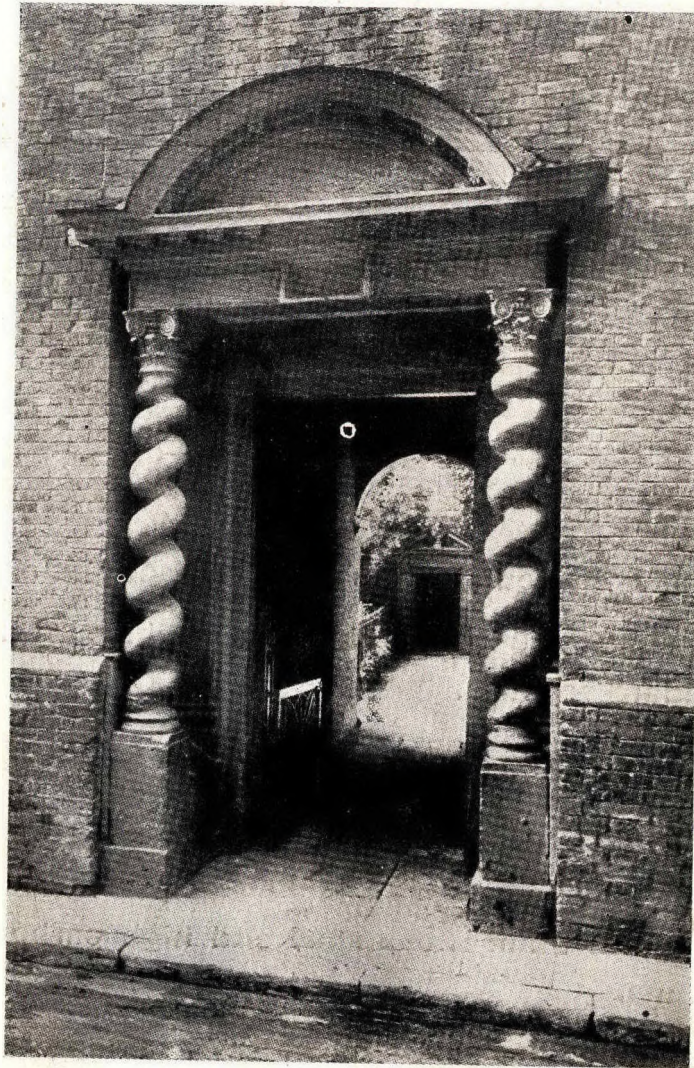


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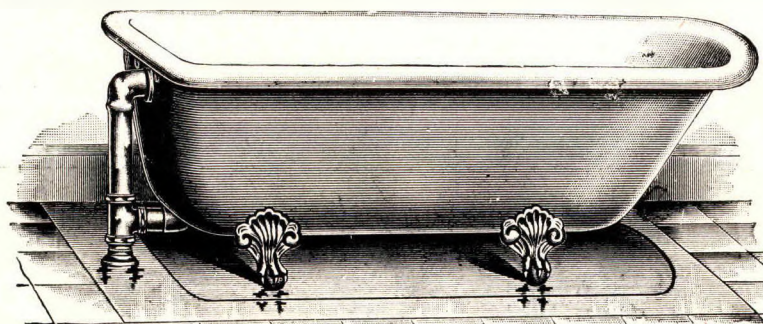
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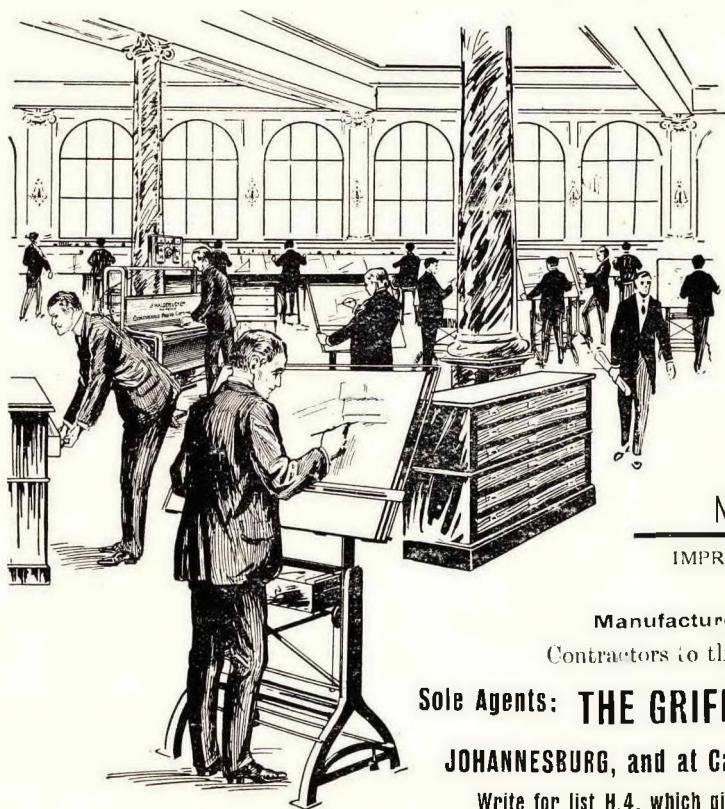
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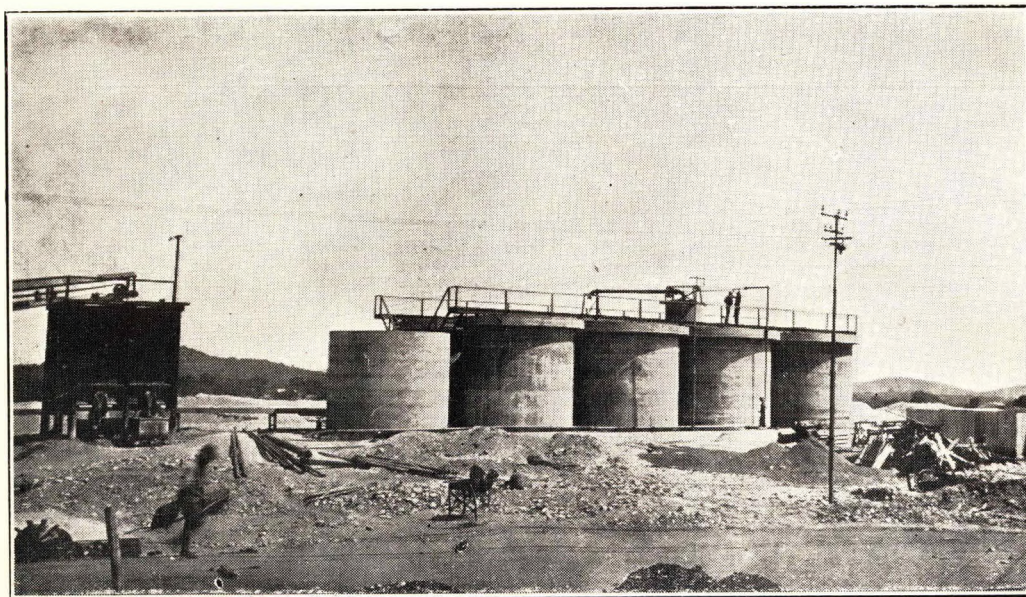
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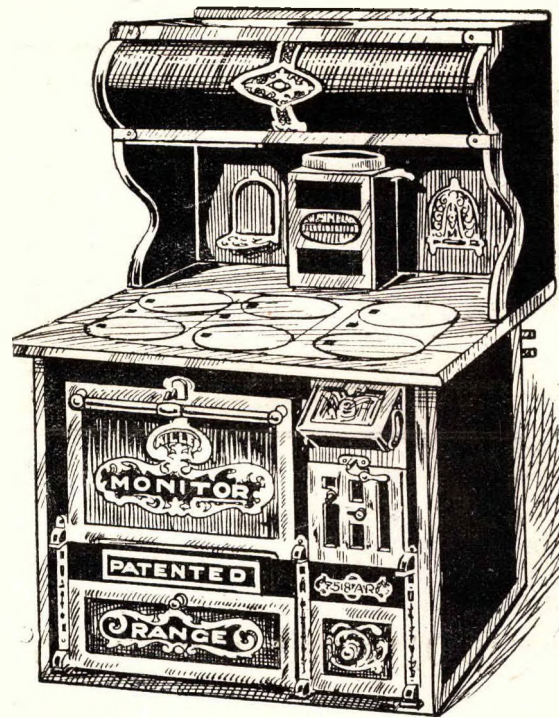
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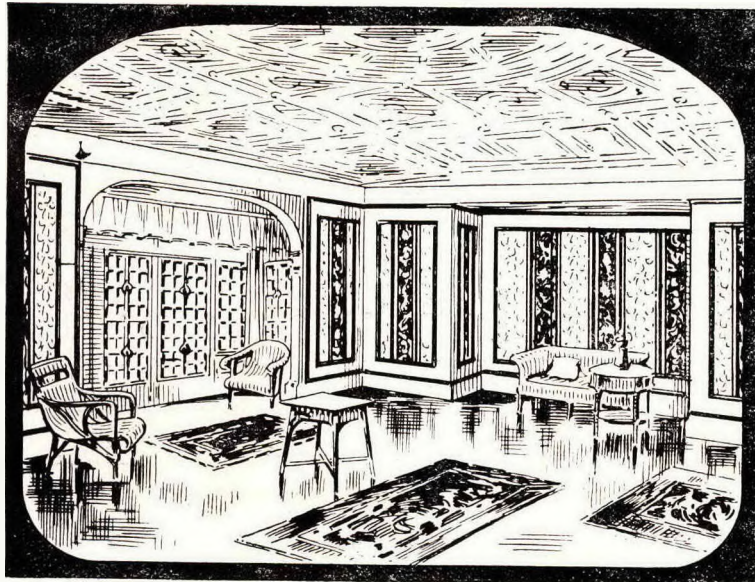
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ANNUAL GENERAL MEETING.

