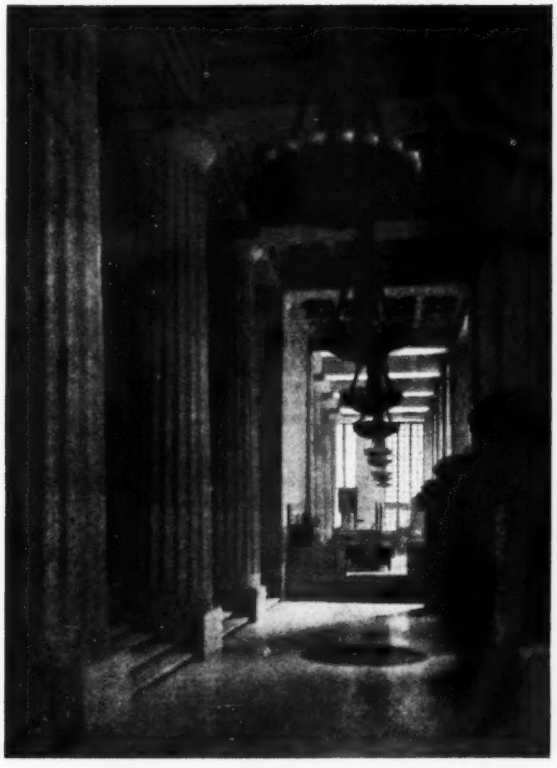
THE ARCHITECTURAL RECORD for January contains an interesting article upon Andalusian Gardens and Patios, by Mildred Stapley and Arthur Byne. "Andalusian Gardens," write the authors, "are of two types, flat and hillside. Having said that gardens are to be sought in or near cities rather than forming part of isolated country seats, one need not be surprised to hear that the once great cities of Seville and Cordova on the broad banks of the Guadalquivir, are the best centres for studying the flat garden; Granada and Ronda, high in the Sierra, for the hillside. There are only these two extreme types. Gently rolling stretches dotted with *bouquets d'arbres* do not enter into the scheme of Spanish topography.

"The theory of the flat garden is a series of outdoor rooms walled apart by masonry and open to the sky; sometimes they are again subdivided by lower walls of hedge, or are quite roofed over by low-growing trees, always evergreens; in the centre almost invariably a fountain. The enclosures are referred to as *patios*, like that within the house, and are denominated according to the plant principally featured—patio of the orange trees, of the black bamboo, of the palm, of the box, etc. This conception of the garden, it will be seen, does not accommodate long alleys nor large pools of water. Squarish in form, the quadrangles rarely exceed 40 ft. to a side (we are speaking now of the private garden, not of a royal park like the Alcazar). Dividing walls are of white stucco and have, besides the connecting opening, several arched windows with grilles or rejas through which pleasant vistas can be had. Walks are either paved with glazed tiles or river pebbles, or are made of coloured earthed tamped firmly down, an expedient also practised by Italian and Dutch gardeners. Around

THE FOUNTAIN OF TIME. LORADO TAFT, DESIGNER AND SCULPTOR.
(*From "The Architectural Review."*)



A TEMPLE AND COMMUNITY HOUSE IN NEW YORK CITY.
TACHAU AND VOUGHT, ARCHITECTS.
(*From "The American Architect."*)



THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY BUILDING, NEW YORK CITY.
WELLES BOSWORTH, ARCHITECT.
(*From "The Architectural Record."*)

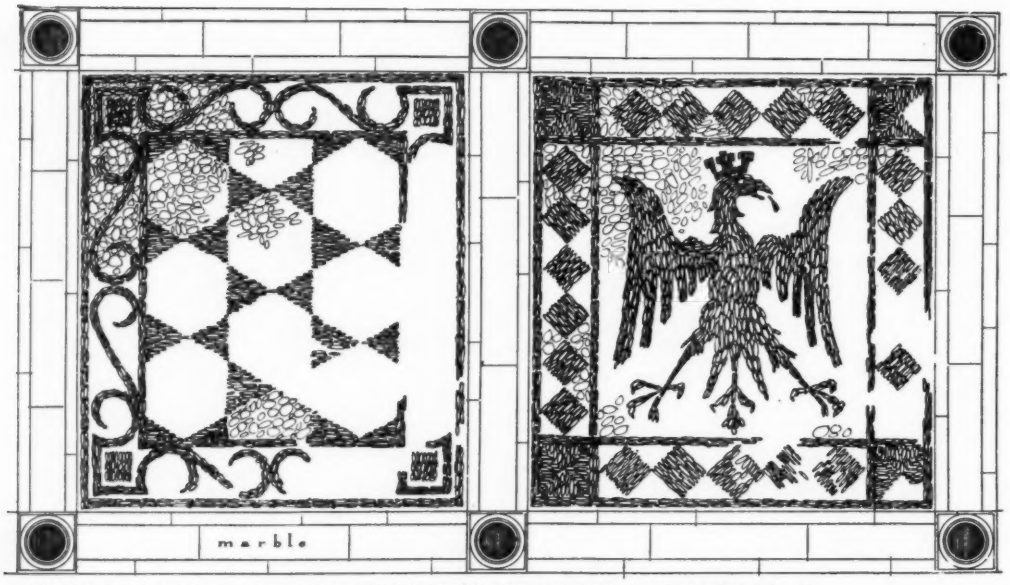
the flower beds and circular openings for trees are borders of coloured tile. The object of this series of walled quadrangles is obvious; except for the few meridian hours of the day the walls, 18 ft. to 20 ft. high, are casting their grateful shadow on either one side or the other.

"Back of the garden for recreation was the *huerta*, for vegetables and fruit. Here rigid distinction was observed between the useful and the ornamental. Flowers seldom intruded into its precincts. In contrast to the garden the huerta was quite devoid of shade—open to the sun to ripen quickly the successive crops of the year.

"The hillside garden is an alternation of sequestered courts and open terracing, the topography determining which predominates. The site was chosen for its views townward, and afforded the Moorish gardener the opportunity to display that which he most excelled in—the arrangement and distribution of water. Here, too, walls played a great part, introduced even where not structurally necessary just because their white expanse was apparently considered an indispensable background. Outer or confining walls, especially if they surmounted an inaccessible cliff-side, were generally pierced with arched *clairvoyées* to reduce the distant view to a series of separate compositions. Another note of great interest was the stairway connecting the different levels—sometimes of azulejos, sometimes of unglazed flat tiles, sometimes of ordinary brick (the Roman type)."

The American Telephone and Telegraph Company's building (Welles Bosworth, architect) is also described and illustrated in this number. Almost the entire first floor of the building is given over to the monumental vestibule, which is really a Greek hypostyle hall, possessing in size and scale some of the impressiveness that the Egyptian temples must have had with their forests of columns and the vistas of dignity and grandeur between them. In this vestibule the order of the Parthenon has been used, and above the columns a ceiling in colour adds a fitting roof for all this dignity.

The whole of the February issue of ARCHITECTURE is devoted to the old Regent Street, which most of the contributors are agreed in praising as the finest work in civic architecture that England has produced. Mr. J. D. Beresford, in an article entitled "The Age of Uncertainty," explains how he, a firm believer in change and adaptation, has come to regret the passing of Nash's buildings because those that are replacing it are not only artistically inferior, but so vividly proclaim the fact that "the only thing of which we are sure is our own uncertainty." Mr. Trystan Edwards, in an incisive and closely reasoned argument, asserts that the function of architecture, as of all art, is not only to supply the demands of a predatory and haphazard society, but to regulate those demands by exercising its selective and formative influence to the full. His article also contains an excellent piece of special pleading for the survival of the smaller shop devoted to one particular branch of commerce only. Mr. Christian Barman has two epitaphs, one for Nash and one for Eiffel, the designer of the famous tower, which are no doubt intended to tell us much by their juxtaposition as by their individual content. The same author also contributes a full-length article, "Architecture and Morality," in which he traces the disesteem in which Regent Street has so long been held to various moral and intellectual currents of the last century, and especially to a "revival of ethical enthusiasm which has seldom been equalled in suddenness or violence since the dawn of written history." In a characteristic diatribe, whose brevity is somewhat disappointing, Mr. Aldous Huxley argues that if one must have ugly architecture in the new Regent Street, it should at least be compelled to observe a certain uniformity—this latter quality being, in his view, not only an aid to beauty, but an anodyne for ugliness.



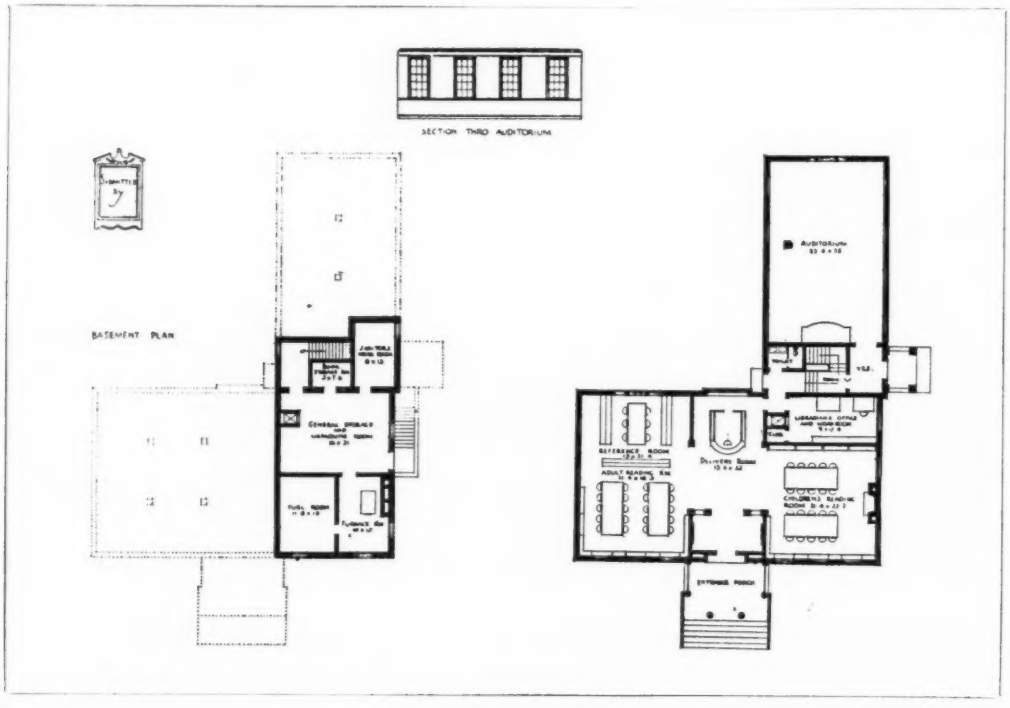
PATIO WALK LAID IN GRAY AND WHITE PEBBLES

TWO UNITS OF A GARDEN WALK LAID IN GRAY AND WHITE PEBBLES, GRANADA.

(*From "The Architectural Record."*)

On the more practical side, Professor Patrick Abercrombie and Mr. H. J. Birnstingl write about the town-planning and architectural achievements respectively of John Nash; the latter article is accompanied by a number of reproductions from scarce and beautiful engravings and lithographs. Mr. W. Harding Thompson analyses the various schemes that have been put forward to give Piccadilly Circus a satisfactory shape, and makes some fresh proposals which are embodied in an admirable bird's-eye view by Mr. P. D. Hepworth. Among the other illustrations are a series of etchings by Randolph Schwabe, and a pungent cartoon by Miss Grace E. Rogers, from whose exquisite work as a wood-engraver one would not have inferred such a remarkable power of vivid and sharply-aimed satire. Mr. John Austen has produced a charming cover design.

