EDITORIAL NOTICE

The Editor will be glad to consider any MSS, Photographs or Sketches submitted to him but they should be accompanied by stamped addressed envelopes for return in case of loss or injury he cannot hold himself responsible for MSS, Photographs or Sketches, and publication in the Journal can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all Pictures and MSS.

The Association does not hold itself responsible for the opinions expressed by individual contributors.

Annual Subscription per post 5/-.

This Journal may be obtained from the principal Railway Bookstalls throughout the Union, or direct from the Business Manager.

Chair of Architecture

A Chair of Architecture at the Johannesburg University College will shortly be established. The inception of the movement is due to our immediate Past President, Mr. D. M. Burton, and has been brought to fruition by the energies of a special committee who have had the matter in hand for some time past.

The deputation which met the University authorities has now been advised that the Minister for Education intends making provision in his forthcoming estimates for the establishment of a Chair of Architecture providing the Architectural profession will guarantee approximately £1,000 over three years. The necessity for this provision is on account of the Architectural classes not being self-supporting in their early stages, and additional funds are required to cover necessary expenses, apart from the professor's salary.

Since the funds of the Association may not be used for this purpose, it was decided to make a personal appeal to each member for a donation. This appeal has been made, and so far a very generous response has resulted, and the Council have every confidence that the amount required will be donated at an early date.

The Council feels that the education of young men who will enter the profession will appeal most strongly to every member of the Association, and that each one will desire to contribute in some measure to this fund.
Proposed New University Buildings, Johannesburg.

We have the honour to report on the plans submitted in the competition for the above as follows:—

We award the premiums in the following order:—

No. 1 to design marked "10."
No. 2 to design marked "3."
No. 3 to design marked "13."

We have carefully considered the conditions of the competition, and in making our awards have been guided by the stipulations contained and the general spirit as reflected in the first two columns on Page 1 of "Information for Competitors."

We realised that the competition has afforded exceptional opportunities to the competitors, not only in that the proposed building will occupy a magnificent site, and one particularly suited to the purpose, but that the competitors were not cramped unduly by the conditions or fettered by the necessity of keeping the cost within a fixed limit although reasonable economy had to be kept in view. As regards the last point, we may state that good planning is inseparable from economic planning.

We have been forced to the conclusion, after careful study of the various plans, that Number "10" complies with the above considerations better than any other design submitted.

The central block, both from the front and back view, will form a fitting centre and culmination to the group of buildings that will ultimately form the complete University, and with the well proportioned tower will dominate the scheme as a whole.

Although this tower with its surmounting dome is in itself an expensive item, still it is one that can be added at a later date when the cost of building is not so high. We think the elevated site calls for some such feature.

The large dome for the Assembly Hall in design No. "3" would not adequately serve this purpose.

Incorporated in this design "10," is a Reception Hall. This is a feature which was within the discretion of the competitors, and it would be a nucleus to the institution and provide a general meeting spot and disseminating centre that would visualise, as it were, the soul of the University.

The author of No. "10" has not worked out the details of his design to the extent that other competitors have done, or that a strict interpretation of the letter of the conditions would call for, and in several points he has sailed somewhat wide of the stipulated requirements. For instance, he has omitted the draught of the second floor plan, although there is ample room over those portions of the first floor that he proposed to utilise for the second floor to provide all the accommodation which he has omitted on the ground and first floors.

He has placed his Common Rooms on different floors. They are required in the conditions to be near or adjacent to each other, but he has placed them one over the other, and, although this complies with the conditions in the letter, it scarcely does so in the spirit.

Some rooms, e.g. the Council Chamber and Lecture Rooms, are much larger than necessary, while others, e.g., for instance, the Library, is smaller.

We have considered the general lines of the design rather than such details which we know can be altered and adjusted without departing from those general lines and principles, which, in this design, have met with our approval.

In the event of the author of No. "10" being asked to carry out the work, we would make the following suggestions.

