Wednesday, November 4, 1925. Vol. LXII. No. 1609.

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal."

FROM AN ARCHITECT'S NOTEBOOK.

HADRIAN'S TOMB.

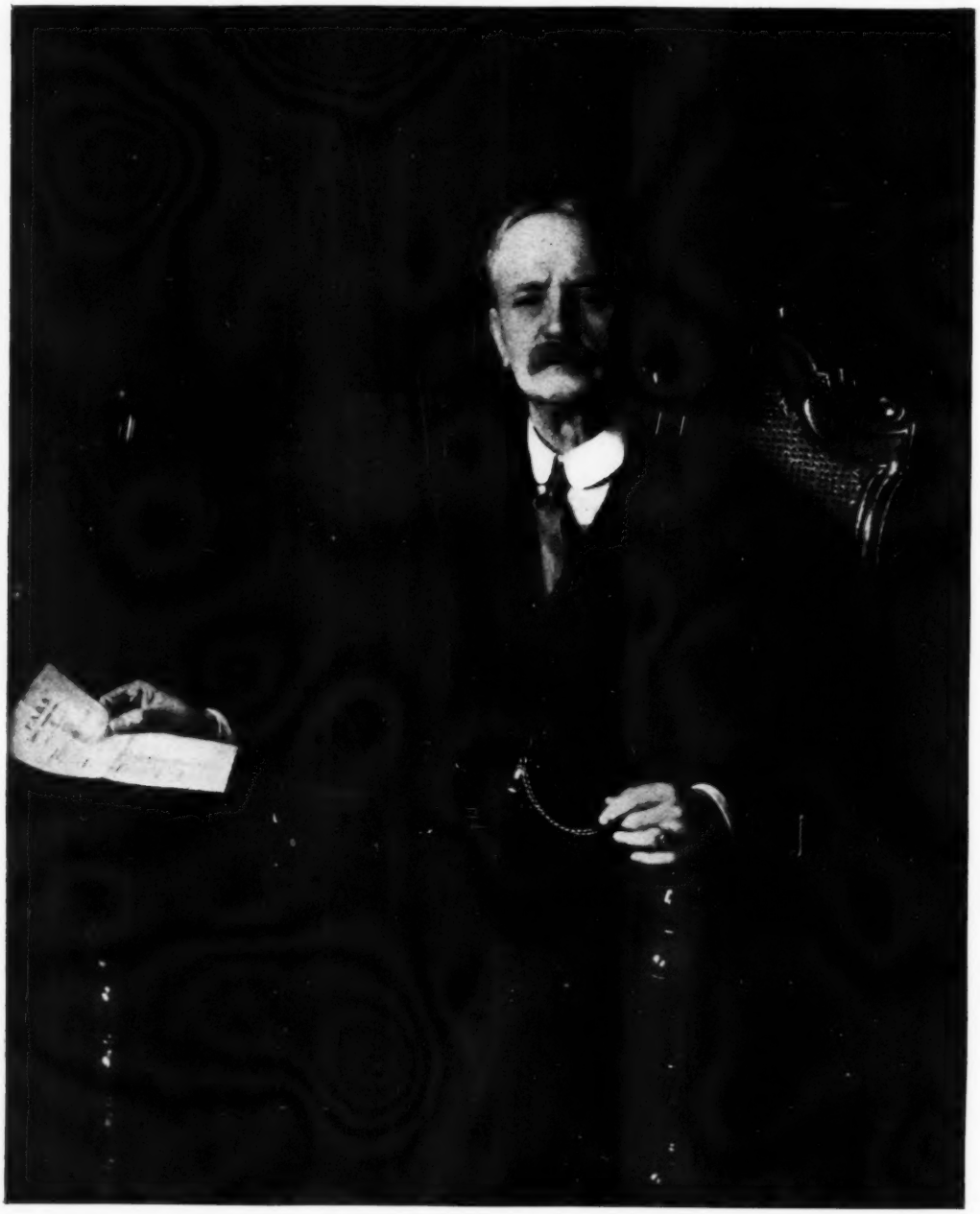
Turn to the mole which Hadrian rear'd on high,
Imperial mimic of old Egypt's piles,
Colossal copyist of deformity,
Whose travell'd phantasy from the far Nile's
Enormous model, doom'd the artist's toils
To build for giants, and for his vain earth,
His shrunken ashes, raise this dome! How smiles
The gazer's eye with philosophic mirth,
To view the huge design which sprung from such a birth.

BYRON.

9 Queen Anne's Gate, Westminster.

The Presentation Portrait of Mr. J. Alfred Gotch

Painted by T. C. Gotch



The above portrait of Mr. J. Alfred Gotch, PP.R.I.B.A., was unveiled last Monday night, and in accordance with custom presented to the R.I.B.A.

THE

ARCHITECTS' JOURNAL

9 Queen Anne's Gate, Westminster.

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The R.I.B.A. Street Medal

RETICENCE and good manners are to receive their reward. In these days of flattery, aggression, and pomposity, the bestowal of the R.I.B.A. medal upon a building conspicuous, one might almost say, for the absence of these not very engaging qualities, is surely a happy event. For it implies a recognition of the first essential of good urban architecture, which is that each building must be considered in relation to its position. There are buildings of state to which pomp is proper, but there are others which, if they know their position in the architectural hierarchy, do not seek unduly to elevate themselves above their fellows; but they are none the worse for that. Indeed, their modesty becomes them. And this modesty is particularly engaging and particularly fitting in a new building which has to take its place in a somewhat venerable assembly. Its aim should be to contribute to the concord of the whole, and not to draw attention to itself so that the rest raise their eyebrows in disgust and murmur: "Well, really, whatever are we coming to?"

Thus Messrs. Greenaway and Newberry's success in winning the medal for the best London street frontage must be particularly welcome to all who realize that in urban architecture the whole is always greater than the part, and that if some semblance of order and architectural unity is to be brought back into our streets each new building must show some consideration for its neighbours. This adaptation to environment, however, is not to be met by mere imitation, and certainly this is not the method by which Messrs. Greenaway and Newberry have achieved their success with the Auctioneers' and Estate Agents' Institute in Lincoln's Inn Fields. Reminiscent it may be, but imitative it is not. But it is not only in its urbanity that the architects have achieved such a success. In these days, when there is as often as not little to distinguish a block of offices from a cathedral, or a multiple store from a town hall, there is particular merit in unequivocal statement. One has but to look at this building to surmise its purpose. What else, indeed, can it be than the headquarters of some modest corporate body? The floors are too distinctly differentiated by their fenestration for the whole to be mistaken for a block of offices in which the rooms are without their hierarchy, and one is of no more importance than another. There is certainly a not unbecoming note of domesticity, but the wide sweep of the steps before the entrance seems at once to dispose of the idea that the building can be a private house. And then, upon seeing the message upon the frieze of the main cornice, one says: "Of course, what else could it be?" That this should be so is surely, in these days, something of a triumph. Here and there the critic may find details to which he takes exception, such, for example, as the shutters on the second floor—"If on the second, why not on the first and ground floors? asks Logic; to which Design replies, Shutters would inflict infinite damage on these two floors." So they would, but it is better if possible to avoid such conflict. Moreover, conditions so seldom arise in which shutters are needful that their presence is, in London, in the nature of an affectation.

The simplicity and directness are qualities which are not limited to the elevations: the plan is as skilful in its avoidance of waste as it is pleasant in its balance, and floor rises upon floor inevitably, so that the neighbouring buildings, as they watched its erection, could have seen nothing outrageous in the way of steel girders. There is craftsmanship, too, of a sedate and comely kind in the more important rooms.

The inauguration of the gold medal for the best London street front came at an opportune moment. There are quite unmistakable signs of a growing interest—not before it was due—on the part of Londoners in their city. Editorial comments and letters in the daily Press, criticism in the weeklies, the increase in the number of books dealing with London and with architecture generally, addressed to the general public, all testify to this welcome fact. London is so vast that a civic consciousness and pride such as are to be found in certain provincial towns, notably in Birmingham, with its Civic Society and its gold medal, are quite impossible. It is therefore all the more desirable that there should be some recognition of good work where conditions render public opinion so inarticulate.

At present the very existence of the medal is unknown to the public at large. With a view to remedying this state of affairs we should like to see the Press give the event greater publicity. For after all, this is something that they can understand; it is a straightforward issue. This is the street frontage in London which the architectural profession considers to be the best that has been erected in the course of the year. There is nothing ambiguous about that. The award has a message, for what it implies is this: "We, the architectural profession, are of the opinion that the appearance of the streets in London would benefit if more frontages of this kind were built; do not, therefore, demand of us that we should design buildings which are aggressive and self-assertive." Later, it might not be too much to hope that the building owners themselves should take a vicarious pride in the medal; that the honour should be shared between the architect and his clients.

With a view to increasing public interest in the event we think the suggestion, that a building which has received

the award should carry some mark of distinction, an excellent one. Think, too, what interest it will have added to the streets of London in the course of fifty years, what a chronicle of the changing tastes of half a century. Should not we ourselves like to know what was deemed the best design in, let us say, the famous year of 1851? Our comments might be harsh, so too may be those of our successors, but we fancy that for the year 1924 they will have nothing but approbation to express, for there we have a building that enhances its environment, that both serves and states its purpose, that is thoroughly English, thoroughly urban, and thoroughly pleasant.

The President's Opening Address

Mr. E. Guy Dawber's presidential address, at the annual meeting of the Royal Institute last Monday, sealed him as in the legitimate line of succession to his many eminent precursors in his office. He sketched in broad and clear outline the outstanding features of the Institute's present position, polity, and programme. Registration naturally stood first, but that subject being for the moment in a sort of transition state, the president wisely abstained from enlarging on it. On the almost equally vital, but less momentous, topic of professional education it was permissible to speak quite freely and frankly. "We propose," said the president, "to invite the great universities, the Board of Education, the London County Council, and other bodies, to sit upon our Board of Architectural Education, to assist us on the non-technical side of our work with their experience. We are convinced," he added—and everybody will hasten to agree—"that this is the right method to adopt if architectural education is to keep fully abreast of modern requirements." That is surely a very safe and sound generalization.

The President's Suggestion

Nor did the President hesitate to suggest—not officially, but as his own private pious opinion—a sufficiently definite detail. It had been suggested that the student course in the schools should be immediately followed by actual work in an architect's office; but the president's personal opinion was that the students would be better qualified to start practice if instead they were to spend six months in the workshops, and a further period as clerks of works on buildings. Certainly such procedure is by no means without respectable precedent, and one has known it to succeed to admiration where the neophyte was not temperamentally disqualified from conceiving of muscular exercise in terms other than those of golf, football, and "cricket's manly toil." Many a distinguished architect could confirm from personal practical experience the value and importance of a workshop course. Systematic manual training would avert a certain alleged tendency of architectural education to become too academic. But we must not now yield further to a strong temptation to discuss an address that is so prolific in suggestion. We cannot, however, forbear to congratulate the President on the justness and felicity of his acknowledgment of the excellent influence on street architecture for which we are indebted to the commercial and trading corporations. "Few, I am sure," he said, "will dispute that one of the most helpful aids towards the better appreciation of architecture to-day is that the great pioneers in trade and commerce are erecting some of the finest modern buildings." Do not our own pages constantly and teemingly confirm the irrefragable truth of this observation?

The Royal Artillery Memorial

The interesting correspondence in the "Times" upon the merits of the Royal Artillery Memorial at Hyde Park Corner reveals very clearly the cleavage which exists between those who possess the civic sense and those who do not. The latter seem unwilling to admit that where private griefs have public consequences their expression must be subject to criticism that concerns itself not only with the quality of the emotion, in this instance not questioned, but with the formal proprieties belonging to the artistic medium by which this emotion is conveyed. Lady Oxford deplores the erection of "hideous war memorials that have gone far to spoil our English villages, and now threaten to deform London," for to her a monument which is not beautiful should have no place in the town. But to others the symbol is all that matters. Yet it is reasonable to contend that the symbolic and the civic could be reconciled in our war memorials. In fact, we have a right to demand of our sculptors that this reconciliation should be expressed in every monument exhibited in a public place. According to its author the Artillery Memorial was "not intended to be pretty," but unfortunately even its adequacy as a symbol has been disputed. In the opinion of Professor Selwyn Image the gigantic howitzer is "nothing but a skilful facsimile of a prodigious engine of destruction, tending to excite sentiments of horror, even of hatred." The moral of this unhappy controversy seems to be that we should have a more representative censorship of public memorials than at present exists. And we are surely entitled to ask whether H.M. Office of Works, before allocating the Hyde Park Corner site to this particular monument, took counsel with any of the recognized authorities upon civic design.

Trafalgar Square Paving

It has been alleged that Bath stone has been suggested for the paving of Trafalgar Square. One can hardly credit the rumour; York stone being obviously so much more suitable to withstand the tremendous amount of wear and tear to which Trafalgar Square is subject. It hardly needed the assurance by an expert like Mr. Woodward that for this arduous service York is the more durable stone. Mr. Woodward deserves a vote of thanks for the almost paternal interest he is taking in Trafalgar Square. Was it not he who suggested, the other day, that Gilbert's Eros should be placed in a central position there? An excellent proposal, to which, we think, there could be only one valid objection: the presence of Eros in their midst would be such a scathing rebuke to the rest of the statues. Possibly that was the effect Mr. Woodward intended. But no; he is nothing if not sincere.

The Shuttering Competition

The competition for a new method of shuttering in connection with concrete cottages has had little practical result. Certainly a competitor has been awarded £250 from the National Exchequer. But as the committee, after considerable discussion, expressly state that the system which obtained the award must not therefore be regarded as necessarily superior to some of the systems which are already in use, it would seem that while the nation is poorer by £250, the building industry is but little richer for the adventure. From the beginning the competition was doomed to failure. It is said that after the entries had been received at the Ministry of Health, Sir Arthur Robinson, the permanent secretary, accompanied by another expert, visited the Welwyn Garden City to inspect a system of shuttering that is said to be proving very satisfactory there.

Colonial and Foreign Architectural Periodicals

Realizing the difficulty of procuring architectural periodicals from abroad, the publishers of this Journal have much pleasure in intimating that some of the leading architectural periodicals of the world may be freely perused in the reading-room which they have opened, entirely free of charge, at the offices of The Architectural Press, 9 Queen Anne's Gate, Westminster, S.W.1. Architects are heartily welcome to the free use of the facilities there afforded in pursuance of the varied helpful services that it is our aim to render the profession.

A MONTHLY CAUSERIE

Joking Apart

Some American Troubles

LATELY happened on a most unappetizing article published some time ago in "The Architectural Forum" (U.S.A.), where, under the title "Straight Talks with Architects," the writer asks: "How many architects will be in practice ten years from now?" The recent report of our Institute provides a simple equation which shows that the number for England and Wales will be 16,000, of whom at least 3,000 will be supernumerary, or permanently unemployable; but the American writer does not satisfy the curiosity he arouses by any exact answer to the question. He satisfies himself by giving reasons why he thinks there will be very few of them. America, he says, is at the parting of the ways. The individual existence of architects is threatened by business organizations which make architectural practice a department merely in a complete service to the building owner, who already looks to such organizations not only for the best designs, but, more particularly, for a thorough appreciation of his business problems.

Nine Plagues

The writer goes on to say that the profession of architecture is likely to be assimilated by such organizations because it is enervated by certain diseases or disabilities, nine in number. (1) Lack of business training; (2) want of attention to business problems; (3) neglect to foster its own business interests; (4) lack of social and political activities; (5) unsound methods of getting business; (6) inefficient organization of business, when gotten and (7) of charging for it when had; (8) weakness in practical construction; and (9) estimating.

Diagnosis and Prescription

In eight full columns of the paper he displays the symptoms of these disorders, and prescribes for them; but though I have no reason to suppose the writer's apprehensions for the future to be ill-founded—they are, in fact, exactly what I have prognosticated for us here in England—it seems to me that there is much more weighty evidence of decay in the fact that an important article which offers, in a leading architectural journal, to diagnose the vital weaknesses of the profession and suggest remedies, should touch upon no single matter that has anything whatever to do with architecture. If the good health of American architecture is to depend upon the ability of the American architect to cadge business, to foster business, to push his rivals out of business and himself into business—to foster business, organize business, and handle business so as to mix on equal terms with men of business, and identifying himself with the ideals and aspirations of business—why then, God help American architecture.

Destructive Agencies

These be such qualities, certainly, as may have given us a Sardine Trust, or set high on a throne the Chewing Gum King; without them, also, it is true, the world would never have enjoyed the amenities of advertisement with its illuminated signs; publicity stunts would be known of only as an obscure crime; no aeroplanes would enrich our minds from the sky, and we should be unaware that a soap can prevent smallpox, and that starch coloured with turmeric is better than eggs; but these are not the qualities that make an architect, or foster architecture. On the contrary, they are precisely the activities and preoccupations which are destructive of architecture, and impossible for the man who aspires to architectural achievement. In England we may observe that the ignorance and uncultivated taste which mark the general mass of building are the work of men who excel in precisely those activities which our friend the American writer recommends to the architects of his country, and who, by exercise of that kind of energy which the business man calls enterprise, usurp the duties which are the exclusive right of men whose code is the professional code, and whose capacities are artistic.

Quack Remedies

To propose that the individual architect should adopt the methods by which the commercial exploiter of architecture is driving him out of existence is as though a body of reputable dairy farmers, finding themselves impoverished by traders who colour, thicken, and water their milk, should seek to re-establish themselves by doing the same things. The result would be, not to rescue architecture from the grip of commercial firms, but to commercialize architecture. The writer, too, forgets that the real matter for concern is the health of architecture, and not particularly the welfare of architects. He may observe the results of the principles he advocates in those large and successful architectural practices which are common in New York and other great American cities. Such offices comprise richly furnished waiting and reception-rooms, principal's office, designer's, draughtsmen's, tracer's, estimator's, and typists' offices, secretary's office, and a large office for "checkers."

A Busy Principal

Some offices even contain a residential suite, with dining-room luxuriously appointed for the entertainment of clients up to town on business. In many of these offices the principal's office hours are almost entirely occupied in dictating letters; and vast though his responsibilities are, he is frequently burdened with the cares of providing for next pay-day. His senior assistants may get £1,000 a year each; a designer perhaps more. The staff at times works in shifts, so that drawing-boards are continuously occupied, and the pay-roll not unusually amounts to $1,000, or £250, *a day*. This, it will be supposed, is "some" practice; but I venture to think that our friend is not practising architecture at all. He is running an architecture factory, and the circumstance that his profits are small is in keeping with this conception. He can hardly estimate his income in terms of fees, but must measure it as a percentage on his capital outlay, like a pork butcher.

The Way to Unhealth

This appears to be the sort of thing that the writer in "The Architectural Forum" would hold up as a model of professional efficiency and architectural health. I am far from agreeing with him, and I also disagree, as I have said, with his ideas of rescuing the profession from those nefarious commercial organizations which would exploit it for their own ends, as craftsmanship has been exploited in this country. Architects have only to regard the hard case of the craftsman to recognize the danger to themselves, and also their power to keep that danger at arm's length. Instead of yielding, as they are inclined to do, to commercial expediencies, they have to consolidate their professional standing and enforce a strict discipline upon all members of the profession. Architects can establish their profession and secure the good health of architecture only by making it impossible for anyone to obtain architectural services except by employing an individual architect.

KARSHISH.