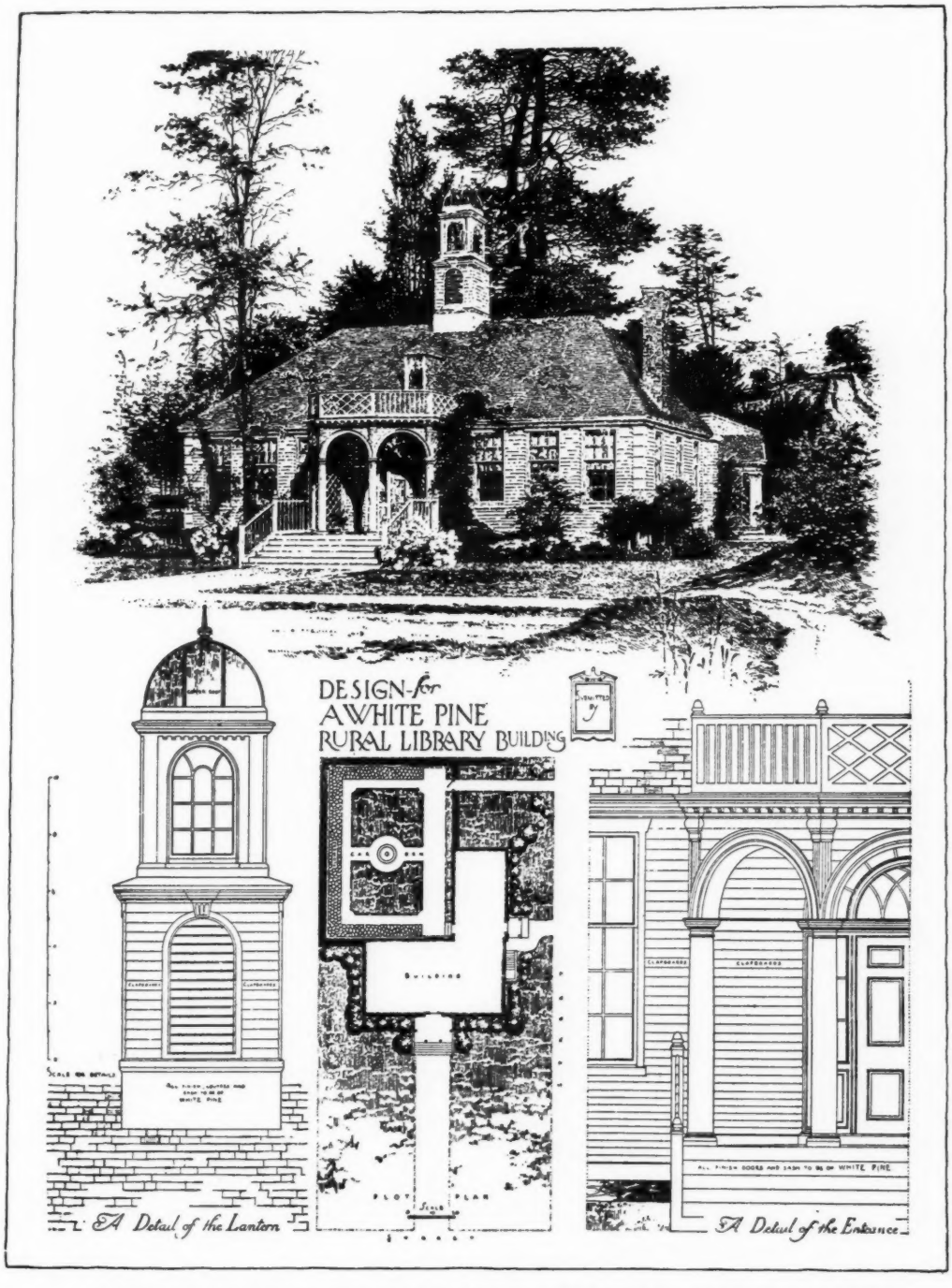
THE AMERICAN ARCHITECT AND ARCHITECTURAL REVIEW illustrates and describes the recent repairs to Westminster Hall roof, and also gives much space, as usual, to much fine current work, both at home and abroad. The Temple and Community House in New York City (Tachau and Vought, architects), the exterior of which we reproduce, is an example.



A RURAL LIBRARY: PLANS. WHITE PINE ARCHITECTURAL COMPETITION.

A previous issue of THE AMERICAN ARCHITECT contained the award of the Eighth Annual White Pine Architectural Competition for a rural library building. The premiated design (which we reproduce) was reported upon as follows: A very simple and admirable plan. Of all the plans submitted this seemed to the jury best to meet the requirements of the programme. It is practical, convenient, and easily supervised. The auditorium annexe could easily be omitted, if for reasons of economy it be considered not essential, without impairing the design or the general effect of the building. The basement space could then become valuable and the building would probably be better served if it were wholly utilized. The exterior possesses a high degree of both beauty and form in its ensemble and in all its naïve details, and the scale is highly consistent. A study of these details discloses a rare choice of simple forms suitable for execution in wood. The wood pickets beside the steps, the lattice, the profile of mouldings, the detail of the lantern, and the direct way in which these forms are used make a pleasing variety and a harmonious design.

The rendering of the perspective, while not affecting the award, is commended by the jury as a most delightful example of draughtsmanship.



A RURAL LIBRARY. WHITE PINE ARCHITECTURAL COMPETITION: FIRST PRIZE DESIGN.
BY RICHARD M. POWERS AND ALBERT C. MACLELLAN
(*From "The American Architect."*)

Acoustic Demands in Auditorium Design.*—2

By G. A. SUTHERLAND, M.A.

IF we consider a speaker in the open air standing on a level plain, the sound waves spread out from him roughly in ever widening hemispheres, and the lower portion of these waves serves anyone who may be on the plain. If the plain is covered with people standing, the sound is absorbed by the clothing of the first few rows and those at the back hear nothing. Placing the people on seats in tiers and making the speaker stand on a platform makes a larger portion of the wave serviceable and matters are still further improved by placing a wall behind the speaker to reflect forward the back portion of the wave. This gives us roughly the form of the classic theatre. Assuming a full audience, which is an almost perfect absorber of sound, there is no back wall which can return the sound wave. Sound reflected from any back wall above the seats does not come back into the theatre. The upper portion also escapes into the air, so that the wave, having once passed over the audience, disappears, and there is no prolongation of the sound. If we add side walls, back walls, and ceiling, we have the general form of the modern auditorium. By so doing we have completely altered the character of the problem. In the classic theatre there may in certain parts have been insufficient loudness, for the wall behind the speaker was the only reflector helping to reinforce the direct sound, but there was certainly no lack of distinctness due to overlapping of successive sounds, for the sound of each syllable, having passed over the audience, was lost at once. But in a closed space such as the modern auditorium, the sound may be buffeted from surface to surface for some time before it disappears, and we get a slow decay or reverberation instead of an immediate disappearance of the sound of each syllable. This slow decay means that there will be overlapping of successive sounds, and that is bound in the ordinary way to involve indistinctness. The numerous reflections make for quick and even distribution and the increased intensity that was lacking in the theatre of old, but they also make for reverberation, which is the commonest defect in the audience hall of to-day.

When a source of sound commences to emit energy in a room not too great in size the average intensity gradually rises to a maximum according to a curve such as that shown in Fig. 6, the time taken to reach the maximum depending partly on the volume and partly on the lining material. If the source is stopped the intensity decays according to a curve such as the second shown in Fig. 6, which is the previous curve upside down. The effect on the growth of varying the character of the lining material is shown in Fig. 7. This shows how the rate of growth in a room of volume 1,000 cubic metres changes with variation in the average absorption co-efficient of the walls, the conditions varying from an empty room with bare hard walls, to a room with a full audience and a large amount of absorbent lining material. It will be seen that the maximum intensity attained is greatest for the empty room, but that the time to attain this maximum is also greatest. If the decay curves are plotted then the time of decay is seen to be greatest in this case also. Fig. 8 shows the effect of varying the volume of the room. The intensity is seen to rise most slowly in the case of the largest room and also to attain the smallest maximum.

In the case of speech, where the emission is discontinuous, we may assume that five syllables are uttered in each second and draw a separate curve for each syllable. Then by adding up the effects of the different curves we can get the resultant intensity. Fig. 9 shows the result of doing this in a room where the lining material is hard and non-absorbent. The dotted curve represents the resultant intensity. In the case selected it will be noted that at any one instant about 60 per cent. of the sound heard is due to previous syllables, and only 40 per cent. to the syllable actually being uttered; also that the variation in intensity between syllables due to the discontinuous articulation is only a small percentage of the maximum intensity, conditions which inevitably mean indistinctness.

This state of affairs can be improved greatly if the speaker utters only half the number of syllables per second, as is shown in Fig. 10. It is true that here the maximum intensity is only about half what it was, but the syllable actually being uttered contributes 60 per cent. of this. This represents an improvement, the drop between syllables being 40 per cent. of the maximum. It is to be noted that although the discourse may seem disjointed to the speaker it will not seem so to the audience.

A satisfactory state of affairs is attained for a normal rate of speech by having a room of higher absorbing power, the effect of which is shown in Fig. 11. Here, though the maximum attained is only one-tenth of the first value, the appropriate syllable contributes 94 per cent. of the sound heard at any instant, and the variation between syllables is about 45 per cent. of the maximum. It will thus be seen that for speech distinctness is of more importance than loudness.

The process can be carried still further, and in this case we get the effect shown in Fig. 12. The resultant curve differs so little from the components that it has not been drawn. Here the peak intensity is about one-third that in the previous case, but the drop between syllables is about 90 per cent. of this. Such a situation seldom occurs in practice; it is the case of a padded room. By common agreement the condition is esteemed inferior to the previous state, partly, perhaps, because of the small peak intensity, partly too, because we are so much accustomed to a certain amount of overlapping that its absence seems unnatural, but undoubtedly, also, because ideally a speaker's utterance should partake of the character of music, and everyone would unite in condemning as "dead" a rendering of music in which there was no blending of successive sounds. In this connection it is worth while remarking that in certain classic theatres evidence is found of the existence of a special reflecting surface over the proscenium, in such a position and inclined at such an angle as to produce a following sound at an interval that makes it clear that the idea was to effect, not a reinforcement, but rather a prolongation of the direct sound.

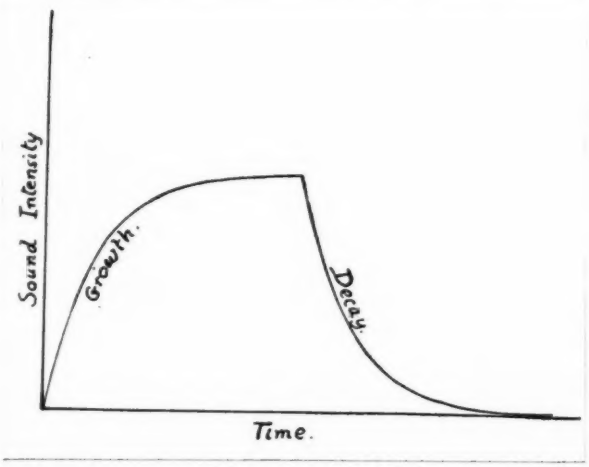
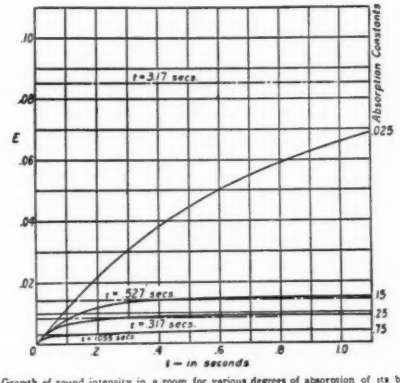


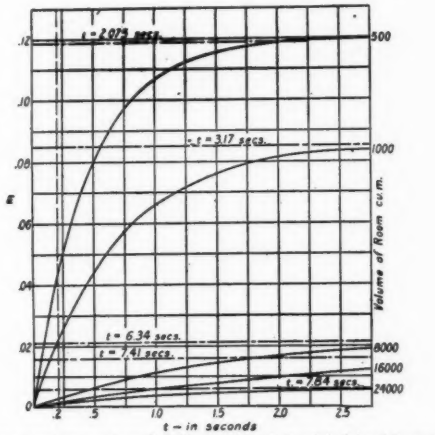
FIG. 6.

