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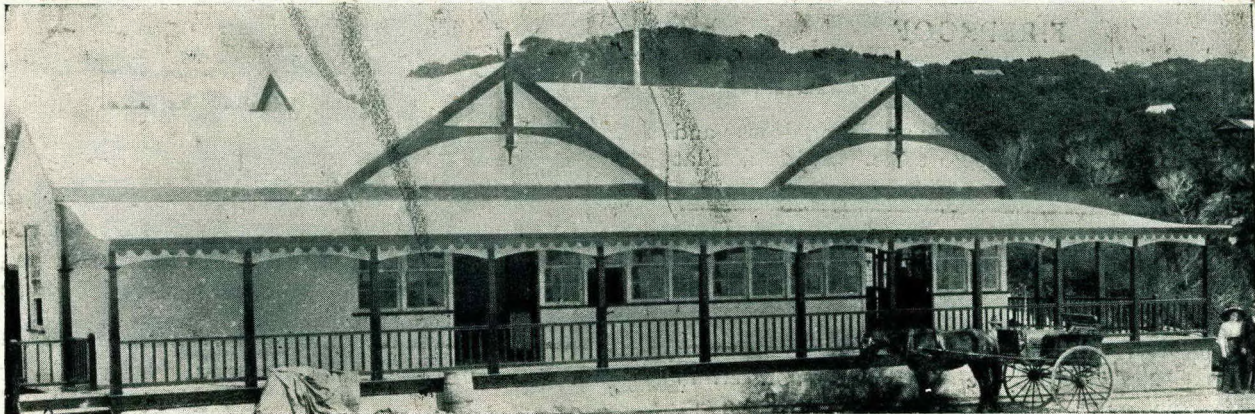
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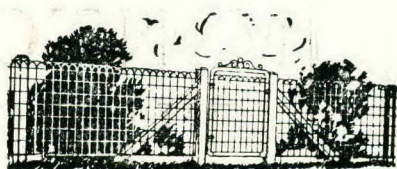
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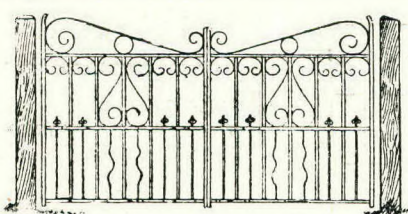
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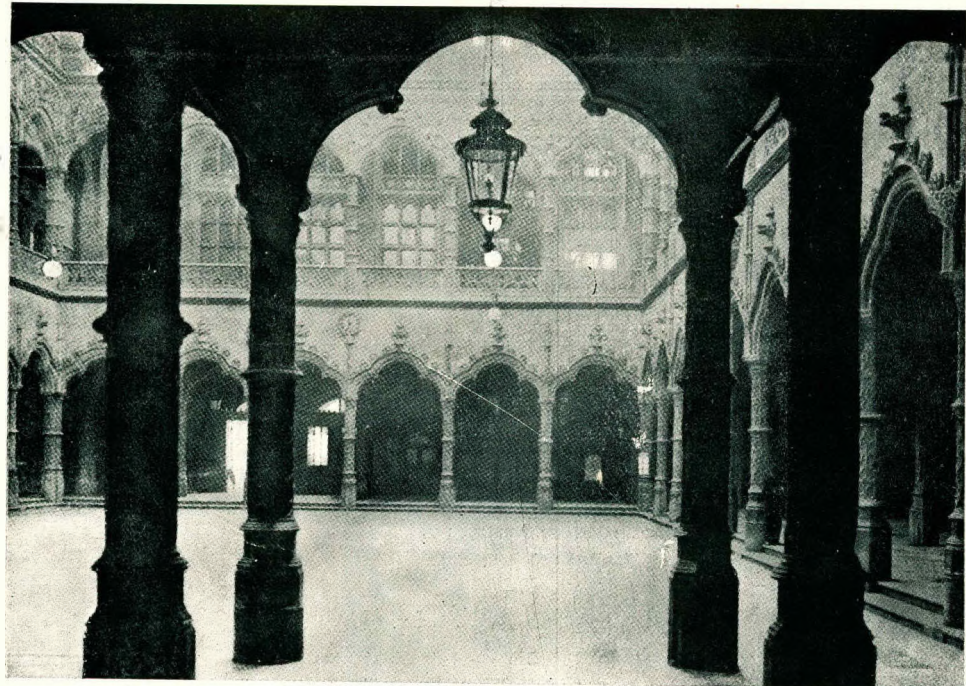
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# The African Architect

FRIDAY,  
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VOLUME II.

No. 6.



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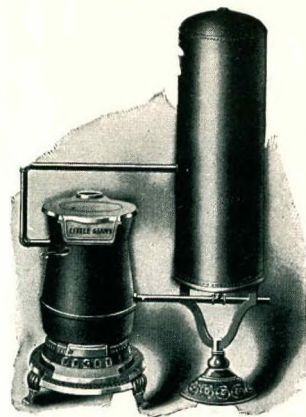
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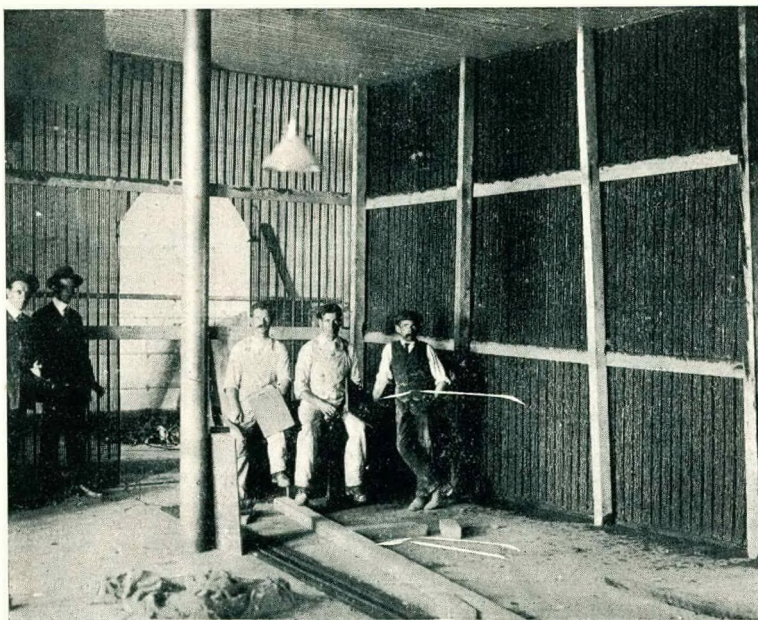
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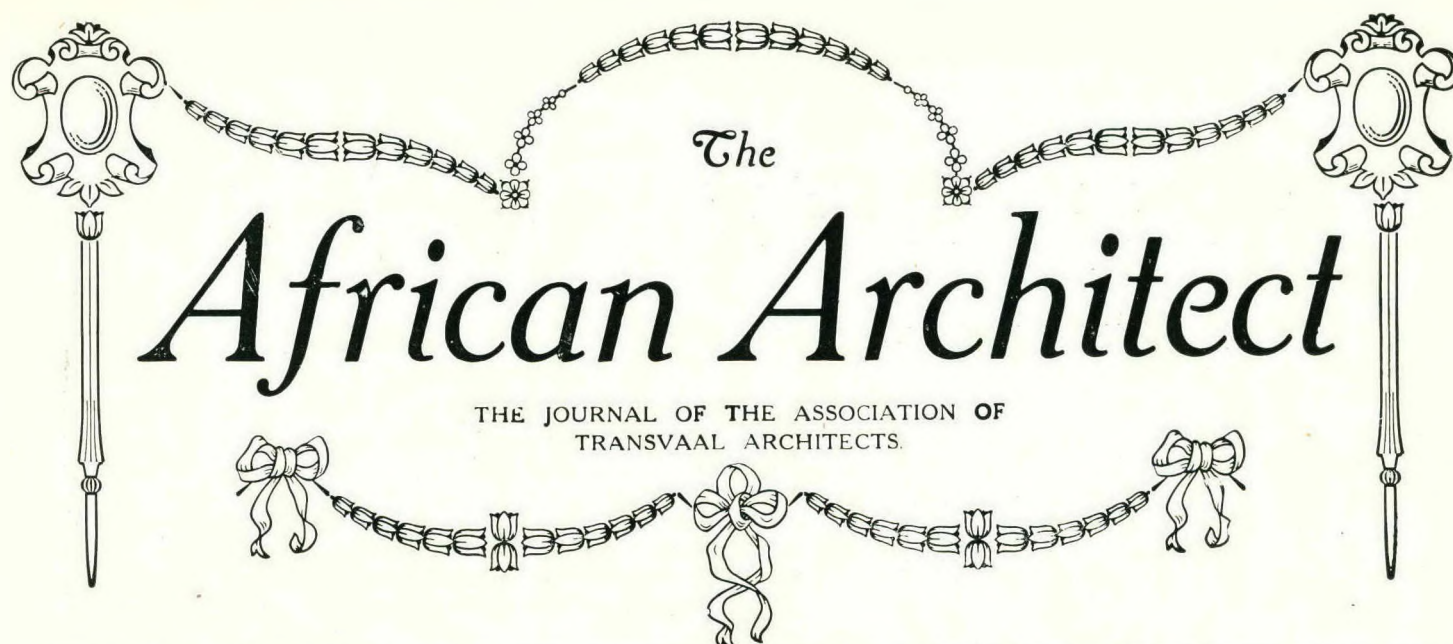
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VOL. II. No. 6.]

NOVEMBER 1st, 1912.

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### EDITORIAL COMMENTS

#### **The Architectural Association Room.**

The usefulness of the Architects' Room in Winchester House, Johannesburg, was amply demonstrated at the meeting of the South African Branch of the Society of Architects' annual meeting. The premises are splendidly furnished and most suitable for meeting purposes. Unfortunately they are not so well patronised in the day time by the profession as they might be, and we hope that this comment will call attention to the fact and lead to improvement in this matter.

#### **Sanitary Congress.**

The Royal Sanitary Institute propose to hold their 1912 Congress at Johannesburg in December next, at dates to be arranged. One of the delegates representing local architects will be Mr. E. J. Wellman, who has been appointed by the South African Branch of the London Society of Architects. Other architects, not yet appointed, will represent respectively the various Institutes. The Congress will be a most important one from the architects' point of view, and will deal with questions of water supply, drainage, ventilation, lighting, heating, etc., which are all compulsory subjects in examinations for admission to any of the Institutes. The local secretary of the Congress is Mr. Robert Marshall, of the Municipal Offices, Boksburg.

#### **Fires.**

This is evidently the season for big fires in the Transvaal, and, indeed, throughout the country. The blaze at the Union Buildings was somewhat unique, it being supposed that the big crane scaffolding (behind the tower) was struck by lightning and thus

set on fire. It was exceedingly fortunate that a torrential fall of rain assisted the firemen in putting out the flames, as otherwise there was an exceeding scarcity of water. Had the crane fallen from its lofty platform on to the top of the scaffolding, the damage would have been very considerable. Another big fire was that at the Johannesburg Power Station Stores, where damage to buildings and stock is estimated at £40,000. The drought had a serious effect here, as water was scarce, which was also the case in a huge blaze which took place at Krugersdorp, when a block of shops and the contents were completely destroyed, and damage done to the extent of £30,000. In Durban and Kimberley there have also been big fires during the month.

#### **Building Notes.**

The estimated cost of buildings, the plans for which were approved by the Johannesburg Town Council in September last, was £124,798, compared with £239,364 in the same month of the preceding year. In January last the figures were £95,032; in February, £104,080; March, £89,072; April, £112,738; May, £91,215; June, £523,613; July, £109,986; and August, £137,171.

#### **Clerks of Works and Their Duties.**

Arrangements are being made to publish from this office a volume dealing with the duties of clerks of works, particularly applying to South African conditions. Already the work is in hand, and it is probable that the publication will be announced in the early part of April. The context will be written by a well-known official, eminently qualified to deal with this particular subject, and there is not the slightest doubt but that the book will have a big circulation in South Africa generally.



## IN OTHER LANDS.

### OF ARCHÆOLOGICAL INTEREST.

A workman engaged recently in digging at Holme Park, Sonning, unearthed an ancient fireplace, chimney, and walls, which archæological authorities believe formed part of the palace of the Bishop of Sonning at a time when this little Thames-side village was a famous ecclesiastical centre. The last Prelate, Bishop Hallam, flourished at the beginning of the fifteenth century.

### OXFORD COLLEGES.

Mr. B. T. Batsford will publish this month an important folio volume on "The Old Colleges of Oxford," by Mr. Aymer Vallance, M.A., F.S.A. The book has been in preparation for some years, and is dedicated by special permission to his Majesty the King. The author's scheme is to trace the architectural history of the University church, the old schools and the colleges, exhibiting them in the condition in which they stand at the present day, as well as many vanished features, depicted by famous contemporary artists from the sixteenth century onward. Care has been taken to include among the illustrations a large number of fine specimens of the splendid craftsmanship in ironwork, lead and plaster, in engraved brasses, painted glass, and figure sculpture, with which the ancient fabrics abound.

### MEDIÆVAL FIGURE SCULPTURE.

An "Account of Mediæval Figure Sculpture in England," by Mr. E. S. Prior, the Slade Professor of Fine Art in the University of Cambridge, and Mr. Arthur Gardner, will be published shortly by the Cambridge University Press.

### UNIVERSITY EXTENSION LECTURES.

Among the courses of University Extension lectures which are now beginning, those to be given by Mr. Banister Fletcher, F.R.I.B.A., on "Ancient" and "Mediæval" architecture promise to be of special interest. The lectures will be delivered in the British Museum and in the Victoria and Albert Museum.

### CENTRAL SCHOOL OF ARTS AND CRAFTS.

Architecture and the Building Crafts are represented at the London County Council Central School

of Arts and Crafts, Southampton Row, W.C., the section of architectural design and drawing being under the charge of Mr. S. B. K. Caulfield, F.R.I.B.A., who is assisted by Mr. S. Woods Hill, A.R.I.B.A. Individual teaching in architectural design is given, and there are lectures and demonstrations in structural mechanics and building construction. For students taking elementary design there are lectures on "The Growth of a House."

### ANCIENT GLASS IN A NORWICH CHURCH.

Some beautiful old glass in St. Andrew's Church, Norwich, which stood originally in the east window, was, about fifty years ago, removed and placed in the clerestory windows, where it was both unseen and unprotected. During the extensive repairs now in progress in the church the old glass is being repaired and protected and placed where it can be better seen. There are six panels in all, but only three show a subject at all complete. Of these the first contains Moses holding up the brazen serpent; the second shows Abraham and Isaac ascending the mount; and the third has a representation of Death and the Bishop from "The Dance of Death." The other three panels are composed mainly of fragments with coats of arms. There is the mark of Nicholas Colick, Mayor of Norwich in 1497.

### CROSS-VENTILATED LOBBIES IN HOSPITAL BUILDINGS.

It has become a sort of gospel, says the "Hospital," that the sanitary offices must be separated from the wards by cross-ventilated lobbies, and undoubtedly it is most undesirable that the sanitary offices should be entered from the ward direct. The question, however, of the necessity for cross-ventilated lobbies is one that may well be reconsidered in the light of modern experience. "At the time that these were first devised, sanitary appliances and the whole science of plumbing were in a very backward state. This is not the case now, and we are strongly inclined to think that with modern sanitary appliances and modern skill in ventilating drains the necessity for such rigid rules of disconnection no longer exists, and this opinion is moreover very strongly borne out by the fact that in many hospitals it is the custom to fasten the lobby doors open, so that they become practically of no avail."

FOUNDED  
1884.

## SOCIETY OF ARCHITECTS.

INCORPORATED  
1893.

28, BEDFORD SQUARE, LONDON, W.C.

### SOUTH AFRICAN BRANCH.

The above Society will hold an Examination to qualify for Membership on the 17th, 18th and 19th of December, 1912, in Johannesburg, and at other convenient centres in South Africa.