The length of the main building might be reduced. As drawn it is so long that even if the side blocks were placed right up to the Service Road in each case only twenty feet would be left between such side blocks and the main building and thus after adding the extra 110 feet allowed the competitors, the elevation of the main block would be improved rather than otherwise by such reduction.

To assist this reduction in frontage we would suggest that the centre of the semicircle, forming the periphery to the Assembly Hall, be advanced to the front of the platform, and that the diameter of the semicircle be reduced accordingly, so that while the hall would remain the same area, it would not extend so far in an easterly and westerly direction.

Few of the competitors appear to have dealt with the levels of the site as shown on the contour plan, with which each competitor was supplied. The only competitor who showed these levels completely was the author of No. "5", though he has not made much use of them. The author of No. "3" has shown the fall from back to front, which exists, more or less correctly, and has made good use of it, but he has not shown the considerable fall which undoubtedly exists from west to east. It will be found in actual working that there will be ample height to have a lower floor below the ground floor at the North East corner, but there will not be the same opportunity at the North West corner. The author of No. 10 might well make use of this fact, with considerable advantage.
The administrative offices should be all collected in the front and one of the wings on one side only of the Main Entrance and not be distributed on both sides of the Main Entrance as shown.

The South West and South East arcade recesses of the Central Hall might be enclosed to give proper lobbies to the platform.

There are eight staircases in the main block and this number could be reduced.

We favour the treatment of the side blocks as in "10", and also in other designs, namely, so that they present a rectangular appearance externally, with internal light areas, and with toilet services off such areas, rather than the wing treatment as shown in No. "13" and in others, because the complete scheme will be formed by various units, and these units should themselves be simple in external shape; otherwise if these various units have wide extending wings, a confusing and scattered effect would be introduced into the whole scheme.

The external effect of the side blocks of No. "10" will be very impressive, but we consider the re-entering angles which have been introduced into the laboratories a very undesirable feature.

We have placed No. "3" second. We think this is a very carefully prepared design, with much to recommend it. It would give a workable building for a university. The Assembly Hall is well incorporated in the main building, but the dome would not sufficiently dominate the scheme as a whole. It would only be seen favorably from some distance, and would be largely hidden and commanded by the side wings.

The circular Assembly Hall has much to commend it, but the occupiers of the southern portions of the gallery would be unfavourably placed for seeing and hearing what was taking place on the platform.

The south elevation of the western side block building does not harmonise with the southern elevation of the eastern side block and in any case the former elevation does not appeal to us.

We have awarded to No. "13" the third premium. This design fulfils most completely all stipulated conditions, but there are no direct exits from the gallery as are demanded by the local bye-laws, and with this type of plan, where the Assembly Hall is situated in the middle of the structure, and separated by courts and corridors from the rooms, etc., with which it is surrounded, it is not easy to fulfil the conditions of such bye-laws.

There is no Ambulatory along the sides of the Hall, though we think that such Ambulatory would be advisable.

There are long lengths of corridor without direct light, and the total length of corridors is excessive, though by this means good cross access at the rear of the building is obtained.

No cloak-rooms for the public have been shown. The fall of the ground has not been considered as the buildings have been shown as if on a level site.

There is a lack of breadth and continuity of line in the north or principal elevation of the centre block. This centre block is fitted with two domes, one in the centre of the north elevation and the other in the centre of the south. These domes are nearly alike, but not quite, and though it is true they would not usually be seen at the same time, the idea of this approximate duplication does not appeal to us.

The planning of the side blocks is very practical, but at the same time, as before stated, we prefer the rectangular treatment to the wing treatment, and as regards the north or principal elevations of these side blocks, we find it difficult in regarding them to resist the impression that we are looking at the back of the building instead of the front.

There are several good points in many of the other designs, but we have no hesitation in placing the three selected designs in the order given, and we feel confident that if the author of design No. "10" were entrusted with the work, Johannesburg will have University Buildings worthy of the great purpose for which they will have been erected and of the magnificent site chosen for their habitat.