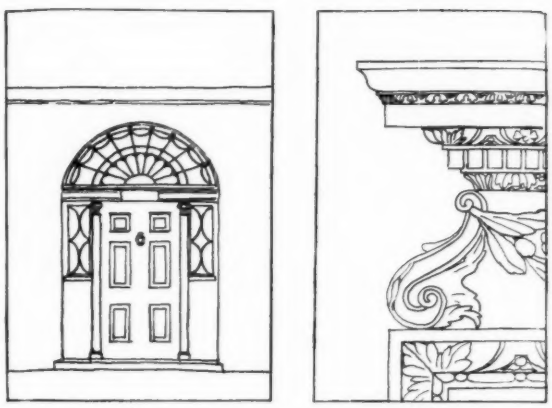
Architectural Style—14

Ornament

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

WHAT is the function of ornament in architecture? And what is ornament? Let us take the latter question first. Now the easiest way to obtain an idea of the nature of ornament is to take any building which we recognize to be much ornamented, and then in imagination to strip off feature after feature until we obtain a building such as anybody without the slightest fear of contradiction would declare to be entirely without ornament. Where should we start in our crusade of destruction? First, of course, we should obliterate every sculptural or pictorial decoration, that is to say, every feature whether in stone or any other material that is a representation exact or not of any animal, vegetable, or other object of our three-dimensional space. Then we should ruthlessly banish every moulding, every fillet, every rustication, every conscious elaboration of any of the materials used in the building, provided that this elaboration was introduced for formal effect alone. We may note that the elaboration only comes under the category of ornament if it enhances the degree of complication of the form in question. For instance, any effort expended on making smooth or reducing to a plain surface a material which in its natural state is neither smooth nor plain, does not result in ornament.

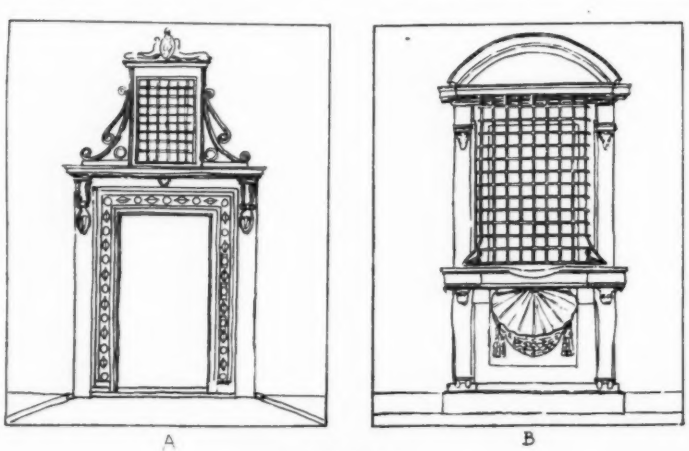
When the ornament has been abstracted from the design, there remains a shell which some people would quite wrongly describe as pure structure. An elementary acquaintance, however, with the grammar of design would suffice to prevent anybody being guilty of such a judgment. Of course, one of the elements in the residuum will certainly be structure, but if that same structure has been moulded in accordance with the principles of number, punctuation, and inflection, it will have a formal quality by virtue of which it is already architecture. Yet it will be architecture of a rather poor quality. It may be a quite useful exercise to try to design buildings entirely without ornament, for such buildings have at least the quality of being as far as possible relieved of association with the historic styles of architecture. But it will also be found to what great extent architectural composition depends for its subtlety upon ornament. It is a very common practice in current architectural criticism to talk of "meretricious ornament" as if the word "meretricious" were an Homeric epithet, there being more than a hint in the context of their remarks that they consider all ornament to be more or less meretricious; they fail to realize how intimately ornament may enter into the fabric of design.



A B

FIGURE LXV.

The grammar of design has a dual application to ornament. We may describe this as an "external" and an "internal" application. By means of the former, ornament increases the capacity of the main features, that is to say the non-ornamental features of a building, to comply with the principles of Number, Punctuation, and Inflection. In this case the quality of the ornament itself is less important than its *position*. Let us take number first. It is obvious how in a façade an ornamental feature may resolve a duality, or introduce a duality where previously there was none. In Fig. LXIV B the decorated brackets which support the cill are satisfactory, in so far as they may be regarded as the lateral boundaries of a rectangle; but if this intermediate space were without its filling of ornament, they would stand out obtrusively, and would lack a focal centre of interest to bind them together. Here the three elements of the composition have a similarity both in material and in style, but it sometimes occurs that people expect a piece of ornament to do more than is possible, to resolve the duality, for instance, of two windows, which are but dark rectangles in the wall and are not immediately comparable with a carved decoration in stone. It is easy for an architect to deceive himself in this respect by adopting a method of draughtsmanship which gives equal value to things which are not equal. To avoid such confusion, in sketch designs of a façade, the windows should always be represented by a dark tone, which differentiates them from patterns in an opaque material. When we are dealing with wall surface, we cannot fail to come across numerous instances where ornament, such as a decorated stringcourse, would destroy the unity of a façade, and where sculptured panels or shields would do the same by introducing a central vertical division. But it is chiefly by its capacity to act as *punctuation* that ornament is useful and indeed necessary, to the designer. Cornices, architraves, and nearly every kind of elaboration which is employed to emphasize the boundaries of architectural features, come under the category of ornament, and to abstain from



A B

FIGURE LXIV.

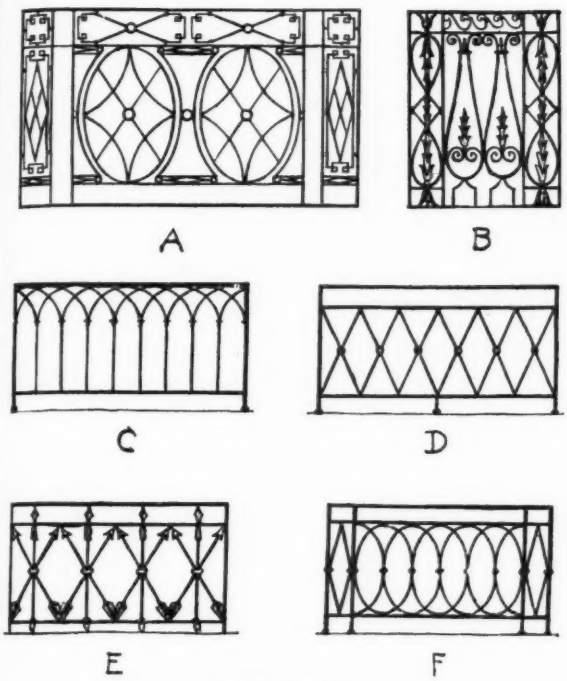


FIGURE LXVI.

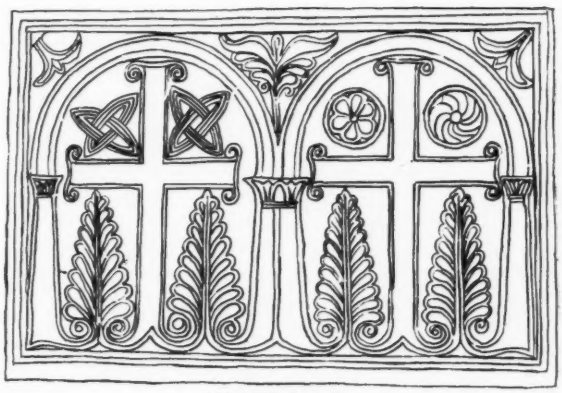


FIGURE LXVII.

their use altogether would be an act of asceticism which would greatly restrict the range and significance of architecture. The reader will easily pick out in the illustrations in this and previous chapters those examples of ornament which punctuate various parts of the designs, and can himself imagine to what extent these would be injured if such decoration were removed.

Ornament is also an aid to the proper inflection of the parts of a building. In Fig. LXIV A the window is of smaller width than the doorway beneath, and would have failed to show a sufficiently intimate relation with it if there had not been added the scrolls on either side of it, which link the window to the extremities of the hood. It may be contended that these particular scrolls are not well designed, but the example is a valuable one for this very reason, that it shows how on occasion even indifferent ornament is better than no ornament. Of course, it is the commonest thing in the world to see very good ornament in places where it injures the design because it is improperly related to it. Yet it is far better to cut out the good ornament which is wrongly placed than to cut out the bad ornament which is rightly placed, because the latter is not a luxury, but a necessity. So the people who tell us that if we cannot have good ornament we ought to dispense with ornament altogether fail to recognize the function of decoration, which is to increase the degree of cohesion between the parts of a design. In Fig. LXV A we see that the pattern of the fanlight is the means of inflecting this feature to take account of the doorway beneath, the two intermediate semi-circles taking up the lines of the columns on either side of the opening. In LXV B the scroll unites the cornice to the architrave below, and is an element of inflection, for now the frieze or intermediate space between these two features is able to take cognizance of both. Here is another case of the necessity of ornament, for we may say in this instance: "Better a bad scroll than no scroll."

The "internal" application of the grammar of design to ornament consists in making the parts of an ornament conform to the principles of number, punctuation, and inflection. Fig. LXVI shows some geometrical designs for cast-iron work. A is obviously an unresolved duality. In B the wave-ornament punctuates the design—the scrolls beneath are inflected towards their bases, but the lateral members of the pattern have the fault of being symmetrical about a central horizontal axis, as have also the designs D and F. Examples C and E are properly inflected, but lack lateral punctuation, which, however, is present in F. Fig. LXVII is another unresolved duality. It is noticeable that here the apices of the leaf ornaments impinge most harshly upon the cross, while the ornaments on either side of its upper member have no relation to it, except that of juxtaposition. Yet the crosses are themselves punctuated, as are also the elementary pilaster forms, which have foliated capitals and bases curiously inflected to join themselves to the adjacent anthemions. This is an interesting design, which combines elements of crudity with elements of charm. The superb fragment, sketched in the design LXVIII A shows an acanthus leaf beautifully conventionalized. A great merit of the design is that the simple leaf ornaments in the background serve as a transition between the acanthus and the figure decoration, while at the same time their apices punctuate the plain surface immediately beneath the sculptural part. In LXVIII B a lion's head appears as a piece of ornament which is itself punctuated and inflected, and free from the defect of unresolved duality, because the natural shape itself, being originally imbued with life and therefore organic, also has those formal virtues. Thus an ornament, if it be derived from animal or vegetable shapes, has always the chance of being artistically good, and when it fails, this is because in its general arrangement it violates that grammar of design, which is expressed in animate Nature.

(To be continued.)

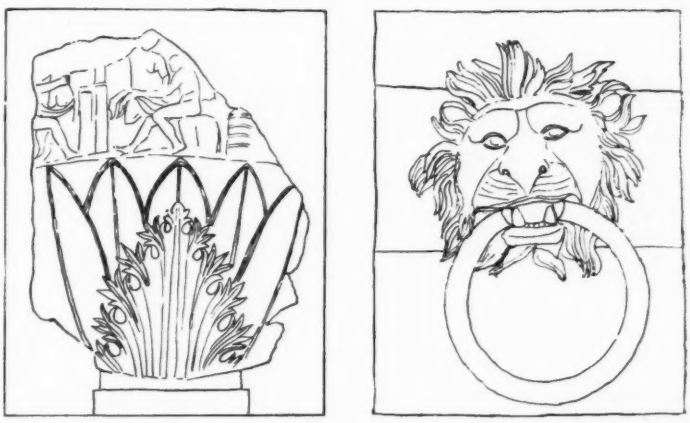


FIGURE LXVIII

The Architecture Club Exhibition

IT is only to be expected that any representative exhibition of contemporary British architecture should reflect the civic and domestic ideals of a nation struggling to obtain a livelihood and keep its equilibrium against the disruptive forces of Europe. The exhibition at the Maddox Street Galleries gives the impression that this is surely the case. Here are no palaces or country mansions giving evidence of ostentatious wealth, no examples of pre-war architectural frippery, and no encouragement to Bolshevism in art; but, on the other hand, there is a preponderance of sane buildings, conscious of the limitations of their materials, their owners' pockets, and, what is equally important, aware of their neighbours' feelings.

The small house, ranging in price from £1,000 to £5,000, has had so much attention given to its design in the past few years that it has reached a stage of development far in advance of those larger civic and commercial buildings which fall only to the lot of the few. Such examples of domestic buildings designed by Mr. Hepworth (Nos. 1 to 5, and No. 277) show evidence of great personal care bestowed on the smallest detail which can give grace and charm to a simple façade. This might apply also to the houses designed by Messrs. Hennell and James at Hampstead (Nos. 176, 177), and to the work of Messrs. Keiffer and Fleming (No. 9). Professor Abercrombie's only exhibit (Nos. 12 and 13) shows what breadth of treatment can be obtained even in the small house by direct planning, and, incidentally, how subtle is the connection between good English and Italian domestic work. No. 18, by Mr. Paul Phipps, is remarkable for its practical planning and the happy inclusion of sleeping-porches under the main roof. Compare the generous treatment of staircases in this house with No. 17, a delightful house, by Mr. Basil Oliver, but in which the effort to keep down the cube has resulted in an awkward twisted stairway. Two small house designs must not be passed over without mention; they are Ridge House, Esher (No. 218), by Messrs. Blair Imrie and Angell, who know so well the value of weather-boarding, and a house by Messrs. Adshead and Ramsey at Littlestone-on-Sea. The latter rivals the finest work done in the eighteenth century in its delicate adjustment of voids to solids, its simplicity of plan, and its good cornice.

It is futile to discuss the larger country houses where the plan is not shown; for example, Nos. 224–5, by Mr. Oliver Hill. Here one finds a spirited attempt to obtain the rugged Argyllshire character on a wonderful site, and the same artist shows a romantic West Country house, standing, we hope, in appropriate setting.

It would be a joy to possess a garden house and pool like that designed by Messrs. Darcy Braddell and Deans (No. 22), or to have the use of the pavilion and swimming pool at Prestatyn, by Messrs. Easton and Robertson (No. 270).

There has been in recent years a very noticeable improvement in the design of suburban bank premises; some examples are to be found in this exhibition, including one at Henley (No. 11), that relies on a judicious use of good brickwork. It is indeed fortunate that we have of late years attached so much importance to the texture and colour of face brickwork, and one should in this connection mention the University Buildings at Manchester, recently completed by Messrs. Worthington (No. 133), and the Eton College Picture Gallery (Nos. 171–2), by Messrs. Forsyth and Maule, which rely for their effect almost entirely on the sympathetic treatment of plain brick walls and fenestration. Mr. W. G. Newton's competition design for the Marlborough College memorial has well justified the assessor's award. The finely executed classic colonnade gives a unity to the front difficult to realize by any other theme, and behind the dignified façade lies an amphitheatre most satisfactory in treatment.

Those "modernists" who feel impatient for new forms (or shall we say fashions?) may turn with interest to the essay (Nos. 174–5), portraying a new warehouse and headquarters of Austin Reed, Ltd. It shows a praiseworthy attempt to derive its form from function and modern materials, and it is encased in terra-cotta. One can imagine this building, twice its size and with a long façade looking very impressive on the commercial quays of East London, but many will view with some misgiving this assault on the domestic character of Bloomsbury. The building, however, does show the great possibilities of buff terra-cotta, a material, by the way, of which American architects are not slow to take advantage.

It is one thing to experiment with new forms in a Bloomsbury square, and quite another thing when the gaiety of a temporary exhibition is desired. Messrs. Easton and Robertson's remarkable pavilion at Paris (No. 181) has already had its share of criticism, but the photographs here bring out all the subtle shapes and delightful silhouettes that appear much more at home in Paris than in sober-minded England. It is in fact suggestive of the Englishman, stripped of his native reserve and on holiday at the fair, and that is all Paris wants on the Cours la Reine. Even Mr. Yerbury's excellent photographs cannot, however, do justice to its attractive and stimulating colour scheme.

One of the most outstanding examples of fine building is to be seen in Mr. Maufe's church at Acton (No. 196). Its monumental mass of brickwork piles up well to support a high nave distinguished for its chaste scheme of interior decoration. One feels that the growth of such a building has been inevitable, and it has dynamic qualities not to be found in a mechanical structure such as No. 285. This model is a most interesting essay in the use of ferro-concrete for church building, and as employed by M. M. Perret. The illuminated model of this church (Messrs. Falconer, Baker, and Campbell, architects) shows the lack of vitality as result of using standardized units on a large scale, however admirable for the smaller members. For instance, the most impressive interior of this church is spoilt by three bays of equal width, and there seems a lack of cohesion in the whole structure which might be remedied by increasing the width of the nave so that it would dominate the whole.

Mr. Budden's war memorial for Birkenhead (No. 241) is one of the most impressive cenotaphs executed recently, a fitting monument with appropriate setting, and it is exquisitely detailed. The R.I.B.A. Gold Medal building (No. 140) shows the architects' sympathy with the existing domestic work of Lincoln's Inn Fields. Although this building strikes no new note, it is eminently an adornment to the old square, and a dignified headquarters for the Estate Agents' Institute.

It was a happy idea of the exhibition committee to include a section for decorative schemes, and in it are shown some delightful samples of painted tiles by Mr. Harold Stabler, and a worthy sample of Mr. Macdonald Gill's skill in decorative wall maps. There are also several rough sketches and studies by architects showing their conceptions before starting on "the labour of execution." The new "Devonshire House" studies mark a great advance in the design of magnificent apartment flats.

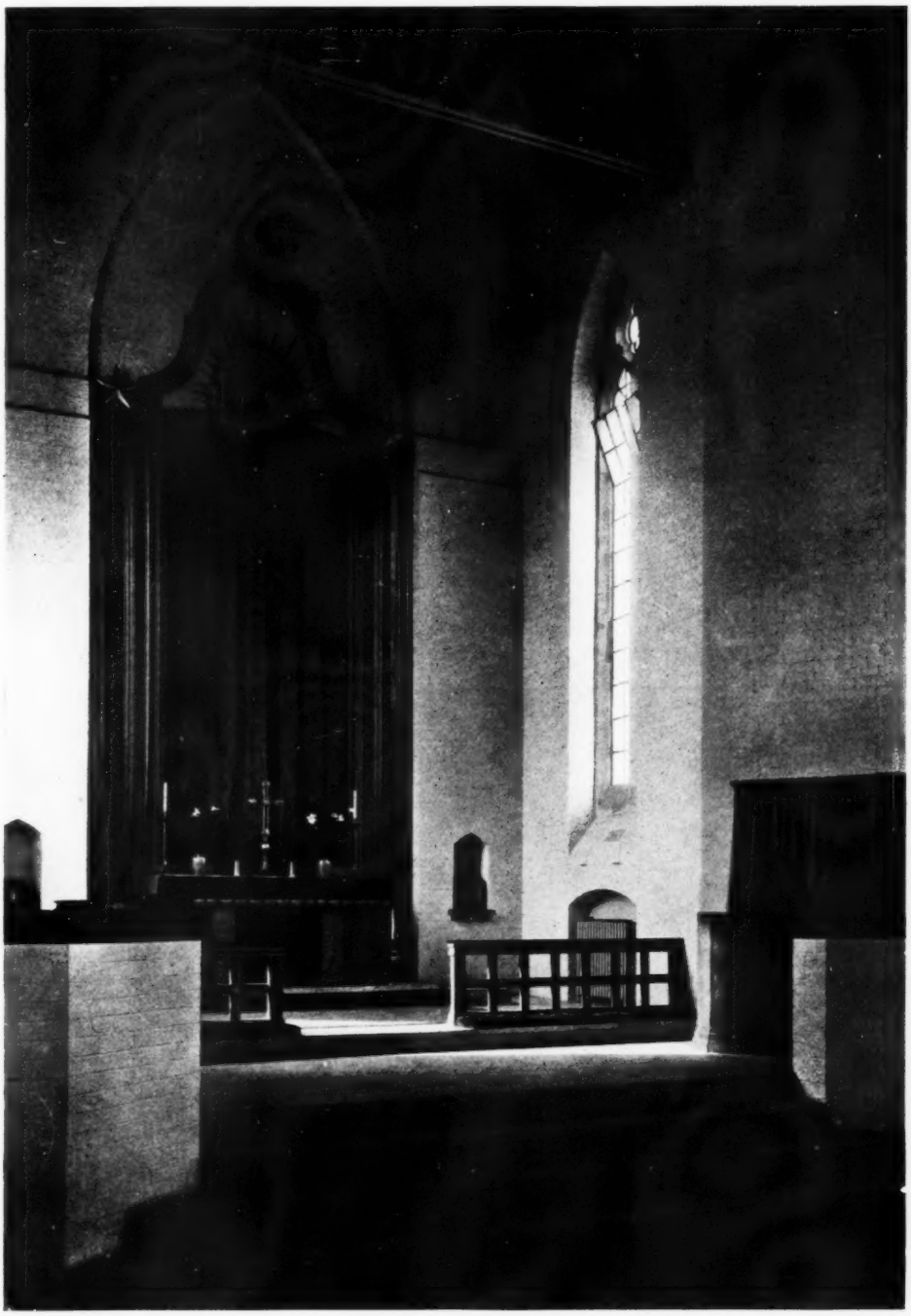
One cannot do better than conclude by reference to Mr. Marriot's admirable preface to the exhibition catalogue, in which he says that "It is at last recognized that architecture is a matter not only of individual buildings, but of their relations in the street and the city as a whole." This, in short, is a lesson and a warning to us all, and it provides a safe basis of criticism when judging the street architecture of our cities, now very sensitive to the modern movement on the Continent and the increasing demands of commerce for economy and efficient planning.