* A lecture delivered at University College.



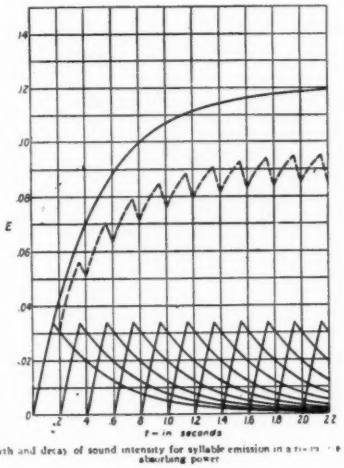
Growth of sound intensity in a room for various degrees of absorption of its boundaries. The time values associated with the horizontal dot and dash lines give the time in which the intensity grows to 99 per cent. of the saturation value.

FIG. 7.



Growth of sound intensity in rooms of different volumes, the boundaries being of the same poorly absorbing material in all cases.

FIG. 8.



Growth and decay of sound intensity for syllable emission in a room of small absorbing power

FIG. 9.

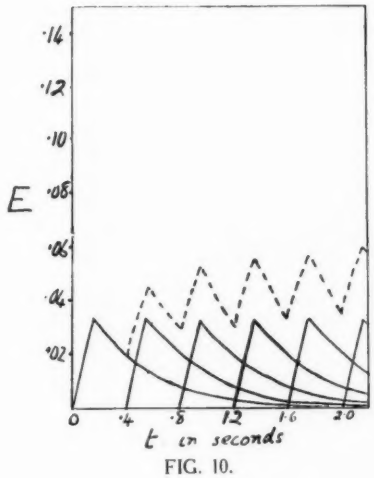
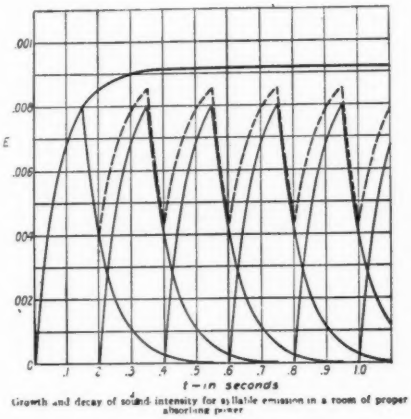
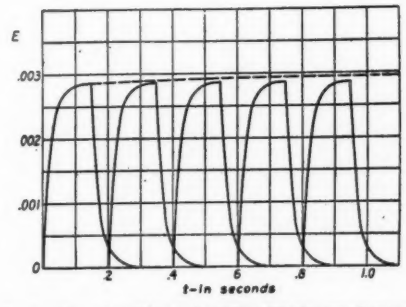


FIG. 10.



Growth and decay of sound intensity for syllable emission in a room of proper absorbing power

FIG. 11.



Growth and decay of sound intensity for syllable emission in a room of too great absorbing power.

FIG. 12.

ACOUSTIC DEMANDS IN AUDITORIUM DESIGN: DIAGRAMS.

So far we have spoken of high absorbing power or low absorbing power, but our specifications must be much more definite if we are to apply these considerations with any success in practice. The first systematic investigation of the question was undertaken by the late W. C. Sabine in America, who established that for distinctness of hearing the period of decay to inaudibility of a sound of specified intensity should have a value of one second or less up to about two seconds according to the size of the room. In a larger room the longer period is permissible, probably because here the speaker naturally speaks more slowly. The method of investigation is to measure by chronograph the time that the sound of specified intensity takes to die out in a given room and to introduce absorbent material (cushions) so as to reduce this time. The reverberation times when the acoustics are declared satisfactory by persons present show a remarkable concurrence which gives the standard to be aimed at. In the case of music some blending and overlapping of successive notes is desirable, and here we aim at having a longer reverberation period. For a small room and chamber music about 1·1 seconds is found to meet with the approval of musicians of critical taste, for a medium-sized concert hall about 2·3 seconds is satisfactory for orchestral music, and for exceptionally large halls upwards of 2·5 seconds is found to be most successful.

It will be seen that, ideally, separate halls should be used for speech and music, and even for different classes of music, since the desirable reverberation periods are different in the different cases. Where a hall is to be used for different purposes a compromise must be made. In practice it has been found that a lower period than the ones specified for music may be used with success if there is a good deal of wood panelling in the neighbourhood of the orchestra. This is due to the effects of resonance and forced vibration in the wood, effects which tend to keep up the intensity while reducing the reverberation, but scientific investigation is still lacking as to how much can be accomplished in this way.

Having settled that good acoustics are largely determined by the length of the reverberation period, and having ascertained by experiment what period is most desirable for a given purpose, it remains to be shown how the period of reverberation can be influenced and how calculation can be made before construction of the value it will have in any given case. Sabine's first experiments consisted in finding how the reverberation period in a given room was affected by the introduction of a particular type of cushion. By introducing 220 metres of cushions in small numbers at a time he gradually reduced the reverberation period from 5·6 to 2·3 seconds. If an infinite amount of absorbing material could be introduced the time would be reduced to zero; on the other hand, if there were no absorbent material present the time would be infinite. In this connection it is to be noted that the air itself acts as a slow absorbent.

(To be continued.)

[The first part of this paper appeared in last week's issue.]

Dudley Memorial Competition

The Second and Third Premiated Designs

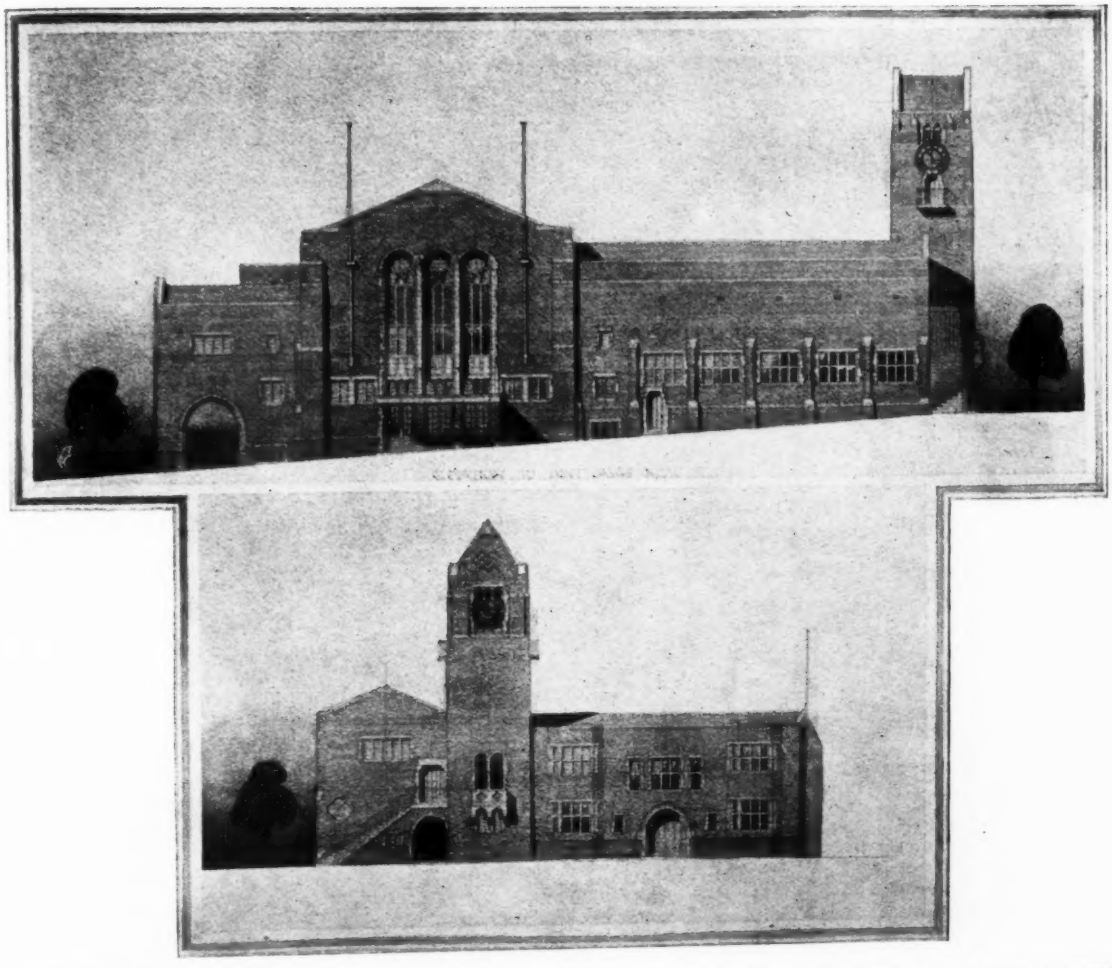
IN our issue for January 30 we published reproductions of the winning design in the Dudley Memorial Competition, together with a special criticism. We now reproduce the second and third premiated designs, together with some extracts from the report of the assessor, Mr. W. Curtis Green, A.R.A.

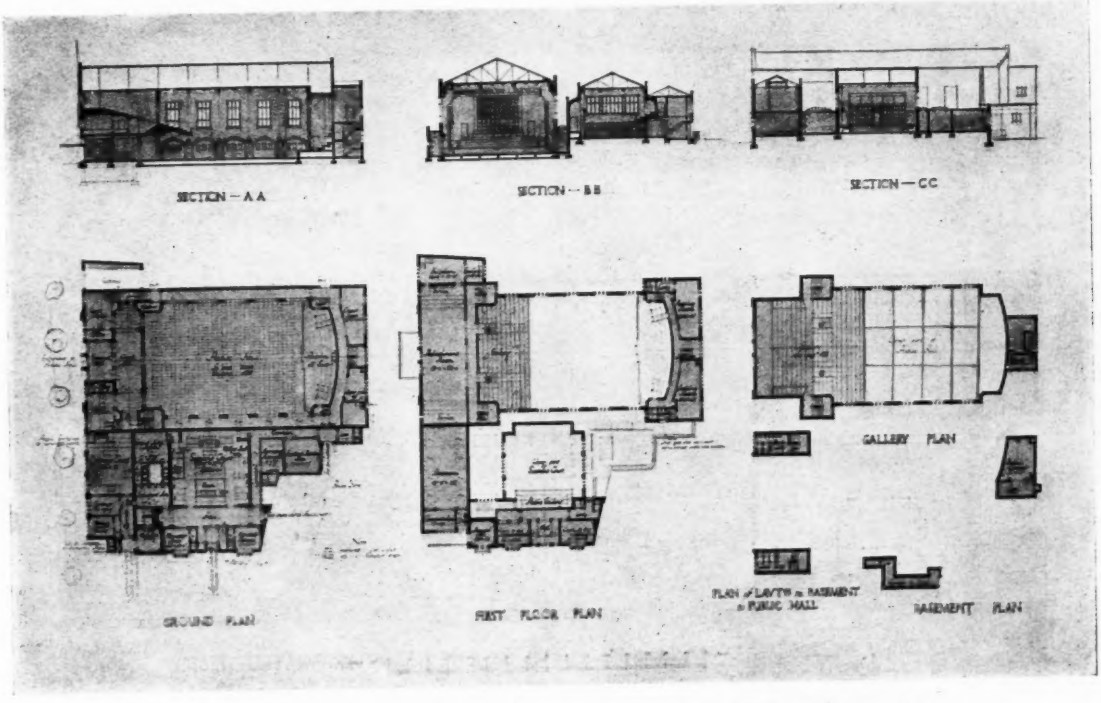
In his report the assessor says: A number of very able designs have been submitted, but the general standard of excellence is perhaps not quite so high as might have been expected at the present time; probably the reason for this is to be found in the condition limiting competitors to work to the style of the existing buildings.