We recommend that:

(1) That this report be read in public.
(2) That subsequently the sealed envelopes containing the competitors' names be opened also in public in the order given and the names read out.
(3) That the competitive drawings be on view for a period of at least two weeks.

E. H. WAUGH,
W. H. STUCKE,
JAN. H. HOFMEYR.
Assessors.

VEREENIGING TOWN HALL COMPETITION.

The Assessor's award in this Competition has resulted in the first premium being awarded to Messrs. Hawke and McKinlay of Cape Town and the second award to Mr. A. J. Stewart of Johannesburg.

The Assessor's report also that of the technical advisers together with the reproduction of the winning design, will be published in this Journal in December.
First Premiated Design by Mr. Frank Emley, F.R.I.B.A.
East and West Block, Second Preliminary Design by Messrs. Covent & Powers, F.R.I.B.A.

Fast and West Block, Second Preliminary Design by Messrs. Covent & Powers, F.R.I.B.A.
East and West Block. First Premiated Design.—Frank Emley, F.R.I.B.A.
Proposed New University JOHANNESBURG

Third Premiated Design by Messrs. Hawke & McKinley F.R.I.B.A.
Third Premiated Design by Messrs. Hawke & McKinley F.R.I.B.A.
Some Lessons from the University Competition.

By an old A.A. Student.

Every competition has some lessons to teach for the system is of immense educational value, especially to the young architect for whom these lines are mainly penned. It is also the purpose to set forth "principles" rather than "opinions." To voice sound principles is not to dogmatise, otherwise the mathematician is the most dogmatic person on the face of the earth because he says things "are" and proves them, and not "I think" or "in my opinion."

For a competition to yield such educational value to the competitor he must take care to compare the winning designs with his own to see where he—or possibly the assessors—have failed.

To do that he must first of all acquire the principles of sound planning and design, and this will best be done by study in the first place, and practice in the second, for the two are inseparable. The man who simply reads books and looks at drawings will never become an architect. He must practice and work out problems for himself in order to fully appreciate the innumerable points to be considered in solving the problem.

The "award" in the recent University Competition has not given that general satisfaction that could be wished, as both the rules have been set aside and the principles of sound planning and design, to say nothing of municipal and other requirements which appear to have been disregarded. It will serve a useful purpose to examine the reasons.

No competition has so far yielded a perfect conception, one that would not require modification in the carrying out. Assessors have of course to place what in their "opinion" comes nearest the requirements and the principles before referred to. Assessors are only human and liable to err, and doubtless some of them realise that as much as the competitors, but the chance of erring would be reduced to a minimum were they (when architects and not laymen) to work out the problem they are going to judge—if only in skeleton form—they would more readily appreciate those points that go to make up the best solution of the problem in convenience, light, ventilation, an general architectural design.

The Conditions appeared to be definite and exacting, and by no stretch of the imagination could skeleton diagrams be considered a substitution for developed plans. Fifteen out of sixteen adhered to the rules governing the competition.

The sixteenth was placed first in the Award, the three assessors (one being a layman) stating that the "spirit" of the Conditions had not been materially infringed, even though the Basement and Top Floor plans were omitted. It was very nice of the assessors to have imagined these parts.

That the competitor in question had any desire to get the best of his fellows by unfair means is not suggested. But it is quite certain that had the other fifteen competitors known they would not be disqualified by adopting such unusual methods they would never have gone to the trouble they did. In future there must be nothing left to conjecture in Conditions.

The award was made chiefly on the "Central Block" and so these remarks mainly refer to that building.

Some years ago the Government at Home appointed a Commission of Experts to go into the question of the best system of planning, as some of the Government buildings were shockingly badly arranged for light and ventilation, making artificial lighting by day a necessity in some of the corridors and rooms. The conclusion arrived at was that in future the double lined corridor would not be allowed. A glance at the drawings of buildings both Government and Municipal of recent years will show that this system has been followed, viz., the single lined corridor. Who will dispute that such a system is essential in a hot climate where "through" ventilation is an absolute necessity, and which is rightly insisted upon by Municipal bodies, and yet the third placed design had some 208 feet of corridor (taking back and front together) without any direct lighting.