W. H. T.

The Garden House, Melchet Court

Darcy Braddell and Humphrey Deane, Architects

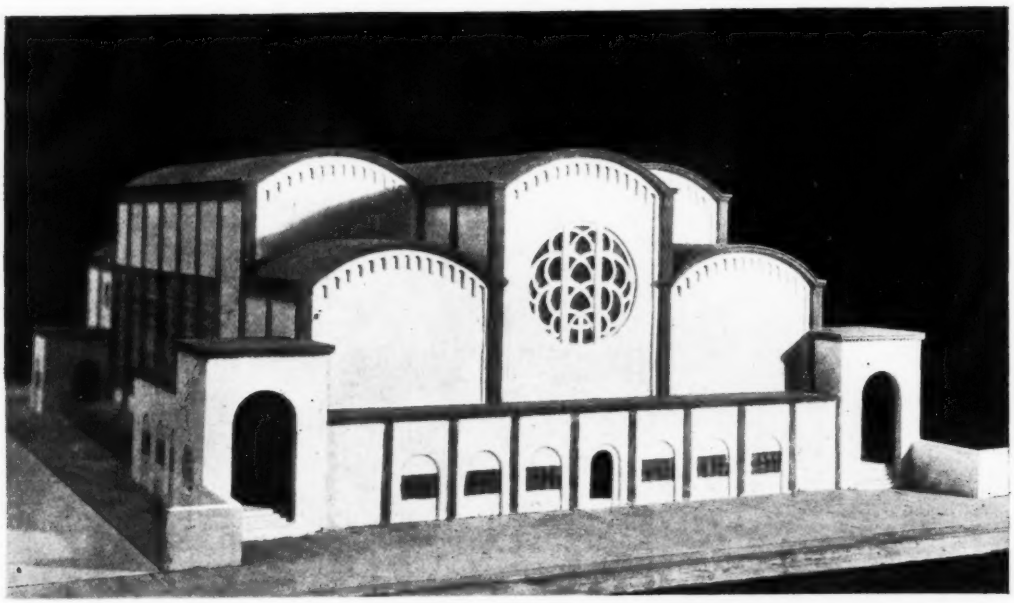
(*The Architecture Club Exhibition.*)



ST. SAVIOUR'S CHURCH, ACTON, FOR THE ROYAL ASSOCIATION IN AID OF THE DEAF AND DUMB.

EDWARD MAUFE, F.R.I.B.A., ARCHITECT.

(The Architecture Club Exhibition.)



THE EXTERIOR.

THE INTERIOR.

DESIGN FOR A CONCRETE CHURCH.
FALCONER, BAKER, AND CAMPBELL, ARCHITECTS.

A House in San Paulo

Barry Parker, F.R.I.B.A., Architect

(The Architecture Club Exhibition.)

"WHITE WALLS," BISHOPS AVENUE, EAST FINCHLEY. P. D. HEPWORTH, F.R.I.B.A., ARCHITECT.
(*The Architecture Club Exhibition.*)

FIGURE ONE.—FINISHED MODEL OF A SMALL HOUSE TO A SCALE OF ½ IN. TO 1 FOOT

Practical Architectural Modelling—II

By EDWARD W. HOBBS

THIS article is devoted to the construction of small buildings by the simplest method, known as folded work. An example in Fig. 1 gives some idea of the finished appearance, although much of the effect is necessarily lost in a monochrome reproduction. Colour imparts a great deal of effect to such models, and should receive every attention to secure the most from this elementary method of architectural modelling. The operations involved in making such models are few, simple, and usually well within the ability of junior clerks, lady tracers, and others. The first requirement is a set of working drawings, preferably to the scale of the intended model. The customary scale, and one that is perhaps the best for models made by the folded process, is that of eight feet to one inch, and therefore it is generally possible to obtain readily drawings to this scale. All that is needed are elevations of all outer walls, and a ground floor plan, with sufficient detail to enable the model walls to be correctly delineated.

Not every building can be made by the folded method, but only those with a reasonably rectangular plan and fairly devoid of small projections and other changes in the wall surfaces. There are, however, an enormous number of plans that can be modelled by this method, which has the advantage of quickness and economy.

When the plans are available to the scale desired for the model, all that has to be done is to set out all four walls in regular sequence on a long strip of Bristol board. This should be not less than No. 4 ply in thickness for the average model built to a scale eight feet to an inch. Should the plans be to some other scale to that desired for the model, the setting-out is best accomplished with proportional compasses.

Commence the setting-out at the lower left-hand corner of the Bristol board, using the machine-cut lower edge as the bottom line of the model. This line usually is taken as the ground-floor level plus about $\frac{1}{16}$ in., to raise the model by that amount above the baseboard. The object of utilizing the lower edge of the card is that this is always straight when the card is new. Start the work by setting out one end of the building, usually the west end, or that end which comes at the left-hand end of the plans when looking at the front elevation. Set out the exact outline of the walls, and indicate all window openings, doors, and the like, which can subsequently be represented by paintwork.

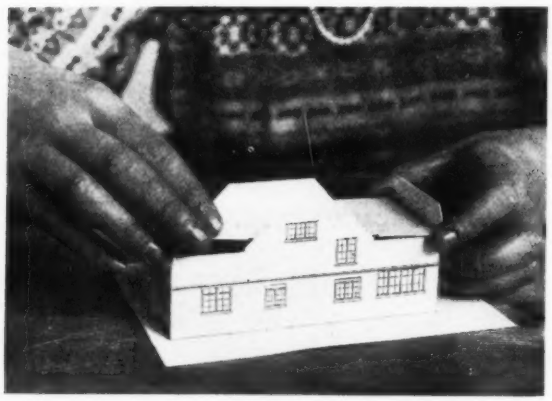


FIGURE TWO.—FIXING THE SOFFIT CARD.

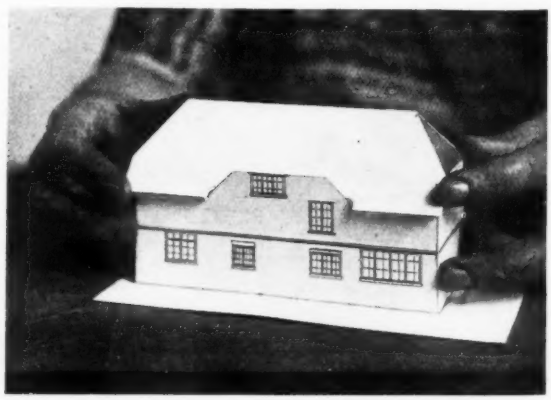


FIGURE THREE.—FITTING THE ROOF.

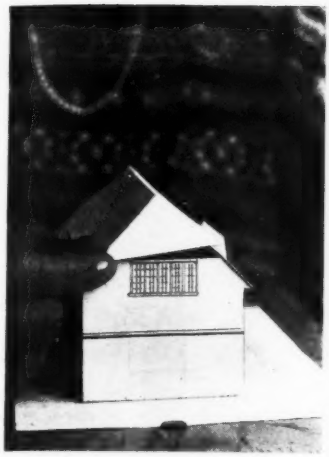


FIGURE FOUR.—FITTING THE HIPPED GABLE ROOF

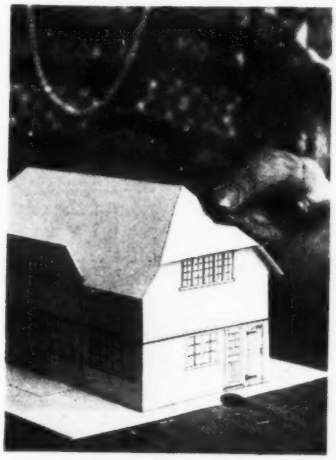


FIGURE FIVE.—FINISHING THE HIP OF A ROOF.

FIGURE SIX.—FITTING THE HIPPED GABLE ROOF.

Next set out the front elevation, and then the east or other end wall, and finally the back wall, adding to the end thereof a narrow strip about $\frac{1}{8}$ in. wide to act as a tab or fastening-piece. The whole has now to be cut to shape with a sharp knife, as described in Part 1, and scored at each corner and also at the tab. The card is then folded at right-angles at each corner, and the tab secured to the inner side at the starting end with seccotine or other adhesive. Provided the scoring be at right-angles to the base-line, the building will be nice and square except possibly for a minute variation due to folding the card.

There are two ways of scoring the card: the first is by scoring the face of the card as described above, which has the effect of leaving a somewhat rough corner where the card is folded, but it is the obvious and most practical method. The other and better plan is to score the inner side, or back, of the card, and to make the cut definitely V-shaped, like a mitre. To do this necessitates transferring the position of the corners to the back of the card, which can be done by piercing a hole at top and bottom of the corner lines with the point of a fine needle. This plan of scoring on the inner side is preferable, as the outer surface of the card is then uninjured, presents a far better appearance, and takes water-colours without change of tone.

In the foregoing it has been assumed that the outer walls are rectangular, such as those on the model seen in Fig. 1. But when the walls are not purely rectangular in plan, but exhibit, for example, an outbuilding, such as a scullrey or washhouse, the same methods can be adopted, by first making a rectangular building as a basis, and then making and adding the outbuilding as a separate part, and sticking it in place. In such cases the outbuilding will consist of three wall surfaces with two tabs, one at each end for the purpose of sticking the part to the main portion of the building.

Another plan that is sometimes preferable is to make the walls by the folded plan in two separate sections. One section would comprise the end wall, with the portion for the outbuilding, and also the front elevation and the other end wall. The second portion would comprise the back wall to the turn or angle of the outbuilding, then the flank wall of the outbuilding, and finally the back wall thereof. This part should have a tab at each end, one to fix to the corner of the main building, and the other for the junction of the outer angle of the wall at the starting point of the first section. The best plan to adopt is in all cases to be determined by the arrangement of the actual building. The best practical guide in settling these points is to endeavour to so arrange the sections of the model that it is possible to fold a strip to form a rectangular building as a base whereto can be added the various outbuildings and the like. In many cases it is a definite advantage to provide an extra piece of wall, to act as a stretcher, as for example a piece of card passing behind an outbuilding, but forming a continuation of the main outer wall. This tends to accuracy and adds to the stiffness of the whole, and as the additional pieces are out of sight there is no detriment to the finished appearance.

Having folded and completed the outer walls, the next step is to attach them to a baseboard of some kind. When the model is merely of the house itself, a good plan is to cut a piece of thick card which will fit within the walls and secure it thereto with seccotine, remembering to cut away the lower part of any internal walls, or stretcher-pieces, to allow for the thickness of the card.

Should the model be intended to show the surrounding garden, a small baseboard somewhat larger than the outside dimensions of the walls is to be preferred, and is most convenient if the shape of this card follows the outline of a path, or flower-beds, or some other natural division. For example, in Fig. 1 the base finishes flush with the main part of the walls, but has projections to represent a flagged area at the front and back, and when these parts are ultimately stuck in place, gives just that break of surface needed to preserve the character of this part of the work.

When anything of this nature is to be done it is advisable to make the base in two parts, an inner or smaller portion, and an outer or larger part. These are stuck together with adhesive and allowed to dry under pressure by placing them

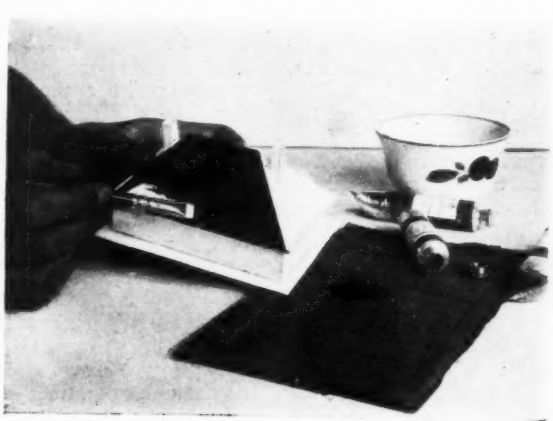


FIGURE SEVEN.—PAINTING THE COMPLETED MODEL—IN THIS CASE A BUNGALOW—WITH POSTER COLOURS.

on a smooth piece of wood and another smooth piece of wood on top, and adding a suitable weight, such as a batten weight or heavy book. When the wall sections are ready to be attached to the base, commence this part of the work by fastening the card base to a smooth piece of flat wood, by clamping it beneath the heads of drawing pins located at all four corners. Then apply the adhesive to the inner lower edges of the walls, and place them upon the base. If necessary, place a little weight on the top of the walls to hold all secure while the adhesive is setting. If the card base is not held in this or other appropriate manner it will buckle and the model will be distorted.

When the walls are complete the next step is to cover the whole upper surface with a flat piece of card cut to the appropriate shape, as in the example illustrated in Fig. 2. The correct form for this card is that of the outer walls at roof level, plus the width of the eaves, at all points where the card can project for the purpose of forming a soffit. Naturally the shape is determined by the plan and general arrangement of the building, but the underlying principle is to provide a soffit card which will cover the bulk of the area enclosed by the walls, and project wherever the eaves soffits at that level are to be enclosed. Stick this card into place as shown in Fig. 2, and then proceed with the main roof covering.

The roof is best made from 4-ply card, scored and bent at the ridge line, and properly shaped according to the roof plan. The correct procedure, when making any roof of this class, is to select that part of the roof which can most readily be made from one piece of card. In Fig. 3, which shows the same model illustrated previously, the main roof is obviously the portion that covers the greater length, and the general shape and disposition is clearly shown in Fig. 3. It will be noticed that the roof card is so shaped that the eaves overhang the walls and fit to the edge of the soffit card previously mentioned. The method of setting out the card for a roof of normal form is to commence from the ridge line by drawing a horizontal line on the card at a convenient distance from the edge thereof. At each end of this line, and at the correct distances, set up perpendicular lines, and along these lines set off the length of the roof measured along the slope from eaves to ridge, which length is found on the end elevation of a roof. At the correct distances draw horizontal lines parallel with the ridge, and from the points of intersection with the perpendicular lines set off the distances to the verges or ends of the roof at the eaves. Set off also the points where the hip or other change of form commences, and join up these points. Cut the card to shape, score at the ridge line and bend at right-angles, then fix in place with adhesive.

The ends of hipped roofs are covered with a diagonal-shaped piece of card, cut to correct shape, and fixed in place with adhesive, as shown in Fig. 4. It is difficult to ensure a perfect fit if the card is cut to exact size, and, therefore, the novice may allow a trifle extra width, and when the piece is in place and the adhesive quite hard, the surplus can be cleared away with a piece of finest sand-paper wrapped around the finger and used like indiarubber, as pictured in Fig. 5.

On the model shown in Fig. 1 the gabled portions of the roof are also hipped, and the result is that an awkwardly shaped piece of card is needed for the covering of this part of the roof. This can be judged from the illustration, Fig. 6, where this part is being fitted in place. Perhaps the easiest way for the novice to set it out is to treat this part of the roof as a plain gable, by drawing a datum line vertically on the elevation drawings, and at a small distance from the wall. Measure from this line in an horizontal manner to the point where the ridge of the gable joins the main ridge, or the main roof surface, as the case may be. Set off this distance on the horizontal ridge line on the card. Then take the distance from the datum line to the front of the gable ridge, and set off this distance on the ridge line on the card. Next set off the length of the slope of the roof and draw horizontal lines on the card parallel to the ridge as before. Along these lines set off the distances from the datum line on the elevation, to the front of the gable eaves or verge line, and also to the junction with the main roof. These will be almost the same length, but there should be a small distance between them to appear as a horizontal portion on the card, to allow for the eaves projection on the gabled part, equivalent to that on the main part of the roof.

The shape for the card is completed by joining the end of the ridge line, farthest from the datum line, to the termination of the eaves line. From the other end of the eaves line set up a perpendicular to the ridge line, and along it set off the length to the lower end of the hipped part of the roof, and join this point by a line to the point on the ridge. Treat the other side of the ridge line in the same way, cut the card to shape, score it along the ridge line, bend and fix in place as already described.

The hipped part is then completed with a triangular card as before mentioned. Sometimes it is an advantage to finish the ridges by adding a strip of thin card, doubled along the centre line, to represent the ridge tiles, and this is particularly so when the roof covering is supposed to be large patent tiles or pantiles. Normally, however, the method here described will produce excellent roofs on models not exceeding a scale of 4 ft. to 1 in., but for larger models another treatment to be described in the next part is to be preferred.

By this time the model is practically in the finished state, except for such items as a bow-window, chimneys, and such-like pieces. Chimneys for this class of model are best made by the folding method, as described for the walls, with the difference that the lower part of the chimney-stack will usually be cut at an angle of 45 deg., or whatever is the pitch of the roof to which the chimney is to be attached.

The subject of bow-windows and other projections and details will be dealt with in a subsequent article, but when of reasonably simple form are made by the folding method and then attached to the main walls with adhesive.