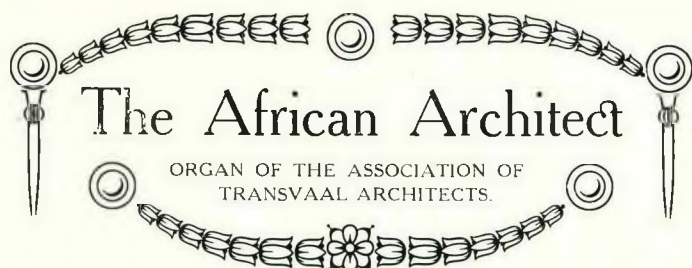
All applications to sit for Examination must be accompanied by a remittance of £4 4s., and must be received by the Hon. Secretary not later than noon on the 3rd December next.

Forms of Application and Syllabus may be obtained from the undersigned, and also from C. H. Scott, Esq., P.O. Box 7, Pietermaritzburg.

The Society reserves the right to refuse any Applicant for Examination, in which case any Entrance Fee paid would be refunded.

D. IVOR LEWIS,  
HON. SECRETARY (South African Branch), P.O. Box 667, Johannesburg.





NOVEMBER 1ST, 1912.

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**SPECIAL ARTICLES** on general subjects of interest to the architectural profession, and photographs, are cordially invited from our readers. Where payment is expected this should be distinctly stated. Special care will be taken of MS., but the Editor will in no case guarantee its return.

**LETTERS TO THE EDITOR.**—The columns of "The African Architect" are open at all times for expression of the opinions of our readers, but the Editor disclaims responsibility for the views of correspondents. All letters must be signed with the name of the correspondent, not necessarily for publication, but in evidence of *bona fide*, and addressed "EDITOR, 'The African Architect,' Box 4651, Johannesburg."

**BUSINESS ANNOUNCEMENTS.**—All communications on business matters should be addressed to "THE BUSINESS MANAGER, 'The African Architect,' Rooms 17 and 18, Provident Buildings, Fox Street, Johannesburg."

"The African Architect" is on sale at Chicken's News Agency, Pritchard Street, Johannesburg.

**PROFESSIONAL EDUCATION.**

THE recent annual meeting of the South African Branch of the Society of Architects—reported elsewhere in this issue—was rendered noteworthy by the thought and interest contained in addresses delivered by Mr. E. H. Waugh and Mr. M. J. Harris, respectively the retiring and incoming Presidents. Both gentlemen have long been concerned in the larger interests of the profession as a whole, and their remarks will be of concern to every South African architect. Of the many matters contained in their addresses which compel our further thought, we are attracted to that portion of Mr. Waugh's remarks which deals with the dearth of systematic training for architects in this country. Facilities that exist are not thorough, there is not a properly-equipped architectural teaching studio in the country, modern copying processes have replaced what used to be the beginners' work in most architects' offices, and students are allowed to drift into mediocrity and incompetence. This points to a serious state of affairs. The entire profession is open to a charge of indifference upon a matter which is vital to the development of South African art. We cannot be sincere in our architecture—that great instrument for inspiring the loftier ideals of the people of a country—if we do not possess that sentiment which hopes for

a race of South African architects to carry on the traditions which we now found. It may be urged as unreasonable to expect concerted action—involving great outlays—from an unorganised, unprotected, and unchartered profession: or that such matters fall more properly within the province of Governmental effort. The endowing, by Government grant, of a university chair in architecture is one of several suggestions which we remember hearing. Avoiding purely contentious matters, we urge that action will soon be imperative in the best interests of the profession, and that the plea of "non possumus" is not worthy of a body of artists. Where there is a will, there is a way!

**DOMESTIC ARCHITECTURE.****A Neglected Art.**

At the Building Trades Exhibition at Rusholme recently, Mr. Laurence Weaver gave a lecture on "Small Country Houses." His object was not to show people how they may acquire comfortable country homes for modest sums of money, but to make them realise that domestic architecture is a serious fine art. It was difficult, he said, to make people realise this. But until they did, and until they allowed to those who practised the art reasonable liberty to what was necessary in order to express themselves in the manner of their art, the development of domestic architecture must be restricted. Of the best of the English work we had reason to be proud. He believed it was not only the best architecture of its kind of its time, but the best of any time. In comparing modern houses with the great historic houses of the country, we must remember the freedom of the old architects from the difficulties which faced the modern. In the old days there were none of the numerous contrivances for comfort and sanitation which now had to be provided and hidden away in the walls. Domestic architecture must be reasonable; people could not be persuaded to live in fantastic houses. Its success depended first of all on its convenience, and, secondly, on its beauty. Mr. Weaver showed, largely by means of a series of lantern slides, how the restoration of domestic architecture in England, which he dated from the building of William Morris' "Red House" by Philip Webb, was a return to old traditions. He laid stress on the importance of following local traditions, and he expressed a hope that in every important country centre there would be formed a local school of architecture based on local traditions.

Mr. Edgar Wood, who presided over the meeting, said that although the best of English domestic architecture was unequalled in the world, the great mass of our town buildings were deplorable. The blame did not rest, he thought, with the architects; the great sinner was the public. The solution of the problem seemed to be some form of public control over building; but it would be impossible to make much improvement until the public took more than its present apathetic interest in architecture.

Sir Thomas Brock, R.A., has been selected to design and execute the "Titanic" memorial at Belfast.



**CORRESPONDENCE.****THE EDUCATION OF FUTURE ARCHITECTS.**

SIR,—It has frequently occurred to me that the system of training architects has during the last twenty years undergone a complete evolution, and the ideas of many ages have been quietly laid aside, so quietly, in many quarters, that we are surprised to find that it has taken place.

This is due to the scientific and inventive age in which we live and to two inventions in particular: (1) The typewriter, and (2) the photo-print process.

When most of us served our articles we were useful to the architect as specifications and plans had to be copied by slow and laborious hand-labour. The man I was with had three pupils, and their time was to a large extent involved with this work. To-day, this work is given to expert typists and photo-process experts, and the pupil is not wanted. In Johannesburg I do not know of more than one articulated pupil, though there may be more. When I was a pupil, there were seventy others in a town only twice the size of this.

The march of invention has also rendered the pupil or apprentice de trop in the building trades, as the old hand rip-sawing and rough planing done years ago by learners is now executed by machines in the hands of responsible adults mainly.

We are thus, quietly, on a new track, but have no proper course set. From this arises the modern technical college, which is attempting to fill the gap, and a class of architectural teachers is coming into being—men who make this work an expert study and specialise in it to the exclusion of other work.

It is, however, quite wrong to expect the practising profession to provide gratis the brains and experience for training youths, and certain members of our profession, as well as some college professors, have been endeavouring to show that it is the duty of the present-day men to educate the men of the future and also to give of their funds to do it.

There is, it is believed, no other profession which attempts out of society or communal funds to provide free or cheap training for the children of other men and to train fresh men to enter into the competitive ranks against their teachers. It is true that in former times architects trained their pupils, but they received good premiums and much useful work in return.

I am writing this letter in the hope of arousing a correspondence on the subject, as I am averse to any attempt to systematically divert the funds of institutional bodies for education, unless perhaps for a prize here and there. This is the business of the State, and the public generally should, through the State, provide the educational machinery for the architects of the future, and it is high time that the State aroused itself to its duties to one of the largest professions in South Africa.

It will be necessary to equip a school and to be prepared to meet an annual shortage for perhaps a generation to come.

As it is certain that appeals to the architectural profession to provide ample funds for education of architects will fall on deaf ears, it is time to direct such appeals to the Government, whose duty it is to provide the country with such facilities.—Yours, etc.,

EDWARD H. WAUGH.

Johannesburg, October 25th, 1912.

**ASBESTOS SLATE FOR BUILDINGS.**

[By a Contributor]

Many brands of asbestos slates are now on the market, and meeting with varying degrees of success according to their quality. The chief objection to asbestos slates for use as ceilings, etc., appears to be the brittleness which is a characteristic of most of the brands offered.

Architects will, however, be pleased to learn that this disadvantage has been altogether overcome in the case of an article which we have lately had the pleasure of inspecting, and which is called "Uralite." This material appears of a much finer appearance and tougher texture than many of the other kinds of asbestos plate offered, and we should imagine that the general effect, when used for ceiling purposes, is most attractive, and a welcome change from the steel ceiling which has become so prevalent of late years.

Quite apart, however, from the question of mere appearance, "Uralite" has many other advantages over steel or plaster ceilings. It has been proved to be the best and most effective fire-resisting material in existence, and is a non-conductor of heat and electricity, the latter a peculiarly important desideratum in this country of heat and thunderstorms.

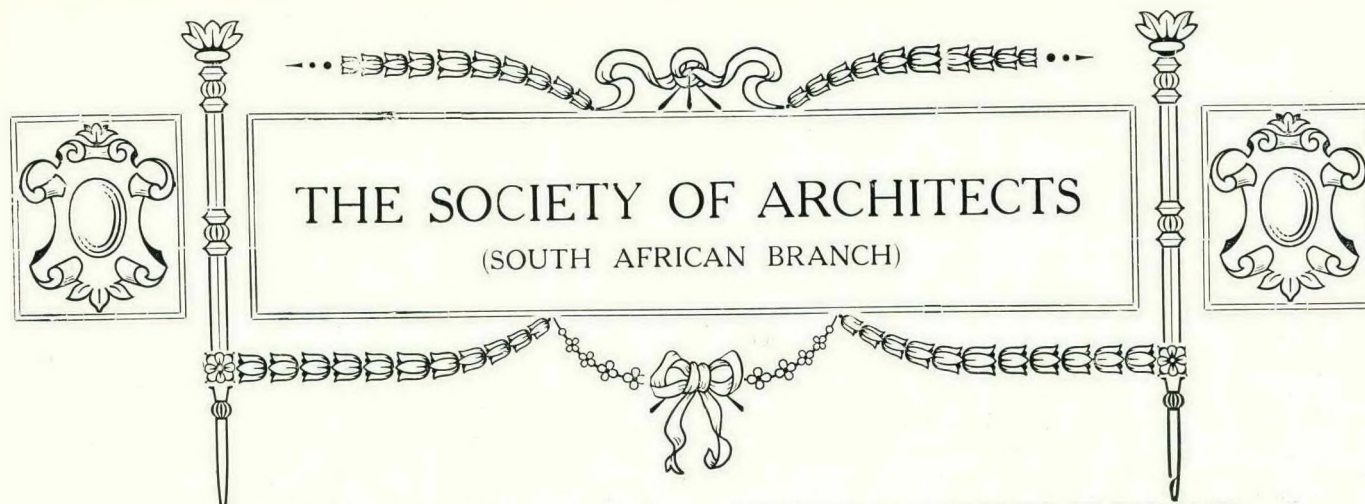
Our only wonder is that it has not been a great deal more extensively used, although certainly architects seem to be recognising more and more its manifold advantages over any other type of ceiling. It is very little more expensive than steel ceilings, and, in addition, can never corrode; it is, in fact, practically everlasting, and can be fixed to timber or steel framing at a very small cost. It can be treated in all respects in the same manner as timber, i.e., a nail will pass through without fracturing the surface, and it can be sawn.

As a matter of fact, we believe that in England the fire insurance companies make a special reduction of premium for buildings in which "Uralite" is largely used.

Another quality of asbestos slate manufactured by the makers of "Uralite" (the British Uralite Company, Ltd., of London) is "Asbestone." This quality contains a slightly smaller percentage of pure asbestos than the "Uralite," and is specially suitable for partitions and roofing purposes. As with "Uralite," "Asbestone" is a non-conductor of heat and electricity, and a great number of factories and other buildings in all parts of the world are now roofed entirely with "Asbestone." It is an excellent fire-resisting material, and is easily and rapidly fixed to wood or steel framing. Unlike plaster, it is absolutely dry from start to finish, so that papering or painting can be proceeded with immediately it is fixed in position, while the unsightly cracks often appearing in plaster work are entirely obviated.

We are convinced that architects will find in these two articles the very things they have been looking for for ceiling and partition, as well as roof, work. For the latter purpose "Asbestone" is undoubtedly far superior to corrugated iron, not merely from the point of view of appearance, but because it will exclude the heat of the sun's rays and keep a building cool on the hottest day. Moreover, it does not rust, and is an excellent non-conductor of sound.





FULL REPORT OF THE ANNUAL MEETING. INTERESTING ADDRESSES OF PAST AND PRESENT PRESIDENTS

The annual meeting of the South African Branch of The Society of Architects (London) was held on Wednesday, October 16th, at the Transvaal Architects' Rooms, Winchester House, Johannesburg. Mr. Edward H. Waugh, A.R.I.B.A., the President, occupied the chair, and amongst those present were: Messrs. M. J. Harris, G. W. Nicolay, D. M. Sinclair, E. J. Wellman, D. McLean Burton, S. C. Dowsett; and the honorary secretary, Mr. D. Ivor Lewis.

**Retiring President's Report.**

Mr. E. H. Waugh, in the course of his presidential report, said: I have the honour to present my annual report on the work of this branch during the past year ended September 30th, 1912.

The membership of the branch stands as follows:

	Last year.	This year
Members ...	36	37
Students ...	7	6
Honorary members ...	2	2

Whilst four applications for membership have been made during the year and are now under consideration.

**Registration Bill.**

The Council has had, during the year, to consider the draft Registration Bill for Architects within the Union of South Africa. After several meetings, the Council caused a circular letter to be sent to each member setting out the position at that date. This circular pointed out that the Council were of opinion that the Registration Act should be confined to:—

1. Qualification.
2. Registration.
3. Misconduct.

Or unprofessional practice, and efforts should be made to obtain a legalised scale of fees.

**Individual Liberty.**

The Council were of the opinion that no compulsory Bill should go beyond these bounds, and that the professional individual liberty of each architect should remain as free as before except so far as it interfered with the general public interest through incompetence or dishonesty. The Council further thought that all objects outside those above mentioned could best be provided for by an institute, incorporated or

chartered or otherwise, in which membership would not be compulsory, but voluntary. As our Society represents to a greater extent than other institutes in South Africa, diverse interests, containing many salaried as well as many practising men, it was felt that the furtherance of a Bill, which is intended to place the chief control of the policy of the profession in the hands of practising men, who are in a majority, would not be a course which could commend itself to a very large section of our membership.

**Cape Institute Views.**

A letter on these lines was forwarded to the Cape Institute of Architects on February 15th, 1912, and that Institute has sent the views therein expressed to its sister institutes in other Provinces, and the whole matter has been under extended discussion since, particularly in the Council of the Association of Transvaal Architects, but no further replies have been received, and the Bill is, therefore, still in the arena of discussion.

**Assisting the Bill.**

Should the Bill be arranged to meet the wishes of the Society, your Council propose to assist its passage by funds and also to approach the Head Council in London on the subject.

The Society has not suffered in any way through the failure of the recent negotiations for amalgamation with the Royal Institute of British Architects in London, and, during the year, there have been several influential applications for membership. The Society appears to have rather strengthened its position through these efforts to amalgamate the two bodies.

**Students**

The student class does not grow in this country. So far as I am aware, there are very few students in the country, and the student is, as a rule nowadays, somewhat de trop in architects' offices, and hand-writing and tracing are not now used to anything like the extent they have been in past ages, and the various modern copying and duplicating processes have taken much from the usefulness of the pupil in the office. South Africa is not training its own architects to any extent and, for the next generation



at least, will continue to use men from overseas largely, as it has done in the past. Other professions have also offered the youth of this country greater financial reward, and architecture is attended to mainly by those from other countries, and the same is also true of the building trades. Parents here are unwilling very often to pay out for their son's teaching, and also to give up for years the good remuneration paid to youths in this country in most callings. The result is bad, and youths in architecture and allied callings drift somewhat within educational years from one man to another, and their teaching is neglected, and the net result is often incompetence and worse than mediocrity. The country generally lacks the tight and firm systems of other lands in dealing with the architects of the future, and the Government has not yet even properly equipped an architectural studio in any part where the finest examples of other countries can be displayed by casts and models to teach the young men of the future.