Design No. 54 (that of the winners) is, in my opinion, the best, and I recommend (subject to certain conditions) that the authors be appointed architects for the work. The plan is simple; the tower is rightly placed upon the site; the new work fits into its place with the old; the lighting and ventilation are good, and the whole can, I believe, be built within the sum of £40,000, the maximum figure at your disposal. Taking these points in order, the public hall has good entrances. An ample crush hall is provided; there are good approaches to the gallery and refreshment room. The office for advance booking, etc., is shown of suitable size. Public and private access to the sessions court and coroner's court and the rooms in connection with these are well and conveniently arranged, while the museum and curator's office are both independent of, and united to, the other departments. The courts and private rooms are of pleasant shape and proportion. The lighting, heating, and ventilation are straightforward and involve no difficulties. A caretaker's house is also provided, convenient in its arrangements and position; very few designs include this house, and it may be that the fund will be insufficient to provide it. The elevations are not so attractive in some ways as are those shown in the design I have placed second (that of Messrs. Stockdale, Harrison and Sons, and Geo. Nott of Leicester), but they marry in better with the old buildings, and if they are built of proper materials and are carefully detailed, should make a notable addition to your public offices. I should like to have an opportunity of discussing the details of these elevations with the authors before they proceed with their working drawings. With regard to the question of cost, the authors have produced perhaps the most economical plans of any. At the same time, they have made mistakes in their cubing, and I am of opinion that you must not rely upon getting a tender below the maximum figure of £40,000. The authors will no doubt make various improvements to their design in the course of working it out, and I recommend the following alterations: (1) additional emergency exit to free library yard; (2) doors from entrance hall to cloak rooms; (3) that 3 ft. or 4 ft. be taken off the lavatories behind platform to allow of assembly space for those using the platform; (4) a small service lift to kitchen from yard archway.

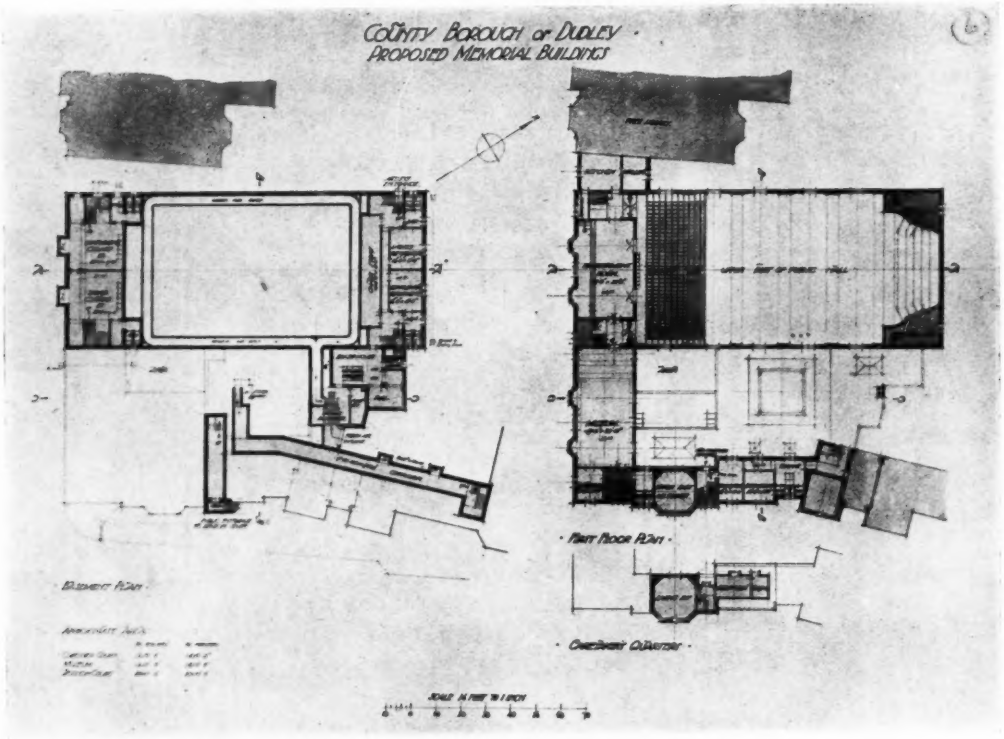
Design No. 3, which I have placed second, has many attractive features. The elevations are particularly pleasing, and show considerable knowledge and refinement in detail. Unfortunately the new buildings do not unite well with the old. The plan is not so economical, nor the lighting so good, as is No. 54. The access and exits to the hall are not so good, nor are the arrangements of the courts and adjoining rooms so convenient. The memorial tower and the memorial hall, set apart from general use, are attractive, and the whole is a distinguished design.

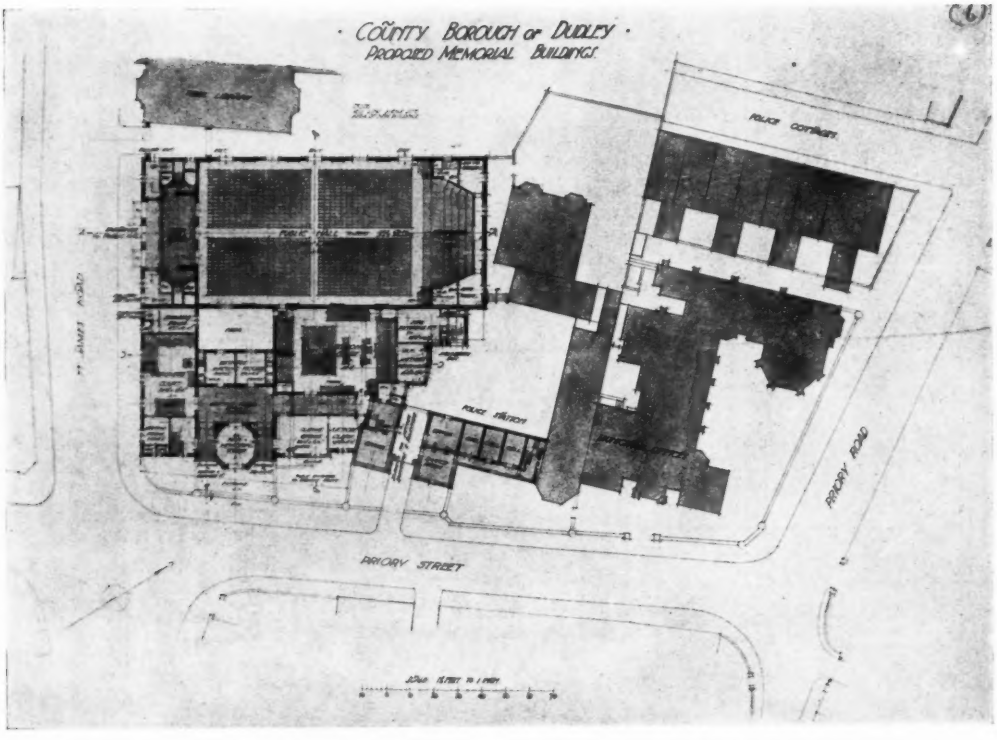
The third place has been more difficult to fill; there are many designs of merit and ability. I have awarded this premium to No. 6 (Messrs. H. V. Ashley and Winton Newman), whose plan and sections are very able. Externally the new work does not compose well with the old. It is not quite so compact a scheme as it might be. It would have been better had the memorial tower and side entrances taken the place of the waiting hall.



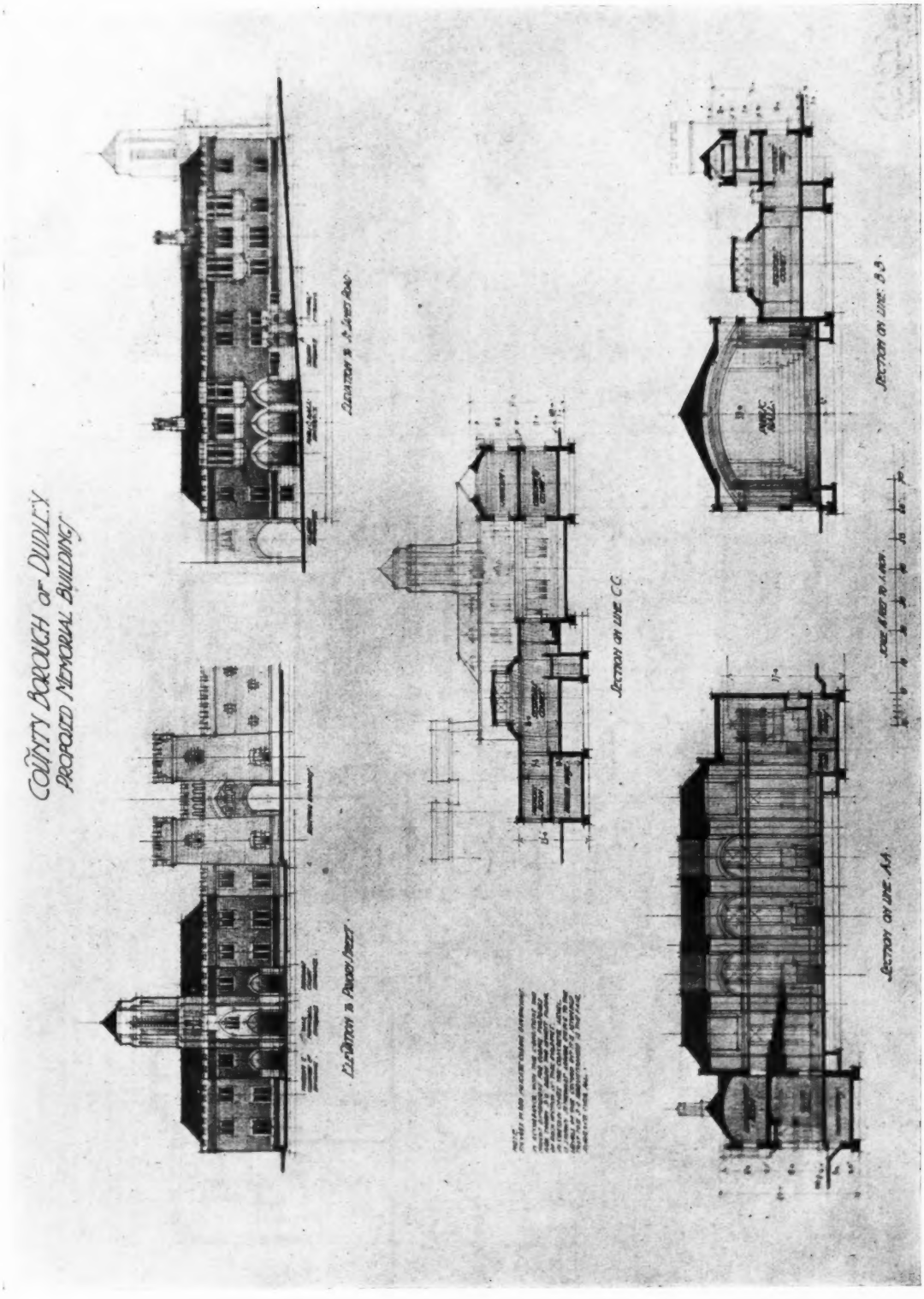


DUDLEY MEMORIAL COMPETITION: THE SECOND PREMIATED DESIGN.
STOCKDALE, HARRISON, AND SONS, AND GEORGE NOTT, ARCHITECTS.