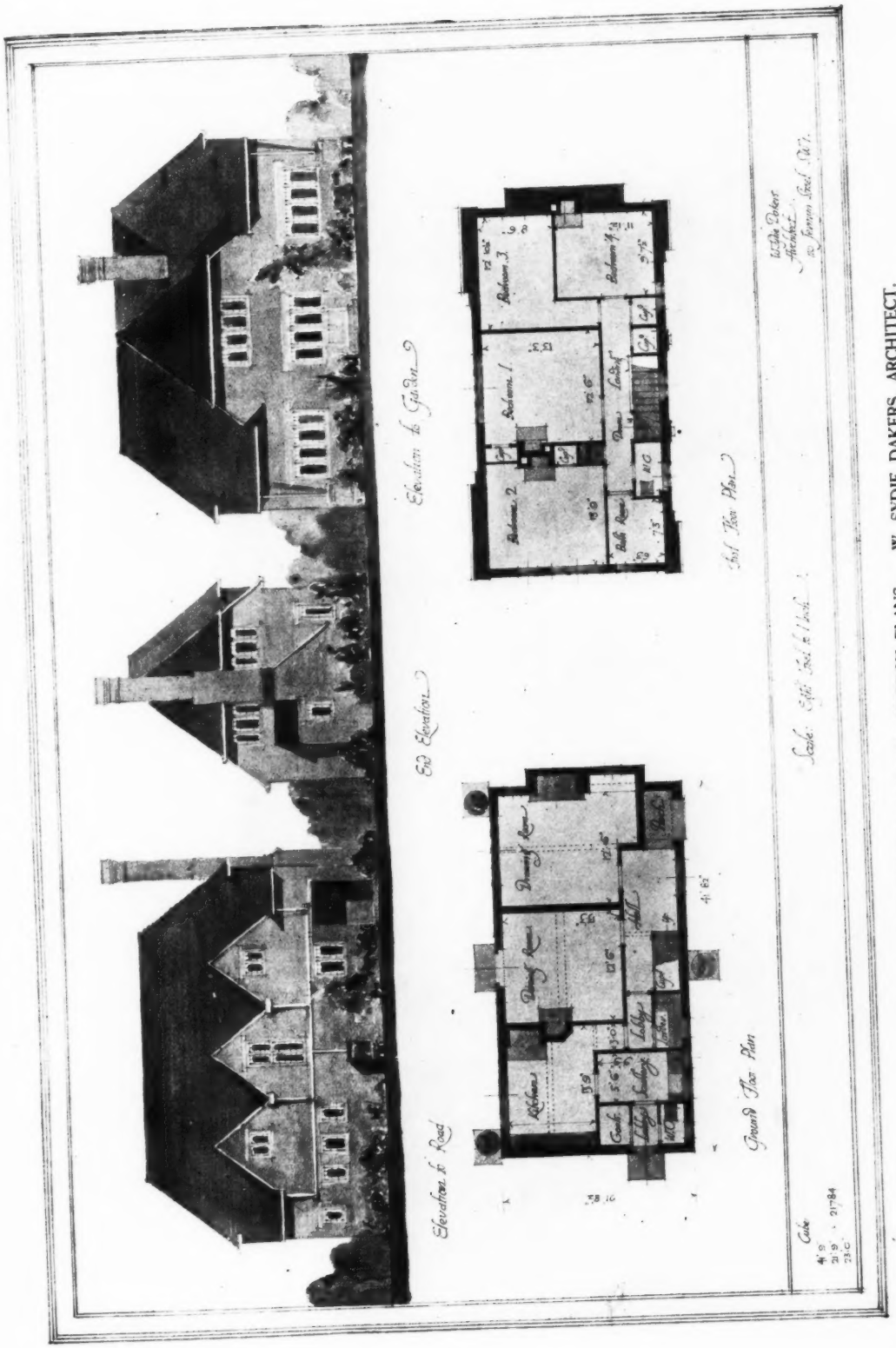
Finishing processes to a small model of this description are chiefly a matter of colouring with water-colours or poster colours. The author has a preference for the latter, as they have much greater body than water-colours, are bright, cover well, and give every satisfaction. Others may, however, prefer the water-colours with or without the addition of flake white or Chinese white to impart body and covering power. Those familiar with the one or the other will do well to adhere to the medium with which they are best able to interpret their feeling. So much of the charm of these small models depends on their final painting that it is well worth while paying attention to any processes that will give good results in the hands of the individual worker.

Poster colours are conveniently obtained in collapsible tubes, as shown in Fig. 7, and a small portion of the pigment squeezed on to a piece of clean card, water is then added as requisite to make a pleasantly-working medium, and brushed on in the usual way.

There are several ways in which the work can be approached; either the whole of the windows and other features can be lined in with waterproof indian ink, or the outlines left in pencil and be completed entirely with the colour. Probably the inked-in method is the best for the novice, as it gives a splendid guidance when filling in the colour between small parts like window mullions.

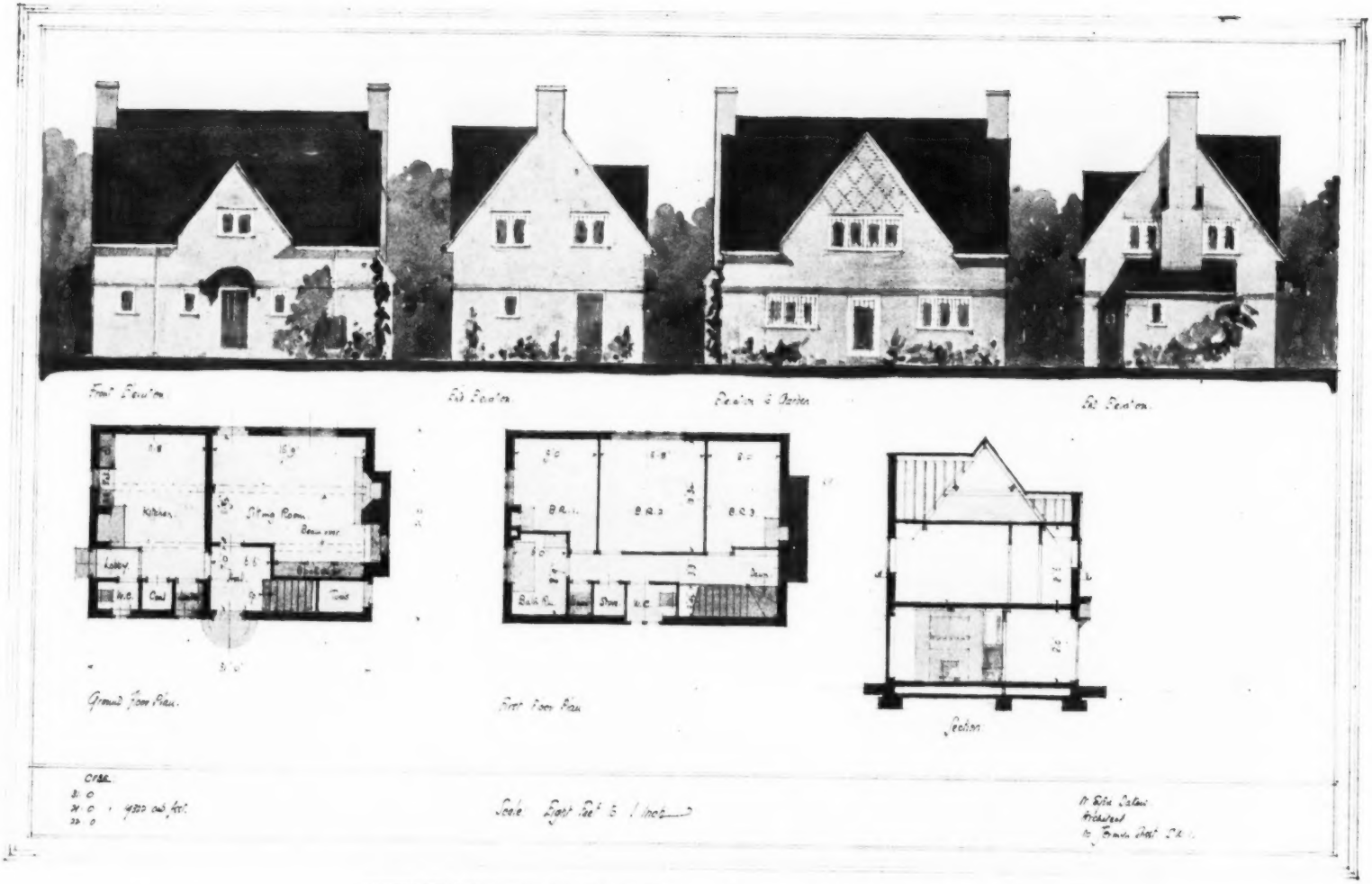
Usually it is best to colour the roof first, as this is often the largest area of colour, and then acts as a better basis for comparison with the wall colours and other detail work. Remember that at the small scales usually adopted for these models it is impracticable to depict every detail, for instance, bricks must be treated by suggestion and not by attempting to show each individual brick. Aim at getting the character or atmosphere of the building, as if making a painting of it, and while working, try and imagine the building is actually present, and the results will be surprisingly effective.

(*To be continued.*)



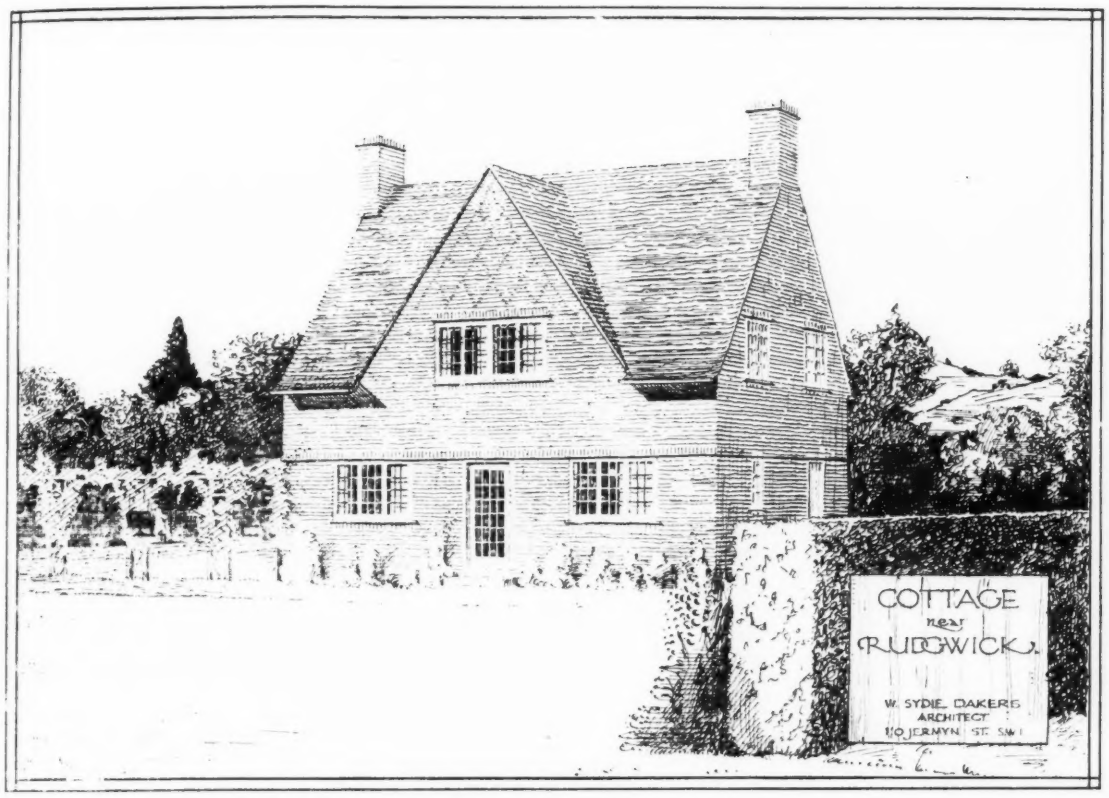
HOUSE NEAR CRANLEIGH, SURREY: SKETCH PLANS. W. SYDIE DAKERS, ARCHITECT.

Local hand-made bricks and tiles were used, and the door, window, and other joinery, was in local oak.



COTTAGE NEAR RUDGWICK, SUSSEX. W. SYDIE DAKERS, ARCHITECT.

The cavity walls are to be built with local hand-made bricks, and the roof covered with hand-made tiles. The joinery throughout is to be oak left clean.



COTTAGE NEAR RUDGWICK, SUSSEX. W. SYDIE DAKERS, ARCHITECT.

Architectural Criticism

MR. GOODHART-RENDEL'S Presidential Address to the A.A.

MR. H. S. GOODHART-RENDEL, F.R.I.B.A., delivered his presidential address to the Architectural Association on Monday evening last week. The occasion was the first of the informal monthly dinners of the season held by the A.A. In the course of his address, the President entered upon some criticism of the modern Regent Street, arousing some rejoinders in the popular Press on the part of architects directly interested. Some excerpts from the address are given below.

Last year, when I had the honour of addressing you I made a few remarks about the new Regent Street which, to Londoners at any rate, was the most conspicuous building enterprise of the year. Since that time there has arisen in the lower part of the street Sir John Burnet's remarkable building called Vigo House. I cannot say that it redeems the street, since it appears to me that its merits serve rather to emphasize by contrast than to palliate by dilution the vulgarities of its neighbours. In itself, however, it is a thing to be grateful for, dignified, sober, and characteristic, though possibly a little over-grave in expression for its use and situation. I was turning over old copies of the building papers the other day and I came across the design made by Mr. Verity for the upper part of the street, of which, as you know, a small and a beautiful fragment only was realized. That this design should have been rejected for what has since been done is one of those miracles of human stupidity which even an uninstructed public opinion ought to have made impossible. My successor next year will probably have something to say of the new buildings upon the Devonshire House site—any criticism from me at the present time would be premature.

Most of us have not only a life to live, but a living to make. Of the irresponsible artist it is often said in justification that, at any rate, he lived his life. I have observed that more often than not he did it entirely at the expense of other people. I believe that the subsidizing of artists is part of the programme of some revolutionary idealists, and I imagine that the intention behind the proposal is to destroy art together with everything else. In the present state of public appreciation of the arts, bad art, as a rule, is more marketable than good, and while this continues to be so it is certainly an advantage to the artist not to be dependent upon his work for his house, his food, and his clothing. Given, however, the improvement in public taste, which the idealist is bound to presuppose, it is an extremely good thing for an artist to have a paymaster to please. True, an architect is worse placed than a painter or a sculptor in this respect, seeing that people generally choose a painter or a sculptor from some knowledge of what he likes to do or does best, whereas they frequently choose an architect because he lives near by, or has married a cousin of their wife's. The architect, therefore, sometimes finds himself in the position Mr. Epstein would be in if he were commissioned to make a royal portrait statue for an outpost of Empire. Nevertheless, in the great majority of cases the honest architect will find that he can gain most valuable stimulus and suggestion from the wishes of his employer, and I consider that though the first obligation upon every artist is to do no bad work if he can help it, he is under an equally stringent obligation of honour to do, if he can help it, no work, however good, which his employer dislikes. Some people talk as though the man who pays for the building ought to be gagged and bound at the signing of the contract, and not released until the architect had moved on to another job. This would have its conveniences, no doubt, but I think that the architect would miss thereby a large part of his artistic

education, of his education in resourcefulness, in open-mindedness, in alertness to opportunity.

Lastly, an architect must not only live, but he must let live. I remember before I entered the profession hearing a lady say that architects were so different to doctors—that when you told Dr. X. that Dr. Y. had been treating you for measles with mustard plasters and prussic acid, Dr. X. said gravely, "I have every confidence in Dr. Y.—you could not be in better hands," whereas when you told Mr. M., the architect, that your house had been designed by Mr. N., Mr. M. would reply: "Ah, I thought it might be N.'s—well, I'm not surprised." Now I hate Trade Unionism in a profession like ours, and I think that every architect has a right to say what he thinks of the works of his confrères, provided he cannot be suspected of getting any personal advantage from the expression of an unfavourable opinion. The public is so ignorant of the standards of our art that we must help them in the making or unmaking of reputations by free criticism. But I do think that we must regard this right as a great responsibility, and must be very specially upon our guard against any expression of intolerance, or of personal animus, perhaps almost unsuspected by ourselves. If, in self-examination, you find as I have done more than once, that you think there are a great many good architects, almost all of them dead, it is better to reserve your opinions upon your contemporaries for a while until you begin to see some glimmer of merit in them which you can praise.

Book Review

The New Architecture.

The economic temptations of mass-production have much to answer for. They have placed it beyond the facilities, and almost beyond the will, of the average man to realize æsthetic values. Even to-day, when courses in appreciation are a commonplace, the arts are popularly regarded as specialized eccentricities. A picture is a thing to fill a gap on the drawing-room wall; crazy-paving is a question of snobbery, and as for the aspidistras . . . .

That the capacity for appreciation is only dormant, is proved by the fact that popular treatises on the arts are marketable commodities. But such treatises have a generic defect in their assumption of the specialized nature of their subject; they are addressed rather to those who have heard of Giotto, Bach, and Wren, than to those who want to know what it is that we call painting, music, or architecture.

Mr. Manning Robertson has therefore done a service not only to architecture, but to the arts at large in substituting for the usual historical outline an analysis, all too brief, of the mental processes involved in the appreciation and expression of artistic values. After all, one does not acquire a standard of value by contemplating from an armchair the reactions of a remote period to an obsolete environment. It is only by understanding our own reactions to our own environment that we can realize the nature of our preferences.

That Mr. Manning Robertson does not differentiate in this matter between architecture and its sister arts is evident from the fact that he borrows his system of æstheticism from a musician, who in turn must have derived it from Plato. Indeed, catholicity is the essence of the author's appeal. In the space of two hundred pages he ranges from Tibet to Tooting, from Beethoven to Mr. Pickwick, from Platonism to central heating.

His plan of operations is to proceed from the subjective to the objective, from abstract to concrete. The analysis of mental processes is followed by a treatise on the elements of design, which in turn yields to a graded series of appendices on practical problems, beginning with the teaching of architecture and ending with the smoke-nuisance.

When, however, it comes to a question of architecture in education, Mr. Manning Robertson reverses his own procedure. He would have his school-boy begin with the isolated brick, and work upwards towards the abstract questions of form and matter. It is only natural that one so well versed in the trials of housing-architects should be urgent in his plea for an intelligent attitude towards the apparent banalities of domestic building. Peculiarly apt, indeed, is his onslaught upon the suburban jerry-building on the Parnassus on Boar's Hill. To quote Mr. Manning Robertson: "There we may see poets and philosophers . . . our cultural guides, knowing all about Chaldean, Thucydides, and Hymenoptera, proud of their college buildings, but not perceiving their own surroundings." It is an indictment which lends pathos to his argument for "catching 'em young." But what the schoolmaster, with an already overcrowded syllabus and the spectre of public examinations before him, might say, is another matter. If architecture is ever to find a place in education as such, the impulse must come from above. It is the universities which set the pace in these matters. Let them found the chairs of architecture for which Mr. Manning Robertson pleads; let them establish courses in appreciation, as he suggests, and the schools will follow suit. But Boar's Hill must be convinced first—and to convince a philosopher is to destroy his livelihood.

In exposing the horrors of a standardized suburbanism in detail, Mr. Manning Robertson has had the happy thought of going to the *fons et origo* of the craze for labour-saving devices. He devotes most of one chapter to a critique of feminist "gadgets" by none other than his own lady. Surprisingly enough for one who should realize better than any mere man the importance of interior amenities, her position is one of mild protest against the cult of efficiency, coupled with an indictment of smoke-pollution as the root of the housewife's terrors. It is a serious point; at present there is a danger that house-design may become a competition in hygienic appliances, amid which the peculiarly subjective art of home-making will die of spiritual starvation.

Another influence which drags heavily upon architectural appreciation is that of the clergy. To many people, architecture still implies "churches and all that"; their habit of mind is an archæological preference for Gothic, probably because their earliest impressions are bound up with the parish church and occasional visits to Westminster Abbey. We have most of us sat at the feet of lantern-lecturers in the parish-hall, have treated the local clergy as the obvious authority on architecture, and have ended on the brink of confusing moral with æsthetic issues, to the detriment of both. It is a difficulty that cannot easily be surmounted. Religious history itself demonstrates the absence of any necessary association between the two, and we cannot demand an æsthetic test for a moral vocation. Yet the position of the clergy gives their opinions on our grandest monuments such weight with the public that one could wish for Mr. Manning Robertson's plea for their æsthetic enlightenment a wider clerical public than it is likely to get. His illustrations of modern efforts in concrete church-building should go far to correct the view that Gothic is the last word. Is it too much to ask that the moral educator should realize that moral and æsthetic values are complementary, that there is no subordination of either in the perfection towards which he strives?