#### Apprenticeship.

The altered conditions regarding apprenticeship now demand a fresh system for teaching youths properly, and a Registration Act will be extremely useful in the future in preventing the entrance of numerous improperly-trained and immature men from practising on the pocket of the public.

In regard to town planning, there is much to be done by our body and others in the future in influencing authorities and public thought on the better arrangements of our future towns.

#### Rectangular System.

It is high time the country gave up its slavish adherence to a stiff rectangular block system and went in for something more suitable. I sincerely trust that our future Councils will be able to bring the peculiar training of architects into co-operation with the land surveyors, and that the Government will provide by law a properly-trained board for dealing with future lay-outs, whose functions will be sufficiently extensive to obtain the best results, with a due regard at all times to the interests of the estate owner himself, and that some such body could be called into existence, which could be empowered to prevent eyesores in buildings and to obtain an adherence to a connected system of architecture in the public streets. There is no such thing to-day, and it is very badly wanted.

#### The Hon. Secretary.

I have to thank the honorary secretary, Mr. D. Ivor Lewis, and also the members of the Committee for their unfailing help and courtesy to me during my year of office, and wish to ask the same for my successor in office, who has for years worked hard for the good of the Society. (Applause.)

On the motion of Mr. Nicolay, seconded by Mr. Dowsett, the report was adopted.

#### Treasurer's Report.

Mr. M. J. Harris (treasurer) submitted his financial statement for the year, which was of a most satisfactory nature, and showed a substantial credit balance in the bank.

#### Election of President.

Mr. Waugh said Mr. M. J. Harris had been unanimously nominated as president for the coming

year, and he had pleasure in asking him to occupy the presidential chair.

#### Address by Mr. M. J. Harris, newly-elected President.

Mr. M. J. Harris took his seat amidst applause, and delivered the following inaugural address:—

Mr. Waugh and gentlemen: Let me first assure you how sincerely, how deeply sensible I am of the great honour you have accorded me by electing me to your presidential chair. No honour is more highly esteemed by a professional man than such a token of confidence accorded by those engaged in his own calling. My acceptance of your kind election implies the obligation, on my part, to justify that confidence by faithful service and devotion to the principles for which this Society was founded. Misgivings as to my personal ability to further those principles are somewhat alleviated by recalling that there is also an implied undertaking on your part, my fellow members, to support all such endeavours; and further by the fact that the Council you have nominated is wholly composed of gentlemen who have proved their willingness and ability to forward our work. Especially satisfactory to all of us is the existence of that wholesome rule which stipulates that a retiring president shall be ex-officio member of the succeeding Council, and which will entitle us to the continued advice and good service of Mr. Waugh. Than Mr. Waugh no one was ever more entitled to this high office—none more entitled to lead and preside over this Society's affairs—for no one has served its interests better.

#### South African Architecture.

Founded in London in 1884, the membership of this Society now ranges throughout the English-speaking world. The South African members, of whom there are several in almost every important centre in the country, were first organised as a branch of the parent body in 1906. Our province, as a branch, is to further "the promotion and advancement of architectural art and practice, its allied arts, sciences, and crafts; and the maintenance of the honour and interests of the profession of architecture." . . . It sounds so perfectly easy, because so palpably praiseworthy a programme of public endeavour—until the dull facts proclaim that in the greater part of South African territory the meaning of the term "architect" is hardly understood, his employment correspondingly rare, and hill and dale are constantly being disfigured by hideous structures which will affect the taste of a future generation as surely as they reflect the bad taste of the present. In the more populous centres, wealth and intelligence have effected many visible results of a better taste. Here the architects have been afforded some opportunity—almost always limited, it is true, by commercial considerations, but nevertheless tending to fine results. The artistic skill and expert knowledge of our professional colleagues is well evidenced by many fine churches, hospitals, town halls, private residences, commercial and industrial premises, as well as by certain of the Government, municipal, and educational buildings; and for effectiveness, practicality, and good proportions our city architecture will probably compare favourably with that of most European cities.

#### Caricatured Art.

Even here it is, however, to be feared that the tendency is towards deterioration. A multitude of



speculative builders have been called into existence under the latest conditions, and pirated plans and the absence of professional supervision are enabling these gentlemen to disfigure most of our residential suburbs with the veriest caricatures of architectural construction. Many a fine street vista—as well as landscape—has been ruined by the unregulated action of individuals. In our classic reading we have learnt of Diogenes' meeting with Alexander the Great—how the monarch, expressing his great regard for the cynic philosopher and begging to be informed in what way he could serve him, was met by Diogenes' curt reply, "stand out of my sunlight." How often, in our journeys through country roads and city streets, have our feelings been those of Diogenes in regard to buildings whose proportions are of such ugliness that blank sunlight would be preferable!

#### Civic Responsibility.

To any reasoning man who has a regard for the æsthetic requirements of the country, the idea inevitably suggested by present conditions is that larger powers should be vested in Governments and municipalities to deal with such contingencies. Some improvement in this respect is obviously necessary. The question, however, arises whether such larger powers could be so conferred as to assure their being used with the best judgment. In pursuing our enquiry in this direction we are discouraged to find that Government and municipal achievements have not been such as to earn absolute confidence. In Johannesburg itself there are unfortunate instances of this lack of power in co-ordination. In Von Brandis Square we have several Government and municipal buildings all in varying styles, none in the slightest degree co-related, resulting in what has most aptly been termed a motley. The opportunity of a dignified architectural lay-out, worthy of so prominent an open "place," has been completely ruined. This is but one instance; there are others; and of these the most prominent is the continued existence of that pre-war insult to the Johannesburg population—the gaol—as the dominating feature of the landscape. Why the Government allows so depressing an influence to remain, insistently reminding us of the punishment that awaits transgression of the law, and why our children on their way to school must forever be menaced by the frown of that sinister fortress, is beyond artistic comprehension.

#### The Art Gallery.

In this connection I cannot help agreeing with the views expressed by my friend and colleague, Mr. Veale, at a recent meeting of the Transvaal Institute of Architects, in reference to the site chosen for the Art Gallery. This will constitute yet another of Johannesburg's lost opportunities. The site now occupied by the gaol, or some similar position, would be more suitable. On such a hill-top might be erected a beautiful building of noble outlines which would appeal to the imagination of the people, in a manner worthy of the temple of art.

#### Town Planning.

In all these matters a skilful application of town-planning science is urgently required. The difference between a town so regulated and the present method of indiscriminate design—and often the absence of

design—can aptly be compared in analogy to the appearance and effectiveness of a disciplined army as against that of an unregulated mob. In France and other Continental countries, where art is held in higher esteem and where the influence of art upon national character is better appreciated, the problem is met by the appointment of a Minister of Fine Arts. It may be objected that the appointment of such a Minister, with the necessary autocratic powers, would not be consonant with the democratic ideas of British people, but human ingenuity should not be utterly at loss to meet the difficulty.

#### Advisory Board of Architectural Control.

The solution might be found in the appointment, by Government and municipal authorities, of an Advisory Board of Architectural Control. Architects of ability can be found who, for love of their art, will honorarily serve on such boards, which should be free from the restrictions and considerations which affect mere officials. The probabilities are that the recommendations of such a board would include the instituting of architectural competitions in the case of all important public buildings, the lay-out of townships and hill sites, and other dominant vistas. The advantages of competition in these respects will be many. Publicity will be afforded to all such schemes—and publicity in civic architecture is as the sweet sunshine, destroying the germs of abuse, and preventing abuse.

#### Advantages of Competition.

Popular attention would be attracted by the exhibition of the competition designs for any important project, and timely criticism directed: under the present obtaining systems of patronage and departmental work, such attention and criticism is only attracted when too late to prevent bad results. Another advantage of competition is that it allows greater play and affords greater interest to local patriotism—for, after all, it is in the main local patriotism which makes the city and the village. Further, the exhibition of designs submitted in architectural competition tends to stimulate popular interest in architecture—and greater interest will surely be accompanied, in due course, by higher standards of taste. Above all, competition for public projects—honestly and skilfully organised—attracts the efforts of the best men, affords the consideration of many ideas and alternatives, and assures that public architecture shall truly represent, as it should, the highest contemporary ability—assures, in short, the highest artistic results. (Applause.)

Such are among the matters which are comprised within the sphere of this Society's particular interests, as defined in those principles formulated in 1884—to consolidate, by instruction and good fellowship, the corporate powers of our professional institutes, so that the knowledge of architectural tradition and practice shall carry their due influence with civic bodies and individuals, and thus assure that posterity shall not judge this to have been a country of mean ideals, with cities of lost opportunities. (Applause.)

#### Election of Office Bearers.

Mr. D. Ivor Lewis was unanimously re-elected honorary secretary, and the following other officers were appointed for the ensuing year: Treasurer, Mr.



G. W. Nicolay; members of Council, Messrs. J. F. Beardwood, S. C. Dowsett, G. S. Burt Andrews, M.Inst.C.E., and C. H. Stott.

#### Sanitation Congress.

On the motion of Mr. E. H. Waugh, Mr. E. J. Wellman was elected to represent the branch of the Society at the forthcoming Congress on Sanitation and Public Health to be held at Johannesburg in December next under the auspices of the Royal Sanitary Institute.

#### Auditors.

Messrs. D. M. Sinclair and D. M. McLean Burton were appointed auditors for the ensuing year.

#### Alteration of Rules.

The question of altering the rules so as to provide for the election of a vice-president was considered, and it was agreed to submit the matter to the Society in London in order to define the duties attached to the office.

#### Annual Soiree.

It was agreed to forego this function this year and to devote the money in hand to purely administrative purposes and in connection with expenses attached to the Registration Act proposal.

#### A Municipal Invitation.

It was agreed to accept an invitation from the Town Council of Johannesburg, submitted through Mr. G. S. Burt Andrews, head of the Architectural Department of the Municipality, to visit the new Market House at Newtown and the Municipal Abattoirs.

#### Votes of Thanks.

On the motion of Mr. Nicolay, cordial votes of thanks were passed to Mr. Waugh and the officers for the past year.

The meeting then terminated.

### THE ARCHITECTURAL ASSOCIATION.

The curriculum for session 1912-13 of the Architectural Association School of Architecture, which has been issued from 18, Tufton Street, Westminster, gives full particulars of the courses and classes in the day and the evening schools, of which Mr. H. P. G. Maule, F.R.I.B.A., is headmaster. In the former he has for assistant masters Mr. Alan Potter and Mr. W. I. Keir, A.R.I.B.A., with Mr. Robert Atkinson, A.R.I.B.A., as visiting master in design to both schools; while in the latter Mr. James Buyers Scott is the master, and Mr. C. E. Varndell, A.R.I.B.A., lecturer on theoretical and practical construction. The list of lecturers is as follows: Greek and Roman Architecture, Mr. Theodore Fyfe, F.R.I.B.A.; Mediæval, Mr. Aymer Vallance; Renaissance, Mr. W. H. Ward, M.A., A.R.I.B.A.; Professional Practice, Mr. A. O. Collard, F.R.I.B.A., while Mr. E. Constable Alston is the life class instructor, and Mr. H. F. Waring conducts the water-colour class. Mr. Paul Waterhouse, M.A., F.R.I.B.A., is external examiner for the Board of Architectural Education.

Mr. Herbert Baker, F.R.I.B.A., paid a visit to Cape Town during the month.

### NEW SOUTH AFRICAN ART GALLERY.

#### QUESTION OF SITE—PROTRACTED NEGOTIATIONS

The trustees of the South African Art Gallery have issued a report on the negotiations which have been in progress for the past ten years with a view to the provision of a new building for the Art Gallery.

The trustees have to report that no definite arrangement has as yet been arrived at with the Government in regard to the proposed new Art Gallery, and in view of the long delay which has taken place, and of the interest your committee must have in the matter, the trustees desire to make known the exact state of affairs.

The Art Gallery, it is recalled, was founded in 1871 by an association of private persons called the South African Fine Arts Association. It had its headquarters and gallery in Queen Victoria Street (then New Street) until 1895. In that year, the premises, consisting of rooms, some of which had been rented by the Education Department, were acquired by the Government for the purpose of erecting an Art School and a Training School for that department. As a return for the property thus obtained, the Government undertook to provide in future for the housing of the art collection. The South African Art Gallery Act was accordingly passed, making provision for the management, and in a letter from the Prime Minister, dated October 23rd, 1895, he undertook, on the part of the Government, to pay the association: "Interest at the rate of three per cent. per annum upon the balance of £6,000, the appraised value of the New Street premises . . . the payment to continue until the capital in the hands of the Government is expended in the construction of a permanent gallery."

On February 13th, 1912, the trustees were successful in arranging for a meeting with the Minister of the Interior, the following being the formal report of the interview:—

"Deputation from the Art Gallery trustees, consisting of Mr. Justice Searle, Mr. Westhofen, Mr. Cowper, Mr. Fairbairn (secretary), and Dr. Muir (chairman), met General Smuts by appointment to raise again the question of the provision of a proper Art Gallery. General Smuts showed himself to be quite aware of the facts of the case, and in particular of the obligation of the Government in the matter. The deputation therefore brought no new arguments forward, simply urging in a word or two that since the Beit bequest the affairs of the Art Gallery had been practically at a standstill, and the place—because of its crowded condition—quite useless to art students. General Smuts first mentioned his proposal to utilise the present Government House, and when it was pointed out that a considerable length of time would be necessary before this house could be utilised, he asserted that this need not be the case, as the new site had been bought, and the work could begin immediately after Parliament's sanction had been received; he did not anticipate, therefore, more than a year's delay. Another proposal, raised by one of the trustees, was the utilisation of the present Law Courts, but it was made clear that this also would entail a delay of two years. A third proposal by one of the trustees was to utilise the available sum in erecting a new building on the site of the present Government House kitchen garden. After some



discussion of these various schemes, it was agreed that the trustees should get into communication with the Public Works Department in reference to the utilisation of the present Government House and, in the event of this plan not commending itself, should determine upon a suitable site for a new building, which General Smuts seemed willing to proceed with. It was further agreed that some means of temporary relief should be sought for if suitable rooms could be rented at a reasonable cost."

As a consequence of this, the trustees met Mr. Murray, the Secretary for Public Works, who, after discussion of the various suggestions, promised to look carefully into the question and to communicate with the trustees. This he duly did on April 19th, as follows:—

"When I met your committee to hear their views on the question of an art gallery for Cape Town, they informed me that the Minister of the Interior had suggested the possibility of utilising Government House for this purpose. I promised to look into the matter and let you know if Government House was, or could be made, suitable. I had a plan prepared showing certain suggestions, and this you have seen. I also showed and explained it to most of the members of the committee.

"I believe that, following the lines of that plan, Government House could be successfully adapted for the purposes of an art gallery, and would lend itself to this purpose much better than the present High Court buildings, which was also mentioned by the committee.

"I have not gone into the question of the cost of the suggested alterations, but as it will be impossible to get possession of the building until a new Government House is provided, there will be plenty of time to consider the proposal in detail.

"I understand that what your committee desire now is this opinion that Government House could be made suitable for their requirements, so that they can go into the question further with Government at a later date."

On receipt of this letter the subject was fully discussed at a meeting of the trustees, and the following communication was sent on May 2nd to the Minister of the Interior. On account of its importance, the letter was signed individually by the trustees:—

"As a result of the interview which took place between the trustees of the Art Gallery and yourself on February 13th last, we, the said trustees, have the honour to inform you that we have, at your suggestion, approached the Secretary for Public Works on the subject of a new Art Gallery for the National Collection of Works of Art.

"We pointed out to the secretary that you had indicated to us that if we could come to some definite decision amongst ourselves as to a site that would be suitable you would undertake to carry the matter forward as speedily as possible, and that you then made the offer of the present Government House as a suitable building which would be available for the purpose under discussion, should Parliament sanction the building of a new residence for the Governor-General.

"We, consulting with the Secretary for Public Works, have gone thoroughly into the question, and have unanimously decided to accept your offer of Government House as a future home for the National Collection.

"The Secretary for Public Works assures us that our decision is a wise one, that there are no structural difficulties in the way, and that by utilising this building as suggested very great improvements would result to the approaches and surroundings of Parliament House and the neighbourhood generally.