The ninth annual general meeting of the Association of Transvaal Architects was held in the Board Room, Exploration Buildings, Johannesburg, on Saturday, February 22nd, at 8 p.m.

The President, Mr. M. J. Harris, took the chair, and among those present were the Members of Council in addition to some 20 members of the Association.

The President, in opening the proceedings, said he was very pleased to see that a quorum was present,

and expressed a cordial welcome to all those who had come to attend the meeting.

Minutes.—The Registrar then read the Minutes of the eighth annual general meeting, held on the 5th April, 1918, which were approved and confirmed.

Accounts and Balance Sheet.—The Balance Sheet having been circulated to members, the President called on the Registrar to read the Auditor's certificate, this being done, Mr. Burton moved the adoption of the Accounts and Balance Sheet. Mr. Sinclair seconded, and upon the motion being put to the meeting the Accounts and Balance Sheet were unanimously adopted.

Council's Report.—The President drew attention to a slight though not unimportant omission in the report in respect to the proceedings of the Architects' Conference held in Capetown. On page 6 of the report, sub-section (g) The Conference in Capetown in considering that clause rather strengthened it by inserting in front the words: "To establish a professional defence fund for the assistance," etc. That was the exact form in which it was passed.

Mr. Waugh asked why is the Act described as a Transvaal Provincial Ordinance, as given at the beginning of the report, and stated that the Act under which we work is an Act of Parliament and not an Ordinance of the Transvaal Provincial Legislature, and it is not correct.

Some discussion followed as to whether Ordinance or Act were the correct title, Messrs. Fleming, McCubbin and Sinclair speaking on the subject. The President ruled it a point for the incoming Council, before drawing up the next annual report.

Mr. H. Porter proposed and Mr. Kroll seconded that the Council's report be adopted.

Mr. Waugh said: "I wish to thank you for the reference made about me under the heading of 'Journal,' and he thought some reference should have been made to the work of Mr. Sinclair as Business Manager before Mr. Carpenter took over those duties, also he would like to express the appreciation of the vast amount of work the Council had got through during the year; the fact that 36 meetings had been held, an average of three a month, showed the duties had been anything but light, and he wished to express very hearty thanks for the work the Council had done. (Applause.)

The President, in reply, stated that in preparing the report the Council had adopted it as a principle that no sitting member of Council should be referred to in terms of praise, and therefore Mr. Sinclair, with others, was deprived of any word of thanks; but it had taken steps to record certain votes of thanks to individual Members of Council.

Mr. Porter drew attention to the number of members from whom arrear subscriptions could not be recovered.

The President asked for the report to be disposed of first, as Mr. Porter's question arose from the balance sheet.

The adoption of the report was carried unanimously.

The President thought it only right to allow Mr. Porter to put his question now, and asked Mr. Burton, Chairman of the Finance Committee, to explain.

Mr. Burton explained that the question of sub-

scriptions overdue had received a great amount of attention during the past year, and that it had been very difficult to get men to pay during war time, nevertheless they were in the happy position of having more subscription paid up to date than in any time during the past six years. At the same time, there were many from whom it had been impossible to obtain subscriptions at all. Eleven members of the Association, addresses unknown (names read), were indebted to the Association to the amount of £254 2s. Thirteen members on active service whose indebtedness totals £134 16s., and although many of these owed money before going on active service, the Council could not press for it at this time.

The President, in speaking on this subject, remarked on the tremendous improvement in the business system of the Association, and considered the outlook very hopeful indeed. Business system has been badly wanted in the Association for some years, and we are reaping to-day the harvest of the seeds of neglect sown for at least six years back.

Election of President and Members of Council.—

The President announced that no further nominations had been received to the list of names issued by the retiring Council. Foremost on that list was the name of the President, and the choice of the Association had most worthily fallen upon Mr. Burton, whom he had great pleasure in declaring elected President for the ensuing year. Mr. Sinclair and Mr. Powers were duly elected senior and junior Vice-Presidents respectively, and the retiring Council re-elected with the addition of Mr. Allen Wilson, who had been nominated to fill the vacancy caused by the resignation of Mr. Bowie (Springs).

The newly-elected President gracefully acknowledged the confidence accorded to him by the members of the Association, and Mr. Cowin replied on behalf of Members of Council.

Auditors.—The retiring Auditors, Messrs. Aiken and Carter, were re-elected, the fee of £6 6s. being the same as the year previously.

National War Memorial.—Mr. N. T. Cowin introduced the subject of a National War Memorial, and that it should be considered with as little delay as possible. It was a question of very great importance to show future generations what we have endured, fought for and achieved. The speaker outlined a number of suggestions that had been made on the subject, and urged that whatever scheme was adopted it should be of a monumental character and that the expenditure should be lavish.

A considerable discussion followed, and Mr. Waugh put forward the following motions:—

- (a) That any memorial to be erected in commemoration of the great war should be of such a character that the monumental and visible nature of the memorial should take precedence of any utilitarian or practical use with which the memorial may be associated.
- (b) That each town have its own memorial, and that the Government vote for war memorials should be given on a basis pro rata to the amount contributed by each such town.
- (c) That all memorials be in some open public and central space in each town so as to continually remind succeeding generations of the terrible and heroic sacrifice made by our own men and the Allies.
- (d) That these resolutions be forwarded to H.E. the Governor-General and the Hon. the Prime Minister, and also to the Municipal Councils of the Transvaal.

After further discussion on the subject and various amendments were fully discussed. Mr. Waugh's proposals were adopted and a recommendation to the Council to send them forward to the Government.

Mr. Sinclair proposed a vote of thanks to the retiring Members of Council, and also a special vote of thanks to the Editor of the Journal, as he thought the Journal had progressed most satisfactorily. Carried.

Mr. Powers thanked Mr. Sinclair for his remarks re the Journal, and at the same time wished to acknowledge the great amount of assistance received by Messrs. Howden and Waugh as Assistant Editors, and also from Mr. Carpenter, who had so successfully looked after the business side of the Journal. The success of the Journal was really due to the contributors, and as Editor he greatly appreciated the articles that had come from various members of the Association.

Afforestation.—Mr. Waugh proposed "That this Association address the Minister of Agriculture that it is deeply impressed with the necessity of a vigorous policy of national afforestation in view of the increasing depletion of the world's timber resources and the difficulty that arises in this country from the shortage of timber during periods of war." Agreed.