That these questions transcend all specialist considerations, the author makes clear by his deliberate appeal to all intelligent tastes. His musical illustrations are particularly apt; Shakespeare contributes to the smoke controversy, and if anyone still feels that it is all neither here nor there to him, let him read the fantasy on chimneys and Father Christmas, and consider Mr. Stanley Hamp's charming drypoint on the subject. If they come not home to his bosom, he is indeed but "Fit for treasons, stratagems, and spoils."

"Laymen and the New Architecture." By Manning Robertson, A.R.I.B.A., F.R.A.S. London: John Murray. 12s.

Surveying a Factory Site

2—Levelling

By WILLIAM W. WOOD

LEVELLING—ascertaining the relative levels of a tract of land with respect to sea-level, or, more exactly, Ordnance Datum—may be performed by a variety of methods. The Abney level, the theodolite, the aneroid barometer, the Y level, and the dumpy level, are some of the instruments employed, and all have their respective uses; but for our purpose the comprehensive word levelling implies dumpy levelling.

As for chaining, so for levelling, the instruments involved are best described first. In tabulated form these are :—

1. 100 ft. chain.
2. 10 ranging poles.
3. 6 in. scale.
4. 10 arrows.
5. 50 ft. tape.
6. 2 pencils.
7. Indiarubber.
8. Penknife.
9. A bundle of white pegs.
10. 14 in. dumpy level.
11. Light, rigid tripod.
12. 14 ft. or 16 ft. Sopwith staff.
13. Levelling book.

Items 1 to 9 appeared on the previous list, so that the first thing to describe is the level.

Dumpy levels are made in various kinds and sizes, from 10 in. upwards; for general work the 14 in. is the most useful. It costs more than the smaller ones, but the difference is more than compensated for by the greater ease with which long distances can be read, ensuring, like the longer chain, greater speed and accuracy. It should be of the three-screw type, and is all the better if also fitted with a quick-setting joint. The four-screw level is out of date, as it takes too long to set. In essence, the level most commonly met with consists of two plates, one above the other, the lower threaded to screw on the top of the tripod, and the upper having a telescope pivoted on its centre. The two plates are connected by three screws, with a milled wheel at the centre of each, threaded into the upper plate and forming a ball-and-socket joint with the lower. The quick-setting joint is in the base-plate, and works on the ball-and-socket principle, controlled by a clamp. The instrument can, by rocking, be so nearly levelled that, after clamping, a single turn of the screws will complete the operation. A bubble along, and another across, the telescope, enable one to see when the instrument is level.

To work the screws, turn the telescope over two, and, facing the side of the instrument so that the long bubble can be easily watched, work the screws between the thumb and first finger of each hand, turning both inwards or both outwards, as necessary. When the bubble rests in the centre, turn the telescope over the third screw and repeat the operation. Swing the telescope back to its previous position, and if the bubble runs out of centre, carry on as just described until the telescope can perform a complete revolution without change of level.

By applying the eye to the eyepiece of the telescope a diaphragm is seen; in modern levels it usually takes one of two forms, Fig. 2, A or B. "A" has stadia points, "B"

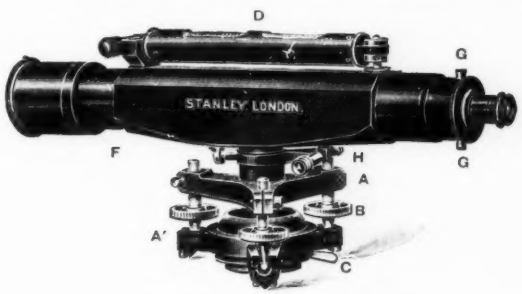
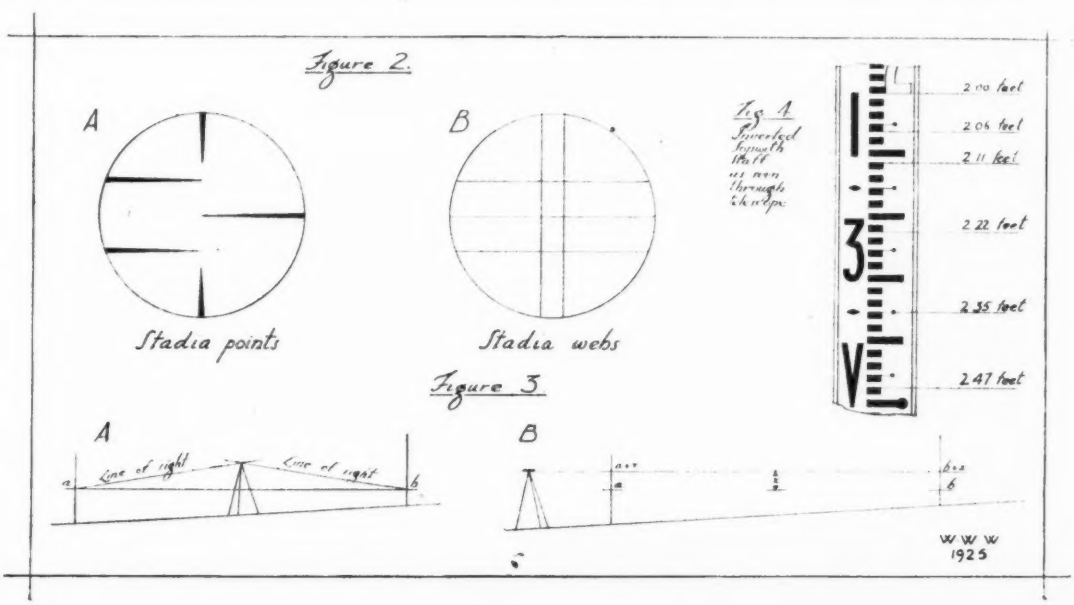


FIGURE 1.—DUMPY LEVEL.

A. Upper plate.
A'. Lower or base plate.
B. Levelling screws.
C. Clamp of quick-setting joint.
D. Spirit level.
E. Eye-piece.
F. Telescope.
G. Collimating screws.
H. Tangent screw adjustment of lateral movement of telescope.

stadia webs. The use is the same. The centre horizontal point indicates the level on the staff, and when distance readings are being taken the figures indicated by the upper and lower points are also read. These are fixed at such a distance apart that, when the lesser reading is deducted from the greater, the answer multiplied by 100 and the instrument constant added, the result is the distance between the centre of the level and the face of the staff, if held perfectly vertical. By this method any distance can be read without the use of a chain. Every instrument has,



of course, its own constant, and whilst 1·25 is a common one, it is advisable to make sure of it. It will be found figured in the lid of the box.

Adjustment for collimation is necessary when the diaphragm has been disturbed in its relation to the optical centre of the object glass, i.e. when the line between the horizontal point, or web, and the optical centre of the object glass is not horizontal, with the bubble in the centre of its run. This is most easily rectified by placing the instrument exactly midway between two staves, levelling it and then taking a reading on each staff. The points thus obtained are equidistant from the centre of the earth and therefore level (see Fig. 3 A).

Without moving the staves, reset the instrument nearly in line with but not between them. When level—i.e. with the bubble in the centre of its run—the horizontal wire is made to bisect the two readings on the staves, or two other readings equidistant therefrom, by means of the capstan-headed collimating screws (Fig. 3 B).

If the points, or wires, are indefinite, or move about when the head is moved, adjustment is necessary for what is known as parallax. This is a simple matter. First bring the webs into focus by means of the eyepiece tube, which has a milled edge, and then by turning the screw at the side of the telescope bring up the staff readings clear and sharp. If the webs still appear to vibrate when the head is moved, some slight further adjustment should be made. Neglect of parallax is a serious matter, as, if it is present and the line of sight is not down the very centre of the telescope, the reading will probably be greater or less than the correct one.

When the staff is located through the telescope, the latter is clamped, and further minute control is effected by means of a tangent screw adjustment.

There are a number of other minor "gadgets" with which the surveyor quickly becomes familiar in practice.

There are many kinds of tripod, but the one commonly used has its three legs apparently cleft from a single piece of wood, so that when closed it tapers cylindrically to its iron-shod feet. The stock-head is threaded, forming a male and female joint with the level. The thread is covered by a cap-piece when the tripod is not in use.

A 14 ft. Sopwith staff is made telescopically, in three pieces. It is much simpler to use if the figures are inverted, as they are then read the right way up through the telescope. It must, however, be remembered that the staff itself is seen inverted, and therefore the lower figures are seen uppermost—in other words, it must be read down instead of up. Feet are shown in red and subdivisions in black. The bottoms of the red figures represent their value in feet on the staff, whereas the bottoms of the black figures represent their value in hundredths, and the tops the value of the even numbers of hundredths—odd black numbers only are figured on the staff. To make the matter clear, and to save a lot of unnecessary description, I have sketched a portion of a Sopwith staff, with inverted figures, as seen through the telescope, and have indicated a number of illustrative readings (Fig. 4). N is used to represent 9, to prevent confusion with 6.

There is even more argument about level-books than about field-books, and to avoid wasting valuable space on debatable matter I will confine myself to the form I advocate from personal experience (refer to Fig. 5). Each two pages is divided into twelve columns, and these are headed as shown. The name and situation of the site, the name of the surveyor and his assistant, the constant of the instrument, and the date of the survey, should be put at the head of the first page, and the subsequent pages numbered consecutively. Each reduced level—bench mark, intermediate sight and foresight—is numbered and has a separate line. When a backsight is taken a dash is put in the reduced level column to save confusion.

For the sake of illustration I have supposed the levels shown to be those of rectangle B, C, D, E, in Fig. 5 of the previous article on chaining. A bench mark—a known level, determined by the Ordnance Survey, above or below Ordnance Datum, and indicated by a broad arrow with a horizontal incision across the point—is assumed on the corner of the farm buildings near E. This, of course, can be entered at once in the "Reduced Level" column, and the reference to the B.M. in the "Remarks" column explains matters. The ranging pole is taken out at E and the level set up over the spot. The staff is then held upright against the wall, with the bottom of its brass shoe level with the centre of the horizontal incision of the bench mark. A "back-sight" is taken on to the staff, and the reading—·43 in this case—is entered in the appropriate column of the level book. Distance readings are not necessary, as the positions of both instrument and staff are known. The level is now revolved on its axis, care being taken not to disturb the tripod, and is sighted along line E d_3. The notes "Inst. over E," and "E d_3" in the next column, make this clear. The staff is moved towards D and is held upright at the first change of level in the ground, figured 2. A reading is taken, and if no more levels are required before the tripod is moved it is entered as a foresight. The upper and lower readings are now also taken, giving the distance between E and the staff, i.e. 2 in the number column. No intermediate or spot levels are required, so the tripod is moved and the staff carefully turned round, without losing the place. If the ground is at all soft, it is a good plan to beat it with the shoe of the staff, or else the staff man should carry a stone to hammer into the ground with his heel each time. The tripod now stands astride line E D at d_3, and a back-sight is taken. The stadia readings give the distance between the instrument at d_3 and the staff at 2. This acts as a check on measurement E—2, as E—d_3 is a known chain distance. This is where the sketch plan, prepared originally for chaining, again comes in useful. Mark on it each point where a level is taken and each position of the instrument. The level of d_2 is required; this is an intermediate sight, and as its position is known distance readings are not required. A foresight is taken on d_1, but again stadia readings are not necessary. The instrument is now set up over D, a back-sight taken on d_1 and a foresight on C. The level is now set astride CB, and a backsight taken on C. This time the distance is required, and the note "Inst.—C," in the

Figure 5. LEVELS TAKEN ON BLEAK HOUSE FARM, WILTS.—19 OCTOBER, 1925.
JOHN JONES WITH WILLIAM BROWN AND HERBERT MORRIS.
Instrument Constant 1·0 ft.

No.	Remarks.	Line.	Back Sight.	Inter-sight.	Fore-sight.	Colli-mation Height.	Reduced Level.	Stadia. Upper Reading.	Stadia. Lower Reading.	Stadia. Distance.	Stadia. Between.
1.	B.M. on angle of farm buildings.	E B.M.	·43				593·26				
2.	Inst. over E	E d_3			5·34			5·12	5·39		E & 2
	„ „ d_3	d_3 E	6·40					6·02	6·75		d_3 & 2
3.	„ „ d_3	d_3 d_2		6·585							
4.	„ „ d_1	d_3 d_1			1·095						
	„ „ D	D d_1	5·845								
5.	„ „ D	D C			6·71						
	„ astride line ..	B C	2·925					2·45	3·39		Inst. & C
6.	„ „ „ ..	C B			6·765			6·26	7·28		Inst. & 6
	„ „ B ..	B 6	3·21					2·76	3·67		B & 7
7.	„ „ B ..	B 7		3·94				3·625	4·26		B & 8
8.	„ „ B ..	B B.M.			1·01					70′ 0″	E & 8

"Between" column, taken in conjunction with the remark "Line CB," makes clear what two points the distance lies between. A foresight is taken on 7 and the distance read. The instrument is moved to B and a backsight taken on 7. The distance is read as a check. A spot level is required in the middle of the field at 8 and the distance B 8 is taken. The position of 8 is marked with a pole or peg. Lastly, a foresight is taken on the bench mark. When reduced, this reading will tell us if our work has been accurate. We find, however, that the B.M. happens to be above the line of sight, so the vertical distance *down* between the B.M. and the line of sight is measured this time and is entered in the level-book as a minus quantity, viz.—1·01. Another measurement is required to locate point 8, and, if the chain is handy, it will be quicker to chain from E to 8 than to set the level up again at E to read the distance. It might have been better to have taken the first readings on 8 from E and then only the check distance would have been required from B.

The type of levelling just described is known as compound levelling, the instrument following the undulations of the site. This was done to illustrate the method, but in actual practice a comparatively small piece of ground such as this, with little variation in level, would be done by simple levelling, the instrument being set up in the centre of the site, the various points being all intermediate sights, with back and foresights to the B.M. Furthermore, the triangulation lines were assumed as the best section lines, giving two sections each way across the site. The line of a section must, however, be always determined by the nature of the site. Sometimes sections are not necessary and spot levels are taken at various previously determined and located points.

The next article will be on Plotting and will include a description of the methods of reduction.

Correspondence

Combined Drainage

SIR,—The recent article by Mr. W. Taylor Allen under the above heading was very interesting. It would, however, be helpful to know whether, in the fifth paragraph, in regard to the Public Health Act, 1890, the writer had in mind the House of Lords decision in the case of Wood Green U.D.C. *v.* Joseph (1908). In the course of his judgment, Lord Atkinson, after quoting sections 13 to 41 of the Public Health Act, 1875, said, "The machinery is this: The local authority can, after serving notice on the occupier, examine the drains, etc. If they find these defective they can require the owner or occupier to set them right. If the notice be not complied with, the person on whom it is served incurs a penalty of 10s. per day for every day he is in default, and the local authority may itself execute the necessary work, and, if so minded, recover the cost from the owner. These are the means available to a local authority to compel owners and occupiers of premises to maintain the drains 'on or belonging to those premises,' so as not to become nuisances or injurious to health. The definition of the word 'drain' coupled with that of 'sewer' contained in the fourth section of the Act causes all the difficulty. According to that definition a drain, to be a 'drain' within the meaning of the Act, must have as termini at one end one 'building' or some premises within the same curtilage, etc. The object of the Statute of 1890 was to bring within the reach of the machinery of Section 41 of the Act of 1875 one of the two classes of drainage conduits which, by force of this artificial definition of 'drain,' were placed outside its operation, and to transfer to the shoulders of the owners of the houses which this class of conduits served the burden of maintaining them. But this class, in my view, only comprised conduits which sections 23 and 25 require the owners to provide or see were provided," i.e. houses without sufficient drainage or new houses.

From this it appears clear the 1890 Act does not offer a way of "contracting out of the local authorities' liability in respect of combined house drainage, etc."

A number of authorities have embodied the following clause in their private acts:

"The powers given by Section 19 of the Public Health Acts Amendment Act, 1890, in relation to two or more houses belonging to different owners shall extend and apply to two or more houses belonging to the same owner."

But it would seem that, whatever the intention, this does not vary the position as emerging under the 1875 definition of "sewers" and "drains."

If the West Ham, Edmonton, and Buxton Councils do not proceed along these lines, it would be enlightening if the clause could be quoted in your valuable journal.

If, however, it is on the lines of the section quoted above, it fails to remedy the "anomalies created by the decision of the Court."

Further, the point therefore arises whether a council can (merely by agreement) divest themselves of the liability in regard to combined drainage placed upon them by the 1875 Statute quoted above—apart from the inability to make such agreement binding upon subsequent purchaser of the property.

B. C. HONEY, P.A.S.I.

Registration and Chief Assistants

SIR,—The present position of those architects represented by your correspondent "Equity" is that in the past they have had the same opportunities as other architects of joining the Institute or the Society, and now that the two latter are amalgamated, these architects have no legitimate grievance, because they cannot become entitled to style themselves Chartered Architects except by joining the Institute through the ordinary channels. Their future position so far as registration is concerned is protected, as the draft R.I.B.A. Registration Bill provides for admission to the register of all bona fide architects.

C. MCARTHUR BUTLER, Chartered Architect,
Secretary R.I.B.A. Registration Committee.

SIR,—Your correspondent "Equity's" last question may be answered by asking another. Why should the R.I.B.A. form a class for architects who, presumably eligible for admission to the Institute, have hitherto withheld their support from it, and have been content to benefit by its work for the general advancement of the profession without contributing to it their personal and financial support?

At the same time it would, in my judgment, have been a wise and statesmanlike policy, in view more particularly of its registration proposals, if the Institute when recently amending its Charter, had provided some means whereby all architects of mature age, good standing, and strict integrity, on showing reasonable cause for not attempting the theoretical entrance examination at an earlier stage of their professional career, might have an opportunity of proving their qualifications for membership by submitting practical evidence of their ability and qualifications.

As a "back door" member of the Institute, I find myself in the very good company of a considerable number of other architects, including some of the leaders of the profession, who preceded me through the same portal, and I prophesy that unless this door is reopened, if only for a limited period, say, pending the accomplishment of registration, the Institute's membership and consequently its influence and power, will gradually decrease.

To put it bluntly the Institute if it desires to maintain its position as the one representative body of the profession, cannot afford to limit its field of recruiting entirely to those who pass the Associateship examination.

BACK DOOR.

Contemporary Art

The New Paintings at the New Galleries.

Works of the advanced schools of America, France, and England, make of the second Exhibition at the New Chenil Galleries at Chelsea an imposing, delightful and distinguished show. It cannot do British artists any harm if this is followed by a wider-open door. We want a truly international exhibition, and not merely a tri-national. But we are thankful for the mercy here afforded, for it certainly shows the value of research and the necessity of experiment. This collection of some 200 paintings and drawings, together with 40 pieces of sculpture, includes some very fine performances in addition to many interesting experiments. Much of the work is modern in feeling and intention, and some of it is excellently traditional with a new outlook.

The most interesting revelation comes from the United States; or rather from the American artists painting in Paris. Now we can judge of the decorative pictorial work of Arthur B. Davies, the formalized landscapes with buildings in the latest style of Paul Burlin, and the still-life painting of Paul Dougherty.