"Preliminary plans have been drawn up and inspected by us, and have met with our hearty approval. The building itself has great historic interest, and could be put to no better use.

"It is quite understood that the offer is made subject to confirmation by Parliament of the scheme for a new Government House, which is now about to be proposed this session.

"We thank you most heartily for the interest you have taken in this matter, and would be grateful for a confirmatory reply, in order that when Parliament has come to a decision on the question of the scheme, the necessary steps may be taken without delay to push the matter forward."

By way, apparently, of reply to this, Mr. Murray called upon the secretary to the Art Gallery trustees, and stated that, as he (Mr. Murray) was leaving for England, he would be unable to go personally into the matter for some time; and he therefore suggested that the matter had better stand over. The trustees, however, considered that in view of all the circumstances, they would be wanting in their duty if they did not press the matter, and they accordingly despatched the following letter to the Minister of the Interior on July 2nd:—

"I am directed to state that my trustees are most anxious to come to some definite conclusion, as this matter is most urgent."

The reply to this, dated July 20th, is as follows:—

"I have to acknowledge the receipt of your letter of the 2nd inst. on the subject of a new Art Gallery for the National Collection of Works of Art at Cape Town, and to state that the matter is receiving attention."

This is where the matter now stands.

It will thus be seen that the project has been before successive Governments of the country for ten years, and that since the acquisition of the Beit bequest it has become a matter of the greatest urgency. Everything has been done that the trustees could do to obtain the attention which was their due, and every Government has done nothing save promise consideration at a future date. The trustees regret that they have no more hopeful course open to them than to continue their representations.

#### PROPOSED BUILDING TRADES EXHIBITION AT GLASGOW.

Negotiations are going on between the Glasgow and West of Scotland Building Trades Employers' Council and the International Building Trades Exhibition Company with regard to a proposal to hold a building trades exhibition in Glasgow next year.



## ARCHITECTURE AND THE SPIRIT OF THE AGE.

It is a well-worn commonplace of the history books that architectural character is a reflection of the spirit of its age—the gloomy despotism and overpowering superstition of Karnak, the sunny democracy and delicate virile logic of the Parthenon, the hard but gorgeous symmetry of the Roman Fora, the religious exaltation and restless energy of the mediæval cathedral, the noble humanity and the secular splendour of the Renaissance palace—there is no need to labour the appropriateness of each. In England to-day it is not difficult to see in the failure of our great public buildings, and in the fussy tedium of our streets, a reflection of the fact that we have not yet learnt the polite art of city dwelling, in the way that, for example, our neighbours the French have; on the contrary, the comfortableness and quietness of our domestic architecture, as compared with theirs, shows us to be a superior race of country dwellers. Finally, to push the reflection theory a step further, the English country house of to-day, with its affectation of studied rusticity, clearly indicates the difference between the country gentleman of the twentieth century and his more cultivated great-grandfather of the eighteenth; it is, in fact, the contrast between a house by Robert Adam and by Mr. —.

### Louis XVI Period

But more interesting, because more perplexing, are those periods during which architecture appears to be pursuing a line of development austere apart. The Louis XVI. period is one that readily suggests itself as an example of this contrary condition. No one could honestly attempt to show that the work of Gabriel and Antoine, with its refinement, purity, and strength, was typical of its frivolous, shallow age. But by a curious chance we have left to us, in the garden design of the period, an exact reflection of its childish weakness; under the safe cover of the Anglo-Chinese style (a conjunction calculated to produce the craziest offspring) the landscape architect could pander to his client's most foolish caprice. The exquisite little château of La Bagatelle and the collection of absurdities that formed its garden, including a Tomb of Pharaoh, a Chinese pagoda, an Indian pavilion, and a Hermitage, thrown together by an obscure Scotsman, exemplify more acutely than anywhere else the gulf between the architecture and the age: the garden is contemporary, the house is emphatically not of it. It is interesting to speculate on the means by which those Louis XVI. architects forced their architecture on their shallow clients; their esprit de corps must have been singularly strong, for, so far as we know, there is not a single instance in which they gave way and frankly pandered to the prevailing folly.

### United States Architecture.

More perplexing still is the case of the United States of America. An English architect visiting the States and being shown the work of Messrs. McKim, Mead, and White, Carrère and Hastings, Cass Gilbert, Arnold Brunner, and others, is apt to come back (especially if he has experienced some of

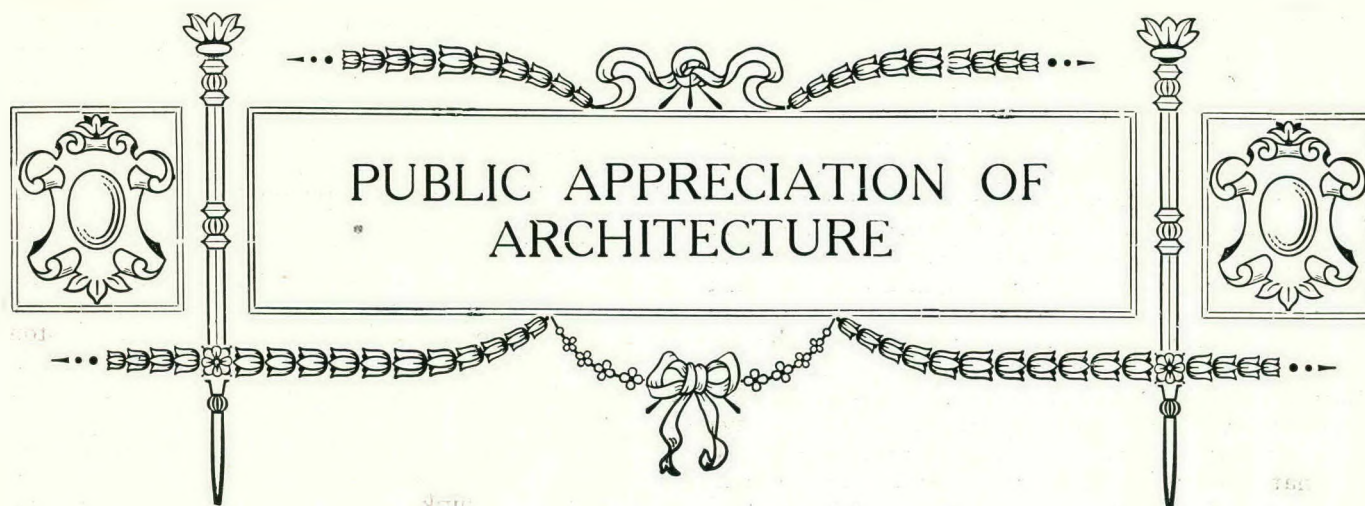
America's noble hospitality) with a conviction that these buildings represent a nation which appears to combine the wealth and magnificence of Rome with the culture and refinement of Greece. As the glamour begins to wear off, and particularly if he chance to read such an article on America as appeared in the "Sociological Review" for July, by Mr. Alfred E. Zimmern, he changes his opinion, not as to the value of the architecture, but as to its representative nature. Similarly, anyone reading Mr. Zimmern's article without a knowledge of American architecture would not imagine that such a building as the Columbia University Library or New York Custom House could possibly exist. What milieu for the encouragement of great architecture is suggested in the following indictment of America's shortcomings? "The human soul can strike no root in the America of to-day. All she asks is a little space and leisure, a little time to think and feel . . . instead of these . . . a universal atmosphere of money-making, the old qualities of the pioneer concentrated and crystallised in the institutions and standards of a business age. In America to-day, not only in the government of the Republic, but in the minds of men, even of young men, business is king. So the poet and artist, poor fools, exchange their few pieces of pure gold and the gratitude of posterity for the brilliant small change of journalism and the applause of an idle crowd. And the moral genius, the teacher, for whom it is a necessity of his nature to translate his ideas into action, becomes tired and despondent and even cynical in the hopeless task of engrafting them on to alien institutions. This is the terrible dilemma of American life to-day, as in all societies where there is a disharmony between the better minds of the people and its organised institutions."

### The Skyscraper.

The American "pioneer qualities" have been responsible for the existence of the skyscraper, but not for the fine architecture with which it is often clothed. The only explanation that suggests itself is that the architectural profession in America is one of those unassimilated immigrations from Europe. Its life is exotic, but thoroughly vigorous—more vigorous in many ways than in its native country of France. This is the usual effect of America upon her immigrants; she raises their pitch, she increases their nationalism (or artistic stylism), but they remain separate communities. The chief thing our people learn in America, said a Balkan friend to Mr. Zimmern, "is Roumanian Nationalism. Up in our mountain villages Roumania is very far from us; here, where all of Roumanian speech are exiles together, it is very near." And thus near to American architects are the true principles of Classical architecture, and thus closely knit and homogeneous is the body of their work; but, unfortunately, it cannot be said to reflect the spirit of the country.

In America, however, there is this fact, that the business men who are the driving force of the land have the good sense to give their architects a free hand when once they have commissioned them: and the result we see in a series of public buildings which have no equal in England—"Architects' and Builders' Journal."





One of the greatest difficulties and discouragements that beset the way of the architect as artist-constructor is the lack of public interest in and appreciation of his work.

We do not propose at the moment to discuss at any length the causes of this neglect. Probably they might be largely summed up in the fact that most people are too busy trying to earn a living, or to amass a fortune, to leave much time for finer arts, which have come to be regarded as mere luxuries or hobbies unless used to the ends of the former all-important industry. We speak generally, of course, with full knowledge that there are, and always have been, many exceptions, and that there is at last some promise on all hands of an awakening from this apathy to all but utilitarian purposes. The idea that beauty and amenity in all things, so far from being mere useless and expensive luxury, is but one phase of normal healthy life, and that it may pay a profitable dividend none the less real because incalculable in cash, begins to assert itself; so far, indeed, as to have got itself recognised even in an important Act of Parliament.

Architects, and all who love their art, may take heart of grace, and may also remember that it is not only architecture that has been treated with public neglect and indifference. The machinery and powers of local government have developed greatly within the last twenty-five years; yet public interest in their exercise by County, District, and Parish Council still lags behind, sometimes exhausting itself at election time, or confining itself to scrutiny of the rates. But even here breath is entering into the dry bones, sporadically as yet, it is true, but with promise of fuller life to be.

#### Aesthetic and Mechanical.

The diversion of interest from the æsthetic to the mechanical arts, in the rush for material and commercial development ensuing upon the industrial revolution, affected architecture with the rest. From the eighteenth century to the present time, though there have never been wanting men capable of distinguished work, it has remained an arrested tradition, expressing little of a momentous epoch beyond something of its spirit of restless individualism and experiment, showing itself, at the best, in short-lived recapitulations of past phases. The greatness

of the nineteenth century was in other things, and it is quite conceivable that no more stable or consistent architectural expression was possible of a period so essentially mechanical, so rapidly transitional, preparing the way perhaps for a synthesis of knowledge, a social reconstruction and a Renaissance of art greater than any history can show us. That architecture has its part in the awakening, the enthusiastic and sound work already done for education is alone sufficient to show, apart from other signs.

But, good as that work is, there is one respect, and that a fundamental one, in which, as we ventured to suggest in a former article, we think it is still wanting. As a result largely of its arrested tradition and the growth of the idea of art as of something distinct from the rest of life, the public are still too prone to think of and treat architecture as something added to a building, a decoration depending only upon certain abstract principles and the use of certain traditional forms of beauty, rather than a spirit pervading building, expressing truly not only the purpose of the building and its construction, but something also of the life of our time, individual or corporate, with its joys, needs, problems, aspirations, and ideals. If architecture is to have this quality, for which no academic rules can be laid down, the architect, whatever his archæological scholarship, his attainment in the schools, his power as artist, must have knowledge of human nature and life in its manifold environment to-day, so different from that of the Athens of Pericles, of Rome, Florence, Mediæval or Elizabethan England, or even of the early eighteenth century. Knowledge of all these is good—probably essential. Or of our Saxon ancestors, rough-hewing town and village, and their institutions; or of primitive man struggling to shape his environment. But all must be studied with a view to the complex facts and conditions of our present civilisation, for it is that only we have to express.

#### Educational Methods.

In the article mentioned we spoke of the inadequacy of present general educational methods in the twin aims of bringing out and development of character and of practical efficiency. We alluded to a growing educational movement, which is destined possibly in its extension and completion to reintegrate in itself the divided aims of the traditional culture and the



modern commercialism. For "town study," in the widest sense, comprehends practically all life activities and culture in correlation and co-ordination. Through the agency of advanced and thoughtful educationalists and teachers it is entering the schools as a method incidental and illustrative of special studies, or directly as a special subject. The latter is adopted with young pupils, beginning with cardinal facts of immediate environment and extending, with their capacity, to every possible aspect of the town's existence; from geographical beginnings, and consequent occupations and industry, to the present time; its people and great men and women; its legends, traditions, annals, customs, and institutions; its monuments, buildings, art, and art treasures; its literature, its communications—from the track through the waste to electric railway, from coracle to liner, and so on. And all these in complex interaction and relation. The method is "by direct observation and interpretation to arouse real interest and care for the facts and things of the town. Teaching is given in such ways as to encourage intelligent self-activity and learning by doing, such as the collection of facts, the making of drawings, models, photographs, etc.; or, while tracing the development and interplay of industrial processes from earliest beginnings, in the actual making of such simple implements or products as may be practicable.

Such objective teaching, it is clear, must increase the interest and understanding with which young architects will take up their more advanced and abstract studies in civics, or the sciences, or arts. In so far, also, as it necessarily involves an elementary knowledge of architecture and its intimate relation with all the other factors of the town it would be a means of selecting those who might with advantage take up special studies therein.

#### Town Planning

A distinct general interest is evident in the present town-planning movement, and the building up of that interest into a sound and well-informed public opinion is essential to its ultimate success. This is a matter of vital concern to architects, and none should be so fully qualified as they to inform and lead public opinion. The objects of town planning are the objects of architecture on the widest scale, and though comparatively few architects may be called upon to lay out a town extension, or garden suburb, or village, every architectural work is or should be an integral part of the town plan with its proper relation to the rest. But if architects are to lead it must be by the exposition of a broader view than that shown in the discussion of such academic questions as of formal or informal treatment, or of this, that, or the other style for the buildings. Laymen, as a rule, are little able to appreciate such questions, but are quite capable of forming some opinion upon general matters of health, convenience, or amenity in the town. The architect may show that these objects of town planning also broadly express those of architecture; that as the town is, in the fullest sense, spiritual as well as material, a nodal point of ways to and fro the ends of the earth, a receiving house, workshop, and exchange for all that Nature and man's activities of hand and brain produce and shape for the nourishment of human life that does not depend on bread

alone, so every building worthy to be called architecture has its component part to play in the service and interpretation of life.