DUDLEY MEMORIAL COMPETITION: PLANS OF THE THIRD PREMIATED DESIGN.
H. V. ASHLEY AND WINTON NEWMAN, FF.R.I.B.A., ARCHITECTS.



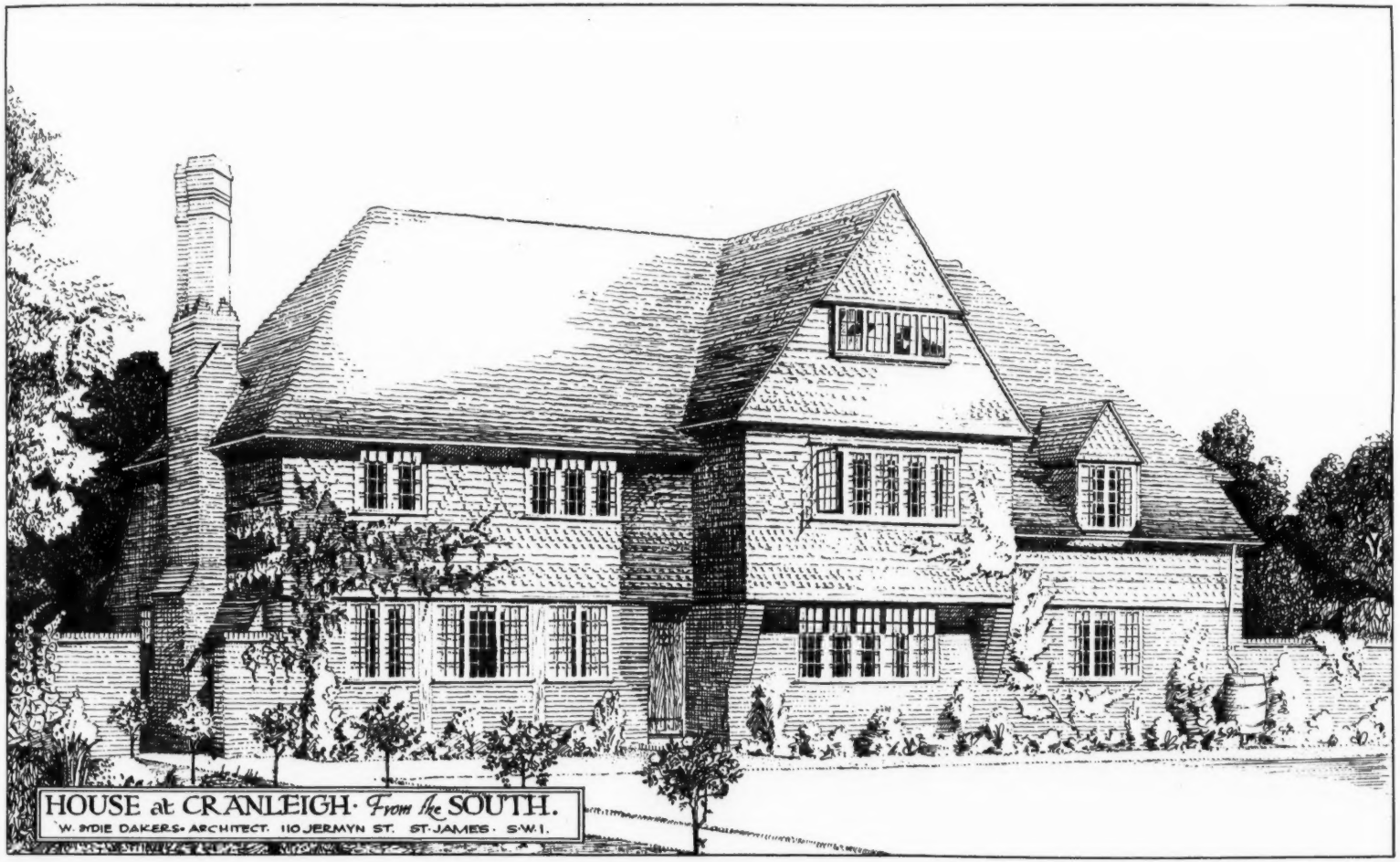
DUDLEY MEMORIAL COMPETITION: THE THIRD PREMIATED DESIGN.
H. V. ASHLEY AND WINTON NEWMAN, FF.R.I.B.A., ARCHITECTS

THE ENTRANCE FRONT.

A HOUSE AT CRANLEIGH, SURREY. W. SYDIE DAKERS, ARCHITECT.

Modern Domestic Architecture. 75.—A House at Cranleigh, Surrey : The Garden Side

W. Sydie Dakers, Architect



The walls and roofs of this house are in local hand-made bricks and tiles, the first-floor walls being built "rat trap" fashion and the weather tiling fixed direct to the joints. All the windows are fitted with steel casements, and leaded lights are fixed between the brick reveals on the north side of the house, and in oak frames on the other fronts.

Contemporary Art

A Great War Memorial.

A tablet in Westminster Abbey and a memorial roll which will be deposited in the Chapter House, will commemorate the services of the Royal Army Medical Corps in the war. The roll will form a folio volume of 270 pages of lambskin, and contain alphabetical lists of officers and men who fell, with rank and date of death. It is a great monument, and is the work of Graily Hewitt and his assistants, H. Higgins, M. Walker, F. Raymond, I. Henstock, V. Peacock, and R. Capey. No such beautiful piece of work has been produced in modern times. It is written in the legible script of the Italian fifteenth century and illuminated in a style which Graily Hewitt has made his own. Floral and animal forms are used with a great variety of consistent decorative treatment. It observes the traditions of the illuminating craft, and includes scroll work, bars of burnished gold, panels of colour, section headings of sentences from the parable of the Good Samaritan. A large scene is placed opposite the title-page, a portrait of St. Luke and one of Æsculapius. It would be impertinent to praise a work of such reverence and beauty. It must be seen, and may be until the 29th, in Room 72 in the Department of Engraving at the Victoria and Albert Museum.

Painter-Etchers and Engravers.

The forty-second annual exhibition is being held at 5a Pall Mall East. It is sound, if not exciting, and includes some admirable architectural etchings. F. L. Griggs's "St. Botolph's, Boston," is a delightful trial proof; Frederick Marriott's "Ravello," a charming study of buildings nestling against a background of hills; E. S. Lumsden's "Ronda" has clever reflections, and Henry Rushbury's solid mass of "Santa Croce, Florence," and Job Nixon's interesting interior of an "Italian Flour-Mill," are excellent prints. The most imposing architectural plate, however, is William Walcot's "Entry of the Consul," a dignified work with pictorial as well as architectural virtues, and the artist's etching technique has never been seen in simpler or better form. Of tone work there is a satisfying display, amongst which W. Westley Manning's "Staithes Bridge," E. S. Earthrowe's "Mildenhall," Eleanor Fell's "Veere," D. T. Smart's "Rye," Alfred Hartley's "Regatta Night, St. Ives," stand out, as well as plates by B. Eyre Walker and Percival Gaskell. John F. Greenwood is a clever etcher with a tendency to scratch and cross-hatching. His "Farm on the Marsh" is less subjected to this process, and is all the better on that account. G. L. Brockhurst's etchings stand out among the figure subjects, and there are some interesting wood engravings, which benefit by a more or less close observance to the English tradition.

Water-colour Drawings.

Two new exhibitions at Walker's Galleries are by Ella M. Fraser and J. S. C. McEwan Brown. The work of the former has been done on the Riviera, in Italy, and in Switzerland. It consists mostly of flower pieces of small size, rather crowded, and full of colour. McEwan Brown shows no fewer than 109 drawings, small and large, which maintain a high standard of execution and a reasonable cost price.

The Modern Society of Portrait Painters.

In a mediocre show at the Alpine Club Gallery John St. Helier Lander surpasses his previous record in the portrait of the Prince of Wales, an engaging study, free from the excessive bravura with which the artist sometimes somewhat inconsiderately endows his canvases. The work has been awarded a silver medal at the Salon. Curiously enough another work by St. Helier Lander is the runner-up at this show, his portrait of Richard Gilbey Rivière, Esq. F. H. S. Shepherd's accomplished work gives distinction to the exhibition; John M. Hay's "The Honble. Mrs. Arnold Henderson" is one of his best portraits, and there are good things by F. C. Muloch and J. Crealock.

KINETON PARKES.

Law Report

Downs Hotel, Hassocks

Hewlett and others v. *The Brighton Guardians.*

January 29. Chancery Division. Before Mr. Justice Tomlin.

This was an action by the plaintiff, Mr. P. Hewlett, of Kensal Rise, London, and others, against the Brighton Guardians, to recover damages for breach of covenant in respect of the Guardians' tenancy of the Downs Hotel, Hassocks, for six and a half years when the War Office on the outbreak of the war required the use of the institution where the pauper lunatics were housed. Plaintiffs claimed £2,833; defendants brought £580 into court. In the agreement under seal January 19, 1915, for £280, a year's rent, was a clause saying the defendants would maintain the premises "in good tenantable repair and condition, and will deliver up the same in as good state and condition as the same are now in." Plaintiffs asked for declaration on this covenant, and said the defendants were not to make structural alterations or additions and must replace fixtures removed or pay damages for removal.

Mr. Greene, K.C., argued the case for the plaintiffs, and Mr. Galbraith, K.C., on behalf of defendants.

Mr. Greene said his contention was that the property was to be maintained and handed over at the end of the term in "good tenantable repair." That was his construction of the clause.

Mr. Galbraith submitted that the standard at handing over was to be the state at taking over.

Mr. Greene thought that the premises should be made acceptable to any person who wanted them for an hotel.

Mr. Galbraith said his instructions were that the premises were dilapidated when taken, they had been unoccupied for a year, the plaintiffs had foreclosed as mortgagees, and in the language of some of their witnesses the premises were in a derelict condition.

Expert evidence was given on behalf of the plaintiffs by Mr. F. A. Dod and Mr. C. W. Dennis, of Messrs. Francis Dod & Co., and for the defendants by Mr. W. Long, a Brighton surveyor, and Capt. Stanton, of the War Office. Mr. E. Wright, of the Assessment Committee, Brighton, stated that £251 was spent to make the place habitable, and another £250 to adapt it for Poor Law requirements.

His lordship made a declaration in favour of the plaintiffs, and referred the matter to the official referee for inquiry, reserving all costs.

In the course of his judgment his lordship said he came to the conclusion that the defendants were to keep in good tenantable repair, having regard to the age, character, and locality of the property. There were phrases in the clause which referred to different duties, and viewing the document as a whole it was, he found, intended to regulate the rights of the parties having regard to the time to which those rights referred. A question was whether the time was after the Guardians had carried out certain works or before. He made a declaration that on the true construction the Guardians were bound to put and keep the premises, fixtures and fittings throughout the term in good tenantable repair and condition having regard to the age, character and locality of the property, and to hand the same over in no worse condition (that, of course, did not limit the previous obligation) than the premises were in before any alterations were made thereon by the Guardians.