France affords another glimpse of Marie Laurencin, and of the post-impressionists Dérain and Braque. There are interesting things by Henri Matisse and Pablo Picasso: all the "modern masters." It is, however, the English school that provides the real thrill of the exhibition. So much first-class work of a modern tendency has not before been seen together. Apart from the admitted leaders like Augustus John, Ambrose McEvoy, Philip Connard, and Sir William Orpen, the younger men come out in impressive force. Not least is A. R. Thomson. Mark Gertler rises to a height, Colin Gill and W. L. Clause too. There is rather too much perfunctory exhibiting amongst the Britishers: this exhibition should have included only the best, for the occasion is important enough to have been made the most of by everyone concerned.

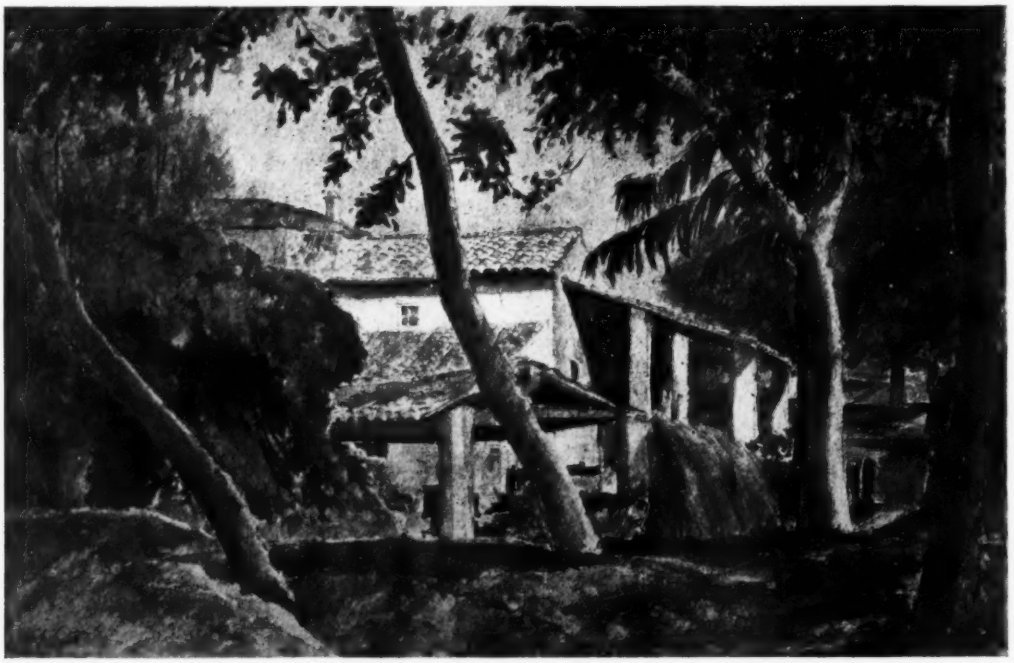
Sculpture to the Fore.

At last the exhibition of modern sculpture is recognized as being at least as important as that of painting! The sculpture hall of the New Chenil Galleries is also the entrance hall. Sculpture makes the first impression on entering the collection. Epstein and Dobson represent England; Joe Davidson and Cecil Howard, America; Despian and Maillol, France, and the cosmopolitan group in Paris are seen in the work of Brancusi and Modigliani. It is a startling presentation of the plastic and glyptic tendencies of the day. None of it is greatly in debt to tradition; most of it is considerably in debt to nature and human mentality. This sculpture is alive and altogether expressive in its new forms and methods. It is largely modelled work in bronze, and some of it is translated into marble. Carved work makes an important appearance, however, in the abstract forms of the Constantin Brancusi; so-called abstract forms that is, that do indeed induce new sensation and inevitably project new decorative patterns. Naturalism is seen at its most blatant in the work of Herbert Haseltine, the American animal artist. Psychology appeals powerfully in the remarkable bronze busts of Lopokova by Frank Dobson, Ledora Roselli by Jacob Epstein, and a delightfully suave Portrait of a Lady by Charles Despian. These distinguished works are supplemented by admirable pieces by the Britishers Eric Kennington and William McMillan.

The Old and the New.

The soundness with which E. Barnard Lintott has always treated his water-colour drawings is not vitiated by a new departure to be seen in a number included in his one-man-show, also at the Chenil Galleries. In addition to about forty drawings which follow the English tradition, the artist has provided a further ten or so which indicate that he is also open to research. He has found out already that even in this tight compartment of English art there is still a possibility of evolution. He has, therefore, ventured where the post-impressionists have fearlessly trodden, though gently. In an interesting series of works drawn at Cagnes he has experimented along lines indicated by Cézanne, and succeeded in embracing the old and the new. He has stopped short at the extravagance seen in the unbalanced "Fortresse" of Paul Burlin near-by, but has developed different methods of seeing and recording from that used by the great English water-colourists, his masters, of whom he is to treat in a forthcoming volume on the Art of English Water-colour Drawing.

The new spirit of fearlessness in æsthetic expression is well evidenced in the small, but important, first show of works by Sidney Hunt at 18 Cork Street. The most normal feature of it is a series of remarkably expressive line drawings, which are evidence once more of the fact that drawing as such is being taught in England in a very sound way. The second aspect is the application of line to the enunciation of new patterns, seen in the several designs in colour, of which "Octette" and



"THE RED ROOF, CAGNES" BY E. BARNARD LINTOTT

"CANAL." BY SIDNEY HUNT
(From the Mayor Gallery.)

'Cone" are good examples. Alien shapes are moulded into homogeneous designs, which at the same time intrigue and satisfy, and do certainly get away from stereotyped repetitions. In thus treating cubistically the new aspects of ordinary things, Sidney Hunt is doing a signal service, and not least in applying his fresh vision to architectural subjects, as he does in the striking and original "Canal." There is, moreover, the same fecund fancy in "Exit the Beauty Chorus," and this is so convincing that the wonder is that it has never been exploited before. Apart from the value of this work as decoration, it undoubtedly evokes visual and mental sensations which the concrete representations of the accepted method fail in producing. This is eminently the case also with the studies from the nude, forming the third section of the show; these are rather ugly, but quite definitely moving and expressive.

The Old Only.

At the Royal Institute there is nothing new in the way of sensation, but much that is satisfying in the accepted methods of the presentation of natural beauty. At last at this show Alfonso Toft's landscapes have been well hung, and a chance provided of estimating their great merit. The large canvas "The Sentinel" is properly representative of this fine artist's work, and at the same time affords an excellent object-lesson in the art of using an important architectural feature to the greatest pictorial effect. There are some very delightful pictures here, including those by Terrick Williams, Norman Wilkinson, Davis Richter, James Quinn, and Hesketh Hubbard. Julius Olsson makes a departure in producing a very pleasing design for an overmantel, and the decorative work of Herbert A. Budd is so well displayed that its sound quality can be appreciated.

KINETON PARKES.

Gifts to the Birmingham Art Gallery.

At the last meeting of the Birmingham Museum and Art Gallery Committee the following gifts were reported: From an anonymous donor, an etching by H. J. Harvey; from Alderman W. A. Cadbury, a water-colour drawing, "Ypres," by J. A. Swan, F.R.I.B.A.; from Mr. G. H. Wooldridge, a Chinese bronze of a musician; from Councillor Hall-Edwards, a book of engravings of Fontainebleu, for the Art Library. Various gifts to the Natural History Department were also reported, and the donors thanked. It was resolved to appoint Mr. Eric Whitley, of Wimbledon, formerly of Christ Church, Oxford, to the post of junior assistant to the Art Gallery.

Prints of Nineteenth-Century London.

The London County Council has arranged for selections from the prints and drawings of London in its possession to be exhibited in one of the rooms at the County Hall, and this room is included in the itinerary for visitors to the County Hall. A new selection of prints, illustrative of Early Nineteenth-Century London, is now on exhibition. The general public are admitted to view certain portions of the County Hall on Saturdays, from 10.30 a.m. to 12 noon, and from 1.30 p.m to 3.30 p.m.; Easter Monday, Whit Monday, and August Bank Holiday, from 10.30 a.m. to 12 noon, and from 1.30 p.m. to 4.30 p.m. The public entrance is in Belvedere Road. Organized visits also are allowed on Saturdays (but not on Bank Holidays) in cases in which permission is obtained in advance. Applications in respect of such visits should be addressed to the Clerk of the Council at the County Hall, giving in each case the approximate number of persons to be included in the party (which should not exceed 100); the name and address of a responsible person who will be in charge of the party, and to whom communications may be sent, if necessary; and the date and time at which it is desired to visit the building.

Law Reports

Breaches of Conditions in Lease—the Conveyancing Acts

London and Manchester Ice Co. v. *Blooms, Ltd.*
Chancery Division. Before Mr. Justice Romer.

This was an action concerning points under the Conveyancing Acts of 1881 and 1892, in which the plaintiffs, the London and Manchester Ice Co., as lessors of certain premises in Victoria Street, Manchester, sought an order against defendants, Blooms, Ltd., for re-entry on the grounds of alleged breaches of certain covenants in the lease. Defendants held a lease of fourteen years from March, 1916, and one of the covenants provided for forfeiture in the event of a receiver being appointed or the company going into liquidation, and it was said that defendants were in breach in respect of both. The defendants, on the other hand, asked for relief from the breaches under the provisions of the Conveyancing Acts.

The points are fully dealt with in the judgment.

His lordship said that the Conveyancing Act, 1881, subsection 2, provided that where the landlord was seeking to enforce his right to re-enter because of breaches of the conditions in the lease the lessee might apply to the Court for relief against forfeiture and the Court might grant relief on conditions which in its discretion it might think right to impose. It had been held that liquidation was bankruptcy under the Act. In the Conveyancing Act, 1892, section 2, sub-section 2, it was provided by somewhat awkward language that section 14 of the Act of 1881 should apply to re-entry or forfeiture on the bankruptcy of the lessee at the end of one year from the date of the bankruptcy, which in this case was the date of the presentation of the winding-up petition, unless in the course of the year the property had been sold to a responsible and respectable tenant, in which case the section ceased to operate altogether. There was little doubt that the object of the legislature in imposing that condition was to give the bankrupt lessee an opportunity of looking round to see if he could not dispose of the lessor's interest to a responsible and respectable tenant. If he did so the landlord could not suffer appreciable injury, and there was no longer any reason why he should exercise his right to re-enter. The object of the Act was to give breathing space to those administering the affairs of the lessee. If at the end of the year the property had not been sold there was no longer any reason why the landlord should be kept out of his property and the Act would cease to be applicable. In the present case the liquidation had only been going on eight months, and consequently section 14 applied, and

before seeking to exercise his right to re-enter the landlord was bound to serve a particular notice upon the tenant. It was admitted in this case that the proper notice had been served, and the application of the landlord must be acceded to unless the Court could give relief to the lessee. The Act of 1892 in no way indicated how the Court should exercise its discretion of granting relief. It was clearly obvious, however, that the legislature intended that where an application was made by the lessor during the first year of the bankruptcy the Court should have power to grant relief upon terms, and it appeared to his lordship that to refuse to grant relief in the present case would be tantamount to saying that in no case should a Court grant relief. At the same time, having regard to the object the legislature obviously had in view it was quite clear that the relief given was a relief that in the event of the property not having been sold within one year must then cease to be operative, and the landlord's right to re-enter would come into force unaffected by section 14. He could not refuse to grant relief on the ground that the property had not yet been disposed of. That would mean shortening the period of one year given by the Act of 1892 to eight months. Under all the circumstances of the case he came to the conclusion that he ought to grant relief, but it would have to be on terms. The defendants would have to pay all rent to the present time, and give satisfactory undertakings for the payment of all outgoings to the end of the year.

His lordship imposed other conditions, and on the failure to comply with them by the defendants, the plaintiffs could apply to the Court for re-entry, and he would grant it. The plaintiffs would have all costs incurred.

Rights of Ownership

Pike v. *Beechener.*

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

This was an action by the plaintiff, Mrs. Jane Pike, of Manor House, Barton, against Mr. Chas. Beechener, of Green Farm, Barton, seeking an injunction to restrain him from a user of the plaintiff, for carts, etc.

Mr. Cave, K.C., and Mr. R. Higham appeared for the plaintiff, and Mr. Hurst, K.C., and Mr. Preedy for the defendant.

The land of plaintiff and defendant belonged to one person till July, 1911, when the plaintiff and defendant purchased it, and the defendant's submission was that prior to that date, and since, the tenant of Green Farm had the right of user over what he called a "track" or way over the land between Manor Road and the great field, which formed a part of Green Farm. Evidence was given to show that the way in dispute had been used for upwards of forty years in connection with the cultivation of the great field. Defendant claimed that by virtue of section 6 of the Conveyancing Act there was an expressed grant when the land was conveyed in 1911 to his predecessor in title, of the appurtenances or quasi-easements then in existence. Defendant said the use of the track was necessary for the reasonable enjoyment of the property, and he counterclaimed for an injunction to restrain the plaintiff from obstructing his use of the way. Plaintiff's case was that the use of the way was not necessary for the defendant's enjoyment of his property; that it was not the intention of the grantor of the conveyance to the defendant to grant any such right as claimed, otherwise it would have been expressly reserved; and that the use of the way was not enjoyed by the defendant as a right, but by the courtesy of the tenant of Manor Farm.

His lordship dismissed the action, with costs, and gave defendant judgment on his counterclaim, with costs. His lordship said here the defendant claimed that he had a right to traverse plaintiff's plot by virtue of section 6 of the Conveyancing Act, 1881, and secondly by virtue of the common law principle of grant from a common vendor. He (his lordship) was satisfied that the user by the defendant was always open and substantial, and it was necessary for the adequate and economic enjoyment of the great field. He further held that defendant was right in his contention under section 6 of the Conveyancing Act, and that there was an implied grant by the common vendor to the defendant's predecessor in title and an implied reservation as to the right of way. He was satisfied all parties intended the right of way should go with the Green Farm.

Defective Steps—Liability

Griffin v. *Fillet.*

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

This was an action by Mr. Ralph Griffin, a barrister-at-law, residing at 7 Tressillian Road, St. John's, New Cross, London, against Mr. Felix A. Fillet, of St. Matthew's Road, Worthing, to recover damages for alleged breach of covenant in a deed of 1908, made between plaintiff and defendant, and in the alternative, damages for personal injuries alleged to have been caused through the negligence of the defendant or his servants or agents.

Mr. Schiller, K.C., and Mr. M. Hilbery appeared for the plaintiff, and Mr. Harold Morris, K.C., and Mr. Shakespeare for the defendant.

Plaintiff, a barrister-at-law, and secretary of the Society of Antiquaries, and formerly Registrar of Designs and Trade Marks at the Patents Office, held from the defendant a lease of the premises for twenty-eight years from December, 1908. By that indenture the defendant covenanted with the plaintiff that he would from time to time, and at all times, keep the exterior of the premises in good and substantial repair. On April 2, 1924, plaintiff wrote defendant that the steps leading to the front door were out of repair. The defendant failed to repair the same, with the result that on April 14, 1924, when plaintiff was leaving his house the steps collapsed, and plaintiff fell through into the cellar and sustained a comminuted fracture of the lower part of his right leg, and shock and bruising. Plaintiff put his special damages (doctors, nursing homes, etc.) at £424.

Defendant contended that under the lease there was no undertaking on his part to keep the steps in repair. Defendant said he received a letter from the plaintiff complaining of the state of the steps, and he at once put the matter in the hands of his builder to carry out. He submitted that there was no unreasonable delay in carrying out the repairs, and that therefore there was no breach on his part, and plaintiff could not recover. Defendant further said that the injuries to the plaintiff were due to his voluntarily using the steps, well knowing that their condition was such as to be unsafe. Plaintiff was accordingly guilty of contributory negligence.

His lordship, in giving judgment, said the plaintiff was seventy-one years of age. The action turned largely upon the repairing covenant of the lease. The special damages claimed up to the date of trial were some £560. The plaintiff was also entitled to compensation for pain and suffering, and if plaintiff succeeded would be awarded £1,200. The case was a difficult one, but on all the facts his lordship came to the conclusion that the plaintiff was entitled to recover from the defendant in respect of the accident. His lordship found as a fact that the plaintiff had no idea that the steps were in a dangerous condition. The matter turned on the construction of the covenant. There was no breach of the covenant unless the landlord had received notice of the want of repair. In this case the non-repair could have been temporarily remedied by putting wooden struts, enabling the old steps to be used till new steps were put in. He thought the notice given by the plaintiff to the defendant to be sufficient to put the defendant on inquiry, and to ascertain the extent of the non-repair, and to take such steps as were necessary to deal with the matter. He held that there was a breach in law by the defendant of the covenant to repair, and that a reasonable time had elapsed before the repairs were carried out.

Judgment was entered for the plaintiff for £1,200 and costs.

London Housing

London housing accounts for 1924-25 show a total expenditure of £1,782,781 and income amounting to £1,078,972. There is thus a deficiency of £703,809, of which £510,881 will be covered by Government contributions and £223,982 will be met out of the rates. The difference between the aggregate of these sums and the deficit represents balances carried forward.

Giving details of the accounts, the Finance Committee of the London County Council state that the total capital expenditure on pre-war clearance schemes to March 31 last was £2,734,734, and the debt outstanding at that date amounted to £858,340. In respect of pre-war dwellings there was a surplus for the year of £64,735. Under the assisted scheme of the 1919 Act the deficiency amounted to £682,454, of which £177,774 will be borne by the special county account as representing the adjusted net produce of a penny rate, and the balance (£504,680) will, subject to approval, be met by the Ministry of Health. Of the deficit, £400,924 is on account of dwellings and estates in course of development, and £240,012 represents sums refunded to metropolitan borough councils in respect of deficiencies on their schemes. The aggregate capital expenditure of the Council to March 31 last amounted to £9,744,923 in respect of dwellings, and £36,253 in respect of clearance schemes, excluding rehousing, or £9,781,176 in all. The debt outstanding was £10,803,615.

Societies and Institutions

The Association of Architects and Surveyors.

We have received the following communication from Mr. Ian Mac Alister, chairman of the R.I.B.A. Registration Committee: "The attention of the R.I.B.A. Registration Committee has been called to the recent establishment of an Association of Architects and Surveyors, which is inviting architects to apply for membership as a protection against the 'danger of being prevented from earning their livelihood' as a result of impending legislation. So far as the R.I.B.A. is concerned, the suggested danger does not exist. It has never been the intention of the Registration Committee to propose legislation which will in any way affect the livelihood of anyone who at the time of the passing of the Act is making his living by the practice of architecture. The interests of all those who are now connected with the profession will be specifically safeguarded. It has never been our intention to limit the benefits of a Registration Act to those who are now members of the R.I.B.A. or its allied societies, and the Bill which has just been drafted by the Registration Committee is perfectly clear on this point."

The Building Surveyors' Association.

A quarterly general meeting of the Building Surveyors' Association was held in the Council Chamber, Town Hall, Leeds. The first part of the day's programme was a visit to the clothing factory of Messrs. Montague Burton, Ltd. The party was conducted round the works by the architect, Mr. H. Wilson, of Leeds, who pointed out the many difficulties that had to be overcome in the designing of a factory on modern lines for this particular trade. Prior to the business meeting, Mr. F. E. Drury, M.Sc. Tech.E., head of the Building Department, College of Technology, Manchester, gave a paper on practical design and checking of reinforced concrete foundations. The hon. sec. reported a steady rise in the membership. The organizing secretary's report stated that educational bodies were making inquiries and framing courses of study suitable for students preparing themselves to sit at the Association's examination.

The Institution of Structural Engineers.