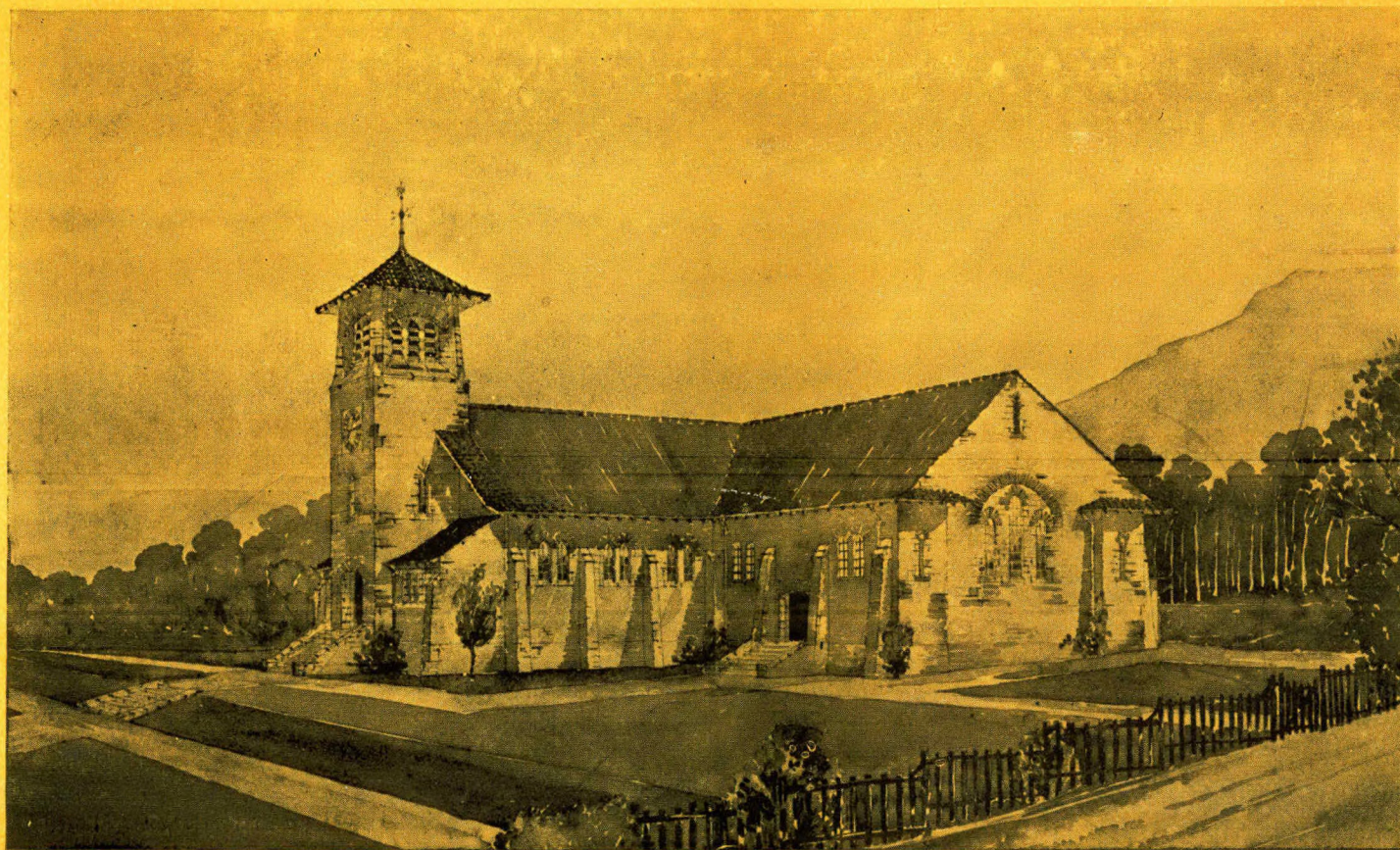
#### Town Study.

Thus it has seemed to us that town study—which, by the way, is evidenced in other directions than in the educational movement referred to—is of far-reaching importance and promise, not only in arousing public appreciation of architecture, but also in its suggestiveness in the education of the professional student. Its value is in its correlation and co-ordination of things too much separated hitherto; of the past with the present, the town with the country, of different orders of cities and towns, of the sciences, of science and art, and of the subordinate arts and crafts with the generalised art of architecture. The architecture of the past would no longer be studied in isolation from the other factors of the life of which it was the outcome, nor applied as an abstract art in conditions essentially different and more complex. Studied and applied it must continue to be, as embodying and beautifully illustrating enduring principles common to all true architecture. But while the principles remain the forms must change and pass, and, from whatever style or styles we may start as most fitting, it cannot but happen that in the broader, more living culture that will come of a fuller knowledge and interpretation of our modern life, architecture will again gradually acquire that common character we call style, which will be consistent with that life and culture. Whether or not architects unite themselves in some great guild, architecture will again become a common cause, not limited to the ranks of the profession or a cultured few outside, but finding inspiration and appreciation alike in the awakening of a wider social and æsthetic interest.—"The Builder."

#### THE VOLUBLE ARCHITECT.

The opinion of the man in the street, though based on very limited knowledge, always offers some points of contrast which are well worth the consideration of those within the charmed circle of the profession. Coteries of architects tell one another what they think of the public taste; they rail against it, grow fervid with accusation, demolish in scorn the pet likes and dislikes of the uninitiated layman. And they go away feeling very satisfied. Some of them, unfortunately, show a different front to things when they have to deal with them the next morning in the course of everyday business, when they have to meet the requirements of a client who, other than a client, is an egregious evil. And amid such conditions the architect sometimes falls from his high estate. Perhaps, indeed, he never possessed the ability to soar to any heights of excellence, except in words—words which come with such facility when punctuated with the applause of those who, professionally, think the same as the speaker. So that not unseldom we have the example of an architect who talks well, yet does monstrous ill. It has been said of the craftsman that the more fluent his thoughts are, as expressed in his work, the less likely it is that he will be found fluent in speech. The same might be said of the architect.—"Architects' and Builders' Journal."





*Messrs. Cowin & Powers,  
Pretoria, Architects*

DUTCH REFORMED CHURCH, GREYLINGSTAD



**Mr. M. J. HARRIS.**

Mr. M. J. Harris, the newly-elected President of the South African Branch of the Society of Architects (London), is one of the best-known men in his profession in the Transvaal. Various occurrences during the past three years have brought his abilities as a public speaker and essayist to the notice of his professional colleagues, but for many years prior to that period he has readily assisted in every movement having for its object the higher status of his profession. Mr. Waugh, the retiring President, in his

"The greater opportunities in architecture not having fallen to my lot, let me disavow any personal claim to celebrity. I am the eldest son of the Rev. Mark L. Harris (one of the pioneer ministers of the Rand), was born in London in 1875, and my early education was obtained under somewhat roving conditions—my father transferring to a new congregation every three years; in this way we were successively at London, Exeter, Portsmouth, Hanley, Sunderland (Co. Durham), and then at Kimberley (South Africa). My articles were served with the late Mr. W. H.



valedictory address, commended his successor as one who has consistently worked for the good of the Society. Mr. Harris has been a member of the Society's Council and of its Board of Examiners for the past six years, he is also a member of Council of the Association of Transvaal Architects, and honorary secretary of the Transvaal Institute of Architects. Asked to furnish a few personal particulars for the benefit of readers of "The African Architect," Mr. Harris replies:—

Miles, of Bournemouth, one-time Municipal Architect at Port Elizabeth, and the first Town Engineer of Johannesburg—himself a prominent member of the Society of Architects. Shortly after Mr. Miles' death, which occurred in 1893, I opened practice on my own account. The war was responsible for a break, and from 1901 to 1905 my practice was at Mafeking, where I held the appointment of Municipal Surveyor. My duties in the latter capacity included responsibility for a large amount

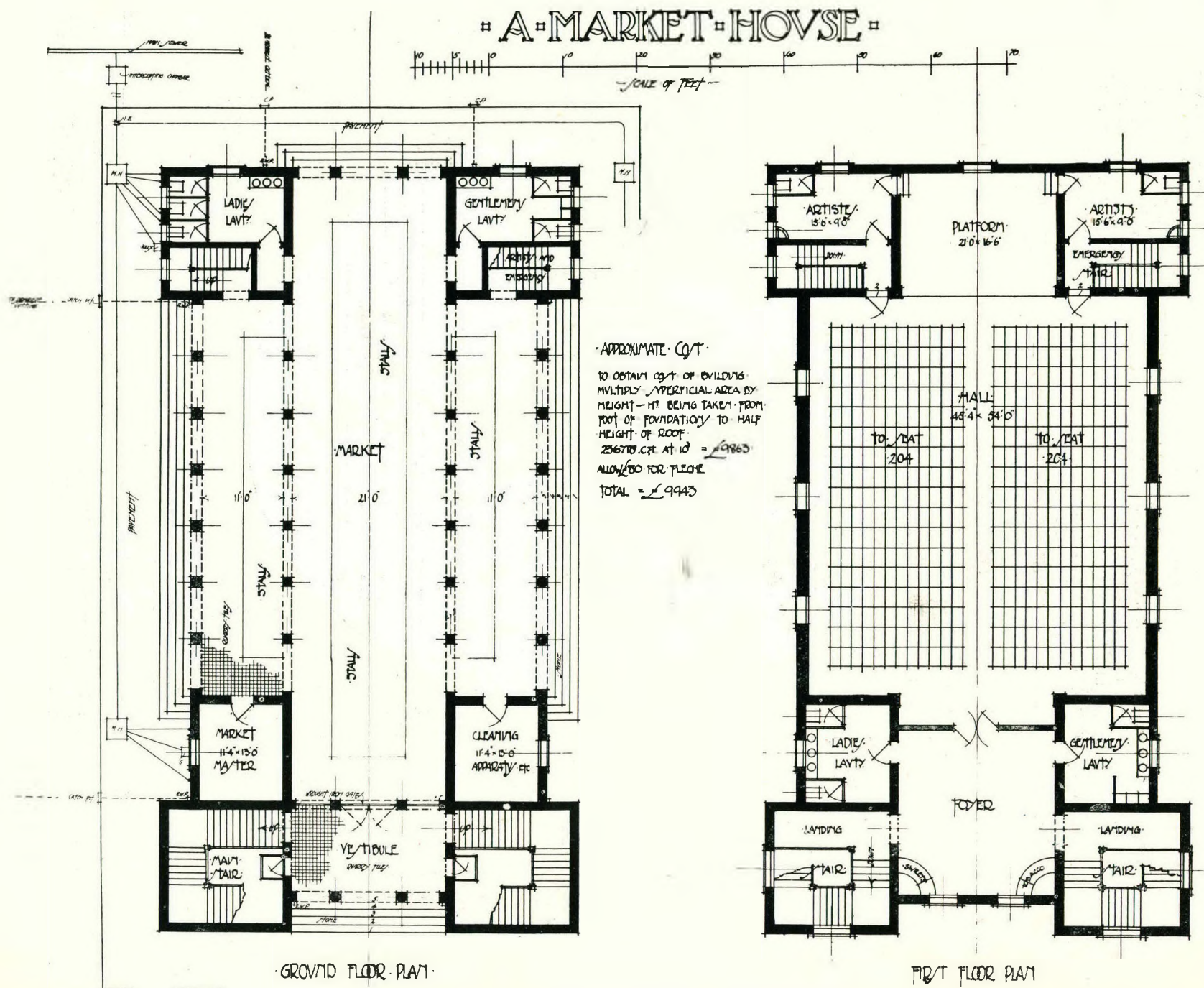
*Continued on page 92*



# The "African Architect" Competition—No. 12

The Winning Drawings of Mr. JAMES D. HOSSACK, Pretoria.

90



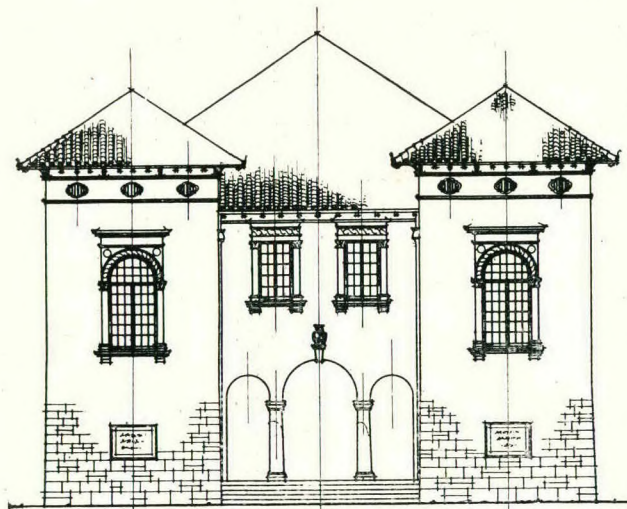
THE AFRICAN ARCHITECT.

November 1st, 1912.

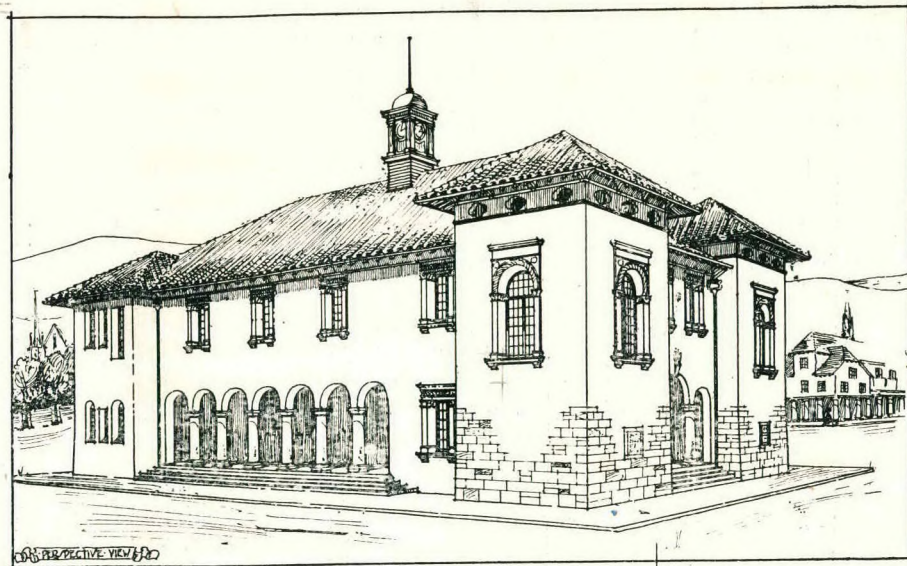


# ◻ A MARKET HOUSE ◻

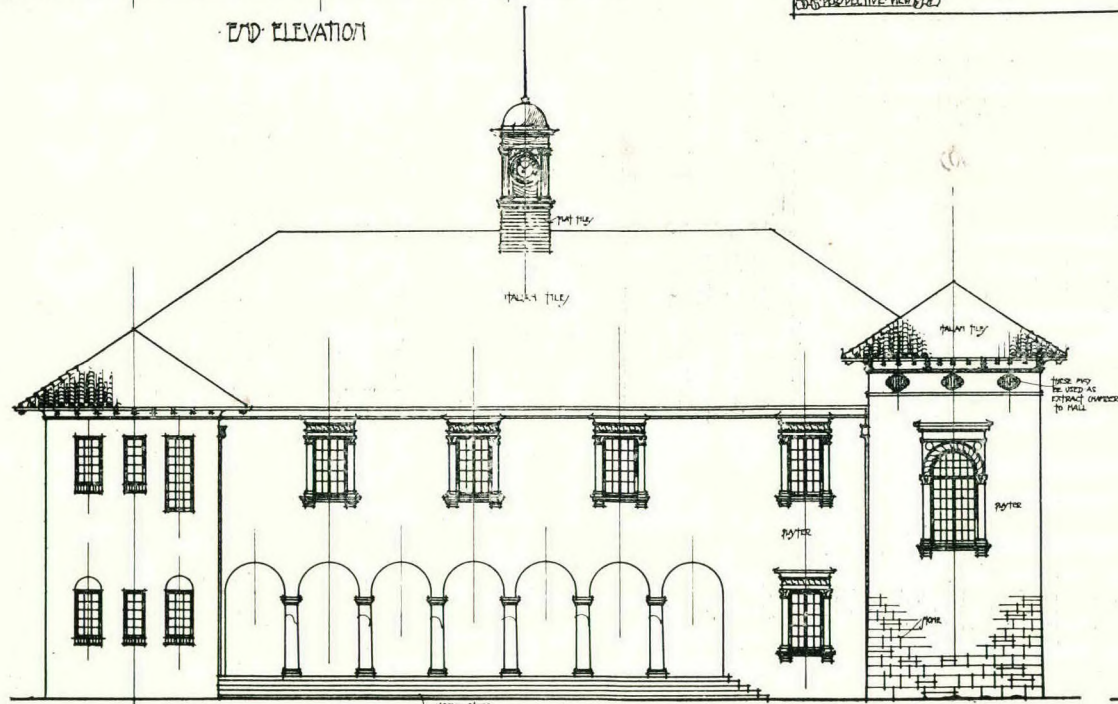
SCALE OF FEET



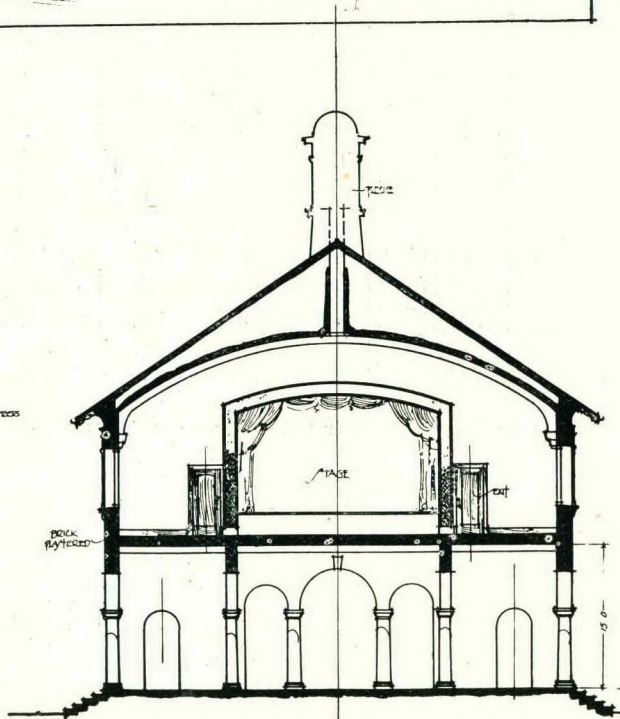
END ELEVATION



PERSPECTIVE VIEW



SIDE ELEVATION



SECTION

November 1st, 1912.