It is said this system takes up more space. There is of course a right and a wrong way of doing things. There were two designs of equal frontage in the competition, one was largely on the double lined system, the other single—the former was premiated.

For the Central Block there were three important points to be considered both by competitors and assessors:

1. The University was to be for both sexes, the Common Rooms for each to be in separate parts of the building.
2. The Library was to be central to the Arts Departments (which were not to be too much scattered).
3. A large Assembly Hall was to be included, the size of which necessitated special consideration as regards acoustics.
1. As to the first point, most of the competitors placed their common rooms for the sexes, one east and the other west. But the very object of the authorities in keeping them apart was frustrated by some as a connecting corridor was placed between them at the back of the building, giving excellent opportunity for mixed gatherings away from the eyes of the officials between the lectures and classes. So far no University has opened a Matrimonial Department, but it is worth consideration in this country.

Apparently this was one of the reasons why the third design was placed, as such system of planning—a continuous corridor round the building or "double axial method"—being considered by one of the assessors as very successful. So it is in Municipal or similar business buildings, but not in universities for two sexes where they have to be kept apart when off study.

2. **Library central to Arts Department.**

The double axial system is again in the wrong where there is no cross corridor, because it means placing the Library on one of the four sides of the square, thus giving several departments some 200 feet of corridor to traverse to reach the Library as in the third design, which can in no sense be considered central to all Departments. Still it was another of the reasons why the third design was placed, further reasons will follow.

3. **Large Assembly Hall with external entrance and exits for public, and internal for university.**

With 2,500 people to clear from a hall, a sufficient number of "direct" exits have to be arranged to allow the hall or theatre to empty in three minutes, so say the Municipal regulations. The first and second designs were well planned in this respect, the third design has a square hall 91 feet by 104 feet with corridors, small areas and rooms around, thus shutting off "direct" exits. Excellent for quietness, but the building will be away from the town and the noise.

In a panic people make for the first door, and there are two in this third design facing the audience leading into a corridor some 8 or 10 feet wide and nearly 180 feet long, with an exit at each end. If one fails there will be numbers on top of him in a rush. The three entrance doors close together are naturally at the rear of the audience. Municipal requirements are certainly not met in this design.

In such a large hall acoustics play an important part, and although it cannot be called a science, precautions can be taken. The first and second designs had certainly considered this important factor, the first adopting a Greek theatre plan, and the second an extended form of same, bringing the seat-holders within 70 to 75 feet of the speaker, the range of the human voice according to some authorities. Most of the designs used the rectangular form, and some to such an extent that those at the back of the hall would be some 120 feet from the speaker. Had they placed their platform on the long side it would not have been so bad. This, one of the competitors did, but the plan being rather of an unusual form, it did not apparently take the fancy of the assessors; they had seen half circles, oblongs, squares and so on, but not that shape. True there is the Coliseum, but that was erected for a wild beast show, and the Albert Hall for fancy fairs—much too frivolous for a University. The thoughtless competitor, too, had left out the corridor at back connecting the Common Rooms of the ladies and gentlemen where they could discuss "points of the lectures" undisturbed between the classes, or exchange calls and make appointments.

But to revert to acoustics, nothing can be guaranteed in this direction, but precautions can be taken as already mentioned, and the curved surface rather than the flat has proved to be conducive to the best results. Anything in the shape of a dome must have an eye or open crown to prevent echo—to allow the sound waves to escape.

To sum up, the first design certainly betrays much haste, but will no doubt develop into a fine conception with three clever heads and pairs of hands, without borrowing features that express other purposes.

The second design is little to find fault with on the score of principles of planning and design. There are a few rooms on the double lined corridor system, and one would like to have seen some "loggias" on the north fronts, on each floor, a feature so common in Italian Renaissance which gives such fine contrast in a rarified atmosphere such as enjoyed here, and which Mr. Perry has adopted in his hostels.