New Town-planning Powers

A supplement of additions and amendments to the Town-Planning Model Clauses has just been issued by the Ministry of Health. New clauses are provided for use in obtaining the approval of orders by the Minister, and for the standard specifications of street works and materials, and amendments and additions are given for the regulation of streets under town-planning schemes and by-laws, and to the powers to reserve land for streets. The supplement can be obtained, price 9d. net, from H.M. Stationery Office.

Societies and Institutions

R.I.B.A. Visiting Board.

The Council of the R.I.B.A., on the recommendation of the Board of Architectural Education, have approved the creation of a Visiting Board, to visit and report upon all schools of architecture applying for or enjoying exemption from the Royal Institute examinations.

The following have been appointed to constitute the Visiting Board: Mr. Paul Waterhouse, F.S.A. (F.), past-president R.I.B.A.; Mr. W. Curtis Green, A.R.A. (F.), chairman of the Board of Architectural Education; Mr. Maurice E. Webb (F.), vice-chairman of the Board of Architectural Education; Professor C. H. Reilly, O.B.E. (F.), Roscoe Professor of Architecture, University of Liverpool.

H.M. Inspector, Mr. M. S. Briggs (F.), will accompany the Visiting Board upon their visits to those schools of architecture which have official relations with H.M. Board of Education.

The Royal Society of British Sculptors.

Presiding at the annual dinner of the Royal Society of British Sculptors, held in London, Mr. W. Reynolds-Stephens, the president, said that the space provided at the coming British Empire Exhibition was much too limited for a worthy and representative show of what all classes of British sculpture produced. When would England do something worthy of her premier place among the nations? To the new Government he looked with some hopefulness. The Labour Party were rightly keen on the spread of the advantages of education, and also placed in the forefront of their programme the unemployment question. He suggested that considerable employment would be given if a really great National Palace of Art were erected in London. It should be one in which every branch of the arts could properly exhibit periodically, and, as in France, obtain the necessary space for a nominal fee. By the institution of free admission on certain days each week, the people would be provided with the highest form of educational culture. The society has just established a permanently endowed gold medal "for distinguished services to sculpture," and the first presentation of this award was made during the evening to Sir Hamo Thornycroft, R.A. The medal was designed by Mr. D. McGill.

The Master Carvers' Annual Dinner.

The annual dinner of the Master Carvers' Association of London was held on Thursday last in the Connaught Rooms under the chairmanship of Mr. Laurence A. Turner, F.S.A., the President. In proposing the toast of "Our Guests and Visitors," the President said he placed first among their guests those who represented architecture, pointing out that as the solicitor was to the barrister, so the architect was to the master carver. Architecture, he said, was represented there by Messrs. Gilbert H. Jenkins, F.R.I.B.A., Walter Tapper, F.R.I.B.A., Colin H. Murray, A.R.I.B.A., W. H. Ansell, M.C., F.R.I.B.A., C. G. Hare, and J. R. Scott, the Architectural Association by Mr. F. R. Yerbury, and sculpture by Mr. G. Bayes. Representatives were also present of painting, music, and other allied professions and crafts. He coupled the toast with the name of Mr. H. B. Judge.

After Mr. H. B. Judge had replied, Mr. W. Aumonier, the hon. secretary, proposed "The Ladies," and Mrs. E. Frith, the wife of a master carver, in reply, commented upon the good comradeship which existed between the master carver and the operative. She congratulated the craft on not being swallowed by commercialism.

Mr. Gilbert H. Jenkins, F.R.I.B.A., in proposing "The Master Carvers' Association," said that architects were only too pleased to have such a body as the Association to beautify their buildings. It gave him great pleasure to come among those that practised a craft older than architecture. If, in looking down through history, English architects might not always claim to be better than those of Europe, in one century at least—the thirteenth—the work of the English carver was as good as that of any other nation, and even surpassed that of the French.

Mr. J. D. Daymond, in reply, said they greatly appreciated the remarks made by Mr. Gilbert, and they would do their best to live up to the traditions set by the craftsmen of so long ago.

Mr. W. D. Gough, the Vice-president, in proposing "The President" wished his successor every success, and recalled that Mr. Turner, himself, and some others in the room first met at a meeting held in Victoria Street over twenty-six years ago.

The President, in reply, referred to the valuable services rendered to the Society by the hon. treasurer, Mr. J. Dudley Daymond; the hon. secretary, Mr. W. Aumonier; the assistant hon. secretary, Mr. W. Whitworth Aumonier; and the vice-president, Mr. W. D. Gough.

The musical programme was contributed to by the following members and their friends: Messrs. F. W. Morton, David Openshaw, W. H. Ansell, Wilfred C. Bland, and Mrs. A. Southwick. A special feature of the programme was a burlesque on the World's Worst Film.

The Circular Temples of Rome.

Sir Banister Fletcher, F.R.I.B.A., lecturing at the Central School of Arts and Crafts, gave an interesting description of the Roman circular temples. He said that the little Temple of Vesta had the most attraction for English people. In its simplicity of plan, with its central altar-fire, it stood in the Forum Romanum as the centre of civic life, as a reminder of the sacredness of the Roman hearth, and its importance was intensified by the consecration of six "vestal virgins" to the service of the goddess. The convent-like building which housed them could still be traced, but of the temple little remained. He also referred to the Temple of Mater Matuta, the temple at Tivoli, and that at Baalbek, and gave an exhaustive account of the Pantheon.

Roman Decadence.

Another of Sir Banister Fletcher's lectures dealt with the construction and equipment of the great Roman Thermæ, or baths, and revealed that love of luxury which gradually gnawed at the vitals of Roman power and progress. These gigantic thermal establishments showed us those old Romans as past masters in matters of water supply, central heating, and complicated planning. These baths were designed to minister to the pleasure needs of a population that emperors sought to placate. The old spirit which had made Rome the mistress of the world was flickering out, and men's minds were turned from arms and war in distant provinces to the pursuit of pleasure and personal indulgence. These magnificent and monumental buildings were the last word in luxurious living, providing as they did not only for bathing and its attendant services, but also for amusement, exercise, lounging, gossip, and even lecturing, and in these marble halls and colonnades the gilded youth of Rome chatted over the news from the front and criticized the Government at home. Buildings designed to meet such complicated requirements involved a fresh development in architectural planning, and they could only be carried out by using slaves for labour, and concrete for material. The Thermæ of Caracalla formed the first great Roman structure which resembled in its complicated character a modern architectural plan. The central block, with its central tepidarium, flanked by the frigidarium,

calidarium, and countless chambers and corridors, was as vast as that of Westminster Palace, including the Great Hall itself. Similar baths were erected throughout the Roman Empire, such as at Pompeii in Italy, Timgad in Africa, or Bath itself, in our own country, and substantial remains exist at the present day to remind us of their former magnificence.

The Institution of Public Lighting Engineers and Superintendents.

The first conference of the Institution of Public Lighting Engineers and Superintendents is to be held on February 15, at 2 p.m., in the Court Room of the Holborn Borough Council Offices, 157 High Holborn. The first President, Mr. S. B. Langlands, the Public Lighting Superintendent of the City of Glasgow, who will preside at the conference, will deliver his presidential address, and a short paper on street lighting will afterwards be submitted by Capt. W. J. Liberty, Public Lighting Superintendent of the City of London, in connection with which there will be a demonstration of the centrally suspended high-power electric and gas lamps in the City, and an inspection of the public lighting of the Metropolis. A small exhibition of some of the most modern street-lighting appliances will be held in connection with the conference.

Coming Events

Wednesday, February 13.

L.C.C. Central School of Arts and Crafts, Southampton Row, W.C.1.—Lecture XVII: "Theatres, Amphitheatres, and Circuses." By Sir Banister Fletcher.

Thursday, February 14.

Edinburgh Architectural Association.—"Illuminating Engineering." By Mr. Lawrence M. Tye. 8 p.m.

British Museum.—Lecture XVIII: "The Terramere and Etruscan Periods." By Miss Claire Gaudet. 4.30 p.m.

Monday, February 18.

R.I.B.A., 9 Conduit Street, W.1.—"Charing Cross Bridge." By Mr. Paul Waterhouse, PP.R.I.B.A.

Northern Polytechnic, Holloway, N.—"Electricity." By Mr. J. Nicol, B.A., B.Sc.

The Building Exhibition

Barring strikes and political disturbances, 1924 holds every prospect of being a boom year for the building industry, the constantly increasing demand for general building, to say nothing of that class that comes under the term "luxury," makes it imperative that, at all costs, the industry must rapidly proceed. There is little prospect of prices falling much lower, and work that has been held up owing to the difficulty of exact estimating is now being pushed forward. The Building Exhibition, which opens at Olympia in April next, is being more keenly anticipated by the architect and builder than ever before, for he is not only able to come into direct touch with the manufacturer and actually to handle the goods, but can obtain competitive prices for the hundred and one items incidental to the building trade. There is no finality about the Building Exhibition; it grows yearly, not only in importance, but in the elaborate structures erected to display the exhibits to the best advantage.

Since the last exhibition, held in 1922, Olympia has had considerably to extend its boundaries, and an additional hall, covering half the extent of the old building, has been erected at a cost of some £450,000. The promoters of the Building Exhibition had the option of having these additional premises, and, in anticipation of rapidly developing building interests, they welcomed the opportunity of providing further accommodation for their clients. Their foresight has been justified in that the whole space of the new building—in addition to that of the old one—has already been booked for exhibits directly appertaining to the building industry. Everything points to the forthcoming exhibition being the biggest and most comprehensive of the series held since 1895; as regards woodworking machinery, every firm in this country, with one exception, is represented.

It is intended this year to revive the competitions for craftsmen, which proved so popular a feature in the old Agricultural Hall more than thirty years ago, and all the trades training schools are being asked to compete. Particulars of these competitions were published in a recent issue of the JOURNAL.

Competition News

The Royal Masonic Boys' School, Herts.

From February 18 to 22 the designs submitted in the competition promoted by the Royal Masonic Institution for Boys, for a junior school at Bushey, Herts, will be on view at 26 Great Queen Street, W.C.2. The designs can be seen between the hours of 10 a.m. and 5 p.m. Architects will be admitted on presentation of their cards.

Port Talbot Park Entrance Gates.

Mrs. Morris Gray, of Penrith, has secured first place in the competition promoted by the Port Talbot Corporation for designs for the entrance gates of the Talbot Memorial Park.

The Edmonton War Memorial.

The design of Messrs. William Griffiths & Co., Ltd., of London, for the Edmonton war memorial has been accepted by the Council.

List of Competitions Open

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

The Week's News

A Proposed Housing Scheme for Dudley.

It is proposed to erect 100 houses at Netherton.

Newport Workhouse as Flats.

Woolaston House, a portion of the Newport workhouse, is to be converted into sixty-five flats.

The Rebuilding of a Windsor Bridge.

£6,000 is to be contributed by the Berkshire County Council towards the cost of rebuilding Albert Bridge, Windsor.

Proposed New Workhouse for Mansfield.

The question of erecting a new workhouse is being considered by the Mansfield Board of Guardians.

Hemsworth's Housing Requirements.

It is estimated that 2,000 houses are required in the Hemsworth Rural District.

The Widening of Scarborough Pier.

The Scarborough Harbour Commissioners are to spend £3,850 in widening the west pier alongside the fish market.

More Cottages for Chesterton.

Fifty four-roomed cottages are to be built by the Chesterton (Cambs.) Rural District Council.

The Belfast War Memorial.