Before the Meeting terminated Mr. Veale proposed a vote of thanks to those generous donors to the Benevolent Fund during the past year, and especially to Mr. Stucke, who had contributed £100. Carried unanimously.

A LESSON IN PROFESSIONAL ETHICS.

The Pretoria Practice Committee recently considered a matter of professional ethics which was debated at length, and the subject matter and conclusion arrived at may serve as a lesson on the advantage of co-operation and unity in our profession. An architect prepared plans and a specification for a house for a client, who elected to call for tenders and supervise the work himself. As frequently happens in a case of this kind, the client was soon in trouble with his contractor, and appealed to the architect to inspect the building and report on it. This the architect refused to do on the ground that in his opinion the client had wished to evade payment of the full fee for supervision, and he (the architect) was not justified in assisting him to derive some measure of satisfaction from and considerable saving to his pocket by an inspection for a nominal fee. The client thereupon approached another architect, who inspected the building, well knowing that this work had been refused by the architect who had been employed at the outset. This action gave rise to considerable ill-feeling, and it culminated in a reference to the local Practice Committee for a ruling for future guidance. One knows full well that under our scale of charges the fee allocated for supervision is generous compared with that for the preparation of working drawings, specification and details. In other words, the supervision item is the best paying part of the bargain, and to cut it out means taking "the gilt off the ginger bread." Are we right in countenancing such a practice? Surely not, and if we as a body of architects stand together and reject the appeals of the close-fisted, but by no means impecunious client, we shall be the gainers. An individual who can arrange to finance a building understanding can, *ipso facto*, find the money to pay the architect's fees for full supervision, and in these times of fair wages and trade rights we must be prepared to fight for our dues and insist on getting them on pain of gradual oblivion.

This finally was the view of the Pretoria Practice Committee, and the resolution affirming that was to the effect that no architect in the future, without first submitting his case to the Committee for consideration, shall undertake to report on a building in progress where the client had refused to engage the services of an architect for general supervision.

Another case in point arose shortly after this resolution was passed, and the client was much perturbed on being told by the architect he had approached that the proposed inspection of his building must await the decision of the local Practice Committee, to whom it must be referred. The inspection was sanctioned by the Committee in this instance, because it transpired

that the applicant had been in communication with an architect in this connection some time previous to the passing of the resolution. It is, however, the determination of the Pretoria Practice Committee to take up a strong attitude on this question, and they have the entire support of the local members of our profession, and expect the co-operation of our confreres practising elsewhere, so that any assistance to a recalcitrant client similarly placed to these already mentioned will not be forthcoming from architects at any rate.

N. T. COWIN.

MAKER OR MANUFACTURER.

By G. W. NICOLAY.

In the old days when a poet was called a "maker," that is, an inventor, the use of books was little relied upon in the designing of buildings. And thinking of this, the modern "practice" as it is called presents a difference as great as it is interesting.

Not only are books (good and cheap) abundant, but the habit of men nowadays inclines to such reliance upon them as is certain to fetter even if it does not destroy what remnants of thoughtfulness and originality remain with us.

It is true that the earnest study of the best buildings is the surest method of learning both how to design and how to construct; but that study must be prosecuted on the buildings, not on drawings of them, if it is to be fruitful and be directed (if the expression may serve) to the spirit of the buildings perhaps more than to their physical component parts. Or, in other words, to the successful appeal they make to the student, whether simple or profound in its nature, which imparts to him what will grow to inspiration in the time to come.

And yet though there are many who study in this way, how very many more study in quite another way, namely, by taking a drawing that pleases them and—getting as near that as they can? Then to proceed to more similar study, or become convinced that such cribbing is sufficient to content them for their life's work.

There are many reasons for this, of which it may suffice to name the rapidity with which work is generally expected to be done and consequent liking for easy methods which appear safe.

There was a time no doubt when the study of buildings except for one thing, tradition namely, was the only way of learning, and from this a most impor-

tant result appeared. The student was always well informed early in life of the general methods which he would have at his disposal when he was entrusted with the design of a building—a matter of great moment to him.

It is little more than a hundred years since this was the case. What a change has taken place during that period! We can now find "experts" to produce most faithful reproductions of admired architecture. Not only the form, but the colour; aye, and even the texture quite like the old stuff. Something of the spirit of it, too, though mostly so infirm and decayed that it scarce retains even the semblance of the spirit long since departed.

The venerable ruins of the past which, in spite of our wish to go forward, inspire us still and hold us firmly, will continue to do so for a long while yet. Many regard them with such veneration as to think they should not be touched even for repairs, though they may be perishing. Enthusiasts have not hesitated to tell us that we have no right to touch them, and many such extravagant statements have been, are being, and will continue to be made. Possibly the idea is that they shall remain as a sort of intellectual quarries (as indeed many have been used as veritable stone quarries) for use as museums of sorts for picnic parties when the roofs have fallen in, or (as the saying is) something.

But the student must discern clearly between archaeology and architecture. If he wants to become an archaeologist he may of course study with advantage every detail not only of form and effect, but of use and purpose. But if his aim is architecture, his study of existing buildings should be strictly confined to what is applicable or he thinks is applicable to his own work, and he will follow this up by the study of the works of living men who have successfully applied the results of similar study to the erection of notable buildings.

And it has always been the same, except during those brief periods when seeming stagnation syncronates with great wealth and luxury. At such times extravagance, redundancy and lavish expenditure will satisfy the general taste, and sooner than the reserve and economy characterises the best work, both ancient and modern; and poor or even bad designs be enthusiastically received, provided they have a profusion of expensive work of all kinds.

But it is admitted that there are, and perhaps always have been, two distinct classes of designers—makers and manufacturers, and so we must decide as well as we can whether we will be the former or the latter, and our study of buildings, whether ancient or

modern, will be for architecture or archaeology as the case may be.

And in this connection it is not necessary to put any limit of date as to what is worthy of study, because all times have produced works capable of imparting inspiration both to the great and lesser designers.

The romance and glamour attached to ancient works from Egypt to Northern Europe is undeniable. Who can even look at a photograph of an Egyptian wall covered with formal sculpture or engraving of remote antiquity; the long procession of captives in the triumphs of the victorious Pharaohs; the quaint conventional representations of gardens with fruit trees and rivers with fish and birds about; or gaze finally on the funeral ceremonies with which the obsequies of the times were accompanied with the final departure of the ship carrying the soul to its place of rest and refreshment, and remain untouched, uninterested?

Who can with the same convenient but very inadequate means take in imagination his seat in the vast circuit of a Greek theatre and allow, as it were in a dream, those intellectual men and women of ancient days to take their places about him, bent on the criticism of some new comedy and put the photograph down without a feeling of disappointment that the players did not appear?

Or just one more. Could any apprehensive person contemplate for a while one of those ruins of Northern Europe, such a ruin as that at Glastonbury, with a cold, uninterested gaze, wondering how it happens that a lot of stone which might be useful somewhere else was allowed to incumber the ground?

And yet it is probably safe to assert that prior to the nineteenth century nothing of that sort would have made any one study or make use of what they saw for modern use.

What we call the "Renaissance" was not an attempt of that kind. It may be more properly considered as a work of reformation, of correcting and putting in order the "practice" of that architecture which was considered properly indigenous to Italy. The interest which some of the greatest painters took in this work is sufficient reason for the enthusiasm which accompanied the movement and for the acceptance of the results achieved as patterns for the most important works even where the type was exotic. The methods of the ancients had never become extinct in Italy, nor is it likely they ever will. Yet the influence of the less regular forms which had arisen out of an attempt—and a very successful attempt—to express the sentiments and provide for the more simple and more rural habits of the great majority of the people

of Italy is likely to maintain its hold upon us perhaps longer than that of the regular and rather cold forms of the so-called grand manner.