THE AFRICAN ARCHITECT.



of engineering work in the construction of roads and drainage. There also I acted as supervising architect on behalf of Messrs. Herbert Baker and Masey, of Cape Town, in supervising the erection of the Memorial Church (Anglican), and on behalf of Messrs. Rogers and Ross, of Kimberley, who had designed the Town Hall and the Wesleyan Church. I returned to Johannesburg in 1905. After nineteen years of an average practice it is difficult to single out individual works for special mention. I have been responsible for several mission churches in Bechuanaland, for the Siege Memorial Monument, the Municipal Council Chamber, Library, etc., at Mafeking; for the interior reconstruction, in 1895, of the Old Synagogue at Johannesburg (a work which involved some engineering difficulty), for the Synagogue at Doornfontein, and for a large number of private residences in Bechuanaland, the Western Transvaal, and in the various Johannesburg suburbs (recently executed work including the residences at Parktown of Messrs. R. Robins, P. R. Davis, A. H. Lewis, and K. Stenhouse), as well as for many commercial offices and business premises of all kinds.

"One of these days, when I have the time, I shall make pretty pictures of the multitudinous working drawings which were necessary for all these projects, and they will be offered to 'The African Architect' for publication—somewhere about 1940 A.D."

That concluding remark is characteristic. The Doornfontein Synagogue, above referred to, has a galleried interior of considerable beauty and originality of treatment which—pace Mr. M. J. Harris' joke—we hope to illustrate shortly. Mr. Harris' work, where it has come to our notice, is marked by refined appropriateness and practicality, evidencing a scholarly application of art principles.

### PERSONAL PARS.

At a recent council meeting of the South African Institute of Quantity Surveyors, Mr. H. G. Labdon, of Cape Town, was elected to membership.

\* \* \* \*

The post of architect to the Government of the United Provinces of India has just been filled by the appointment of Mr. F. Lichmann.

\* \* \* \*

Mr. A. C. Dickie, A.R.I.B.A. (of the firm of Kelly and Dickie, architects, London), has been appointed to the chair of architecture, Manchester University, in succession to Professor Capper, who was obliged to retire owing to ill-health.

\* \* \* \*

The first-class certificate in architecture, exempting from the intermediate examination of the Royal Institute of British Architects, has been awarded to A. M. Aly, M. A. Atalla, F. E. Hudson, and H. Izzy. The external examiner was Mr. H. D. Searles-Wood, F.R.I.B.A.

### OUR COMPETITIONS.

#### No. 12.—A MARKET HOUSE.

We have pleasure in announcing that our competition, No. 12, the subject for which was a market house, has been won by Mr. James D. Hossack, Pretoria. The drawings appear in this issue, and the following is the assessor's report:—

Only one candidate entered for this competition. Clause 2 of the general conditions governing the competition provides that there must be at least three entries. It is recommended that the condition referred to be deviated from in this instance as the plan submitted is considered to be worthy of a prize.

**DRAWINGS.**—The drawings show ability in draughtsmanship.

**GROUND PLAN.**—This plan, on the whole, is considered to be satisfactory. The stalls in the centre of the market hall should have a central gangway in order to give stall holders access between the stalls. This alteration would entail increasing the width of the central market hall by, say, three feet, otherwise the "passage ways" for the public would be too congested. The stalls should not be continued along the two sides of the market hall as shown on plan. Provision should be made for a central "through way" between the stalls on each side of the market hall in order to give additional ingress and egress to the main hall.

**FIRST FLOOR.**—The width of doorways to emergency stairs on first floor should be increased. The side aisles or passages to hall on first floor should be made wider. This could be done if the width of the central market hall on the ground floor, previously referred to, was increased by three feet.

The entrances to ladies' and gentlemen's lavatories leading off foyer should be properly screened.

**ELEVATIONS.**—The conception, on the whole, is good and the style of architecture adopted is well suited for a market house for a country town.

**ESTIMATE OF COST.**—The approximate estimate of cost has been worked out correctly as regards the cubing of the buildings, but no provision has been made in the estimate for drainage.

D. IVOR LEWIS, M.S.A.,

Architect.

16, Hosken's Buildings, Johannesburg.

### POINTS WORTH REMEMBERING.

Don't expect an advertisement to bear fruit in one night. You can't eat enough in a week to last you a year, and you can't advertise on the same plan either. Those who only advertise once in six months forget that most people cannot remember any longer than six days. If you can arouse curiosity by advertising, you possess a wonderful advantage, for the fair sex don't hold all the curiosity in the world. Stopping your advertisement when business is dull is like tearing out a dam because the water is low.

### ADVERTISE IN THE

"AFRICAN ARCHITECT" and  
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## TOWN PLANNING FOR TWENTY-FIVE CENTURIES.

It will be very easily understood (says the "Building News") that considerable difficulties lie in the way of obtaining many instances of town planning until we come to fairly modern times, the manifest reason being that in almost all cases the plan of a town was rarely set down before building; towns having in almost all cases gradually developed from the settlement of one or more cottages, till by the addition of further habitations a hamlet became a large town. We have, however, certain details of the planning of three towns. One of these is known to have existed from an unknown period more than six hundred years before the Christian era. The planning of the second town dates from the Middle Ages, and the planning of the third belongs to comparatively recent times. A consideration of the details of the plans of these three towns will probably show us that whenever a town has been planned in any age it takes a particular and an invariable form.

### Ancient Plans.

The plan of the most ancient of the three towns with which we shall attempt to deal may be seen in the map of Pompeii, published by Richter and Co. in 1851. In this map we see that the plan of the city exhibits the main streets set parallel to each other, and crossing each other at right angles. Mr. Mau,

in his history of Pompeii, shows us very clearly that the town was in existence before the sixth century B.C.

We may now turn to the planning of an English Mediæval town, that of Winchelsea in Sussex. Very rarely in the Middle Ages was it possible or needful to plan out a new town. In the thirteenth century, however, it became necessary to provide a new town in a new district for an existing population. This necessity was occasioned by the destruction of the town of Winchelsea by the encroachments of the sea. To-day we must, therefore, realise that there are two Winchelsea's, one a town submerged a mile out to sea, and the other the new town planned out as a whole at one time by one mind or by several in collaboration. New Winchelsea, if we may so speak of the present ancient town, was planned and built in or near the year 1287.

### "Winchelsea"

At the time of the purchase of the ground by authority, the district on which the town was to be built was known as Iham. The inhabitants, however, when taking possession of their new homes, changed this name to that of their old town, and called it "Winchelsea." (We take the spelling from one of the documents in Jeake's charters of the Cinque Ports.) What advantage was taken of this almost unique opportunity to plan out a whole town, and what was the special feature of the planning in the minds of those by whom the work was done? We shall see that the opportunity afforded caused a remarkable departure from the ordinary arrangement of an English town, and that the outcome of ideas resulted in the adoption of a plan with one especial and predominating feature. The new town of Winchelsea is said to have been planned after the pattern of the old town. Such may have been the case, but it is extremely improbable. All English towns, with rare exceptions, have grown bit by bit from hamlets, and the result is exactly what would be looked for—namely, a series of streets running in many directions, and in lines both straight and curved. The Ordnance map of Winchelsea, published in 1878, shows very clearly the thirteenth-century plan of the new town. In it we see the streets running parallel to each other, and crossing each other at right angles, on virtually the same system as laid down at Pompeii many centuries before.

The newly-built town of Winchelsea was planned in about forty squares, called "quarters." In Cooper's "History of Winchelsea," we find some interesting references to these quarters taken from a document of the time of Edward I. We read of a first street or highway in which were the first, second, third, fourth, and fifth quarters; a second street or highway contained the sixth to the eleventh quarters, and so on to the eighth street or highway in which were contained the thirty-sixth to the thirty-ninth quarters. The Ordnance map of Winchelsea does not show now any such appellations, the streets bearing only ordinary names, such as Rich Street and Castle Street.

### New York.

We may now turn to the planning of the last of our three towns, the modern city of New York. In the map of the city published in 1903, by Rand,



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Macnally and Co. in their "Business Atlas," we see again the same particular features as were apparent in the plans of the towns of Pompeii and Winchelsea. Again we see the streets running parallel to each other, and crossing each other at right angles.

To sum up: Pompeii, we have seen, was in existence six hundred years B.C. Winchelsea was planned in the Middle Ages, and the plan of New York must have been set down in fairly modern times. Yet we see all these towns laid out on virtually the same plan, namely, one in which the streets are all straight, and where they run parallel to each other and across each other at right angles.

## FRESH DISCOVERIES IN EGYPT.

A lecture on the year's work of the British School of Archaeology in Egypt was given by Professor Flinders Petrie at University College, Gower Street, recently. In its results the year's work had been, the lecturer stated, one of the most successful they had ever had. They had worked at three different centres—Heliopolis, Memphis, and Tarkhou, which was about thirty-five miles south of Cairo. At Heliopolis, which had been deserted since the Persian invasion in 525 B.C., the top surface of the site was dated by the pottery to the sixth century B.C., and there was scarcely a trace of the Ptolemaic, Roman, or Arab ages. The temple enclosure, three-quarters of a mile long, was surrounded by two great walls, each forty feet to fifty feet thick. In the north-west corner was a fort, also of massive brickwork. The great surprise, however, was the finding of an earthen fortress of the same type as that at Tell el Yehudiyeh, which he discovered in 1906, and attributed to Hyksos. They

found here, near the well-known obelisk, many pieces of another obelisk erected by Thotmes III., and reinscribed by Rameses II. The eastern gateway of the whole temple was also found, and fragments of inscriptions of ten different kings. At Memphis a gigantic sphinx of alabaster had been found. It weighed about eighty tons, and belonged either to the Eighteenth or to the Nineteenth Dynasty, about 1300 B.C. It would be set up again this summer, and would remain one of the sights of Memphis, like the great Colossus. At the north gate of the Temple of Ptah another sphinx, carved in red granite, and inscribed by Rameses II., had been discovered. Near by was a group in red granite, representing Rameses II. and the god Ptah standing. This weighed about nine tons, and would be sent direct to the Ny Carlsberg Museum, Copenhagen, as it was Denmark, and not England, that provided for the excavation of Memphis. Some day museums in England might have spirit enough for such work. At Tarkhou a large cemetery had been found. It dated from the earliest historic age down to the Pyramid Period. The special feature of the cemetery was the extraordinary preservation of both woodwork and clothing. Pieces of house-timber were found reused in the construction of the coffins. One of the coffins, made of basket-work (it was a hamper of large size) has been carried up by hand to the Cairo Museum. Wooden trays, bed-frames, a large quantity of pottery, some three hundred alabaster vases and dishes, and copper tools were also found. The work was carried out by the students of the school, Messrs. Mackay, Wainwright, Engelbach, and Elverston, working with Professor Flinders Petrie. Mrs. Petrie made the drawings, and Mr. Lawrence, of Carchemish, assisted in the excavations.

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## MEDIAEVAL ARCHITECTS.

### THEIR PLANS AND MODELS.

Very few of the names of the architects of the great Mediæval buildings have come down to us, and for the plans of the buildings erected by their genius we may, in almost all cases, look in vain. That these plans, set down before commencing operations (probably on vellum to withstand the wear and tear of constant reference) should have, in course of time, disappeared, is not surprising, though many sheets of paper remain to-day long after the massive walls within which they were written have wholly disappeared. It is, however, a somewhat singular circumstance that so few contemporary references to the plans of Mediæval architects are to be met with to-day.

#### Ancient Architects

Of the architects of Mediæval England, Alan of Walsingham, a monk of the great monastery of Ely, probably stands as one of the foremost figures; but, so far as we are aware, no line of, and but few references to, the plans of his great work carried out at Ely Cathedral remain to-day. A collection of the plans and drawings of a Mediæval French architect, however, exist, and have been published. These plans and drawings are those of a thirteenth-century architect of the name of Villard of Honnecourt, and from them we can get a very fair idea of the plans and drawings which must have been also made by Mediæval English architects. The original volume, now in the National Library at Paris, has been reproduced in facsimile with explanatory notes by MM. Lasus, Quicherat, and Robert Willis, the English editions by the last-named editor being published in 1859. Amongst these reproduced drawings of Villard we find drawings dealing with all sorts of the details of an architect's business.

We see plans of Rheims Cathedral, a window at Chartres, the tower of Laon, the east ends of churches, etc. In the English edition an excellent table of the subjects dealt with is supplied. Under "Practical Geometry" we have amongst other instructions: To cut the mould of a great arch in a small space; to lay out a square cloister; to measure the height of a tower, etc. Under "Carpentry": Framing to restore a falling house; roof for a boarded chapel; roof for a side aisle, etc. Under "Masonry" we find: To cut the voussoirs of vaulting surfaces; to find the centre of a given voussoir; the bond of a pier at Rheims, etc., etc.: from all of which it will be seen that the volume is in no way restricted in its scope.

In addition to the drawings, which there can be little doubt were at all times forthcoming before commencing building operations, it seems to have been customary for the Mediæval architect to have had a model of the proposed edifice constructed before beginning work.

This model must not be confused with the model so often seen in the hands of the figures of patrons of churches. In the case of the patron, the model is intended to convey the idea that he, the patron, was responsible for the original order to build or rebuild, and responsible also for the financial burdens incurred. The architect's model was that constructed for actual practical use in the work of building. Sometimes, however, the architect does carry a model of a church. An instance of this may be seen in the case of the French Mediæval architect Libergier, whose tombstone is reproduced in a plate in "Annales Archeologiques" (p. 117, vol. i.). An interesting feature of this particular representation lies in the fact that the figure grasps in the left hand a long stick marked apparently as a rule. At the feet a pair of compasses are delineated.

#### The Model.

The construction of a model may have had its origin from either one or two circumstances, or by reason of both. In the one case those in authority may have required a model to enable them to obtain a clear idea of the appearance of the projected building, in the second case the model may have been constructed solely to illustrate the directions given by the architect to the builder. We will give two instances of the construction of a model. In the earlier, it is clear that the mould or model was to work from; in the second case, it is equally clear that the model was made to enable a better opinion to be formed of the design previously submitted. It is, however, very probable that models were frequently constructed to serve both purposes. The earlier instance of the making of a model is to be seen in a curious and interesting agreement for work to be done on Westminster Hall. The document will be found in full at page 794 of the seventh volume of Rymer's "Foedera." This agreement, in early French, which we translate, is dated 1395, and commences thus:—

This Indenture made between our lord the King of one part, and Richard Washbourn and Johan Swalwe, masons, of the other part; witnesses that the said masons have undertaken to make well and truly, all the tables of the walls of the great Hall of Westminster Palace . . .