For the reasons already given it is difficult to discover why the third design was placed, the elevations are good and express the purpose as well as the style stipulated, as might be expected from a firm of architects who have done so much excellent work.

The architect of the first design in his "remarks" considered the situation demands "broad lines, big masses." Are not the buildings big in themselves, and the object of the institution must not be lost sight of and should express its purpose without further enquiry. Education is the object and that should mean "refinement," nothing ponderous or heavy, as in a warehouse or prison, etc., but attractive, not distracting, as would be the details of a theatre. To hit the happy medium between the two extremes is the work of the artist. Certainly some of the designs were very successful on this head.

One facetious gentleman evidently intended that the students should have no excuse for unpunctuality—he introduced a clock large enough to be seen "over the horizon." A tenth of the height of its position is the general rule, though there are exceptions to all rules and perhaps this is one, possibly in anticipation of aeroplanes.
In view of the dissatisfaction, it is quite time that the oft-repeated suggestion be adopted, viz., that the competitors be left to make their own award by giving them votes corresponding to the number of premiums. The question of distance for some competitors could be overcome by "proxy."

If a better way should occur to the reader he should let it be known, as there is quite enough evidence that the majority of the members of the profession demand a more equitable system for deciding all future competitions. The importance of the matter recommends itself to the early and earnest attention of the Association of Transvaal Architects.

**NOTES AND NEWS.**

Mr. E. H. Waugh is proceeding to Australia on extended leave at an early date, and we take this opportunity of wishing him a pleasant trip.


They are at present busy on the drawings, and the work is to be commenced as soon as possible.

Mr. Percy Eagle, who for many years has been Chief Architect of the Union has resigned that position and intends taking up private practice in Pretoria.

Mr. Gordon Leith, M.C., A.R.I.B.A., has returned from Europe after being on active service since 1915, and has commenced practice at 45, Bureau Lane, Pretoria.

Mr. R. Bullock, of the Public Works Department, Johannesburg, has been elected a member of the Association and registered as an Architect in the Transvaal.

Mr. Chas. Small has removed his office to London House, Loveday Street, Johannesburg.

The sending in date for the Warmbaths lay-out Competition is the 30th September, 1920, to the Provincial Secretary, P.O. Box 383, Pretoria.

A Qualifying Examination for registration as an Architect in the Transvaal and membership of the Association will be held in Johannesburg on November 15th, 1920, and successive days.

All applications to sit for this Examination, accompanied by a remittance of Three Guineas, must be made to the undersigned, from whom further particulars may be obtained.

By Order of Council,
M. K. CARPENTER,
Registrar.

**THE FOLLOWING BOOKS HAVE BEEN ADDED TO THE LIBRARY OF THE ASSOCIATION.**

Hydraulic Tables, Co-efficients and Formulae: John Neville.


Seven Lamps of Architecture: John Ruskin.

Switches and Crossings: William Donaldson, M.A., A.I.C.E.

Text Book on the Steam Engine and on Gas Engines: T. M. Goodeve, M.A.

**A DISTINGUISHED VISITOR.**

Information has been received that Mr. Harry Tompkins, brother of Mr. Charles Tompkins, one of the fathers of local land surveying, is arriving early in October by the Aberdeen liner "Euripides." Mr. Harry Tompkins is one of the best-known architects in Australia, having practiced in Melbourne since 1894 with his brother Frank, both of whom originally went from South Africa in the early nineties. Mr. Harry Tompkins is an ex-President of the Royal Victorian Institute of Architects, and has been travelling round the world across the Pacific and America to England. We understand he is accompanied by his wife.

We extend to our visitors a hearty welcome.

**THE ASSOCIATION OF TRANSVAAL ARCHITECTS.**

Telephone 5821. 67, Exploration Building, Telegraphs "AJA." Commissioner Street, P.O. Box 2266. Johannesburg.