It is not easy to state very exactly what led to the movement known as the "Gothic revival," but it was probably the work chiefly of antiquaries. By the middle of the eighteenth century all the known "classic" authors had been studied so carefully that little remained to be extracted from them, and it must be conceded that the architecture which that study had assisted to encourage had not in general been so inspiring as might have been expected. In England, at all events, poets, historians, antiquaries, archaeologists, and generally people of romance conspired to bring it about, and it may be justly described as an attempt similar to the Italian movement described above, namely, an attempt to correct and encourage the native method.

However this may be, in modern work, the work of to-day, the method or style as we say, is only the medium, the material in which the imagination of the designer is exhibited or the assemblage of chips and excerpts by which the manufacture of the design is accomplished.

And it is the object of this brief note to direct attention to the two methods of design here set forth and to suggest the vast advantage to architecture which would accrue if the former method could universally be adhered to.

The work of the maker or inventor is similar to plastic work which is generally formed from the rough lump of material, modelled, corrected, and refined until the perfect result is obtained. So the architect prepares his sketch, the rough base of his design, models his contours, whether horizontal (of the plan) or vertical (of the elevations and sections) and then in his general details corrects, and in his full size profiles refines his work until the perfect result is obtained. That is a broad description of the manner of an inventor, and if the mind of the man is the master of the design it can scarcely fail of success.

On the other hand, the manufacturer or adaptor begins by surrendering his identity; the books containing "his" ideals are referred to continually; he gathers the thoughts of others which, though he sees the results of them, he can hardly understand or control as if they were his own, and he succeeds easily in putting together a "decent thing" or knocking out something useful, and that is about all he ever reaches, because the work is not sufficiently difficult to call up his best talents or energy.

Those who consider architecture as an art, and there are few who would like, at all events theoretically, to degrade it from that to a mechanism, will strive to work at it as artists, as inventors and thinkers, whatever technical methods they adopt, and become "makers."

Those who regard it as a mechanical assemblage of suitable arrangements for mere convenience of building will use the second method and working "by the book" quite regardless (though perhaps from good modest motives) of that high aim and endeavour which spurs the lover of art (though he may be an egoist) to spare no pains to make his work the reflection of his own thoughts and the embodiment of the offspring of his own mind, will become a manufacturer.

A JUDGMENT ON THE PROFESSIONAL TARIFF.

This case was heard at Johannesburg on November 22nd last in the Magistrate's Civil Court, before Mr. J. Young. The plaintiff had engaged an architect to prepare plans and quantities for a dwelling-house for his own occupation, and had entered into a contract with a contractor for the erection of the building. At this stage the defendant, occupying a site adjoining, and wishing to preserve his privacy, made representations to the plaintiff, who agreed, after discussion, to abandon the work. It was a condition of the abandonment that defendant should reimburse the plaintiff his expenses incurred towards the architect and contractor up to the time of the abandonment. The plaintiff paid the architect £154 5s., being the amount of his account, made up as follows:—

Three per cent. on the contract sum for sketch plans, working drawings and calling tenders.

Two and a half per cent. for quantities, with 10 guineas for surveys and sundry services, while a rebate of 15 guineas was made in consideration that some part of the work done would be of assistance in carrying out an altered scheme on another site. The defendant tendered £64 5s. as reasonable remuneration for the architect's work. The plaintiff now sued for the balance, viz., £90.

In giving judgment Mr. J. Young said that there was no question as to the agreement between the parties; the only question was whether the charges made by the architect were reasonable. The defendant's main point had been that the work done for the first site was not abandoned or should never have been abandoned, but could have been applied directly to the

site which the plaintiff ultimately selected; that plaintiff and his architect were in fact unreasonable in not so applying the work. In the opinion of the Magistrate the Court could not regard plaintiff or his architect as unreasonable in this respect. Once the first site was abandoned the plaintiff was not obliged to keep to the original plans, but was free to take any course unless the site and aspect of the site ultimately chosen was similar to the first site. But, as a matter of fact, the sites were very dissimilar in level, in character, in outlook, and in approach.

As regards the reasonableness of the architect's charges, these were in accordance with the tariff laid down by the bye-laws of the Association of Transvaal Architects, and were supported by the detailed evidence of the work actually done, and the time expended upon it. Where the Association had laid down a tariff, that tariff should be adhered to, and, generally speaking, an architect was entitled to payment in accordance with that tariff. But the Court had a discretion in these matters and would award only reasonable remuneration in circumstances where in view of the services actually rendered by the architect the tariff rates were clearly excessive; otherwise the Court would not depart from the tariff.

In the present case the Court, with all the evidence before it as to the nature of the work done and the time necessarily spent on such work, could say definitely that the remuneration allowed was strictly fair and reasonable. The architect was fully entitled to the amount which had been paid him by the plaintiff in accordance with the tariff.

There would be judgment for plaintiff for the amount claimed, with costs.

THE ASSOCIATION OF TRANSVAAL ARCHITECTS.

(Incorporated under the Architects' Private Act, 1909.)

Qualifying Examination.

A qualifying examination for registration as an Architect and membership of this Association will be held in Johannesburg on or about the 15th of May next.

Full particulars may be obtained on application to the Registrar.

By Order of Council,

M. K. CARPENTER,

P.O. Box 2266,

Johannesburg.

Registrar.

REVIEW OF ARCHITECTURAL JOURNALS.

It is only natural that the current journals should be devoting most of their time in elucidating the several problems connected with Town Planning, housing and war memorials, all subjects directly connected with after-war problems, and it is further only right that architects should be the leaders of any movements in these directions, and the application made to the Government to permit the return of all architects now at the front is the first and most important step to be taken as some of the correspondents contend.

One correspondent at the front puts his case very clearly, for four years he has been at the front, his practice has passed to other men, his former clients have formed new associations, he himself has become rusty, huge schemes of housing are in the air, is he to get a chance or are all these schemes to be fixed up before he is demobilised, if all this happens he will be penalised by his patriotism.

Another correspondent deprecates the appointment of architects for such schemes while the younger men are serving in the forces, our soldier-architects comprise many men of brilliant talent, and on that ground alone their exclusion from such important work would be deplorable.



As a result of the difficulties of carrying on building work during the war the Government have had reason to practically create new forms of contract, and whereas we were in the habit of confining our contracts to lump sum and quantity contracts, they now enumerate them as follows:—

1. Lump sum or fixed price.
2. Schedule of rates.
3. Cost, plus profit on sliding scale, increasing with economy, with or without upward limit.
4. Cost, plus fixed amount of profit.
5. Cost, plus percentage.

It is well to note that No. 5 met with most approval in spite of the objection realised by them of its being a direct incentive to run up the cost of the work.



In writing on war memorials a correspondent submits that one of the greatest of the horrors associated with warfare is the inevitable plethora of memorials and monuments which follow closely in its train, and equally inevitably the existing public monuments are hung or grafted on to schemes of very questionable taste, with the clever object, no doubt, that the value of the historical building will provide eye-wash or dis-

cussion sufficient to blind the public as to the side issues of the proposed schemes. Could it not be considered of national importance that all such schemes should be shelved automatically for five years and then those only which had stood the test be permitted to be executed. In turn, the National Gallery, Trafalgar Square, and above all, the Abbey, are grafted on to stocks of wild thorn or oats, and the sentimental value exploited to gloss over the most appalling gingerbread or quasi-Gothic gewgaws which the wit of man can devise. The Abbey is an expression of medieval life—a crystallisation of a remote period; its reproduction, even in its immediate neighbourhood, would no more be an expression of present-day life and thoughts than would be the Pyramids. The only use we can see for the perpetration of these inane ideas is that they will be a very useful object-lesson to our immediate followers.



An American architect, writing on a Professional Code of Ethics, sees no reason why the following codes should not be sufficient, viz.:—

1. Do unto others as you would have them do unto you.
2. Be a self-respecting gentleman in every act of life.
3. Be a conscientious, faithful business man in all your dealings with clients, builders and associates.
4. Give everybody a square deal.