Nearly £10,000 has been subscribed towards the Belfast war memorial.

A New Bathing Pool for Bridlington.

A new bathing pool is to be constructed at the Spa, Bridlington, at a cost of £6,500.

Malton Development Scheme.

At Malton Earl Fitzwilliam proposes to lay out an estate and to erect 120 houses.

New Bridges for Birmingham.

Eleven new bridges are to be constructed by the Birmingham City Council.

A New Band Pavilion for Folkestone.

Plans are being prepared for a band pavilion for the eastern end of the Marine Gardens. The cost is estimated at £15,000.

A Big Housing Scheme for Adwick.

Plans have been passed by the Adwick Urban District Council for 552 houses for the National Industrial Housing Association.

Two Hundred Houses for Glasgow.

The Glasgow Dean of Guild Court have sanctioned the erection of 200 houses at Merryflats. The cost is estimated at £64,800.

Tynemouth Street Improvements.

The Tynemouth Corporation have received the sanction of the Ministry of Health to a loan of £12,218 for street improvements.

The New President of the Sheffield Building Association.

Mr. G. E. Marlow has been elected president of the Sheffield, Rotherham and District Building Trades Employers' Association.

Seventy Houses for Sherwood.

A private syndicate has offered to purchase from the Nottingham City Council a portion of the Sherwood Housing estate, upon which it is proposed to erect seventy houses.

A New Housing Scheme for Manchester.

The Ministry of Health have sanctioned the construction of a road to open up agricultural land in Withington upon which it is proposed to erect 500 houses. The cost of the road is estimated at £24,500.

Historic Norwich Building Threatened.

The Hercules and Samson house on Tombland, facing the Erpingham Gate leading to Norwich Cathedral, is to be put into the market. The house stands on the site of a mansion which in the fifteenth century was the city residence of Sir John Fastolf. Efforts are being made in Norwich to preserve the building for the city.

Mr. J. Gunton, F.R.I.B.A.

Mr. Josiah Gunton, F.R.I.B.A., common councilman, is a candidate for the vacancy in the Court of Aldermen of the City of London, caused by the death of Sir John Bell. The nomination will take place to-day, and the polling to-morrow.

Manchester's Big Tube Scheme.

A special committee has been appointed by the Manchester Corporation to consider the advisability of constructing a tube system. The tube suggested is thirty miles long, and would cost over £1,000,000.

The Nottingham Improvement Scheme.

The Ministry of Health have sanctioned the scheme of the Nottingham City Council to clear the Red Lion Street area. Working-class dwellings are to be erected in connection with the scheme to accommodate 1,496 persons.

Historic Bridge Doomed.

Carmarthen Bridge, a stone structure of seven arches over the River Towy, South Wales, has been condemned as unsafe. It is suggested that the bridge, which was originally built by the Romans, should be replaced by a new one.

A New Road for York.

The Ministry of Health have agreed to contribute 50 per cent. of the total cost, estimated at £27,868, of constructing a new road from Tang Hall Lane to Hull Road, York, if the York City Council put the work in hand at once.

Big Waterworks Extension for Hull.

The Government Unemployment Grants Committee have approved the application of the Hull Corporation Waterworks Committee for sanction to a loan of £90,000 for machinery required for the extension of the Durswell waterworks.

Belfast's Leaning Tower.

The Albert Memorial Clock Tower, a well-known landmark in Belfast, has developed a serious list owing to a subsidence in the foundations on one side. A contract is shortly to be placed for overhauling and underpinning.

Lowest Price L.C.C. House.

Answering Captain Pierrepoint at the last meeting of the London County Council, Colonel Levita, chairman of the Housing Committee, said the lowest priced three-roomed house on the Council's estate would cost, with roads and sewers, £510.

L.C.C. Unemployment Schemes.

Big schemes to relieve unemployment, which the L.C.C. are to consider, include the following sewer extensions: Three-mile system for Lewisham, Penge, Beckenham, Catford, and Lee; Eltham Road to Charlton, 1½ miles; Brixton Hill and Streatham Hill. The cost is estimated at £500,000.

A Glasgow Landmark in Danger.

St. Enoch Church, situated in the business centre of Glasgow, is to be removed to provide improved traffic facilities. The suggestion of the Archæological Society of Glasgow and the Old Glasgow Club that the steeple should be retained is being considered by the Corporation.

An Ipswich Ancient Monument for the Public.

Mr. R. E. Thomas, of Beeleigh Abbey, has purchased the ruins of St. Giles Hospital, Malden, and presented them, subject to certain conditions, to the Ipswich Town Council. The ruins are scheduled as an "ancient monument" by the Royal Commission on Historical Monuments.

The late Mr. George Hampton.

It is with deep regret that we record the death, at the age of seventy-nine, of Mr. George Hampton, of Holmwood Park, Langham, Wimborne. He was chairman and dominant partner of Messrs. Hampton and Sons, Ltd., and was much respected in the furnishing trade. He took a keen interest in farming, and for a long time held property at Norton

(*Continued on page* 322.)

The Week's News—*continued.*

Stacey. Death occurred on February 3 in London after an operation, and the funeral took place at Hampreston Church, near Wimborne.

Presentation to a Dewsbury Assistant.

Mr. T. Blakeley, chief architectural assistant to the Dewsbury Corporation, has been presented with a gold watch and chain by the Dewsbury Master Builders' Association, in appreciation of the advisory assistance he has given them under the Corporation's housing scheme.

The Royal Cambrian Academy.

At the annual general meeting of the Royal Cambrian Academy, held at Conway, Messrs. Harold Hughes, A.R.I.B.A., and G. A. Humphrey, F.R.I.B.A., were re-elected members of the Council. Mr. Josias C. Beare, A.R.I.B.A., of Newton Abbot, was elected an Associate.

The Home of Alfred Stevens.

In connection with its work of indicating houses in London where distinguished persons have lived, the London County Council have affixed a tablet to 9 Eton Villas, Haverstock Hill, N.W., where Alfred Stevens, the sculptor, designer, and painter, lived from about 1865 until he died on May 1, 1875.

A New Use for Wartime Huts.

The Treasury, it is understood, suggest that the wartime huts on the Victoria Embankment, by Richmond Terrace, and those next to Gwydyr House should be reconditioned and used to house the Government staffs at present accommodated in permanent buildings for which high rents have to be paid. The huts in Regent's Park and those on the top of the Admiralty Arch, the Office of Works propose to demolish.

Ken Wood for the People.

The Hampstead Borough Council have decided to proceed with the scheme for acquiring the remainder of the old forest of Ken Wood. The Council have received an option to purchase thirty acres of land from the Earl of Mansfield for £31,000, and of this sum the Borough Council would need to raise only £5,000, as promises had been obtained for the balance of the purchase price from the Councils of St. Pancras, Islington, Hornsey, and Finchley.

The Manchester Masonic Temple.

At the annual meeting of the East Lancashire Masonic Benevolent Institution, held at Manchester, Mr. James Hyson, the chairman, said that it was hoped towards the autumn to lay the foundation stone of the new Masonic Temple to be erected in Manchester. It was contemplated at first to provide accommodation for eighty lodges in addition to administration offices. Mr. Rupert Savage, F.R.I.B.A., of Crouch, Butler and Savage, FF.R.I.B.A., is the architect.

Reduced Railway Rates for Wembley Exhibits.

Arrangements have been made with the railway companies for exhibits to the British Empire Exhibition to be carried by goods or passenger train at half rates at owner's risk. Similar arrangements will apply to all unsold exhibits returning from Wembley at the close of the exhibition. Certificates showing that the goods are actually intended for the British Empire Exhibition are being prepared, and these will be sent to exhibitors as soon as the Railway Clearing House has approved of their form.

Grants for Church Work.

At the monthly meeting of the Incorporated Church Building Society, held in Westminster, grants were made towards building new churches at Ashby and Crosby, Lincs., and towards enlarging, reseating or repairing the churches at Ascot, Berks.; Brooke, Oakham; Chartham, Kent; Clacton-on-Sea; and Plymouth. Grants were also made towards mission churches at Garth, Brecons.; Rhostryfan, Carns.; and Swansea. Grants were also paid for church work which has been completed; £450 was paid towards the repair of twenty-nine churches from trust funds held by the Society. The number of grants made last year was double the number and amount of grants made during 1922.

Commemorative Medals for Wembley Exhibitors.

The Board of the British Empire Exhibition have amended the regulations of the exhibition, and a commemorative medal, accompanied by a decorative certificate, will be awarded to each exhibitor who has rented space in the United Kingdom section. India, the Dominions, Colonies, Protectorates, and Mandated Territories will receive for distribution amongst their exhibitors a sufficient supply of identical medals and certificates. Exhibitors participating in collective exhibits of products or manufactures organized by the United Kingdom or Overseas Governments, or in art and scientific research exhibits organized by Governments, Associations, and Committees, will receive a diploma of honour.

The Ideal Home Exhibition.

"The Daily Mail" Ideal Home Exhibition will be opened at Olympia by the Duchess of York on February 28. Every available inch of space in the two great halls, the annexe, and the thousand yards of wide galleries will be occupied with demonstrations of how homes of every type can be improved both as regards beauty and utility. The exhibition will remain open until March 22, at a charge of two shillings, save on Tuesdays, when the entrance fee will be four shillings up to five o'clock.

The International Advertising Convention

The International Advertising Convention, 1924, organized by the Associated Advertising Clubs of the World, will be held at the British Empire Exhibition, Wembley, from July 14 to July 19. During the convention it is hoped to find means of lessening the difficulties which beset world trade, to make more widely known the resources of the British Empire, to demonstrate the excellence of British goods and British craftsmanship, to extend our world markets, to improve our methods of marketing our products, to organize British advertising selling to a higher pitch of efficiency, and to improve our international relations—commercial and diplomatic. Leading business men will attend from the British Empire, United States (1,500 delegates expected), France, Belgium, Sweden, Holland, and Spain. All communications concerning the convention should be addressed to the Secretary, International Advertising Convention, Sentinel House, Southampton Row, London, W.C.

New Inventions

Latest Patent Applications.

1802.—Greenwood, T. W.—Wall ventilators. January 23.
1629.—James, W. H. Clarke—Means for fixing sheets and panels to buildings, etc. January 21.
1848.—Jones, D. Palmer—Suspended scaffolds. January 23.
1661.—Jonsson, J. A.—Wooden building-blocks. January 21.
1832.—McCaughan, W.—Walls for building, etc. January 23.
1772.—Thomson, R.—Walling. January 22.

Specifications Published.

209636.—Hope, R. W., and Hope and Sons, Ltd., H.—Glazed roofs.
209688.—Furniss, T., and Farren, J. B.—Precast concrete slabs for floors, roofs, or the like.

Abstract Published.

207864.—Thomson, R., 52 Chancery Lane, London. Double Walls.

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

Publications Received

"The House Painters' Handbook." By James Lawrance. Edited by W. G. Sutherland. Price 5s. net. The Decorative Art Journals Co., Ltd., 9 Albert Square, Manchester.

"Elementary Principles of Reinforced Concrete Construction." By Ewart S. Andrews, B.Sc., A.M.Inst.C.E. Third Revised Edition. Price 7s. 6d. net. Scott, Greenwood and Son, 8 Broadway, Ludgate Hill, London, E.C.4.

"The National Housing Manual: A Guide to National Housing Policy and Administration." By Henry R. Aldridge, Secretary, National Housing and Town Planning Council. Price £2 2s. net. The National Housing and Town Planning Council, 41 Russell Square, London, W.C.1.

National Housing Policy

A Memorandum by the R.I.B.A.