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according to the purport of a form and mould made by the counsel of Master Henry Zeneley.

This model was, it is expressly stated, delivered to the masons ("deliverez as ditz masons") clearly for their assistance in the work undertaken. The second instance to which we have referred is to be found in Wren's 'Parentalia,' where we see that the plan of constructing a model before building was adopted in the case of St. Paul's Cathedral. We read at page 282 that "a model in wood" of the church proposed to be erected was required to be made for the satisfaction of those who had expressed themselves as pleased with the designs prepared. Whether models were, however, made for either patron or workman, it is probable that in almost all cases they speedily shared the fate of the drawn plans.

The plans and the model having been approved, the next step of immediate importance to the architect would be the setting out of the ground. To do this would necessitate the use of a line and stakes. The stakes would scarcely find mention in the accounts of a Mediæval builder; but the purchase of a line for this part of the work we may at times expect to meet with. Such a purchase we find in the Record Office MS., Exch. Acc. 474-7, where in a list of purchases made by a builder in connection with a particular work, we find a record of the cost of "Lyne for the masons and bricklayers, for measuring and setting out of ground." The next stage as regards the ground plan of the building would be the digging of the foundation, a reference to which operation we find in the Record Office MS. 504-2, where we read of the purchase of "18 shood shovels for the labourers to work with in dyggyng foundations." The purchase

of four pickaxes for the labourers, bought, there can be little doubt, for the same purpose, immediately follows.

#### The Architect's Clerk.

The architect's work would be now possibly complete. The plans and model would be in the hands of the builder, and his officials and workmen could, it is presumed, carry out everything as shown in both. But though we have now perhaps arrived at the final stage respecting the preparation of plans for the use of the builder, it is possible that yet another series of minor plans may have to be executed. It must be admitted that it is not by any means altogether beyond the region of possibilities that, as the work went on, one or more of the superior workmen might desire to have at hand some sort of plan of that part of the building lying within their own immediate province.

The cost, however, of finding a material of sufficiently strong texture upon which the workman could set a copy of the plan required, would preclude him from the use of vellum, for we know the value of vellum to have been so great in the Middle Ages, that palimpsests of all kinds remain to-day showing the Mediæval practice of using the same sheet to record, after a rough cleansing, a wholly new series of drawings or inscription. But the stones for the building and the tools with which to work them were at hand. What, then, would be more likely than that an intelligent workman should have cut the plan which would help him in his work directly upon a stone which had been, or eventually would be, incorporated in the buildings. A plan so incised would be readily accessible at all times, and being in no sense official,

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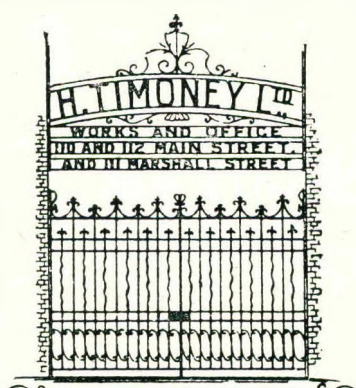


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could be consulted without application to those in authority. No such plans, so far as we are aware, have been discovered in this country; but certain plans still existing, which have been cut on some of the stones of Limoges Cathedral, and a description of which will be found in the sixth volume of "Annales Archeologiques" appear to us to afford some measure of support for such a speculation. The writer of the description of the stones at Limoges tells us that they are partially obliterated by the steps of visitors and of the workmen.

We may hazard the suggestion that these drawings at Limoges may have been set down by some skilled workman for his constant personal and unofficial reference, and that such a practice may have been more or less common during the erection of large buildings, both in other countries and in this. Such a theory is by no means beyond the range of possibilities, though proof placing such beyond question is not at present forthcoming.—"Building News."

### A QUESTION OF WALLPAPERS.

Old people of the present day can probably remember a time when the proper and accepted form for a hall and staircase paper in an ordinary dwelling-house was a paper lined out to represent joints in stonework, and usually "marbled." That was the Early Victorian ideal of the staircase wallpaper. It is curious how history, in these as in greater things, repeats itself. An architect sends us a circular which he has just received from a firm of paperhangers, accompanied by a lithograph of a new paper, which is supposed to supply a long-felt want for "a paper of this nature which should have sufficient dignity to be used on good work." This is a wallpaper ruled off into lines to represent masonry joints, not "marbled" certainly, but in other respects the old idea of the paper in imitation of masonry revived. As a rule, the more we can afford painted walls and the less papering of them there is the better for the hygienic condition of our houses, not to mention other considerations. But, at all events, a paper should look like a wallpaper, and not like something monumental.

### THE BRITISH FIRE PREVENTION COMMITTEE'S FIRE TESTS.

The British Fire Prevention Committee's testing operations comprised fire tests on a series of window openings glazed with "Copperlite" glazing, no panel of glazing exceeding four feet super., and twelve panels being under test for varying periods of sixty minutes and ninety minutes, under the committee's standards. There were further tests with two reinforced concrete doors made for the committee for experimental purposes, and submitted for the committee's standard two-and-a-half hours' high-temperature fire test. Here, again, work that had never before been under official examination was under observation.



**MOSAIC ART.**

Chevalier Professor C. Formilli, of London, who has executed the encaustic paintings at St. Anne's Cathedral, Leeds, gave a lecture at St. Anne's Club, Londonderry, on "The Mosaic in the Christian Art."

Very little, said the lecturer, can be said with precision of the origin of mosaic, but we cannot greatly deviate from the truth if we attribute its birth to some century before Cæsar's time, and the place of its perfection to Greece. The brilliancy of its colour, the intricacy of the pattern, the monumental aspect of the style, admit of no doubt as to its Oriental origin. If Athens taught that art to Rome, Rome taught it to the world, because wherever Rome planted its eagle there mosaic is to be found. If this noble art died out of Rome as a Pagan art, its resurrection there was Christian, bringing with it all the exuberance of colour and the fantastic richness of the East. No doubt one of the greatest of all promoters in the new Christian style was Constantine the Great, who made Byzantium his royal residence, calling it Constantinople. A great many palaces and churches were built during his reign, but the art of mosaic reached the highest point only during the reign of the Emperor Justinian, about 537, when St. Sophia was built by his orders.

It is therefore to the East that we owe more especially the art of mosaic and that of painting; and to Italy the honour of being for centuries the faithful custodian of that inheritance, adding to it as she did the national artistic traditions of the past. The Byzantine school was one of painters more than of marble-workers; they painted with coloured stones instead of with brushes and colours. The mosaic panels in San Vitale of Ravenna, and the angels of the dome of the sepulchre of Galla Placidia, also in Ravenna, as well as the long friezes in Santa Apollinare, are sufficient to prove the assertion.

That superb scheme of colour of Galla Placidia's tomb was soon recognised as such by the great master, Raphael; after his visit to Ravenna he adopted the same scheme for his Loggia in the Vatican. Once this great colour fashion had started nothing could uproot it, although many attempts were made to return to the simplicity and coldness of colour of the Primitive Latin Church. Without the artistic invasion of colour from the East the world would never have seen the glorious St. Mark of Venice, the immortal Ravenna, the basilicas of the Eternal City, nor the gems of Westminster. Besides the importation of the new Christian art another great factor forced the Italians to abandon the old Roman art, and this was the barbarous invasion of the Goths and others, when they cut the old statues to pieces to pave the roads or to build walls of defence; and with the disappearance of the monuments and the false gods, disappeared the art of their fathers, leaving Rome a hideous heap of ruins—a camp of desolation.

But Rome was destined to have another artistic resurrection, and soon became the centre of the Byzantine school of Italy. She absorbed with fanatical joy the religious art of the East, and in that art soon became greater than her teacher.

The lecturer then described the art of the Cosmati or marble-workers. They were not only architects of great repute, colourists as great as Titian, but they were marble-carvers such as the world had never seen before. A notable example of their work in England is the tomb of Edward the Confessor at Westminster, and another important work, although much restored, is a pavement in Canterbury Cathedral. A number of slides of famous examples of the mosaic and Cosmati arts were shown by the lecturer, who concluded with a description of the process by which the encaustic paintings for the Cathedral have been produced.

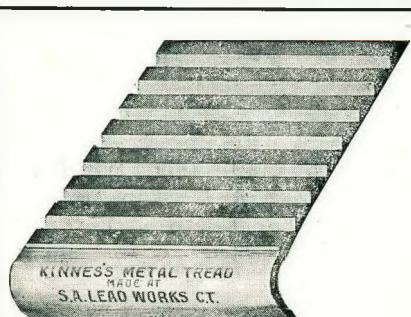
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## PRECAUTIONS AGAINST FIRES.

The following are extracts from a paper read by A. J. Stubbs, M.Inst.C.E., at the Metropolitan Centre of the Institution of Post Office Electrical Engineers:

The first point of importance that attracts one's notice as soon as the subject of fire prevention comes under consideration is the fact that destruction by fire is such absolute waste, without the least or most remote compensatory influence. In the British Isles alone the annual destruction of property is estimated at something approaching seventy million pounds sterling. The fact that a very large proportion of this is covered by insurance does not reduce the seriousness of the losses—the community is poorer whether the merchant, trader, and small householder, or the rich corporation, should happen to pay the bill. National wealth to that amount has been reduced to ashes.

### Loss of Life and Property.

But an even more serious matter is the loss of life that goes hand in hand with this destruction of property. The losses under this head include not only the lives of the unfortunate occupants of the destroyed buildings, but also those of the gallant fellows who go to their rescue or perish in attempts to stop the spread of the fires.

A yet further consideration is that incalculable loss is engendered consequent on the stoppage of business and the resulting loss of work for all classes of citizens.

In a thoughtful and able paper read before the Surveyors' Institute in 1898, Mr. Thos. Blashill, the then Superintending Architect of the London County Council, said: "It is a question whether danger from fire is not increasing in spite of Building Acts. Our buildings are getting more lofty, more closely packed together, and more thickly inhabited. In commercial buildings the rooms are larger and more encumbered with goods in and over which manufacturing processes are carried on. There is more machinery actuated by heat. The timber we use is more easily combustible, fittings are lighter, and everything is kept warmer and drier. All our arrangements for obtaining light, from the lucifer match to gas and mineral oil and electricity, are novel and productive of new dangers. The proportion of window openings to wall space is much increased, and, with the growth of honesty outside, or trustfulness within, shutters have been abandoned. . . . Lifts going through several storeys neutralise the advantage of fire-resisting floors, lighting areas common to different premises do away with the security of the party wall. . . . In fact, the most scrupulously legal building of brick or stone and slate may be no more than a kind of grate in which its internal structure and its contents can be most conveniently burned. So in the Cripplegate fire the progress was about as rapid as, and the

destruction over its limited area no less complete than, in the Great Fire of 1666, and if our arrangements for the extinction of fire had not made immense progress this recent event might have rivalled that great calamity."

### Sources of Risk.

Some of the risks due to construction, planning, and uses of buildings may usefully be mentioned, even if they be practically irremediable.

Windows overlooking narrow streets or areas are an ever-present source of risk. The destruction last year of a telephone exchange in the north was due to the spread of a fire from an adjacent building on the other side of a narrow lane. No doubt spread of fires from this cause would often be retarded or even prevented if reinforced glass were used, provided that it were fitted in iron frames; and fire-resisting shutters might be depended upon to keep out fire for a considerable time. Of course, in all such matters the existence of the device is only the first point; the value lies in its being in order, and being actually used as a regular practice.

There are many post office buildings with wood staircases. Do you know of any where there is a very convenient cupboard beneath? Suspect that cupboard! It is nearly sure to contain combustibles which some evening will be inspected by means of a lighted match—and the means of exit for the night staff above will be a suffocating chamber of smoke or a blazing gap.

Bad construction of flues, stoves, etc., is perhaps not a source of danger in many of our buildings, but it is worth while to realise that there are such possibilities.

Non-existence of a lightning conductor, or position or procedure which jeopardises its continuity, would naturally attract the attention of an electrical engineer.

I think that the use of a heating chamber as a wood store should be deprecated. I have observed such a combination!

### Means of Escape.

Again, where the Office of Works provides special facilities for escape in case of emergency, the construction is probably satisfactory, but such facilities must be kept usable. When travelling, I always make a point of knowing what the hotel fire-escape arrangements are, and a few months ago my inspection of the place to which the "fire escape" notice pointed revealed a small landing packed with chairs, a table, and three or four hip and sponge baths—only just put there, the apologetic representative of the manager told me, because the hotel was so full! Loss of life is probably far greater as a result of panic than from fire itself, and gangways and means of egress must be always considered sacrosanct if the safety of life is at stake. This was the great

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lesson of the terrible Ashe Building fire in New York. There the fact that a "skyscraper" was involved was of little moment; the structural damage was so slight that even the fire itself was not a great factor, but the actual loss of life reached a total of one hundred and forty-five, and there was a heavy roll of those seriously injured. Why? Because exit-doors opened inwards; because there was no clear pre-arranged system of using the very considerable fire-extinguishing facilities, and no instruction of the employees as to their procedure in such an emergency.

The height of the building made a difference for some of the forty victims who, for want of other exit, jumped from the windows; but it was immaterial to ninety-five who never got out of the eighth-floor room in which they were working—some overcome by smoke before they got clear of their branch gangway. Panic and want of gangway killed more than the fire.

#### Hydrants, etc.

Most of our larger buildings are equipped with hydrants and hose. A point in this connection that is well worthy of attention is to have the hose coupling interchangeable with those of the local fire brigade. I am rather inclined to favour permanent coupling of the hose to the hydrant. An obvious objection to this is that in case of the valve being leaky, the hose may be deteriorated, but this may be obviated by having a small tap kept partly open on the outer side of the valve. Then, if leakage occurs, water will drain from the tap and direct attention to the fault. Generally, there is also a tap on the hydrant from which the water buckets can be replenished.

#### At the General Post Office.

It may be worth while briefly to describe the rather exceptional hydrant system at the General Post Office, London. Here the north, west, and east buildings are encircled by a six-inch ring main. Hitherto this main has been fed by steam pumps, but in connection with the development of the power station scheme, these will be replaced by electrically-driven pumps, now being installed at the G.P.O. West. The supply of water is obtained from two entirely separate service mains.

The new plant will consist of an electrically-driven centrifugal fire service pump, capable of discharging two hundred and seventy gallons of water per minute against a pressure of one hundred pounds per square inch. An electrically-controlled hydraulic accumulator will be arranged to start the pump when the pressure falls below one hundred pounds, and stop it when that pressure is restored.

As a stand-by the two new domestic service pumps will be so arranged that they may be connected in series and arranged to discharge into the six-inch main by the operation of a single series parallel valve.

In the event of both pumps being imperative, the supply of water stored in the tanks on the roof of the G.P.O. North can be drawn upon by aid of an automatic non-return valve, which will be fitted between the fire main and the main from the domestic service pumps to the tanks.

The hydrants throughout the buildings are served from the ring main.

#### Automatic Extinguishers.

An interesting resume of the history of automatic sprinklers was given in a paper by Edward V. French, presented before the Congress of Technology, at Massachusetts. He says that the idea originated in England about 1850, and at first consisted of lines of pipes drilled with small holes; the service being by separate mains for each floor, and all the mains being controlled by valves outside the building. I remember those sprinklers and the gibes of the thoughtless that they had to bear. But their possibilities were also early appreciated. Much good work was done in developing the idea, and 1875 saw the first automatic sprinkler.

"The great points of advantage which the automatic sprinklers possess over all other means of fire-fighting are that they are on duty every hour of the day, and every day of the year; the heads which are open are those located just where the fire is; the open heads can operate regardless of smoke or other conditions which would make it difficult for men to reach the seat of the fire. Such protection can cover every nook and corner of a plant and insure that fire starting at any point will be almost instantly met with such a downpour of water as either to extinguish it entirely, or hold it in check within a small area until the last vestige is extinguished by the fire brigade."

It is evident that the requirements are very exacting. The device, fitted near the ceiling and subject to very considerable variations of temperature and of atmospheric conditions, must so effectually

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resist corrosion and any other deteriorating influences that it will not be in the least likely to open when there is no fire; but will yet remain so sensitive that after being years in readiness unused it will respond to the agreed degree of temperature within a period of from thirty to fifty seconds as readily as it would on the day of its first installation.