"What more is there to say?" he says. "The architect who conscientiously carried out the foregoing can solicit work, advertise, guarantee his contracts, act as a builder, finance an operation if he has the means and ability, roll up his sleeves and go into competition of any sort, sell his services for cash or its equivalent just because he likes the job, and yet be self-respecting, professional and square with the world and all about him. Is it not about time that we admitted that is just what we are doing now, that these four comprise the duty of man towards man, and these duties are no more specialised in the case of architecture than they are in any other calling, and that professionalism, after all, is fundamentally the golden rule and a square deal."



During the period of inactivity in the legitimate exercise of our profession, said Mr. Henry T. Hare, in the course of his presidential address to the R.I.B.A., we are taking the opportunity of enquiring into the status of the architect. It is felt that, although the course of study and attainment required to equip an architect to carry out his duties efficiently

is at least as severe as that required for other professions, from many causes the general public do not appreciate his position adequately. A very large amount of building is carried on either without an architect or under an entirely unqualified practitioner, thus bringing the profession into disrepute and leading to many abuses. The policy of the R.I.B.A. has been for many years to insist upon a very thorough course of training and education to qualify for membership, but unfortunately a large number of architects do not submit themselves to this course, and consequently do not belong to us; indeed the difficulty of admission may be said to act as a deterrent. Is there any means by which the building public may be enabled to distinguish between the qualified and the unqualified? Is it practicable, short of actual compulsion, to ensure that every man who seeks to enter the profession shall be properly qualified by education and training to carry out the duties of his position to the satisfaction of his client and the benefit of the community? Have we, hitherto, properly correlated and adjusted the relative importance of the practical business and scientific side of our work with the historical and artistic aspects? Can any steps be usefully taken to organise and unify the profession? These and kindred questions are now being carefully considered, and the views of those competent to give opinions are being collected and noted with a view to so ordering the policy of the Institute as to lead to a general improvement in the position of the profession. In this connection it is felt that architects have not hitherto adequately taken their part in public affairs, on many aspects of which they are peculiarly qualified to speak. We ought to have our representative in Parliament and there are few local bodies which would not be strengthened by the addition of an architect member who would concern himself with the building projects of the district and its amenities.

That Mr. Banister Fletcher should be appointed Sheriff of the City of London and Sir Aston Webb be appointed President of the Royal Academy implies that at last the architectural profession is being recognised as possessing men fit and proper to occupy important positions in these and other spheres of life, and both these appointments come very fittingly after the views of Mr. Henry Hare as above mentioned.

The Council of the Society of Architects has established, with the guidance and approval of its legal advisers, regulations enabling members in certain cases to apply to the Society for advice on points of law arising out of their professional practice and for assistance in helping them to defend cases where questions of professional principle are involved.

R. H.

THE RAND'S NEW INDUSTRY.

The Hume Pipe.

On Tuesday, January 7th, by invitation of the Hume Pipe Company (S.A.), Ltd., some 25 members of the architectural and engineering professions on the Rand visited the Company's works at Germiston for the purpose of viewing the manufacture and testing of reinforced concrete pipes now being made by an entirely new and novel process, which is a complete revolution in pipe-making.

The visiting party was conducted over the works by Mr. W. Wolstenholme, the Managing Director of the Company, and Mr. Ross, the Engineer, who thoroughly explained every detail of the process. The visit was consequently exceedingly interesting to every member of the party, who had the opportunity of witnessing the construction of pipes from the weaving of the wire reinforcement to the finished article.

Upon arrival at the works the visitors' attention was drawn to large quantities of old wire hauling cable which was being cut into long lengths and then unwoven by a simple arrangement, which reminded one of the small rope manufactories frequently seen alongside the railways in the Old Country, except that in this case the process was that of untwisting the wire strands which were afterwards being wound into coils for weaving into reinforcement. The unique use of old horse shoes was also noticed here, doing excellent service as iron slots through which the cable revolved during the untwisting operations; thus disused hauling cable, previously consigned to the scrap heap, is now being used to supply the necessary reinforcing material.

The weaving and spiral winding of wire reinforcement was next inspected, and here again the process was very simple; by the use of a mechanism, similar to that for winding cotton bobbins on a sewing machine on a large scale, the woven wire core for the concrete was rapidly and accurately turned out. New wire was also used here for the reinforcing of pipes required to withstand considerable internal pressure, such as for large water supply schemes and pumping plants.

The manufacture of the pipes was very keenly watched. Pipes varying in diameter from 4in. to 30in. were made in a few minutes. Three pipes of 4in. diameter and 6ft. long, and two of 30in. diameter 8ft. long were made simultaneously in 4 and 10 minutes respectively. The process is that of throwing fine wet concrete into a rapidly revolving cylinder or mould in which the wire reinforcement, slightly less in diameter, has been previously placed. The high speed at which the cylinders revolve on friction rollers causes the concrete by centrifugal action to be forced and equally distributed against the sides of the mould with perfect

evenness throughout its full length, at the same time completely embedding the wire reinforcement; thus the process is as rapid as it is simple. By the same process the water contained in the concrete is drawn away, and in about 8 to 10 minutes 98 per cent. of the liquid is drawn off, or, in the case of large diameter pipes, about 4 gallons from what appeared to be a fairly dry mixture. At this stage the concrete shell around the mould is so hard that it is impossible to make an impression on it with the finger. The finished pipe, still in its mould, is now rolled into a drying chamber for a few hours, and afterwards removed from the mould and stacked for seasoning.

By no means the least interesting part of the visit was the witnessing of internal and external pressure tests on pipes.

A 4in. diameter conduit pipe, one month old, 6ft. long and $\frac{1}{4}$ in. thick, lightly reinforced with a $\frac{1}{4}$ lb. of wire per lineal foot, manufactured to take an internal pressure of 10lbs. per square inch, was tested to 90lbs. when it cracked. And two similar pipes with collar joint reinforced for a test of 80lbs. per square inch, were tested to 350 lbs., were quite dry, with no sign of leakage. These pipes were two months old.

External Tests.

A 4in. concrete drain pipe, lightly reinforced, made for sewerage purposes, tested by crushing, showed hair cracks at 2,147 lbs. per lineal foot, while a stoneware kiln-burnt 4in. diameter drain pipe was totally destroyed at 1,100 lbs. per lineal foot.

The works cover an area of $11\frac{1}{2}$ acres, and are situated on the industrial sites near Germiston. Electric power is used throughout. At present the works are being extended, and will be increased to $2\frac{1}{2}$ times their present size in about two months.

The complete plant is now on the property, and when fully installed automatic appliances will super-

The Company will be able to execute orders for pipes from 4 inches to 5 feet diameter, and to contract for supply of municipal sewerage schemes, irrigation and water suppliers, mine ventilating and pumping plants.

The visit proved most interesting and instructive. Heartly thanks were accorded the Company for their courtesy, and the party left with full assurance of the future success of the Hume pipe industry in South Africa.

E.M.P.

LAYOUT OF UNIVERSITY SITE.

The attention of our readers is directed to the advertisement for the above competition, and we trust that our members will endeavour to make this competition a success.

THE ART OF ARCHITECTURE.

A Paper read before the Transvaal Institute of Architects, by the late A. W. Hosking, A.R.I.B.A.

Architecture is one branch of the big thing we call Art. Art is the medium through which beauty is expressed, and beauty in all things is the chief aim of artistic work. In all Art, ultimate charm—that which induces admiration, whether through emotion or the passive calm of the senses, from the contemplation of some noble forms of beauty—is more often than not extremely difficult to analyse. None of us can quite tell how much is due to form, how much to colour, and how much to well trained perception and reminiscence, concerning the delight we feel from the

A whole train of ideas leads from the object itself to what are often remote incidents, and the remarkable thing is that the mind seems to leap at a bound from end to end of this long train of ideas. A cultivated and well-trained mind will arrive at the end of the long chain of ideas leads from the object itself to what are often remote incidents, and the remarkable thing is that the mind seems to leap at a bound from end to end of this long train of ideas. A cultivated and well-trained mind will arrive at the end of the long chain of ideas without studying them from link to link, and such individuals as possess such qualities receive instantaneous impressions of an object of Art. They may enjoy form, colour, repose, or all three without any truly analytical thoughts of each or all of those expressions.