THE following memorandum on housing has been issued by the R.I.B.A. :—

(1) The Royal Institute of British Architects was founded in the year 1834, and incorporated by Royal Charter in 1837. In addition to its own Members and Licentiates it represents the members of architectural societies which are established in every part of Great Britain and are allied to it. The Royal Institute thus represents about ten thousand members of the architectural profession.

Early in the 'fifties of the last century the Council of the Royal Institute issued an appeal to improve the dwellings of the poor. Since that date some thirty or more housing Acts and Acts bearing on the housing of the working classes have been passed. These have been in the main based upon considerations of health, leading to the examination of the construction of such houses, the size of their rooms, their lay-out, and their number to the acre.

(2) *Standard.*—In later years considerations of decency in regard to the separation of the sexes have largely determined the minimum number of rooms, so that at the present time, for a normal working-class family consisting of father, mother, and children of both sexes over twelve years of age, a living room of adequate size, three bedrooms, and the necessary offices is considered the minimum standard of health and decency.

The Royal Institute are of opinion that every house should have a bathroom, and if to health and decency are to be added convenience and comfort, the addition of a parlour is essential.

On the question of lay-out, construction of roads, sewers, and of buildings the Royal Institute do not think it would be useful in this memorandum to discuss these in detail, but would observe that there has been a concentration of attention upon these matters during the last four years unparalleled in quality and extent.

In view of this fact his Majesty's Government is asked to reconsider the report on by-laws, the Tudor Walters Report, and the Ministry of Health Housing Manual, in the light of the experience which has been gained since these admirable reports were framed. The Royal Institute would be glad to place the wide experience of its members at the disposal of the Government.

As is generally recognized the difficulties in the way of making a proper provision for the housing of the working classes are threefold, and may be summed up as those of money, materials, and men. On these three matters the Royal Institute make the following observations :—

(3) *Money.*—This difficulty arises from the fact that dwellings of the minimum standard before described cannot without financial assistance be provided at a rent within the capacity to pay of a large section of the working classes.

The Royal Institute therefore recognize that financial assistance is essential, but desire to point out that in giving financial assistance regard should be had to its effect in increasing demand to a point at which inflation in prices and wages ensue. They also desire to emphasize the importance of a high standard of housing as an essential condition upon which financial assistance by the State should be given.

(4) *Materials.*—The Royal Institute lay the greatest stress upon their opinion that the materials best suited for house building are those which long experience and practice have brought into use. They do not desire to discourage experiments in new building materials, but are strongly of the opinion that the experience of the last four years, if examined, would be found overwhelmingly in favour of the materials in common use before the war.

In their opinion the difficulty in securing an abundant and cheap supply of such materials is largely associated with fluctuations in demand. The inflation of prices which followed upon the abnormal demands made upon the sources of supply in 1919 and 1920 should not be forgotten. The Royal Institute do not desire to see this repeated, and are of opinion that it will inevitably follow the attempt immediately to carry out a housing programme beyond the present capacity of the building industry. They are of opinion that the development of material supplies will take place with the minimum of inflation if the housing programme adopted is so carried out as to cover an extended period, commencing with a number within the compass of available resources and increasing to the maximum that is required by steady increments.

The Royal Institute are, moreover, of opinion that the element of cost in house building which is due to the price of materials should be isolated and made known so that a correct opinion upon it may be formed. For this purpose the Royal Institute consider that the work of the Committee on the Prices of Building Materials is of the utmost importance, and that the scope of the reference to this committee should be enlarged if necessary so as to enable it to make recommendations on the methods best calculated to secure an adequate supply of materials at reasonable prices.

(5) *Men.*—The question of output in relation to labour is as obscure as the cost of production in relation to materials, and the Royal Institute are of opinion that it is as essential to isolate this element of cost and make it known as in the case of materials, and they therefore recommend that the Government should be asked to enquire into this matter contemporaneously with their enquiry into the price of materials. The Royal Institute are also of opinion that to avoid inflation the necessity for an extended programme beginning with a demand commensurate with the capacity of the building industry and increasing to a maximum is as imperative in the case of labour as in that of materials.

The man power of the building industry was seriously depleted by the requirements of the war. This depletion was felt by an industry already suffering from the effect of the depression in the building trade which preceded the war, and is greatly accentuated by the fact that the apprenticeship system has broken down and has not been replaced by any other means of recruiting the industry.

The Royal Institute cannot too strongly express the view that the solution of the housing problem depends more than anything else upon an increase in the number of men employed in building. Holding this opinion they recommend that the Government should at once consider what steps can be taken in view of the failure of the apprenticeship system to secure the annual entry of sufficient numbers into the building industry.

(6) *The Effect on Building other than Housing.*—The Royal Institute are of opinion that the attention of the Government should be drawn to the fact that house building has hitherto engaged but a small part of the activities of the building industry. Those activities are threefold :—

(1) The maintenance of existing buildings.
(2) The provision of buildings for commercial, industrial and public purposes.
(3) The provision of dwellings.

It is clear that an abnormal demand upon a depleted industry for the purpose of house building must re-act unfavourably upon the cost of maintenance and the provision of buildings other than dwellings. It would be a "penny wise and pound foolish" policy either to let old buildings sink into disrepair, or to cripple the expansion of trade and industry at a time when unemployment is so great. Both these considerations point to the conclusion already expressed that a housing programme, while outlined on a sufficient scale and carried out with vigour and determina-

tion, must have regard in its earlier stages to the present capacity of the building industry.

(7) The Royal Institute are of the opinion that the housing of the working classes is a permanent task and not merely a passing problem, and that whatever machinery be set up for its performance, it is essential that architectural experience and practice should be employed to the fullest extent. It is desirable that the resources of the architectural profession in every locality should be as fully requisitioned as those of materials and labour, and the Institute in conjunction with its allied societies is prepared to assist the Government to the fullest extent in securing this result.

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

The juries for 1924 have been appointed as follows :—

The Chairman of the Board	S. D. Kitson.
of Architectural Education.	Professor Beresford Pite.
Lionel B. Budden.	The Critic.

The Tite Prize.

The Chairman of the Board	Fernand Billerey.
of Architectural Education.	Professor C. H. Reilly.
Robert Atkinson.	The Critic.

The Measured Drawings Medal.

The Chairman of the Board	Theodore Fyfe.
of Architectural Education.	Basil Oliver.
H. Chalton Bradshaw.	The Critic.

The Owen Jones Travelling Studentship.

The Chairman of the Board	Gerald Moira.
of Architectural Education.	Halsey Ricardo.
Arthur J. Davis.	The Critic.

The Grissell Gold Medal.

The Chairman of the Board	W. E. Vernon Crompton.
of Architectural Education.	Dr. Oscar Faber.
Donald Cameron.	The Critic.

The Godwin Bursary and Wimperis Bequest.

The Chairman of the Board	Walter Cave.
of Architectural Education.	W. S. Purchon.
Professor S. D. Adshead.	

Impugning Assessors' Awards

The R.I.B.A. have issued the following communication : "The attention of the Council of the R.I.B.A. has been directed to the action of certain members who were unsuccessful in a recent competition, in addressing letters to the Press impugning the award of the assessor. It is the opinion of the Council that unsuccessful competitors, if they feel that they have grounds for dissatisfaction with an assessor's award, should approach the R.I.B.A., and that the ventilation of grievances in the public Press without such reference to the R.I.B.A. is highly undesirable. It is to be understood that this expression of opinion by the Council is not intended to preclude genuine and disinterested artistic criticism of designs submitted in competition."

The International Congress on Architectural Education

The arrangements for the International Congress on Architectural Education, which will be held at the R.I.B.A. from Monday, July 28, to Friday, August 1, 1924, are in the hands of an executive committee under the chairmanship of Mr. Maurice E. Webb, M.A., F.R.I.B.A.

The following have kindly consented to serve on the committee : Sir Reginald Blomfield, R.A., Litt.D., Sir John J. Burnet, A.R.A., R.S.A., Lt.-Col. H. P. L. Cart de Lafontaine, O.B.E., Messrs. Arthur J. Davis, G. Topham Forrest, F.R.S.E., F.G.S., W. Curtis Green, A.R.A., Stanley H. Hamp, Arthur Keen, Professor Beresford Pite, Hon. M.A., Mr. W. S. Purchon, M.A., Professor C. H. Reilly, O.B.E., Professor A. E. Richardson, and Messrs. Howard Robertson, S.A.D.G., H. D. Searles Wood, Evelyn Shaw, M.V.O., and Paul Waterhouse, M.A., F.S.A. Mr. Henry M. Fletcher, M.A., is the hon. secretary.

The congress will consist of meetings for papers and discussions, visits, receptions, and a dinner. An exhibition of students' work will be held, and it is hoped to be able to arrange for accommodation for the exhibits in Devonshire House, Piccadilly, in addition to the galleries of the R.I.B.A., 9 Conduit Street, W.1.

New Acquisitions at the National Gallery

Two interesting paintings have just been acquired by the National Gallery and are now on exhibition. The first, which hangs in Room XII, is a signed work by Jacob Ochtervelt (c. 1635–1700), and represents a lady playing a spinet, accompanied on the violin by a gentleman, while another lady conducts.

The second painting, which hangs in Room III, is a group of three figures seen in profile, looking out of a window in a fortress on the sea. In one corner are the arms of the Montefeltro family. The identity of the persons represented has not been finally settled; but it is thought that the boy holding a book is probably Guidobaldo Montefeltro, who, in 1482, succeeded his father, the famous Federigo, as Duke of Urbino. This curious panel appears to be the work of some pupil of Melozzo da Forli. It was purchased from Mr. T. Hanson Walker, Junr., out of the Florence Fund.

Central Heating—The Validity of a Contract

Rawlinson v. *Ackerley.*

February 2. Chancery Division. Before Mr. Justice Astbury.

In this case Mrs. G. Rawlinson, of Heron House, Richmond, brought an action against Mr. Edward W. Ackerley, of the Royal Palace Hotel, Kensington, claiming specific performance of an agreement for a lease by the plaintiff to the defendant of the west flat on the ground floor of South Lodge, Ham Common, Surrey. Defendant denied that there was any completed agreement and said the conditions under which he entered into the negotiations were that there should be central heating in the flat. That condition had not been carried out and he regarded that it was essential to his taking the flat.

Mr. Archer, K.C., and Mr. Waite, represented the plaintiff, and Mr. Luxmore, K.C., and Mr. Hodge, the defendant.

His lordship, after hearing the evidence, came to the conclusion that the defence set up was a complete one and dismissed the action with costs. It appeared from evidence that the plaintiff put the letting of flats into the hands of estate agents and a board was put up the wording of which she was responsible for. The agents also issued a circular with the following inscription of flats :—" Ham Common. This remarkably fine old Georgian country house, situate in the quiet seclusion of this old-world district, has been converted into exceptionally well-appointed and convenient self-contained flats, while the character of the residence remains unaltered. The flats, the rooms of which are very spacious and lofty, contain every modern convenience, gas, electric light, central heating and constant hot water." Plaintiff said that these particulars were framed by her agents without her knowledge or instructions, but it was perfectly plain that she was responsible for what they did. He was not very much impressed with her statement to that effect because on the board she put outside the premises a feature was made of the central heating. He had no doubt, on the true construction of the agents' circular, that they were offering flats which either contained or would contain when ready among other things central heating, and in no sense did the arrangements eventually made carry out the statement that the flats would have central heating. He was satisfied that defendant did agree to take the flat on the faith of having central heating. Plaintiff had not carried out that provision and therefore there was no memorandum of agreement, and he dismissed the action with costs.