The ordinary arrangement of the automatic sprinkler head is to have a half-inch diameter orifice normally closed by a valve held in position by an arrangement of levers or links which are held together by a soft solder, melting at a temperature of, say, 160° Fahr. Such a sprinkler will protect an area of eighty to one hundred square feet.

#### Wonderful Development.

The development of the use of sprinklers has been wonderful. They have proved themselves capable not only of extinguishing fire in protected buildings, but of preventing the entry of fire from adjacent buildings, and Mr. French instances a case of a great fire which destroyed a considerable city block and threatened two adjacent protected factories. In one of these the exposure was so severe that the wooden frames and sashes of the exposed windows were burnt out, and the resulting operation of the sprinklers constituted a prime factor in preventing the total destruction of the building, which was actually comparatively slightly damaged by water.

The only consideration of any moment in connection with an outbreak of fire, if there exist any possibilities of extinguishing it, is time. Existence of facilities for dealing with a small outbreak of fire,

and presence on the spot of means of using those facilities at once, would almost abolish need for the wonderful fire-combating system that is such a source of pride and satisfaction to every up-to-date community.

In a very able and interesting paper prepared by Mr. Oatway some years ago he stated that on analysis of the seven hundred and sixteen fires dealt with by the Glasgow Fire Brigade in 1902, and estimated to represent a loss of £189,000, ten fires accounted for seventy-three per cent. of the loss. Thus, given such conditions of prompt attack for those ten fires, as had been possible on the average of the other seven hundred and six, the total loss would have been reduced by over seventy per cent.

Similarly the London County Council experience is that the proportion of serious fires to the total reported is only two or three per cent. It will not be overlooked in this connection that hundreds of outbreaks never reported at all, because taken at the earliest stage, contain the same possibilities of disaster as many a great burn-out, save only in this prime consideration of time.

#### Alarms.

At first sight one might be inclined to question whether there is room for both automatic sprinklers and automatic alarms. If you can depend upon sprinklers to put out the fire, why call the brigade? But a little consideration would show that neither system is so perfect as to exclude the other. One of the most characteristic differences in the conditions of operation of automatic sprinklers as compared with present-day automatic alarms is that the latter are "compensated"—that is, the only systems that count provide for operation of the alarm on a sudden rise of temperature to an agreed amount, whereas sprinklers depend for their operation upon the rise of the temperature to a specified thermometer reading. The importance of this, especially in a climate where the range of temperature is very great, is obvious. For example, the operating point of a sprinkler in a room must obviously be fixed safely above the maximum temperature to which the air at ceiling level can possibly be raised in any normal conditions. The temperature usually adopted is 160° Fahr. It is clear, therefore, that the promptness with which a sprinkler will be brought into operation in the winter will compare very unfavourably with its response in the same room in the height of summer, as in either case the temperature of the whole room must be so raised that the ceiling temperature is 160° Fahr. On the other hand, the compensated alarm device is so arranged that, no matter what the normal temperature may be, a sudden rise of, say, 25° Fahr. will operate the alarm. At the same time, it is important that alarm shall be given when a dangerous heat is being generated quite slowly by a smouldering fire. This can readily be provided for.

#### Minor Appliances for First Aid.

We have now to turn our attention to a few "first-aid" appliances.

(i.) Water Buckets.—The author held very definitely that these should not be placed in switch-rooms, test-rooms, etc., where swamping of wires on slight necessity might have very disastrous results in regard to breakdown of circuits by water. Their

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sphere is in corridors, offices, linemen's rooms, etc. Wherever it is proper that they be installed it is also proper that they be placed in accessible positions and that they be charged with water. Some time ago, I noticed some fine-looking buckets marked "Fire" hanging over the doors of some rooms—a peculiarly handy position in an emergency!—but the occupants of the room had not observed their existence, and it is probable that they had been strangers to water since they were placed in position. In that building, too, I fancy that taps over lavatory basins present the only source of water supply nearer than the basement.

(ii.) Sand Buckets.—In dealing with fire we need to recognise that force of impact of the extinguishing matter is always a very important factor in its effectiveness. This is particularly the case with sand. Probably a few handfuls correctly thrown will be more effectual than a whole bucketful poured out, because it can rarely happen that the sand will stay where it is wanted. This consideration has no doubt been the reason for the adoption in some cases of large sand buckets provided with scoops or cups; but, on the whole, I am inclined to think that the engineering department representation on this point is best—the use of small buckets, the weight, including sand, not to exceed 16 lb. Such a bucket gives a fair chance of effective use if it be necessary to work against an inaccessible point, and at the same time is equally convenient for use of the sand by handfuls. It is better to have a group of, say, four small buckets than a smaller number of large ones—especially since under excitement the first shot is likely to be a miss! Mr. Harold Sumner, in a very able paper on protection of factories, recommends that the sand be slightly moist. The idea appeals to me, but I am not clear how it would be practicable to keep the sand in that condition.

(iii.) Asbestos Cloths.—I have never been able to picture any possible effective use in an exchange building for a large asbestos sheet. I can picture one acting as a draught-producer by partial enclosure of a blaze, or conceivably as a fire-screen, but never as a fire-fighter. We issue no specific instructions on the use of asbestos cloths, but personally I think always of a small cloth (say, three feet square, as a maximum) wrapped round one's arm and hand, serving as a device for punching out an incipient fire; or, possibly (where there is no risk of spreading burning material) the cloth might be useful for beating out a smouldering fire.

(iv.) Powder Extinguishers.—The idea of chemical extinguishers—whether powder or liquid—is the production at the seat of the fire of an anti-combustion gas. The general composition of the various powder extinguishers on the market is, of course, a trade secret; but the following analysis sufficiently closely indicates the character of the materials:—

	Parts.
Sodium bicarbonate (with a little sodium carbonate and common salt) ...	52
Aluminium and magnesium silicate ...	32
Chalk ...	8
Water (free and combined) ...	8

100

The fire-killing property of those powders is unquestionable, providing that they can be applied to be in efficient contact with the heat.

(v.) Liquid Extinguishers.—These are really small self-acting fire-engines, having a fixed capacity and a pressure which ranges between ninety and one hundred and fifty pounds per square inch. They consist essentially of containers (of steel or copper) filled with water and bicarbonate of soda, the extinguishing power of which is many times (say ten to twelve times) greater than that of water. The device is brought into operation by the automatic liberation of acid into the solution. The resulting gas gives the necessary pressure to expel the solution. The great advantages of these chemical fire engines, from the engineering department standpoint, are that (1) as compared with hand fire engines they can be worked single-handed; (2) the efficiency of the liquid may enable the extinction of a fire to be effected with much less damage to electrical plant; (3) in addition, as compared with the more ordinary "first-aid" devices (water buckets or sand buckets), it is dirigible, so that every pint tells; and (4) the liquid is applied under considerable pressure.

(vi.) Hand Fire Engines.—No doubt hand fire engines have a sphere of usefulness, but I must admit that they do not appear to me to be a very valuable first-aid appliance for ordinary conditions in post offices. I fancy that most men not specially instructed (which is the case with most men) would like to have a minute or two with the engine before starting to use it against a real fire. It seems quite likely also that if a man, after discovering a fire, has to go to seek another to help him work the engine, and together they find out how, by that time one of them had better go and call the brigade while his mate watches the engine and the fire!

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### THE NEW GRANITE PAVEMENT IN LONDON.

Whatever may be the result of the experiment being made by the Holborn Borough Council on the main east and west thoroughfare from Kingsway westward, the authorities and those who are doing the work are carrying it out in a very careful manner. The procedure is very different from the old method of setting the old "stone setts," with which roads used to be paved, the stones being laid on their sides, so that whilst the granite crust is not so thick, there are fewer joints, and the weight of a single sett is distributed over a larger area of the foundation. Those in business along the line of route are wondering whether they will find any difference in the noise arising from the traffic. The pavement laid at the junction of Tottenham Court Road, Charing Cross Road, and Oxford Street has now been in use for some months. This is a position where there is a very heavy and mixed vehicular traffic, and the granite setts do not appear to be very seriously worn at their edges. The modern method of making the wearing face of the setts flat, and by joining them together as closely as possible to get a level surface instead of the old method of leaving them some distance apart, "to let the horses get a grip," is more likely to result in a longer life to the road, and the deep concrete foundation and flat, broad bearing of the setts will help to prevent the formation of pot-holes. At the crossing mentioned there appear to be no pot-holes at present. The new roadway is being laid with great care, the surface being carefully tested with a "straight-edge" to see whether there are any depressions or bumps, defects being at once remedied. There is every prospect of a good object lesson being provided by this experiment, which will be carefully watched.—"The Architects' and Builders' Journal."

### REVIEW.

BUILDING CONSTRUCTION. ADVANCED COURSE.  
CHARLES F. MITCHELL. Seventh Edition, 1912.  
London: Batsford. 6s.

The continued popularity of the text book is evidenced by the issue of a seventh edition, comprising the forty-sixth thousandth copy. Each edition marked an increase in the bulk of the book, and we are not entirely sure that this is a step in the right direction. We all remember the text book of our student days, the bulky Gwilt and Revington, and it is interesting to note as a reminder of the compilers of such text books that the modern tendency is in the direction of compression and greater portability; the newer ideas of printing on India paper have been adopted by the American publishers of professional text books with results affording greater convenience in handling to the reader. This by the way. The value of the book has been enhanced by the inclusion of the latest information in regard to reinforced concrete and skeleton-framed regulations, the calculations throughout the book have been rechecked, additional examples have been incorporated, and the text brought up to date, and we know of no better general guide to modern practice in building construction. The new issue will worthily maintain the established reputation of the author.

### SENS CATHEDRAL STRUCK BY LIGHTNING.

The principal tower of Sens Cathedral was struck by lightning recently. The cross was loosened and a stone balustrade broken, the damage done being estimated at £600.

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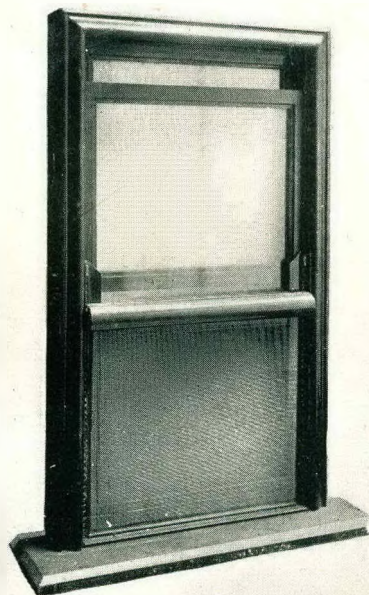
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#### WOMEN AS ARCHITECTS.

The alleged suitability of women as architects is again under discussion in the daily press, as the result of what is called "Lady Osborne Morgan's criticism of male architects" in the course of the inaugural ceremony of the Arts and Crafts Exhibition in connection with the National Eisteddfod at Wrexham. Lady Osborne Morgan, in congratulating the promoters on the success of the exhibition, is reported to have said, referring to the designs for workmen's cottages in the competition promoted by the Welsh Housing Association: "The profession of architecture offers strong inducements to women. The knowledge and experience of the home should enable women to make it a profitable as well as a useful profession, for, with all due deference to the lords of creation, I do not think male architects quite understand the construction of a larder." Probably these remarks were not made seriously, but a point of the criticism, implying that the construction of a house consists in the designing of larders, is being endorsed by writers in the daily press. A well-known provincial journal, at all events, commenting on these remarks, appears to think that in the great majority of the houses put up as the habitations of the lower middle class the needs of women receive strikingly inadequate consideration: "Houses rented at from twenty-four to thirty pounds a year have no cupboards worth talking about," implying, of course, that the male architect is at fault, whereas no architect has anything to do with the great majority of these buildings. It is true that the real author of these structures—the speculative builder—is mentioned later on, but the writer's confusion in facts is shown when he says: "Garden cities in various parts of the country are showing that conditions can be improved with no greater demands on space or funds. . . . Possibly our architects of Suburbia will follow the example. . . . The existing state of things might easily be improved by women architects, presuming that they had domestic knowledge and experience on which to base their designs." We need scarcely point out that conditions have improved in garden

cities because of the increasing employment of architects, and we doubt whether women architects, even with domestic knowledge and experience, would be able to improve on the existing state of things, though we might welcome the substitution of the woman architect for our old friend the jerry-builder. —"The Builder."

#### THE PUBLIC PRESS AND ARCHITECTURE.

We ("The Builder") should like to offer our congratulations to our contemporary the "Daily Chronicle" upon a recent notice of modern architecture, entitled "In London Streets," from the pen of Mr. Lewis Hind. In our last issue we deplored the lack of interest displayed by the public towards architectural effort, and advocated the need of intelligent outside criticism. It is seldom that the daily newspaper mentions modern architecture, and, when it does, its opinion is entirely guided by the prestige of the architect. Thus we even permitted ourselves to say that the professional art critic was more at home in the gallery than in the street. Limited to specialists as architectural criticism now is, it revolves in an ever narrowing circle. But a little while since and Wren was the master. Then it was Michelangelo. To-day it would seem to be Pythios.

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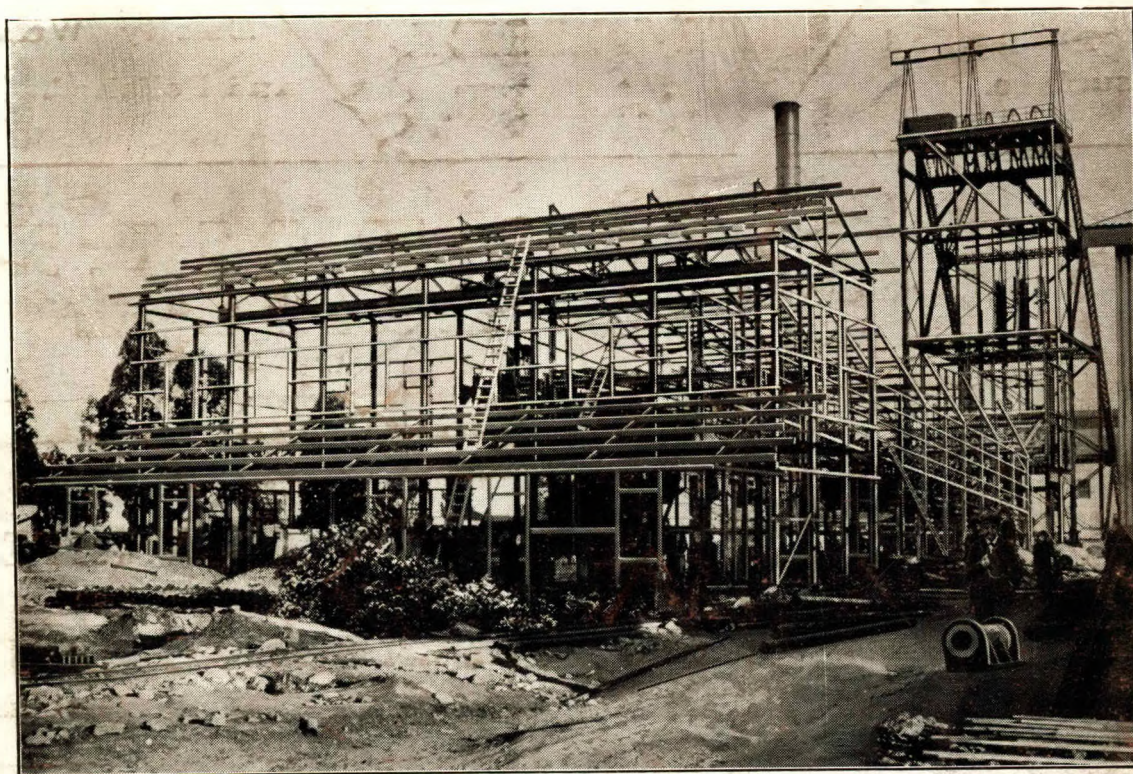
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