With regard to the Art of Architecture, G. F. Bodley writes:—

“Vast power of the greatest of all Arts:
Greatest, for most akin to Nature's work,
And most creative of the works of men!
Thine is the spirit of Creation's work,
Imbued with beauty of the simplest flower.
Instinct with grandeur of the mountain side!
All Nature stoops and yields her service here.
Not this, nor that, is seen but very LIFE
Of Nature, breathed in rich redundancy,
That grows into a temple, made with hands:
But, vivified by soul and mind of man,
It stands the very image of God's work.
How many hands have wrought, one mind
conceived!
Yet seems it as one great harmonious chord
Full and complete that soundeth lastingly
Through all the massive time it shall endure.
Stern storms o' heaven may beat against its
walls,
The blanching sunlight sleep upon its roof:
Perchance both deem it part of Nature's work.

That needs must be so disciplined by all
Vicissitudes,—as o'er the mountain Dome
Or gloomy clouds obscure or rain-storms sweep
Or loving sunbeams rest them all the day.
So stands the mighty Fane, and takes its share.
Of all, as mountains do, now smiling back
To heaven's smile, then darkening to its frown,
Claiming and owning, its full share of all.
Now enter in. Ah! words may not express
What heart of man hath yearn'd to conceive
The finite dowered with Infinitude!

Throughout all time Architecture, and all Art, has been animated by some great and leading principle. Religion has, so far, exercised the greatest influence. The noblest buildings in the world have been invariably consecrated to the service of religion. We see this alike in the Pagan temple and in the great churches of Christendom. After religion, civil or national dignity should call out the expressions of high artistic power. Then the domestic feelings, the house built for a family, in successive generations to abide in, that should be handed down as the shrine of domestic honour. Then we have our sculptured monuments in honour of the departed, and all other expressions of our Art is quite certain. It is an age of travel, and definite use in the world. Architecture can be delighted in, not only for itself in form, colour, and so on, but as the expression in a lasting way that can perpetuate the feeling expressed.

Architecture requires the noblest sentiments to keep it elevated and pure. How far the revival of any great school of Architecture is possible is a question. That there is a very strong and growing feeling for our Art is quite certain. It is an age of travel, and enlightenment is greatly augmented by the observation and contemplation of the works of former days, which with their historical associations have impressed themselves strongly on many minds of diverse nationality.

The want of unity of feeling, as compared with other times, is one serious impediment to the formation of any school of Art. Is any such unity possible? Is any such school of Architecture possible without such unity?

But, consider that it is the intensity of feeling with which we design that is of the greatest value: whatever style our individualities lead us to adopt, our paramount aims are the expressions of truth, and the strongest exertion to do the right thing in every way for the building we are designing. No doubt our work as Architects, especially in South Africa is one of unusual difficulty. It is an age of Science, not of Art: Architectural traditions have been cut off—

let us hope only for the time being—and let us trust that we may be able to overcome quickly a lengthy period of bad tradition.

We have great facilities of travel and opportunity, which fell only to the few fortunate ones three or four hundred years ago, and yet the work done in those days is superior to ours. We must try, I think, to cultivate enthusiasm for our Art in all its branches, rather than an ambition only for our personal success, and better work will be done, and the feeling between the members of our profession will soon be on a better footing than it is to-day. There are some signs of better things dawning amidst the general gloom, and we must look for a more artistic interest from the general public, for this in itself would make our Art go ahead by leaps and bounds. It is only possible now to speak in general terms of our Art, as any attempt to describe the leading examples of Architecture existing in the world would be impossible. To take a mental walk round the pyramids and ascend to their summits with a brief description of their inspiring grandeur would take longer than we have at our disposal. To describe the massiveness and strength of the Hypostyle Hall at Karnak with its apparent eternity of life, its wonderful affect, and the excitement and admiration caused by its deep purple shadows, and general Archæological interest would carry us into the small hours. Then how long would it take us to ramble over the Acropolis: to ponder over the mental restoration of temples whose foundations only remain, to enter the Erechtheum alone would mean at least the contemplation of no other building in fact we would get no further than admiring the Acropolis from a point of vantage which would allow the sunset or sunrise to outline for us its majestic shapes. We could fill in most of the details from our knowledge of the works of Penrose and Stewart and Revett.

Supposing we could tear ourselves away from such a picture and make a determined effort and reach the Parthenon, that most perfect of all buildings, we could never be satisfied in one evening. The Archæological interest in one of its columns would more than occupy the time. Then how should we fare by attempting a description of Rome, Florence, or that dream of dreams, Venice? How far should we get even in a walk round the Forum? For twenty centuries Rome has been the store-house of all that is beautiful in Architecture and Sculpture. The first object of Architecture we encountered in the Forum would keep us the whole evening. Then imagine the Colosseum for a moment, with its massive and interesting construction, and think of the Archæological interest of

such a building, and the untold stories of its gladiators and its tales of miseries and arrogance, and picture its seething masses with thumbs down and the breathless instant, between the life and death of its victim, with the accompaniment of hoarse and shrieking shouts for blood and death.

Truly, if our Architecture could speak, what tales we should be told! Could I be prompted by one stone of the Coliseum or one stone of either the Vatican or the Doges Palace, I feel that not one of you could leave the room. Your brains would surely reel and your senses become spellbound—not by an interest of so many words strung together, more or less intelligently, but by the deep history of life with all its cruelties and heroic deeds. If Architecture could and would speak, humanity would tremble, and some buildings few would dare to enter.

But a little more concerning our Artistic work. Pope writes:—

“ So vast is Art, so narrow human wit:
Not only bounded to peculiar Arts,
But oft in those confined to single parts
Like Kings we lose the conquests gained before,
By vain ambition still to make them more.
Each might his several province well command,
Would all but stoop to what they understand.
First, follow nature, and your judgment frame,
By her just standard which is still the same.
Unerring Nature still divinely bright,
One clear, unchanged, and universal light,
Life, force, and beauty must to all impart
At once the source, and end, and test of Art.
Be sure yourself and your own reach to know
How far your genius, taste and learning go! ”

This quotation I have introduced as it so well expresses the influence I feel that nature has on our work and in the exercise of our imaginative faculties. With some understanding of Nature's plan, with its suggestive influence on the imagination, if we can add to this as Ruskin says, “ Sensibility, tenderness and industry,” we shall no doubt do worthily in our art when the opportunity presents itself. We are, of course, rather choked in our work by living in a strictly utilitarian atmosphere of finance, exercising rigid economy in building matters, and we must look to the advance of the Agrarian wealth of our country to build up new towns with their buildings for the religious and civil and domestic buildings, inspired and planned in a more dignified and Artistic spirit than is possible with the ever constant use of that most horrible of materials to look at—corrugated iron. When these country towns spring into life, and materials for building purposes are more easily acquired at prices allowing the general use of stone and tiles, we can

look to South Africa to provide a delightful home for our Art.

In the meantime we have to be content with what the gods send us, and live somewhat on hope and the exercise of our imaginations. We have to wander into a kind of imagery and dreams, and with Alfred Tennyson, let us say:—

“ I build my soul a lordly pleasure-house,
Wherein at ease for aye to dwell,
I said: O Soul, make merry and carouse,
Dear Soul for all is well.
Full of long-sounding corridors it was,
That over-vaulted grateful gloom,
Through which the live long day my soul did
pace
Well pleased from room to room.
Full of great rooms and small the palace stood,
All various, each a perfect whole,
From living nature fit for every mood
And change of my still soul.”

The lines are very imaginative and beautiful, and although one cannot hope to be connected with such a lordly pleasure-house of contentment considering our humanity with its ever changing scenes from day to day, we can at least reap much enjoyment from such a picture, and we can clothe the house with emblems of our own Art brought into life by the expression of such thoughts. It is unsatisfactory for us that our lives are all too short. Even if we worthily in our Art and design buildings exemplifying high artistic merit, we shall never see them in their interesting clothing of old age, lichen-tinted stones, moss-coloured tiles, and walls of ivy interwoven with clematis and other flowering creepers.