The Institution of Structural Engineers have issued a syllabus of the examinations of the Institution, which comes into force from January 1, 1926. This syllabus also clearly sets forth qualifications which exempt candidates from the examination for the various classes of membership. It should be noted that from January 1, admission will be by examination or exempting examinations only, but applications for direct admission from candidates having practical experience can still be accepted up to December 31, 1925. Forms for direct admission up to the end of this year, or, alternatively, forms for admission under the syllabus herewith coming into operation on January 1, 1926, may be obtained on application to Captain Maurice G. Kiddy, the secretary, Abbey House, 2–8 Victoria Street, London, S.W.1. The entrance fee and first annual subscription of applicants for direct admission during the latter two months of the year carry those elected to December 31.

"Beauty in Architecture."

Under the auspices of the South Wales Institute of Architects (Western Branch) a lecture was given by Mr. W. S. Purchon, M.A., A.R.I.B.A., head of the School of Architecture, Cardiff, on "Beauty in Architecture." Mr. H. C. Portsmouth, F.R.I.B.A., occupied the chair, and a large number of local architects, students, and members of the general public interested in architecture attended.

The lecturer enunciated the principals of architectural design and composition, and put forward a scheme of architectural criticism applicable to the architecture of the past and present. The various points raised were considered in connection with a fine series of about one hundred views of famous ancient and modern buildings, including the palaces of Florence, St. Sofia one of the glories of the world, and finally of Cardiff's civic centre. Among other points dealt with were the expression of function and of the purpose of the building, the composition of façades, the massing of buildings, grouping, environment, how unity of design may be achieved or lost, the art of "leaving out," and the preservation of scale. The lecturer pointed out that architecture was not a matter of added expense to a building. The skilled designer produced from given conditions better results than the untrained man. The method adopted in the lecture was such as to appeal alike to the architect, the professional student of architecture, and to those members of the general public who were at all interested in the art of architecture.

A hearty vote of thanks to the lecturer was proposed by Mr. Charles S. Thomas, F.R.I.B.A., seconded by Mr. S. R. Crocker, L.R.I.B.A., supported by Mr. Ernest Morgan and Mr. W. H. Jones, and carried with acclamation. Mr. J. Herbert Jones, F.R.I.B.A., the honorary secretary, expressed on behalf of the Council their pleasure at the large number who attended the lecture, and expressed the hope that future lectures on the subject of architecture would be equally well attended.

Yorkshire Architects at Beverley.

Members of the York and East Yorkshire Architectural Society visited the Minster and St. Mary's Church at Beverley, where they inspected the architectural beauties of both buildings under the guidance of Mr. John Bilson, F.S.A. Mr. Bilson said that the Minster owed its existence to Saint John of Beverley, whose tomb in the church was the object of veneration all through the Middle Ages. There could be no certain evidence of the position of the shrine, but there was little doubt that, as usual, it then stood immediately east of the high altar. For two centuries after the church was destroyed by the great Danish invasion of Northumbria in 866, the history of the building was a complete blank. Then we were told that Archbishop Cynesige added a high stone tower to the church, and there were records of subsequent additions. A record of the fire which destroyed the church in 1188 was found in an inscription on a plate of lead discovered in 1664 in the tomb of St. John. This plate also stated that in 1197 a search was made for the relics of the blessed John, which were found and reburied. It was clear, however, that only part of the church was destroyed, and that the nave remained standing until it was rebuilt in the fourteenth century. The whole of the eastern part of the church, including the first bay of the nave immediately west of the crossing, dated from the second quarter of the thirteenth century, and was a most admirable example of the completely developed Gothic style. The party afterwards visited St. Mary's Church, where Mr. Bilson again explained some of the most interesting features of the building.

Materials and Brilliance of Style.

A comprehensive glimpse of the buildings of Northern Italy in the Renaissance period, chiefly those of Pavia, Milan, and neighbouring centres, was given by Sir Banister Fletcher at the Central School of Arts and Crafts. He said that Milan, when she had shaken off the German influences which had prevailed in the Gothic period, soon reverted to the old Classical traditions, which in Italy had always been dormant, to the solidity and stateliness of design and the delicacy of conventional detail. The beautiful marble of Carrara made a new refinement possible, while in the valley of Lombardy the clay provided a brick architecture characteristic in its aspect, and the latter, too, lent itself to a grace of decorative detail which was dear to the Italian spirit. At the great Carthusian church or Certosa at Pavia, the brick Gothic blended oddly with the brick Renaissance of the gorgeous west front, in which Gothic vertical lines took the form of pilasters and slender baluster columns.

The City of Architectural Rebirth.

A lecture on the palaces and churches of Florence, the first city where the newly revived classic traditions called the "Renaissance" took root, has also been given by Sir Banister Fletcher, V-P.R.I.B.A., at the Central School of Arts and Crafts. He first pointed out the geographical position of Florence, and showed how the number of small States fostered a keen municipal spirit. He said that the rule of the art-loving Medici family and the growth of art guilds in Florence gave rise to the stimulus in architecture which caused the adoption of the Renaissance. Beautiful marble had great influence in producing the refinement of the style, and the brilliant climate resulted in the rugged façades and deeply frowning cornices of the palaces, such as the Palazzo Riccardi, the Palazzo Pitti, and others, which Sir Banister illustrated by unique slides. Symmetry of classic origin was combined with variety and picturesqueness in detail.

Wessex Architects at Dinner.

Members of the Wessex Society of Architects (incorporating the Bristol Society of Architects and the Gloucestershire Architectural Association) inaugurated the new session by holding a dinner at Cheltenham. The President (Mr. G. C. Lawrence, R.W.A., F.R.I.B.A., of Bristol) occupied the chair, and among those present were the President of the R.I.B.A. (Mr. E. Guy Dawber), the President of the Gloucestershire Architectural Association (Lieut.-Col. N. H. Waller, M.C., T.D., M.A.), Sir Philip Scott (High Sheriff of Gloucestershire), Messrs. A. B. Botterill, F. H. Bulton, C. F. W. Dening, G. D. Gordon Hake, T. L. R. Jones, G. A. Lovell, W. S. Skinner, T. A. Skinner, W. J. Stenner, and T. F. Thomson, of Bristol, and many others.

Before the large company sat down, Col. Waller asked Mr. Guy Dawber to invest Mr. G. C. Lawrence with the president's badge, a beautiful emblem which was designed by a Wessex architect, modelled by a Wessex sculptor, and cast in gold by a firm at Frome, Somerset.

Mr. Guy Dawber, in performing the task, said that he looked upon their President as the real father of the society. For a long time the Bristol Society had been affiliated to the Royal Institute, and they also had in Gloucestershire an Architectural Association which was not affiliated with either the Bristol Society or the Institute. It was owing to Mr. Lawrence's initiative and exertions that these two societies were now amalgamated into one organization called the Wessex Society of Architects.

Responding to the toast of "The Royal Institute of British Architects," proposed by Col. Waller, Mr. E. Guy Dawber paid tribute to Wessex, embracing as it did four of the most beautiful counties, Gloucestershire, Somerset, Wiltshire and Dorset. In them they would find the most beautiful villages and buildings in all England, as well as the most beautiful stone and building material. He also paid a tribute to Cotswold architecture.

Sir George Oatley (architect of the Bristol University) submitted the toast of "The Visitors," and, alluding to the presence of the headmaster of Cheltenham College (Mr. H. H. Hardy), said that it caused him to think of the tremendous influence for good it would have been for architecture generally if in their public schools they could be taught something about buildings.

The British Confederation of Arts.

The third annual conference of the British Confederation of Arts was held at Caxton Hall, Westminster. Mr. Israel Zangwill, B.A., occupied the chair. Delegates of many societies representative of the arts of literature, music, drama, architecture, painting, dancing, and other related arts and professions were present.

The chief speaker was M. José Germain, delegate from the International Confederation of Professional Workers and the Confederation of Intellectual Workers of France. M. Germain is an Officer of the Legion of Honour, president of the Union of Dramatic Authors of France, and of many other important French societies. His speech was an inspiring address on the social and economic advantages of confederation to the associations representing the arts. He illustrated his address by examples of the progress and work in this direction which had been achieved in France and other countries.

The chairman followed by a vivid and humorous speech on the present position of literature and the drama in Great Britain.

Mr. Cloudesley Brereton elucidated many points by his comments on M. Germain's address, and outlined the important developments and work which had already been achieved in this country through the British Confederation of Arts, acting in conjunction with the National Federation of Professional Workers.

Mr. Walter Bayes, of the Royal Society of Painters in Water-colours, spoke on the position of painting.

Mr. H. V. Lanchester, F.R.I.B.A., addressed the conference on the relationship of architecture to the movement.

Miss Amelia Defries conveyed fraternal greetings from the American Federation of Arts, and spoke clearly of the difficulties which artists would be able to overcome through confederation.

The following resolution was unanimously passed on the motion of representatives of the British Music Society and the International Association of Journalists: "This conference declares its strong belief in the principles and objects for which the British Confederation of Arts, supported by the National Federation of Professional Workers, has been formed, and recommends the societies represented at the conference to ally themselves in support of the national and international movement."

A very cordial vote of thanks was given by the conference to the chairman and M. Germain for their able services.

The Sheffield, South Yorkshire and District, Society of Architects.

The Council of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, in presenting their thirty-seventh annual report, state that the total membership now stands as follows: 23 Fellows, 48 Associates, 2 students, and 5 lay members, making a total of 78 as against 80 of last year. During the past session six general meetings have been held, five Council meetings, and three sub-committee meetings.

The opening meetings of the session took place on October 16, when Mr. H. L. Paterson, F.R.I.B.A., gave his presidential address. Before the end of the year Mr. E. W. B. Scott, A.R.I.B.A., gave a lecture on "American Architecture as I saw it," and Professor Beresford Pite, F.R.I.B.A., M.A., A.R.C.A., lectured on "Architecture in Ferro-Concrete," treating the subject more from an æsthetic than a technical standpoint. In the spring session lectures were given by Mr. H. F. Traylen, F.R.I.B.A., on "The Architecture of Stamford," and later, by Professor A. C Dickie, M.A., A.R.I.B.A., on "Some Vague Thoughts on Architecture," in which he dealt with some recent discoveries of Byzantine churches in Syria. The Council state: "The average attendances at these lectures is nineteen against eighteen in the previous session, from which it will be seen that there is still plenty of room for improvement. Lecturers such as Mr. Traylen, who travelled nearly 150 miles to lecture to twelve people, cannot be expected to be easily induced to visit us again."

During the year Rotherham Bridge, one of the few ancient bridges with a chantry chapel, has been threatened with demolition to make way for a new bridge, and the Council has been in correspondence with the Ancient Monuments Department of the Office of Works with a view to averting the destruction of such an interesting example of mediæval building, and as a result of the representations made, in which several other societies joined, it is believed that the new bridge will be erected without seriously interfering with the mediæval portion of the one now in existence.

The Council have been occupied with many professional matters during the year, including questions relating to architectural education, assistants' salaries, and preservation of materials. During the past year the Society has suffered loss by the deaths of Messrs. T. M. Bevan, T. H. Firth, R. W. Fowler, and J. R. Hall.

Town Planning.

Mr. William Haywood, F.R.I.B.A., in his third lecture, at Birmingham University, on town planning, carried the record of historic town planning down to the beginning of the nineteenth century. In these lectures the gradual development of formal planning from 2500 B.C. onwards, has been contrasted at each stage with modern practice, in order to emphasize the true character of past performance. Mr. Haywood said that progress in the past had been fitful. Highly important methods of planning, displayed where their influence might well be thought irresistible, had sometimes been strangely neglected by later designers. As when both the Greeks and Romans ignored the dramatic possibilities of the axial association of road and building, which the Egyptians had so well demonstrated in the ceremonial approaches to their temples.

The Roman method of grouping temples with their fora was not to be regarded as equivalent to the practice of the Egyptians referred to above, nor to the association of buildings with public squares in later periods. The authority of Vitruvius—who classes the forum as a building—was so strongly supported by their known use for ceremonial, business, and communal purposes, that the axially-arranged temple might here be regarded as the inner sanctuary of a larger building; built, it was true, without a roof, but not differing greatly in that respect from the hypæthral treatment of the great forensic basilicas of the same period.

It was to Rome during the Renaissance that they must turn for the next appearance of a consistent effort to group roads and buildings together as one composition; and the gradual emergence of this dominant factor in town planning coincided with the slow development of the Piazza del Popolo from a mere junction of two ancient roads (the Via di Repetta and the Corso Umberto) to a symmetrical triple junction by the

planning of the Via del Babuino in 1516, and later to a great traffic centre of multiple routes fully clothed with appropriate architectural character.

Before the Piazza del Popolo had assumed its final appearance, however, Sir Christopher Wren had carried the principles of town planning far beyond all contemporary design in his wonderful plan for the rebuilding of London after the Great Fire. Wren's plan was remarkable for the freedom with which he varied the alinement of his streets to suit practical needs and architectural effects, and there was no greater lesson in the history of town planning than the loss suffered by London from the absence of legal powers at a time of great opportunity.

Paris at this time (1666) had taken no step forward in the new progress; and the present eminence of her town plan was by no means the outcome of a preconceived ideal. Paris was a brilliant example of sectional opportunities put to good use. The "Grande Boulevards" of the north bank of the Seine were a legacy from the conversion of the north line of fortifications in the third quarter of the seventeenth century; the "Boulevards Extérieurs" replaced the old customs wall removed by Haussmann; and the semi-military clearance schemes of the mid-nineteenth century gave excellent opportunities for re-planning the congested areas in the centre of the town, of which full advantage was taken.

Fortunately for Paris, the political significance of fine building had always been fully appreciated by her rulers; and the flair of the people themselves for an imaginative treatment of practical needs had given an extraordinary impetus to the finely adequate plan for which Paris was famous. The pride of citizens in their own city must always be a powerful influence for good in town development.

Mr. Reavell on Current Topics.

In his inaugural address to the Northern Architectural Association, Mr. G. Reavell, F.R.I.B.A., the president, said that untold wealth was destroyed during the five years of the war, and all that it represented simply does not exist and, therefore, it cannot now be enjoyed. Until the world has saved up again it will have to do without many of those things that are not absolute necessities which have afforded interesting and profitable exercises to our profession in the past. Meantime we must devote all our energies towards economy in planning and construction, and make it clear to all the world that the services of a keen and experienced architect are something worth retaining.

"My student friends have adopted a hard and exacting profession, whose only reward in most cases can only follow close and untiring effort. They suffer from a new atmosphere, which places far more stress on recreation and less on work than was the case fifty years ago. Then the home study was serious and prolonged, and the interest in work was betokened by hot discussions on the styles, and animated criticisms on the plates in the professional papers. Now the same papers are often very languidly turned over, and our youths do not worry about the styles, while an architect I know, who was remonstrating recently with a really gifted youth about wasted opportunities, was told: 'Well, but you see one cannot neglect one's golf.' Imagination is not equal to guessing the result of such a reply in my student time. I am not 'crabbing' you; it is the whole trend of the times. Some of you are making a splendid fight against it, and I honour you for it; believe me, the fight will give you lasting satisfaction—even at the sacrifice of the golf.

"The outstanding event of the year so far as we are concerned has been the visit of the Royal Institute and allied societies to Newcastle in July. There have been many successful meetings in the history of the Institute, but on all hands it was willingly said that none surpassed the meeting here.

"The adoption by the City Council of the line of the proposed new street is a great event of the year. It must be a matter of satisfaction to this Association that the scheme of Mr. Burns Dick has become virtually the official scheme. It is no easy matter to drive a new road through an ancient city, and doubtless many technical difficulties will arise to worry the city engineer, but they are safe in his capable hands. What does matter is that instead of legislating from hand to mouth, frittering away money by a few thousands here, and another few thousands there, paring down expensive frontages, and eventually being little further forward, a comprehensive scheme has been adopted which will clear away a great deal of poor property, give a wide and direct thoroughfare from the new bridge to the North Road, afford valuable business sites, and in the end add enormously to the rateable value of the city. There are sure to be critics and cavillers. No doubt there were such in the days of Dobson and Grainger, but who in Newcastle to-day would question their wisdom and foresight? Mr. Jones, Mr. Dick, and myself are still serving with the Town Improvement Committee. Out of this arises another matter. How far can we legislate as to the architectural character of the new frontages? This is a free country, and we are rightly apprehensive of the abuses of officialdom. We do not want a cast-iron uniformity, but we want to put it beyond the power of any individual to spoil this magnificent opportunity. We must certainly make better use of our chances than London has done in Regent Street.

"During the year the discussion with the Quantity Surveyors and the Builders' Federation as to standard measurement of building works has proceeded rather slowly."

List of Competitions Open

Date of Delivery.	COMPETITION.
Nov. 9	Proposed Fire and Police Station at Marlborough Crescent, Newcastle-upon-Tyne. Premiums: £500, £300, and £100. Assessor: Mr. Percy S. Worthington, D.Litt., M.A., F.R.I.B.A
Nov. 16	The British Commercial Gas Association are offering the following prizes: First, £200; second, £100; third, £50; ten of £25 each; forty of £10 each; forty of £5 each, for the best essays on "How the Gas Industry benefits the housewife, the artisan, the manufacturer, the city, and the nation." The competition is open to anyone resident in the British Isles, except persons engaged in the gas industry or members of their families. Essays should be about 1,200 words in length, and must not exceed 1,500 words. For particulars, apply the Secretary, Essay Competition, British Commercial Gas Association, 28 Grosvenor Gardens, London, S.W.1.
Dec. 31	**The Argentine Government offer prizes of 10,000, 5,000, 4,000, 3,000, and 2,000 Argentine gold pesos for the best architectural designs for a National Institute for the Blind. Apply Enquiry Room, Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W.1.**
Jan. 1, 1926	New buildings for Liverpool College on a site at Mossley Hill. Assessor, Sir Giles Gilbert Scott, R.A. Premiums, £500, £300, and £200. Conditions and plan of site can be obtained from Mr. J. H. Lintern, secretary, Liverpool College, Sefton Park Road, Liverpool, on payment of a deposit of £2 2s.
Jan. 14	By the generosity of Mr. Willard Reed Messenger, of New York, engineer, an International competition is to be inaugurated to promote and facilitate the construction of houses for the smaller middle classes and intellectual workers. Mr. Messenger is offering a first prize of 500 dollars, a second prize of 300 dollars, and a third prize of 200 dollars. The competition is to be held under the auspices of the International Federation of Building and Public Works (whose headquarters are in Paris), and which has recently held its International Congress, when forty-two countries were represented. Certain rules regulating the competition have been formulated, and the jury will be composed of eleven members, representing various nationalities. Competitors will be required to send in sketches, descriptive particulars of any new processes of construction proposed, and of schemes intended to reduce costs. Apply Director-General of the International Federation, 17 Avenue Carnot, Paris.
Jan. 30	Erection of a new art gallery and museum within the borough of Birkenhead. Competitors must have been resident or have had an office within twenty miles of the Birkenhead Town Hall during the whole period subsequent to January 1, 1923. Premiums £250, £175, and £100. Assessor, Sir Robert Lorimer, A.R.A., R.S.A., F.R.I.B.A. Conditions of competition, together with a copy of the site plan, particulars of the subsoil, etc., of the site, and photographs, can be obtained on application to Mr. E. W. Tame, Town Clerk, with deposit of £2 2s.

Competition News

Proposed New School, Gosport.

The following notice has been issued by the R.I.B.A.: "Members of the R.I.B.A. must not take part in the above competition, because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions."

The Ministry of Health Shuttering Competition.