**QUALIFYING EXAMINATION.**

An Examination to qualify for Registration as an Architect in the Transvaal and Member of this Association will be held in Johannesburg on November 15th, 1920, and successive days.

All applications to sit for this Examination, accompanied by a remittance of Three Guineas, must be made to the undersigned, from whom further particulars may be obtained.

By Order of Council,
M. K. CARPENTER,
Registrar.

**ASSSESSORS' AWARD, PRETORIA WAR MEMORIAL.**

The Town Clerk, Pretoria.

We have carefully examined the fourteen designs submitted in the second competition for the proposed War Memorial on Church Square and submit the following report:

Although a somewhat better response has been made than in the previous competition, we regret to
say that the result is not what could in any way have been desired for a subject so interesting, and for so important a site as the centre of the Administrative Capital.

Out of the fourteen designs submitted only five or six are worthy of any consideration, and we have reluctantly come to the conclusion that none of the designs submitted can be considered eminently suitable for the Memorial in the position proposed.

In awarding the premiums, we do so with the proviso that we recommend the committee to consider the advisability of endeavouring to obtain further and more suitable designs for the Memorial.

We have selected four of the designs for final consideration, and make the following comments thereon:

No. 6.—This is one of the designs submitted in original competition. Its merit lies in its simplicity but lacks character and dignity. The base or platform is too low and the figure is out of proportion to the Monument.

No. 10.—This design we do not think would harmonise with the general design and lay-out of the square.

No. 11.—This design which was also submitted in the original competition has now been simplified in certain details, but to be successfully carried out would still be too costly. It shows perhaps the most imaginative treatment of any of the designs submitted but, whilst in an isolated position it might present a fine effect, it is not suitable for the position proposed.

No. 13.—This design is simple and has certain character and dignity, and of those submitted would best harmonise with the treatment of the square. If carried out we suggest the following modifications:

The whole monument should be raised on a higher base or platform, the number of steps increased and the planning of them simplified.

The plinth of the monument might be raised and thus give more space for the name plates. The urn on the top of the monument would be better omitted.

We therefore award the first premium to No. 13 and the second premium to No. 6.

To avoid further delay this report has not been submitted to Mr. Solomon for his signature but the designs have been discussed personally with him and he is substantially in agreement with these recommendations.

(Sgd.) H. G. VEALE,
P. EAGLE.

CONCRETE BUILDING BLOCKS.

The Hume Pipe Company (South Africa), Ltd., have been conducting experiments and investigations for months past to arrive at the most suitable concrete building block for houses, etc., and have adopted the "TEE" block as being the most suitable for this country.

These blocks, which have a surface of 24 ins. by 12 ins., equal to 10£ bricks, give a very suitable type of form of construction and also give an absolute cavity wall with clear air space right through the cavity.

A special plant has been installed at the Company's works at Germiston for the manufacture of these blocks on a large scale, and it is anticipated that the factory output will be at least 2,000 blocks per day by the end of the current month.

Apart from these, the Company is manufacturing special blocks to receive window and door frames, and to form corners, and also blocks to form partition walls.

Many cheaper types of building blocks have been introduced into the market, but expert opinion is directly opposed to the use of a cheap type of concrete block and the Hume Pipe Company has very rightly adopted the very best materials for the manufacture of the "TEE" blocks.

It is pointed out that single blocks are useless, as excessive sweating is caused, being due to the difference in temperature between outside and inside air, besides, many forms of single blocks are not stable.

The Company will be pleased to supply further particulars respecting these "TEE" blocks and to furnish quotations. All communications should be addressed to the Managing Director of the Company, P.O. Box 6101, Johannesburg.

REINFORCED CONCRETE.

With our next issue in December will commence a series of six articles dealing with the design of Reinforced Concrete slabs and beams, contributed by one of the foremost reinforced concrete experts in South Africa.

These papers will deal with the calculations of the stresses in the steel and concrete, showing the method of deriving the same, and will be supplemented with orthographic or alignment charts for very easy calculation.

The first paper will deal with the "Bending Moments showing the Tensile Reinforcing."