Domestic Architecture becomes clothed and softened by age. The sharp arrises of our mouldings are all smoothed off and partially hidden. One portion of a building suggests the adjoining part hidden by clinging greenery. The outline of a porch is suggested and the entases of our columns no longer stand bare as a nude statue in a museum. Our outlines are suggested, not seen, and ages caresses every part of our work, and stops the painter in his walk, and the poet pauses to enjoy.

Alice Meynell felt this when she wrote:—

“ We build with strength the deep tower-wall,
That shall be shattered thus and thus,
And fair and great are court and hall,
But how fair—this is not for us,
Who knows the lack that lurks in all.
We know, we know how all too bright
The hues are that our painting wears:
And how the marble gleams too white
We speak in unknown tongues, the years

Interpret everything aright.
 And crown with weeds our pride of towers
 And warm our marble through with sun
 And break our pavements through with flowers
 With one Amen when all is dead,
 Knowing these perfect things are ours."

Let us hope this great old ancestor of ours (Architecture) will speak to us continually from the unforgotten and mysterious years, and that the omnipresence of its influence will fan our dreams of imagination into some sparks of undying expression in the practical arena of life, and if we feel that life is to us our Art or Art is life, then we can carry on with a firm tread and contain ourselves in a life full of undying purpose, and in the end when our tired bodies are beset with infirmity, and approaching dissolution is hovering near, may we feel these beautiful words of A. L. Barbould's on Life, as we might equally say and feel of our Art:—

"Life! I know not what thou art,
 But know that thou and I must part:
 And when, or how, or where we met
 I own to me's a secret yet.
 Life—we've been long together
 Through pleasant and through cloudy weather:
 'Tis hard to part when friends are dear—
 Perhaps 'twill cost a sigh, a tear:
 —Then steal away, give little warning,
 Choose thine own time:
 Say not Good-night,—but in some brighter clime
 Bid me Good Morning.

South African School of Mines and Technology UNIVERSITY OF SOUTH AFRICA.

The date for receiving Competitive Designs for the Lay-out of the UNIVERSITY SITE at Milner Park, Johannesburg, has been extended to the

15TH APRIL, 1919.

A premium of £200 will be paid for the best design and one of £100 for the second best, if designs of sufficient merit are submitted.

For particulars apply to

SECRETARY,
 P.O. Box 1176,
 Johannesburg.

OUR ILLUSTRATIONS.

FRONTISPIECE—

A DOORWAY AT KING'S LYNN, NORFOLK.

This example of the Spiral Column treatment to a doorway is extremely interesting, the columns are free, and set back so as not to encroach on the foot-path. This treatment of the column, though somewhat illogical, is not uncommon in England, the best known example being the porch of S. Mary's College, Oxford.

National Bank of Switzerland.

This design was recently submitted by Mr. Theo. Schaerer, late of Johannesburg, in open competition for the National Bank of Switzerland. Mr. Schaerer's work on the Rand is well known to many of our members, to whom this illustration will prove interesting.

Proposed Hotel, Polana Beach, Lourenco Marques.

We illustrate the first and second premiated designs submitted in a limited competition recently held for proposed hotel at Lourenco Marques. The authors of the selected design are Messrs. A. & W. Reid & Delbridge, of Johannesburg and Cape Town, the second premium having been awarded to Mr. Hill Mitchelson, of Johannesburg. We are informed that Messrs. Reid & Delbridge have received instructions to proceed with the contract drawings.

Orpheum Theatre, Johannesburg.

The two photographs of the Orpheum Theatre roof illustrate the unique feat of bodily raising the existing roof of the building some 14 feet. This work was carried out on Sunday, January 26th, 1919, and this, as well as the extensive additions to the building, have been executed without interfering with the theatrical performances. Mr. J. A. Moffat, of Johannesburg, is the architect responsible for the whole of the alterations, and Messrs. Thos. Clark & Sons, are the contractors.

The Editor regrets that the retiring President's annual address and resumé of proceedings of the Cape Town Conference were not to hand at the time of going to press. It is hoped to publish these in our next issue.

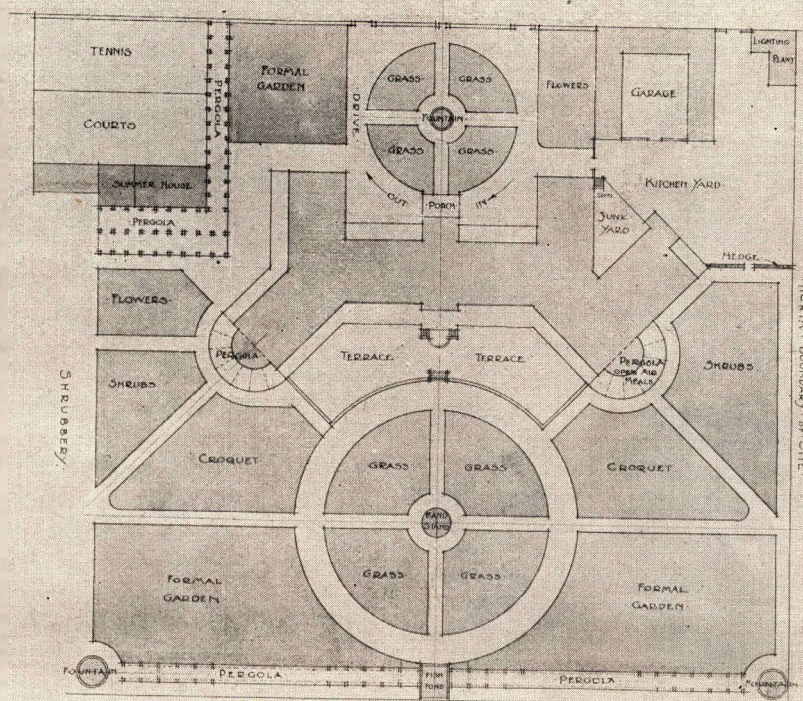


NATIONAL BANK OF SWITZERLAND —Design Submitted in Competition —By Mr. Theo. Schaerer, Architect.