Recently the Minister of Health offered a prize of £250 for a new method of shuttering for use in connection with concrete cottages, and the committee on new methods of house construction, who acted as judges, now report that they have completed their examination of all the systems entered in the competition. The primary object was to stimulate and bring out new ideas; and methods and systems already in use, or published by patents, were therefore specifically excluded. The committee are of opinion that the system submitted by Mr. R. L. Bendall, Scarborough, Richmond Wood Road, Bournemouth, is the best entry received, and, therefore, under the terms of the competition should be awarded the prize of £250. While, however, they are satisfied that this system has merits, and is the best of those submitted, they think it necessary to state that it must not be regarded as superior to some of the systems which are already in use, or published, and were, therefore, ineligible for the competition. They have not felt justified in advising that the further prizes which it was within their discretion to recommend should be awarded.

The Week's News

A New School for Kensington.

The London County Council are to build a new elementary school at Bevington Street, Kensington.

Malpas Housing Scheme.

The Newport Corporation Housing Committee are considering a scheme for building 170 houses at Malpas.

More Houses for Keighley.

Subject to the approval of the Minister of Health, seventy additional houses are to be erected on the Broomhill Estate.

Glasgow City Church to Go.

St. Enoch's Parish Church, one of the oldest of Glasgow's city churches, has been sold for demolition purposes for £337. The stone work, including the steeple, realized only £30.

Fifty Houses for Nantwich.

The Nantwich Urban District Council are applying to the Ministry of Health for sanction for building fifty houses at a cost of £22,700.

More Houses for Rugby.

The Ministry of Health have sanctioned the erection of an additional forty houses, making 100 in all, under the latest scheme adopted by Rugby Urban District Council.

Housing at Wombwell.

The Wombwell Urban District Council are applying to the Ministry of Health for permission to build another seventy-six municipal houses.

Change of Address.

Mr. Herbert Kenchington, A.R.I.B.A., has removed his London office to 44 Bedford Row, W.C.1. Telephone: Chancery 7174.

Building Instruction at Wimbledon.

The Surrey Education Committee are to erect a temporary building at Wimbledon for instructing plasterers, bricklayers, and painters.

New Ministry of Health Appointment.

The Minister of Health, the Right Honourable Neville Chamberlain, M.P., has appointed Mr. P. N. R. Butcher to be his assistant private secretary.

Willesden Architect for Shanghai.

Mr. Philip S. Hudson, A.R.I.B.A., has resigned his position with the Willesden Urban District Council on his appointment as assistant architect in the Public Works Department, Shanghai.

Worthing Housing Progress.

During September, plans for the erection of forty-seven dwelling-houses and twenty-one other buildings, representing a total estimated constructional cost of £45,165, were passed by the Worthing Corporation.

Proposed New Housing Site for Adwick.

The Adwick-le-Street Urban District Council have decided to approach the Industrial Housing Association with a view to the sale to the Council of land at Woodlands East on which to build 180 houses.

Skegness Pool and Other Improvements.

At Skegness, Mr. P. M. Crosthwaite, on behalf of the Ministry of Health, conducted an inquiry into the application of the Urban District Council for sanction to borrow £32,753 for the construction of a bathing pool and orchestral piazza on the foreshore. There was no opposition to the proposal.

Proposed Tidal Bathing Pool at Brighton.

Plans and estimates are being prepared for the proposed tidal bathing pool at Brighton, which is estimated to cost £65,000. Including this scheme and the £100,000 Aquarium reconstruction scheme, the borough surveyor's department has now in hand works estimated to cost £571,210.

Thorne Rural Sewerage Scheme.

A further extension of the Broadway sewer has been found necessary in consequence of the rapid building developments by the Hatfield Main Colliery Company, tenders for which will shortly be invited. The engineers are Messrs. W. H. Radford and Son, of Nottingham.

London Housing.

Applications are to be made to the London County Council by Metropolitan Borough Councils for sanction to borrow various amounts. These include Fulham, £23,114 for housing purposes; Wandsworth, £3,325 for housing; Hackney, £1,370 for advances under Small Dwellings Acquisition Act; and Stoke Newington, £5,000 for advances under Small Dwellings Acquisition Act.

Wallasey Housing.

The Wallasey Housing Committee have decided, subject to the approval of the Council and the Ministry of Health, to acquire a site in Somerville Ward on which they will be able to erect 270 working-class houses. Negotiations are also in progress for the purchase of another site on which 250 houses could be built. The committee have already provided more houses to let during the past year than at any period since the Armistice.

A Leeds Street Improvement.

The Leeds Corporation Improvements Committee have decided to proceed immediately with the widening of Burley Street, in order to provide for a double line of trams from Park Lane to Burley Road. The widening of the street, which is about a quarter of a mile long, will involve the destruction of a certain amount of property. Powers to secure compulsory purchase of the property were obtained in the Leeds Corporation Act of last year.

Marlborough High Street.

The Marlborough Town Council at their last meeting rejected the proposal to erect electric-light standards in the High Street. This street is regarded as one of the most interesting streets of its kind in the country by reason of the antiquity and variety of its buildings. It was proposed to erect a number of electric-light standards on islands 12 feet in diameter down the centre of the street. The proposal aroused much feeling, and a petition against it was signed by nearly every resident in the street.

Proposed New School for Gateshead.

The Gateshead Education Committee considered a recommendation from the Primary Education Sub-committee, that the surveyor prepare draft plans, and estimate of the cost, of a school on the Carr Hill site. A two-storied building was specified, accommodating 800 children in two departments—an infants' and junior mixed department, and a senior mixed department. It was suggested that the school be planned on semi-open-air lines. The report was sent back in order that a gymnasium and swimming bath should be included in the plans and estimate.

London City Square to be Built Over.

Bridgewater Square, Barbican, E.C., one of the oldest of the City squares, which is all that is left of the garden of Bridgewater House, is to be built over. The City of London Corporation considered a suggestion to preserve the garden as an open space, but as the people of the neighbourhood only offered £300 towards £5,000 required for purchase, and the upkeep would be considerable, the Corporation refused to go further. There was a protest at the last meeting of the Corporation, but Mr. M'Auliffe, the chairman of the responsible committee, said he could not see his way to do anything in the face of the lukewarmness of the locality.

The Retirement of Edinburgh's City Architect.

On the occasion of his retirement from the position of city architect for Edinburgh, Mr. J. A. Williamson, A.R.I.B.A., was entertained to dinner. Those present included representatives of the building trade, members of Edinburgh Town Council, and city officials. Mr. T. P. Marwick, who proposed "Our Guest," said Mr. Williamson had given worthy and ungrudging service to the city. He had rendered that service in such a manner as to command our warmest admiration. But he had done more than that. He had gone through all his work with modesty as well as efficiency, with courtesy as well as enthusiasm, with tact as well as with a quiet charm that had endeared him to everyone. He had always been able to invest his work with artistic interest, and to combine with it the three essential qualities of sound architecture—strength, beauty, and utility.

The Remodelling of Southport Baths.

A Ministry of Health inquiry was held at Southport into the Corporation's application for sanction to borrow £33,100 required to complete the scheme for the remodelling of Victoria Baths, Promenade. It was stated that £12,000, sanctioned by the Ministry last year, had already been expended on one part of the scheme. The sum of £33,100 will cover the cost of remodelling the premier plunge, providing improved accommodation for spectators at galas, additional slipper baths, a new foyer and entrance hall, the erection of a café, and the installation of an up-to-date system of filtration dealing with 22,000 gallons of water per hour. There was no opposition.

The White Line.

Mr. A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings, writing in the "Times" says :—The Society desires to suggest a use for the white line which will serve to prevent accidents at certain dangerous points of many roads, and at the same time by making them safe for motor traffic render it unnecessary to demolish or level the beautiful "humped" arch bridges on the English roads. Were the white line painted in the centre of the roadway over such bridges the drivers of motor carriages, although they can see nothing on the road beyond the hump, would know that by keeping on their side of the line they would incur no risk while passing these now dangerous lengths of roadway.

Liverpool City Council and Architecture.

The Liverpool City Council are advised by the Finance Committee not to set up a separate architectural department for the carrying out of all architectural work for the Corporation. The committee express the opinion that in the case of any works of large dimensions involving important considerations, and calling for special architectural treatment, it is desirable that the principle of putting the same out to premiated competition should be followed. This practice, it is pointed out, already obtains in the Corporation, and might well prove to be one which should be extended. Even if the Corporation created a separate architectural department, it would not be advisable to depart from the practice referred to.

Town Planning at Gloucester.

How cathedral cities should adapt themselves to modern conditions without destroying existing treasures of old buildings is one of the questions now being considered by the official town planners of the Ministry of Health. At Gloucester a joint town-planning advisory committee has been formed of representatives of the county, the city, and rural districts, with a view to preparing a comprehensive scheme. It is suggested that the core of Gloucester should be preserved intact and that round it should be made a ring road boulevard. This would form a starting-off place for the future expansion of the city, which, in its turn, would be limited by a band of open country. A similar scheme is also being developed at Canterbury.

The Restoration of the Church of St. John, Perth.

Another gift of £5,000 towards the fund for the restoration of the ancient Church of St. John, Perth, which is being restored as a memorial to the 5,000 men of the city and county who died during the Great War, has been intimated from Lord Forteviot, Dupplin Castle. His lordship's contribution to the fund now totals £16,000. The complete scheme of restoration involves an expenditure of slightly over £50,000, but the work is being tackled in sections, and has been practically confined to the middle and west wings. As far as possible the church has been reconstructed according to its original plan, and it includes a shrine in which the names of the fallen are to be written in a golden book. Contributions now amount to about £40,000.

Manchester City Committee and Empty Houses.

Of the 443 empty houses in Manchester only eighteen are to let, it was stated to the Manchester Public Health Committee. Included in the figure of houses to let are dwellings too large to be classified as suitable for working classes. The number of houses empty and for sale is 336, most of which are suitable for the accommodation of workers. In 1923, 290 houses were empty—137 to let, and 153 for sale. The committee passed a resolution drawing the attention of the Manchester members of Parliament to the matter, and inviting the Ministry of Health to consider the desirability of passing legislation to compel owners to offer for letting at reasonable rentals any houses which remain empty for more than three months.

Manchester's New Houses.

A statement presented to the Manchester Housing Committee shows that the total number of houses completed under the 1919, 1923, and 1924 Acts was 4,732, and that the total number completed since August 4, 1925, was eighty-two. The total applications for "subsidy" houses already approved number 1,901. A report relative to the 300 houses which it is estimated will be erected by private enterprise, subject to the special conditons of the Housing Act, 1924, and which are included in the application already made to the Ministry of Health, has been approved, and forwarded to the Finance Committee. Authority was given at the last meeting of the Housing Committee for the erection of at least 300 houses by direct labour on the Moston estate.

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to September 30, 1925 :—

	Completed.	Under Construction.
1919 Act	25,043 ..	495
Private Subsidy Schemes	2,324 ..	—
Slum Clearance Schemes	1,747 ..	3,226
1923 Act	4,435 ..	5,945
1924 Act (Local Authority Scheme)	273 ..	2,910
	33,822 ..	12,576

Of the total number of houses completed and under construction under the 1923 Act, 3,148 are by the local authorities, and 7,232 by private enterprise.

New Chief Architect of Singapore.

Mr. Alexander Gordon, A.R.I.B.A., has been appointed chief architect to the municipality of Singapore. A little over two years ago he received an appointment as assistant in the Municipal Office of Singapore, and since then his success has been remarkably rapid. Within a year he became senior assistant, and for the past six months he has been acting chief architect, which appointment has been made permanent by the unanimous vote of the Commissioners. In view of the extensive building programme about to be undertaken by the Commissioners, including new municipal buildings, Mr. Gordon will have every scope for his undoubted talents. Mr. Gordon was articled to Mr. J. A. O. Allan, F.R.I.B.A., and before proceeding to the East, was senior assistant architect in the Burgh Surveyor's office, Aberdeen. He saw active service in France, having been a lieutenant in the Oxford and Bucks Light Infantry, and was in the later stages of the war attached to the Royal Engineers.

Town Planning to be Decentralized.

The Joint Advisory Town Planning Committee which covers just over one thousand square miles in a radius of fifteen miles of Manchester Town Hall, have decided in future to work on the group system, the central body acting as liaison authority to help with advice and suggestions. The big scheme adopted as a general ideal has a magnificent sweep, stretching from Warrington in the west to the top of the Pennine Range and Yorkshire in the east, and from Haslingden and Rawtenstall in the north to the Staffordshire county boundary, Buxton and Derbyshire in the south. One hundred and four local authorities are included in the area, and ninety-six are on the committee. It is claimed that the new departure will enable big towns, together with the contiguous districts, to concentrate on plans suitable to their own neighbourhoods, and to secure statutory powers which will lead to prompter and more effective action by this decentralization. Each group will have complete control and evolve schemes which appeal locally. It was decided to call a meeting for the decentralized areas, with a view to discussing details and recruiting the wider adoption of the principle.

The Latest Wills

Mr. Thomas Baptist Horsfield, Redland, Bristol, formerly an architect at Manchester, left £8,169.

Mr. William Morton Cowdell, of Sunnyside, Springfield Road, Leicester, architect, left £8,909, with net personalty £7,544.

The Preservation of St. Paul's

At the last meeting of the committee responsible for carrying out the work for the preservation of St. Paul's Cathedral it was reported that the work had proceeded normally, and the fire precautions were in the main completed. The removal of the organ and choir stalls from the two piers in the choir had been almost completed, and arrangements had been made to re-erect a portion of the organ in the north aisle of the nave. All the monuments had been removed from the bases of the piers on the church floor, with the exception of those to Nelson and Cornwallis on the south transept piers, which had been enclosed in wooden casings to protect them from possible damage. The actual work of cementation had gone forward satisfactorily, and the drilling and first injection of the holes in the crypt portion of the south transept piers had been completed. The initial drilling in the crypt portion of the nave piers was very nearly complete, a total footage of about 1,500 ft. having been drilled. After careful investigation and tests it had been decided to use a non-corrosive steel for reinforcement, this to be inserted and cemented into the holes when grouting had been completed. The construction of the piers in the crypt, as was expected, had been found to be very compact. Levelling and other observations mentioned in the last report were completed, and afforded reassuring evidence that neither settlement nor other disruptive movements in the dome area were taking place.

In reply to the Bishop of London, Mr. Mott stated that it was not possible at the present time to say at what date the work of preservation would be completed.

It was resolved to elect the Lord Mayor, Sir Alfred Bower, as a permanent member of the committee, in recognition of his great and earnest interest in its work and the assistance he had rendered.

Among those present at the meeting were the Archbishop of Canterbury, the Dean of St. Paul's, the Bishop of London, the Archdeacon of London, Canon Newbolt, Canon Alexander, Canon Simpson, the Earl of Oxford, Viscount Ullswater, Sir John Mullins, the Lord Mayor, Mr. Basil Mott, Mr. G. W. Humphreys, Sir Charles Morgan, Mr. Mervyn McCartney (cathedral surveyor), and Mr. H. T. A. Dashwood.

Trade and Craft

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Lubricating Oils and Greases.

Messrs. W. H. Willcox & Co., Ltd., of 38 Southwark Street, London, S.E.1, have sent us copies of their general oil and grease list, and of their motor oil booklet. Both of these publications have just been issued. The specialities of the firm are the result of long experience and extensive practical tests, and include lubricating oils for cylinders, steam turbines, crank chambers, air compressors, gas and oil engines, petrol and paraffin engines, Diesel engines, electrical machinery, motor vehicles, agricultural and road engines, steam wagons, and other machines, and many lubricating greases, also an automatic waste oil purifier. Copies of the booklets can be obtained from the company.

The Triangular System of Building.

The Triangular Construction Co., Ltd., of Imber Court, East Molesey, Surrey, have sent us two interesting booklets concerning their triangular system of building. One is entitled "Modern Building Economics," and the other "Modern Building Construction." The Triangular system of building has developed with the use of concrete in modern building construction, although it is not necessarily limited to concrete. It is claimed to possess many advantages, and it permits the builder to make, on the actual building site, building units of standard sizes and shapes. Thus it allows him full scope in the choice of the quality of his building units to suit the nature of the job. Diagrams are included in the second booklet, showing how the blocks and half-blocks can be used with facility for forming angles, corners, and breaks, including 45 deg. and 135 deg., without using special blocks, and without the expedient of cutting. Each standard size of block forms a wall of its own, yet, by using the multiples, cross walls of any thickness can be properly bonded into the main walls. Piers, buttresses, columns, fireplaces, and many other variations from the straight wall, are also claimed to be easily provided. The Triangular blocks are made from two different classes of material, such as ballast concrete and clinker concrete. The former produces a block of an impervious nature, whilst the latter is thoroughly porous. When erecting, the blocks are alternated, the bases of the impervious blocks being laid so that they form the outer face of the structure; the blocks made with the porous aggregate thus form the inner face of the wall with their bases. It is claimed therefore, that in one operation, a wall is produced which is capable of withstanding weather conditions from the outside because of its impervious nature, and yet, by reason of the porosity of the inner surface, eliminates the evil of condensation. The Triangular blocks are hollow, and the cavities are so arranged that they register as the blocks are laid. This produces a wall with the outer and inner faces insulated, thereby assisting in the prevention of condensation and forming a shield against exterior heat or cold. Adjacent courses, providing diagonal bonds through the walls, do not break the continuity of the cavities. Alternatively, the exterior faces can be finished to give the appearance of a stone-faced building. It is claimed that in the design of the Triangular blocks the materials are distributed in the proper proportion to meet the stresses, thus attaining maximum of strength with the minimum weight. The Triangular concrete blocks are made by the Trianco portable block-making machine.

New Inventions

Patent Applications.

25069.—Boyd, J.—Metallic monumental construction. October 8.
25302.—Court, L.—Building material. October 10.
25051.—Crampton, T. A.—Weather-boards for doors and windows. October 8.
25265.—Lohle, C.—Floor slabs. October 9.
24887.—Stevens, J.—Skylights, ventilators, &c. October 6.
25837.—Airey, Sir E.—Building construction. October 16.
25623.—Blandford, T.—Process of cementation in the ground. October 14.
25785.—Davis, T.—Roofing tiles. October 15.
25933.—Digby, W. P.—Means for protecting buildings, &c., from vibration. October 16.
25366.—McCulloch, J. C.—Methods of supporting beams, roofs &c. October 12.

Specifications Published.

240207.—Commin, F. J., and Hughes, A. Wilson.—Roofing materials, lining boards, and the like.
240257.—Fiorenzi, U.—Methods of making building-blocks.
240261.—Buck, W., and Buck, E.—Construction of walls and blocks for building the same.
240352.—Wight, G. E.—Apparatus for applying mortar in brick laying.
240552.—Griffiths, F., and Cromwell, B.—Building construction.
240556.—Livens, F. H., and Ruston and Hornsby, Ltd.—Excavating-machines.
240561.—Burney, C. D.—Manufacture of reinforced building or constructional materials or elements.
240657.—Vertigan, E. H. H.—Floors for buildings.

Abstracts Published.

238837.—H. C. Ritchie, Liverpool. — Reinforcing concrete beams, columns or arches.—The reinforcements are arranged to carry the moulds and wet concrete during erection, and consist of a beam or girder to which are connected longitudinal bars. The moulds are supported by hangers connected to the girder or bars. In the construction of a column where the girder flanges are subjected to tensile stress additional bars are connected to the girder flanges.
238996.—Gough, F. W., Graphite Oils Co., Immingham Dock, Lincolnshire.—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.

Coming Events

Wednesday, November 4.

Institution of Structural Engineers, Denison House, Vauxhall Bridge Road, S.W.—"The Structural Engineer and Modern Problems." By Sir Charles Ruthen. 7.30 p.m.

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