PROPOSED HOTEL AT POLANA

SHEET 1

AVENIDA DUQUEZA DE CONNARIGHT

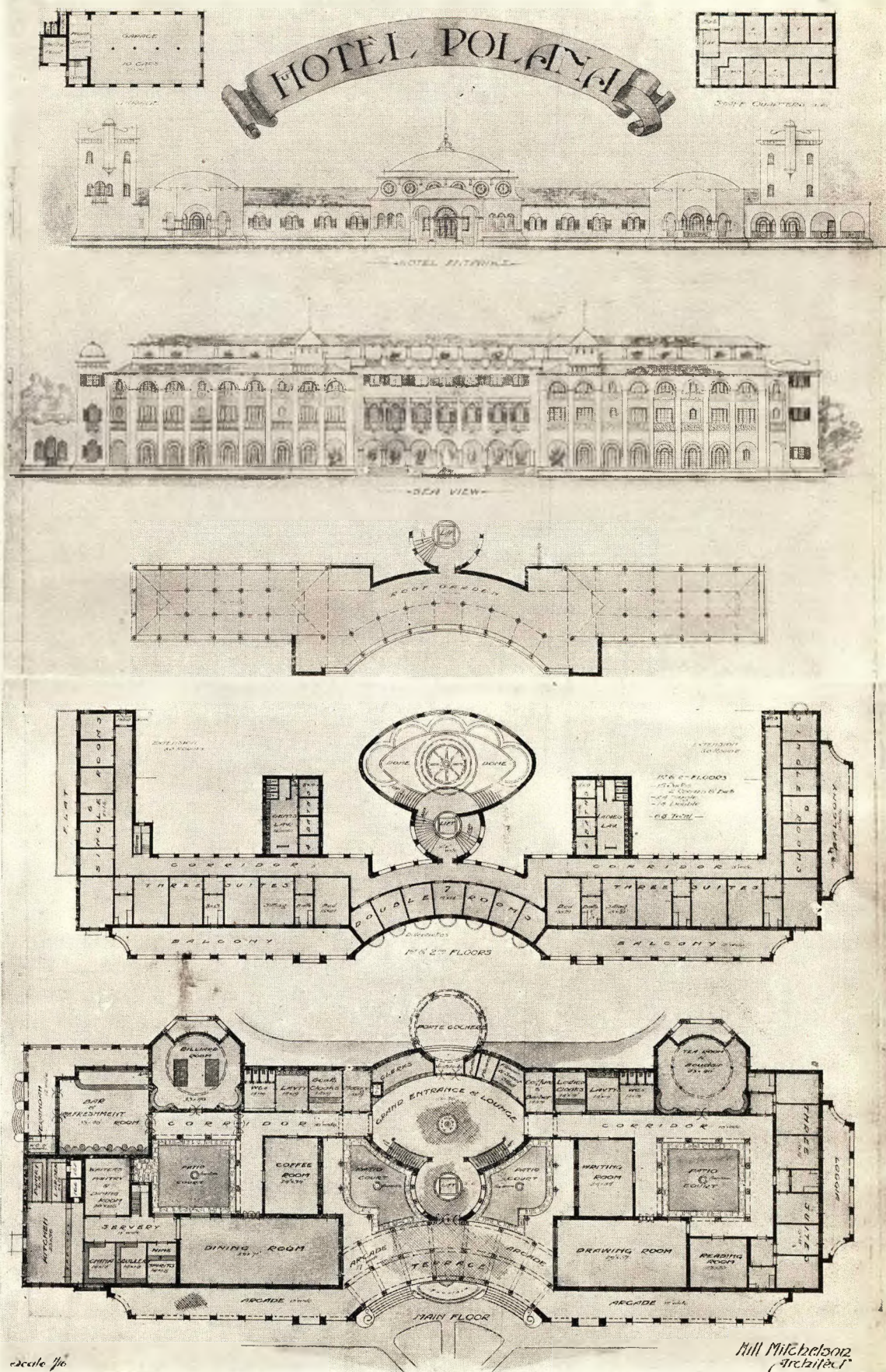


SEA FRONT LAYOUT PLAN

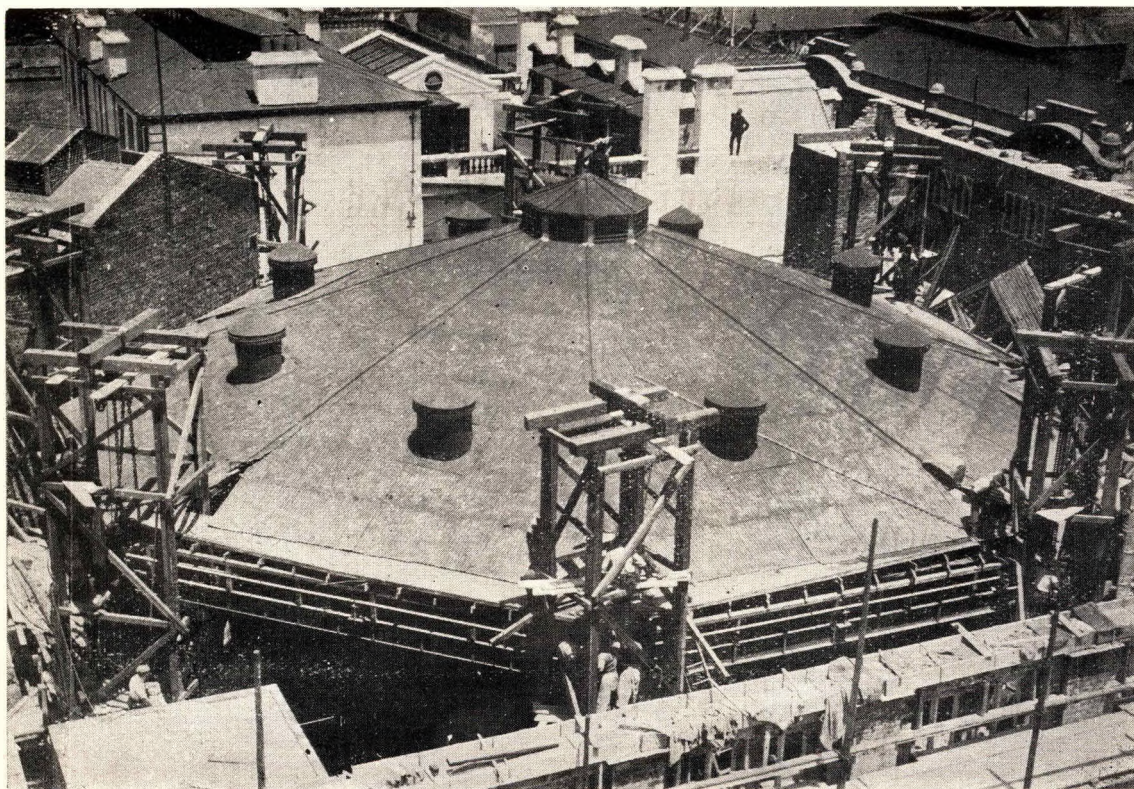
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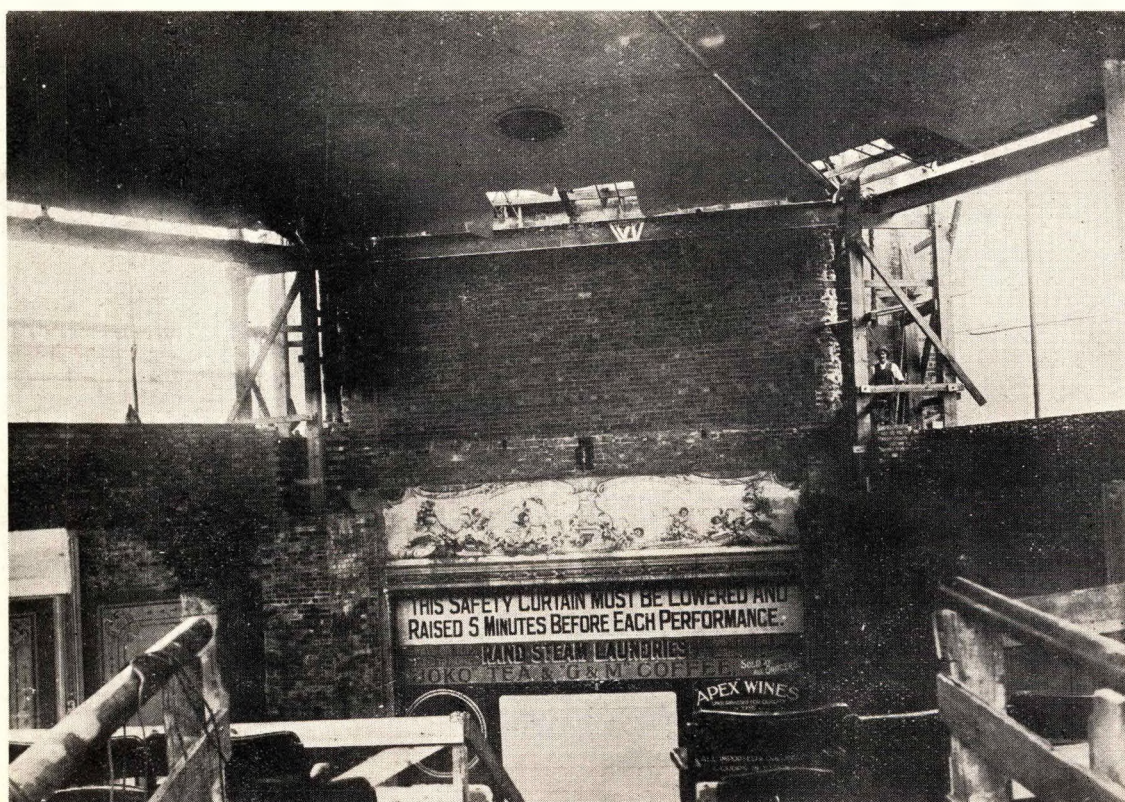
PERSPECTIVE VIEW



Second Premiated Design—Mr. Hill Mitchelson, Architect.



The Roof of Orpheum Theatre, Johannesburg, after Raising.



Internal View of Orpheum Theatre Roof after Raising.—Mr. J. A. Moffat, Architect.

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